

# SINGAPORE DEFENCE TECHNOLOGY SUMMIT

22-24 March 2023

## DIGITAL AND DUAL-USE TECHNOLOGIES OPPORTUNITIES AND THREATS

Hosted by



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✉ [techsummit@dsta.gov.sg](mailto:techsummit@dsta.gov.sg)

🌐 [www.techsummit.sg](http://www.techsummit.sg)

📄 Registration is available on website

📍 Conference venue: Shangri-La Hotel, Singapore

The Singapore Defence Technology Summit (Tech Summit) is a unique gathering of global thought leaders from government, industry, academia, and think tanks, to network, confer, and collaborate in the development of defence and security capabilities.

To be held in Singapore, Tech Summit 2023 will examine how digital and dual-use technologies have reshaped the nature of combat, discuss how to integrate cross domain capabilities and pursue digital superiority, and examine how government organisations and industries are organising themselves for these new paradigms.

### Attendees

- Senior Government Leaders and Defence Technology Policy Makers
- National Armament Directors and Government Chief Technology Officers
- Chief Executive Officers and Chief Technology Officers from the industry
- Thought Leaders from academia and think tanks

# P R O G R A M M E

SGT (UTC+8)

## Wednesday 22 March 2023

6:00PM • Networking Cocktail

7:00PM • **Opening Dinner and Welcome Remarks\*** by Senior Minister of State for Defence **Mr Zaqy Mohamad** (Singapore)

## Thursday 23 March 2023

9:15AM • **Opening Address\*\*** by Deputy Prime Minister and Minister for Finance **Mr Lawrence Wong** (Singapore)

9:35AM • Networking Coffee

10:15AM • **Government Leader Remarks** by **Hon. Frank Kendall III**, Secretary of the U.S. Air Force (USA)

10:30AM • **Plenary 1: Technology Lessons Learnt from Recent Conflicts**

Recent conflicts have turned some of the world's biggest technology platforms into contested environments, with information and intelligence campaigns waged in a parallel digital space and hybrid warfare executed through commercial drone and space technologies. Social media has also made massive amount of information openly available, allowing anyone to analyse unfolding situations, anywhere in the world. This panel will uncover key technology lessons learnt from recent conflicts and discuss their implications to the approaches that defence establishments take for the future. It will postulate how emerging digital technologies could have influenced the outcomes of such conflicts.

*Moderator:* **Dr Sean McFate**, Professor of Strategy, Georgetown University and National Defense University (USA)

*Speakers:*

- **Vice Admiral Arie Jan de Waard**, National Armaments Director and Director, Defence Material Organisation (Netherlands)
- **BG(Ret) Dr Daniel Gold**, Head, Directorate of Defense Research and Development, Ministry of Defense (Israel)
- **Mr David Spirk**, Senior Counselor, Palantir Technologies (USA)
- **Dr Marjorie Vanbaelinghem**, Director, Institute for Strategic Research of the Ministry of Armed Forces (France)
- **LG Michael Vetter**, Director General Cyber / IT and Chief Information Officer, German Federal Ministry of Defence (Germany)

11:45AM • Lunch

1:15PM • **Government Leader Remarks** by **Mr Kusti Salm**, Permanent Secretary, Ministry of Defence (Estonia)

1:30PM • **Tech Talk** with **Mr Sean Gourley**, Founder and Chief Executive Officer, Primer (USA)

1:45PM • **Plenary 2: The Unbreakable Digitalisation Wave**

Digital technology has reshaped the nature of business for governments and defence. In recent decades, the use of digital capabilities in the military and other support functions has increased more than ever. Emerging digital technologies are often dual-use in nature, led by the commercial sector. Governments have to be open to adopt disruptive commercial technology. In the race for global leadership in artificial intelligence, data analytics and cybersecurity, organisations have fully recognised the importance of securing access to new digital technologies – both hardware, software and algorithms. This panel will examine such trends, and discuss strategies adopted by organisations in their pursuit of digital superiority.

*Moderator:* **BG(Ret) Jaak Tarien**, Vice President of Sales and Business Development, Cybernetica AS (Estonia)

*Speakers:*

- **Mr James Allen**, Executive Vice President, Booz Allen Hamilton (USA)
- **Prof Martial Hebert**, Dean and University Professor, School of Computer Science, Carnegie Mellon University (USA)
- **BG Lee Yi-Jin**, Chief of Digital and Intelligence Service / Director Military Intelligence, Singapore Armed Forces (Singapore)
- **Dr Youngwoo Seo**, Executive Vice President, Hanwha Aerospace (Republic of Korea)
- **Ms Lila Tretikov**, Corporate Vice President and Deputy Chief Technology Officer, Microsoft Corporation (USA)
- **Mr Sven Weizenegger**, Head of Bundeswehr Cyber Innovation Hub (Germany)

3:00PM • Tea Break

3:30PM • **Tech Demo: Road to the Metaverse** by **Mr Callan Carpenter**, Vice President, Digital Twin Solutions, Unity Technologies (USA)

4:00PM • **Plenary 3: Securing the Defence Supply Chain**

The COVID-19 pandemic brought about unprecedented disruptions to our global supply chains. From semi-conductors, batteries and raw materials to advanced technology weaponry; supply chains for these technologies are critical to national defence and security. Three years on, our defence ecosystems are still grappling with the interconnectedness and brittleness of such supply chains. This is a growing concern as we start to pivot towards greater digitalisation. This session discusses the challenges in securing our defence supply chains, the strategies in mitigating these risks, and the potential policy levers that may be required to tackle this issue.

*Moderator:* **Dr Michael Raska**, Assistant Professor and Coordinator for Military Transformation Programme, S. Rajaratnam School of International Studies (Singapore)

*Speakers:*

- **LG(Armament) Gaël Diaz de Tuesta**, Director International Development Directorate, Directorate General of Armaments (France)
- **Mr Chris Johnson**, Senior Vice President, Nokia Enterprise (UK)
- **Mr Josh Kennedy-White**, Senior Advisor, Interos Inc (USA)
- **Dr Bradley Martin**, Director, RAND National Security Supply Chain Institute and Senior Policy Researcher, RAND Corporation (USA)
- **Dr Michael Schoellhorn**, Chief Executive Officer, Airbus Defence and Space (Germany)

5:30PM • Networking Drinks

## Friday 24 March 2023

9:00AM • **Fireside Chat** with **Mr Bill McDermott**, President and Chief Executive Officer, ServiceNow (USA)

*Moderator:* **Ms Ng Teng Teng**, Director (Technology Capability), Ministry of Defence (Singapore)

9:30AM • **Plenary 4: Ground Zero – What does Digitalisation mean for our Warfighters?**

Size, weight and power continue to be key issues for the next generation soldier. However, the burden on the next generation soldier/pilot/sailor is not only physical, but also cognitive. Tactical warfighting systems of the future would be complemented by robotics, digital assistants, and wearables; and enhanced by advanced communication systems and algorithms that present an abundance of updated information for tactical decision making. This plenary will discuss the impact of digitalisation on the tactical warfighter.

*Moderator:* **Mr Peter Ho**, Executive Chairman, HOPE Technik (Singapore)

*Speakers:*

- **Dr Todd Citron**, Chief Technology Officer, The Boeing Company (USA)
- **IGA Dominique Luzeaux**, Director Defence Digital Agency, Directorate General of Armaments (France)
- **Dr Axel Scheibel**, Management Board Member, Krauss-Maffei Wegmann GmbH & Co. KG (Germany)
- **Mr Mike Stone**, Chief Executive Officer, FitzRoy Stone Enterprises, and Ex-Managing Partner, Global Government, IBM (UK)
- **Mr Kuldar Väarsi**, Founder and Chief Executive Officer, Milrem Robotics (Estonia)

10:45AM • Tea Break

11:15AM • **Government Leader Remarks** by **Hon. Matteo Perego di Cremnago**, Undersecretary for Defence (Italy)

11:30AM • **Fireside Chat** with **General Paul M. Nakasone**, United States Army, Commander, United States Cyber Command, Director, National Security Agency / Chief, Central Security Service (USA)

*Moderator:* **Dr Chan Yew Wing**, Deputy Chief Executive Officer (Systems), DSO National Laboratories (Singapore)

12:00PM • **Summary Plenary: New Partnerships in the Digital Defence Ecosystem**

Defence establishments around the world have traditionally invested in military technologies from leading defence contractors to maintain their capability secret edge. Recent conflicts have proven that this capability edge will cede to those that are the savviest in leveraging commercial technologies with speed and agility. However, these commercial technologies come from a spectrum of sources beyond the traditional defence ecosystem. As defence establishments embrace the digitalisation wave, they will need to forge new partnerships in ways that go beyond the traditional playbook. This plenary will examine the 'recipes' for successful commercial-defence partnerships, and how differences in culture and processes are addressed.

*Moderator:* **Mr Marcel 'Otto' Yon**, Partner and Founder, innovation@scale and Freedom Fund (Germany)

*Speakers:*

- **Prof Deepth Chana**, Co-Director, Institute for Security Science and Technology, Imperial College London (UK)
- **Hon. Dana Deasy**, Former Chief Information Officer, US Department of Defense (USA)
- **Prof Henric Johnson**, Global Head of Science & Innovation, Business Sweden (Sweden)
- **Dr Ee-Eul Kim**, President and Chief Executive Officer, Satrec Initiative (Republic of Korea)
- **Dr Dale Lambert**, Chief of Information Sciences Division, Defence Science and Technology Group, Department of Defence (Australia)

1:15PM • Lunch

2:30PM • **Site Visits**

\*By invitation only. Guests to be seated by 6:40PM  
\*\*All guests to be seated by 8:50AM