

Copernicus Australasia Regional Data Hub shares free and open satellite data from Europe's most ambitious and multifaceted Copernicus Programme.

The Hub aims to support government information requirements; enhance access to Earth observation data by research, industry and civil society; and facilitate collaboration between Australia, New Zealand, Europe, South-East Asia and the South Pacific.

The Hub uses existing government research and digital infrastructure to move large volumes of satellite data across the globe cost-effectively and provides access to Sentinel imagery over our region in a timely fashion.

Sponsored by Australian and New Zealand government organisations, the Hub supports programs which are reliant on Earth observation satellite imagery, including: Geoscience Australia's Digital Earth Australia program; monitoring land management activities and providing landcover information in New South Wales and Queensland; Western Australia's LandMonitor and FireWatch programs and many CSIRO research programs. New Zealand has now joined the consortium, providing data access to NZ users via the Xerra Earth Observation Institute.

The Hub is looking to expand its user base to include industry, academia and non-government sectors across the region. If you are interested in using Earth observation data in your work or studies, or to learn more about the Hub and its activities please get in touch.

About the Sentinel satellites

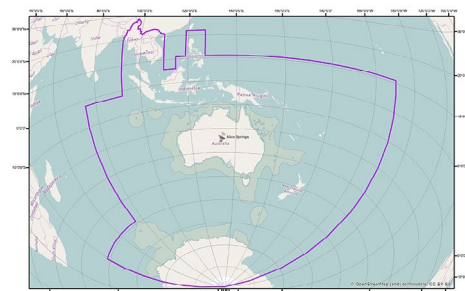
The Copernicus Programme will operate a constellation of six families of Sentinel satellites, and dozens of third-party satellites known as 'contributing space missions'. The Hub currently syncs and distributes imagery from:

- *Sentinel-1* provides all-weather, day and night radar imagery for land and water services
- *Sentinel-2* provides high-resolution optical imagery for land and water services
- *Sentinel-3* provides high-accuracy optical, radar and altimetry data for marine and land services
- Sentinel-5P will soon be available—a precursor to provide dedicated atmospheric composition monitoring.

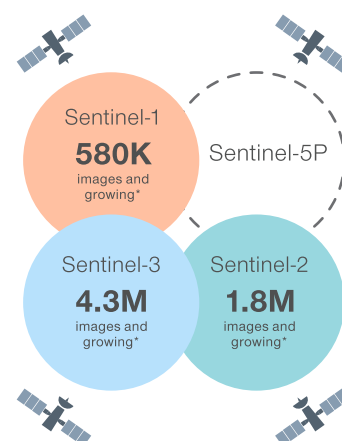
To-date the Hub has synced over 6.6 million images and has distributed over 7600 terabytes of data to users. These numbers continue to increase daily.

Accessing Data through the Hub

The Hub's data is accessed through the Sentinel Australasia Regional Access (SARA) portal that provides imagery over the region shown below.



Users can search by satellite/date range/location or through a client base query via an API to pull large quantities of data.



*as of October 2019

Applications of Sentinel data in our region

Copernicus Australasia Regional Data Hub is the trusted source for the supply of Sentinel data in Australasia, South-East Asia and South-East Pacific.

The Hub is committed to be a reliable source of Earth observation satellite imagery in the region that is open, transparent and offers good value and service to users. Globally, Sentinel imagery is used to address six thematic areas comprising atmosphere, marine environment, land, climate change, emergency management and security.

In the region, the Hub provides imagery to support a wide range of applications that continue to grow. Examples include:

- methodologies to monitor ground deformation and subsidence
- measuring natural water flows in river catchments
- monitoring water quality in both coastal and inland waters
- monitoring vegetation changes in support of legislative and regulatory requirements
- modelling land condition of catchments that drain into or could impact on sensitive natural assets such as Australia's Great Barrier Reef
- responding to and recovering from natural disasters
- monitoring, detecting and characterising land, water and infrastructure changes over time
- contributing to climate impact research and studies.

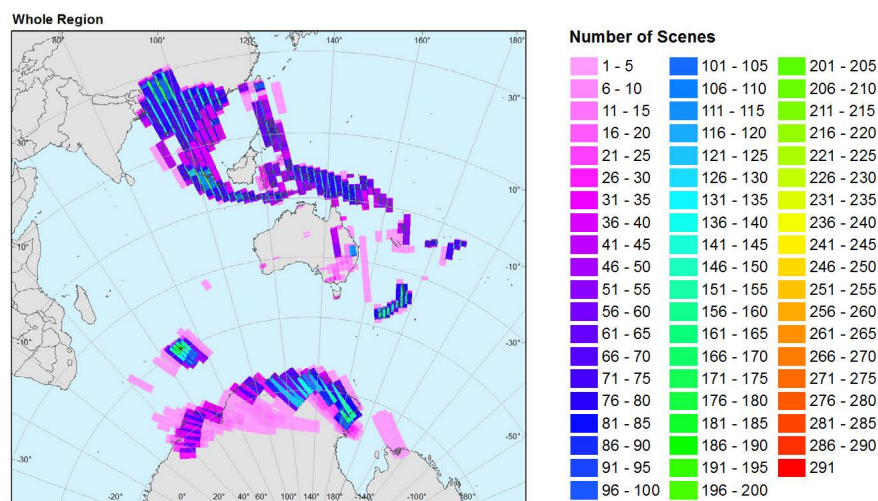
Having a dedicated Hub has influenced acquisition of a greater density and coverage of Sentinel imagery over our region. This will continue to grow with new missions coming on line and new applications demonstrating the extraction of crucial information from this rich source of free and open data.

Accessing image density

The Hub is syncing and distributing data over our region, and includes imagery acquired since the beginning of each Sentinel mission:

- *Sentinel 1*—2014 to present
- *Sentinel 2*—2015 to present
- *Sentinel 3*—2016 to present

This provides a rich density of data as seen below showing a select subset of *Sentinel-1* images that reside in the Hub.



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SUPPORTING PARTNERS



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The Hub is established under a series of partnership agreements including Consortium partners that manage and operate it, delivery partners who sync and distribute the data across the globe, and supporting partners who provide access to the data.

Contact Copernicus Australasia

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Subscribe to the Hub's
mailing list at:

copernicus.gov.au/events