



# AusSeabed 2020/21 Work plan

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## 1 Introduction

Established in late 2018, AusSeabed is the Australian seabed mapping coordination program. It brings together government, academia and the private sectors to facilitate the delivery of all available seabed mapping data within the Australian Marine Estate and ensure that new data acquisition will take into account the needs of a wide range of users. Over the next 10 years, AusSeabed aims to impact:

#### The Blue Economy by:

- maintaining the economic benefit from marine natural resources through better, more efficient & more cost effective (i.e. sustainable) management of marine assets
- enhancing the economic potential of the offshore environment, especially through reducing uncertainty in offshore investment and the reduction in compliance costs
- Improving efficiency of information collection through better coordination and reduced duplication of effort
- improving social licence to operate for offshore industries

The environmental management of the marine estate by:

- better informing management of marine environmental assets
- improving knowledge of the seabed environment

The social values of the Australian community by:

- enabling Australians and others to continue enjoying the natural world and using its resources in a safe and sustainable way
- supporting national security associated with marine jurisdictions
- better informing management of the coastal zone, including reduction of uncertainties associated with disaster risk management.
- connecting science to 'sea country' (an indigenous perspective)

This document presents an overview of the AusSeabed 2020/21 work plan created by the AusSeabed Steering Committee and endorsed by the AusSeabed Executive Board. The work plan builds on the great work delivered in FY2019/20 (Table 1). For more information on the direction and vision of the initiative, please refer to the AusSeabed 2030 Strategic Plan.

### 2019/20 Highlights

Table 1 Selective 2019/20 highlights according to each program themes. A complete progress update and list of achievements will be available in the upcoming Annual report 2019/20.

Program theme	Progress update of highlights	Responsible Organisations	
Data hub	Prototype AusSeabed Processing Pipeline and Data Warehouse, built in AWS, allowing a rapid increase in the speed that gridded bathymetry products (as supplied by collaborators) are published online through the AusSeabed Marine Data Portal, as exemplified by collaboration with Schmidt Ocean Institute.	GA, CSIRO, Deakin University, Schmidt Ocean Institute, JCU and other collaborators	
	New AusSeabed Marine Data Portal back-end infrastructure with greatly improved reliability and usability alongside a suite of new tools for data visualisation, download and analysis.	GA	
	Bathymetry Data Holdings dramatically increased through the inclusion of information from multi-sectors and sensors.	GA and multiple collaborators	
Tools, Guidelines and Standards	Delivery of the AusSeabed Coordination Tool with upcoming survey registration and planning functionality, demarcation of priority mapping areas, and the capacity to generating survey requests for submission to the Australian Hydrographic Office Hydroscheme Industry Partnership Program.	GA, FrontierSI, AHO	
	Development of the AusSeabed Quality Assurance (QA) tool for multibeam data on desktop. Including QA modules for raw (MATE) and gridded (QCtools) datasets, controlling interface (QAX) to QA following specific profiles, and generation of QA report.	CSIRO, GA, FrontiersSI, AHO, NOAA, CCOM-UNH	
	Publication of version 2 of the Australian Multibeam Guidelines, which incorporates and supersedes content from the NESP Multibeam field manual, and adds clarifications to the data processing and release sections.	GA and multiple collaborators	
Outreach, Education and Training	Hosted AusSeabed one-day symposium (up to 80 participants) and one-day workshop (~40 participants) during AMSA 2019 conference, which led to successful outreach in WA.  In lieu of AMSA 2020 conference, AusSeabed planned a large webinar series that will include speed talks, AusSeabed general information and engagement/training workshop sessions.	WA DoT, Fremantle Ports, GA, Fugro, FrontierSI, NSW OEH &DoE, EGS, NIWA, CSIRO	
	Successful engagement with industry and government regulation sector through the WA Index for Marine Assessment (IMSA) project resulting in partnership between AusSeabed and IMSA, and nominations for membership from both sectors on the steering committee.	WA DoT, GA, APPEA, WAMSI, DAWE	
	Conducted the first Steering Committee general membership turnover with five positions made available for re-election. The eleven nominations received across all sectors reflects the continued relevance of AusSeabed.	GA, WA DoT	

## 2 Work plan 2020/21

The AusSeabed 2020/21 work plan was created following the CSIRO Impact framework. This plan is guided by four main objectives and strategies, which contribute towards meeting the 2030 fundamental strategic program goals (Figure 1). In summary, during 2020/21 we will focus on building the infrastructure and implementing it, with an intention to drive use and uptake in the following financial year (Figure 2).

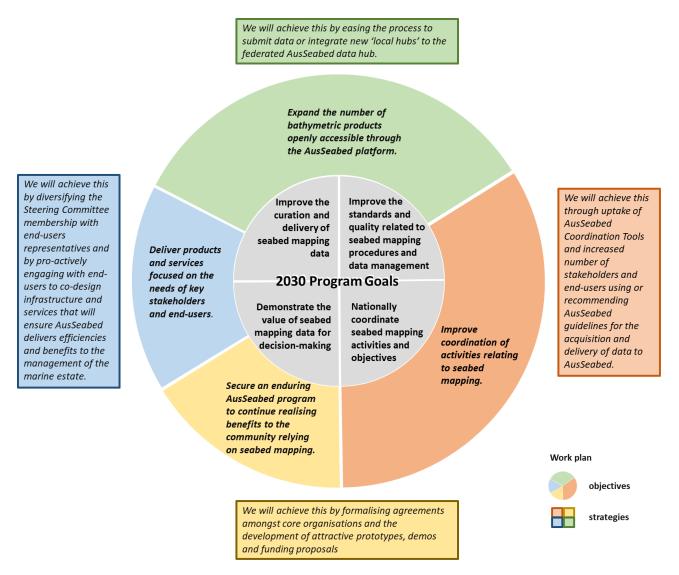


Figure 1 Objectives and strategies of the 2020/21 work plan mapped to the fundamental strategic program goals.

#### Key end-users and stakeholders

While the AusSeabed 2020/21 work plan will continue servicing a broad range of Australian and international users, including the research community (eg. ocean modelling and investigators on research voyages), the AusSeabed steering committee has turned its view towards the future ongoing program funding arrangements that will be necessary to continue providing value to the community in the future. As such, next year work plan is focused on a reduced number of key end-users and stakeholders to ensure program outputs will most efficiently achieve the desired outcomes. The key end-users include:

1. **Industry and government regulatory sector** through the WA Index of Marine Survey for Assessment (<u>IMSA</u>). The project launched in March 2019 sees the WA Government collaborating with the industry sector to improve the Environmental Impact Assessment (EIA) process. By collaborating with the IMSA stakeholders,

- AusSeabed can enhance IMSA objectives, demonstrate its relevance to the industry and government regulatory sectors, and use this work as a pilot for engagement at broader national scale.
- 2. Marine estate managers and decision-makers from the Commonwealth and State Governments through the Australian Marine Parks office and the NSW, Victoria, WA and Tasmania Governments. These end-users are already strongly involved with seabed mapping activities and are participating and supportive of the AusSeabed initiative, therefore increase our chance of success in delivering fit-for-purpose products.

The key stakeholders include the **Australian Hydrographic Office, CSIRO/Marine National Facility and Geoscience Australia**, who, at the time of writing this work plan, are investing significantly in the AusSeabed program.

#### **MILESTONES**

#### **Governance and Management**

- Develop agreements with partners
- Conduct an Economic Benefit Analysis on the value of seabed mapping in Australia
- Submit ARDC National partnership proposal

#### **Engagement and Communications**

- Develop a communication and engagement strategy to 2025
- Develop an engagement plan for 2020/21 key stakeholders and end-users
- Host a key stakeholder and end-user workshops and produce outcome reports
- · Develop training materials
- Develop guidelines for most bathy data types

#### Accessible Layers and Datasets

- Develop a national prioritisation framework and deliver true National mapping priority layer
- Provision of MNF & GA MBES datasets v. 1
- Provision of HIPP datasets

#### Infrastructure Development

- Develop a key end-user and stakeholder infrastructure roadmap
- Incorporate the national priority process to AusSeabed Coordination Tool
- Deliver AusSeabed QA tool to operate on most bathymetry data type and includes packaging function
- Deliver an operational MBES Automated Processing Pipeline v.1
- Develop a federated data warehouse for known 'local hubs' and for all type of hathy
- Migrate to Portal v.2 optimised for target end-users

#### **OUTPUTS**

Collaborative Head Agreement between Executive Board members

Project agreement GA-AHO

**Economic Benefit Analysis** 

ARDC proposal

Communication and Engagement Strategy 2025

Steering committee nominations

Guidelines for bathymetry data

Training Products (user manuals/ workshops/webinar)

Communication and Promotional Products

Nationally integrated bathymetry data product v.1

Crowd-sourced bathymetry products

National seabed mapping priority layer

AusSeabed Coordination Tool v.2

QA and Packaging tool v.2

Federated Data Hub v.1

Integrated website & portal v.2

#### **OUTCOMES**

Program continuity secured through long-term investment ensuring ongoing community benefits.

End-users will be better serviced through increasing the Steering Committee diversity

Key stakeholder and end-users adopting guidelines to improve quality and interoperability through better practices

Increased community coordination and collaboration through information and data sharing

AusSeabed outputs and services utilised by key stakeholders and end-users because they are easily accessible and fit-for-purpose

AusSeabed outputs and services utilised for management reporting and decision making

AusSeabed processes facilitate the delivery of new data

Figure 2 AusSeabed 2020/21 Work plan focused on meeting the four overarching objectives by delivering a set of seven outcomes. The shades across the three fields aim to identify the general impact pathway from Milestones across to Outcomes

# 3 Key Performance Indicators, Assumptions & Risks

#### **Critical pathway KPIs**

To achieve the outcomes set in the AusSeabed 2020/21 work plan, we have identified the following KPI:

- 1. Continued and diversified investment support from key stakeholders and end-users (relating milestones: MS2 to MS13, MS27)
- 2. Workshop outcome reports and associated implementation plans are delivered (relating milestones: MS9 to 11, MS14, MS18, MS20, MS23 to MS25)
- 3. Increased number of recognised processes relying on AusSeabed products and services (relating milestones: MS12, MS14, MS16 to MS19, MS21, MS24 to MS26)
- 4. Increased number of datasets from various sources submitted to AusSeabed data hub that are consistent with AusSeabed guidelines (relating milestones: MS12, MS18, MS20 to MS21, MS24, MS26)
- 5. Increased number of datasets accessible through the AusSeabed data hub (relating milestones: MS15, MS16, MS24)
- 6. Decreased turnaround time in making data discoverable and/or accessible on the AusSeabed data portal (relating milestones: MS14, MS16, MS19 to MS21, MS25)
- AusSeabed tools are used by key stakeholders and end-users (relating milestones: MS9 to MS11, MS13, MS14, MS17 to MS20, MS22)

#### **Assumptions**

To achieve the outcomes set in the AusSeabed 2020/21 work plan, we assume the following:

- 1. Stakeholders and end-users share a common vision
- 2. Communication is appropriate and promoting the shared vision
- 3. Delivering partners are willing and able to collaborate
- 4. Department and other influential stakeholders are supportive.
- 5. People have capability and capacity to use the platform and implement guidelines
- 6. The technical pathway is resilient to expansion
- 7. Data is open, follows the FAIR principles and is standardised to ensure effective integration

#### **Risks**

Delivery of AusSeabed 2020/21 work plan will be at risk if:

- COVID19 impact on the various sectors, which may affect engagements, budget, etc.
- 2. Funding partner agreements do not come through
- 3. We fail to effectively collaborate and engage with key partners, stakeholders and end-users
- 4. AusSeabed collaborative support falls apart, i.e. trust of collaborators becomes damaged
- 5. Organisational resources or critical skillset not available or redirected elsewhere
- 6. Project creeps are not managed properly

## 4 Budget

The AusSeabed 2020/21 work plan takes into account known potential source of effort from the multiple organisations involved, but that are yet to be fully confirmed. This effort represents about 15-20 percent effort increase compared to 2019/20 work plan. The summary budget provided accounts for the inputs of all organisations involved in delivering the work plan (Table 3). Full detailed work plan provided in accompanying document.

Table 2 Summary budget according to the broad activities proposed for 2020/21 work plan. Estimated values are based on GA EL1 full cost recovery figures. Hard cost include 1) storage and egress cost (\$100k) and 2) travel cost for workshop, training and in-person planning days.

Overarching activities	FTE	Estimated Value (based on GA full cost recovery)	Hard cost	Q1 FTE	Q2 FTE	Q3 FTE	Q4 FTE
Governance and management	0.5	\$206,975	\$75,000	1.3	0.7	0.5	0.3
Engagement and communication	1.0	\$281,380	\$30,000	2.0	2.0	1.7	1.2
Accessible data and layers	2.0	\$528,234	\$15,000	1.7	2.0	2.3	2.5
Infrastructure development	6.0	\$1,638,043	\$135,000	5.7	5.8	5.3	4.9
Total	9.5	\$2,654,632	\$255,000	10.6	10.5	9.7	8.9

Current organisations committed to delivering the 2020/21 work plan is included in Table 4. A breakdown of the contributions per organisation has yet to be finalised, as are the full list of stakeholders that will be engaged during the process (e.g. workshop participants).

Table 3 List of organisations involved in delivering each overarching activities of the AusSeabed 2020/21 work plan.

Governance and management	Engagement and communication	Accessible data and layers	Infrastructure development
GA	GA	GA	GA
АНО	АНО	АНО	AHO
CSIRO	WA DoT	CSIRO	CSIRO
AIMS	IMSA		FrontierSI
AAD	NSW OEH		IMSA
	Deakin University		AODN
	FrontierSI		James Cook University
	Fugro		Deakin University
	EOMAP		
	Guardian Geomatics		
	NIWA		
	James Cook University		

## **Document Control**

Version	Author	Distribution	Date	Comments
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1.0			09/07/2020	Linked KPIs to Milestones and integrated Johnathan Kool, EB member, comments