

Independent Review of the AusSeabed Initiative Governance, Funding and Future Operating Model

Prepared for:

The AusSeabed Executive Board

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This review benefited from the time, expertise, and constructive engagement of a wide range of stakeholders across government, research, industry, and the broader marine community.

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Stakeholder engagement included discussions with representatives from Commonwealth and state government agencies, research institutions, industry bodies, NCRIS Facilities, data custodians and end users, encompassing senior executives, program managers, researchers, technical specialists, and operational practitioners.

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Statement of Independence and Attribution

The views expressed in this report are those of the reviewer and do not necessarily reflect the views of individual participants or their organisations.

The reviewer was engaged independently and undertook the review without direction on findings or recommendations.

Reviewer Biography

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Executive Summary

AusSeabed has evolved from a collaborative, project-based initiative into a nationally critical capability underpinning a wide range of Australia's marine, environmental, scientific, operational, and policy outcomes. In practice, it now functions as national research and data infrastructure relied upon by multiple Commonwealth portfolios, state and territory governments, research institutions, industry, and Australia's international commitments. This status is increasingly reflected in the behaviour of other nationally significant research and operational facilities, which are making investment decisions on the assumption that seabed data coordination and stewardship are already provided through AusSeabed. However, AusSeabed's current funding and governance arrangements have not kept pace with this evolution.

The review finds that the primary risk facing AusSeabed is not a lack of demand, technical capability, or stakeholder support. Rather, it is the absence of a durable institutional, governance, and funding framework commensurate with its national role. AusSeabed is increasingly expected to deliver whole-of-government coordination, nationally consistent seabed products, and long-term stewardship of seabed data, yet it continues to operate through fragmented funding arrangements, informal governance structures, and reliance on voluntary goodwill rather than clear authority and accountability.

This misalignment has emerged within a broader policy and institutional context in which responsibility for Australia's marine domain is inherently distributed across government portfolios and agencies. No single department holds overarching responsibility for oceans or marine data, creating a persistent coordination gap for foundational capabilities such as seabed mapping. In this context, AusSeabed emerged from the bottom up as a practical response to a system-wide need that no single agency was positioned to address independently. That same context now shapes the challenge of securing AusSeabed a permanent and sustainable institutional footing.

The review assesses AusSeabed's value proposition, governance and funding arrangements, and future sustainability by drawing on extensive stakeholder engagement, document review, and benchmarking against comparable national and international initiatives. Fourteen key findings are presented, addressing AusSeabed's value and role, the broader institutional environment for marine coordination, misalignment between expectations and authority, and the implications for future governance and funding reform.

The review finds that AusSeabed delivers value far exceeding its current funding envelope by maximising the return on public and partner investment in seabed data. Through coordination, standardisation, quality assurance, and stewardship, AusSeabed enables data collected for specific purposes to be reused across policy, regulatory, scientific, and operational domains. This coordination function underpins decision-making across environment, safety, science, security, infrastructure, and economic development portfolios, while reducing duplication and long-term cost across the system.

AusSeabed occupies a unique and non-redundant position within Australia's national marine data ecosystem. No other initiative performs its specialised role in coordinating and stewarding

seabed data¹ at a national scale. Its outputs are foundational to downstream platforms and decision-support systems, meaning that any degradation of AusSeabed's capability would have system-wide consequences across multiple dependent users and investments.

At the same time, the review finds that AusSeabed is subject to expanding expectations without a corresponding mandate, baseline funding, or formal accountability framework. Strategic ambition, as articulated in the AusSeabed Strategy and Roadmap, has outpaced funded capability and institutional alignment, creating delivery, accountability, and sustainability risks inappropriate for a nationally critical capability. Reliance on informal trust-based arrangements and short-term project funding, while effective during AusSeabed's early development, is no longer sufficient to support its mature role.

The review examines three potential pathways to address these challenges: establishment as a National Collaborative Research Infrastructure Strategy (NCRIS) facility; funding through a New Policy Proposal (NPP); and formal integration of AusSeabed as a collaborative initiative within Geoscience Australia. Each option presents distinct benefits and risks in terms of feasibility, timing, governance clarity, and sustainability.

The review concludes that formal integration of AusSeabed as a collaborative initiative within Geoscience Australia represents the most feasible and lowest-risk near-term pathway. This option provides immediate clarity of executive accountability and decision authority, stabilises delivery within an existing institutional framework, and aligns AusSeabed with Geoscience Australia's marine geoscience responsibilities, including those funded under the Resourcing Australia's Prosperity Initiative (RAPI). Importantly, this approach does not diminish the critical role of core delivery partners; rather, it provides a clear institutional anchor within which sustained partner engagement, contribution, and collaboration can continue.

The review emphasises that institutional consolidation is a prerequisite for credible long-term funding reform. Clarifying ownership, mandate, and accountability reduces policy and delivery risk and strengthens the case for future consideration under longer-term funding mechanisms, including NCRIS or major budget proposals. Securing substantial new funding without this consolidation is unlikely to be successful.

The recommendations of this review therefore focus on establishing clear institutional ownership within Geoscience Australia, refining governance arrangements to separate authority from advice, preserving AusSeabed's trusted identity and partnerships, and sequencing reform to enable sustainable growth over time. Together, these steps provide a pragmatic and proportionate pathway to secure AusSeabed's future as nationally significant data infrastructure while retaining the collaborative strengths that have underpinned its success to date.

¹ Unless otherwise stated, references to "seabed data" in this report refer to bathymetric data, which constitutes the primary focus of AusSeabed's current funded activities.

Key Findings

The review has 14 Key Findings that are broadly grouped to reflect:

- AusSeabed's value and role
- the broader institutional context for marine coordination
- misalignment between expectations and authority
- implications for future governance and sustainability

Key Finding 1: AusSeabed Has Evolved into Nationally Critical Data Infrastructure

AusSeabed has progressed well beyond its original coordination objectives and now functions, in practice, as national research and data infrastructure. It has been built through sustained collaboration and investment by Commonwealth agencies, state and territory governments, research organisations, and industry partners and underpins a wide range of nationally significant outcomes. These include marine environmental management, safety of navigation, Antarctic science and logistics, coastal inundation modelling, and delivery of nationally consistent seabed products.

Government agencies, research organisations, and industry stakeholders increasingly rely on AusSeabed as the default national mechanism for accessing, coordinating, and reusing seabed data. In this role, AusSeabed enables whole-of-government outcomes that no single agency could efficiently deliver independently.

Key Finding 2: AusSeabed Delivers Value Far Exceeding its Current Funding Envelope

AusSeabed maximises the return on existing public investment by aggregating, standardising, quality-assuring, and stewarding seabed data collected for other purposes across government, research, and industry. In doing so, it enables data collected for specific projects or operational needs to be reused for multiple policy, regulatory, scientific, and operational applications.

This coordination function delivers substantial cross-portfolio value, supporting outcomes across environment, safety, science, security, and economic development portfolios, despite AusSeabed itself operating on a modest and fragmented funding base. The scale of downstream value enabled by AusSeabed is therefore significantly greater than the direct cost of operating the initiative.

This value–funding mismatch represents both a strength and a risk. While AusSeabed is a highly efficient mechanism for maximising public investment, reliance on short-term, fragmented funding arrangements exposes nationally significant outcomes to sustainability and delivery risks inconsistent with the scale of value being generated.

Key Finding 3: AusSeabed Occupies a Unique and Non-redundant Position in the National Marine Data Ecosystem

No other Australian initiative performs AusSeabed's function of nationally coordinating, quality-assuring, and stewarding seabed mapping data across government, research, and industry.

Within the federated architecture of Australia's emerging digital marine commons, AusSeabed functions as the authoritative national repository for seabed mapping, complementing but not duplicating other national infrastructures such as the Australian Ocean Data Network (AODN) and Seamap Australia, which focus primarily on oceanographic and biological variables. AusSeabed provides foundational seabed datasets that are subsequently consumed by downstream systems, including habitat mapping platforms, marine park analytics, modelling frameworks, and assessment and reporting processes.

AusSeabed is neither optional nor duplicative. It is not a substitutable data portal that could be readily replaced or absorbed by other systems without loss of function. Its value lies in its specialised stewardship role and its integration into national data supply chains. This non-redundancy means that any degradation in AusSeabed's capability would have system-wide consequences across multiple dependent platforms and policy functions.

Key Finding 4: AusSeabed Delivers Material, Cross-portfolio Value to Australian Government Functions

AusSeabed delivers material, ongoing value across a wide range of Australian federal and state government departments and agencies, supporting core statutory, policy, operational, and international responsibilities.

AusSeabed's coordination and stewardship of seabed data underpin decision-making and service delivery in areas including marine park management, environmental assessment, safety of navigation, natural hazard forecasting, national security and defence, territorial sovereignty, Antarctic operations, fisheries and aquaculture management, offshore infrastructure planning, and scientific research.

This value is cross-portfolio, enduring, operational in nature, and is not confined to discretionary research or time-limited projects. In practice, AusSeabed functions as shared national infrastructure that enables multiple agencies to deliver on their mandates more efficiently and with reduced risk.

Key Finding 5: Fragmented Institutional Responsibility for Australia's Marine Domain Creates a Persistent Coordination Gap

Responsibility for Australia's oceans and marine environment is distributed across a large number of Commonwealth departments and agencies, each with legitimate but partial mandates spanning environment, resources, infrastructure, science, defence, safety, fisheries, climate, and international engagement. No single department or agency holds overarching responsibility for the marine domain as a whole, with several stakeholders characterising this as a "tragedy of the commons", in which shared marine knowledge and coordination falls between portfolios despite its importance.

This fragmentation is well recognised across the marine sector as a longstanding coordination challenge. While individual agencies effectively deliver against their specific responsibilities, cross-cutting issues — such as national seabed mapping, data stewardship, and long-term marine knowledge infrastructure — do not align neatly with any single portfolio. As a result, foundational marine capabilities risk becoming “everybody’s interest but nobody’s responsibility”.

In this context, national marine coordination initiatives have often emerged from the bottom up, driven by collaboration, shared technical need, and voluntary alignment rather than formal direction. AusSeabed is a clear example of this. It was established to address a system-wide coordination gap that no single agency was positioned or incentivised to resolve independently.

This same structural context now shapes AusSeabed’s sustainability challenge. The absence of a single, natural institutional home for whole-of-system marine functions has contributed to ambiguity around ownership, authority, and long-term responsibility, despite widespread reliance on AusSeabed as national infrastructure.

Key Finding 6: Strong Stakeholder Support Has Generated Significant Social Capital

AusSeabed benefits from high levels of trust, goodwill, and voluntary cooperation across government agencies, research organisations, and industry stakeholders. This social capital has been built over time through consistent delivery, technical credibility, and a demonstrated commitment to open, collaborative approaches to seabed data stewardship.

In practice, this trust enables AusSeabed to achieve coordination outcomes that would be difficult to mandate through formal mechanisms alone. Stakeholders voluntarily contribute data, align to shared standards, participate in planning processes, and defer to AusSeabed’s technical guidance, even in the absence of contractual obligations or regulatory authority.

This social capital is a critical enabler of AusSeabed’s effectiveness, particularly given its limited formal mandate and fragmented funding base. However, reliance on informal trust-based arrangements also creates vulnerability: coordination outcomes depend heavily on personal relationships and continued goodwill, rather than on durable institutional authority. As AusSeabed’s responsibilities expand, this model becomes increasingly fragile if not supported by a clearer mandate and accountability.

Key Finding 7: AusSeabed Faces Increasing Expectations Without a Corresponding Mandate

Stakeholder interviews showed that expectations of AusSeabed have expanded significantly over time, particularly in relation to whole-of-government coordination, delivery of nationally consistent seabed products, and stewardship of seabed data as national infrastructure.

In practice, AusSeabed is increasingly relied upon by other Australian government agencies and the broader marine community, to prioritise data acquisition, support cross-jurisdictional coordination, manage standards and quality assurance, facilitate access to sensitive datasets, and underpin major policy, regulatory, and operational initiatives. These expectations extend

well beyond AusSeabed's original coordination remit and reflect its evolution into a de facto national capability. Additionally, there is strong demand for a suite of seabed products beyond bathymetry.

This expansion in expectations has not been matched by a clear and explicit mandate, stable baseline resourcing, or a formal accountability framework. As a result, AusSeabed is relied upon to deliver nationally significant outcomes without the institutional authority or structural support typically associated with such responsibilities. This misalignment creates delivery, accountability, and sustainability risks inappropriate for a capability that is increasingly viewed as essential national infrastructure.

Key Finding 8: AusSeabed is “Many Things to Many People”

AusSeabed's stakeholder base engage with it in multiple and sometimes competing ways, including as a data steward, coordination mechanism, service provider, platform operator, funding partner, and national infrastructure capability.

These differing interpretations reflect AusSeabed's broad reach and success across government, research, and industry, and the diverse ways in which stakeholders interact with it as data providers, users, contributors, and beneficiaries. However, in the absence of a clearly articulated and prioritised role, these differing expectations create uncertainty, tension, and occasional misalignment around decision rights, responsibilities, and funding contributions.

This role ambiguity contributes to expectation creep and complicates governance and sustainability, particularly as AusSeabed's responsibilities expand. Clarifying AusSeabed's primary role and boundaries would support more effective stakeholder engagement and reduce reliance on informal negotiation to manage competing expectations.

Key Finding 9: Senior-level Ownership and Advocacy Remain Limited

Awareness and appreciation of AusSeabed at senior levels of government remains low. As a result, AusSeabed has few champions at senior executive levels, including strategic prioritisation, funding deliberations, and whole-of-government planning. This constrains AusSeabed's ability to secure a durable mandate, baseline resourcing, and formal recognition commensurate with its national role.

The review finds that this gap reflects structural and historical factors, including AusSeabed's organic growth and reliance on informal coordination mechanisms, rather than a lack of confidence in its performance. However, as expectations continue to expand, the absence of sustained senior-level sponsorship increasingly constrains AusSeabed's long-term viability.

Key Finding 10: RAPI Introduces a Structural Alignment Issue Between AusSeabed and Geoscience Australia's Funded Marine Obligations

The Resourcing Australia's Prosperity Initiative (RAPI) establishes multi-year funding for marine geoscience activities that must be delivered by Geoscience Australia. These activities depend directly on seabed data coordination, quality assurance, and stewardship functions that AusSeabed currently performs.

While AusSeabed's enabling role aligns closely with RAPI's objectives, the initiative currently sits outside Geoscience Australia's formal funded program structure. This creates a structural misalignment in which nationally significant delivery obligations rely on an enabling capability that lacks an equivalent mandate, baseline funding, and accountability.

The review finds that this misalignment introduces avoidable delivery and accountability risks. As RAPI offshore mapping and offshore energy activities scale over multiple years, reliance on AusSeabed without formal integration increases the likelihood of coordination failure, inefficiency, and blurred responsibility inconsistent with the scale and importance of the investment.

Key Finding 11: Geoscience Australia's Evolving Marine Role Presents an Opportunity to Clarify and Strengthen Institutional Ownership

Geoscience Australia's role in marine and seabed geoscience has evolved significantly over the past decade, shifting from a primarily research-oriented focus that included direct marine survey activity, to a national role focused on stewardship and integration of nationally significant marine data and the generation of products.

The absence of explicit reference to marine functions in Geoscience Australia's administrative orders and core descriptions has contributed to perceptions of ambiguity regarding long-term institutional ownership, both within GA and with the broader marine community. This is despite strong and growing reliance on GA-led marine data functions.

The review finds that this gap between practice and formal framing represents a strengthening opportunity: clarifying Geoscience Australia's marine stewardship role would better align mandate, accountability, and delivery, and reinforce confidence among partners, funders, and other government departments. Explicit inclusion of marine mapping within Geoscience Australia's broader national mapping remit would represent a clear and low-risk signal of such a commitment.

Key Finding 12: AusSeabed's Effectiveness Depends on Sustained Contributions from Core Delivery Partners

AusSeabed's value and impact are derived from the ongoing contributions, engagement, and capability of its core delivery partners. Organisations such as CSIRO, the Australian Hydrographic Office, the Australian Antarctic Division, and the Australian Institute of Marine Science each play distinct and complementary roles as funders, data producers, operational users, and applied science partners within the AusSeabed ecosystem.

Regardless of future institutional or governance arrangements, AusSeabed's ability to function as a nationally coordinated seabed mapping capability is contingent on the continued participation of these core partners. Their contributions underpin data supply, technical quality, operational relevance, resourcing, and downstream uptake across government, research, and industry. Any future operating model that weakens incentives for partner engagement, data contribution, or alignment with shared standards would materially reduce AusSeabed's effectiveness and national value.

Without sustained contributions by core delivery partners, AusSeabed would be unable to deliver nationally coordinated bathymetry or maximise the return on public investment in seabed data.

Key Finding 13: AusSeabed's Current Funding and Governance Arrangements are No Longer Fit-for-Purpose

AusSeabed's current funding and governance arrangements are misaligned with its maturity and national significance. Reliance on short-term funding, in-kind contributions, and informal governance structures exposes AusSeabed to sustainability, delivery, and accountability risks inappropriate for a nationally critical capability.

This misalignment is also reflected in the way AusSeabed is represented externally. Stakeholders noted that AusSeabed is often spoken for by multiple, uncoordinated voices across partner organisations, including in public commentary, without clear executive authority or accountability. While this reflects strong community engagement and shared ownership, it introduces reputational and policy risk that is increasingly inappropriate for a capability relied upon as national infrastructure.

While the funding agreement with the Australian Hydrographic Office provides a degree of medium-term stability, it does not resolve underlying structural issues. Instead, it creates a time-limited window in which sustainable funding, governance, and accountability arrangements can be designed and implemented.

The review finds that without reform during this period, AusSeabed will remain vulnerable to fragmentation and erosion of capability despite strong demand and demonstrated value.

Key Finding 14: Institutional Consolidation is a Prerequisite for Sustainable Funding Reform

AusSeabed's current institutional arrangements are not yet sufficiently consolidated to support pursuit of major long-term, sustainable funding pathways. Ambiguity in mandate, governance, and accountability increases policy, delivery, and reputational risk when seeking substantial or enduring funding commitments.

Based on the preceding findings, the review concludes that institutional clarity and consolidation are a necessary precondition for credible long-term funding reform. In the absence of such consolidation, attempts to secure major new funding would rely on informal arrangements and goodwill, materially increasing the likelihood of fragmentation, misalignment, or under-delivery.

This sequencing issue is structural rather than financial in nature and reflects the maturity of AusSeabed's role rather than its performance. Addressing institutional foundations first would materially reduce risk and strengthen confidence among central agencies and funders.

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1. Introduction and Purpose

1.1 Purpose of the Review

The purpose of this review is to examine the funding, governance, and operating arrangements of the AusSeabed initiative and to identify options to place it on a sustainable long-term footing. The review responds to growing recognition that, while partnership remains central to AusSeabed's success, its roles and responsibilities have expanded beyond the scope of its original partnership-based arrangements.

In practice, AusSeabed is increasingly relied upon to coordinate, steward, and enable reuse of seabed data across government, research, and industry, supporting a wide range of policy, regulatory, scientific, and operational outcomes. These expanding expectations have emerged in advance of a clear mandate, consolidated governance, or stable baseline funding arrangements, creating increasing delivery and sustainability risk.

The review is intended to inform Commonwealth decision-makers, funding partners, and other stakeholders by providing a robust, evidence-based assessment of current arrangements and future options. It is designed to support informed decisions on institutional positioning, governance reform, and future investment pathways, without pre-empting specific funding outcomes.

While the review was commissioned to provide advice to the AusSeabed Executive Board, its findings and recommendations are framed to inform broader Commonwealth decision-making in light of AusSeabed's evolving national role.

1.2 Scope and Methodology

The review examined the governance, funding, operating model, and institutional positioning of the AusSeabed initiative, with a focus on its sustainability as a nationally significant capability. The review did not assess the technical quality of seabed data products or individual project performance.

The review adopted a mixed-methods approach, drawing on document analysis, stakeholder engagement, survey data, and benchmarking against comparable national and international initiatives. This approach was designed to triangulate evidence from multiple sources and to test findings across different perspectives.

Stakeholder engagement was extensive and included one-on-one interviews and group discussions with representatives from Commonwealth and state government agencies, research institutions, industry, and data custodians. Engagement spanned senior executives, program managers, technical specialists, and end users, reflecting the diverse ways in which AusSeabed is used and supported. An online survey was also conducted to broaden input from the AusSeabed community.

A substantial body of documentation was reviewed, including governance instruments, terms of reference, funding agreements, strategy and roadmap documents, meeting records, and supporting material provided by Geoscience Australia. Desktop research and targeted

benchmarking with comparable international initiatives were undertaken to inform assessment of alternative models and future pathways.

The findings and recommendations in this report reflect the synthesis of this evidence base. While the review benefited from a high level of engagement and candour from participants, it relies primarily on qualitative evidence and reflects the views expressed at the time of consultation. Detailed methodology and engagement information is provided in the appendices.

1.3 Structure of the Report

This report is structured to move from context and evidence to findings, alternative options, and implementation considerations.

Section 2 provides background on AusSeabed, including its origins, evolution, and role within the national and international marine data context. This section establishes the policy and operational environment in which AusSeabed operates.

Section 3 examines the value delivered by AusSeabed, including its contribution to a wide range of government functions and stakeholders, and its role within the national marine data ecosystem.

Section 4 identifies key issues and challenges arising from the review, including governance ambiguity, mandate and accountability gaps, funding sustainability, and institutional alignment.

Section 5 outlines the key policy, operational, and strategic drivers shaping future demand for AusSeabed at both a national and global level.

Section 6 presents and assesses options for AusSeabed's future operating model, governance, and funding arrangements.

Section 7 outlines the preferred option and associated implementation considerations, including governance reform, transition arrangements, and senior engagement.

Section 8 concludes the report with recommendations and an implementation roadmap.

Supporting detail, including methodology, stakeholder engagement summaries, and operational improvement opportunities, is provided in the appendices.

2. Background: AusSeabed and the National Marine Context

2.1 Origins and Evolution of AusSeabed

AusSeabed was established to address long-standing fragmentation in Australia's seabed mapping landscape. Historically, seabed data were collected by multiple agencies and institutions for specific operational or research purposes, with limited national coordination, inconsistent standards, and variable accessibility. While substantial volumes of data existed, they were often difficult to discover, compare, or reuse beyond their original purpose.

The origins of AusSeabed lie in a bottom-up recognition across the marine research and policy communities that national coordination was necessary to maximise the value of existing and future seabed data. Similar to other nationally coordinated marine data initiatives, including Seamap Australia, early momentum was driven by practitioners and institutions seeking to improve consistency, quality assurance, and impact across jurisdictions and sectors.

Early investment through successive marine research programs, including the National Environmental Science Program (NESP), supported the development of shared standards and operating procedures for multibeam data collection and quality control, elevating expectations around trusted, analysis-ready seabed data. Over time, AusSeabed has become the focal point through which disparate data streams could be quality-assured, standardised, and made accessible at a national scale. Coordination of new data acquisition through the Survey Coordination Tool has added further value over time.

AusSeabed was formally launched in 2018 following several years of development and community building. Its public-facing governance and coordination functions distinguished it from other marine data portals, signalling an ambition to operate as national infrastructure rather than a passive repository.

From the outset, AusSeabed's success has depended on sustained goodwill and voluntary participation by data-collecting organisations, rather than formal authority or mandate.

The initiative's evolution has also been shaped by broader institutional shifts. Over the past decade, Geoscience Australia's direct involvement in marine survey operations has reduced significantly, with most multibeam data now collected through external platforms such as the Marine National Facility and other research or operational vessels. This shift has increased the importance of coordination, stewardship, and integration functions — precisely the gap AusSeabed was designed to fill — while also reinforcing reliance on external partners for data supply.

A critical inflection point in AusSeabed's maturation was the establishment of long-term funding through the Australian Hydrographic Office's HydroScheme Industry Partnership Program (HIPP). This investment substantially increased the volume and consistency of high-quality bathymetric data entering the national system and reinforced AusSeabed's role as the primary mechanism for managing and disseminating these data for broader public benefit.

At the same time, it heightened expectations that AusSeabed would function as dependable national infrastructure rather than a time-limited coordination project.

2.2 Current Functions

AusSeabed currently operates as Australia's primary national mechanism for coordinating, stewarding, and enabling reuse of seabed mapping data. It does not undertake data acquisition itself but focuses on maximising the value of data collected by government agencies, research organisations, and industry.

Seabed data management is inherently a long-term custodial function rather than a short-term or project-based activity. The value of seabed datasets is realised over decades through sustained curation, quality assurance, documentation, and accessibility, as data are reused, integrated, and reinterpreted in response to evolving scientific, operational, regulatory, and policy needs. In this context, responsibility for seabed data coordination and stewardship aligns closely with the Australian Public Service value of stewardship, which emphasises care for national assets and institutional capability in the long-term public interest.

At its core, AusSeabed's function is the aggregation, management, and dissemination of seabed data nationally. AusSeabed provides infrastructure and services that allow data collected for specific purposes to be discovered, accessed, and reused by other users, extending the public value of existing investments.

Seabed data management is inherently a long-term custodial function rather than a short-term or project-based activity

In delivering these functions, a consistent theme raised by data-contributing stakeholders is the importance of clear and enduring attribution to original data providers, particularly where nationally aggregated datasets or derived products are published. For the AusSeabed community, recognition of data provenance is not simply a matter of credit, but a core incentive for contribution, underpinning trust, reciprocity, and sustained participation.

AusSeabed also undertakes critical data stewardship functions, including the development and application of national standards for multibeam bathymetric data, quality assurance and control processes, and preparation of data in analysis-ready formats. These functions enable consistency, comparability, and trust in seabed datasets that are used for a wide range of downstream applications.

A further core function is national coordination. Seabed mapping and bathymetric data acquisition are inherently resource-intensive, often requiring specialised vessels, technical personnel, and favourable operating conditions. In a distributed national system where multiple agencies, jurisdictions, research organisations, and industry actors collect data for different purposes, the risk of duplicated effort and fragmented coverage is significant. Independent stakeholder research commissioned by Geoscience Australia¹ has similarly identified

¹ *Geoscience Australia Marine Team* (n.d.), Today consulting report.

duplication, rework, and “double handling” of seabed data as persistent inefficiencies in the absence of coordinated stewardship.

AusSeabed provides a national coordination mechanism that improves visibility of both existing seabed data holdings and planned survey activities. By supporting alignment of survey priorities and promoting transparency across sectors, AusSeabed reduces unnecessary duplication, enhances the strategic impact of survey investment, and enables data collected for one purpose to be reused for others. Coordination value is realised not only through data publication, but at the planning stage, including where datasets are subject to embargo or sensitivity constraints. Improved visibility of planned and completed surveys allows agencies to adjust timing, scope, and geographic focus to maximise collective benefit, strengthening system-wide efficiency even before data are publicly released. These coordination functions increase the efficiency of public and private expenditure on seabed mapping and strengthen the coherence of Australia’s marine spatial information base. This contributes to avoided costs in marine data acquisition and management in an environment where even marginal reductions in duplicated survey effort or parallel data processing translate into significant savings over time.

Through these combined stewardship and coordination functions, AusSeabed acts as an enabling input to downstream platforms and products, including habitat mapping, marine spatial planning tools, modelling frameworks, hazard assessments, and other components of the national marine data ecosystem. Its role is therefore foundational: without nationally coordinated seabed data stewardship, a range of downstream systems and decision-support tools would operate with reduced efficiency, consistency, and confidence.

Finally, AusSeabed performs an important convening role, bringing together technical experts, data custodians, and users to support coordination, standards development, and shared understanding across the seabed mapping community.

2.3 The National Marine Data Ecosystem

Australia’s marine data environment has evolved over more than two decades into a distributed but increasingly interoperable ecosystem of institutions, infrastructure, and collaborative programs. This ecosystem underpins research, policy, operational decision-making, and emerging marine industries, and is often described as progressing toward a federated digital marine data commons model.²

Within this system, responsibility for marine data is shared across several nationally significant institutions, each with distinct but complementary roles. These include Geoscience Australia (seabed and marine geoscience), CSIRO and the Marine National Facility (ship-based observation and multidisciplinary data acquisition), the Australian Institute of Marine Science (tropical marine systems), the Bureau of Meteorology (operational ocean and climate data), the Australian Antarctic Division (Southern Ocean and Antarctic data), and the Royal Australian Navy and Australian Hydrographic Office (hydrographic and navigational data). Universities,

² Rehbein, M., et al. (2025), *Data through to Information: Enabling Australia’s Digital Marine Commons*, White paper prepared for the National Marine Science Strategy 2025–2035.

state and territory agencies, and selected industry partners also contribute substantial volumes of marine data.

National collaborative research infrastructure plays a critical integrating role within this landscape. The Integrated Marine Observing System (IMOS) and the Australian Ocean Data Network (AODN), supported through NCRIS, provide the primary national mechanism for making marine data findable, accessible, interoperable, and reusable (FAIR), particularly for oceanographic, biological, and biogeochemical data streams. The Marine National Facility (MNF) complements this by enabling the systematic collection of high-value marine and seabed data, with demonstrated downstream research, policy, and economic impacts.³

AusSeabed operates within this ecosystem as the national coordination and stewardship capability specifically focused on seabed mapping data. Its role is complementary to, rather than duplicative of, IMOS/AODN and other national repositories. While AODN provides cross-domain marine data infrastructure, AusSeabed addresses the unique technical, standards, and coordination challenges associated with seabed mapping, including multibeam bathymetry and derived products.

Within Australia’s distributed marine data commons, AusSeabed provides the dedicated national capability for seabed data coordination and long-term stewardship

The White Paper vision for Australia’s marine data future emphasises the importance of trusted data supply chains linking national repositories to policy, regulatory, and industry decision-making systems. In this context, AusSeabed represents a critical link between seabed data collection efforts and the broader digital marine commons, extending the value of existing public investments and supporting consistent, evidence-based decision-making across jurisdictions and sectors.

Recent national assessments of marine data use also highlight the extent to which seabed information underpins statutory decision-making, particularly in contexts where direct observation is limited or logistically impractical. These assessments emphasise the reliance of environmental managers on consistent, quality-assured bathymetry and derived seabed products to inform marine planning, conservation, and risk management decisions. This reinforces the characterisation of AusSeabed as enabling national infrastructure, rather than a discretionary coordination initiative.⁴

³ RTI International (2020), *Impact Analysis of the Marine National Facility*, Summary Report prepared for the Marine National Facility, Commonwealth Scientific and Industrial Research Organisation (CSIRO).

⁴ Hayes, K.R., et al. (2024), *Improving knowledge transfer to support Australian Marine Park decision making and management effectiveness evaluation*, Final Report to the National Environmental Science Program, CSIRO, Hobart.

2.4 First Nations Context for Seabed Data Stewardship

AusSeabed operates in a marine environment that is also recognised as Sea Country, with enduring cultural, spiritual, and knowledge connections held by Aboriginal and Torres Strait Islander peoples. AusSeabed has articulated an intention to engage genuinely with First Nations Australians and to develop a co-designed First Nations Strategy over time, guided by principles of collaboration, respect for cultural and intellectual property, and emerging Indigenous data governance frameworks.

The development and implementation of these commitments bring an additional dimension to AusSeabed's long-term stewardship. As nationally coordinated seabed data becomes increasingly central to environmental management, infrastructure planning, and resource decision-making, expectations regarding ethical data governance, cultural knowledge, and engagement with Traditional Custodians will continue to evolve alongside AusSeabed's institutional arrangements.

In practice, data contributed to AusSeabed is collected and delivered by multiple core partner organisations, each operating under its own legislative, policy, and organisational arrangements for engagement with Aboriginal and Torres Strait Islander peoples. These arrangements reflect differences in mandate, geography, operational context, and the maturity of existing relationships with Traditional Owners. As AusSeabed matures as a national capability, the importance of alignment and coherence across partner approaches to First Nations engagement will be key, while recognising that responsibility for engagement and consent remains with the data-collecting organisations themselves.

2.5 Geoscience Australia's National Mapping and Data Stewardship Role

Geoscience Australia has a long-standing role in the stewardship of Australia's nationally significant geoscience and spatial datasets, including responsibility for authoritative national mapping and the long-term management of foundational geoscientific information. This stewardship function includes responsibility for standards and quality, and for ensuring that nationally important datasets remain accessible, reliable, and fit for reuse over time.

These functions align closely with the Australian Public Service value of stewardship⁵, which emphasises responsibility for the long-term public interest, the care of national assets, and the maintenance of institutional capability beyond individual programs or funding cycles. In this context, marine and seabed mapping represent a natural extension of Geoscience Australia's national mapping and data stewardship remit, particularly where such datasets underpin multiple policy, regulatory, scientific, and operational outcomes across government.

⁵ Stewardship was formally added as a sixth APS Value in the *Public Service Amendment Act 2024*, amending the *Public Service Act 1999*. Under this value, the APS is expected to “build its capability and institutional knowledge and support the public interest now and into the future, by understanding the long-term impacts of what it does.”

3. The Value of the AusSeabed Initiative

AusSeabed provides a nationally coordinated, quality-assured foundation of seabed mapping data that underpins decision-making across a broad range of Australian Government responsibilities, state and territory functions, research activities, and industry sectors. Its value lies not only in enabling individual use cases, but in reducing duplication, improving consistency, and allowing multiple agencies and sectors to derive benefit from a shared national data asset.

Seabed data are a critical but costly input to marine decision-making. Without national coordination, agencies are required to independently source, process, and interpret seabed data to meet their own needs, resulting in fragmented standards, duplicated effort, and inconsistent outcomes. AusSeabed addresses this systemic inefficiency by coordinating standards, quality assurance, and access arrangements, thereby maximising the return on investment from seabed data collected for diverse purposes across government, research, and industry.

**AusSeabed now functions, in practice, as national research
and data infrastructure relied upon across multiple
Commonwealth portfolios, jurisdictions, and sectors**

3.1 Core AusSeabed Delivery Partners

AusSeabed's value is most clearly demonstrated by the organisations that collectively underpin its operation and delivery. These core partners are both major contributors to, and users of, nationally coordinated bathymetry, and would face significant cost, capability, or coordination gaps in the absence of AusSeabed. Each core partner engages with AusSeabed in different ways, reflecting their distinct mandates, capabilities, and roles within the national marine science and data ecosystem.

Since its establishment, AusSeabed has been sustained through a combination of partner funding, in-kind contributions, and appropriated Geoscience Australia staff and institutional capability. This shared delivery model has provided continuity of stewardship while enabling a genuinely collaborative, cross-jurisdictional approach to seabed data coordination.

In addition to coordination and access efficiencies, AusSeabed provides participating organisations with tangible benefits for data contribution, including formal publication, attribution, and improved visibility of their datasets, supporting sustained and voluntary data sharing across the national marine community.

3.1.1 Geoscience Australia

AusSeabed aligns directly with GA's role as the steward of Australia's geoscience information and its responsibility for the delivery of authoritative marine geoscience data. These responsibilities are articulated through core functions and initiatives such as the Resourcing Australia's Prosperity Initiative (RAPI), which commits GA to delivering nationally significant

geoscience datasets to support economic development, environmental management, and community safety.

GA's marine geoscience responsibilities also intersect with Australia's maritime jurisdiction and sovereign rights. The definition of Australia's maritime boundaries under international law relies on the accurate determination of the coastline, including the location of the low-water mark. High-quality bathymetry and coastal seabed information contribute to the geospatial evidence base that underpins the delineation of maritime zones, continental shelf claims, and related jurisdictional determinations. Consistent national stewardship of seabed and coastal geospatial data therefore supports not only operational and environmental objectives, but also the integrity of Australia's maritime boundaries.

Under RAPI, Geoscience Australia has identified the delivery of priority marine and offshore datasets over the coming decade, including nationally consistent bathymetry and seabed information products to be delivered progressively to 2029. Meeting these commitments requires coordinated access to data collected across Commonwealth, state, research, and partner programs, alongside consistent standards, quality assurance, and long-term stewardship arrangements.

AusSeabed provides the coordination, aggregation, and quality-assurance mechanisms needed to support these outcomes. By enabling seabed data to be discovered, standardised, and made analysis-ready for reuse, AusSeabed directly supports GA's ability to deliver RAPI-aligned marine datasets efficiently and credibly. Importantly, AusSeabed's data publication framework provides contributors with formal recognition through citable dataset identifiers and clear attribution, converting data submission into a tangible and visible output. This reciprocal benefit strengthens incentives for the provision of well-curated and documented data, which is essential to sustaining the cross-jurisdictional data flows on which RAPI delivery depends. In this context, AusSeabed functions as a key enabling capability within GA's broader marine geoscience delivery framework, rather than as an adjunct or standalone program.

3.1.2 Australian Hydrographic Office

The Australian Hydrographic Office (AHO) relies on authoritative seabed information to support its safety-of-navigation mandate. AusSeabed contributes to this mandate by providing a nationally coordinated framework for the visibility, prioritisation, and alignment of seabed survey activity across jurisdictions and sectors. This coordination reduces duplication of effort, improves targeting of limited hydrographic resources, and supports alignment of survey investment with national, Defence, and whole-of-government strategic priorities.

AusSeabed adds particular value in relation to the HydroScheme Industry Partnership Program (HIPP). While AHO retains responsibility for delivering HIPP survey activities, AusSeabed enhances their broader impact by improving visibility of completed and planned surveys, supporting alignment with other national priorities, and enabling data to be curated, standardised, and made discoverable for reuse beyond their initial safety-of-navigation purpose. In doing so, AusSeabed helps maximise the national value of HIPP survey investment, ensuring that data collected for hydrographic charting also contributes to wider marine science, environmental management, and strategic objectives.

Through its stewardship and standards functions, AusSeabed also strengthens the quality and consistency of bathymetric data available to AHO. By supporting nationally agreed standards, quality assurance processes, and community-led guidelines, AusSeabed helps lift the reliability and comparability of data contributed by non-Defence entities. This improves the suitability of externally sourced bathymetric data for hydrographic assessment, reuse, and long-term custodianship.

For Defence, seabed mapping and characterisation underpin maritime domain awareness, operational planning, and national security. AusSeabed enhances Defence capability by improving awareness of national seabed data holdings, supporting appropriate access arrangements for sensitive data, and reducing the need for duplicative surveys in remote or strategically sensitive areas. Collectively, these coordination and stewardship functions strengthen the resilience, coherence, and overall performance of Australia's hydrographic and seabed information system.

3.1.3 CSIRO and the Marine National Facility

The CSIRO plays a significant role in the AusSeabed ecosystem as both a major producer and sophisticated user of bathymetric data in support of national marine science priorities. A central component of this role is CSIRO's operation of the Marine National Facility (MNF), which manages Australia's dedicated blue-water research vessel, *RV Investigator*.

The Marine National Facility is nationally significant research infrastructure that undertakes large-scale, multidisciplinary marine research voyages on behalf of the Australian research community. Bathymetric data collected through MNF voyages are processed, quality-assured, and quality-controlled by CSIRO in accordance with established scientific and technical standards. As such, the MNF does not rely on AusSeabed for primary data processing or quality assurance. However, the MNF actively contributes to, and draws on, AusSeabed's community-led data guidelines, and Quality Assurance Tool to inform and continuously improve its internal data management, documentation, and interoperability practices.

AusSeabed's value to CSIRO and the MNF lies in its role as the national aggregation and dissemination mechanism for bathymetric data. By stewarding MNF-generated bathymetry data within a nationally coordinated framework, AusSeabed enables these datasets to be discoverable, accessible, and reusable by a broad user community, including industry. This serves the national interest by significantly enhancing the reach, visibility, and long-term utility of MNF data as part of Australia's national seabed data asset.

In parallel, CSIRO is a substantial downstream user of nationally coordinated bathymetry. Authoritative seafloor information underpins CSIRO's work in oceanography, climate and circulation modelling, marine ecosystem science, offshore resource assessment, and emerging blue-economy applications. In this context, CSIRO's engagement with AusSeabed reflects a mature producer-user model, where CSIRO retains responsibility for data acquisition and scientific quality, while AusSeabed provides the coordination and stewardship functions that maximise national value and reuse.

3.1.4 Australian Antarctic Division

The Australian Antarctic Division (AAD), within the Department of Climate Change, Energy, the Environment and Water, derives significant strategic value from AusSeabed as the national mechanism for coordinating, quality-assuring, and stewarding seabed data collected through major public investments, including the icebreaker RSV *Nuyina*. Antarctic and Southern Ocean seabed mapping supports climate research, ecosystem monitoring, safe marine operations, and Australia's broader scientific leadership within the Antarctic Treaty System.⁶

AusSeabed strengthens the return on these investments by ensuring that seabed data acquired for specific Antarctic missions are processed in a consistent manner, allowing them to be integrated into a nationally coordinated data framework. Through arrangements with Geoscience Australia, including specialist Antarctic geoscience expertise developed in part through engagement with the AusSeabed partnership, AAD is able to leverage existing national capability rather than establish parallel processing, standards, and stewardship functions within its own operating model.

This national capability reduces duplication of effort, avoids fragmentation of data standards, and provides a clear pathway for long-term custodianship and eventual public release of Antarctic seabed datasets following embargo periods. In the absence of AusSeabed, AAD would face significantly higher administrative, technical, and infrastructure burdens to ensure consistent quality assurance, data integration, and national visibility of its seabed investments.

Beyond scientific outputs, AusSeabed enhances Australia's national interest in Antarctica by ensuring that publicly funded seabed data contribute to enduring national knowledge and international credibility. By embedding Antarctic seabed datasets within a coherent national framework, AusSeabed amplifies the long-term value of Australia's Antarctic marine infrastructure and supports more compelling cases for future investment in marine capability.

3.1.5 Australian Institute of Marine Science

The Australian Institute of Marine Science (AIMS) derives substantial value from participation in AusSeabed as both a contributor to and beneficiary of nationally coordinated seabed data capability. AIMS' primary mission is applied marine science, particularly in tropical and reef environments, and its research and monitoring programs depend on access to high-quality, nationally consistent bathymetry and seabed information.

AIMS acquires seabed data through its research vessel RV *Solander* and associated field programs, and AusSeabed provides an established national pathway through which such data can be curated, attributed, and made discoverable. Through AusSeabed, AIMS benefits from nationally agreed standards, coordinated survey visibility, and a shared framework for data quality and stewardship. This reduces the need for AIMS to independently develop and maintain parallel data dissemination, standardisation, and long-term custodial infrastructure, allowing its

⁶ Australian Government (2025), *Australian Antarctic Science Decadal Strategy 2025–2035*, Department of Climate Change, Energy, the Environment and Water, Canberra.

investment in marine vessels and scientific instrumentation to focus on acquisition and scientific analysis rather than duplicated data management systems.

3.2 Commonwealth Policy and System Users

The following Commonwealth departments and agencies rely on nationally coordinated bathymetry as an enabling input to policy development, modelling, regulation, and operational decision-making, but are not directly responsible for AusSeabed delivery.

3.2.1 Parks Australia

Parks Australia is a major downstream user of nationally coordinated seabed data in support of its statutory responsibilities for the planning, management, and monitoring of Australian Marine Parks. These responsibilities extend across a large and diverse estate, much of which is remote, deep, or otherwise logistically difficult to observe directly. In this context, bathymetry and derived seabed products are foundational inputs to management and decision-making.

Nationally consistent seabed data underpin a wide range of Parks Australia functions, including marine park zoning and planning, habitat characterisation, biodiversity assessment, risk analysis, and the design and evaluation of monitoring programs. In offshore and deep-water environments in particular, seabed mapping provides the primary means of understanding ecological structure and informing management decisions at scale.

In delivering these functions, Parks Australia has engaged Seamap Australia to develop integrated, mapped habitat products that combine ecological and physical seabed information. Seamap Australia draws on nationally coordinated bathymetric datasets, including those curated and quality-assured through AusSeabed, alongside biological and ecological data sources. In this layered model, AusSeabed provides the foundational seabed data framework, while Seamap translates these inputs into applied, management-ready products tailored to Parks Australia's operational needs.

AusSeabed's value to Parks Australia therefore lies not in duplicating applied habitat mapping functions, but in ensuring that underlying seabed datasets are consistent, interoperable, and stewarded within a national framework. This reduces duplication of baseline data processing, supports comparability across the marine park network, and enables data collected for different purposes and by different agencies to be integrated into a coherent national evidence base.

3.2.2 Department of Climate Change, Energy, the Environment and Water

The Department of Climate Change, Energy, the Environment and Water has significant reliance on nationally consistent bathymetry as an enabling input to marine environmental policy, regulation, and international engagement. High-quality seabed information underpins marine park planning and management, biodiversity conservation, ecosystem assessment, and implementation of national environmental standards.

Through its portfolio responsibilities, including oversight of the Australian Antarctic Division and Parks Australia (listed here separately), DCCEEW depends on authoritative bathymetric data and seabed characterisation to support evidence-based decision-making across Australian waters and the Southern Ocean.

DCCEEW's establishment of Environment Information Australia reflects a broader whole-of-government focus on strengthening the accessibility, integrity, and interoperability of environmental data to support regulatory reform and evidence-based decision-making. In marine contexts, high-quality bathymetry and seabed characterisation form a foundational component of the environmental information base, particularly in offshore areas where direct observation is limited. AusSeabed's coordination, standards, and stewardship functions therefore align closely with the objectives of Environment Information Australia by ensuring that seabed data are discoverable, quality-assured, and nationally consistent.

DCCEEW is also leading the development of Australia's Sustainable Ocean Plan, to articulate a long-term national vision and priorities for ocean management and to guide coordinated action across jurisdictions and sectors. This work is being progressed in the context of Australia's commitment as a member of the High Level Panel for a Sustainable Ocean Economy. While the Plan is still in development, its goal is to ensure the sustainable management of 100% of Australia's Exclusive Economic Zone (EEZ) and to reinforce the importance of nationally consistent ocean data to support decision making. In this context, seabed data and associated products will be integral to delivering on the Plan's objectives.

3.2.3 Other Commonwealth Stakeholders

Beyond its core delivery partners, AusSeabed underpins a range of Commonwealth functions that depend on authoritative, nationally consistent seabed information to support operational, regulatory, environmental, and economic decision-making.

Across natural hazard preparedness and environmental risk management, accurate bathymetry and seabed characterisation are essential inputs to coastal and ocean modelling, early warning systems, and long-term climate and ecosystem assessments. National coordination of seabed data improves the reliability, comparability, and accessibility of these inputs across agencies and jurisdictions.

Within maritime safety, marine operations, and emerging offshore industries, seabed information informs planning, regulatory assessment, incident response, and infrastructure development. As new sectors generate increasing volumes of marine spatial data, nationally coordinated stewardship reduces duplication of data management effort across portfolios and ensures consistent access to authoritative baseline information.

Seabed data also support fisheries management, aquaculture development, habitat identification, marine spatial planning, and broader resource and infrastructure investment decisions. In these contexts, nationally agreed standards and quality assurance processes reduce fragmentation, improve cross-jurisdictional consistency, and enable reuse of publicly funded data across multiple policy and operational domains.

Collectively, this distributed reliance illustrates that AusSeabed functions as foundational marine data infrastructure supporting diverse Commonwealth responsibilities. Its value lies not in serving any single portfolio, but in enabling efficient, coordinated use of seabed information across government without requiring parallel data coordination and stewardship capability to be replicated within each agency.

3.3 State and Territory Government Functions

State and territory governments rely heavily on high-quality bathymetry and seabed data to deliver core responsibilities, including coastal and ocean modelling, flood and storm surge risk assessment, marine spatial planning, environmental assessment, and infrastructure and development approvals. These functions are particularly critical in coastal jurisdictions facing increasing exposure to extreme weather, sea level rise, and cumulative development pressures.

AusSeabed plays a key enabling role by reducing the need for individual jurisdictions to independently curate, quality-assure, and harmonise seabed datasets. By providing a nationally consistent framework for analysis-ready seabed data, AusSeabed supports comparability across jurisdictions and, where data can be contributed, reduces duplication of effort across the system. For example, Western Australia's Department of Transport and Major Infrastructure makes extensive use of the AusSeabed Survey Coordination Tool to inform and request HydroScheme Industry Partnership Program surveys in support of navigational safety.

This role is increasingly important in the context of coordinated coastal vessel capability. Recent investments through NCRIS have supported enhanced coastal and research vessel operations, including in South Australia and Western Australia, potentially generating significant volumes of new seabed data. However, stakeholder feedback indicates that the extent to which state governments are able to contribute such data into nationally coordinated frameworks is influenced by the level and continuity of jurisdictional investment in seabed mapping and data management capability. In this context, AusSeabed provides an established national infrastructure through which such data could be published and shared with appropriate resourcing (see Section 3.7 below). In the absence of AusSeabed, states would be required to develop and sustain their own data portals and stewardship arrangements to achieve comparable outcomes, placing effective data sharing and reuse even further out of reach.

Across multiple jurisdictions, AusSeabed underpins consistent coastal modelling, hazard assessment, and planning in shared marine environments, where data discontinuities at jurisdictional boundaries can undermine effective decision-making. Several stakeholders noted that nationally consistent bathymetric datasets are particularly important where jurisdictional boundaries do not align with physical coastal systems. In this way, AusSeabed also supports state engagement with national marine initiatives and downstream platforms, enabling alignment between state-level planning processes and Commonwealth policy objectives and delivering cross-jurisdictional efficiency and coherence across Australia's coastal and marine estate.

3.4 Research and Tertiary Education

For universities and research institutions, AusSeabed functions as national research infrastructure, providing a trusted and consistent foundation for a wide range of marine and coastal science disciplines. By aggregating, quality-assuring, and standardising seabed data collected across multiple programs and platforms, AusSeabed reduces the time, cost, and technical effort associated with data discovery, cleaning, and harmonisation.

Bathymetry is a critical input across diverse areas of marine science. In physical oceanography and coastal modelling, seabed data strongly influences circulation, mixing, wave dynamics, and

storm surge behaviour. In marine geology and geophysics, bathymetric data underpin understanding of seafloor structure, sediment transport, tectonics, and resource systems. In marine ecology and habitat mapping, bathymetry is a primary determinant of habitat distribution and biodiversity patterns, supporting ecosystem assessment and conservation planning.

Bathymetric data are also essential for climate and environmental research, including sea level rise assessment, coastal vulnerability analysis, and modelling of ocean–climate interactions. In polar and Southern Ocean science, seabed mapping supports glaciology, ice–ocean interaction studies, and safe logistical operations. Archaeology and maritime heritage research rely on high-resolution seabed data to locate, characterise, and protect submerged cultural heritage.

Across these disciplines, AusSeabed enables large-scale synthesis and modelling that would not be feasible using fragmented or inconsistently processed datasets. By providing analysis-ready data at national scale, it supports cross-institutional collaboration, longitudinal studies, and integration with international research efforts.

For tertiary education, AusSeabed supports advanced training and workforce development by providing students and early-career researchers with access to high-quality, nationally consistent datasets. One response to the online survey made this point very clearly, highlighting the value of student exposure to real-world, large-scale marine data to enhance analytical capability and prepare graduates for careers across government, research, and industry.

By lowering barriers to data access and reuse, AusSeabed allows researchers to focus on interpretation, innovation, and scientific insight rather than data preparation. This strengthens Australia’s capacity to undertake internationally competitive marine research.

3.5 Enabling Australia’s Blue Economy

Australia’s marine and blue economy represents a substantial and rapidly growing component of national economic activity. According to the AIMS Index of Marine Industry 2027, marine industries contributed approximately \$203 billion in total value added in FY23, equivalent to 9.1% of Australia’s GDP, and supported more than 713,000 full-time equivalent jobs across the economy.⁷ Economic output from marine industries reached \$229 billion in the same year and has grown by 19% since FY21, reflecting strong post-pandemic recovery and longer-term structural growth.

This scale and growth underscore the importance of foundational data and infrastructure that support safe, efficient, and sustainable use of Australia’s marine environment. Across both established and emerging marine industries, seabed and bathymetric data provide a critical enabling input.

In the offshore energy and resource sectors, including oil and gas, decommissioning, and emerging offshore wind, accurate seabed information is essential for site selection, engineering design, environmental assessment, and regulatory approval. In water transport and port operations, seabed data underpin safe navigation, dredging programs, and port expansion,

⁷ Australian Institute of Marine Science (AIMS) & Deloitte Access Economics (2025). *AIMS Index of Marine Industry: 2025*. Australian Institute of Marine Science, Townsville.

which are critical to trade and supply chains. In fisheries and aquaculture, seabed characteristics influence habitat suitability, productivity, and sustainability outcomes.

Marine tourism and recreation — one of the fastest-growing contributors to employment — also relies indirectly on seabed data through coastal modelling, reef and habitat management, and the protection of natural assets that underpin visitor experiences. Similarly, marine infrastructure industries, including subsea cables and pipelines, depend on reliable seabed mapping to manage construction risk and long-term asset integrity.

Seabed data are not a niche scientific asset — they are foundational infrastructure underpinning a \$200+ billion marine economy

In addition to large-scale industries, AusSeabed delivers material value to smaller consultancies and specialist firms that support coastal local governments, particularly in areas such as coastal inundation modelling, hazard assessment, and shoreline management planning. These firms often operate under constrained project budgets and rely on access to consistent, quality-assured bathymetry rather than commissioning bespoke surveys for each local engagement. Nationally coordinated seabed data reduce the need for duplicated acquisition, improve comparability of modelling across adjacent jurisdictions, and lower the cost of technical advice provided to councils. In this way, AusSeabed supports more efficient use of public funds at the local government level while strengthening the technical basis for coastal risk management decisions.

The blue economy framing adopted in the AIMS Index emphasises not only economic output, but also long-term sustainability, environmental stewardship, and the emergence of new industries aligned with climate and energy transition objectives. These trends place increasing importance on integrated, high-quality marine data to support cumulative impact assessment, marine spatial planning, and adaptive management across sectors.

It should be noted that while significant volumes of seabed data are collected by commercial operators, much of this information is retained for commercial or regulatory purposes and is not routinely available for broader national reuse (see Section 4.6). As a result, the full potential value of existing seabed mapping effort remains unrealised at a national level.

This pattern reflects a broader characteristic of the national seabed data ecosystem: goodwill and recognition of AusSeabed's value are widespread, but participation and value capture are frequently constrained by resourcing, capacity, and structural limitations rather than by lack of intent. As a result, the system currently operates below its potential efficiency and impact.

3.6 Unrealised and Latent Value

Across multiple jurisdictions and research organisations, there exists substantial latent potential to increase the national value derived from seabed data through deeper engagement with AusSeabed's coordination and stewardship functions.

A number of agencies, including research institutions and state and territory governments, hold significant seabed datasets acquired for project-specific or operational purposes. In many cases, even the publication of standardised metadata records would materially improve national visibility of these holdings and reduce duplication of future survey effort. However, capacity constraints within individual organisations — particularly in relation to data curation, documentation, and preparation for publication — limit the extent to which these datasets are currently integrated into nationally coordinated frameworks.

Stakeholder consultations consistently indicated strong goodwill and recognition of AusSeabed's value. The principal constraint on participation is not unwillingness, but resourcing and prioritisation pressures within organisations whose primary mandates lie elsewhere. As a result, the full efficiency gains of national coordination — including improved survey planning, reduced duplication, and enhanced cross-sectoral reuse — are not yet fully realised.

The principal constraint on realising greater national value from AusSeabed is not willingness, but capacity

Importantly, AusSeabed's architecture is scalable. The standards, quality assurance processes, and publication pathways required to absorb additional datasets already exist. Incremental investment in data management capability across contributing organisations would therefore translate directly into increased national value, without requiring fundamental redesign of the coordination model.

This unrealised potential reinforces the importance of stable institutional anchoring for AusSeabed. A durable governance and funding framework would provide greater certainty for partner organisations to invest in data preparation and publication, enabling the national seabed data system to operate closer to its intended efficiency frontier.

3.7 Summary

AusSeabed's value lies not in serving a single sector or purpose, but in providing a shared national foundation that enables government, research, and industry stakeholders to fulfil their respective responsibilities more efficiently, with greater confidence, and at lower long-term cost. Across Commonwealth and state governments, research institutions, and the marine economy, AusSeabed reduces duplication, improves consistency, and extends the return on existing data investments.

This role positions AusSeabed as enabling infrastructure rather than a stand-alone service. Its stewardship and coordination functions underpin a wide range of downstream applications and decision-making processes, many of which rely implicitly on the availability of trusted, nationally consistent seabed data. The breadth of this reliance means that AusSeabed's performance has system-wide implications for efficiency, risk management, and avoided costs across multiple portfolios.

The stakeholder examples outlined above demonstrate that AusSeabed delivers value not only to individual organisations, but to the coherence and effectiveness of the national marine data system as a whole. Table 1 summarises these cross-sector benefits and highlights the system-level efficiencies enabled through coordinated seabed data stewardship. This collective reliance provides important context for the governance, funding, and institutional challenges examined in the following section.

Table 1. Summary of stakeholder value enabled by AusSeabed

Stakeholder	Core Function Enabled by AusSeabed	Nature of Value	System Impact
Geoscience Australia	National seabed data delivery under RAPI	Standards, QA, coordinated access	Efficient delivery of national mapping obligations
Australian Hydrographic Office / Defence	Survey planning & data visibility	Reduced duplication, improved alignment	Maximised impact of HIPP and hydrographic investment
DCCEEW / Parks Australia	Marine Park planning & environmental assessment	Consistent, analysis-ready bathymetry	Improved regulatory confidence & evidence-based planning
States & Territories	Coastal modelling, hazard assessment	Shared datasets, cross-boundary consistency	Avoided duplicate surveys & modelling inconsistencies
Research Institutions	National data aggregation & publishing	Visibility, attribution, reuse	Amplified return on public research infrastructure
Industry & Consultancies	Coastal modelling, infrastructure planning	Reduced data acquisition costs, improved baseline certainty	Lower project risk & improved capital efficiency

Economic Benefits of Seabed Mapping and Relevance to AusSeabed

While the review's Terms of Reference do not require a standalone economic impact assessment, economic benefit remains relevant because AusSeabed's primary purpose is to increase the return on existing public and partner investment in seabed data through coordination, standards, quality assurance, and improved accessibility.

Australian economic analysis commissioned by Geoscience Australia found that in 2018–19 the production of seabed mapping data directly contributed ~\$51 million to the Australian economy and supported ~500 FTE jobs, while the use of seabed mapping data across marine industries directly contributed ~\$9 billion and supported ~56,000 FTE jobs, with a further ~\$7 billion of indirect value added through upstream supply chains.^a The analysis also identified ~\$37 billion of “unlocked” economic activities enabled by seabed mapping data during the establishment of activities (e.g., approvals, engineering design, and project development). These estimates relate to the broader economic value enabled by seabed mapping data, noting that AusSeabed's contribution is through improving the quality, efficiency, reuse and accessibility of that data.

International evidence similarly indicates high returns to seabed mapping investment. A UK cost-benefit analysis commissioned by the UK Hydrographic Office estimated annual benefits of ~£8.9 billion against annual mapping costs of ~£103 million, producing an indicative benefit-to-cost ratio of ~86:1, remaining positive even under conservative assumptions.^b

In this context, AusSeabed's national coordination and stewardship role is best understood as an efficiency mechanism: it reduces duplication, enables reuse of costly survey data, supports consistent national products for decision-making, and strengthens the evidence base required to support growth in the blue economy and more efficient delivery across multiple government portfolios.

^a Deloitte Access Economics (2021). *The value of Australian seabed mapping data to the blue economy*. Prepared for Geoscience Australia, Canberra.

^b Eunomia Research & Consulting Ltd (2024). *Cost benefit analysis of seabed mapping: An analysis of the cost benefit ratio from improving seabed mapping in the UK Exclusive Economic Zone*. Prepared for the UK Hydrographic Office.

4. Key Issues and Challenges

4.1 Governance Ambiguity

AusSeabed's current governance arrangements blur advisory and decision-making roles, creating uncertainty around authority, accountability, and ownership.

The AusSeabed Executive Board, despite its title, operates primarily as an advisory and coordination body, without clear executive decision-making authority, financial delegation, or statutory accountability. In Commonwealth practice, the term "Executive Board" is typically reserved for bodies exercising clear executive authority. The current naming therefore contributes to misperceptions regarding decision rights and accountability.

Conversely, the AusSeabed Steering Committee performs functions that include work program development, prioritisation, and decision-making, despite having broad membership that includes non-government and international representatives. While this inclusive structure has supported collaboration and trust, it is atypical for nationally significant capabilities to vest effective decision authority in mixed-membership forums.

The interaction between the two bodies further compounds this ambiguity. While the Steering Committee develops work plans and the Executive Board is described as approving them, this authority is not exercised. The Terms of Reference do not clearly articulate escalation pathways, override authority, or the role of Geoscience Australia as the accountable entity. In practice, this would require informal negotiation and goodwill to resolve issues that would normally be addressed through formal governance mechanisms.

The review finds that these arrangements were effective during AusSeabed's early, community-led phase but are no longer well suited to a mature, nationally critical capability. Clarifying governance roles, decision authority, and accountability is therefore a necessary step in reducing institutional risk and enabling sustainable delivery.

4.2 Funding Fragility

AusSeabed does not operate under a single, consolidated program budget. Instead, it is sustained through a distributed partner-contribution model, underpinned by a non-binding Collaborative Head Arrangement and implemented through a series of time-limited Project Agreements.

Under this model, AusSeabed activities are funded through a combination of partner cash contributions and in-kind support. Contributions include direct financial inputs, staff time, data holdings, infrastructure, or technical expertise. There is no standing appropriation or baseline funding allocated specifically to AusSeabed as a national program.

The Collaborative Head Arrangement explicitly frames AusSeabed as a cooperative arrangement rather than a funded program, noting that it does not create legally binding obligations between participating parties. Participation, contribution levels, and continuity of involvement therefore remain discretionary and subject to the internal priorities and budget cycles of individual agencies.

In practice, a significant proportion of AusSeabed activity is enabled through bilateral or multilateral project agreements. Recent examples include funding from the Australian Hydrographic Office under the HydroScheme Industry Partnership Program to support bathymetric data processing and platform capability, and project-specific funding from the Australian Antarctic Division for Antarctic bathymetry processing and publication. These agreements are typically narrowly scoped to defined deliverables, and often on year-to-year budget cycles without guarantees.

Geoscience Australia acts as the lead agency for AusSeabed and hosts the core platform and coordination functions. However, much of this role is delivered through absorbed costs within Geoscience Australia, rather than through fully costed or dedicated program funding. Core functions such as national coordination, data stewardship, standards development, and community engagement are therefore partially reliant on internal reprioritisation and cross-subsidy.

This funding model has several structural weaknesses.

First, funding continuity is inherently unstable with no funding guaranteed beyond the term of individual project agreements. This creates an ongoing risk of service discontinuity even where demand for AusSeabed services remains strong.

Second, there is a misalignment between responsibility and resourcing. AusSeabed increasingly performs system-level functions of national significance, yet funding is predominantly justified and secured on the basis of narrow, project-specific outcomes. Core coordination and stewardship functions are therefore under-recognised and under-funded.

Third, the model relies heavily on goodwill and discretionary support. The Collaborative Head Arrangement allows parties to withdraw with notice, and participation is not mandated. This dependence on voluntary contributions creates institutional fragility, particularly during periods of fiscal constraint or organisational change.

Finally, the need to establish new project agreements for each major activity introduces administrative overhead and inhibits long-term planning. Performance and accountability are assessed at the project level rather than at the level of the national system, making it difficult to demonstrate and manage whole-of-government value.

4.3 Expanding Expectations and Misalignment with Institutional Authority

AusSeabed is operating under a strategy that articulates a highly ambitious and expansive vision for national seabed coordination, stewardship, and product delivery. The AusSeabed 2025 Strategy and Roadmap⁸ positions AusSeabed as national infrastructure responsible not only for coordination and data stewardship, but also for delivery of enduring national products,

⁸ *AusSeabed Strategy and Roadmap to 2025*, Geoscience Australia, Canberra.

operation of federated platforms, prioritisation of acquisition, and leadership in emerging seabed data domains.

This ambition reflects genuine stakeholder demand and is consistent with how AusSeabed is increasingly relied upon in practice. However, the review finds a growing misalignment between:

- the scope of responsibility articulated in the Strategy
- the funding and governance arrangements currently in place
- the mandated institutional responsibilities of Geoscience Australia

4.3.1 Strategy Ambition Exceeds Funded Capability

The Strategy and Roadmap include commitments to activities and outcomes that are not currently funded, including:

- routine national and regional seabed product delivery
- expansion beyond bathymetry into backscatter, sediment, and sub-bottom profile products
- sustained operation and enhancement of federated data platforms
- delivery of national compilation grids and user-customised products
- leadership in international data integration initiatives

While the Strategy explicitly notes that delivery is “subject to sustained funding”, this caveat is not always well understood by stakeholders. In practice, the Strategy has contributed to expectations that AusSeabed will deliver capabilities and products that sit beyond its resourcing envelope and beyond what can reasonably be sustained through project-based or partner-funded arrangements.

AusSeabed is increasingly judged against strategic aspirations rather than against funded commitments, creating delivery risk, reputational exposure, and internal tension about priorities

4.3.2 Blurring of Coordination and Delivery Roles

The Strategy and Roadmap also blur the boundary between coordination and stewardship functions (which AusSeabed was originally established to perform) and authoritative national delivery functions that are, in Commonwealth practice, the responsibility of a line agency.

Several elements of the Strategy — including national product delivery, publication of authoritative national grids, and prioritisation of acquisition at scale — intersect directly with responsibilities that Geoscience Australia as Australia’s national geoscience agency are mandated to provide. Under current arrangements, AusSeabed does not have the mandate, accountability framework, or institutional authority to independently perform these functions.

This creates a structural tension: AusSeabed is expected to lead and deliver outcomes that require statutory authority and enduring accountability, yet it operates under collaborative, non-binding governance arrangements designed for coordination rather than execution.

Over time, this tension increases institutional risk for both AusSeabed and Geoscience Australia, as decisions affecting nationally significant datasets, standards, and priorities are shaped through informal or advisory mechanisms rather than through clearly accountable executive authority.

4.3.3 Expectation Creep and Sustainability Risk

Stakeholder interviews consistently indicated that the Strategy has become a reference point for what AusSeabed should be doing, rather than what it is funded and mandated to do. This has contributed to expectation creep across multiple dimensions — technical, operational, and strategic.

Under current funding and governance arrangements, AusSeabed has continued to meet many of these expectations through goodwill, internal cross-subsidy within GA, and the discretionary effort of partners. However, the review finds that this model is increasingly fragile and inappropriate for a capability that is now relied upon as national infrastructure.

The gap between ambition and institutional support creates three material risks:

- **Delivery risk**, as unfunded commitments accumulate
- **Accountability risk**, as responsibilities extend beyond formal authority
- **Strategic risk**, as future funding and policy decisions are complicated by unclear boundaries between coordination, stewardship, and delivery

4.3.4 Implications for Reform

The issue identified in this section is not that the AusSeabed Strategy is misguided. On the contrary, the Strategy accurately reflects the direction in which national seabed data capability needs to evolve.

The problem is sequencing and institutional alignment. Strategy-led expansion has occurred ahead of:

- clear executive accountability
- stable baseline funding
- explicit alignment with Geoscience Australia's mandate

Addressing this misalignment is therefore a prerequisite for sustainable delivery. Institutional consolidation — including clearer ownership within Geoscience Australia and a more disciplined distinction between funded commitments and aspirational future capability — is necessary to convert strategic ambition into credible, durable national infrastructure.

4.4 Ambiguity in Institutional Articulation of Marine Stewardship

Historically, Geoscience Australia played a highly visible role in direct marine and bathymetric survey activity, including the operation of marine survey platforms. Over time, GA's role has

evolved toward stewardship, coordination, and integration of marine data collected across government and research sectors.

The broad and non-domain-specific framing of GA's formal administrative remit means that marine stewardship functions are not always explicitly articulated. This has contributed to perceptions of ambiguity regarding long-term institutional ownership and commitment, particularly as reliance on GA-led marine data functions has grown.

That said, AusSeabed's success reflects the fact that, in practice, Geoscience Australia has tacitly assumed responsibility for hosting and enabling national seabed data coordination. For most users, AusSeabed is already understood to be a GA capability, and day-to-day reliance on its services is based on the expectation that it will "just work," with little-to-no visibility of how it is funded or governed. The emerging issue is not ownership in practice, but ownership in form: the nationally relied-upon functions AusSeabed performs are not yet matched by clear, enduring institutional authority, accountability, and governance arrangements.

AusSeabed's challenges arise primarily from institutional ambiguity rather than from deficiencies in technical capability, stakeholder commitment, or demand

4.5 Limited Senior Ownership

AusSeabed's reliance on informal coordination and distributed funding arrangements has been accompanied by limited and inconsistent senior-level ownership within the Australian Government. While AusSeabed is well understood and strongly supported at working and middle-management levels across multiple agencies, this support has not consistently translated into sustained senior executive sponsorship.

The absence of a clearly identified senior owner constrains AusSeabed's visibility and influence across government, including strategic prioritisation and funding deliberations. In practice, AusSeabed is often peripheral to discussions where decisions are made about long-term investment in national data infrastructure, despite being directly implicated in the delivery of outcomes under those decisions.

This lack of senior ownership also complicates accountability. Without a clearly designated senior executive responsible for AusSeabed as a national capability, decision authority is diffused and escalation pathways are unclear. Risks related to sustainability, delivery continuity, and cross-portfolio dependencies are therefore managed implicitly rather than through formal governance mechanisms.

Importantly, this does not reflect a lack of confidence in AusSeabed's performance or value. Rather, it is a structural consequence of AusSeabed's organic evolution and its positioning outside a consolidated program or funded line. As expectations of AusSeabed continue to expand, the absence of sustained senior sponsorship increasingly limits its ability to secure a durable mandate, funding, and institutional support commensurate with its national role.

4.6 Constraints on Industry Data Sharing and Reuse

A significant proportion of seabed mapping undertaken in Australian waters is conducted by commercial operators in support of offshore energy, infrastructure, telecommunications, and other marine industries. In many cases, these data are treated as commercially confidential or subject to contractual and regulatory restrictions, limiting their availability for broader public or cross-sectoral reuse.

Stakeholders consistently noted that, despite the existence of data security protocols and staged-release arrangements, it remains challenging to encourage voluntary contribution of industry-collected bathymetric data to public archives. Commercial risk considerations, intellectual property concerns, and uncertainty about future use all act as barriers to sharing, even where the underlying data could deliver broader public benefit once commercial sensitivity has diminished.

This constraint does seem to not reflect unwillingness on the part of industry to engage with AusSeabed or national data initiatives. Rather, it reflects structural incentives and risk settings that prioritise immediate commercial outcomes over longer-term data reuse. As a result, substantial volumes of high-quality seabed data remain siloed, increasing duplication of effort and limiting the cumulative value of seabed mapping activity across the marine economy.

The review finds that addressing this issue will require policy and incentive-based approaches, rather than reliance on goodwill alone. Clear expectations around data stewardship, appropriate time-lagged release mechanisms, trusted data governance arrangements, and alignment with regulatory and funding frameworks all have a role to play. AusSeabed provides a credible and trusted mechanism through which such arrangements could be implemented but is unlikely to succeed without broader policy alignment and senior-level support.

In Western Australia, the Shared Environmental Analytics Facility (SEAF), developed through collaboration led by the Western Australian Marine Science Institution (WAMSI), provides a practical example of how sensitive environmental data can be shared and reused while respecting commercial and regulatory constraints (see Page 26). The SEAF experience illustrates that barriers to industry data sharing are not primarily technical, but relate to governance, incentives, and trust. It highlights the potential for nationally coordinated data infrastructure, such as AusSeabed, to play a greater enabling role where appropriate policy settings and data governance frameworks are in place.

Improving the availability of industry-collected seabed data, where appropriate, represents a significant opportunity to extend the public value of private and public investment, reduce duplication, and strengthen Australia's national seabed knowledge base, while continuing to respect legitimate commercial sensitivities.

The WAMSI Shared Environmental Analytics Facility (SEAF)

Balancing data confidentiality with shared public value

The **Shared Environmental Analytics Facility (SEAF)** was established by the Western Australian Marine Science Institution (WAMSI) to address the reluctance of industry to contribute high-value environmental data to open repositories due to commercial sensitivity, intellectual property concerns, and regulatory risk. This same issue was raised repeatedly through the review process in interviews with AusSeabed stakeholders.

Rather than functioning as a public data archive, SEAF operates as a trusted data and analytics environment, enabling controlled access to data from multiple sources and the production of decision-relevant information products.

Key features of the SEAF model include:

- **Contributor control and data security**, allowing industry and government data holders to manage access and conditions of use
- **Multi-sector governance**, involving state government agencies, industry, research organisations, and regulators, which builds trust and shared ownership
- **Focus on analytics and decision support**, transforming disparate datasets into regionally relevant insights for planning, cumulative impact assessment, and environmental management

Importantly, SEAF demonstrates that industry engagement can be strengthened where data sharing delivers clear and tangible benefits to contributors, without requiring immediate or unrestricted public release of raw data. Pilot implementations in Western Australia have shown that such arrangements can improve data availability for public decision-making while maintaining confidence among commercial participants.

While SEAF is not directly analogous to AusSeabed's national coordination and stewardship role, it offers useful insights into how incentive-based, governance-supported data sharing frameworks can complement public data infrastructure. In particular, it highlights the potential value of staged release mechanisms, trusted governance arrangements, and a focus on value-adding analytics in addressing barriers to industry data contribution.

5. Strategic Environment and Future Drivers

AusSeabed operates within a rapidly evolving strategic environment characterised by increasing demand for marine data, heightened expectations of transparency and coordination, and growing reliance on evidence-based marine decision-making. These demands are amplified by the cross-jurisdictional nature of marine governance, where Commonwealth, state, and territory responsibilities intersect and cumulative impacts must be assessed across administrative boundaries.

The trends described in Section 3 — including growth in offshore infrastructure, increasing integration across the blue economy, and rising reliance on seabed data — have material implications for how national seabed capability is governed, funded, and sustained. This section outlines the key policy, operational, and strategic drivers shaping future demand for AusSeabed at both a national and global level.

5.1 Marine Park Reform and Environmental Policy Drivers

Reforms to Australian Marine Park management, including increased emphasis on management effectiveness, condition assessment, and adaptive planning, are driving demand for high-resolution, analysis-ready seabed data. Bathymetry and derived seabed products are essential inputs to habitat mapping, ecological modelling, and risk-based management approaches.

Broader environmental policy reforms, including implementation of National Environmental Standards and responses to the Environmental Protection and Biodiversity Conservation (EPBC) Act review, further elevate the importance of consistent, nationally coordinated seabed data. Fragmented or ad hoc access to seabed information increases regulatory risk and undermines confidence in decision-making.

On a global scale, an increasing emphasis on ocean conservation and biodiversity protection is also shaping future demand for seabed data. New international arrangements for areas beyond national jurisdiction, alongside heightened scrutiny of cumulative impacts on the deep ocean, are elevating expectations for high-quality, transparent, and shareable scientific evidence to support decision-making.

5.2 National Data, Digital Government, and Marine Data Commons Agendas

Commonwealth data and digital government strategies increasingly frame data as national infrastructure that should be stewarded, reused, and integrated to maximise public value. The Australian Government Data Strategy⁹ emphasises data reuse, stewardship, interoperability, and whole-of-government benefit, as well as the importance of shared, foundational digital capabilities that enable integration across portfolios and jurisdictions.

⁹ Australian Government (2023). *Data and Digital Government Strategy 2023–2030*, Department of Finance and Digital Transformation Agency, Canberra.

Within the marine domain, these principles are manifesting as a federated approach to marine data management — often described as a *digital marine data commons* — in which authoritative datasets are stewarded by trusted institutions and made interoperable for downstream use across policy, regulatory, research, and operational systems.¹⁰

AusSeabed’s role as the national coordinator and steward of seabed mapping data aligns directly with these agendas. By providing trusted, analysis-ready seabed datasets, AusSeabed supplies foundational layers that enable integration across biodiversity, oceanographic, hazard, and marine spatial planning systems, extending the value of existing investments and supporting consistent, evidence-based decision-making across government.

5.3 Offshore Infrastructure, Energy Transition, and Economic Drivers

Expansion of offshore infrastructure, renewable energy, and associated marine industries is a central driver of growth in Australia’s blue economy. Recent analysis highlights the scale and diversity of economic activity dependent on marine environments, including offshore energy, subsea infrastructure, ports, transport, and marine services, with these sectors together underpinning a substantial share of national economic output and employment.¹¹

As offshore activity intensifies, demand for reliable, analysis-ready seabed data is increasing to support strategic planning, regulatory approvals, engineering design, and risk management. These investments are capital-intensive and spatially constrained, making them particularly sensitive to uncertainty in seabed conditions. In this context, access to trusted baseline seabed information reduces duplication of survey effort, improves regulatory efficiency, and supports more informed investment decisions across jurisdictions. Seabed data also increasingly underpins climate risk assessments, coastal resilience planning, and adaptation decision-making.

National coordination of seabed data does not replace project-specific survey requirements, but it materially strengthens the common evidence base from which projects proceed. This function is increasingly important as governments seek to manage cumulative impacts, shared marine space, and long-term infrastructure planning in support of a growing and diversifying blue economy. Detailed economic value estimates and examples of downstream benefits are included in the accompanying case study on Page 19.

5.4 Antarctic and Southern Ocean Priorities

Australia’s national interests in Antarctica and the Southern Ocean add a distinct strategic dimension to seabed data stewardship. Under the Antarctic Treaty System, Australia’s influence and standing are grounded in sustained scientific leadership, credible data, and the ability to contribute authoritative evidence to international decision making. Seabed mapping and related marine geoscience data are foundational to this effort, supporting environmental protection,

¹⁰ Hayes, K.R., et al. (2024), *Improving knowledge transfer to support Australian Marine Park decision making and management effectiveness evaluation*, Final Report to the National Environmental Science Program, CSIRO, Hobart.

¹¹ Australian Institute of Marine Science (AIMS) & Deloitte Access Economics (2025). *AIMS Index of Marine Industry: 2025*. Australian Institute of Marine Science, Townsville.

ecosystem management, climate science, and the administration of the Australian Antarctic Territory.

The Australian Antarctic Science Decadal Strategy (2025-35)¹² emphasises the central role of high-quality, accessible, and integrated data in maintaining Australia's leadership within the Antarctic Treaty System and advancing national interests through science-led influence. In this context, seabed data functions not only as a research input, but as a strategic asset that underpins sovereignty interests, environmental stewardship, and international credibility.

5.5 Maritime Safety and Security Considerations

Maritime safety and security considerations place specific requirements on the handling, access, and use of seabed data. Australia's hydrographic and charting responsibilities, including those delivered through the HydroScheme Industry Partnership Program (HIPP), require that safety-of-navigation and defence-relevant data are managed through trusted, secure, and well-governed arrangements.

Australia's Civil Maritime Security Strategy¹³ emphasises the importance of developing a timely and accurate understanding of the maritime domain as a foundation for protecting sovereignty, maritime infrastructure, natural resources, and users of the marine environment. Under the Strategy's "Understand" pillar, the Government commits to strengthening domain awareness, improving information sharing, and building a holistic picture of maritime activity and risk. In offshore and deep-water environments where direct observation is limited, high-quality bathymetry and seabed characterisation form a critical part of the geospatial evidence base that underpins this domain awareness.

Recent national security assessments further reinforce the strategic importance of maritime domain awareness and undersea capability. The NMSC White Paper, *Maintaining Sovereignty, Securing and Defending Australia*,¹⁴ highlights the need for integrated information collection, analysis, and dissemination across surface, subsurface, and coastal environments, and identifies the growing strategic significance of the undersea domain, including critical infrastructure such as submarine cables and offshore energy installations. It also notes the importance of high-resolution, seamless onshore–offshore topography and bathymetry in supporting maritime zone definition, sovereign rights, and climate resilience planning. In this context, consistent national stewardship of seabed and bathymetric data contributes directly to Australia's capacity to understand, monitor, and manage its maritime estate.

While AusSeabed is not a hydrographic authority and does not produce navigational charts, it provides enabling capability that supports discovery, prioritisation, and reuse of seabed data relevant to hydrographic planning, maritime situational awareness, and risk assessment. In practice, this upstream coordination and stewardship role complements the authoritative

¹² Australian Government (2025), Australian Antarctic Science Decadal Strategy 2025–2035, Department of Climate Change, Energy, the Environment and Water, Canberra.

¹³ Commonwealth of Australia (2021), Australian Government Civil Maritime Security Strategy: Delivering a secure, healthy and prosperous maritime future, Department of Home Affairs, Canberra.

¹⁴ Lothian, S. et al. (2025) *Maintaining Sovereignty, Securing, and Defending Australia*, White paper prepared for the National Marine Science Strategy 2025–2035.

functions performed by hydrographic and Defence agencies by strengthening visibility of existing data holdings, supporting alignment of survey effort, and promoting consistent standards across contributors.

As reliance on seabed data increases across civil, scientific, regulatory, and operational domains, maintaining clear boundaries and trusted pathways for sensitive information becomes increasingly important. Effective national coordination must therefore operate in a way that supports HIPP objectives, protects security-sensitive datasets, and preserves confidence among Defence and safety-of-navigation stakeholders, while still enabling appropriate reuse of non-sensitive data for broader public benefit.

In this way, AusSeabed contributes to Australia's maritime safety and civil security architecture not as an enforcement capability, but as a foundational data stewardship and coordination function that strengthens the information base upon which operational and strategic decisions depend.

5.6 International Ocean Priorities

Globally, initiatives such as Seabed 2030 and the United Nations Decade of Ocean Science for Sustainable Development highlight the importance of coordinated national contributions to global seabed knowledge. Seabed 2030 is a project of the General Bathymetric Chart of the Oceans (GEBCO) and The Nippon Foundation, and aims to assemble and make available a complete, high-resolution map of the world's ocean floor by 2030. This objective is being pursued through the aggregation, standardisation, and sharing of existing and newly acquired bathymetric data into the authoritative GEBCO global bathymetric product.

AusSeabed provides a mechanism through which Australian seabed data can be curated, quality-assured, and made discoverable in ways that align with these global ambitions, supporting Australia's contribution to collective international efforts without duplicating acquisition or delivery responsibilities. At the 3rd United Nations Oceans Conference (UNOC3), Australia joined the Seabed Mapping Call to Action with fellow Ocean Decade Alliance members, making a commitment to accelerate ocean mapping and to make seabed data available through collaborative national mechanisms such as AusSeabed, supporting downstream integration into global products including GEBCO.

At the policy level, access to authoritative seabed data underpins progress toward the United Nations Sustainable Development Goals, particularly SDG 14 (Life Below Water)¹⁵, as well as commitments under the Convention on Biological Diversity, including emerging targets to protect and effectively manage 30 per cent of marine areas by 2030. High-quality seabed information is increasingly recognised as foundational to marine spatial planning, protected area design, and assessment of ecological condition.

¹⁵ United Nations (n.d.), *Sustainable Development Goal 14: Life below water*, United Nations Sustainable Development Knowledge Platform, UN Department of Economic and Social Affairs.

6. Options Analysis: Future Governance and Funding Models

6.1 Overview of Options

The review considered multiple operating model options, including maintaining current arrangements and alternative funding-led models. These options are presented to demonstrate the range of pathways considered and the rationale for the preferred approach.

Option A: Establishment as a National Collaborative Research Infrastructure Strategy (NCRIS) facility.

Option B: Funding through a New Policy Proposal (NPP).

Option C: Formal integration of AusSeabed as a collaborative initiative, or line-managed function, within Geoscience Australia.

Option D: Maintaining the status quo.

Each of these options has been assessed against criteria including feasibility, timing, governance clarity, stakeholder acceptability, and risk. A detailed summary of findings is captured below.

6.1.1 Other Models Considered and Discounted

Two additional funding and operating models were considered as part of the review but were quickly assessed as unsuitable for AusSeabed's role and objectives.

Subscription model

Under a subscription model, agencies or other users would pay ongoing fees to access AusSeabed data, services, or platform functionality. Implementing such a model would require the introduction of access controls, pricing mechanisms, and contractual arrangements that would fundamentally alter AusSeabed's role as an open, enabling national coordination and stewardship capability. A subscription approach is inconsistent with AusSeabed's public-good mandate, its reliance on voluntary data contribution and reuse, and its function as shared national data infrastructure underpinning statutory, regulatory, and policy outcomes across government. It would also risk discouraging data contribution and fragmenting access to nationally significant seabed information.

Cooperative Research Centre (CRC) model

While AusSeabed is collaborative in nature and supports industry and applied outcomes, it is fundamentally a long-term national stewardship and coordination function rather than a time-limited research and innovation program. The CRC model is designed to support industry-led, mission-focused research with defined endpoints and transition arrangements. As such, it is better suited to funding downstream research, innovation, or application development that draws on AusSeabed data, rather than serving as an appropriate mechanism for hosting or funding AusSeabed itself as an enduring national capability.

6.2 Option A – Establish AusSeabed as an NCRIS Facility

Under this option, AusSeabed would be established as a facility under the National Collaborative Research Infrastructure Strategy (NCRIS),¹⁶ recognising it as nationally significant research infrastructure supporting marine science and related disciplines. The focus would be on enabling research through national stewardship of seabed data, development of standards and workflows for analysis-ready bathymetry, long-term curation of nationally significant datasets, and support for domestic and international research initiatives.

The facility would most plausibly be hosted by Geoscience Australia, either directly or as the lead organisation within a broader consortium. Geoscience Australia, as a non-corporate Commonwealth entity, is eligible to host an NCRIS facility.¹⁷

This option aligns strongly with AusSeabed's role as research-enabling infrastructure and reflects how it is already used in practice by the research community. NCRIS designation could provide a pathway to longer-term funding stability and enhanced integration within Australia's research infrastructure ecosystem.

A significant challenge is that NCRIS funding is heavily subscribed and not currently accessible through an open or competitive application process. New or expanded facilities are typically identified through Government-led NCRIS Roadmaps or Investment Plans, often following extensive consultation and prioritisation. Funding is not guaranteed and is unlikely to be available in the near term. As a result, this option does not address AusSeabed's immediate sustainability and governance challenges.

Expectations of open access under NCRIS also introduce complexity given the presence of sensitive, safety-critical, and Defence-relevant seabed data. Operating a mixed-access environment would require additional governance arrangements to separate open research products from controlled source data and to preserve data-custodian authority.

6.2.1 Strengths

- Strong alignment with AusSeabed's research-enabling role
- Recognition as nationally significant research infrastructure
- Potential for long-term funding stability
- Enhanced visibility and legitimacy within the research sector

6.2.2 Limitations

- Dependent on external policy and investment processes
- Uncertain timing and limited near-term feasibility
- Added governance complexity for sensitive data
- Research framing may underplay sovereignty and operational roles

¹⁶ Australian Government (2025), *National Collaborative Research Infrastructure Strategy (NCRIS)*, Department of Education, Canberra.

¹⁷ NCRIS 2021 (2020 Research Infrastructure Investment Plan) Minister approved Guidelines.

6.2.3 Feasibility, Sensitivity and Timing

Inclusion under NCRIS would require explicit Government identification of AusSeabed as a priority capability. While Geoscience Australia is a suitable host in principle, this option is best viewed as a medium- to long-term pathway, with an investment case developed over the next three to five years.

Stakeholders identified potential sensitivities for Defence and hydrographic agencies, including open-access expectations, transparency, and Freedom of Information exposure, and concern that research priorities could dilute safety-of-navigation imperatives. These risks could be mitigated through explicit governance controls but would add complexity and require careful design and agreement.

6.2.4 Overall Assessment

Option A is strategically attractive but operationally uncertain. It offers a credible long-term pathway to recognition and sustainable funding as national research infrastructure, but it does not resolve near-term governance or funding risks. It is best considered as a future option once institutional arrangements and mandate are consolidated.

It is notable that the Marine National Facility is currently pursuing NCRIS investment to uplift its digital capabilities through the National Digital Research Infrastructure (NDRI) Strategy, while explicitly excluding seabed data functions on the basis that these are already performed by AusSeabed. This provides a practical example of how AusSeabed is already being treated, in effect, as national infrastructure within the marine research system.

Other nationally significant facilities are making investment decisions on the implicit assumption that AusSeabed will continue to operate as enduring national infrastructure

More broadly, this illustrates an emerging structural dynamic in which institutional boundaries are being shaped around AusSeabed's assumed continuity. Such reliance has developed despite the absence of equivalent long-term funding certainty or formal institutional consolidation, creating a misalignment between system expectations and institutional reality.

This is in contrast to complementary national marine research infrastructures such as IMOS and AODN, which operate within established funding and governance frameworks with clearly defined domain responsibilities. Within this broader ecosystem architecture, seabed data coordination is nevertheless implicitly understood to reside within AusSeabed's remit.

6.3 Option B – New Policy Proposal (NPP)

Under this option, AusSeabed would be funded through a New Policy Proposal considered as part of the Commonwealth Budget process. In practice, proposals of this nature are more likely to be considered where they form part of a broader, integrated policy initiative rather than as a standalone measure. An NPP pathway for AusSeabed would therefore most plausibly involve its

inclusion within a wider portfolio or cross-portfolio proposal addressing marine data, offshore infrastructure, or related national priorities. An NPP for National Mapping, that is inclusive of marine, coastal and land, may be one option.

An NPP offers a high degree of control over scope, funding levels, and governance design, and would allow Government to explicitly recognise AusSeabed's cross-portfolio value. It provides a familiar mechanism to formalise AusSeabed's role and address sustainability risks through a discrete budget decision.

However, NPPs are highly competitive, resource-intensive to develop, and subject to prevailing fiscal constraints and whole-of-government prioritisation. This option also carries a risk of implementation lag and may raise expectations regarding scope expansion or new data acquisition responsibilities, particularly if not carefully framed around consolidation and stewardship rather than capability growth.

6.3.1 Strengths

- High degree of control over mandate, scope, and governance
- Ability to explicitly accommodate sensitive and classified data
- Potential for stable, multi-year funding
- Clear ministerial accountability

6.3.2 Limitations

- Highly competitive budget environment
- Challenges demonstrating sufficient scale as a standalone proposal
- Requirement for offsets presents a material barrier
- Dependence on broader fiscal and policy priorities

6.3.3 Feasibility, Sensitivity and Timing

In principle, an NPP is well suited to national public-good capabilities that require stable staffing, multi-year planning horizons, and explicit governance for mixed-sensitivity data. AusSeabed meets these criteria given its roles supporting marine environmental management, safety of navigation, Antarctic operations, and national data coordination.

While an NPP provides a direct pathway to secure baseline funding, feasibility is constrained by broader fiscal conditions and the need to demonstrate value relative to competing priorities. New policy proposals are typically expected to be offset in full or in part and identifying credible offsets in this context would be challenging given the cross-government nature of AusSeabed's benefits.

Stakeholder feedback suggests that a budget-funded model may offer greater comfort for Defence and hydrographic agencies than research infrastructure pathways, as it allows explicit design of governance, access controls, and prioritisation mechanisms aligned with safety-critical responsibilities.

The policy development effort required would be significant, and success would depend on alignment with Government priorities at the time of consideration. Accordingly, this option is best

viewed as a medium-term pathway, pursued in conjunction with wider reform initiatives rather than as a near-term solution.

6.3.4 Overall Assessment

Option B offers clarity and control but carries material policy and fiscal risk. While it remains a viable mechanism in principle, its practicality depends on timing, scale, and alignment with broader Government priorities. As such, it is best considered as a medium-term option, potentially as part of a larger policy package, rather than as a primary solution to AusSeabed's immediate governance and sustainability challenges.

6.4 Option C – Geoscience Australia Collaborative Initiative Model

Under Option C, AusSeabed would be formally established as a collaborative initiative within Geoscience Australia (GA), with a clearly defined mandate, executive accountability, dedicated staffing, and baseline operational funding. AusSeabed would operate as a GA-hosted national capability, while retaining its established branding and collaborative identity.

In practice, this option formalises arrangements that already exist in part, with AusSeabed functions currently delivered through GA's National Director of Seabed Mapping and supporting team. Option C consolidates these arrangements into a transparent and enduring program structure, aligning authority, accountability, and delivery responsibility within GA.

6.4.1 Strengths

- immediate improvement in accountability and governance
- high feasibility and low implementation risk
- strong alignment with stakeholder expectations and GA's institutional role
- acceptability to Defence and safety-of-navigation stakeholders
- preservation of flexibility for future NCRIS or NPP pathways

6.4.2 Limitations

- Option C does not, on its own, guarantee long-term funding growth
- successful implementation requires GA's willingness to accept clearer accountability and program ownership

6.4.3 Feasibility, Sensitivity and Timing

Option C is highly feasible and can be implemented incrementally with Executive approval, provided funding is managed within existing or modestly adjusted GA appropriations. It directly addresses immediate governance and sustainability challenges while avoiding the risk and lead times associated with major funding reforms.

The review acknowledges that within Geoscience Australia the term *Program* is generally used to describe a formalised operating model with explicit accountability, approved funding, and a clear mandate from Government, and that such arrangements do not currently exist for AusSeabed. Establishment of AusSeabed as a formal program of work would therefore require an explicit Government decision. As an interim step, and to reduce institutional and delivery risk, AusSeabed could instead be recognised within Geoscience Australia as a line-managed

collaborative initiative, with clear executive accountability and governance, while decisions regarding its status and funding are progressed.

The Australian Hydrographic Office's 10-year investment through the HydroScheme Industry Partnership Program, coupled with substantial ongoing appropriation funding from GA for staff, provides a stable funding base that allows AusSeabed to continue operating without requiring additional net funding from GA. This funding creates critical breathing room to consolidate governance, clarify mandate, and build senior-level support, while maintaining continuity of service.

Defence and hydrographic considerations

Option C is likely to be acceptable to Defence and hydrographic stakeholders. Geoscience Australia already manages sensitive geospatial and geoscientific data and is well placed to formalise custodianship, classification, and access controls where required. Embedding AusSeabed within GA strengthens assurance that national security and safety-of-navigation considerations are appropriately managed.

6.4.4 Funding under Option C

Formal integration under Option C does not imply that AusSeabed would be funded solely from GA's internal baseline, nor that existing partner contributions would cease. Rather, Option C establishes GA as the accountable owner, within a mixed funding model that combines baseline support with ongoing partner contributions linked to defined services.

Consistent with current practice, partner contributions associated with specific activities — such as data processing, quality assurance, or integration — would continue to flow to GA. For example, contributions from the Australian Antarctic Division linked to the processing and stewardship of Antarctic and Southern Ocean seabed data would remain appropriate and necessary to cover the marginal costs of those activities.

More broadly, Option C preserves the ability for partners to provide funding or in-kind support to enhance AusSeabed's capability, provided such contributions are transparent, aligned to agreed functions, and do not confer preferential access or decision rights. This approach maintains AusSeabed's collaborative character while ensuring that authority, accountability, and stewardship are clearly located within GA.

Over time, this consolidated model provides a stable platform from which longer-term funding growth and reform can be pursued on a more sustainable and defensible basis.

6.4.5 Alignment with the AusSeabed Strategy

The AusSeabed 2025 Strategy and Roadmap articulates a role for AusSeabed that is national in scope and enduring in nature. This includes delivery of national seabed products, operation of federated data platforms, coordination of acquisition priorities, and international engagement. These ambitions are consistent with the emerging view of AusSeabed as national infrastructure rather than a discretionary coordination initiative; however, progress against the strategy is contingent on resolving underlying questions of institutional positioning, authority and resourcing.

Option C responds directly to this reality by embedding AusSeabed as a formal collaborative initiative within Geoscience Australia. In doing so, it aligns institutional mandate, accountability, and baseline resourcing with the ambition articulated in the Strategy. In this sense, Option C represents an enabling and stabilising step rather than a change in direction.

Option C does not, in itself, resolve the funding gap, but it provides a stabilising institutional foundation from which strategic ambition can be more credibly prioritised, sequenced, and pursued over time.

6.4.6 Overall Assessment

Option C directly addresses the core issues identified in this review, including governance ambiguity, unclear institutional ownership, and sustainability risk. It aligns with strong stakeholder expectations that Geoscience Australia is the natural institutional home for AusSeabed, given GA's role in national geoscience stewardship and its responsibility for managing authoritative spatial and geoscientific datasets.

This option is also consistent with existing Government investments and obligations, including the Resourcing Australia's Prosperity Initiative, which establishes multi-year funding for marine geoscience activities to be delivered by GA. Formal integration of AusSeabed within GA aligns institutional mandate with delivery expectations already articulated in policy and strategy.

Importantly, Option C preserves future optionality. By stabilising AusSeabed institutionally, it provides a sound foundation from which longer-term funding pathways — including potential consideration under NCRIS or through a New Policy Proposal — can be pursued once foundational arrangements are consolidated.

6.5 Revised Governance Model to Support Option C

6.5.1 Purpose and Design Principles

Under Option C, AusSeabed is embedded formally within Geoscience Australia. This requires a governance model that is proportionate to a nationally significant capability, aligns with Commonwealth expectations, and resolves the ambiguities identified in Section 4. The revised governance model is designed to:

- clearly locate decision authority and accountability within Geoscience Australia
- preserve structured external advice and collaboration without conferring decision rights
- maintain trust and engagement with data contributors and users
- support delivery of multi-year, whole-of-government obligations

The model explicitly separates authority from advice, ensuring that collaboration and goodwill are retained while accountability is unambiguous.

In a policy environment where responsibility for Australia's marine domain is inherently distributed across portfolios and agencies, durable coordination is more likely to be achieved through clear institutional anchoring than through the creation of additional cross-portfolio governance structures. The revised governance model is therefore designed to provide clear accountability, while preserving inclusive engagement with core delivery partners and stakeholders.

6.5.2 Accountability and Decision Authority

Under Option C, Geoscience Australia holds sole decision authority for AusSeabed. Responsibility for strategic direction, prioritisation, resourcing, and risk management rests with GA, exercised through an SES-level officer accountable to the GA Executive.

This arrangement aligns AusSeabed with standard Commonwealth practice for nationally significant programs and resolves the current blurring of advisory and executive roles. It ensures that decisions affecting scope, priorities, and delivery are made within GA's authority and corporate accountability framework.

6.5.3 External Advisory Arrangements

A single AusSeabed Advisory Committee is recommended, comprising representatives from key data-providing agencies, major user groups, research institutions, industry, and other relevant stakeholders. The committee's role is to:

- provide advice on strategic priorities, emerging needs, and risks
- inform GA's consideration of acquisition coordination, standards development, and data stewardship
- surface cross-sector issues and opportunities
- act as a forum for two-way communication between GA and the AusSeabed community

The Advisory Committee does not make decisions, approve work programs, or direct resources. Its value lies in collective insight, technical credibility, and stakeholder engagement, rather than formal authority. Suitable transition arrangements from the current governance committees to the proposed new AusSeabed Advisory Committee are described below in Section 6.5.8.

6.5.4 Management and Internal Governance

AusSeabed operates under a dedicated project team within GA, responsible for day-to-day delivery, coordination, and reporting. The work is integrated into GA's internal governance structures, including:

- inclusion in GA's Corporate Plan and Portfolio Budget Statements where appropriate
- alignment with GA's performance and risk management frameworks
- routine reporting through established GA executive channels

This integration ensures that AusSeabed is managed with the same discipline, transparency, and assurance as other GA programs of national significance.

6.5.5 Role of Partners and Contributors

The revised governance model recognises that AusSeabed's effectiveness depends on sustained data contribution and collaboration across government, research, and industry. While decision authority rests with GA, partners retain meaningful influence through:

- structured advisory mechanisms
- participation in technical working groups and standards development
- transparent priority-setting processes
- clear feedback on how external advice has informed decisions

Partner funding and in-kind contributions continue under Option C, framed as inputs to a GA-led collaborative initiative rather than as determinants of influence or access. This preserves collaboration while avoiding “pay-to-play” perceptions.

6.5.6 Information Flow and Transparency

Information flow under the revised model is deliberately simple and transparent:

- the AusSeabed initiative reports internally within GA through established executive processes
- the Advisory Committee provides advice and receives feedback on decisions and outcomes
- GA communicates priorities, decisions, and performance to the broader community through regular, predictable channels

This clarity supports trust, reduces confusion, and reinforces the distinction between advice and authority.

6.5.7 Benefits of the Revised Governance Model

The revised governance model under Option C resolves long-standing ambiguity by clearly locating authority and accountability within Geoscience Australia, while preserving the collaborative engagement that has underpinned AusSeabed’s success. It addresses internal concerns within GA regarding boundary crossing and decision authority, reframing AusSeabed as a GA-owned capability delivering national outcomes with informed external input, rather than as a parallel or stakeholder-led entity. By separating advice from authority, the model protects AusSeabed’s collaborative culture while strengthening accountability and governance discipline. It aligns governance arrangements with AusSeabed’s maturity as nationally significant infrastructure, supports Defence and security considerations, and provides central agencies and funders with greater confidence in stewardship, risk management, and future investment pathways.

6.5.8 Transition from Current Governance Arrangements

Implementing the revised governance model under Option C should be managed as a deliberate transition rather than an abrupt reset. Existing governance bodies, including the Executive Board and Steering Committee, have played a vital role in establishing AusSeabed, building trust across the community, and supporting its growth to national significance. These contributions must be formally acknowledged as part of the transition process.

Under Option C, the Executive Board and Steering Committee would be progressively wound down and replaced by the new advisory arrangements once Geoscience Australia has formally established AusSeabed as a collaborative initiative and confirmed executive accountability. During the transition period, existing bodies should continue to operate in an advisory capacity only, with clear communication that decision authority rests with GA. This provides continuity of engagement while avoiding further ambiguity around roles and responsibilities.

Members of the existing governance bodies should be actively engaged in the transition, including through consultation on the design of the new Advisory Committee and identification of priority issues requiring early advice. Where appropriate, current members may be invited to

participate in the reconstituted advisory arrangements, ensuring continuity of expertise and relationships.

Clear and timely communication of the transition plan, including milestones, role changes, and decision pathways, will be critical to maintaining confidence among partners and contributors. A staged transition minimises disruption, preserves goodwill, and reinforces the shift from a partnership-led governance model to a GA-owned initiative while retaining the collaborative foundations on which AusSeabed depends.

6.5.9 Growing Senior Stakeholders and Building Support

While AusSeabed's long-term sustainability will require sustained senior-level understanding and support across government, the review finds that this is most appropriately achieved through clear institutional ownership within Geoscience Australia, supported by targeted senior engagement rather than additional standing governance bodies. Members of the existing Executive Board, while providing valuable strategic advice and sectoral perspectives, do not require ongoing formal decision-making roles once authority and accountability are clearly located within GA.

Once AusSeabed is embedded formally within GA, senior engagement should be built through portfolio-level champions in key departments, bilateral engagement between GA leadership and counterpart agencies, and use of existing senior coordination and briefing mechanisms. This approach aligns with established Commonwealth practice for nationally significant but enabling capabilities and avoids over-engineering governance arrangements. The current members of the Executive Board can continue to play a valuable role as advocates for AusSeabed, both within their own organisations and more broadly across government, as the case for sustained, long-term investment is developed.

Targeted senior engagement will be particularly important to support alignment around AusSeabed's national role, manage cross-portfolio dependencies, and build shared understanding in advance of future funding considerations. Senior engagement should be prioritised for:

- Deputy Secretary / SES Band 2–3 level officials in:
 - Environment and marine policy portfolios
 - Defence and national security
 - Infrastructure, transport, and navigation
 - Industry, science, and innovation
 - Foreign Affairs (Antarctic and international dimensions)
- Central agencies (Finance, PM&C) at relevant senior levels

Engagement should be selective and intentional, not broad-based.

Framing AusSeabed as a GA-owned national capability will provide a clear focal point for this engagement and strengthen confidence among central agencies and partners.

6.6 Enabling Future Capability without Committing to Immediate Growth

Stakeholder feedback, including from within Geoscience Australia, highlighted an important question: what additional value could AusSeabed deliver if its role were stabilised and modestly strengthened over time? While AusSeabed's current focus on bathymetry coordination delivers significant value, it represents only part of the seabed-related geophysical data landscape required to support contemporary marine policy, science, and operational needs.

A range of foundational seabed datasets — including acoustic backscatter, sub-bottom profiling, sediment characterisation, and more advanced gridding and integration capabilities — are increasingly critical to understanding seabed composition, structure, and change. These datasets are essential inputs to habitat mapping, resource assessment, environmental baseline studies, and cumulative impact analysis. They are also directly relevant to delivery of multi-year marine geoscience commitments under the Resourcing Australia's Prosperity Initiative, which depend not only on data acquisition but on consistent processing, integration, and national stewardship.

At present, no single entity is tasked with providing national coordination and stewardship for these seabed-related datasets. In practice, AusSeabed is the only existing capability with the technical foundations, relationships, and system architecture to potentially support this role over time. However, these functions sit beyond its current resourcing envelope and are not proposed as immediate commitments.

Option C does not presume expansion of AusSeabed's scope or funding. Rather, it establishes the institutional platform and accountability necessary to allow Government to make informed, staged decisions in the future about whether, when, and how additional seabed data capabilities should be developed. In this sense, stabilising AusSeabed under Option C preserves opportunity without creating obligation and reduces the risk that critical gaps persist simply because no institutional home exists to consider them.

6.7 Counterfactual: Implications of Maintaining Current Arrangements

This counterfactual considers the likely outcomes if Government does not act to stabilise and embed AusSeabed as a national capability and instead allows current arrangements to persist or gradually degrade. It clarifies the risks and opportunity costs associated with inaction.

6.7.1 The Counterfactual Scenario

Under this scenario, AusSeabed continues to operate with fragmented funding and informal governance, relying on goodwill and project-based contributions without institutional consolidation. No single entity holds clear accountability for national seabed data coordination.

Under the counterfactual, unresolved ambiguity around AusSeabed's authority and decision-making role continues to create internal tension for Geoscience Australia. As AusSeabed's coordination functions expand without formal consolidation, GA is exposed to ongoing concerns that decisions affecting priorities, standards, or external commitments are being shaped through informal or stakeholder-led processes that sit uncomfortably alongside GA's mandated responsibilities. Over time, this creates institutional risk for GA, including blurred accountability,

reduced internal confidence in the initiative, and reluctance to fully support or champion AusSeabed. Failure to address these concerns ultimately weakens GA's ability to exercise effective stewardship over national seabed data and increases organisational risk rather than containing it.

6.7.2 Key Consequences

Fragmentation and duplication increase

Without sustained coordination, agencies revert to bespoke data management approaches, standards diverge, and data collected for one purpose is not efficiently reused for others. This recreates pre-AusSeabed inefficiencies and reduces the return on existing public investment.

National coordination capacity erodes

AusSeabed's most valuable function — national prioritisation and coordination — is least likely to be sustained if funding is uncertain. Coordination becomes episodic, national planning degrades, and decisions increasingly revert to agency- or project-specific priorities, leading to sub-optimal national outcomes.

Policy and delivery risks increase

Environmental management, marine park planning, and reform agendas increasingly depend on consistent, analysis-ready seabed data. Under the counterfactual, decisions rely on weaker evidence, increasing the likelihood of contested outcomes, delays, and inefficient mitigation.

Existing government investments deliver less value

Major commitments to marine geoscience, including through RAPI, depend on effective coordination and stewardship to realise integrated outcomes. Without stabilising AusSeabed, these enabling functions remain under-resourced, diminishing the value of investments already made.

Trust and social capital decline

Sustained uncertainty undermines stakeholder confidence, reduces willingness to contribute data or effort, and shifts coordination from systems to individual relationships. Once lost, this social capital is difficult and costly to rebuild.

Long-term costs rise

While avoiding near-term investment may appear fiscally neutral, the counterfactual results in higher long-term costs through duplication, inefficiency, and increased policy risk, and weakens readiness for future funding opportunities.

6.7.3 Summary

The counterfactual to investing in AusSeabed is not continued delivery at lower cost, but a gradual erosion of coordination capability, reduced value from existing Government investments, and increased systemic risk across marine policy and operations. Targeted investment to stabilise AusSeabed is therefore best understood as a risk-mitigation and value-preservation measure, rather than a discretionary enhancement.

6.8 Comparative Risk Assessment

Each option presents a distinct risk profile across feasibility, timing, governance clarity, and stakeholder confidence. While all options carry some level of delivery and transition risk, the nature and immediacy of those risks differ significantly.

Overall, near-term risks are highest for Options A and B due to their dependence on external policy, funding, and decision-making processes. Option C presents the lowest aggregate risk profile, as it directly addresses existing governance and sustainability pressures within current institutional settings. Option D represents the counterfactual, or status quo, and is included for comparison; however, it does not provide a credible pathway to sustainable future capability funding.

Option A (NCRIS) carries elevated near-term risk due to uncertainty around selection, timing, and future Roadmap prioritisation, notwithstanding potential long-term benefits.

Option B (NPP) carries significant fiscal and policy risk, reflecting competition for budget funding, offset requirements, and dependence on broader Government priorities.

Option C (organisational integration within GA) presents the lowest overall risk, as it mitigates the most immediate governance and sustainability risks and can be implemented with greater certainty and control.

Option D (status quo / no structural change) carries increasing risk over time, as continued reliance on informal or interim governance and funding arrangements perpetuates misalignment between expectations, authority, and resourcing. These risks are already evident and would be expected to intensify as demand for nationally coordinated seabed data continues to grow.

7. Preferred Option and Sequencing Strategy

7.1 Preferred Option

The review identifies **Option C — Formal Integration of AusSeabed as a Collaborative Initiative within Geoscience Australia** — as the preferred near-term pathway.

This option resolves immediate governance and accountability gaps, stabilises operations, and provides a clear institutional home for AusSeabed that is consistent with how it is already perceived and relied upon by stakeholders. It aligns AusSeabed with existing Government-funded marine geoscience responsibilities, including those delivered under the Resourcing Australia's Prosperity Initiative, and is highly feasible within current institutional arrangements.

Formal integration within Geoscience Australia is also acceptable to Defence and safety-of-navigation stakeholders, as it preserves clear authority, data stewardship responsibilities, and trusted handling of sensitive information.

7.2 Sequencing Rationale

Sequencing is critical to managing policy and delivery risk. Institutional consolidation should precede pursuit of larger-scale funding mechanisms such as NCRIS or a New Policy Proposal. Attempting to secure external funding in the absence of a clear mandate, accountable governance, and stable delivery arrangements would increase policy risk and reduce the likelihood of success.

Formal integration within Geoscience Australia should therefore be viewed as an enabling step that:

- establishes clear authority, accountability, and decision rights
- stabilises delivery and workforce arrangements
- clarifies scope and national value for central agencies
- reduces uncertainty around data governance, sensitivities, and stakeholder expectations

This consolidation provides the foundation required to credibly pursue future funding pathways.

7.3 Future Pathways

Under this sequencing, Options A (NCRIS) and B (NPP) remain viable and complementary medium- to long-term pathways, rather than alternatives to immediate reform. Once foundational arrangements are consolidated, these options could be pursued sequentially or in combination, subject to Government priorities and fiscal conditions.

In this context, formal integration within Geoscience Australia is not an endpoint, but a pragmatic step that positions AusSeabed for future consideration as national research infrastructure or as part of a broader policy and investment package.

8. Recommendations

This review recommends a focused set of actions to address immediate governance and sustainability risks facing AusSeabed, while positioning the capability for future funding and institutional reform. The recommendations reflect the preferred option identified in Section 7 and are designed to be implemented within existing Commonwealth structures, without pre-empting future investment decisions.

Recommendation 1: Formally Recognise AusSeabed as a Nationally Significant Capability

The Commonwealth should formally recognise AusSeabed as a nationally significant seabed data coordination and stewardship capability that underpins multiple Government priorities, rather than as a discretionary or time-limited collaboration.

This recognition should be given effect through explicit acknowledgement of AusSeabed as an enduring national function within relevant Government policy and planning documents, and through its formal incorporation within Geoscience Australia's accountability framework. In doing so, AusSeabed should be treated consistently as shared national infrastructure that maximises the value of existing public investment in seabed data and supports nationally consistent decision-making across environmental management, safety of navigation, science, and marine operations.

Recommendation 2: Integrate AusSeabed as a Formal Collaborative Initiative within Geoscience Australia

AusSeabed should be formally integrated within Geoscience Australia's organisational structure, with clear executive accountability, defined scope, and baseline operational funding. This integration should retain the AusSeabed identity as the nationally recognised coordination and stewardship mechanism for seabed data, reflecting its established credibility and trust across government, research, and industry. It should also be accompanied by continued, structured engagement with core delivery partners as contributors of data, expertise, operational capability, and funding. While executive authority and accountability would sit within GA, AusSeabed's ongoing value will continue to depend on sustained partner participation, aligned standards, and shared commitment to nationally coordinated seabed mapping.

Retaining the AusSeabed brand supports continuity for data providers and users, reduces transition risk, and preserves stakeholder confidence, while enabling Geoscience Australia to leverage an existing, well-understood interface for national seabed data coordination. This approach aligns AusSeabed with Geoscience Australia's existing marine geoscience responsibilities, including those delivered under the Resourcing Australia's Prosperity Initiative, and reinforces GA's role as steward of nationally significant geoscience information.

As part of formalising AusSeabed within Geoscience Australia, GA should explicitly articulate marine mapping and seabed data stewardship within its broader national mapping remit, including in relevant corporate descriptions and program framing, to provide a clear signal of enduring institutional commitment.

Recommendation 3: Define a Clear Core Mandate, with a Transparent Pathway for Future Capability Expansion

Geoscience Australia should define and publish a clear core mandate for AusSeabed focused on national coordination, standardisation, quality assurance, and stewardship of analysis-ready bathymetry and associated seabed data products that align with its existing responsibilities.

At the same time, AusSeabed should articulate a transparent framework for identifying, prioritising, and responding to broader community demand for additional seabed datasets and products. This framework should make clear that any expansion beyond the core mandate is contingent on explicit Government decisions, funding, and capacity, rather than absorbed incrementally within existing resources.

The mandate should position AusSeabed as a foundational component of the national marine data ecosystem, enabling interoperability and reuse across complementary environmental, oceanographic, and spatial data systems, without creating new delivery obligations beyond its core scope.

Recommendation 4: Reset Governance to Advisory-only External Arrangements

Existing governance arrangements should be reconfigured to ensure a clear separation between advisory input and decision authority. Advisory functions previously distributed across multiple bodies should be consolidated into a single AusSeabed Advisory Committee, combining strategic perspective with scientific, technical, and operational expertise to reflect the diversity of stakeholders that rely on AusSeabed, while avoiding duplication and role ambiguity.

The Advisory Committee should be advisory in nature and would not exercise decision-making authority. Formal authority, accountability, prioritisation, and delivery responsibility should rest unambiguously within Geoscience Australia, supported by technical working groups convened as required to provide specialist input.

Under this model, access to AusSeabed data and products should remain open and equitable, consistent with public data and open science principles, and should not be contingent on participation in governance or delivery arrangements. Governance arrangements should also formalise data custodianship, classification, and access controls for both open and sensitive seabed data, with data-custodian authority retained by source agencies.

Recommendation 5: Secure Baseline Funding and Adopt a Sequenced Funding Pathway

The Commonwealth should secure minimum viable baseline funding to stabilise AusSeabed's core coordination and stewardship functions following institutional integration.

Larger-scale funding mechanisms, including potential consideration under NCRIS or a New Policy Proposal, should be pursued only once governance, mandate, and delivery arrangements are consolidated, and AusSeabed is demonstrably positioned as a mature national capability.

Recommendation 6: Sustain Partner Commitment and Advocacy During Transition

Core AusSeabed delivery partners should continue their financial and in-kind contributions during the transition to a consolidated operating model, recognising their central role in building and sustaining AusSeabed as a nationally significant capability. Partners should have input to determining the future model for AusSeabed, then actively support and champion it, including articulating its value to their own organisations, stakeholders, and broader policy and operational communities.

In doing so, partners should contribute to a shared and consistent narrative about AusSeabed's role in maximising the value of public investment in seabed data, enabling nationally consistent decision-making, and supporting outcomes across environmental management, safety of navigation, science, industry, and marine operations. This collective advocacy will be critical to maintaining momentum, confidence, and alignment as AusSeabed transitions to a more formal and enduring institutional footing.

8.1 Closing Observation

Taken together, these recommendations address the most immediate risks facing AusSeabed while preserving flexibility for future reform. Formal integration within Geoscience Australia should be understood as a pragmatic and enabling step that stabilises a nationally relied-upon capability and positions it for longer-term investment, rather than as an endpoint in itself.

The review finds that AusSeabed's challenges arise primarily from institutional ambiguity rather than from deficiencies in technical capability, stakeholder commitment, or demand. As reliance on nationally coordinated seabed data continues to expand across government, research, industry, and Australia's international obligations, continued reliance on informal arrangements would increase governance and sustainability risk. Clear institutional anchoring therefore provides a timely and proportionate foundation from which AusSeabed's long-term role, funding pathways, and contribution to national priorities can be progressed with greater confidence.

Ultimately, AusSeabed's future should be shaped by the recognition that stewardship of nationally significant seabed data is a long-term public responsibility, requiring institutional clarity, durable support, and sustained collective commitment to operate in Australia's national interest.

Appendix A – Terms of Reference

The review will provide independent advice to the AusSeabed Executive Board on:

- the value of the AusSeabed initiative to the Australian Government and AusSeabed collaborators
- the future operating model for the AusSeabed initiative, including its governance

The review will assess:

- the role of the AusSeabed initiative within the context of national and international ocean priorities
- the quality, relevance and impact of the AusSeabed initiative to Australian Government, industry and academic stakeholders and determine the extent to which it delivered on the AusSeabed strategy
- whether the current operating model, including the governance structure, is fit-for-purpose, and identify risks and capability and resourcing gaps
- provide recommendations for improvements and/or propose alternative operating models

Appendix B – Review Scope and Methodology

This review was commissioned by Geoscience Australia to examine the governance, funding, and operating arrangements of the AusSeabed initiative and to assess options for placing it on a sustainable long-term footing.

The review focused on:

- AusSeabed’s role and value within Australia’s marine data and seabed mapping ecosystem
- the effectiveness and clarity of existing governance and decision-making arrangements
- alignment between stakeholder expectations, institutional authority, and resourcing
- sustainability risks associated with current funding and delivery models
- feasible future governance and funding options within the Commonwealth policy environment

The review did not assess the technical quality of seabed data products, nor did it undertake a technical audit of platforms or datasets. Its emphasis is on institutional, governance, coordination, and sustainability considerations appropriate to a nationally significant capability.

B.1 Methodological approach

The review adopted a qualitative, evidence-based methodology combining document review, stakeholder engagement, and desktop research. The approach was designed to capture both formal governance arrangements and the practical experience of stakeholders involved in delivering, contributing to, or relying on AusSeabed.

Evidence was gathered through multiple, complementary methods to enable triangulation of findings across sources and perspectives.

B.2 Document review

A substantial body of documentation was reviewed, including:

- governance instruments, terms of reference, and meeting records
- collaborative agreements and project-based funding arrangements
- the AusSeabed Strategy and Roadmap and supporting materials
- relevant Commonwealth policies, strategies, and marine coordination frameworks
- background material provided by Geoscience Australia and partner organisations

Document analysis informed understanding of formal roles, responsibilities, expectations, and constraints, and provided context for stakeholder engagement.

B.3 Stakeholder engagement

Stakeholder engagement was undertaken to test emerging themes and capture perspectives from those delivering, contributing to, governing, or using AusSeabed. Engagement included one-on-one interviews, structured group discussions, and an open online survey. Further details on engagement methods, coverage and participation is provided in Appendix C.

B.4 Desktop research and benchmarking

Extensive desktop research was undertaken to situate AusSeabed within the broader national and international marine data landscape. This included consideration of comparable national coordination initiatives, research infrastructure models, and international seabed mapping efforts.

B.5 Analysis and synthesis

Evidence from documents, interviews, group discussions, and survey responses was analysed iteratively to identify recurring themes, points of convergence and divergence, and systemic issues affecting AusSeabed's effectiveness and sustainability. Findings were cross-checked across sources and refined through synthesis rather than aggregation.

B.6 Limitations

As with all qualitative reviews, findings reflect the perspectives of those engaged and the information available at the time of the review. While engagement was extensive and covered all key stakeholder categories, the review did not include quantitative economic modelling or detailed financial analysis.

Appendix C – Stakeholder Engagement Summary

Stakeholder engagement was undertaken through a combination of:

- one-on-one interviews with key stakeholders
- group discussions with members of the AusSeabed Steering Committee
- an open online survey to enable broader community participation

This mixed-method approach was intended to balance depth of insight from senior and operational stakeholders with breadth of input from the wider AusSeabed community.

C.1 One-on-one Interviews

A substantial program of one-on-one interviews was undertaken with senior representatives from Commonwealth and state government agencies, research organisations, industry, and international partners. In total, 27 one-on-one interviews were conducted.

Interviewees included:

- all members of the AusSeabed Executive Board
- some members of the AusSeabed Steering Committee (noting broader engagement through group discussions – see below)
- senior staff from Geoscience Australia, the Australian Hydrographic Office, CSIRO, AIMS, the Australian Antarctic Division, DCCEW, DISR, and other government agencies
- representatives from national marine science and data initiatives
- industry representatives
- selected international collaborators and benchmarking organisations

Interviews were semi-structured and focused on:

- perceived value and impact of AusSeabed
- strengths and limitations of the current operating model
- governance and funding arrangements
- alignment with national and international priorities
- future risks, opportunities, and expectations

Stakeholders were consistently open and constructive in their engagement, and participation rates were high across all stakeholder groups. A detailed record of stakeholder engagements was provided separately to the commissioning agency.

C.2 Group Discussions

In addition to individual interviews, the reviewer held a series of group discussions with members of the AusSeabed Steering Committee.

These discussions enabled:

- discussion of governance dynamics, including areas of consensus, tension, and ambiguity in roles and decision making
- exploration of shared and divergent views across jurisdictions and sectors
- discussion of coordination challenges and dependencies

- testing of emerging themes from individual interviews

The group discussions provided insight into how AusSeabed's governance arrangements operate in practice, the value derived by members from Steering Committee participation, and the ways in which advisory input has influenced the evolution of the initiative over time.

C.3 Online Survey

To provide an opportunity for broader community input, an online survey was open for four weeks between 20 October and 14 November 2025. The survey received 20 responses, of which 6 were anonymous and reflect a balanced mix of data producers, users, operational agencies, researchers and professional stakeholders.

The survey was open to all AusSeabed stakeholders, comprised 15 questions including both structured and free-text responses, and was designed to take approximately 20–30 minutes to complete. The questions covered engagement with AusSeabed, perceived benefits, governance, coordination, and areas for improvement, and also provided respondents with the option to remain anonymous and/or to consent to follow-up contact by the reviewer. The survey was administered online over a four-week period and conducted in accordance with the Australian Privacy Act 1988 and Australian Privacy Principles. The survey provided valuable supplementary insight into the experiences and perspectives of users who are not directly involved in governance or delivery roles.

C.4 Stakeholder Coverage

Across interviews, group discussions, and the survey, engagement spanned:

- Commonwealth and state government agencies
- marine science and research organisations
- data infrastructure and coordination initiatives
- industry and commercial data providers and users
- international seabed mapping and data programs

This breadth of engagement ensured that the review captured perspectives from both data providers and users, as well as from those involved in governance, funding, and operational delivery.

C.5 Use of Stakeholder Input

Insights from stakeholder engagement informed:

- identification of key findings
- assessment of governance and funding options
- understanding of risks and dependencies
- development of the review's recommendations

Appendix D – List of Acronyms

AAD	Australian Antarctic Division
AHO	Australian Hydrographic Office
AIMS	Australian Institute of Marine Science
AMSA	Australian Maritime Safety Authority
AODN	Australian Ocean Data Network
BoM	Bureau of Meteorology
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DAFF	Department of Agriculture, Fisheries and Forestry
DCCEEW	Department of Climate Change, Energy, Environment and Water
DISR	Department of Industry, Science and Resources
EEZ	Exclusive Economic Zone
EPBC	Environmental Protection and Biodiversity Conservation
FAIR	Findable, Accessible, Interoperable and Reusable
GA	Geoscience Australia
GDP	Gross Domestic Product
HIPP	HydroScheme Industry Partnership Program
IMOS	Integrated Marine Observing System
MNF	Marine National Facility
NCRIS	National Collaborative Research Infrastructure Strategy
NDRI	National Digital Research Infrastructure
NESP	National Environmental Science Program
NPP	New Policy Proposal
RAPi	Resourcing Australia's Prosperity Initiative
SCT	Survey Coordination Tool
SDG	Sustainable Development Goals
SEAF	Shared Environmental Analytics Facility
SES	Senior Executive Service
UNOC3	3 rd United Nations Oceans Conference
WAMSI	Western Australian Marine Science Institution
QAX	Quality Assurance Tool