

SMARTSATCRC

Building Australia's Space Industry



UPDATE FROM THE BID TEAM

Welcome to the August issue of the SmartSat CRC Newsletter. Since publication of the last issue we have received confirmation that the Stage 1 application will be assessed by the CRC Advisory Committee. Announcement of successful Stage 1 bids will occur in September, however the Stage 2 application is already well underway and on track to meet the November submission deadline.



As we work toward submission of the Stage 2 application, SmartSat CRC capital city workshops will be held to further develop the research program, business case and the application. Two such workshops will be thematic for the areas of end-user applications, defence, mining and natural resources as well as agriculture.

We would be grateful if you participate in these workshops and help shape the direction of the SmartSat CRC.

IMPORTANT NOTES:

- Paid Secondment to the CRC Bid Team as a Deputy Bid Coordinator**
 Expressions of Interest for a paid secondment to the CRC Bid Team due Monday 10 September (contact Andy Koronios for further details).
- Wanted Bid Writers/Reviewers**
 Writing for the Stage 2 application has commenced. If you are interested in participating in the writing effort, either as a writer or reviewer, please contact Andy Koronios.

CRC BID STEERING COMMITTEE UPDATE

The CRC Bid Steering Committee have continued to meet monthly to discuss the direction and progress of the bid. Interest is still coming in from new partners wanting to be involved as the CRC continues to gain momentum in Stage 2. The SmartSat CRC research will be driven through two important groups, the Research Investment Committee and the Research Leadership Group.

The Research Investment Committee will report directly to the SmartSat CRC Board and its role will be to drive the ‘need’ for research and recommend to the Board what projects should be funded. projects.

The Research Leadership Group will drive the implementation of the research and will work hand-in-hand with the Research Investment Committee to develop and manage the research.

A Research Leadership Group is currently being assembled. It will comprise the following:

1. Advanced Communications
Gottfried Lechner (UniSA)
2. Intelligent Satellite Systems
Russell Boyce (UNSW-ADFA)
3. EO Data Analytics
Stuart Phinn (University of Queensland)



Company Profile- FluroSat

FluroSat is at the forefront of making earth observation data analytics a practical and valuable tool for agriculture.

Founded out of University of Sydney and nurtured through investment from CSIRO and CRDC, FluroSat turns satellite multi and hyperspectral data into crop health analysis. Growers and their crop advisors use FluroSat to make their fertilization, irrigation, disease and pest control more precise and effective.

By fusing remote-sensing and on-the-ground data, the analysis generated by FluroSat requires little or no interpretation by the farmer, instead providing clear prescription recommendations that farmers can immediately put into action. FluroSat are taking the latest in earth observation data analytics, combining it with CSIRO research and the farmers’ own management practices to bring science inside the farm gate. The increased yields and reduced costs achieved through data-driven precision agriculture

being enabled by FluroSat will improve our ability to feed and clothe everyone sustainably.

FluroSat are excited to join the SmartSat CRC as we believe membership will provide a platform to help Australia successfully compete in what will be the fastest growing industry of the 21st century.



IN THE NEWS

We invite our industry partners to submit a 200-400 word profile and image of their company to Laura.Tilley@defencesa.com for inclusion in future editions. This is an opportunity to find out more about the SmartSat CRC partners.

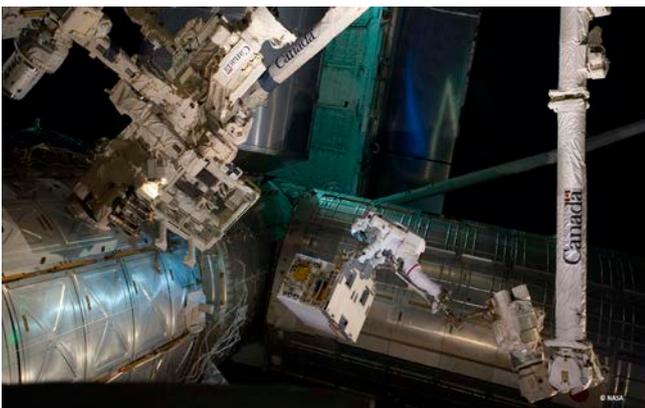
Company Profile- MDA

MDA, a Maxar Technologies company, has been a trusted provider of industry-leading radar satellite systems and imagery, ground systems, space robotics and sensors, satellite antennas, electronics and payloads, surveillance and intelligence solutions, and defence systems for customers in international government and commercial sectors for five decades. The company's breadth of expertise, and long history of innovative industrial firsts has made it the go-to source for advanced technology and mission-critical solutions for exploring space, and monitoring and understanding land and maritime change and activity anywhere on Earth.

Core Offerings

Earth Observation Systems

MDA delivers multi-sensor Earth observation ground systems that automate satellite mission planning, imagery and data capture, processing and analytics. We are the market leader, supporting all current high-resolution commercial optical and radar satellite missions with headquarters, national, and regional solutions. MDA has leveraged its expertise in geospatial information to serve the global aviation market with advanced aeronautical information management solutions, and it modernizes government agencies with powerful land title registry and cadastral systems.



Space-based Radar

MDA designs and builds end-to-end SAR missions that include spacecraft and sensors. It provides mission infrastructure and operations, advanced radar analytics, services and data commercialization programs.

Robotics, Sensors and Automation

MDA created the iconic Canadarm that flew on 90 Space Shuttle Missions and Canadarm2 which has operated on the International Space Station for over 17 years. Our robotics, sensors, and workstations have played central roles in the construction and maintenance of the International Space Station. Our understanding of space-qualified systems, cameras, LIDAR, robotic arms, and scientific missions enables entry to the on-orbit satellite servicing market, the Deep Space Gateway, and space mining.

Satellite Antennas, Electronics and Payloads

Our satellite payloads, antennas, and electronics enable fixed, high-throughput, and mobile communications systems, space radar, exploration, science, navigation, remote sensing downlink, telemetry and telecommand systems, and inter-satellite communications. We are the industry's largest independent supplier and through our implementation of Industry 4.0 smart factory standard that links automation, data exchange, real-time communications, and the

Internet of Things to empower better processes, smarter decision-making, and improved quality standards for deployed space systems.

Defence Systems

MDA's innovative defence solutions span the space, air, maritime and land domains, and include end-to-end command and control, communications, intelligence, surveillance and reconnaissance systems and geospatial analytics services. MDA has the experience and deep understanding of the operations and systems required to deliver full-spectrum information for operational, highly reliable solutions that interoperate across domains and between allied forces.

A message from Mike Greenley, Group President MDA

MDA is pleased to be a core partner of the SmartSat CSC team and looks forward to participating in this exciting period of growth in Australia's space industry that will deliver benefits across many sectors of the Australian economy.

Company profile- Shoal

Shoal uses systems thinking to help our clients define and deliver large scale projects in complex environments. We work with people from diverse industries in the early stages of understanding and planning their largest and most challenging projects.

Shoal has researched and developed many novel approaches to supporting our clients, including a model-based systems engineering (MBSE) approach which ensures they solve the right problem.



In return, we have shaped the world's best practise discipline in leveraging relational datasets and models in software to describe and design a system that comprehensively considers the political and social contexts within integrated sub-systems. Shoal has successfully applied this framework to more than 75 large, complex and technology-intensive projects; from space systems, submarines, warships, satellite communication systems, transportation systems, to organisational level planning for one of the world's largest hedge funds. Shoal's novel model-based techniques provide a level of traceability and agility, which are only now being adopted by leading space system designers such as NASA's Jet Propulsion Laboratory.

Shoal has a background in space-related systems and technologies through previous work with Antarctic Broadband satellite communications and in modelling and simulation of aerospace vehicles, including safety analysis associated with the re-entry of the Hayabusa vehicle in 2010. The company is currently engaged with Equatorial Launch Australia regarding the establishment of an Australian space launch facility, and in a number of space-related projects for Defence. The establishment of the Australian Space Agency and the SmartCRC represents a step change in Australian involvement in space; and Shoal is keenly interested to participate.

NEW PARTNERS

We would like to welcome the following new partners who have joined the SmartSat CRC since the Stage 1 Application was submitted:

[Terra Digitalis Pty Ltd](#)

[Nano Thermal Technologies](#)

[Jarmyn Enterprise Space](#)

[DEWC Systems Pty Ltd](#)

[OZIUS Pty Ltd](#)

[Hypersonix Pty Ltd](#)

UPCOMING WORKSHOPS

Monday 17 September 2018

Theme: General
 Who: SmartSat CRC industry partners, SmartSat CRC research provider partners and prospective industry partners
 Location: Sydney
 Time/Duration: 10:30am – 1:30pm
 Venue: Level 4 Seminar Room (L4-60), DATA 61 | CSIRO, Level 5, 13 Garden Street, Eveleigh
Hosted by Bruce Thomson, NSW Department of Finance, Services and Innovation

Wednesday 19 September 2018

Theme: Defence
 Who: SmartSat CRC industry partners by invitation
 Location: Adelaide
 Time/Duration: 10:00am
 Venue: DST
Hosted by Andrew Seedhouse, Chief National Security and Intelligence Surveillance and Reconnaissance Division
Hosted by: TBC

Thursday 20 September 2018

Theme: Mining & Resources, Agriculture
 Who: SmartSat CRC industry partners, prospective industry partners and research leadership
 Location: Perth
 Time/Duration: 10:00am – 1:00 pm
 Venue: TBC
Hosted by Peter Markham, GM – SPUR

Monday 24 September 2018

Theme: General
 Who: SmartSat CRC industry partners, SmartSat CRC research provider partners and prospective industry partners
 Location: TBC
 Time/Duration: 10:30am – 1:30pm
 Venue: TBC

17 October 2018

Theme: Government
 Who: SmartSat CRC industry partners, prospective industry partners, research leadership
 Location: Canberra
 Time/Duration: 10:30am – 1:30pm
 Venue: TBC
Hosted by: TBA

25 Oct 2018

Theme: General – Reporting on the Research Program and the Stage 2 Application
 Who: SmartSat Participants
 Location: Hobart
 Time/Duration: 10:30am – 1:30pm
 Venue: TBC
Hosted by: TBA

If you wish to share relevant news regarding your organisation, please forward the information to emily.white@unisa.edu.au

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