



Executive forum

Spatial Information and Digital Agriculture

1:30pm – 6:00pm
Thursday, 7 November 2019

Collins Room
RACV/RACT Hobart Apartment Hotel
154-156 Collins Street
Hobart, Tasmania

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Message from the organisers

Modern agriculture is characterised by location knowledge. Ubiquitous deployment of spatial technology in everyday devices has revolutionised farming habits. From Precise Positioning to multi sensor deployments on drones and ground stations, spatial information now underpins successful agricultural enterprises.

Rapid technological advances have seen an explosion of readily accessible information at our fingertips. Geospatial analysis and visualisation tools are embedded into systems designed to help us make better decisions in our everyday lives, and these developments have also permeated the agricultural sector.

The Tasmanian Government has committed to the ongoing growth of Tasmanian agriculture, and this will only be achieved if the efficiencies and modernisation provided for by 'Digital Agriculture' can be realised.

An important plank of the investment strategy is connecting industry, research, government and education. Spatial information as disseminated through 'Digital Agriculture' is a means by which all these sectors can interact, and provide a whole of life, or supply chain lineage for agricultural products. Tasmania is a valued producer and supplier of such products around the world, and with overseas markets demanding ever increasing knowledge about product progeny, spatial information is the key.

What does this mean for the Tasmanian agricultural sector?

This forum is designed to unpack aspects of the value that can be derived from spatial information, particularly as it relates to improvements in farm efficiency and productivity. Our speakers cover a spectrum of fields, from economic consultants, to enterprise experts and technology providers. It will highlight emerging trends in 'Digital Agriculture', with a focus on the commercial value from appropriate investment.

Proudly brought to you by the Tasmanian Spatial Information Council (TASSIC), this *Executive Forum* provides a compelling case for

Spatial Information in Digital Agriculture

About TASSIC

*The independently-chaired Tasmanian Spatial Information Council (TASSIC) reports to the Minister for Primary Industries and Water and comprises representatives from the spatial industry, profession, academia and all tiers of government. A key role of TASSIC is to facilitate broader access and application of spatial information across sectors and industries, to underpin the social, environmental and economic prosperity of Tasmania. TASSIC is supported by **Land Tasmania**, a division of the Department of Primary Industries, Parks, Water and Environment.*

Program

1:30-1:50pm **Registration**

1:50-2:00pm **Welcome and introductions**

Mr Alan Smart

Chair Tasmanian Spatial Information Council (TASSIC)

2:00-2:10pm **Official opening**

The Hon Guy Barnett MP

Minister for Primary Industries and Water

2:10-2:40pm **Economic significance of digital agriculture**

Dr Alexandra Lobb

ACIL Allen Consulting

2:40-3:00pm **Digital Vegetables – a case study of data informed production and supply**

John McPhee

Tasmanian Institute of Agriculture

3:00--3:25pm **Afternoon Tea**

3:25-3:50pm **Drones and digital agriculture – demonstrating economic returns**

Will Bignell

Thorpe Farm

3:50-4:15pm **Application of GIS to Viticulture**

David Trengove

Esri Australia

4:15-4:55pm **Open forum**

Terry Brient (Convenor)

Tasmanian Agricultural Productivity Group

4:55-5:00pm **Closing**

Alan Smart

5:00-6:00pm **Networking session**

Presenters



Hon Minister Guy Barnett MP
Minister for Primary Industries and Water

Born and raised on a farm in northern Tasmania, Guy Barnett studied law (LLB, LLM) and worked in Melbourne and Washington, D.C. before he established and managed his award-winning government and public affairs business. After almost a decade representing Tasmania in the Senate, Guy was elected to the Tasmanian State Parliament in 2014. He was appointed to Cabinet in 2016 as Minister for Resources and Minister for Building and Construction. In 2017 he was also appointed the Minister for Energy. In 2018 Guy became Minister for Primary Industries and Water and Minister for Veterans Affairs and in 2019 was again appointed as Minister for Resources.

Guy has enthusiastically advocated for Tasmania as the renewable energy powerhouse of the nation.

Guy is an author of several books including, 'Our Heroes, Tasmania's Victoria Cross Recipients' and 'Make a difference – a practicable guide to lobbying'. Guy is married with 3 children and is a sports enthusiast with a keen interest in trout fishing.



Mr Alan Smart
Chair of TASSIC

Alan Smart is the Chair of TASSIC. He is an engineer and economist who has undertaken assessments of the value of spatial information commencing with the first comprehensive review of the value of spatial information to the Australian economy in 2008 and subsequently the value of spatial information to the Tasmanian economy in 2012. He continued this work in New Zealand, the UK, Malaysia and Canada. Most recently he undertook research into the size of the space industry in Australia which revealed the importance of the spatial industry to applications of space sourced data in Australia.



Dr Alexandra Lobb
Principal, ACIL Allen Consulting

Alexandra is a Principal at ACIL Allen Consulting where she has been working in agribusiness and the space and spatial sector for the last few years. Alexandra is an agricultural economist with over twenty years' experience. Recent projects include 'Growing Australian Agriculture to \$100 billion' for Agri Futures Australia and valuing livestock behaviour monitoring technology for Meat & Livestock Australia with Central Queensland University. Prior to consulting Alexandra worked in various roles for the NSW public sector and was previously a lecturer in agricultural and food economics at the University of Reading in the UK.

Abstract of presentation

Digital agriculture and spatially enabled technologies have a key role to play in realising productivity gains or reducing costs on farm and for the broader agricultural industry. In fact, technology, or more correctly, the adoption of technology, is seen as one of the key ways to help Australia reach the target of a \$100 billion industry by 2030. However, a key question remains - why are farmers not adopting as much new technology as they can?

Way back in the 1960s, Everett Rogers (1962) developed a theory about the diffusion of innovation to try and explain what, why and how the rate of spread of new ideas and technology works in a social system. Rogers suggested that the pathway to adoption is based on knowledge, persuasion, decision, implementation and confirmation. Perhaps there is something lacking with the communication of knowledge and persuasion? Articulating the economic benefits of digital agriculture and the value that it brings to the individual as well as the broader system may be one way to encourage the use of digital agriculture.



John McPhee
Farming Systems Researcher, Tasmanian Institute of Agriculture

John McPhee is an agricultural engineer with the Agricultural Systems Centre, Tasmanian Institute of Agriculture. He has a long-standing interest in controlled traffic farming as the basis for improved soil management in crop production, which has been the subject of a number of research grants and published papers during his career.

Before joining the University of Tasmania, John worked with the Queensland Department of Primary Industries in a number of research, development and extension positions in Toowoomba, Atherton and Ayr. He then worked with the Tasmanian Department of Primary Industries Water and Environment. His undergraduate and Masters studies were both undertaken through the University of Southern Queensland.



Will Bignell

Thorpe Farm

Will Bignell is a farmer and agricultural scientist who has worked across several disciplines ranging from a PhD in enhancing omega-3 in sheep meat, value adding to salmon waste and flying drones commercially. Will is a 7th generation farmer from Bothwell in Tasmania and the family farm is well known for pioneering and innovating a number of new and emerging Australian industries. He runs the 2300Ha farm with his parents and produce wool, poppies, lamb, venison and a number of boutique specialty root vegetables. Will is highly regarded for his skills at breaking down complex problems and bringing together people and resources to create simple, effective and economical solutions for his clients that work.

Abstract of presentation

Drones - The big buzz word in Ag but what are we doing with them, who is using them and is anyone making money with or from them? The marketing hype is slowly dying down and the uptake of precision ag tools is still quite low despite the hype. My presentation aims to empower farmers and businesses to take another look at UAV tech and how it can be applied to help make economical returns and demonstrate it using my own multimillion-dollar irrigation development which used a wide range of precision ag tools on a shoe string budget and challenging terrain.



David Trengove

Sales Principal – South Australia, Esri Australia

David Trengove guides a team of geospatial specialists developing ground-breaking, yet simple, solutions to complex and challenging problems.

Working closely with key decision-makers across government and the private sector, David and the team deliver tangible results, transform businesses and strengthen their operations through the application of geographic insight.

David holds university qualifications in surveying from the University of SA and GIS and remote sensing from the University of Adelaide. A background in asset management, has provided him with experience in integrating GIS technology with asset management systems, enabling evidence-based decision-making and asset lifecycle management.

Being South Australian, a focus for David is to progress GIS usage across agriculture.



Terry Brient

Executive Officer, Tasmanian Agricultural Productivity Group

Seminar registration

Cost: \$75.00 (GST incl)

To register and pay, please click [here](#)

All other queries can be directed to the TASSIC Secretariat:

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