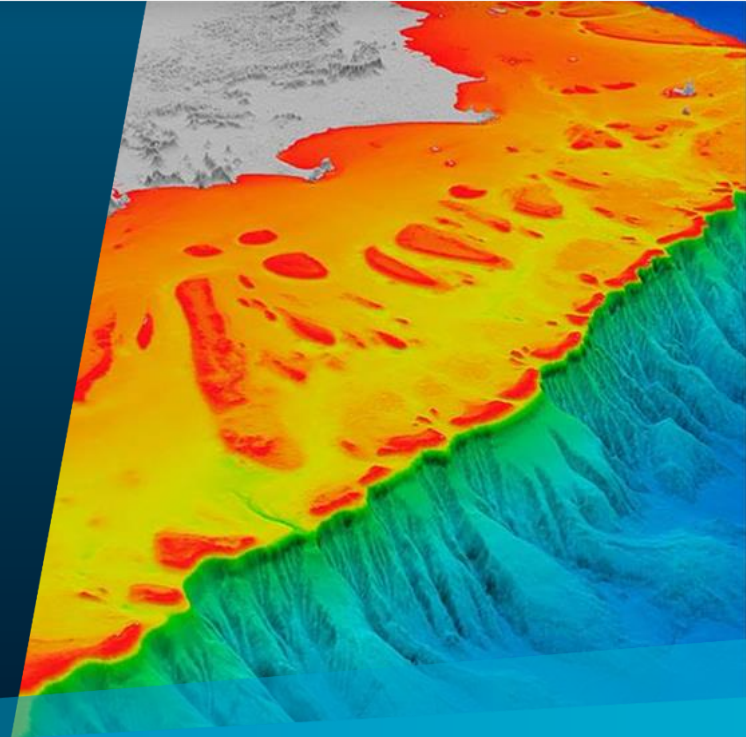




**AUS
SEABED**

**Survey Coordination Tool
AusSeabed Webinar Series #2
30/07/2020**





AusSeabed Marine Data Portal

Layers

- Base Layers
- Map Layers
- AusSeabed Coordination
- AusSeabed Bathymetry Holdings (b)
- AusSeabed Bathymetry Holdings (c)
- National priorities
- About | Legend | F
- Opacity
- Style Set colours based
- Upcoming Surveys (beta)
- Elevation and Depth
- Framework
- Geomorphology
- Geophysics
- Geophysical Archive Data Delivery System (GADDs)
- Sedimentology

Notification - New Survey Request has been submitted - Messag...



File Message Insert Options Format Text Review Tell me what you want to do...

To...


Cc...

Send

Subject Notification - New Survey Request has been submitted

Attached  CollatedSpatialFile.zip  SummaryReport.PDF

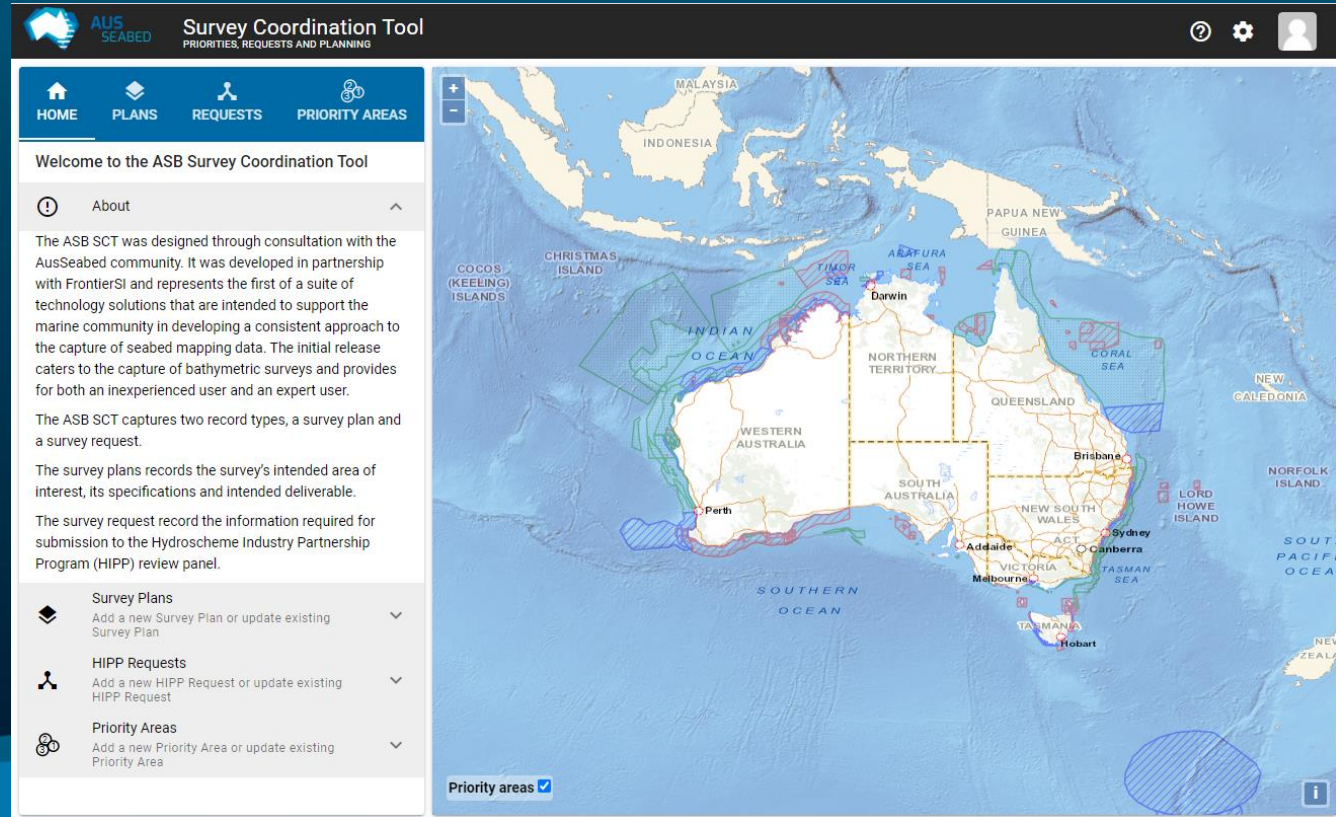
A new survey request has been submitted for your consideration.



Survey Coordination Tool

The Headlines

- Institutionally supported business process and data delivery mechanisms
- Delivered using open source tools through the AusSeabed GitHub Organisation. (Configuration: <https://github.com/ausseabed/survey-request-and-planning-tool/blob/develop/README.md>)
- Implemented within AWS
- Delivers OGC Compliant web services to support “Upcoming Survey Layer” and (future) “Priority Area” layers
- Delivers packaged submission directly to the AHO to be incorporated into their survey planning processes
- Developed by FrontierSI on behalf of AusSeabed.



The screenshot shows the Survey Coordination Tool web interface. The header includes the AUS SEABED logo and the title "Survey Coordination Tool" with the subtitle "PRIORITIES, REQUESTS AND PLANNING". The navigation menu has four items: HOME, PLANS, REQUESTS, and PRIORITY AREAS. The main content area is titled "Welcome to the ASB Survey Coordination Tool" and contains an "About" section with the following text:

The ASB SCT was designed through consultation with the AusSeabed community. It was developed in partnership with FrontierSI and represents the first of a suite of technology solutions that are intended to support the marine community in developing a consistent approach to the capture of seabed mapping data. The initial release caters to the capture of bathymetric surveys and provides for both an inexperienced user and an expert user.

The ASB SCT captures two record types, a survey plan and a survey request.

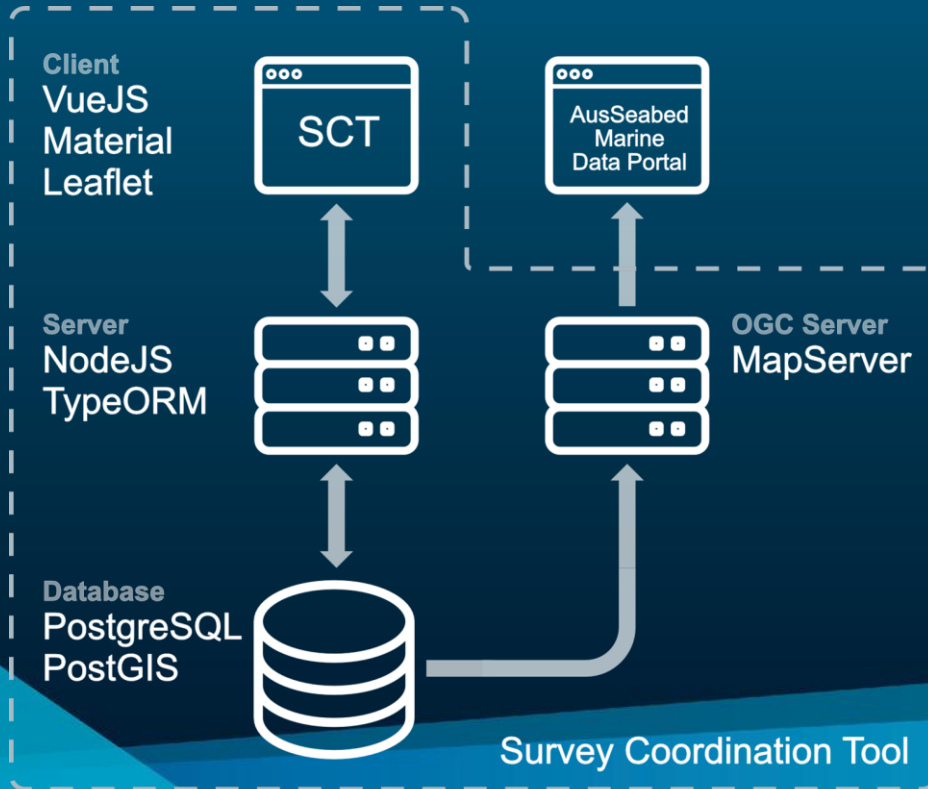
The survey plans records the survey's intended area of interest, its specifications and intended deliverable.

The survey request record the information required for submission to the Hydroscheme Industry Partnership Program (HIPP) review panel.

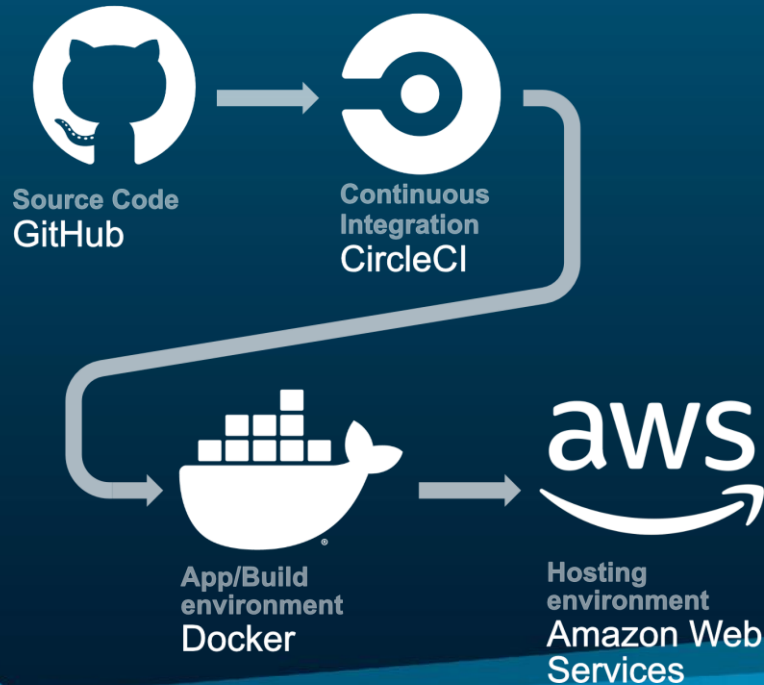
Below the text are three main action items:

- Survey Plans**: Add a new Survey Plan or update existing Survey Plan
- HIPP Requests**: Add a new HIPP Request or update existing HIPP Request
- Priority Areas**: Add a new Priority Area or update existing Priority Area

On the right side of the interface is a map of Australia and the surrounding region, showing various survey areas and priority areas overlaid on the map. The map includes labels for countries like MALAYSIA, INDONESIA, PAPUA NEW GUINEA, and Australian states/territories like WESTERN AUSTRALIA, SOUTH AUSTRALIA, QUEENSLAND, and NEW SOUTH WALES. Major cities like Perth, Adelaide, Melbourne, Sydney, and Brisbane are also marked. The map shows several colored overlays representing different survey areas and priority areas.



- Utilises a common web application technology stack
- Geospatial specifics handled by Leaflet and PostGIS
- SCT is open source as are all the libraries it uses
- MapServer publishes geospatial data stored in the SCT database via Open Geospatial Consortium (OGC) web services; specifically WMS and WFS



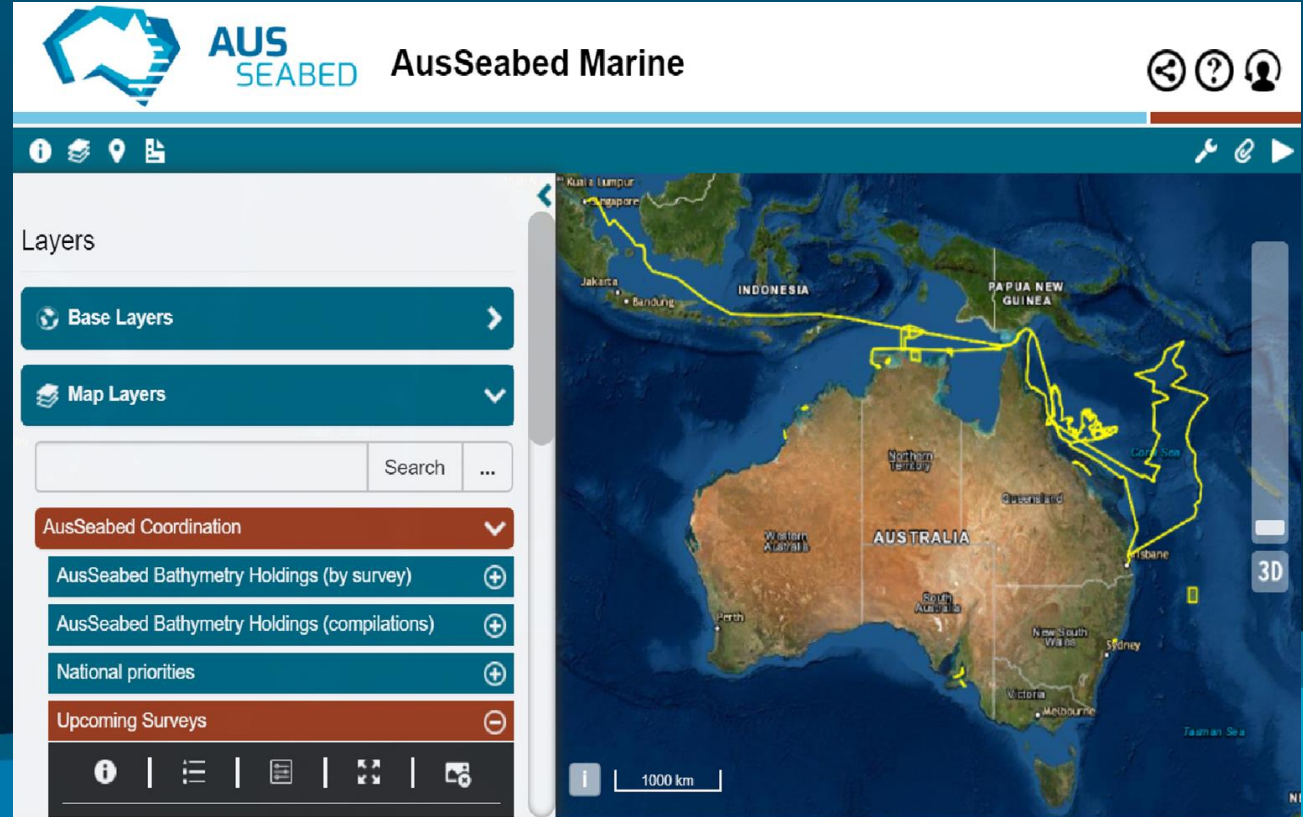
- GitHub used to store source code
- Continuous Integration system (CircleCI) builds development and production releases. Development deployment is automated.
- Docker used to provide automated consistent build environments.
- Production and staging (development) instances of SCT are hosted in AWS

Where does the captured information go

Upcoming Bathymetry Survey Plan = “Upcoming Surveys” on AusSeabed Marine Data Portal

- Replaces a manual process allowing for real time update of upcoming survey plans.

- Allows organisation commissioning a survey to maintain the information.



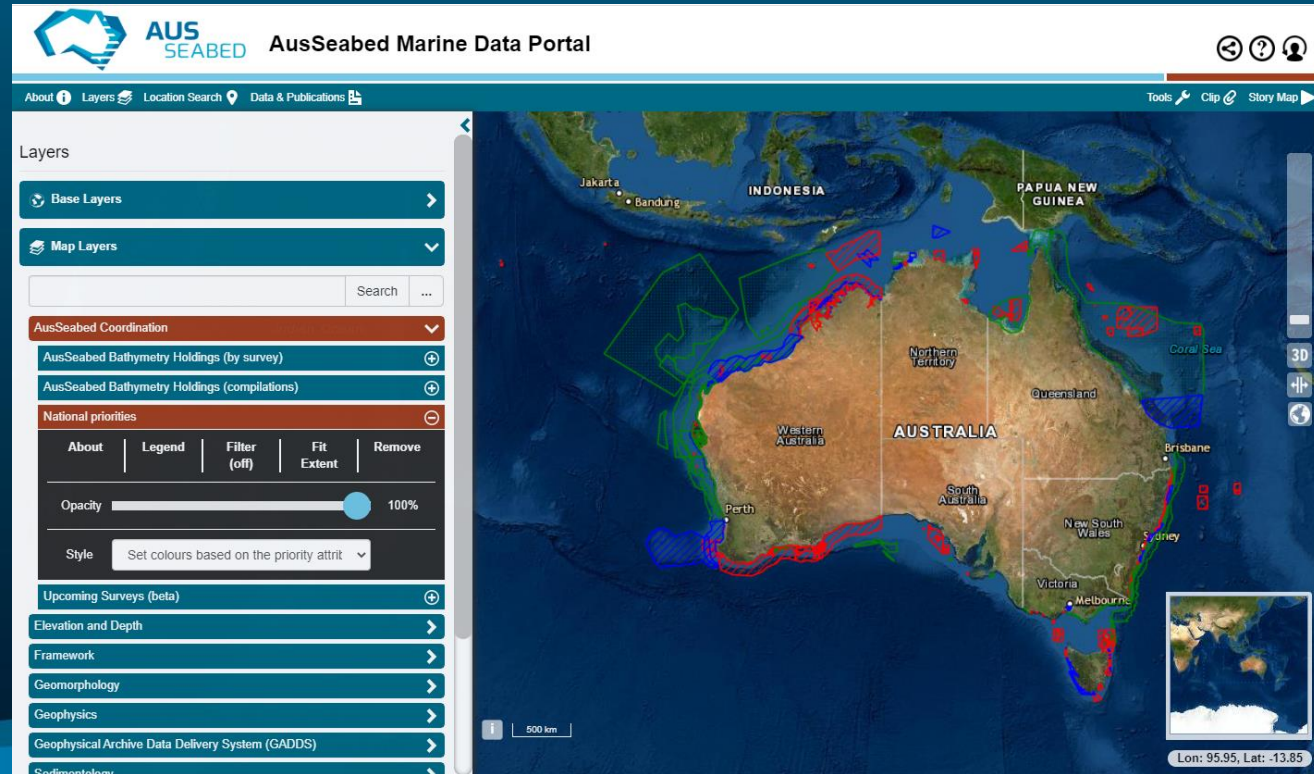
The screenshot displays the AusSeabed Marine interface. At the top, the AUS SEABED logo is on the left, and 'AusSeabed Marine' is in the center. On the right, there are navigation icons for home, help, and user profile. Below the header is a teal navigation bar with icons for information, layers, location, and a list. The left sidebar features a 'Layers' panel with 'Base Layers' and 'Map Layers' buttons, a search bar, and a list of layers: 'AusSeabed Coordination' (expanded), 'AusSeabed Bathymetry Holdings (by survey)', 'AusSeabed Bathymetry Holdings (compilations)', 'National priorities', and 'Upcoming Surveys'. The main map area shows a satellite view of Australia and the Pacific region, with a yellow survey route. Labels on the map include 'Kuala Lumpur', 'Singapore', 'Jakarta', 'Bandung', 'INDONESIA', 'PAPUA NEW GUINEA', 'Northern Territory', 'Queensland', 'Western Australia', 'AUSTRALIA', 'South Australia', 'New South Wales', 'Victoria', 'Melbourne', 'Perth', 'Sydney', 'Brisbane', 'Coral Sea', and 'Tasman Sea'. A scale bar for 1000 km is at the bottom left of the map.

Where does the captured information go

Priority Area for Survey Profile = National Priority Layer on the AusSeabed Marine Data Portal

- Replaces a manual process, allowing for real time update of priorities.

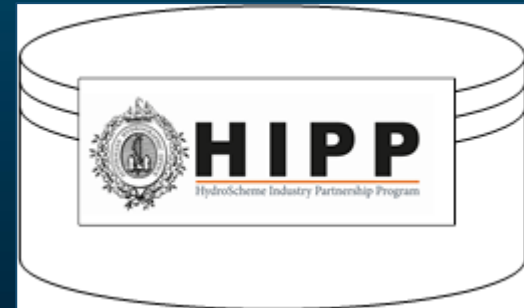
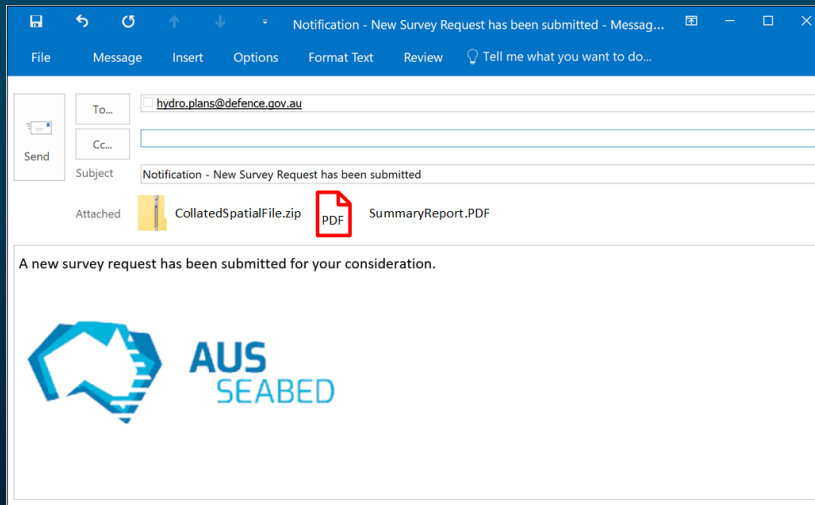
- Allows organisation submitting the priority area to maintain the information.



The screenshot displays the AusSeabed Marine Data Portal interface. At the top, the AUS SEABED logo and the title 'AusSeabed Marine Data Portal' are visible. The main area features a satellite map of Australia and surrounding regions, with various colored overlays representing survey areas and priorities. A left-hand panel titled 'Layers' provides a list of data layers, including 'Base Layers', 'Map Layers', 'AusSeabed Coordination', 'AusSeabed Bathymetry Holdings (by survey)', 'AusSeabed Bathymetry Holdings (compilations)', 'National priorities', 'Upcoming Surveys (beta)', 'Elevation and Depth', 'Framework', 'Geomorphology', 'Geophysics', 'Geophysical Archive Data Delivery System (GADDS)', and 'Sedimentology'. The 'National priorities' layer is currently selected and expanded, showing options for 'About', 'Legend', 'Filter (off)', 'Fit Extent', and 'Remove'. Below these options, there is an 'Opacity' slider set to 100% and a 'Style' dropdown menu set to 'Set colours based on the priority attrit'. The map includes a scale bar (500 km) and a coordinate display (Lon: 95.95, Lat: -13.85) in the bottom right corner.

Where does the captured information go

Australian Hydrographic
Office Survey Request =
formatted email to AHO





Survey Coordination Tool
Demonstration of Adding a Plan

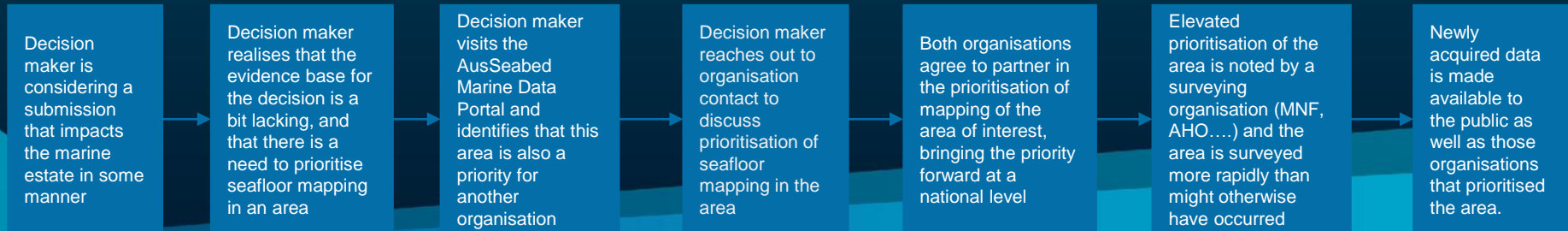
<https://coordination.ausseabed.gov.au/>

<https://www.qa4mbes.staging.frontiersi.io/>

How a researcher might benefit from the upcoming survey plan.....



How a decision maker might benefit from the priority area.....



Examples of “why”

Never have I ever.....

.....been able to see exactly what is to be acquired within the community.....

.....understood exactly which areas are a priority to a potential client or collaborator.....

.....easily found out who is commissioning data acquisition in my area in advance of the acquisition.....

.....been able to see multiple organisations priorities and planned surveys in one place - a “one-stop-shop” of potential opportunities.....

1. Integration with AusSeabed Quality Assurance tools (check to specification)
2. Develop National Prioritisation algorithm(s)
3. Integrate outgoing data services with other government agencies:
 - a. CSIRO MNF online voyage planning tool (MFP)
 - b. More fully integrate into the AHO survey prioritisation processes and tools
 - c. SOOS - Due South, Survey Register for Southern Ocean
 - d. DoEE Wylie - internal map service of data layers
4. Integrate with other global systems and services:
 - a. GEBCO - mapping the gaps
5. Scope 2nd iteration that develops survey plan specifications

3 main opportunities right now:

1. Publishing your survey plans, or priority areas or submitting a request to AHO
2. Consuming the data services that come out of the tool into internal tools and processes (upcoming surveys and priority areas)
3. Downloading the tool itself for adaptation/adopting within your own business processes.

We launch on the 20th of August 2020!

**Please email us at
ausseabed@ga.gov.au**

If you would like to join the party!

THANK YOU