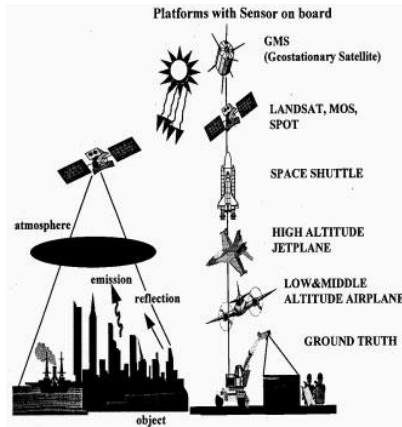


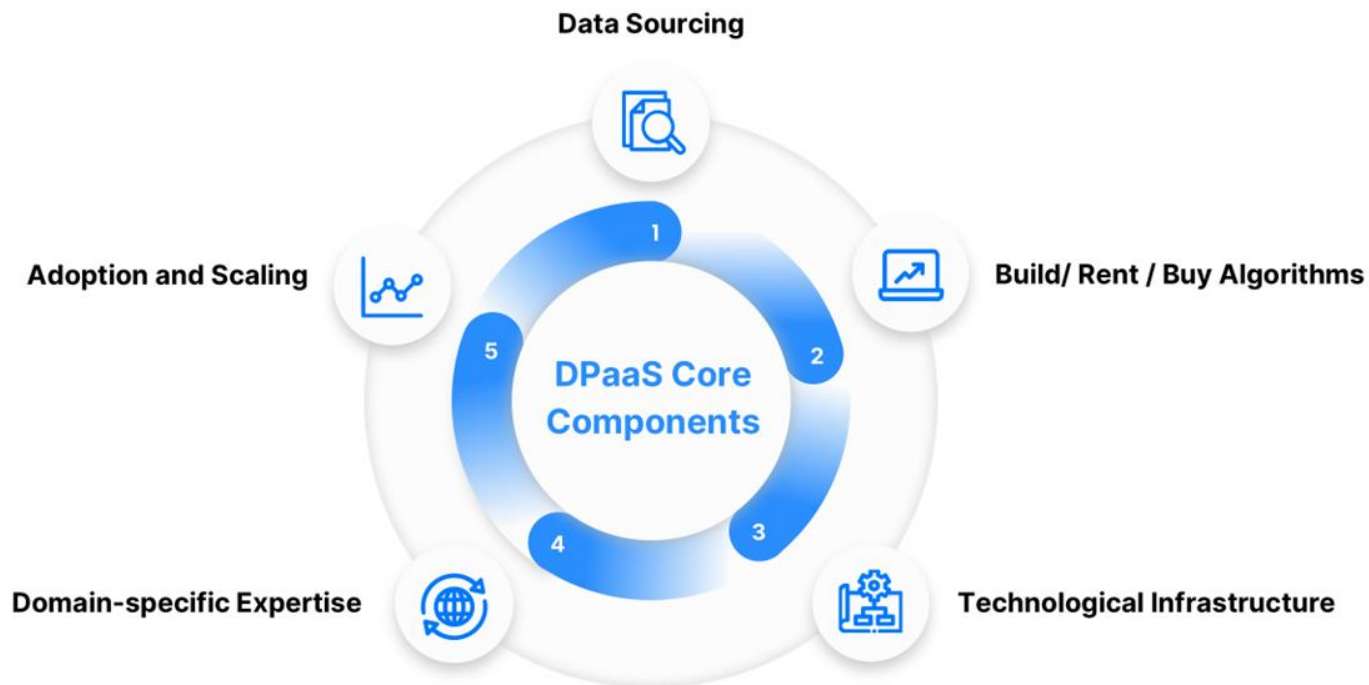
Case Studies in modernising research: The AusCalVal and Reef Adapt solutions





Eratos' **Data Platform-as-a-Service** helps organizations around the world to **modernize their data infrastructure** enabling **solutions at scale**

Data Platform-as-a-Service



powered by
eratos

Eratos - Our Digital Infrastructure Services



IoT DATA MANAGEMENT

IoT data management, querying and visualisation



DATA CONNECTION

Integration of diverse and distributed data sources including geospatial and IoT



GEOSPATIAL CORE

Prebuilt connectors for geospatial data such as weather and climate, utilising NetCDF, THREDDS, Xarray



DATA CATALOGUE

Advanced metadata catalogue supporting both private and public access and sharing



COLLABORATIVE DEVELOPMENT ENVIRONMENT

Standard coding environment pre-configured for developing data analytics using Eratos hosted data



WORKFLOW ORCHESTRATOR

Operationalise data analysis workflows within a scalable compute environment







PUBLISHING

Offer datasets, model and apps to collaborators or the broader user community



ERATOS CONSOLE

Discover Eratos services and manage your account

-  = Data management
-  = Data analysis and modelling
-  = Value, apps, publishing
-  = Service Management

Eratos Platform Services



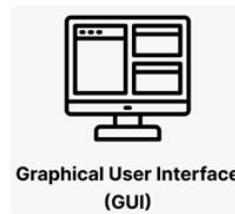
Eratos Platform Interfaces



Data Analysts

Data Scientists

Research Scientists



Business Analysts

Data Administrators

Non-technical Stakeholders



Developers

Data Engineers

Software Engineers



Application Programming Interface
(Any language)



To Inspire and Inform:

Reef Adapt

A tool for
diverse & climate-smart
marine restoration
& management



Built using R Shiny and powered by

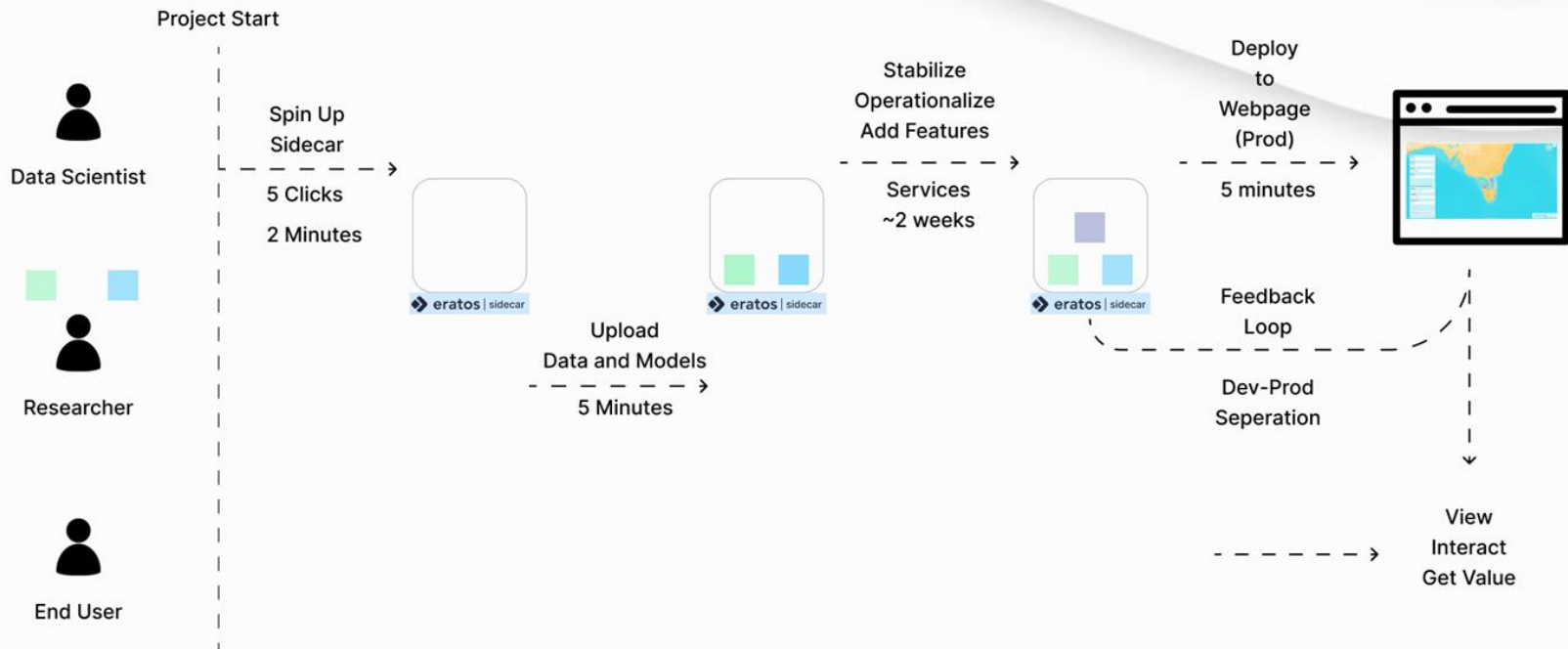
◀ **eratos** Sidecar



Eratos Platform Services: Reef Adapt



Reef Adapt: Platform User Experience



Eratos Value to Reef Adapt

- Solution is discoverable in the Eratos Marketplace
- Eratos' Out-of-the-box metering enables impact and value tracking
- Seamless experience deploying prototype from laptop into the cloud

Eratos x AusCalVal Data Hub

Challenges of the EO Community

- Hard to find and access validation and calibration datasets
- Satellite data is only as useful as its verifiable accuracy
- Large amounts of diverse datasets from many providers

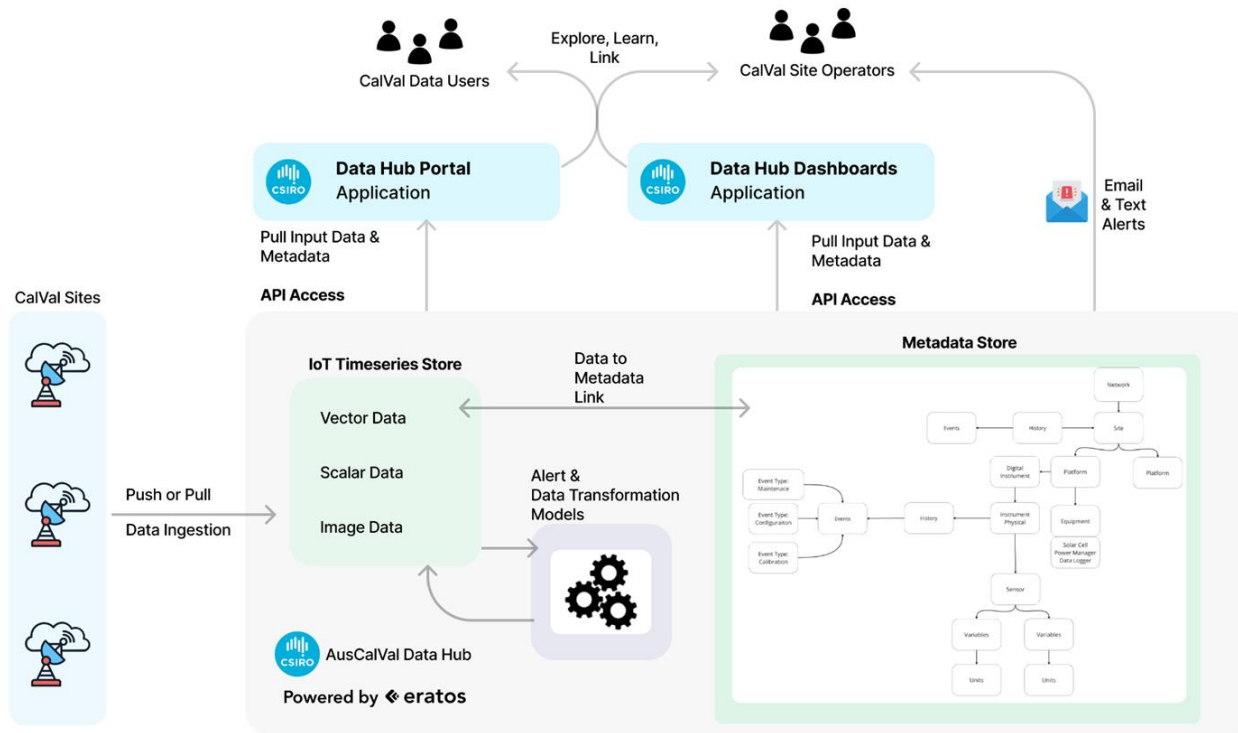
Goals of the Data Hub

- Supply side, make calval site operators and data provides life easier
- Demand side, make calibration and validation data FAIR
- Make Australia a global leader in EO CalVal capabilities

Eratos Platform Services: AusCaVal Data Hub



AusCalVal Data Hub Architecture



Data Hub Dashboard: Site Map

AusCalVal

Search or jump to...

Home > Dashboards > Operational Dashboard Prototype

Row title

AusCalVal Data Hub Overview

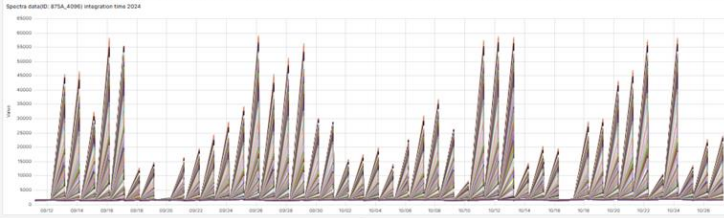
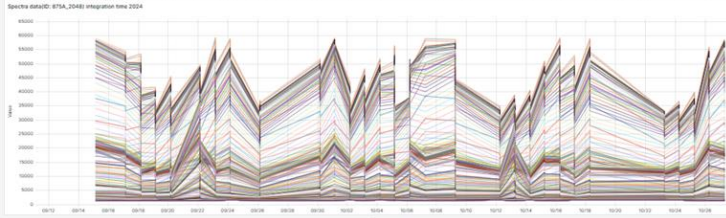
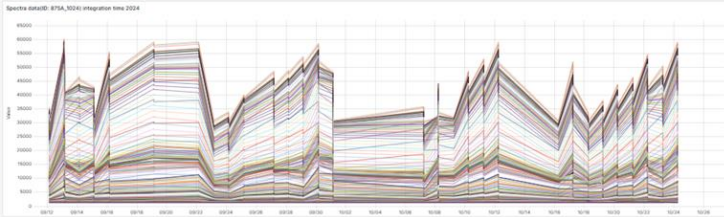
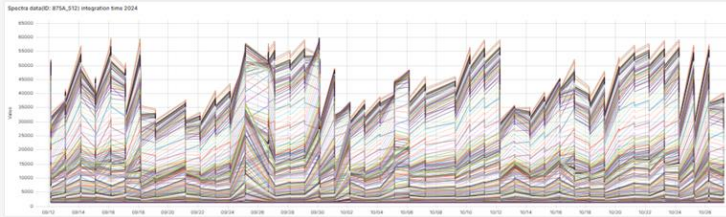
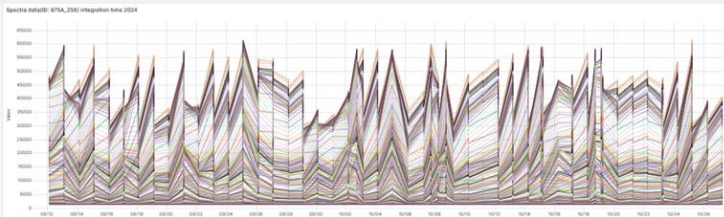
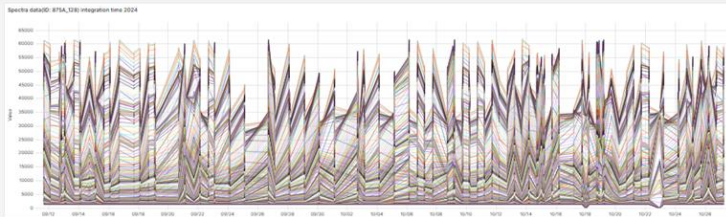
The AusCalVal Data Hub is a prototype developed to support satellite providers and product developers by establishing a detailed data ontology that enhances trust and quality assurance in the Earth observation sector. Focusing on calibration and validation (cal/val) sites like Googong, AeroSpan, and Pinnacles, the project enhances satellite data reliability through ground-truth observations. The iterative development process involves refining a high-level metadata structure based on site feedback and international standards, which helps in querying site-specific sensor data and assessing data quality and fitness for purpose. This dashboard provides a consolidated view of the project's progress and the structural framework of the data hub.

Please click on the Dashboard Link when you hover over the site locations on the map to access a site-specific dashboard.

AusCalVal Site Location Map

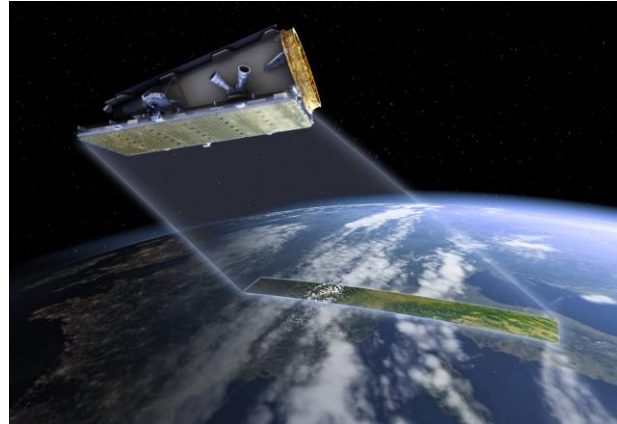
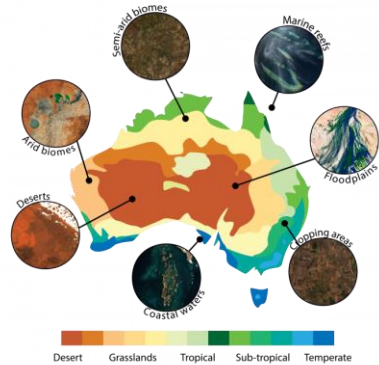
The map displays the continent of Australia with various geographical features and state/territory boundaries. Key locations marked with green dots include Perth in Western Australia, Adelaide in South Australia, and Canberra in New South Wales. Other labeled regions include the Great Sandy Desert, Gibson Desert, Great Victoria Desert, Simpson Desert, Northern Territory, Queensland, New South Wales, and Victoria. Major cities like Brisbane, Sydney, and Melbourne are also visible. The map includes a legend for 'Site Location Details' and a zoom control in the top left corner.

Data Hub Dashboard: Spectral Data Streams



Eratos Value to AusCaVal

- Eratos Data Infrastructure enabled 80% of the budget to be spent on scientific development of the solution, 20% on infrastructure
- Eratos' Out-of-the-box metering enables impact and value tracking
- Seamless integration and discoverability of metadata structure and data sources



Inspired to start modernising your research?



Reach out to Quinten to explore
how Eratos can help bring your
next research project to life

