

6th SOUTH AUSTRALIA SPACE FORUM

5 DECEMBER 2018



Supported by the:



**Australian
Space
Agency**

6th SOUTH AUSTRALIA SPACE FORUM

WEDNESDAY 5 DEC 2018
ADELAIDE CONVENTION CENTRE
HALL E, GROUND FLOOR, EAST BUILDING

Facilitated by:
Mr Nicola Sasanelli AM, Director
South Australian Space Industry Centre



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PREMIER'S WELCOME



IT IS MY PRIVILEGE TO WELCOME YOU TO THE 6TH SOUTH AUSTRALIA SPACE FORUM.

Growing the space economy is an important focus for this government and we are committed to ensuring that South Australia becomes a prominent player in the space industry nationally and internationally.

Our state has a proud history in space-related endeavours, with a strong advanced manufacturing and technology skills base, which makes us ideally placed to play a lead role in this important industry as it grows worldwide.

There are currently over 70 organisations and over 800 people working in our local industry, and it's growing at a rapid pace.

Capturing these emerging opportunities in the space industry is an important part of our plan to grow our economy and create high-value jobs of the future.

The possibilities of space are infinite.

Space technology has the potential to unlock new markets and future growth opportunities in other industries like agriculture, mining, construction and defence. It is our duty to strengthen the dialogue between space technology providers and end users in these industries.

For the first time, we are collaborating on a national level with both the Australian Space Agency and the Space Industry Association of Australia to support this ever-growing forum, which provides a fantastic platform for relationship building and the sharing of knowledge and expertise.

In South Australia, we understand the importance of space as a source of inspiration and wonder for our future generations, and an enabler of great economic growth for our current generation.

Hon Steven Marshall MP
Premier of South Australia

FORUM SCHEDULE

TIME	SESSION
8.30	REGISTRATION OPEN Tea and coffee on arrival
8.45	WELCOME Hon Steven Marshall MP , Premier of South Australia NATIONAL SPACE POLICY
8.50	Hon Karen Andrews MP , Federal Minister for Industry, Science and Technology (via video)
8.55	THE AUSTRALIAN SPACE AGENCY - AUSTRALIA'S GATEWAY TO SPACE Mr Anthony Murfett , Deputy Head, Australian Space Agency
9.10	KEYNOTE: INTERNATIONAL PERSPECTIVE ON OPPORTUNITIES FOR AUSTRALIAN SPACE-TECH FIRMS IN AGRIBUSINESS, MINING/ENERGY RESOURCES & CONSTRUCTION Mr Larry Keeley , Co-Founder & President of Doblin Inc. - A Deloitte Business
9.35	THE IMPORTANCE OF A DYNAMIC SPACE SECTOR Mr Michael Davis , Chairman, Space Industry Association of Australia
9.45	CO-CREATION, COLLABORATION & INNOVATION FOR A SPACE-ENABLED AUSTRALIA: THE SMARTSAT CRC Prof Andy Koronios , Dean: Industry & Enterprise, University of South Australia Mr Peter Nikoloff , Director, Nova Group
10.00	MORNING TEA
10.30	Q&A EXPERT PANEL: CASE STUDY - INCREASING EFFICIENCY IN AGRICULTURE <i>Facilitator:</i> Gary Rake , Partner, Space Industry Leader, Deloitte <i>Panellists:</i> Mr Peter Woodgate , Chair, SmartSat CRC Mr Sean Starling , General Manager, Meat and Livestock Association Dr Alex Held , Director - Centre for Earth Observation, CSIRO Mr Tom Rayner , Director, Myriota Ms Karen Ross , General Manager Innovation, Digital and Brand, Elders Dr Graeme Kernich , Chief Executive Officer, FrontierSI
12.00	LUNCH

FORUM SCHEDULE

TIME	SESSION
13.00	Q&A EXPERT PANEL: CASE STUDY - AUTOMATION - THE FUTURE OF THE RESOURCES SECTOR <i>Facilitator:</i> Mr David Cormack , Lead partner for mining industry, Deloitte Consulting <i>Panellists:</i> Prof Saeid Nahavandi , Pro Vice-Chancellor, Deakin University Mr Shannon Harding , General Manager Support Services, Novo Resources Corp. Mr Kevin Petersen , Business Development & Innovation Manager, HMR Drilling Services Mr Russ Potapinski , Head of Intelligent and Autonomous Systems, Woodside Energy Ms Julia Mitchell , SBAS Test-Bed Program Manager, FrontierSI
14.30	AFTERNOON TEA
14.45	Q&A EXPERT PANEL: CASE STUDY - INCREASING THE EFFICIENCY OF CONSTRUCTION <i>Facilitator:</i> Mr Alex Collinson , National Leader Real Estate and Construction, Deloitte <i>Panellists:</i> Mr Peter Karidis , Executive, Karidis Corporation Ltd. and Managing Director, PALAMIR Geospatial Mr John Haese , Associate Principal, Adelaide Office Leader, ARUP Mr James Millner , Positioning Infrastructure Manager, Position Partners Mr Roland Klamt , Geospatial Specialist, Hexagon Geospatial Mr John Drillis , Managing Director, South Australia, Rider Levett Bucknall
16.20	Q&A EXPERT PANEL: WRAP-UP AND RECOMMENDATIONS ON HOW TO FACILITATE DIALOGUE BETWEEN END-USERS AND TECHNOLOGY PROVIDERS <i>Facilitator:</i> Dr Dave Williams , Executive Director - Digital, National Facilities and Collections, CSIRO <i>Panellists:</i> Mr Anthony Murfett , Deputy Head, Australian Space Agency Mr Richard Price , Chief Executive, South Australian Space Industry Centre Mr Peter Woodgate , Chair, SmartSat CRC Mr Michael Davis , Chairman, Space Industry Association of Australia Mr Jim Whalley , Chairman and Executive Director, Nova Group and Chief Entrepreneur of South Australia
17.00	FORUM CLOSE

SPEAKER BIOGRAPHIES



MR ALEX COLLINSON

NATIONAL LEADER REAL ESTATE AND
CONSTRUCTION | DELOITTE



Alex is an audit partner and the National Lead Partner - Real Estate and Construction.

Alex serves as the lead audit partner for a number of Australian listed and significant global companies dealing with transactions, capital raisings, IPO's and restructures, in addition to providing audit services.

As leader of the National Real Estate and Construction group, Alex oversees the market activities of over 300 professionals across Australia delivering audit, tax, corporate finance, consulting, technology, innovation and real estate advisory services to the largest real estate and construction companies in Australia.

Alex joined Deloitte in 2000, has been a partner since 2009 and has worked in Sydney, London and Toronto serving global companies. Alex has worked with a number of companies in both an audit and advisory capacity and has been instrumental in the development of thought leadership and product offerings.

Alex has served as the lead audit partner on a number of ASX listed and global companies including, Brookfield Australia (including Multiplex), SCA Property Group, RCR Tomlinson, GHD, Elanor Investors Group and BSA.

MR DAVID CORMACK

LEAD PARTNER FOR MINING INDUSTRY
| DELOITTE CONSULTING



David is a Partner within Deloitte Consulting's Technology Advisory practice where he specialises in helping clients create and sustain value at the intersection of clients' business and technology strategies. He is the Consulting National Mining Sector leader and has 30 years of mining industry consulting and operations experience where he has gained an excellent understanding of the entire mining value chain from exploration to corporate affairs. He led the Deloitte "Innovation in Mining: Australia 2016" survey and co-authored the report.

David studied mining at the University of Johannesburg and holds an MBA from Bond University and an MSc in Mineral Economics from Curtin University. He is married to Alison and has two daughters, he enjoys the great outdoors, mountain biking, tennis, his dogs and technology gadgets.

MR MICHAEL DAVIS

CHAIRMAN | SPACE INDUSTRY
ASSOCIATION OF AUSTRALIA



Michael Davis has been actively involved in the Australian space sector for about 25 years. Until very recently he was chair of the Space Industry Association of Australia, the peak national body for the Australian space industry. He was also a member of the Commonwealth Government's Expert Reference Group that advise on the establishment of the Australian Space Agency. Many years ago he proposed the Adelaide bid for the International Astronautical Congress, which was held in Adelaide in 2017, and was Chair of the Congress Local Organising Committee.

Michael holds a Bachelor of Laws degree from the University of Adelaide and a Master of Space Studies degree from the International Space University (ISU) in Strasbourg, France. Until his retirement from legal practice in 2014 he was one of the few Australian lawyers practising in the field of space law. His other main activity has been in the field of space education. He is an ISU Faculty member and serves on ISU's Board of Trustees. He has also served as Co-Director of the Southern Hemisphere Space Studies Program, conducted each summer at the University of South Australia in partnership with ISU.

MR JOHN DRILLIS

MANAGING DIRECTOR, ADELAIDE
| RIDER LEVETT BUCKNALL



Rider Levett Bucknall (RLB) is Oceania's largest and most experienced construction consultancy, specialising in cost management and advisory services. With a wealth of experience in key international locations, bringing insight and resource capability to deliver an innovative approach, value for money and quality outcomes. RLB has the added advantage of knowledge sharing with over 3,600 professionals in more than 119 offices across the world.

With over thirty years in the construction industry, John has gained experience in all facets of cost consulting with specific responsibility for strategic cost advice relating to feasibility studies, concept estimates, procurement strategies and post contract services.

MR JOHN HAESE

ASSOCIATE PRINCIPAL, ADELAIDE
OFFICE LEADER | ARUP



John creates the environment required to successfully deliver complex projects and programs. Focussing on building strong, lasting relationships, John leverages his experience across a broad range of projects and sectors, both public and private from inception through to completion, to ensure that every project maximises its potential and achieves its goals.

As a project leader, John takes responsibility and ownership for success, whilst fostering an approach among stakeholders that is collaborative and deliverables oriented to everyone's benefit, and ensures accountability amongst all team members for successful delivery. He has been involved in many complex, challenging projects and programs involving significant resources and relishes leading and developing high performing, goal oriented teams.

John's influential communication skills and the facilitation of positive results, aligned to business objectives lies at the heart of John's approach.

MR SHANNON HARDING

GENERAL MANAGER SUPPORT SERVICES
| NOVO RESOURCES CORP



Shannon Harding has been in and around the Mining and Construction industry for the last 20 years in a variety of HSE/HR and Operation roles and brings a level of practical HSE to Novo with the focus on employee owned application to legislation and procedural compliance. The focus in the current role is to ensure practical effective innovative HSE systems are incorporated in the Novo Resources way and providing opportunities to all staff to develop to be the best they can be. Notable previous experience being with Alcoa, Atlas Iron, Swick Mining Services were several legacies revolve around innovative employee owned processes incorporating the latest technology were introduced.

DR ALEX HELD

**DIRECTOR, CENTRE FOR EARTH
OBSERVATION** | CSIRO



Dr. Held is currently the Director of the Centre for Earth Observation of the CSIRO Astronomy and Space Science Business Unit. Alex is also serving as the co-lead of the "Landscapes Assessment" facility of Australia's "Terrestrial Ecosystem Research Network" – TERN, which provides free and open access to various satellite-derived products for ecosystem science and land management. Previously he served as Head of COSSA (the CSIRO Office of Space Science and Applications) from 2004 - December 2007, representing Australia at several space-related international committees, and served as a member of the National Committee for Space Science of the Australian Academy of Science. He was part of the team which held the 2016 Chair of the international Committee on Earth Observation Satellites – CEOS. He is a plant physiologist from the University of California, Davis, and has been linking remote sensing and vegetation mapping at CSIRO since arriving in Australia 26 years ago.

MR PETER KARIDIS

EXECUTIVE | KARIDIS CORPORATION LTD
MANAGING DIRECTOR | PALAMIR
GEOSPACIAL

IMAGE NOT
AVAILABLE

Peter Karidis' extensive 30 year background in the Urban Development landscape, together with a parallel background in IT from a Lic Telecommunications Carrier, to the first 3G testbed in the Southern Hemisphere, to real-time Medical IoT and urban Big Data. The urban experience has led to a unique understanding of client, developer, supplier and systems integrator experience. Merging the analog and digital worlds in the field of Geospatial Big Data covering areas such as machine learning, IoT, image recognition and analytics. We do this for government, defence, healthcare, finance and enterprise customers. Working with organisations to build geospatial systems and analytics that provide real outcomes such as smartBIM™ to smartPLANNING™ which can bring your building, precinct or city to life.

MR LARRY KEELEY

CO-FOUNDER & PRESIDENT
| DOBLIN INC. - A DELOITTE BUSINESS



Larry Keeley is a strategist who has worked for over three decades to develop effective innovation methods, based in science and analytics. Larry co-founded Doblin Inc, an innovation strategy firm known for pioneering comprehensive innovation systems that materially improve innovation success rates and return on investment. Doblin is now a unit of Deloitte Digital, where Keeley serves as a Managing Director.

Since 1979 Keeley has worked with many top global companies on innovation effectiveness. He has shaped innovation strategies in the philanthropic sector working closely with Gates Foundation, Rockefeller Foundation, MacArthur Foundation and others, plus governments around the world.

Bloomberg Businessweek named Keeley one of seven Innovation Gurus that are changing the field, and specifically cited Doblin for having many of the most sophisticated tools for delivering innovation effectiveness. They also separately selected Keeley as one of the 27 most influential designers in the world.

Keeley teaches graduate innovation strategy classes at the Institute of Design in Chicago, where he is also a board member. He lectures in executive education programs at Kellogg Graduate School of Management and is an

adjunct faculty member for their core MBA and their Masters of Manufacturing Management programs where he was recently named a Distinguished Fellow. He also lectures at many other business schools worldwide. Collectively, Keeley has helped educate more than 5,300 Masters or PhD level innovation specialists worldwide. In 2017, Keeley was selected as one of Deloitte's Creative Tigers, used to deepen and shape the firm's edgiest IP and client relationships.

DR GRAEME KERNICH

CEO | FRONTIERSI



Graeme is CEO for FrontierSI, a not-for profit research organisation which exists to deliver major benefits to governments, industry and the community using its deep skills in spatial mapping, infrastructure, analytics, geodesy and standards. He previously served as Deputy CEO and CEO for the Cooperative Research Centre for Spatial Information, where he was responsible for CRCSI operations, including finance, compliance, legal, corporate governance, business development and commercialization. His prior experience includes technology transfer, including negotiation of commercial agreements, commercial and route-to-market strategies, intellectual property management, licencing and project planning. In his current and previous roles Dr Kernich has facilitated the creation and development of companies in a range of sectors including IT, biotechnology, mining, agriculture and energy. Graeme has formal qualifications in Business Administration, Governance and Leadership, and a PhD in Agricultural Science.

MR ROLAND KLAMT

GEOSPATIAL SPECIALIST

| HEXAGON GEOSPATIAL



Roland Klamt has worked in the Geospatial industry for over 35 years and brings a wealth of knowledge in Photogrammetry, GIS and Remote Sensing solutions. He has held a number of different roles supporting major projects in Defence, Public Safety and Government. His interests in the geospatial field also include the automation of remote sensing techniques for feature extraction and has recently been involved in the advancements of Machine Learning.

PROF ANDY KORONIOS

DEAN: INDUSTRY AND ENTERPRISE

| UNIVERSITY OF SOUTH AUSTRALIA



Professor Andy Koronios is the Dean: Industry & Enterprise at the University of South Australia. He previously spent 15 years as the Head of the School of IT & Mathematical Sciences, at UniSA. Andy holds academic qualifications in Electrical Engineering, Computing and Education and a PhD from the University of Queensland.

Andy has extensive experience in commercial and academic environments and his research interests include information quality, management & governance, analytics and the strategic exploitation of information. During his 25 years in the academic environment, Andy has established two University Research Labs and a funded Research Centre and was the Research Program Leader for System Integration & Interoperability in the CIEAM CRC. He has worked as a consultant as well as a professional speaker on IT issues in Australia and South East Asia. He is a Fellow of the Australian Computer Society, a Founding Fellow of the International Institute of Engineering Asset Management and Editor-In-Chief of the International Journal of Information Quality.

Andy is currently leading a bid to establish a space industry-focused Cooperative Research Centre aimed at catapulting Australia into the global space industry through collaborative research and development with support from 70 participants from industry, government and academia.

HON STEVEN MARSHALL MP

PREMIER OF SOUTH AUSTRALIA

| GOVERNMENT OF SOUTH AUSTRALIA



Steven Marshall is South Australia's 46th Premier.

He was elected to the South Australian Parliament as the Member for Norwood in 2010, and was re-elected to the seat of Dunstan at the 2014 and 2018 elections.

In 2013, Mr Marshall became the Leader of the Liberal Party and the State Opposition.

He led the Party to victory on March 17, 2018.

Mr Marshall has responsibility for the portfolios of Defence and Space Industries, Aboriginal Affairs and Reconciliation, the Arts, Veterans' Affairs and Multicultural Affairs.

Prior to entering public life, Mr Marshall worked in the manufacturing industry, running his family's furniture manufacturing business Marshall Furniture from 1997.

Born and educated in Adelaide, South Australia, he graduated from the University of South Australia with a Bachelor of Business, and Durham University with an MBA.

Mr Marshall is a patron and ambassador of numerous sporting and community organisations.

He has lived in the Norwood area all of his adult life and is the father of two children - Charlie and Georgie.

MR JAMES MILLNER

**POSITIONING INFRASTRUCTURE
MANAGER** | POSITION PARTNERS



James Millner is the Positioning Infrastructure Manager with Position Partners Pty Ltd. Position Partners is one of Australia's largest private companies that focusses on positioning solutions for machine control, surveying, civil works and building activities.

James currently manages AllDayRTK a national CORS network. Previously James held senior positions with state and federal government agencies and in the private sector on large construction / mining and exploration projects. James' current interests include quality systems for precise intelligent positioning and the economic benefits of Multi-GNSS and National Positioning Infrastructure.

James has a BSurv. from UNSW, business degrees from Deakin Vic and masters research from Calgary in Canada. James is managing two SBAS demonstrator Projects for CRCSI and is closely involved with another two CRCSI Research projects for better ionospheric modelling and Japan's QZSS (PPP/NRTK).

MS JULIA MITCHELL

SBAS TEST-BED PROGRAM MANAGER
| FRONTIERS



Julia is a space nut, whose interest led her to study a combined Bachelor of Science (Physics) and Bachelor of Engineering (Aerospace) (Hons.). After working in the aviation industry for a few years, she moved overseas to study a Master of Science in Astronautics and Space Engineering at Cranfield University to learn more about space. Outside of work, Julia loves cooking, watching rocket launches with her dog (including the GovSat-1 satellite, which she worked on prior to this role) and pushing herself in Coaching Zone. Julia enjoys learning more about space and the downstream users through her role as the SBAS Test-bed Program Manager.

DR ANTHONY MURFETT

DEPUTY HEAD
| AUSTRALIAN SPACE AGENCY



Mr Anthony Murfett is the Deputy Head of the Australian Space Agency. Anthony reports to Dr Megan Clark AC and is responsible for performance of the organisation and has oversight of strategy, policy and operations.

Prior to this role, Anthony was the Minister Counsellor (Industry, Science and Education) at the Australian Embassy in Washington DC. Anthony's role was to develop and implement strategies to strengthen Australia's engagement with the industry and innovation, science, research and education systems in the US and Canada. Areas of focus include the space industry and policy, innovation ecosystems, the digital economy, and resources policy.

Previously, Anthony was the General Manager of the Growth Centres Branch within the Department of Industry, Innovation and Science. His key responsibility was advising the Australian Government on the policy, design and implementation of the Industry Growth Centres Initiative (a key program focused on lifting the competitiveness of growth sectors in Australia). Anthony has also been the General Manager of the Productivity and Competitiveness Branch and the Precincts and Coordination Branch.

In these roles he was responsible for advising the Australian Government on matters such as sectoral policy, IP policy and strategic industry policy. He has also been responsible for Australia's Cooperative Research Centres program, which is focused on supporting medium to long term industry-led research.

Anthony has also worked across a number of areas within the industry and innovation portfolios within the Australian Government. These include the Australian Research Council and IP Australia (Australian Patent Office).

Anthony is a member of the Australian Institute of Company Directors and has completed the Senior Executive Fellows Program at the Harvard Kennedy School of Government. He also has a background in biotechnology and immunology.

PROF SAEID NAHAVANDI

PRO VICE-CHANCELLOR
| DEAKIN UNIVERSITY



Saeid Nahavandi received his BSc (Hons), MSc and PhD in Control Engineering from Durham University, UK in 1985, 1986 and 1991 respectively.

Saeid joined Deakin University in 1998 and is an Alfred Deakin Professor, Pro Vice-Chancellor and the Director for the Institute for Intelligent Systems Research and Innovation at the same University.

Professor Nahavandi is a Fellow member of IET, IEAust and Senior Member of IEEE and has published over 800 refereed papers and been awarded several competitive grants over the past 30 years. He received the Research collaboration / initiatives award from Japan (2000) and Prince & Princess of Wales Science Award in 1994.

He won the title of Young Engineer of the Year Award in 1996 and holds six patents. In 2002 Professor Nahavandi served as a consultant to the Jet Propulsion Lab (NASA) during his visit to JPL Labs.

He has carried out industry based research with several major international companies such as Boeing, Bosch, Ford Motor Company, General Motors, General Dynamics, Holden, Lockheed Martin, Nissan, Thales and Vestas just to name a few.

Professor Nahavandi was General Co-Chair for IEEE SMC 2011. He also holds the position of Co-Editor-in-Chief for IEEE Systems Journal, Associate Editor: IEEE/ASME Mechatronics, Associate Editor: IEEE TRANSACTIONS ON SYSTEMS, MAN, AND CYBERNETICS: SYSTEMS, Associate Editor: IEEE SMC Magazine.

MR PETER NIKOLOFF

DIRECTOR | NOVA GROUP



Pete Nikoloff is an Executive Director and Co-founder of Nova Systems and Senior Weapons System Engineer. He obtained an Aeronautical Engineer degree from RMIT in 1986 and has 30 years' experience supporting and conducting test and evaluation of defence and space systems.

Prior to starting Nova, Pete worked as a Flight Test Engineer at the RAAF's Aircraft Research and Development Unit (ARDU) in the role of Senior F/A-18 Hornet Test Engineer. Pete served at ARDU for over ten years and has vast experience over a range of aircraft and associated systems including extensive experience with the Woomera Test Range. Pete's F/A-18 experience includes calibration and flight loads collection for the F/A-18 IFOSTP Fatigue Test Program, Operational Flight Program Testing, ASRAAM Integration and Stores Clearance Testing (including Flutter and HERO testing), Flight Test Instrumentation Upgrades (Aircraft and ground systems).

Pete's T&E experience has been diverse, including F/A-18, C-130J, Seahawk, Air Warfare Destroyer, JAXA Experimental Supersonic Transport, Woomera Range Control System Upgrade, ASRAAM and C-Band Space Surveillance Radar.

Pete actively supports the aerospace sector:

- Director, Space Industry Association of Australia (SIAA)
- South Australian Government Space Advisory Council Member
- Industry member of the SmartSat CRC Bid executive
- President – Southern Cross Chapter International Test and Evaluation Association (ITEA)
- Board of Directors - International Test and Evaluation Association (ITEA)
- Member – Royal Aeronautical Society
- Member – Flight Test Society of Australia
- Member - Mars Society of Australia (MSA)
- Fellow/EngExec Engineers Australia

MR KEVIN PETERSEN

**BUSINESS DEVELOPMENT & INNOVATION
MANAGER** | HMR DRILLING SERVICES



Kevin has recently been appointed to the role of Business Development & Innovation Manager at HMR, where Kevin leads the advancement of equipment and work practices through the utilisation of technology.

Kevin has a 15 year career within the mining and drilling industries, during which time he has filled a variety of operational and management roles within Australia and overseas.

MR RUSS POTAPINSKI

**HEAD OF INTELLIGENT AND AUTONOMOUS
SYSTEMS** | WOODSIDE ENERGY



Russ is the General Manager and Head of Intelligent and Autonomous Systems for Woodside Energy, responsible for leading the vision and implementation of these new technologies throughout the business.

Russ has more than 20 years' industry experience. He joined Woodside in 1998 and has held a variety of roles in areas including engineering, mergers and acquisitions, corporate strategy, business unit leadership, artificial intelligence and robotics.

MR RICHARD PRICE

CHIEF EXECUTIVE | SOUTH AUSTRALIAN
SPACE INDUSTRY CENTRE AND DEFENCE SA



Richard Price was appointed Defence SA Chief Executive in October 2017. In this role, he was simultaneously appointed to the position of Chief Executive of the South Australian Space Industry Centre (SASIC).

Richard has worked within the defence and public safety sectors for over 25 years and has international industry experience in leadership, business development and engineering.

Prior to joining Defence SA and SASIC, Richard led a Stockholm based business unit for Saab AB with operations in Sweden, Denmark, Australia, South Africa and the UK. The focus was the global market for communication and control room solutions.

Before moving to Sweden in 2013, Richard was Managing Director of Saab's Australian operations which have a strong presence in South Australia supplying and sustaining combat system, training and civil security solutions.

Richard is an engineering graduate of the University of Wales (BSc Hons, 1985) and a graduate of the Melbourne Business School Advanced Management Program (2006) and the Australian Institute of Company Directors (2010).

MR GARY RAKE

PARTNER, SPACE INDUSTRY LEADER
| DELOITTE



Gary is one of Deloitte's leaders supporting development of the Australian space industry. With more than 25 years' experience in the private and public sectors, he has served as CFO, COO and CEO of agencies in the Commonwealth and ACT Governments.

Gary has a proven track record at the most senior levels and has led organisations in an array of responsibility areas including planning and development, environment, arts, economic development, sport, major venues and events, justice, community services and commercial forestry.

As Deputy Director-General of the ACT Chief Minister and Treasury Directorate, Gary oversaw development of the 2014 ACT Business Development Strategy – which identified space as one of the ACT's key opportunities for the future. More recently, Gary has been working with other Australian jurisdictions and organisations to develop their own strategies for participating in the growth of Australia's space industry.

MR TOM RAYNER

DIRECTOR | MYRIOTA



Tom Rayner is Business Development Executive at satellite IoT company Myriota, and is responsible for global sales, marketing and business development.

Tom was the first non-technical appointment at Myriota and joined the company 8 weeks after incorporation. Tom grew up as a fifth-generation wheat/sheep farmer in South Australia's mid-north and left the family farm in his mid 20's after completing university studies in commerce.

Tom has extensive sales, marketing and general management experience in corporate agribusiness having filled various roles at Elders over an eight-year period. In the two years prior to joining Myriota, Tom looked after the membership, ticketing, merchandise, and brand and marketing functions at the Adelaide Crows AFL Club, as General Manager, Consumer Business.

MS KAREN ROSS

GENERAL MANAGER INNOVATION,
DIGITAL AND BRAND | ELDERS



Karen Ross is currently General Manager Innovation, Digital and Brand at Elders Ltd, a 179 year old agribusiness company headquartered in Adelaide, Australia with both a national and international footprint.

Karen's role encompasses a broad range of corporate business units including Marketing, Communications and Digital along with the operational Technical Services team. The main focus of this role is to bring innovation to a well-established business in the agricultural sector which is undergoing rapid change in many aspects including automation and changing markets. Karen is responsible for the delivery of digital products such as Elders SmartFarmer and two new business units - Thomas Elder Consulting, a premium fee for service agricultural advice offering and the Thomas Elder Institute which is the vehicle through which Elders collaborates with third parties like universities, industry bodies and suppliers to further the research, development and extension of Australian Agriculture.

Previously Karen has held positions in Financial Services, Airlines and Utilities as well as leading the integration of another agribusiness following an international merger. Her experience ranges from running large operational business units as well as corporate services.

MR NICOLA SASANELLI AM

DIRECTOR | SOUTH AUSTRALIAN
SPACE INDUSTRY CENTRE



Nicola Sasanelli graduated from the University of Bari, Italy in 1987 with a degree in Electronics Engineering. He went on to work as a researcher in high-reliability microelectronic components for space and military applications at Tecnopolis S&T Park, Bari before being appointed as Scientific Attaché at the Embassy of Italy in Canberra from 2001 to 2008. In 2009, he joined the South Australian Government as a Special Envoy for higher education research and technology transfer to Europe with the Department of Premier and Cabinet and later as Director for Greater Europe and R&D Collaborations. He went on to work with the Department of State Development as Director for International R&D Collaborations. From 2003 to 2013 he was appointed as Adjunct Professor of Science and Technology at the University of Canberra, Australia and in 2007 he became an Honorary Member of the Order of Australia.

Nicola was appointed Director of the South Australian Space Industry Centre (SASIC) when it was established in 2017. The focus of his role is to support space industry growth and increase international research and development (R&D) collaborations in South Australia's space sector.

During the last 3 years Nicola was instrumental in developing a vibrant South Australian Space ecosystem which includes initiatives such as:

- Designing the first state government space strategy in Australia
- Being the driving force in the biannual South Australian Space Forum and the South Australian Space Capability Directory
- Designing the SA Space Innovation Fund (SIF) which is comprised of three distinct programs to support entrepreneurs and start-up founders.
- Supporting and promoting the national bid for the SmartSat CRC R&D space program.

Nicola was a member of SIAA Advisor Council 2016-18 and he would like to build on that contribution through Board membership to help grow the space ecosystem in Australia.

MR SEAN STARLING

**GENERAL MANAGER – MDC, RESEARCH,
DEVELOPMENT AND INNOVATION**
| MEAT AND LIVESTOCK ASSOCIATION



Sean Starling is General Manager – MDC, Research, Development and Innovation. A member of Meat & Livestock Australia's executive team, Sean is responsible for MLA's \$170 million annual R&D investment across the Australian red meat industry value chain.

Sean has worked in a range of organisations and positions from factory engineer to general manager in manufacturing, R&D and engineering organisations, underpins Sean's ability to work with business and scientific thinkers to facilitate delivery of their concepts into commercial reality.

In addition to ensuring no good opportunity is wasted, Sean has a passion of supporting young people to strive and deliver in an ever changing and complex environment.

MR JIM WHALLEY

CHAIRMAN AND EXECUTIVE DIRECTOR
| NOVA GROUP LTD
**CHIEF ENTREPRENEUR OF SOUTH
AUSTRALIA**



Jim Whalley is Chair and co-founder of the Nova Group and a former RAAF fighter pilot and test pilot. He is a graduate of the Royal Air Force, Empire Test Pilots' School, holds an MBA from the University of Adelaide and a Science Degree (Physics) from UNSW.

Since starting in 2000, Nova has grown to over 600 people throughout Australia, New Zealand, Singapore, Norway and the UK and is one of Australia's largest privately owned Defence Professional Service Providers. Its customer base has also expanded outside defence to include space, satellite communications, utilities, mining and rail.

Jim is a director of the Adelaide Festival, AMCHAM and Australian Naval Infrastructure. He is a member of the Sir Ross & Keith Smith Fund Advisory Committee, the Defence Innovation Steering Group and the Council of UniSA.

In September 2018 he was appointed Chief Entrepreneur for South Australia to provide advice to Government on entrepreneurship policy as Chair of the Entrepreneurship Advisory Board.

He retains a strong interest in aviation and flies, flight tests and displays a range of aeroplanes and helicopters in his spare time. He is married to Melinda and has six children.

DR DAVE WILLIAMS

**EXECUTIVE DIRECTOR - DIGITAL,
NATIONAL FACILITIES AND
COLLECTIONS** | CSIRO



Dr David Williams, Executive Director: Digital, National Facilities and Collections, is building the world's leading data-focused research, development and digital capability, and leading CSIRO's research in astronomy, National Research Collections, the Australian Animal Health laboratory, the National Marine Research Vessel and Information Management and Technology services. Prior to his CSIRO role, Dr Williams was the Chief Executive of the United Kingdom Space Agency. From June 2010 he was also the Chairman of the 20 nation European Space Agency from June 2012. David holds a BSc degree and a PhD from the University of Reading. He has previously worked at the University of Reading, in industry, the Natural Environment Research Council, the British National Space Centre and the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT). David has been a Member of the Global Climate Observing Committee, was elected a Member of the International Academy for Astronautics in 2012, and is now a non-executive director of AARNET.

MR PETER WOODGATE

CHAIR | SMARTSAT CRC



Peter is: Chair of the SmartSat bid that is seeking to create a Space Cooperative Research Centre; Co-Chair of Australia's Space Cross-sectoral Interest Group, undertaking an assessment of Australia's space risk for Australia's Critical Infrastructure Advisory Council; Chair of the Australian Urban Research Infrastructure Network; Co-Chair of the 2026 Spatial Industries Transformation and Growth Agenda; Board member of the Public Sector Mapping Agency; and member of the Council of Charles Sturt University. He has managed an industry cluster of over 100 companies translating applied research into commercial outcomes.

EXHIBITOR PROFILES



AVALON 2019

AIRSHOW.COM.AU

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T 0417 011 982



The biennial Australian International Airshow and Aerospace & Defence Exposition, is set for Avalon Airport in Victoria (26 February – 3 March 2019), provides a quality showcase for the world's leading innovators in aerospace and defence.

Avalon is a key interface for decision makers from government, military and industry, bringing the world to Australia and taking Australia to the world.

In 2017 664 companies displayed from 25 countries, with more than 33,000 accredited trade visitors and 158 Australian and international delegations, including military, industry, government and scientific personnel.

A program of 44 conferences and symposia covered a variety of commercial and civil aviation, defence and scientific interests.

Avalon is at the forefront of technology development and has often been the venue for the first public showing of new ADF assets and growing market sectors, such as the F-35 Strike Fighter and the specialised DroneZone RPAS precinct in 2017.

Avalon 2019 will be a timely opportunity for Australia's burgeoning space industry to gain exposure and awareness with potential prime contractors, partners and suppliers.

INNOVATION & COLLABORATION CENTRE

ICC.UNISA.EDU.AU

Contact: Julia Collins
E Julia.collins@unisa.edu.au
T 0488 079 708



**University of
South Australia**

**VENTURE CATALYST
SPACE**

Established in 2015, the ICC is a strategic partnership between the State Government, UniSA and DXC Technology to support incubation and business growth. The ICC supports entrepreneur and early start companies through the provision of services such as hackathons and to help build Adelaide's entrepreneur community. The ICC also runs structured programs such as Venture Catalyst Space where startup companies can apply to access a six month program including workshop learning with business mentors and expert technical advisors. The ICC also act as an incubator for early stage ideas and startups, providing coworking spaces, access to mentors and business services as well as community of likeminded people where experiences and learning can be shared.

INTERNATIONAL AEROSPACE LAW & POLICY GROUP (IALPG - AUSTRALIA'S AIR & SPACE LAWYERS)

IALPG.COM

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T 0410 192 090



International Aerospace Law & Policy Group

Australia's Air & Space Lawyers
IALPG.COM

IALPG, otherwise known as Australia's Air & Space Lawyers, was founded in 2015 by Joseph Wheeler, who is an alumnus of the McGill University Institute of Air and Space Law in Montreal. Joseph is an expert in and practices in the field of law predominantly for pilots, remote pilots, industry, and air passengers. Duncan Blake is Special Counsel to IALPG, and a McGill alumnus. He spent 22 years serving in the Royal Australian Air Force as a legal officer in postings at tactical, operational and strategic level in Australia and deployed abroad, before transferring to the Reserves and joining IALPG. He is a leading global expert on the law of outer space in a military and strategic context. His experience spans legal support to military operations in all domains (land, sea, cyber, electronic and air, as well as space). IALPG is Brisbane based but advises in Australia and internationally.

LOT FOURTEEN

RENEWALSA.SA.GOV.AU/PROJECTS/
LOT-FOURTEEN/

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Project Director, Lot Fourteen
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T 0421 863 580

**LOT
Fourteen**
North Terrace Adelaide

At Lot Fourteen we are creating an innovation neighbourhood bringing together talented start-ups, research and innovation across defence and space, artificial intelligence, machine learning and robotics, cyber security, blockchain and the immersive media technologies.

Our innovation neighbourhood is being designed and curated to provide value for all participants – from students, teachers and researchers to new graduates, the freshest entrepreneurs and most seasoned business leaders.

A neighbourhood where ideas and innovation are nurtured, research and innovation are nurtured, research and business together and all of the tools are at your fingertips.

NOVA SYSTEMS

NOVASYSTEMS.COM

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T 08 8252 7100



Nova Systems

Nova Systems is an Australian owned and operated Global Professional Service Provider, specialising in the provision of technology enabling solutions and world class expertise to deliver complex capabilities and systems and solve technologically challenging problems.

Nova Systems has a strategic interest in solving problems of national interest through enabling satellite communications,

next generation ground stations and space situational technologies.

Nova Systems has specific focus on supporting the following areas:

- Future satellite communications, through the development of a combined commercial, research and development, and training and simulation ground station;
- Tackling the predictive and interpretation aspects of space situational awareness for the nation's space-based infrastructure, while also improving the user-data interface;
- Specialist training and support to Australian industry and government in negotiating the certification and regulation of space systems;
- Provision of capability assurance services to enable Australasian space launch; and
- Student internships to support the development of Australia's future space engineers.

SPACE INDUSTRY ASSOCIATION OF AUSTRALIA

SPACEINDUSTRY.COM.AU

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T 0488 105 775



The Space Industry Association of Australia is a national organisation formed to promote the growth of the Australian space industry. We speak with authority and credibility on behalf of our members on policy and commercial issues connected with the Australian space industry.

The SIAA has a leading role in advising government on behalf of the space industry. With the establishment of the Australian Space Agency there has never been a more crucial need to have a strong national voice for the space industry.

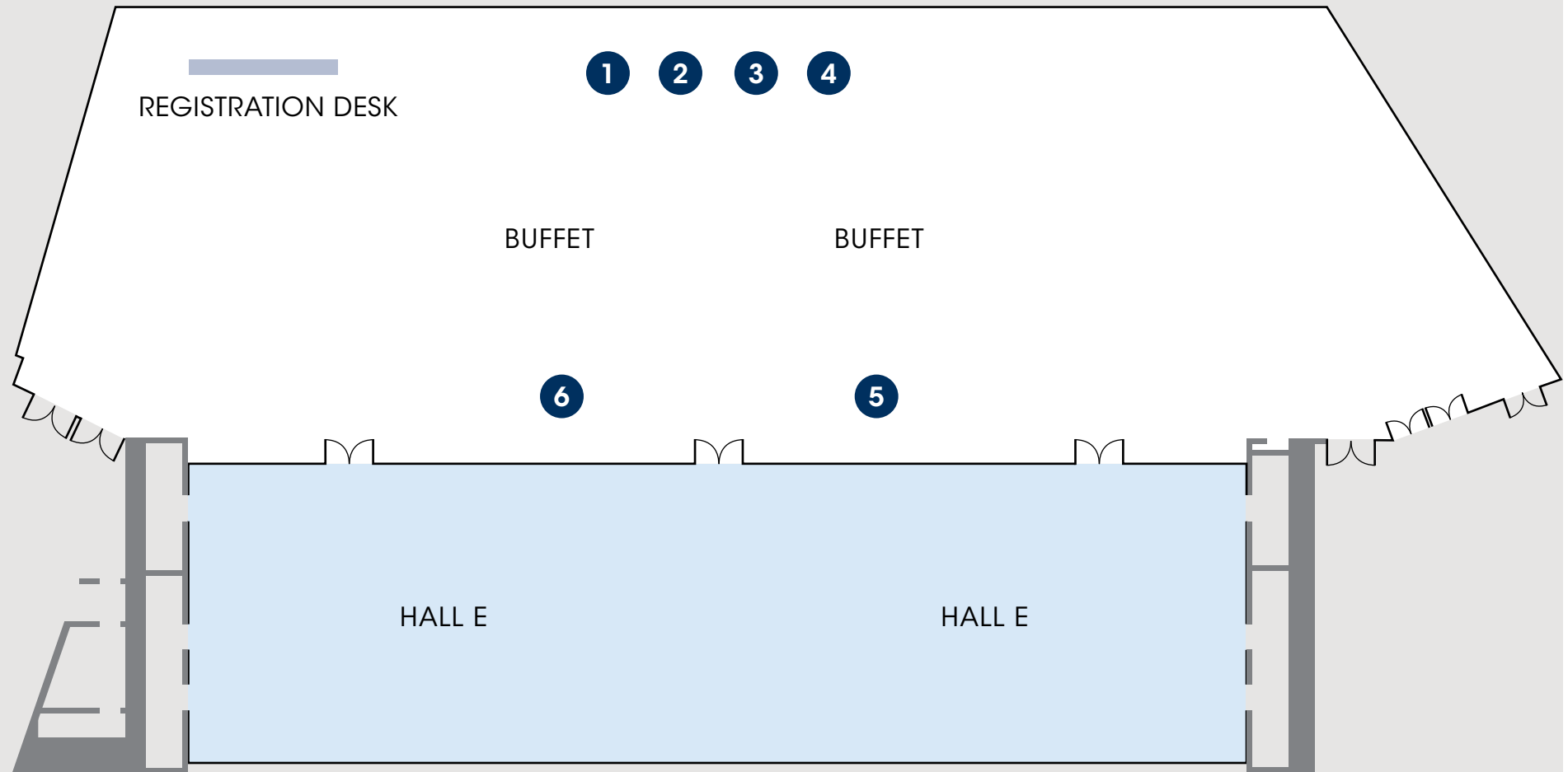
- We provide avenues for networking and collaboration amongst our members, with meetings and events across Australia, engaging with our members to devise and communicate policies that support the development of the Australian space industry.
- We actively promote and facilitate commercial, industrial and research opportunities for our members nationally and internationally.
- We advocate on behalf of the industry, harnessing the skills and expertise of our membership

FLOOR PLAN

ADELAIDE CONVENTION CENTRE
HALL E, GROUND FLOOR, EAST BUILDING

EXHIBITOR STANDS

- | | | | |
|---|---|---|--------------------------------------|
| 1 | SPACE INDUSTRY ASSOCIATION
OF AUSTRALIA | 4 | INNOVATION & COLLABORATION
CENTRE |
| 2 | INTERNATIONAL AEROSPACE
LAW & POLICY GROUP | 5 | NOVA SYSTEMS |
| 3 | LOT FOURTEEN | 6 | AEROSPACE AUSTRALIA LIMITED |



NOTES

If you would like to contact the South Australian Space Industry Centre for information about this Forum or for any other enquiries please contact us via:

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