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## Review of the Marine National Facility Access Framework

### Submission from the Australian Marine Sciences Association Inc.

Thank you for the opportunity to comment on the Review of the Marine National Facility Access Framework. The Australian Marine Sciences Association Inc., (AMSA) is a professional society of more than 800 members nationwide, committed to promoting marine sciences. Our members are from universities, museums, private sector and government agencies and have expertise spanning all disciplines related to marine science.

AMSA acknowledges the very strong support provided by the MNF to both research and training in Australia. The RV *Investigator* offers an excellent, stable platform for research scientists from universities, museums and other agencies and we welcome the recent expansion of operations of the vessel to 300 days per annum. The Next Wave and CAPSTAN programs have nurtured the next generation of marine scientists.

While we applaud the increase to full operations, there are some concerns about the current system of access that should be considered in future planning.

In summary, our response concerns four areas:

- better alignment between the ARC and MNF;
- better facilitation and support of applications and voyage plans;
- support for two or three coastal vessels around the nation;
- additional CAPSTAN voyages to increase the capability and training of Australia's marine scientists.

**1. Access criteria that provide for fair and equitable opportunity for merit-based access across all the relevant research types, institutions, disciplines and impact areas that rely upon access to blue-water science capabilities.**

The three assessment criteria (Investigator, Project, National Benefit) are fair and equitable and conform with similar criteria of the Australian Research Council. A fourth criterion could explicitly refer to training and education opportunities provided on voyages.

However, to access the vessel the university sector needs to not only apply for vessel access (~20% success) but also to the ARC for funding to mobilise and analyse the data (~20%). Effectively, two different applications have to be submitted. Alignment of the two very disparate proposals is difficult (the former being marine-specific while the latter concerns broader scientific goals and benchmarks), and the combined probability of getting both is ~4% success. This compromises outputs from any ship-time. A substantive ARC application may often require two voyages which must usually be applied for separately – unless there is a mooring deployment there is little justification for a multi-year voyage request.

There is no doubt that applicants who are familiar with the vessel and the process have an advantage over those who do not have this experience. The application form requires a great deal of technical knowledge about the capacity of the ship and other MNF equipment. This continues after a voyage is granted. You are expected to know how to lay out equipment on the back deck and in all the laboratories and you need to be able to schedule all operations many months in advance. The voyage agreement is intimidating for smaller institutions and the applicant is required to indemnify the MNF under certain conditions and could incur unknown charges if there is a change of voyage plan. A granted MNF voyage requires considerable institutional and organisational capacity. The chief scientist (or their delegate) must devote up to 12 months full time to organise the myriad of operational, reporting and scientific requirements of the voyage. All of this undoubtedly deters access by some institutions to the ship - the bar is very high.

**2. Access allocation models that facilitate the optimal utilisation of MNF resources, the delivery of high quality science and data, and a strong and sustained alignment with national priorities. This should include consideration of:**

***o relevant national infrastructure and programs;***

Clearly the vessel, with its experience with heavy-lift capacity, needs to support IMOS in ocean observing. However, access by IMOS projects may be hindered by the assessment criteria concerning project innovation. This is one area that could support additional training voyages.

***o whether and how MNF should continue to allow access for user-funded and/or commercial use of Investigator;***

In our opinion the MNF should allow for both user-funded and commercial use of the vessel, as a pragmatic way forward with the proposal for using latent coastal vessel capability.

We applaud the MNF's substantial support of CAPSTAN of one voyage per year. These voyages are heavily subscribed and now, with full operations, we are of the opinion that a second CAPSTAN voyage per year should be considered which, in turn, may address the gap between MNF and ARC access.

***o the use of alternative, fit for purpose marine research platforms;***

RV *Investigator* must make full use of the platform's excellent blue-water capability. There is a strong need for complementary coastal vessels to work within the <100 m isobath – remarkably, 90% of global fisheries landings are derived from the continental shelf (Pauly et al. 2002). In the past, the MNF has worked within the 50 m isobath, but this is increasingly challenging. At a minimum, these coastal vessels should have an MNF calibrated CTD, thermos-salinograph and operational deck capabilities – such vessels have been identified as “latent vessel capability” at AIMS, SARDI, IMAS, Bluefin, WA Fisheries and possibly DoD. This could provide opportunities for non-scheduled *Investigator* maintenance and provide budget to operate coastal vessels.

***o the flexibility required to address the logistic constraints associated with full year operations.***

For flexibility across the breadth of science and geographic extent needed, the MNF could consider the occasional charter of alternative vessels as part of the 300 days per annum budget.

***3. Approach to schedule development that is fit for purpose, efficient and effectively integrated with the consideration of overriding logistical constraints.***

The MNF needs to explicitly caution how the balance in multidisciplinary science is introduced. While a breadth of science may be applauded, it quickly becomes a logistical nightmare for all personnel on land and at sea, especially if juggling weather, logistics and the temporal constraints in biological sampling.

***4. Any other issue that is an impediment to meeting the objectives above, including barriers to apply for and/or access MNF sea time.***

While we appreciate the support for writing workshops, the new size of operation and requirements for voyage leadership are certainly daunting for scientists (young and old).

A significant impediment to vessel access is the volume of paperwork required to be completed by the Chief Scientist, frequently working without secretarial support. It is challenging enough coordinating the research, the scientists, their students, needs and travel (and one typically maintains a separate list of reserves, usually students, so that no berth is left suddenly vacant). Some examples where there could be significant reductions in to and fro communications could be as follows. The chemical manifests and MSDS could be facilitated by the MNF maintaining an in-date collection of MSDS for the most commonly used chemicals (such as formaldehyde) that can be immediately applied if the chemical appears on the manifest. Similarly, the endless barrage of requests for Safe Work Instructions indicate a lack of corporate memory when these have to be redone even when such equipment has been used on the ship before. Risk management plans could also be facilitated by both the CSIRO and university safety officers. Further, the indemnity sign-off is also a significant impediment that could also be facilitated by the MNF support staff.

We would propose that clear instructions to Chief Scientists that pertain to the time line as to when different tasks need to be done by would be most helpful (not just dates for submission of voyage plans). In addition, a file of all the ship information that is needed for the plethora of permits required to operate in the EEZ, Marine Parks, import permits & quarantine if you work outside the EEZ etc, would avoid endless emails.

In conclusion, some of the above concerns could be addressed with a coastal vessel fleet of smaller vessels with a narrower science capability. Such a fleet would facilitate training for both chief scientists and students, would complement ARC-funded projects and create an increased range of CAPSTAN opportunities.