



**Australian Government**

**Department of Defence**  
Science and Technology

29-30 AUGUST  
FISHERMANS BEND  
MELBOURNE

# SCINDICATE 2018

CONNECTING DEFENCE SCIENCE WITH INDUSTRY AND ACADEMIA

# CONTENTS

|                            |    |
|----------------------------|----|
| Welcome to SCINDICATE 2018 | 1  |
| Information                | 3  |
| Event map                  | 7  |
| Program: Day 1             | 10 |
| Program: Day 2             | 11 |
| Schedule                   | 12 |
| Pitches: Day 1             | 14 |
| Pitches: Day 2             | 15 |
| Tours                      | 16 |
| Event guide: Day 1         | 18 |
| Event guide: Day 2         | 20 |
| Displays                   | 22 |
| Food and beverages         | 23 |
| Our partnerships           | 24 |

# WELCOME TO SCINDICATE 2018



I welcome you to the new iteration of our annual partnerships and collaboration event; SCINDICATE 2018 hosted at our Fishermans Bend laboratory site in Port Melbourne.

Over the past three years this flagship event, formerly known as Partnerships Week, has highlighted the importance of continuing to strengthen our external engagement with industry and academia while opening opportunities for collaboration to achieve capability outcomes for Australia's defence and national security. This year we have a more direct involvement in the program by our partners in industry, academia and Defence.

We are pleased to welcome our partners from the Defence Innovation Hub, the Centre for Defence Industry Capability, Defence Innovation Network, Defence Science Institute, Defence Innovation Partnership and STEM partners AP Intern and Aurora who have displays in our exhibition display arena this year alongside our scientific divisions.

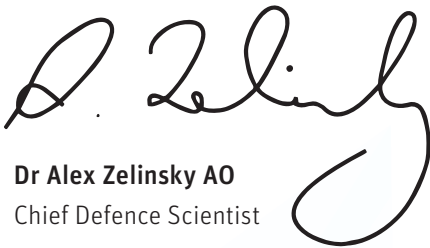
There's a great range of activities on offer at SCINDICATE over the two days. You will hear from a panel of innovation professionals on Day 1 in our Innovation Panel discussion titled 'Why Innovate?', be involved in a Black Box Idea Recorder Think Tank where we are asking you to come and give us your biggest and best ideas to solve a real life problem, and experience another dimension through our Virtual Reality Space.

Our researchers are ready to explore collaborative partnerships to enhance the future operational effectiveness and warfighting capability of the Australian Defence Force.

I encourage you to take advantage of the laboratory tours, demonstrations, workshops, briefings and networking opportunities during your visit.

We would welcome your feedback so that we can keep improving our future partnership activities.

Thank you for participating in Defence's SCINDICATE 2018 for Future Science and Innovation for Game Changing Capabilities. We hope that your visit will be both productive and rewarding.



**Dr Alex Zelinsky AO**  
Chief Defence Scientist

# INFORMATION

## **Arrival and departure**

For both event days, all delegate registration and reserved vehicle parking is located within a secure area on the DST Fishermans Bend site.

Following a positive identification check on arrival, name badges will be issued and delegates escorted to the event site; please wear these at all times.

When ready to depart SCINDICATE, please make yourself known to event staff and they will arrange your escort to the exit.

## **Taxi and rideshare**

Delegates requiring taxis for departure should pre-book and arrange to be collected from the designated area within the Todd Road event entrance.

Our address is 506 Lorimer Street, Fishermans Bend – Please advise taxis to follow the event signs around the corner to Todd Road. Vehicles will need to come inside the event car park for set-down and pick-up within a designated u-turn area.

The travel time from the airport to DST Fishermans Bend is approximately 40 minutes in medium traffic.

## **Tech Deck**

Need to recharge, or have a quiet spot for a chat or to check emails? Visit our Tech Deck station located inside The Hub for access to Wi-Fi, power and comfortable seating.

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## **Name Badges**

Please wear the provided name badges and lanyards at all times while on the DST Fishermans Bend site. This event access pass does not permit you access to any other areas on the DST Fishermans Bend Site.

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## **Mobile phones, cameras and electronic devices**

Delegates are reminded that while electronic devices (including mobile phones, laptops and personal electronic devices such as Fitbits) can be used in communal areas, they are prohibited to be taken on all tours and cloakroom facilities are available at the commencement of your tour at the Information Desk.

## **Refreshments**

Morning tea, lunch and afternoon tea will be provided in the Marquee (see program timings).

Complimentary hot beverages are available all day from the Little Box Bakery located at the entrance to the marquee. Cold beverages will be located at the catering station within the marquee.

## **Presentations**

The event welcome session will be held in the David Warren Auditorium (Main Theatre). Due to limited seating within the theatre, the opening sessions will be live streamed into The Stage (within the Hub), Theatre 2 and the theatre foyer. Event staff and signage will direct you to these locations.

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## **All photography and recording is strictly forbidden while on DST sites**

The Australian Department of Defence reserves the right to use any photography/video taken at any event, without the expressed written permission of those included within the photography/video. A person attending SCINDICATE 2018 who does not wish to have their image recorded for distribution should make their wishes known to the photographer, and/or the event organisers.

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## **Exhibition display arena**

DST's corporate and major science and technology areas will be showcased in the marquee on Coombes Road and will showcase a range of topical displays, demonstrations, pop up presentations and opportunities to discuss and engage in collaboration.

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## **Social media**

While photography is not permitted at SCINDICATE, follow the event program and photos on our Twitter and Instagram accounts. Ask questions and share your thoughts on the event with **#scindicate2018**



**#scindicate2018**

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## **DST Innovations**

Outside the Exhibition Display Arena and inside the marquee foyer please enjoy a range of innovations DST has been a part of, including Bushmaster and Hawkei Armoured Vehicles, WRESAT model and more.

## **Virtual Reality Space**

Located inside the Exhibition Display Arena Marquee, step into another world through our virtual reality experiences. Are you willing?

## **Technology pitches**

A series of technology pitches, each one minute in duration, will provide a taste of partnership opportunities within DST. Experience these during our opening morning sessions in the Main Theatre or in the Mini Theatre later in the day. Please see program for timings.

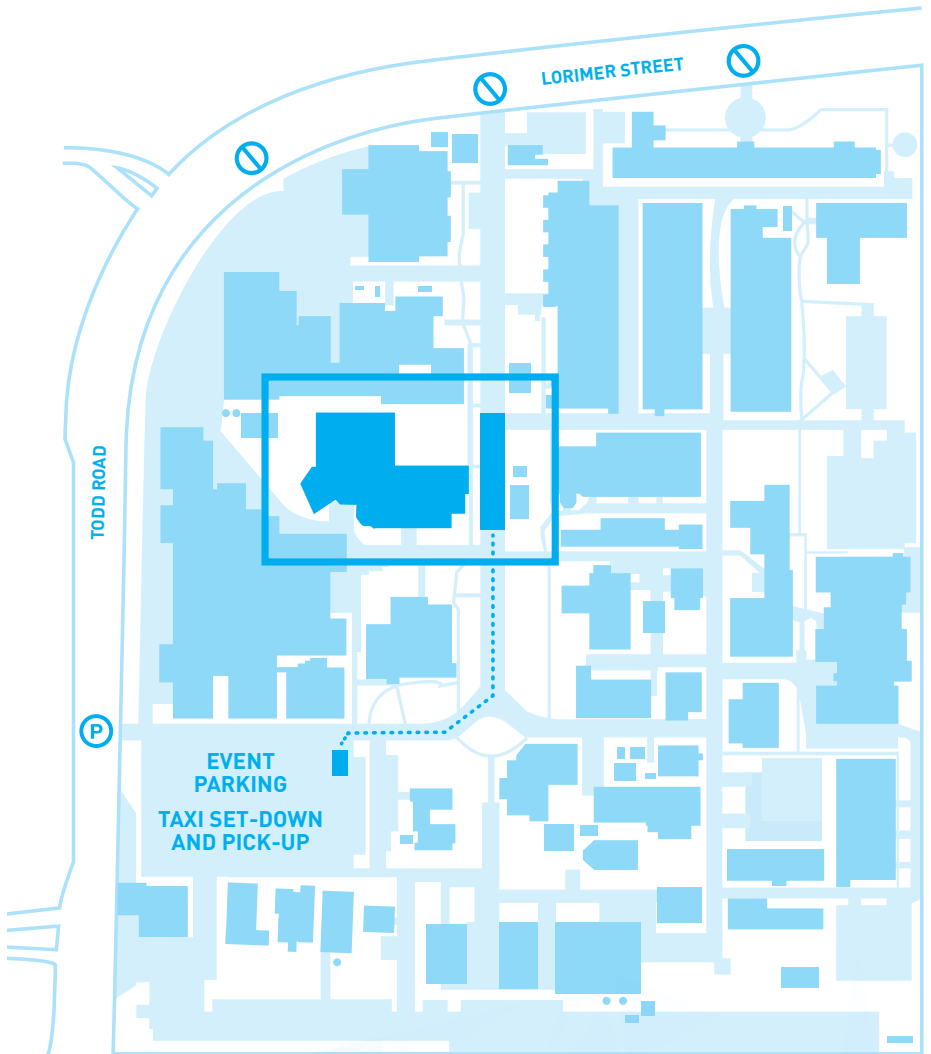
## **Site tours**

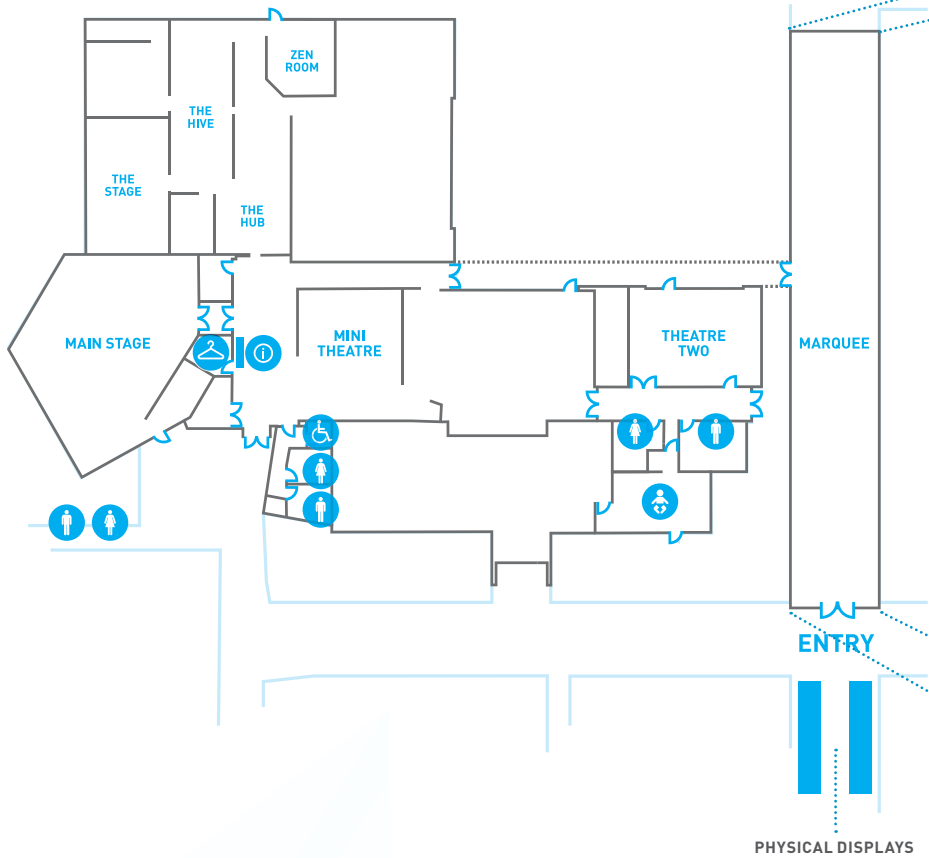
Tours to a number of DST Fishermans Bend site facilities are on offer. Book your place for these tours at the Information Desk located outside the Main Theatre. Please arrive at the Information Desk 5-10 minutes prior to ensure you meet your tour guide escort.

You will be required to cloak large items (satchels, umbrellas etc) and your electronic devices prior to the tour. Event staff at the Information Desk will assist you.

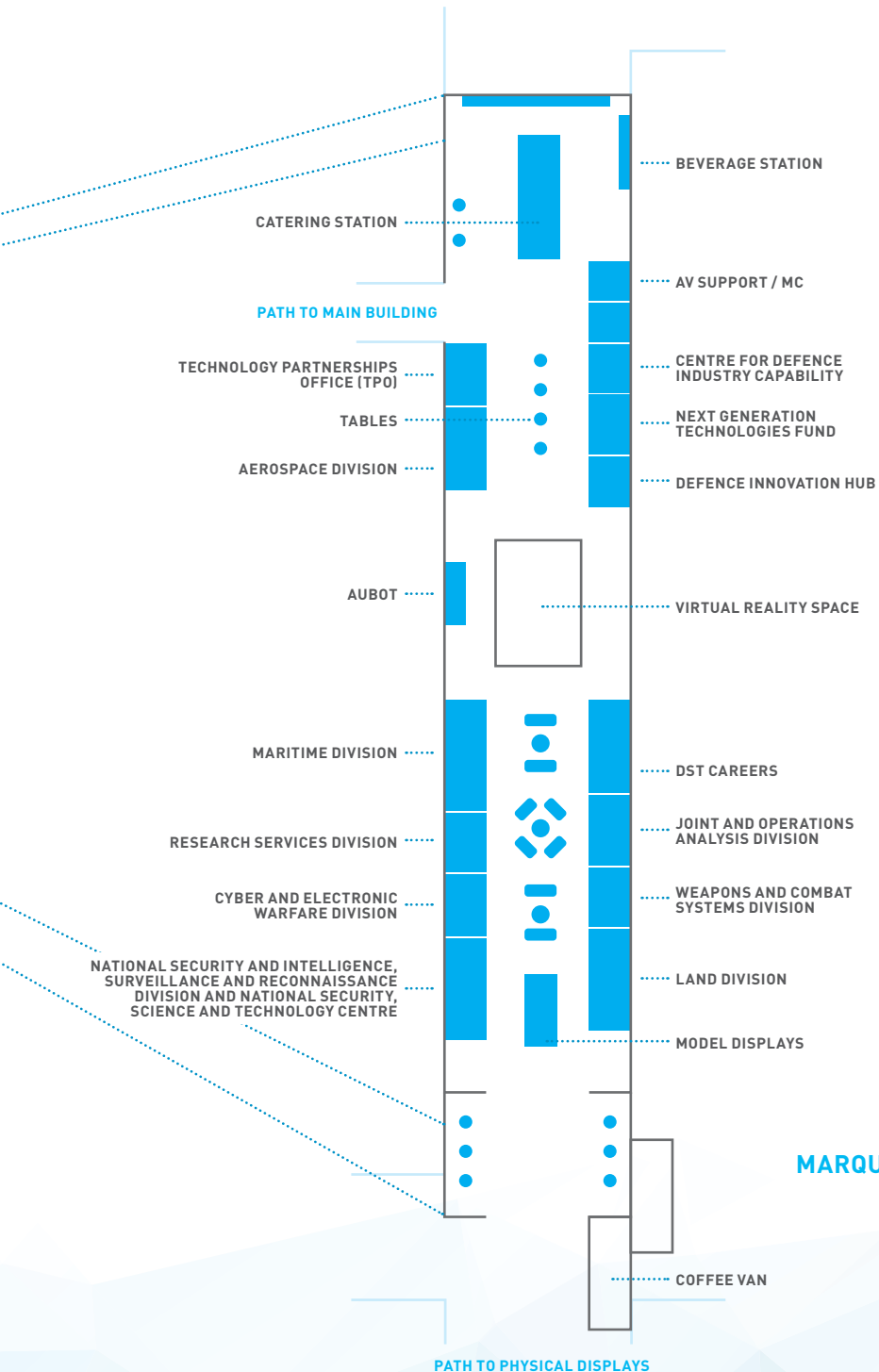


# EVENT MAP





## EXHIBITION DISPLAY ARENA



# PROGRAM: DAY 1

|       | Main theatre   |  |
|-------|--|--|
| 09:00 | <b>Welcome</b> Dr Alex Zelinsky AO, Chief Defence Scientist, DST   |  |
| 09:10 | <b>Defence innovation in a fast-paced world</b> Pam Melroy, Director Space Technology and Policy, Nova Systems   |  |
| 09:30 | <b>Minister's opening address</b> The Hon Christopher Pyne MP  |  |
| 09:50 | <b>Technology pitches</b><br>One minute each pitch, themes include: <ul style="list-style-type: none"> <li>• Innovation – Innovating for Defence: a case study, an example, an idea</li> <li>• Breaking through the frontier – From a single idea to a revolutionary solution and this science is breaking the mould</li> <li>• Ready for takeoff – Projects with a purpose and ready to do more</li> <li>• Designed/developed/delivered – The story of a successful pathway to success</li> </ul> |  |
| 10:00 | <b>Systematic innovation capability: Implications and challenges for the defence sector</b> Professor Danny Samson   |  |
| 10:30 | <b>Partnering with Strategic Alignment and Value</b> Dr Todd Mansell. The Defence S&T Program, including DST's partnership activities, is required to be strategically aligned with and delivering value against Defence priorities. An overview of the Defence business processes and practice used to assure this.   |  |
| 10:35 | <b>MC wrap-up and introduction to other activities</b> Jamie Watson, DST   |  |
| 10:45 | Morning tea  |  |
|       | Main theatre   | Theatre 2  |
| 11:15 | <b>Innovation Panel Discussion</b>   | <b>Overflow room</b><br>Watch the live stream of activities held in the main theatre.  |
| 11:30 |  |  |
| 12:15 | <b>Next Generation Technologies Fund and Grand Challenges panel and information session</b>  |  |
| 13:00 | Lunch  |  |
| 14:00 | <b>Myriota: Collaboration to commercialisation</b><br>Dr Alex Grant  | <b>Australian Defence Science University Network</b><br>Professor Adrian Pearce, Dr Robin Nicholson,<br>Professor Bradley Williams |
| 14:30 | <b>Exploring EDTAS success – The Emerging Disruptive Technology Assessment Symposium – Human Biotechnologies</b><br>Dr Nick Beagley and Dr Dale Quinn  | <b>Defence Export Control</b><br>Dr Julia Bowett   |
| 15:00 | <b>Next Generation Technologies Fund Application Booster</b><br>Dr Karen O'Connor and Dr Dan Billing   |  |
| 15:30 | Afternoon tea  | <b>Next Generation Technologies Fund Mixer Session</b><br>Held at The Stage within The Hub   |
| 16:30 | Exhibition Display Arena free time   |  |
| 17:00 | Event close  |  |

# PROGRAM: DAY 2

|       |  |   |
|-------|--|---|
|       | <b>Main theatre</b>  |   |
| 09:00 | <b>MC welcome</b> Jamie Watson   |   |
| 09:10 | <b>Opening address</b> Dr Alex Zelinsky AO, Chief Defence Scientist, DST   |   |
| 09:20 | <b>Technology pitches</b><br>One minute each pitch, themes include: <ul style="list-style-type: none"> <li>• Innovation – Innovating for Defence: a case study, an example, an idea</li> <li>• Breaking through the frontier – From a single idea to a revolutionary solution and how your science is breaking the mould</li> <li>• Ready for takeoff – Projects with a purpose and ready to do more</li> <li>• Designed/developed/delivered – The story of a successful pathway to success</li> </ul> |   |
| 09:30 | <b>Keynote presentation</b> Christine Satchell, Head of Research and Innovation, Blue Chip Vision  |   |
| 10:00 | <b>Keynote presentation</b> CDRE Phil Spedding, Navy Capability, Department of Defence   |   |
| 10:30 | <b>Partnering with strategic alignment and value</b> Dr Mike Davies, Chief Science and Technology Program  |   |
| 10:34 | <b>MC wrap-up and introduction to other activities</b>   |   |
| 10:35 | <b>Morning tea</b>   |   |
|       | <b>Main theatre</b>  | <b>Theatre 2</b>  |
| 11:00 | <b>Data61</b><br>Adrian Turner   | <b>Black Box Idea Recorder</b><br>Jamie Watson  |
| 11:30 | <b>Airbus</b><br>Mal Benfer  |   |
| 12:00 | <b>Next Generation Technologies Fund Application Booster</b><br>Dr Karen O'Connor and Dr Dan Billing   |   |
| 12:30 | <b>Next Generation Technologies Fund Mixer Session</b><br>Will be held at The Stage, within The Hub  | <b>Exploring EDTAS success – The Emerging Disruptive Technology Assessment Symposium: Advanced Materials and Manufacturing</b><br>Dr Nigel McGinty and Dr Leo De Yong |
| 13:00 | <b>Lunch</b>   |   |
| 14:00 | <b>Decades of Partnering Success</b><br>Brad Yelland, Engineering Director, BAE Systems  | <b>Defence Cooperative Research Centre for Trusted Autonomous Systems – A collaborative journey</b><br>Rob Sale, CEO Defence CRC                                      |
| 14:30 | <b>Defence Export Control</b><br>Dr Darren March   |   |
| 15:00 | <b>Closing remarks from the Chief Defence Scientist in marquee</b>   |   |
| 15:30 | <b>Afternoon tea</b>   |   |
| 16:30 | <b>Exhibition Display Arena free time</b>  |   |
| 17:00 | <b>Event close</b>   |   |

# SCHEDULE: MINI THEATRE

## DAY 1

|       |   |
|-------|---|
| 11:15 | <b>Ocean modelling and forecasting</b> Dr Mike Greening, DST  |
| 11:35 | <b>OR Network</b> Dr Maria Athanassenas, DST  |
| 11:55 | <b>Pitches</b> Series of one minute pitches by DST scientists   |
| 12:15 | <b>Using MIMO to enhance the capacity and robustness of military satellite communication</b><br>Balachander Ramamurthy, DST |
| 12:35 | <b>Defence Innovation Hub</b> Jo Hon  |
| 13:00 | Lunch   |
| 14:00 | Meet and Greet Session  |
| 15:00 | Theatre closed  |

## DAY 2

|       |   |
|-------|---|
| 11:00 | <b>DST delivering advanced scientific and e-research capabilities</b> Dr John Taylor, DST |
| 11:20 | <b>Nagambie</b> Warren Reid, DST  |
| 11:40 | <b>High accuracy threat recognition for next generation aircraft</b> Dr Tony Scoleri      |
| 12:00 | <b>Pitches</b> Series of one minute pitches by DST scientists                             |
| 12:20 | <b>Corrosion environmental modelling</b> Chris Loader                                     |
| 12:40 | <b>Defence Innovation Hub</b> Jo Hon  |
| 13:00 | Lunch   |
| 14:00 | Meet and Greet Session  |
| 15:00 | Theatre closed  |

# SCHEDULE: MARQUEE

## DAY 1

|       | Presentation                           | Location                               |
|-------|--|--|
| 10:45 | Virtual Reality Stand overview         | General                                |
| 11:00 | Wargaming Demonstration                | Joint and Operations Analysis Division |
| 12:15 | Digital Library Resources              | Research Services Division             |
| 14:15 | Scientific Engineering                 | Research Services Division             |
| 14:30 | High Performance Computing             | Research Services Division             |
| 15:30 | Science Research Computing Environment | Research Services Division             |
| 16:30 | Wargaming Demonstration                | Joint and Operations Analysis Division |

## DAY 2

|       | Presentation                           | Location                               |
|-------|--|--|
| 10:45 | Virtual Reality Stand overview         | General                                |
| 11:00 | Wargaming Demonstration                | Joint and Operations Analysis Division |
| 11:45 | Scientific Engineering                 | Research Services Division             |
| 12:15 | Digital Library Resources              | Research Services Division             |
| 13:15 | Science Research Computing Environment | Research Services Division             |
| 13:30 | Wargaming Demonstration                | Joint and Operations Analysis Division |
| 15:00 | CDS Thanks for attendees/ volunteers   | General                                |

# PITCHES: DAY 1

## David Warren Auditorium 09:50–10:00

|  |                          |  |
|--|--------------------------|--|
| Cyber and Electronic Warfare Division  | Balachander Ramamurthy   | Resilient multi-satellite MIMO communications                          |
| Joint and Operations Analysis Division | Dr Cayt Rowe             | Modelling complex warfighting strategic research investment            |
| Land Division                          | Dr Christine Shanahan    | Sensors for dense urban environments: An 'internet of military things' |
| Maritime Division                      | Darren Sanford           | Underwater explosives test capability                                  |
| Maritime Division                      | Chris Loader             | Sensing corrosive environments behind insulation                       |
| National Security and ISR Division     | Natalie Stevens          | Small satellite missions: A new enabler                                |
| Weapons and Combat Systems Division    | Matthew McKinna          | Genetic optimisation for high-performance rocket designs               |
| Land Division                          | Daniel de Oliveira Damas | Imaging the gamma threat   |

## Mini Theatre 12:00

|  |                               |   |
|--|-------------------------------|---|
| Aerospace Division                     | Dr Hurmat Ain                 | Making helicopter operation efficient and safe                |
| Cyber and Electronic Warfare Division  | Dr Tony Scoleri               | High accuracy threat recognition for next generation aircraft |
| Joint and Operations Analysis Division | Andrew Donohoo                | The mechanical facilitator?                                   |
| Land Division                          | Jeanine De-Diana              | Fuelling Defence for performance                              |
| Aerospace Division                     | Dr Tim Harrison               | Additive manufacturing: Building for the future               |
| National Security and ISR Division     | Vinh Dang or Dr Jonathan Legg | Intelligent automated decision superiority                    |
| Research Services Division             | Michael Williams              | Expand your capability – partner with RSD                     |
| Weapons and Combat Systems Division    | Dr Kevin Hong                 | An integrated HPRF airborne system for UAV defeat             |
| Science Strategy and Program Division  | Dr Helen Cartledge            | A tool to study biomarkers of human brain deregulation        |



# PITCHES: DAY 2

## David Warren Auditorium 09:20–09:30

|  |                               |   |
|--|-------------------------------|---|
| Aerospace Division                     | Dr Hurmat Ain                 | Making helicopter operation efficient and safe                |
| Cyber and Electronic Warfare Division  | Dr Tony Scaleri               | High accuracy threat recognition for next generation aircraft |
| Joint and Operations Analysis Division | Andrew Donohoo                | The mechanical facilitator?                                   |
| Land Division                          | Jeanine De-Diana              | Fuelling Defence for performance                              |
| Maritime Division                      | Dr Ellie Hajizadeh            | Novel process for the manufacture of acoustic metamaterials   |
| National Security and ISR Division     | Vinh Dang or Dr Jonathan Legg | Intelligent automated decision superiority                    |
| Research Services Division             | Michael Williams              | Increase your capability:<br>Partner with RSD                 |
| WCSD                                   | Dr Kevin Hong                 | An Integrated HPRF Airborne System for UAV Defeat             |
| Aerospace Division                     | Dr Tim Harrison               | Additive manufacturing:<br>Building for the future            |
| Science Strategy and Program Division  | Dr Helen Cartledge            | A tool to study biomarkers of human brain deregulation        |

## Mini Theatre 11:30

|  |                          |   |
|--|--------------------------|---|
| Maritime Division                      | Dr Ellie Hajizadeh       | Novel process for the manufacture of acoustic metamaterials               |
| Cyber and Electronic Warfare Division  | Balachander Ramamurthy   | Resilient multi-satellite MIMO communications                             |
| Joint and Operations Analysis Division | Dr Cayt Rowe             | Modelling complex warfighting strategic research investment               |
| Land Division                          | Dr Christine Shanahan    | Sensors for dense urban environments:<br>An 'internet of military things' |
| Maritime Division                      | Darren Sanford           | Underwater explosives test capability                                     |
| Maritime Division                      | Chris Loader             | Sensing corrosive environments behind insulation                          |
| National Security and ISR Division     | Natalie Stevens          | Small satellite missions: A new enabler                                   |
| Weapons and Combat Systems Division    | Matthew McKinna          | Genetic optimisation for high-performance rocket designs                  |
| Land Division                          | Daniel de Oliveira Damas | Imaging the gamma threat  |

# TOURS

## **Air operations simulation centre**

This state-of-the-art facility is used extensively for simulation-based research in the air domain and provides human-in-the-loop simulation and modelling capability to support a wide range of Australian Defence Force outcomes. Visitors will see first-hand how DST is working to provide the ADF with an enduring Live, Virtual, Constructive simulation capability for collective training.

## **Helicopter advanced fatigue test technology demonstrator**

DST has a clear and ongoing focus on developing innovative sustainment strategies for Defence platforms. This tour will allow visitors to observe some of the fatigue testing capabilities of DST's Aerospace Division, and in particular those being applied to a full-scale Navy Seahawk helicopter, that are a core enabler of such strategies. The complex, high-frequency flight loading of helicopters present unique challenges to durability testing, and DST is developing novel methods to support the research in this field. The research has the potential to change the way helicopters are certified and in-service structural integrity is managed.

## **Low speed wind tunnel**

In this tour, visitors will have an opportunity to observe a tethered Uninhabited Aerial System (UAS) being tested in DST's low-speed wind tunnel (LSWT), one of only a few such facilities within Australia. The UAS performance will be monitored in real-time and its responses to varying conditions observed and recorded for analysis. This program is part of DST's broader research interests into resilient flight control systems for uninhabited aerial vehicles. The LSWT has a working section 2.7 metres wide by 2.1 metres

high and 6.6 metres long with a maximum airflow attainable in the test section of approximately 300 kilometres per hour. More broadly, the facility is used to conduct aerodynamic research and data-gathering to support and inform Defence, academia and industry.

## **Environmental test facility**

The environmental test facility is a unique facility in the southern hemisphere, capable of replicating almost any environmental condition on Earth. It's been used to assess sub-zero rated sleeping bags, measure curing times for aircraft adhesives, and aircraft seat compression. Its primary function is to conduct systems testing of Individual Protective Ensemble as worn by war fighters in situations where biological or chemical threats may be present and provides unique insights into garment integration and allows DST to better inform the Australian Defence Force.

## **Energy usage optimisation research capability**

Showcasing DST's research capability in whole-of-platform energy usage optimisation. This capability comprises assessment tools such as the Integrated Platform System Model, which we use to assist in the selection of suitable emerging technologies for research and experimentation. The tour will highlight the modelling and experimentation capabilities we have discovered, as well as show you examples of some of the technologies presently being researched by DST and its partners.

## **Anechoic chamber and water tank experience**

Experience the true sound of silence; marvel at what you can do with 600,000 litres of water at hand. Come and visit the anechoic chamber and large water tank facilities of Maritime Division and hear about some of the work done with them.

## DAY 1

| Register for tours at the information desk |  |  |                                  |   |
|--|--|--|----------------------------------|---|
| 11:15                                      | Air operations simulation centre (AD)  | Environmental test facility (LD)                   |                                  |   |
| 12:00                                      | Anechoic chamber and water tank experience (MD)                              |  |                                  |   |
| 12:30                                      |  | Helicopter advanced fatigue test (AD)              |                                  |   |
| 13:00                                      | Workshop: Advanced structural design to drive innovation in sustainment (AD) |  |                                  |   |
| 13:30                                      |  |  |                                  |   |
| 14:00                                      |  | Energy usage optimisation research capability (MD) | Environmental test facility (LD) |   |
| 14:30                                      |  |  | Low speed wind tunnel (AD)       | Anechoic chamber and water tank experience (MD) |
| 15:00                                      |  |  |                                  |   |
| 15:30                                      | Tours closed   |  |                                  |   |

## DAY 2

| Register for tours at the information desk |  |  |  |
|--|--|--|--|
| 11:00                                      | Helicopter advanced fatigue test (AD)              | Air operations simulation centre (AD)              |  |
| 11:30                                      | Low speed wind tunnel (AD)                         | Anechoic chamber and water tank experience (MD)    |  |
| 12:00                                      | Energy usage optimisation research capability (MD) |  | Environmental test facility (LD)           |
| 12:30                                      |  |  | Workshop: Metamaterials Manufacturing (MD) |
| 13:00                                      |  |  |  |
| 13:30                                      |  |  |  |
| 14:00                                      | Environmental test facility (LD)                   | Energy usage optimisation research capability (MD) |  |
| 14:30                                      | Air operations simulation centre (AD)              |  |  |
| 15:00                                      |  |  |  |
| 15:30                                      | Tours closed                                       |  |  |

# EVENT GUIDE: DAY 1

## PRESENTATIONS AND PANEL DISCUSSIONS

### **Innovation panel discussion**

“Why Innovate?” will explore the motivation and rationale behind innovation for Defence and business. The session will involve a short introduction by the moderator followed by short introductory talks by each of the panel members and a facilitated Q&A session on the topic.

### **Next Generation Technologies Fund Mixer**

Meet Program Leads and Scientific Theme Leads from the Next Generation Technologies Fund in an informal networking session

### **Collaboration to commercialisation**

Join Dr Alex Grant, CEO of Myriota as he discusses how the company has approached turning research into product and what he believes it takes for successful research partnerships. This session includes an opportunity for questions.

### **Next Generation Technologies Fund application booster session**

Presented by Dr Karen O'Connor and Dr Dan Billing, this session will provide an overview of what the Next Generation Technologies Fund is, how it fits into the new Defence Innovation system and what it's programs are. The session covers applying for funding against specific calls for applications, where to find them, and what information to provide to make it as smooth as possible.

### **State Research Networks presentation: Australian Defence Science University Network**

DST has collaborated with three State Governments and their universities to establish

three state-based Defence science research networks: the Defence Science Institute (DSI) in Victoria; the Defence Innovation Partnership (DIP) in South Australia; and the Defence Innovation Network (DIN) in New South Wales. These networks facilitate university-government-industry research and skills exchange via cultivating relationships and linkages. They expedite the potential commercialisation of low TRL research and promote a thriving internationally competitive Defence research ecosystem. In this presentation, Dr Ian Dagle (Chief Science Partnerships and Engagement Division) will give an overview of the evolving Australian Defence Science University Network (ADSUN), including future plans for expansion into other states, and each of the state-based networks will provide some case studies to demonstrate their role.

### **Defence Export Control: Dr Julia Bowett**

Sensitive Technologies – Defence is seeking to raise awareness on a range of issues associated with sensitive technologies and preventing their potential acquisition or exploitation by adversaries. This briefing includes the following topics: what technologies Defence is concerned about; vulnerabilities introduced due to the actively encouraged collaborative environment; the types of threats faced by those developing sensitive technologies and possible approaches to protect your interests; and how Defence is engaging with industry and academia.

## WORKSHOPS AND INTERACTIVE

### **Next Generation Technologies Fund Overview and Grand Challenges Panel**

The Next Generation Technologies Fund is investing around \$730 million into fundamental research and development of future game-changing Defence capabilities over the next decade. In this session you can hear about the program, listen to a panel discussion about one of our flagship programs, the Grand Challenges Program. You will hear from those involved in the first Grand Challenge to counter improvised threats, how they got involved, how it is going, what it meant for their research and business.

### **Exploring EDTAS Success – The Emerging Disruptive Technology Assessment Symposium: Biotechnologies**

#### **Defence Innovation Hub: Jo Hon**

The Defence Innovation Hub is investing around \$640 million over the decade to FY 2025–26 in maturing and further developing technologies that have moved from the early science stages into the engineering and development stages of the innovation process. This presentation will provide an overview of the program and key information on the Hub's new service offering, Special Notices.

A Special Notice is a targeted challenge-based solicitation that seeks innovative solutions to specific Defence Capability Manager challenges.

### **Meet and Greet Session**

Meet with Chiefs of Division and Research Leaders from across DST in our SCINDICATE Meet and Greet activity which will operate as a speed networking or speed business meeting session. This is a pre-booked activity, see the Information Desk for any available spots remaining. The session will run for 1 hour, with individual one-on-one meetings running at 5 minute intervals. Each DST participant will participate in a maximum of 6 meetings per day. The Meet and Greet session will conclude with an open networking session for all participants.

### **Workshop: Advanced structural design to drive innovation in sustainment**

Madeleine Burchill, DST. Workshop on building a roadmap to deliver innovative sustainment capability to Defence; through building networks, sharing knowledge of relevant areas of S&T and identifying pathways to drive the technology advances in the area of structural simulation and model-based design.

# EVENT GUIDE: DAY 2

## PRESENTATIONS AND PANEL DISCUSSIONS

### **Data61: Adrian Turner**

### **Airbus: Mal Benfer**

### **Decades of Partnering Success: Brad Yelland**

### **Defence Export Control: Dr Darren March**

Sensitive Technologies. Defence is seeking to raise awareness on a range of issues associated with sensitive technologies and preventing their potential acquisition or exploitation by adversaries. This briefing includes the following topics: what technologies Defence is concerned about; vulnerabilities introduced due to the actively encouraged collaborative environment; the types of threats faced by those developing sensitive technologies and possible approaches to protect your interests; and how Defence is engaging with industry and academia.

### **Next Generation Technologies Fund: Dr Karen O'Connor and Dr Dan Billing.**

Application Booster Session: This session will provide an overview of what the Next Generation Technologies Fund is, how it fits into the new Defence Innovation system and what its programs are. The session will cover how to apply for funding against specific calls for applications under the various programs of the Next Generation Technologies Fund, where to find them, and what information to provide. Karen and Dan will also discuss what to expect to experience under the application process in order to make it as smooth as possible.

### **Defence Cooperative Research Centre (CRC): Rob Sale**

This session will provide an overview of what a CRC is, followed by a discussion and Q and A opportunity with the audience.

### **Exploring EDTAS Success – The Emerging Disruptive Technology Assessment Symposium: Advanced Materials**

### **Defence Innovation Hub: Samir Is-Hak**

The Defence Innovation Hub is investing around \$640 million over the decade to FY 2025–26 in maturing and further developing technologies that have moved from the early science stages into the engineering and development stages of the innovation process.

This presentation will provide an overview of the program and key information on the Hub's new service offering, Special Notices. A Special Notice is a targeted challenge-based solicitation that seeks innovative solutions to specific Defence Capability Manager challenges

# WORKSHOPS AND INTERACTIVE

## **Black Box Idea Recorder: Jamie Watson**

Be a part of an Innovation Think Tank session to offer solutions to a defence challenge. Working with lean-start-up thinking, beneficiaries, and minimum viable products, you will work in teams to discuss potential solutions to this problem.

Situation: "An infantry patrol is engaged in the outskirts of a remote village. How could future technologies be combined to better anticipate and respond whilst minimising their physical and mental load?".

## **Meet and Greet Session**

Meet with Chiefs of Division and Research Leaders from across DST in our SCINDICATE Meet and Greet activity which will operate as a speed networking or speed business meeting session. This is a pre-booked activity, see the Info Desk for any available spots remaining if you haven't made a booking. The session will run for 1 hour, with individual one-on-one meetings running at 5 minute intervals. Each DST participant will participate in a maximum of 6 meetings per day. The Meet and Greet session will conclude with an open networking session for all participants.

## **Workshop: Metamaterials Manufacturing**

Dr Ellie Hajizadeh, DST.

# DISPLAYS

## MARQUEE DST

- Maritime Division
- Land Division
- Aerospace Division
- Joint Operations Analysis Division
- Cyber and Electronic Warfare Division
- Research Services Division
- National Security and Intelligence, Surveillance and Reconnaissance Division alongside NSSTC
- Weapons and Combat Systems Division
- Technology Partnerships Office alongside State Research Networks

## GENERAL INSIDE

- WRESAT satellite model
- JDAM model
- F-35 model

## MARQUEE TOPICAL

- Defence Innovation System
  - Defence Innovation Hub
  - Next Generation Technologies Fund
  - Centre for Defence Industry Capability
- Virtual Reality Space – Dedicated VR area with Screens and VR headsets to experience offsite tours/experiences from our scientific divisions
- Telepresence robot

## GENERAL OUTSIDE

- Bushmaster vehicle
- Hawkei vehicle



# FOOD AND BEVERAGES

## Coffee van

Complimentary hot beverages are available all day from the Little Box Bakery located at the marquee entrance.

## Cold beverages

Cold Beverages are located at the catering station within the marquee.

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## Menu – Day 1

### All day

- Gourmet antipasto

### Morning tea

- Cherry tomato, bocconcini and basil quiche (V)
- Free range bacon and egg open pies
- Butternut pumpkin frittata (GF) (V)
- Mixed sandwiches
- Pumpkin, cheddar and chive muffins
- Zucchini, tomato and basil muffins
- Assorted petit four desserts

### Lunch

- Roasted chicken and avocado roll
- Mini smoked salmon lettuce and cream cheese roll
- Mini curried egg and lettuce roll (V)
- Halved crispy chicken wraps
- Crispy falafel and salad wraps (V)
- Raspberry, vanilla and white choc muffins
- Blueberry, coconut and lime muffins
- Scones with jam and cream
- Salad bar

## Menu – Day 2

### All day

- Gourmet antipasto

### Morning Tea

- Virginian ham, cheese and tomato wraps
- BLT wraps
- Egg, cucumber and lettuce wraps (V)
- Almond and blueberry mini friand (GF)
- Orange and poppy seed cake (GF)
- Zucchini slice (GF)
- Spanish potato and pork sausage tortilla (GF)

### Lunch

- Roasted beef fillet, tomato, cucumber, onion and rocket pide
- Grilled veggie, basil pesto, cheese, eggplant, peppers, zucchini and rocket pide (V)
- Mixed sandwiches
- Salad bar

# OUR PARTNERSHIPS

DST Group enhances its science and technology impact by collaborating with research and industry partners, nationally and globally.

We access and leverage world-leading science, technology, knowledge and innovation, through collaboration with industry, academia and international agencies. We work closely with these partners in order to provide quality advice and innovative solutions for Defence and national security.

For more about how to partner with us, see our Technology Partnerships Office representatives in the Exhibition Display Arena or contact us on the details below.

**+61 8 7389 7002 | [PartnerwithDST@dst.defence.gov.au](mailto:PartnerwithDST@dst.defence.gov.au)**

# NOTES

