

# AusSeabed Quarterly Program Update

2021/22 Q2: October – December 2021

Here we provide an update on key AusSeabed activities progressed this quarter against the [2021/22 Work Plan](#). Latest Quarterly Showcase (Jan 2022) can be accessed on [AusSeabed](#).

## 1 Demonstrate the value of seabed mapping data for decision making

Since its release in August, the **Deloitte Access Economics study** into the economic value of seabed mapping data to the Australian economy has been circulated through the community, with 553 visits to the sites, 80 downloads and a [feature article in Spatial Source](#). The report is available for download [here](#).

The Steering Committee met in November 2021 to further progress the **2030 Work Plan**. A workshop is planned for February to work towards finalising the 2030 Work Plan and making it available to the public.

## 2 Nationally coordinate seabed mapping activities and objectives

The **Inaugural AUS-US Ocean Exploration Workshop** was held on December 7-8th, facilitated by the US National Oceanic and Atmospheric Administration, Geoscience Australia, and the Commonwealth Scientific and Industrial Research Organisation (CSIRO). The workshop identified Australian and US priorities and capabilities to establish a joint approach between the countries to ocean exploration and mapping in the Pacific region. It worked towards formalising an Australian-US collaboration with a Memorandum of Understanding between NOAA, Geoscience Australia, and CSIRO.

The first day of the workshop brought together 78 attendees and allowed national programs to present their individual priorities and capability to identify synergies and potential collaborations. This information was carried into the second day of the workshop, where participating organisations brainstormed and prioritised specific activities to be achieved over the next 5 years. Moving forward working groups will be established to further develop activities with the broader community, the visibility of current efforts across Pacific nations will be raised and new collaborations with global and Pacific initiatives will be explored. Workshop report will be made available in February 2022.

## **National Areas of Interest for Seabed Mapping, Characterisation and Biodiversity Assessment project**

As part of a collaborative project with NESP2, AusSeabed launched a new version of the AusSeabed Survey Coordination Tool with a revised National Areas of Interest ingestion service. The aim is to build a clear picture of where the greatest demands are for seabed mapping, characterisation, and biodiversity data in the Australian marine estate, create collaboration opportunities, and influence third-party collection!

Users of seabed data (across all sectors) are strongly encouraged to submit their Areas of Interest using the tool in February. A focused engagement campaign will take place during February to provide assistance.

## **3 Improve the curation and delivery of seabed mapping data**

The [GMRT-AusSeabed](#) team aiming to develop a 'compilation on-the-fly' service on bathymetry data has been socialising the design for the prototype platform key committees and stakeholders. The project is now moving into the development stage, with the delivery of a prototype expected June 2022.

## **4 Improve the standards and quality related to seabed mapping procedures and data management**

A collaboration between Park Australia and AusSeabed resulted in five new high quality bathymetry data products located in Australian Marine Parks. The data products cover over 80,000 km<sup>2</sup> of Australia's seafloor and are available via the Data Portal. In addition, the project progressed several aspects of the AusSeabed data publication process, including modernising historical datasets, working in a new cloud environment and further develop procedures to process and publish bathymetry data.

## 5 Bringing the seabed to you through engagement

Notable engagements include:

- The international [GEBCO Map the Gaps symposium](#) saw two presentations from AusSeabed on Australian progress in seabed mapping and on the newly released [Quality Assurance Tool \(QAX\)](#) for multibeam echosounder data.
- The World of Drones and Robotics Congress where Geoscience Australia presented on the use of marine data through the AusSeabed portal for drone validation and the potential that drones, unmanned vessels and autonomous underwater vehicles stand to offer both domestically and internationally towards seabed mapping efforts. This presentation led to an interview for [Mirragin RAS Consulting's Drone for Good Podcast](#).
- Mick O'Leary, University of Western Australia, presented a [TEDx talk](#) and at the Australian Archaeological Association Conference on the value of seabed mapping to first nations peoples. The talk showed how seabed mapping helped elders uncover ancient song lines in their region. TEDx talk will be made available at a later date.
- The [GMRT-AusSeabed](#) team presented [a poster at the Forum for Operational Oceanography](#) aimed to engage potential users of the platform to participate in the early testing phase of development.



# AusSeabed Quarterly Data Report

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## 1 Newly published AusSeabed partner contributions to the AusSeabed Portal

From October to December 2021, we published 9 surveys on the AusSeabed Marine Data Portal, covering a total of 205,513 km<sup>2</sup> (Figure 1). Three of these surveys were republished at higher resolutions (Coral Seas Canyons and Reefs, Cape Range and Visioning the Coral Sea surveys).

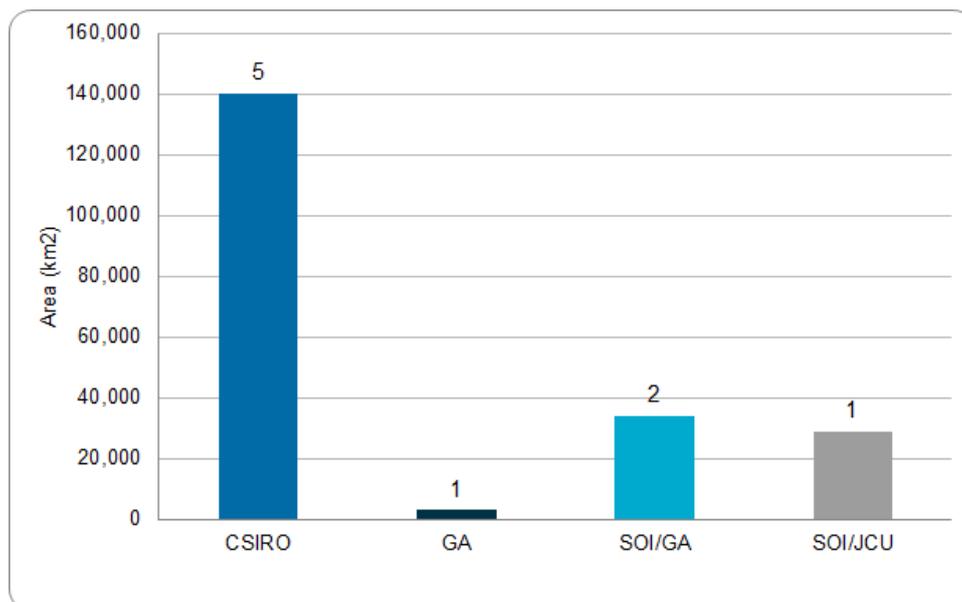


Figure 1 Survey area coverages published by organisation during period 1st October 2021 – 31st December 2021. Note that the area calculations are estimates only (due to potential projection differences) and do not account for overlaps. The value above each organisation represents the number of surveys published.

## 2 AusSeabed Portal Enhancements

The AusSeabed Portal provides access to publicly available seabed acoustic datasets, as well as a suite of analytical tools to maximise the value of the data.

- The Draw and Annotate tool is now live and allows users to create labels on the map, sought after by our stakeholders. This can be accessed via the AusSeabed Marine Data Portal under the Tools tab.
- The Clip Tool now adds user selected layers onto the main map when the tool is closed.

## 3 AusSeabed Portal Statistics

A total of 2,061 unique page views, with an average of 6 minutes spent browsing the content, clipping datasets, and exploring tool usage. AusSeabed also monitors usage statistics from other sources of bathymetry data (Figure 2).

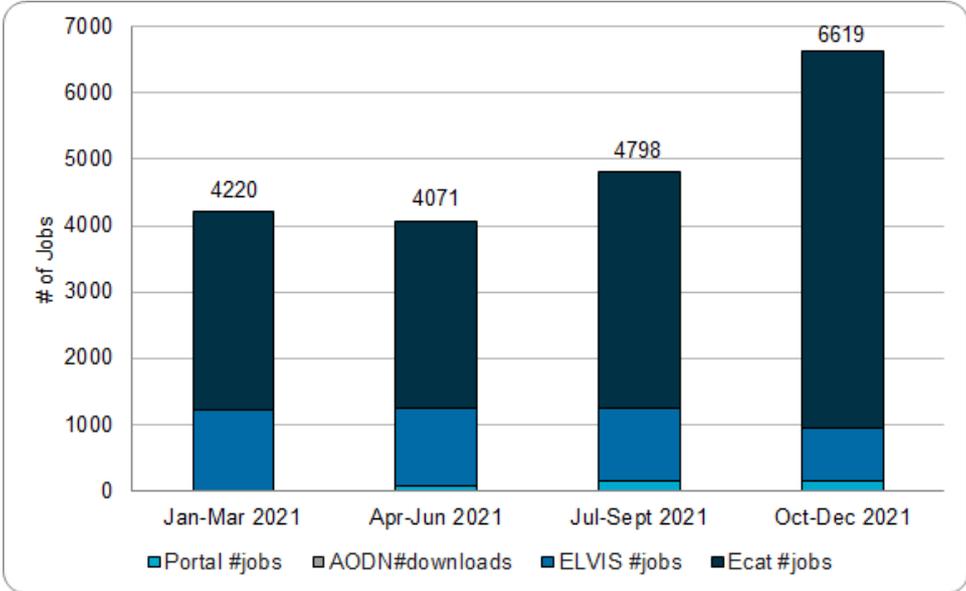


Figure 2 Combined data downloads from the GA Catalog (eCat), ELVIS, AODN and the AusSeabed Marine Data Portal. Source data: Elevation Information System (ELVIS), GA Catalog (eCat), AODN and AusSeabed Portal usage statistics. Note: There was an anomaly of 362,248 downloads over one day during this quarter which is not included in the graph. We are reporting on an additional dataset (NSW DPIE LiDAR bathymetry) available in ELVIS that was not accounted for in 2020-21.

## 4 Client Requests

AusSeabed received a total of 28 direct enquiries this quarter (Figure 3). These focused on functionalities of the Portal, joining the mailing list and availability of data. On average, AusSeabed provided same day initial responses to clients and closed the enquiry within 4 days of the request.

Table 1 Total number of enquiries by month during this quarter

	October	November	December	Total
No of enquiries	9	12	7	28

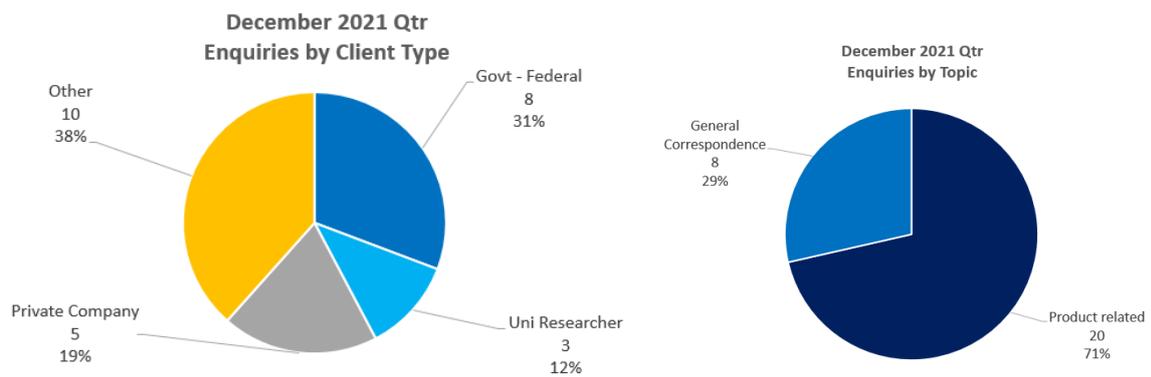


Figure 3 Distribution of client requests received during this quarter by client type (top) and by nature of enquiry (bottom).

# 5 Survey Coordination Tool Uptake

Several enquiries were received and followed up during the quarter with one new registrant (Figures 4 and 5).

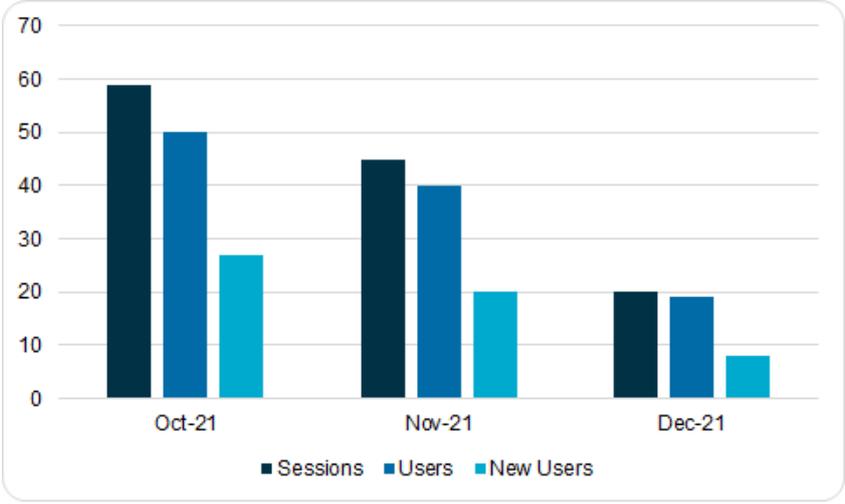


Figure 4 Number of sessions, users, and new users over the quarter for the Survey Coordination Tool.

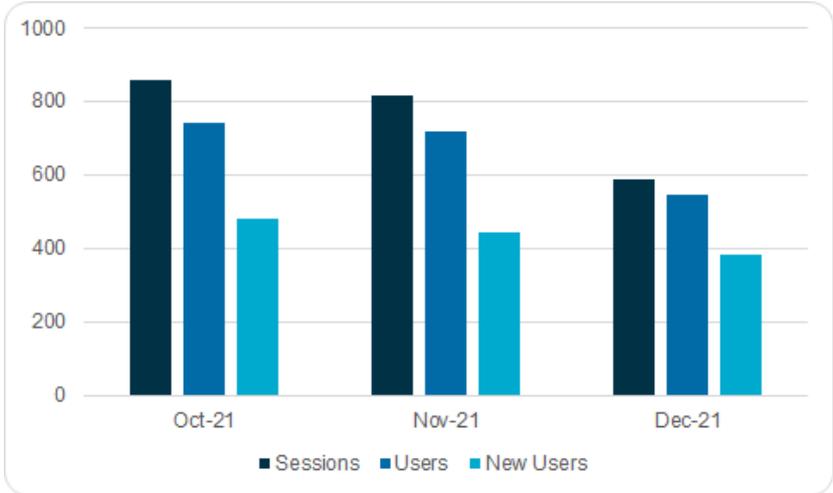


Figure 5 Number of sessions, users, and new users by country over the quarter for the AusSeabed Survey Coordination Tool webpage