AusSeabed Quarterly Highlight Report

2021/22 Q3: January – March 2022

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. The report is available for download here.

The Steering Committee met in March 2022 to develop the **AusSeabed Strategy, a 2025 Roadmap and the 2022/23 work plan**. The hybrid meeting was hosted by NSW DPIE at the Sydney Institute of Marine Science. The Steering Committee plans to finalise these over the next quarter.

2 Nationally coordinate seabed mapping activities and objectives

The re-developed National Areas of Interest functionality of the AusSeabed Survey Coordination Tool is now live. The work is a partnership between the National Environmental Science Program 2 and AusSeabed. You can view submitted organisational Areas of Interest via the AusSeabed Data Portal. Between the 2nd and the 31st of March the tool received 60 new registered users, 27 new submissions and 119 updated or new areas of interests. You can find the new areas of interests on the Data Portal.

The tool allows organisations and communities to openly publish a spatial representation of their seabed data needs through the AusSeabed Data Portal. Seabed data is valuable to a wide range of groups from the private, academic, government and community sectors. It is uncommon for these different groups to be aware of the needs of other users when conducting surveys or research, but there is a great opportunity for increasing collaboration and the impact of data collection by raising awareness of community needs. By publishing your organisation's or group's Areas of Interest for seabed data, you will help generate understanding of the regions with the greatest cumulative data need. The associated map could help focus and inform the publication of high impact legacy data and influence data acquisition plans for programs, such as the NESP Marine and Coastal Hub (MaC Hub) as they look to maximise the national benefit of their survey programs. Publishing your areas of interest may also lead to new collaborations with other organisations that share your interests.

The metadata options associated with each Area of Interest were developed through a series of stakeholder workshops to represent the minimum metadata set that could describe all purposes and needs for seabed and biodiversity characterisation data underneath the high tide line. By facilitating the collation of Areas of Interest from across sectors, disciplines and communities AusSeabed and the NESP MaC Hub hope to see an increase in the number of collaborative and multidisciplinary surveys that are conducted in Australian waters.

3 Improve the curation and delivery of seabed mapping data

Six datasets were made available on the AusSeabed Data Portal over the past quarter:

1. Banks Strait
2. Vernon Islands
3. Carpentaria Reefs
4. Shell Harbour
5. Tasmanian East Coast
6. Bunurong Marine Park

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. Datasets supplied for the prototype are now being published through AusSeabed. The project and its progress will be presented at the Locate 2022 conference over the 24-26th May.

The Australian Ocean Data Network (AODN) is not currently serving AusSeabed data (MH370 and LiDAR). They were lost in recent AODN infrastructure development since 2021. A request has been made to make these available, however this is unlikely to occur in the next few months.

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

New satellite derived bathymetry (SDB) user guidelines have been developed by the Australian Hydrographic Organisation. These will be finalised this quarter.

AusSeabed product specifications for survey and bathymetry (L0-L3) data. The specifications are open for external comments via confluence and will be actively socialised with external stakeholders next month. These product specifications set the minimum requirements and provide suggested data management practices for Data Partners and Data Hubs looking to submit data to the AusSeabed Data Portal.

5 Bringing the seabed to you through engagement

Notable engagements include:

- AusSeabed had a large presence in Hydrospatial 2021 in February. Thank you to all who engaged with Kim Picard (Geoscience Australia), Nigel Townsend (Australian Hydrographic Organisation) and Stuart Edwards (CSIRO Marine National Facility) at the event.
- AusSeabed engaged with key stakeholders and facilitated community workshops to support submissions of National Areas of Interest.
- AusSeabed is collaborating with the Sea Museum (Australian National Maritime Museum) creating seabed data displays and supplementary digital products that will feature in the *Shaped by the Sea* exhibition opening in May.
- The AusSeabed Academic Survey was sent out to academic community members to identify how AusSeabed products are used by the academic sector and what their needs are. The survey will remain open until May 2022.
- Mary Young and Nathan Quadros presented AusSeabed at the SSSI Victoria Surveying and Spatial Summit.

AusSeabed Quarterly Data Report

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1 Newly published partner contributions to the AusSeabed Portal

From January to March 2022, we published 7 surveys on the AusSeabed Marine Data Portal, covering a total of 14,526 km^2 (Figure 1). The differences in coverage reflect shallow water surveys (Deakin, NSW Department of Industries and Environment, UTAS) compared to deeper water surveys with transit (CSIRO).

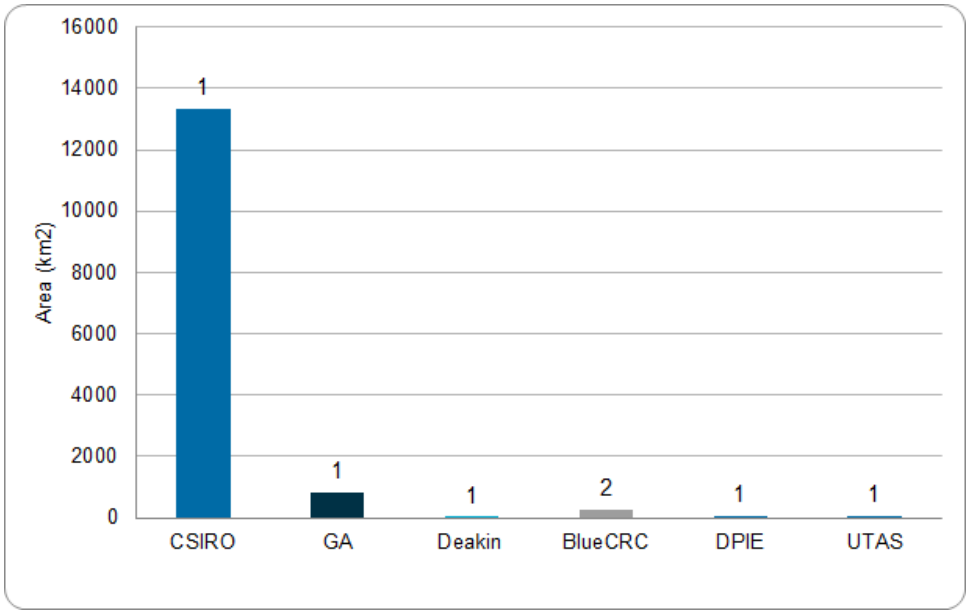

Figure 1 Survey area coverages published by organisation during period 1st January 2022 – 31st March 2022. Note that the area calculations are estimates only (due to potential projection differences) and do not account for overlaps. The value above each organisation represents the number of surveys published.

2 Marine Sediments contributions

From January to March 2022, a total of 49 samples have been added to the Geoscience Australia corporate database and will soon be added to the Marine Sediments web service.

3 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.

- We have been working on the dynamic colour ramp tool for bathymetry layers and have been seeking feedback from our stakeholders on our non-production Portal. This will be available to our users in late April 2022.
- We have been working on the Desktop Launcher, which will be a pop up that provides important links to map layers, tools and guidelines, maintenance windows and guides on how to download data. This will also be available in late April and in future, will allow users to create profiles and login and bookmark layers, save annotations and dynamic ramps to their profile.

4 AusSeabed Data Download Statistics

A total of 2,245 unique page views, with an average of 8 minutes spent browsing the content, clipping datasets, and exploring tool usage. AusSeabed also monitors usage statistics from other sources of bathymetry data (Figure 2).

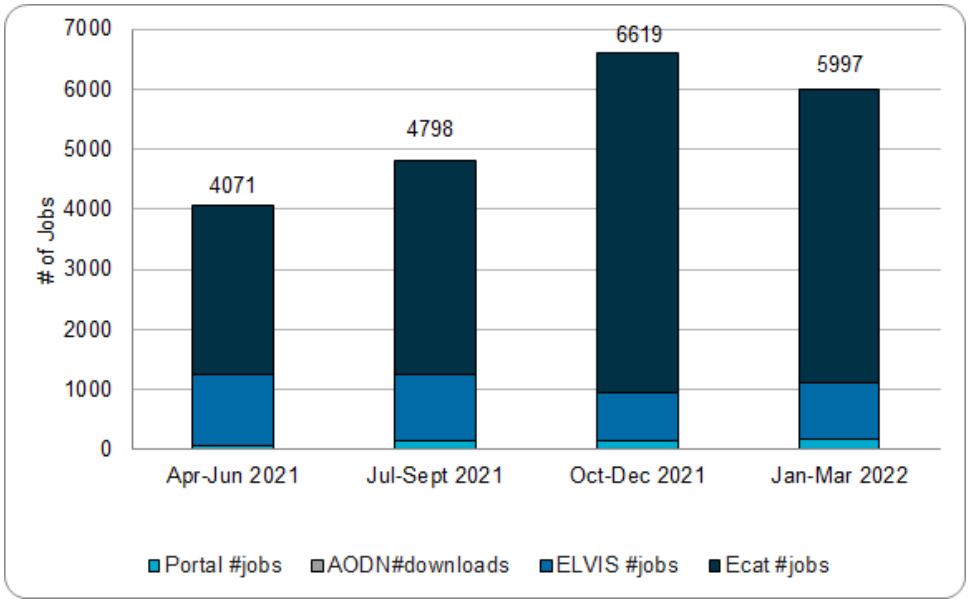

Figure 2 Combined data downloads from the GA Catalog (eCat), ELVIS, AODN and the AusSeabed Marine Data Portal. Source data: Elevation Information System (ELVIS), GA Catalog (eCat), AODN and AusSeabed Portal usage statistics. We are reporting on an additional dataset (NSW DPIE LiDAR bathymetry) available in ELVIS that was not accounted for in 2020-21.

5 Client Requests

AusSeabed received a total of 17 direct enquiries this quarter (Figure 3). These focused on downloading data, 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

	January	February	March	Total
No of enquiries	2	10	5	17

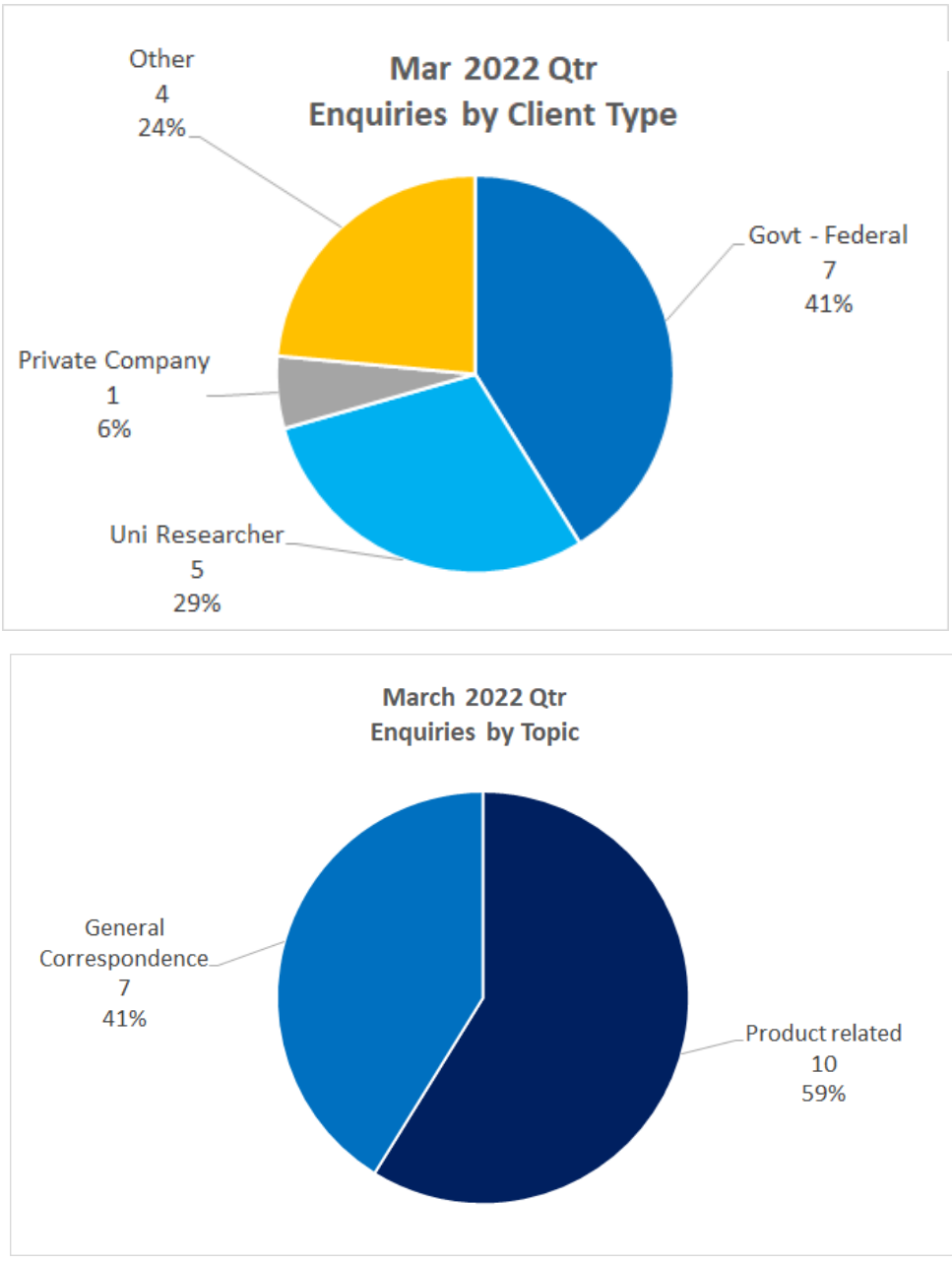

Figure 3 Distribution of client requests received during this quarter by client type (top) and by nature of enquiry (bottom).

6 Survey Coordination Tool Uptake

For the Survey Coordination Tool, several enquiries were received and followed up during the quarter with 60 new registrants (Figures 4 and 5).

	January	February	March	Total
No. of registrations	0	9	51	60

National Area of Interest Function uptake

Submissions from January to March 2022	Explanation	No.
Number of new registered users	A user refers to a single ID tied to an individual email address	60
Total number of registered users	Total user base registered within the Survey Coordination Tool	131
Total registered groups	A registered groups refer to people associated with the same areas of interest. There can be multiple groups from within a single organisation	26
Total new submitting Groups	The number of previously unrepresented groups since the launch of the tool that have made a new Area of Interest submission	11
Number of new records published (from SCT)	Total number of records created and published through the WMS/WFS server. A record is a submission that can contain one or more areas of interest	27
New/Updated AOIs	Total number of Areas of Interest that have been updated or created and published through the Survey Coordination Tool over last quarter	119

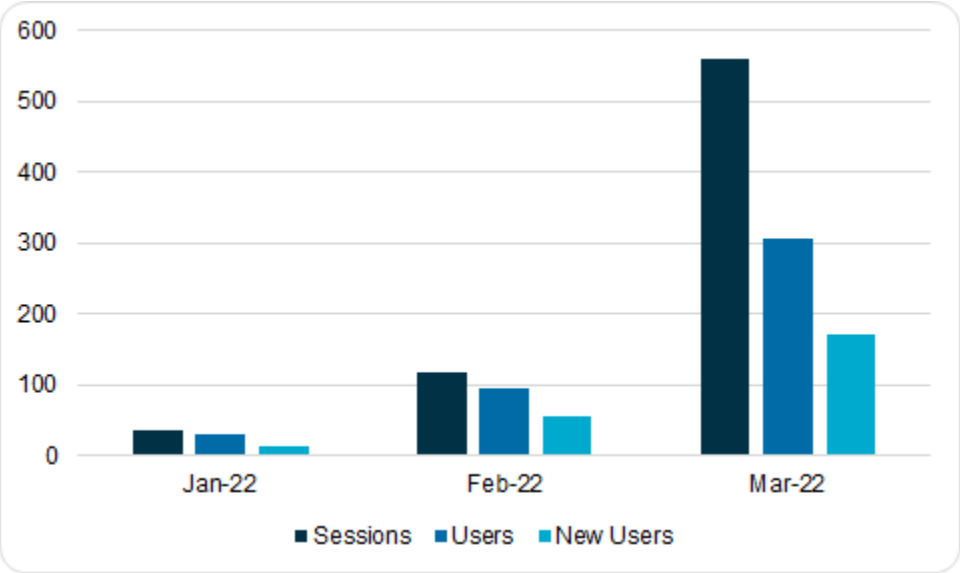

Figure 4 Number of sessions, users, and new users over the quarter for the Survey Coordination Tool from Google Analytics.

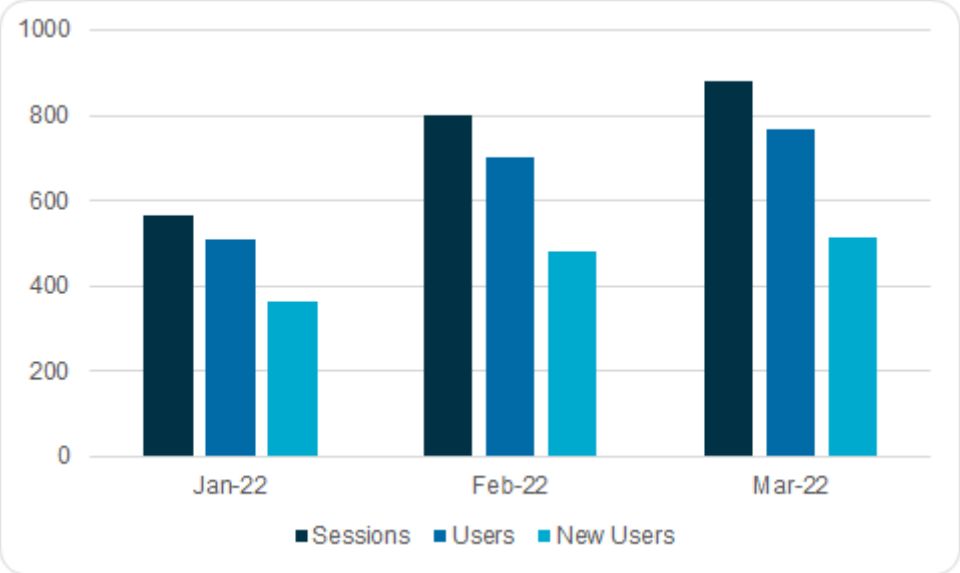

Figure 5 Number of sessions, users, and new users over the quarter for the AusSeabed webpage.