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Type: **Session**

The Planet Research Data Commons - delivering trusted environmental data and information supply chains

Monday 13 October 2025 14:30 (1h 30m)

A Thematic Research Data Commons is a vehicle for the ARDC and our national partners to collaboratively develop and deliver sustainable digital research infrastructure on a national scale. It is enabling us to best meet the needs of our diverse national research communities in a strategic and comprehensive way.

The Planet Research Data Commons (Planet RDC) is delivering enduring digital research infrastructure in the earth and environmental sciences. The initiative is establishing strong research translation pathways between research, government and industry.

The release of the 2021 State of the Environment report documents an unprecedented rate of deterioration in the state of Australia's environment, and in 2020 an independent review of the Environment Protection and Biodiversity Conservation Act asserted that "better data and information are needed to set clear outcomes, effectively plan and invest in a way that delivers them, and to efficiently regulate development."

The national data landscape for earth and environmental sciences is rich, diverse and complex –spanning multiple sectors, jurisdictions and data modalities. There is a critical need for digital research infrastructure that can support integrated and seamless national-scale research. Environmental managers and policy makers need trusted data supply chains and tools that enable them to make data-driven decisions.

With the help of accessible data and digital research tools, researchers can tackle the big challenges for our planet, which include adapting to climate change, saving threatened species, and reversing ecosystem deterioration.

The Planet RDC delivers infrastructure in 4 focus areas:

1. Trusted Environmental Data and Information Supply Chains
2. Integrated FAIR Datasets and Services
3. Modelling, Analytics and Decision Support Infrastructure
4. Governance of Indigenous Data and Skills.

This session will focus on the Trusted Environmental Data and Information Supply Chains focus area, which is working closely with Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW), national research infrastructures, state agencies, industry partners, Traditional Owners, universities and NGOs to establish 'trusted data and information supply chains' for priority regional use cases.

The independent review of the Environment Protection and Biodiversity Conservation Act highlighted the need for an effective 'supply chain' of environmental information. As with more traditional supply chains, data collection, management and analysis activities can be carried out by different parties, and coordination is needed for an efficient chain that delivers the right products at the right time to the right customers.

A trusted environmental data and information supply chain requires an effective system of data-sharing agreements and information systems that can talk with each other, and reliable data and analytics products.

A series of **4 lightning talks** will include an overview of the program by Hamish Holewa, Director of the Planet Research Data Commons, and an explanation of the 3 exemplar projects by the project leads.

Two projects focus on shared data and analytics for environmental impact assessments and sustainable resource management in the Pilbara region and Cockburn Sound in Western Australia; and offshore renewable

energy developments in the Bass Strait between Victoria and Tasmania. A third project aims to meet the needs of Traditional Owners, researchers and government agencies in managing and restoring the diverse wetland ecosystems of Gayini, NSW.

Project leads will explain how the cross-sector partnerships have been formed between Industry, Government and Research partners in each of the three projects, with the aim of delivering enduring data infrastructure that meets regional needs. The projects are developing technical architectures and data policies to enable FAIR, trusted data and analytics, that will be reusable in other regional partnerships, accelerating the development of other FAIR data infrastructures. The talks will highlight how collaborations with industry are supported with secure data systems that allow sensitive data to be shared with researchers, and ultimately made FAIR. They will also discuss the dataspace model that is being piloted to streamline data sharing policies, agreements and data delivery.

After the lightning talks, attendees will have the opportunity to **ask questions of the panel of speakers**, and gain insights into lessons learned, and challenges overcome in the development and operation of the infrastructures.

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