

Operated by CSIRO, Australia's National Science Agency, on behalf of the nation

MNF Operations Rolling Plan 2024

Covering schedules 2023-24 to 2027-28



Acknowledgments

The Marine National Facility (MNF) is a national facility for marine research funded by the Australian Government and owned and operated by CSIRO on behalf of the nation.

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Image (cover): Tauri Minogue

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1 Introduction

The Marine National Facility (MNF) released its decadal strategy, *MNF 2030*, to ensure that access to Australia's dedicated marine research capability is broad and equitable, and that the research it enables is aligned with Australia's national research priorities and in support of its mission:

To deliver safe, efficient and excellent marine and atmospheric research aligned with national priorities, to address Australia's grand challenges for society, the economy and the environment. The primary vehicle for *MNF 2030* implementation is the annual MNF Operations Rolling Plan (the Plan) updated each year and released at the time of the annual call for applications.

The primary objective of the Plan is to help prospective users effectively engage in MNF processes, including developing and submitting applications for sea time that are aligned with Australia's national research priorities (Figure 1).

The plan will outline for each schedule:

- Streams for which applications are sought and any associated allocation targets to guide granting of sea time across the streams
- MNF policy-driven priorities to define the focus for Stream 1 applications
- overview of operations, capability maintenance activities, and media, education and outreach events over the coming schedules
- annual operational performance targets.





2 Call for applications 2024

Applications in this round are for projects to be undertaken between July 2026 and June 2027. Allocation of sea time is subject to operational and funding availability.

In some cases, sea time additional to these days might be offered on another fit-for-purpose platform.



3 Streams of access

Under the *MNF 2030* strategy, the MNF introduced multiple Streams of applications to better reflect the breadth of needs and demands of the Australian research community and to encourage new users.

In 2024, the MNF invites applications for sea time under five Streams:

Stream 1: Policy-driven researchStream 2: Discipline-driven proposalsStream 3: Strategic PartnershipsStream 4: Technology and Innovation proposals

Stream 5: User-funded research

Application assessment

All applications, irrespective of Stream, are assessed against the same two merit principles:

- Research Quality (assessed by the MNF Research Advisory Committee)
- Research Benefit (assessed by the MNF National Benefit Advisory Committee).

The MNF Steering Committee will take advice from the two advisory committees and ultimately strike a balance across the Streams for access to MNF capabilities for each schedule.

Full details of the MNF assessment criteria and process, and guidance for filling out applications, can be found at csiro.au/about/facilities-collections/MNF/Apply-for-sea-time.



Stream 1 - Policy-driven research

Stream 1 was created to address critical policy needs for Australia. Accordingly, Stream 1 is for research projects that directly address a Policy-driven Priority (policy-driven priorities are articulated in this plan in section 4).

Successful projects in this Stream will directly inform and influence important public policies and programs, whilst still demonstrating great strength in research quality.

It is intended to promote a co-conception/co-design approach to the development of project proposals. Applicants must be able to demonstrate that they have engaged the end-user and worked with them to ensure the project will deliver against their needs to fill gaps in the knowledge base relevant to those needs.

In choosing to apply for Stream 1, you must make explicit what is possible (and not possible) for you to deliver, what outputs from your research will be used and how, how uptake will be facilitated, and the timeframe for delivery of benefits to nominated end-users.

With the primary objective of *MNF 2030* being to facilitate research that delivers impact to areas of priority for government and the nation, the MNF Steering Committee has set an aspirational target for Stream 1 to encourage uptake of this dedicated avenue for sea-time on RV *Investigator* by the research community, and participation of end-users.

Subject to merit assessment (Research Quality and Research Benefit), the MNF Steering Committee will make available up to 40 per cent of available days in the 2026–27 schedule noting that this target is not intended to be prescriptive and whether it is achieved will depend on the response from the research community and the quality of the proposals received.

The Policy foci for Stream 1 may change year-on-year, and applicants are expected to address the priority areas. If you are intending to apply for Stream 1 access in 2026–27 you are strongly encouraged to read Section 4 of this plan and approach the end-users at an early stage of proposal development.

Stream 2 - Discipline-driven proposals

Stream 2 is to advance scientific knowledge and promote Australia's science excellence. Accordingly, Stream 2 is for research projects that address important disciplinary, or multi-disciplinary, research questions of national or international standing that do not directly address priorities specified in other Streams but are directly or indirectly in Australia's national interest.

Successful projects in Stream 2 are expected to significantly advance the understanding of key features or processes in the ocean or atmosphere or Earth system, including human interactions.

Research undertaken through this Stream must be relevant to Australia or address key questions that are in Australia's national interest. Applicants should identify the national information need, policy area, or public interests that their research is expected to inform, whether directly or through contributions to global knowledge on which Australia draws for its national interests.

You should identify agencies or sectors, including any relevant international research program in which Australia participates, which you expect to benefit from the research products you will produce. Specific links between your research and priorities as identified in national strategies (which may include but are not limited to the Stream 1 Policy-driven Priorities in section 4) should be identified.

Frontier/fundamental/basic research proposals fall under Stream 2. While the benefit delivered and the application of outputs from these types of proposals may be more difficult to articulate, the applicant should still identify potential next and end-users and justify outputs. These proposals will need to be highly innovative and have objectives that, if achieved, may radically change the way we think about something important. Proponents must articulate how the results may potentially influence changes to society, the economy or the environment if hypotheses are proven.

If you are intending to apply for Stream 2 access in 2026–27 you are strongly encouraged to include evidence of how your discipline-driven research will be useful for your end-users.



Stream 3 - Strategic Partnerships

Stream 3 was created to support publicly funded national programs that rely on regular access to MNF capabilities to support data and sample collection and for which deployment of a national research facility is appropriate. It is expected that Stream 3 research will involve recurrent deployments over multiple years through formal partnership arrangements between the MNF and other publicly funded programs.

Stream 3 research will need to have demonstrably credible prospects of delivering the outcomes nominated by partner programs directly reflecting the national interests for which they were funded.

Prospective partners should discuss their research requirements with the MNF at an early stage and ahead of merit assessment, to verify that the research is appropriate for a partnership arrangement with the MNF. Part of the consideration will be the degree of reliance by the program on MNF capabilities. Stream 3 partnership agreements will be reviewed against delivered benefits and merit criteria every three to five years.

A notional cap of 20 per cent of total available days for the 2026–27 application round will apply to Strategic Partnerships. While this cap has some flexibility to accommodate variability in demand from schedule to schedule, it is intended to ensure that such national programs do not limit access options to the broader science community.

If you are intending to apply for Stream 3 access in 2026–27 you are strongly encouraged to contact the MNF Group Leader, Engagement and Risk for an initial discussion on eligibility and feasibility discussion:

Matt Kimber

MNF Group Leader, Engagement and Risk +61 3 6232 5186 matt.kimber@csiro.au

Stream 4 – Technology and Innovation proposals

Stream 4 was created to promote development and innovation in marine research and industry technology.

This Stream is for projects that propose to undertake development and testing of technology that will advance Australia's capability or capacity for research and understanding of its marine environment, atmosphere, or the Earth System, and may include societal dimensions.



Successful projects in this Stream will directly address areas in which development of new technologies or improvement of existing technologies will enhance the collection or delivery of research and data or build on Australia's reputation for innovation through contribution to marine industries of national interest.

Stream 4 proposals should clearly identify the technological opportunity that is being addressed and demonstrate how delivering the proposed technology innovation or improvement will be in Australia's national interest.

You must demonstrate the Technology Readiness Level of your project to allow for an assessment of the risk associated with approving your project, noting that projects that have not reached TRL 4 (Trial or Validated in Laboratory) would generally not be considered for granting of sea time on RV *Investigator*.

You should discuss your technology research with those who you expect to use the resulting technology improvements or innovations and verify that the research is likely to fill important technology gaps in their operations, whether in research, government or industry. You also should discuss how your results will be applied to develop or improve new research products and/or technologies for future use.

The MNF may seek to incorporate successful Stream 4 applications into a range of ship activities, such as a partner project on a multi-project voyage, or within MNF trial and calibrations activities to ensure efficient and effective use of the platform.

If you are intending to apply for Stream 4 access in 2026–27 you are strongly encouraged to contact the MNF Group Leader, Engagement and Risk for an initial operational feasibility discussion:

Matt Kimber MNF Group Leader, Engagement and Risk +61 3 6232 5186 matt.kimber@csiro.au



Stream 5 - User-funded research

Stream 5 applies to user-funded applicants to support industry and other entities that require MNF capabilities and that deliver data and research of national interest.

Projects under this Stream will be funded by the applicant, or supporting end-users, and will be considered for MNF support only if it is demonstrated in advance that the proposed work relies on specific capabilities of the MNF that are not reasonably available otherwise in Australia.

Ahead of submitting your proposal for merit assessment, you will need to satisfy the MNF that the research depends on the use of RV *Investigator* and could not be done from a reasonable available alternative platform and that you have the funding to pay for the use of RV *Investigator* to the extent agreed with the MNF. The work will need to be of a research nature, meet MNF research quality expectations, and be demonstrably in Australia's national interest, directly or indirectly.

If you are intending to apply for Stream 5 access in 2026–27 you are strongly encouraged to contact the MNF for an initial eligibility and feasibility discussion:

Sam Hinton

MNF Ship Management Program Director +61 3 6232 5328 sam.hinton@csiro.au

4 MNF policy-driven priorities for Stream 1

Stream 1 policy-driven priorities for 2024 applications

Stream 1 is for access to sea time on RV *Investigator* for research projects that directly address the Policy-driven priorities specified in MNF Operations Rolling Plans.

Successful Stream 1 projects are expected to directly inform and influence critical public policies and programs.

This Stream seeks to promote a co-design approach to the development of project proposals. Proponents must demonstrate that they have engaged relevant end-users and worked with them to ensure the project will deliver against their needs and will fill gaps in the knowledge base relevant to those needs.

Stream 1 priorities for the 2024 Primary Application call, for voyages to be undertaken between July 2026 and June 2027, are outlined in the following pages.

Stream 1 priorities are responsive to government policy and plans. They are selected from different policy domains to address key data and science gaps critical to supporting Australia's marine research impact economically, environmentally and socially. Supporting end-users in Parks Australia continues to be a research priority area.

Recognising the on-going development of government policies and plans, for the 2024 call, applicants could also choose to address other government policy-driven priorities. This will require you to identify the policy driver and an appropriate end-user with which to co-design the project, including identifying the pathways to impact.



POLICY-DRIVEN PRIORITY: Biodiversity discovery, baselines and monitoring and management effectiveness

Background

The Australian Government has established 62 marine parks around the country to help conserve marine habitats and the marine species that live within and rely on these habitats.

Parks Australia manages 60 of these parks. Covering 3.8 million square kilometres or 43 per cent of our oceans, Australian Marine Parks make up one of the largest networks of marine protected areas in the world.

Located in Commonwealth Waters – those over 5.5 km from the coast – they encompass waters that are largely remote and deep – over 85 per cent of the parks are deeper than 100 m.

Parks Australia's ability to manage marine parks is impacted by the low levels of knowledge of many of them.

To undertake research in many Australian Marine Parks therefore requires a well-equipped blue-water research vessel capable of extended voyages, like RV *Investigator*.

Areas of focus

Under Stream 1, the MNF invites applications for sea time to undertake – between July 2026 and June 2027 – research projects that explicitly address areas that are a priority for the management and protection of Australian Marine Parks and are dependent on the multidisciplinary blue-water research capabilities provided by the MNF.

Priorities to support evidence-based adaptive management of, and decision making for, Australian Marine Parks include:

- research that addresses policy priorities, including:
 - Assess vulnerability and risks regarding climate change-related impacts and pressures from new ocean industries.
 - Inform the 2028 reviews of management plans.
 - Embed First Nations' knowledge in management.
- improve understanding of the type and distribution of seafloor features and associated biodiversity (habitats, associated communities and species) in Australian Marine Parks subject to higher levels of pressures in the past, now or expected in the foreseeable future.
- improve understanding of the effects of pressures and drivers on benthic habitats and associated communities and species within Australian Marine Parks, and ways to mitigate impacts of pressures on, or build resilience of, these habitats and species.
- improve understanding of species ecology and population dynamics for threatened species which reside or have breeding or feeding aggregation areas in Australian Marine Parks.



Partnerships with Parks Australia for Stream 1 projects will require:

- **Co-design of projects with Parks Australia** genuine co-design is encouraged to target priorities of importance to Australian Marine Park managers and to ensure that research proposed aligns with activities allowed within the parks (some extractive and/or destructive methods may not be permitted in Australian Marine Park areas).
- **Collaboration among researchers** ideally individual proposals will include several priorities for Parks Australia and involve multiple research groups.
- Multidisciplinary needs Primary and supplementary projects that address multiple needs within the same Park are encouraged as well as linkages between separate projects. This may include oceanographic process data and bathymetry mapping being combined with species specific data collection and habitat/species distribution modelling.
- End-user specific outputs/deliverables ideally reports will be lodged with Parks Australia at the conclusion of the research project and research highlight articles and imagery for Australian Marine Park websites and communication products will be collaborative outcomes of the project. Please note that it is an expectation that media releases and social media articles are to be approved by Parks Australia prior to release.
- **Resources/funding** it is expected that funding to support activities and post-voyage analysis and reporting comes primarily from research partners in the form of in-kind or cash contributions. Parks Australia may contribute a small amount of funding towards outputs that support park management but if a project is reliant on any funding contribution from Parks Australia, it must be agreed by their Branch Head prior to submission of the MNF application.

- Indigenous engagement Parks Australia's Indigenous engagement program recognises and respects the ongoing cultural rights and responsibilities of Indigenous people to care for sea country and support social, cultural and economic benefits for Traditional Owners. As such, early in planning, Parks Australia engages with relevant Indigenous Corporations that represent. Traditional Owners when the research will occur in Sea Country in Australian Marine Parks. Whenever Aboriginal and Torres Strait Islander people are engaged on research it is also critical their rights to Indigenous Cultural and Intellectual Property (ICIP) be respected, including by ensuring that Indigenous Knowledge is only recorded, used or shared with the free, prior and informed consent of Traditional Owners.
- **Permits** An authorisation is required to undertake research in Australian Marine Parks. Authorisation applications generally take eight weeks to assess so applications must be submitted within a suitable timeframe and will be the responsibility of the Principal Investigator of the project.



Paths to impact

Science and data delivered through the applications should directly inform any of the following:

- digital catalogue of natural values within Australian Marine Parks, e.g., Australian Marine Parks Science Atlas
- assessment of environmental impacts of activities and pressures within Australian Marine Parks
- evidence about effectiveness of zoning and management arrangements
- decadal reviews of management plans for Australian Marine Parks
- strategic prioritisation of investment in management and further research.

Further information

Australian Marine Parks Management Plans are available at: parksaustralia.gov.au/marine/ management/plans/

Australian Marine Park Science plans are planned for release in early 2024, providing further details of science priorities: parksaustralia.gov.au/marine/ science/

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Interested in applying?

The MNF will hold a Q&A session in 2024, to bring together interested scientists and relevant end-users to discuss research needs and opportunities. If you are interested in undertaking research that addresses the priority above and are planning to apply for sea time on RV *Investigator*, you are strongly encouraged to attend this session.

Please register your interest at mnf@csiro.au

Keep up to date with MNF news and announcements by subscribing to the MNF mailing list: csiro.au/ about/facilities-collections/MNF/About/Subscribe



MNF advice to Stream 1 applicants

MNF policy-driven priorities are set through consultation with key government and industry end-users to define critical needs for data, knowledge and research, such as:

- big-picture research questions to underpin national policy development
- a focus on an oceanic region to support sustainable growth of new and emerging industries
- contributions to global research programs of strategic national importance
- establishment of baselines and ongoing monitoring to directly inform government programs and regulation.

The objective of Stream 1 access is to catalyse the co-design of large, multidisciplinary high-impact projects that deliver research clearly aligned with national priorities. Accordingly, applications for Stream 1 access will need to ensure that they:

- provide strong evidence of project co-design with the end-user
- clearly demonstrate the multidisciplinarity of the proposed research
- clearly articulate the rationale for location-based or regionally-focused proposals
- clearly articulate the impact pathway of the research to the end-user
- clearly articulate plans for Indigenous engagement in the project design if the proposal includes research on sea country.



5 Key research capabilities

Through access to RV *Investigator's* advanced multidisciplinary scientific equipment and instrumentation, along with expert operational and technical support personnel, MNF can flexibly and safely cater for diverse and multi-disciplinary oceanographic, geological and atmospheric research needs.

The MNF Capability Prospectus provides and overview of available MNF vessel, equipment and instruments, technical expertise and data capability.

The Prospectus provides a valuable planning tool and resource for prospective and current ship users. It includes an overview of available capabilities and equipment within the main science disciplines of atmospheric, biological, geoscience and oceanographic research. It also has useful detail about vessel information technology (IT) and data capabilities.

The MNF Capability Prospectus is available at csiro.au/about/facilities-collections/MNF/Research-vessel-Equipment-Data/MNF-Capability-Prospectus.



Key research support currently includes:

- A team of dedicated, highly skilled and experienced hydrochemists, geophysical and survey mapping experts, instrumentation, calibration and engineered systems experts, data acquisition and processing and information and data centre staff to ensure sample, mapping, technical services and data integrity is delivered from collection through to analysis and data processing.
- A suite of policies and information to ensure users are informed of their obligations, including the collection and management of samples and data, use of MNF supplied resources and acknowledging MNF support, and health, safety and wellbeing at sea.

Access to MNF's unique and advanced capabilities and expert support personnel is a significant investment in marine science for the benefit of the nation and a key principle remains MNF's commitment to continually evolving as new equipment is added and technology is upgraded.





6 Capability investment, technology and innovation

The MNF is responsible for maintaining and upgrading its key research capabilities, and for expanding capabilities in response to new and emerging technologies and needs. The MNF also offers significant opportunities for advancing technology development for novel marine research systems and, more broadly, technological solutions that can support the growing blue economy. To ensure the MNF keeps pace with emerging capabilities, technologies and key research needs, and that it plays an active role in promoting and adopting marine technology innovation, it has:

- provided a dedicated technology and innovation access Stream (Stream 4) to foster the development of new marine technologies and innovation in marine systems
- developed a 25-year capability investment framework to identify, prioritise and review MNF capital investment on key research capabilities
- instigated a Technology and Innovation Advisory Group (TIAG), with membership from the research and technology development communities, to advise MNF on strategic capability investment.

Each of these activities will ensure the MNF continues to provide capability and equipment that best fits the needs of Australia's marine and atmosphere research users and is interoperable across the national research fleet where possible.



7 Operations calendar 2024–27

The Operations Calendar for 2023–28 provided below is for general guidance only and is current only at time of publication of this document.

Prospective ship users should use the published Voyage Schedules for their application planning. These are available from MFP, our online application and voyage planning portal: mfp.csiro.au/programme.



TC = trial and calibration voyage

PP = port period

LMP = long maintenance period

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8

Performance targets 2024–25

The strategic objectives and key actions under each of the strategic pillars in *MNF 2030* are intended to keep us on course to fulfil our mission to facilitate safe, efficient and excellent marine and atmospheric research that is well aligned with strategic priorities and addresses Australia's grand challenges for society, the economy and the environment. Alongside those, and to check our progress along the way, we will monitor and report on key operational performance targets under each pillar.

Operational performance targets for 2024–25 are listed below.

PILLAR	MEASURES	TARGETS FOR 2024–25			
Protecting our people and the environment	Demonstrated by an increased focus on prevention through lead indicators, such as hazard reporting and compliance with timeframes for incident reporting, investigation and closure	 10 per cent increase in hazard reporting 98 per cent of incidents closed within timeframe 			
	Demonstrated by a decrease in MNF environmental footprint	 Removal of single use plastics from MNF procurement 			
Maximum impact	Demonstrated by reaching threshold rates of successful usage	• Minimum of 90 per cent of planned science days for the 2024–25 voyage schedule successfully delivered			
	Demonstrated by the level of allocation to meritorious research directly addressing identified policy-driven priorities (Stream 1)	• At least 30 per cent of sea time allocated to Stream 1 projects			
Broad access	Demonstrated by level and diversity of demand	• Applications for sea time under at least 3 of the 5 Streams utilised in each call			
Streamlined operations and optimal use	Demonstrated by increased streamlining of processes and coordination across facilities	 Online MFP portal for applications and voyage planning is being utilised for all aspects of application, planning and delivery cycle 			
Advanced capabilities and innovation	Demonstrated by progress towards enhancing science capabilities on RV <i>Investigator</i> to meet ongoing and emerging research needs	• Hold inaugural TIAG meeting with research community representatives present			
Training future generations	Demonstrated through delivery and evaluation of education and training programs and through extension of offerings to include seagoing technical training	• Deliver MNF Education and Training Strategy			
Connecting with Australians and	Demonstrated by coverage of key science activities	 At least two high-profile voyages successfully promoted through multiple channels 			
the world	Demonstrated by engagement with user community	• Undertake an annual Stakeholder Survey to seek feedback on the platform and inform future needs			

GREAT SCIENCE NO SWEAT

Image: Frederique Olivier

As Australia's national science agency, CSIRO is solving the greatest challenges through innovative science and technology.

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Contact us 1300 363 400 csiro.au/contact csiro.au

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