ARDC Platforms Project Progress Report

Project Tracking Information

This section is so you can provide an update on progress of the project against plan, as well as to flag changes that will need to be made to the project plan as a result of changing circumstances

1. Project Details:

Project title: GMRT-AusSeabed

Lead organisation: Geoscience Australia

Other organisations involved in project: Bureau of Meteorology, Deakin University, James Cook University, Lamont-Doherty Earth Observatory, CSIRO, Australian Antarctic Division

Contact person name: Kim Picard

Reporting period: 1 Feb to 30 May 2021

2. Project Aims:

Briefly outline the broad aims of the project (from project plan).

This platform will provide seamless, high-quality elevation and bathymetry data to the consistent standards required for oceanographic models and predictions. This work will accelerate research by reducing manual effort, avoiding duplication and removing the barrier of specialised skills needed for accurate bathymetry data.

The outputs, suitable for high-performance computing or desktop environments, ensure the service is scalable and accessible to the broader research community. The consistency, resolution, and processing capability delivered by this platform improve the accuracy, validity and reliability of modelling. As such, this platform will benefit coastal communities nationally by informing environmental management and risk mitigation.

3. Summary of Project Expenditure:

Provide details of the budgeted and actual expenditure in the reporting period. This should be consistent with your project plan, or the reasons for adjustment listed. Feel free to provide as a **spreadsheet** if you wish. Note: partner co-investment will be reported in the Annual Financial Statement, and is not required in this progress report.

*Note that the Description of expenditure has been modified from the original project plan. The Project management cost have been separated from Component 3 to ease tracking of expenditure

Description of expenditure	Budgeted expenditure of ARDC investment	Actual expenditure of ARDC investment
Component 1: End-user analysis and platform requirements setting	**$73,421**	$23,368
Component 2: Bathymetry subset dataset	**$53,202**	$0
Component 3: GMRT adoption and Expansion	**$199,203**	$9,210
Project Management*	51,880	$12,207
Total	377,707	$54,785

4. Progress Against Project Milestones and Deliverables:

Update progress of project milestones and deliverables in the table below **or in a spreadsheet** if preferred:

Milestone/Deliverable	Details of progress (include links to relevant documentation)	Due date (highlight if this has changed)	Status
Contract MS2 Project Plan Approved	Project plan has been delivered and approved	28/04/2021	Complete
MS1: End-user platform requirements survey	Survey was created and sent to 800 people in Jan 2021. 95 responses were received. A summary of the results was assessed by the technical team on 4/3/21 to identify gaps in the survey and seek further clarification for defining requirements. Gaps were addressed	05/03/2021	Complete
MS2: End-user platforms requirements report	Material is ready and drafting of the report underway.	16/07/2021	In progress
MS3: Platform data requirements and design report	Planning & hosting for workshop #1 (24 May) completed Planning for Workshop #2 (4 June) underway. Planning for Workshop #3 (TBC) underway.	27/07/2021	In progress
MS4: Point cloud conversion services	n/a	27/07/2021	Not started
MS5: Datasets	Planning of Dataset prioritisation workshop #4 (TBC) underway. Inventory of datasets spatial coverage being compiled in preparation for workshop. Datasets are also being collated in preparation for processing	26/10/2021	In progress
MS6: Establishment of Jupiter hub	n/a	21/09/2021	Not started
MS7: Future state architecture and workflow process	n/a	22/10/2021	Not started

MS8: Cloud infrastructure set up in AusSeabed AWS for data ingestion into GMRT and subset dataset ingested	n/a	9/12/2021	Not started
MS9: GMRT grid composer modified to enable user-control settings	n/a	25/03/2022	Not started
MS10: Connection to ocean model and delivery of GMRT-AusSeabed platform PoC	n/a	27/05/2022	Not started
MS11: Additional capabilities identified added to Grid Composer	n/a	10/06/2022	Not started

Please provide a description of progress against the project milestones as listed in the project plan, with an explanation of any variation.

Milestone 3: While the delivery of the initial workshops have been delayed in comparison to the plan, the overall delivery of MS3 is still plan on target.

Milestone 5: We expect a minimal delay (3-5 days) in hosting workshop #4. This is not identified as an issue.

5. Current Project Constraints & dependencies

Are there any project constraints or dependencies that are outside the control of the project team and may impact on project delivery?

None to report at this point in time

6. Risks

Are there any changes in risks for the project and relevant mitigations and timeframes?

None to report at this point in time

7. Issues/Challenges

Are there any issues or challenges that you have encountered during the reporting period?

None to report at this point in time

9. Anything else you would like to tell us about the project:

We have been working with ARDC and GA comms team to develop a Communication Plan for the life of the project (Comm_schedule_simplified.xlxs in shared folder). The first outputs associated with the Launch of the project have been completed or are underway as followed:

- A web page was created on ARDC website
- A news article was produced, published on ARDC and shared on social media.
- A short introductory video is underway. Two partners (GA, LDEO) and a key end user (UWA) are or will provide video bits, which can be used through the life of the project. Delivery of the video on track for 1 June week.

We want to thank the Comm teams for their advice and support.

Impact information

This section is provided so you can report on the impact of the project over time. The Government wishes to demonstrate the impact on researchers (and industry and the general public) of the NCRIS investment, and the ARDC Board is particularly concerned with being able to demonstrate the value of the investment in eResearch Platforms.

ARDC realises that a number of possible impact metrics are lag indicators, but wants to provide guidance about what metrics you should be collecting now to assist with telling a good impact story later. **Note** we understand you may not be able to provide all of these metrics initially.

Impact metrics

Impact metric (*add relevant details/links in next section)	Interim report 1	Interim report 2	Interim report 3	Interim report 4
Number of datasets published (preferably with record in Research Data Australia)*	0			
Number of publications using data generated by platform*	0			
Number of publications that cite /reference the platform*	0			
Social media mentions of platform*	7			

Blog posts/news articles that reference platform*	1			
Number of users*	0			
Number of active users (over 90-day period)	0			
Number of jobs run (i.e. number of processes submitted through the Platform)	0			
Instruments supported	0			
Number of engagement/outreach activities (e.g. seminars, presentations, demos, meetings with new stakeholders)*	2+ (Tbcounted)			
Number of researchers trained (online or face-to-face)*	0			
Availability of the platform (days in operation vs days offline)	0			

Links to publications and other communications

Published datasets generated by platform

N/A

Publications using data generated by platform

N/A

Publications that cite/reference the platform

N/A

Social media mentions of the platform

- https://twitter.com/SchmidtOcean/status/1394688223872491521
- https://twitter.com/GeoscienceAus/status/1392615635155312643
- https://twitter.com/ARDC_AU/status/1390131719349706752
- https://www.linkedin.com/posts/australian-research-data-commons_as-a-professional-coastal-engineer-im-activity-6795897433063854080-0qd4
- https://www.linkedin.com/posts/geoscience-australia_seabed-data-bathymetry-activity-6798382531285786624-Ehyi

- https://www.linkedin.com/posts/geoscience-australia_last-week-our-team-from-ausseabed-were-found-activity-674045533153034646496-QiNA
- https://twitter.com/GeoscienceAus/status/1334690143886864385

Blog posts/news articles that reference the platform

- https://ardc.edu.au/news/piecing-together-the-puzzle-of-australian-seabed-data/

Details on engagement, outreach and training activities

We have established a communications plan for the project, in collaboration with the ARDC communications team. The communications plan is nearing finalisation and the communications schedule can be found (Comm_schedule_simplified.xlxs in shared folder). The communications campaign includes various media formats including video, infographics, articles, webinars and presentations across a wide range of audiences. In short, our plan is to highlight he project launch, the data subset, project mid-point, developed user tools and project end-point.

To-date, we have:

- Released a project launch article with the ARDC (https://ardc.edu.au/news/piecing-together-the-puzzle-of-australian-seabed-data/) and circulated through social media.
- The project page has been established by the ARDC (https://ardc.edu.au/project/gmrt-ausseabed/).
- Presented on the project at:
  - the external AusSeabed Quarterly Showcase in March
  - AODN Technical Advisory Group quarterly meeting in May, and
  - Geohab 2021 in May (international conference on Marine benthic habitats)

Coming up shortly, we have:

- A short introductory video featuring two partners (GA, LDEO) and a key end user (UWA) providing video bits and simple animation showing the expected result of the project. Delivery of the video on track for 1 June week.

Implementing FAIR Platforms and Outputs

FAIR project outputs

Describe the project's progress in making the **project** outputs (publications, code, etc) FAIR.

No progress has been made in the early stages of this project. All outputs are intended to be FAIR as outlined below.

FAIR platform outputs

Describe what functions/features are being implemented in the Platform to enable FAIR or FAIR-ready outputs (data, code, visualisations, etc).

- All datasets selected will be published to the AusSeabed data portal and the GMRT synthesis, which serves FAIR and Open data nationally and globally.

- Datasets (Metadata output to STAC and data) and services/tools will be co-located in AWS.

- We will be adopting ISO and OGC standards where appropriate to make frameworks interoperable and findable.

- We will be delivering/utilising accessible, open-source tools where possible. Jupiter Hub will be located on NECTAR pending design allowing for a performant and cost effective hybrid infrastructure that allows storage in AWS and processing in NECTAR.

- We will be perusing automation and standardisation as a core value to build a reproducible platform.

Details on users of the platform

Provide a brief breakdown of where these users come from; for example, which institutions the core user groups are from, or how many users from each of the following broad categories: .edu.au, .gov.au, .org.au, .edu (international academic institutions), .com (gmails etc.), other.

We expect that we will engage 2900-3600 users per annum, based on AusSeabed and GMRT usage statistics. We expect a range of users from the academic, government and industry sectors.

We cannot provide a specific breakdown on where our users will come from as the platform is not live. However according to the 95 respondents to the end-user survey completed in Feb, users from all around Australia responded with highest percentage from WA, NSW, Vic and Qld, as well as

internationally. All sectors were represented, with the most associating with private industry, Federal government, university and Research Institute (85%)

Impact stories

Please detail any research impacts or highlights here. Other impacts could include outcomes of industry collaborations, platform community activities leading to new policy or practice, etc.

No impact stories are available in the early stages of this project.