

Marine Facilities Advisory Board

Terms of Reference

Purpose

The purpose of the Marine Facilities Advisory Board (MFAB) is to acquire views from the whole of the UK marine science community and then provide advice to the Chief Executive of the National Oceanography Centre (NOC) on current capability and future development of the Natural Environment Research Council (NERC) National Marine Equipment Pool (NMEP). The NMEP (see Annex D) is co-ordinated through, and led, by NOC on behalf of NERC and MFAB sits within a governance framework which reviews the performance of NOC (see Annex A). The chair of MFAB sits on the assurance group, the Cruise Programme Executive Board (CPEB), to inform the NERC Director of Science and Innovation (DSI), and provide assurance that the strategic investments being made by NOC reflect the wider UK marine science community views and are prioritised on the basis of benefits to the whole of the UK marine science community.

In undertaking its functions concerning provision of NC large research infrastructure (NC-LRI), MFAB comes under the umbrella of the [National Oceanography Centre Association of Marine Science National Capability Beneficiaries \(NOCA\)](#).

Remit

MFAB will provide advice to the Chief Executive of NOC in developing a medium to long-term holistic strategy for future equipment requirements and the enabling data management and core storage requirements in UK marine science. This will respond to and reflect the community's needs and current and future funding.

A medium to long-term holistic approach to future equipment requirements is vital in an environment of growing cost and technical complexity of equipment and unpredictable Government funding opportunities, especially where funding constraints are likely to become even more challenging and/or focussed in the future.

MFAB's remit must involve a continuous assessment of the NMEP:

- What is there?
- What state is it in?
- What has the usage been over the past five - ten years?

This assessment feeds into NOC's baseline annual service provision, based on what can be maintained, at what level of readiness, within the annual resource 'flat cash' National Capability Marine Large Research Infrastructure (NC LRI) allocation which funds owner and 'ready to go' costs.

MFAB will be cognisant of the needs and expectations of the UK marine science community, the requirements of NERC strategic science programming, and emerging technological advances in marine observing equipment and the need for

long term availability of NERC-funded data in a NERC Data Centre (see NERC Data Policy - <http://www.nerc.ac.uk/research/sites/data/policy/>). In terms of:

- prioritising replacement for wear and tear and losses annually and managing obsolescence
- investment to develop new capability and capacity.
- providing advice and guidance to NOC on data and sediment core management requirements associated with the NMEP (see Annex F)

This is essential information, both for supporting the current portfolio of NERC-funded marine science (including Discovery, Strategic Programmes, and National Capability Science), but also to anticipate the likely requirements for NERC-funded and other equipment facilities relevant to NERC sea-going science delivery in the near to medium future (including NERC data centre requirements). Ultimately, MFAB will advise and assist NOC in the development of a strategy that prioritises the equipment portfolio with regard to emergent and declining scientific requirements.

Responsibilities

MFAB needs to achieve the overall purpose and remit set out above by:

- transparency and ensuring that functional engagement and communication between NERC, NOC, and the science community are clear and understood
- engaging and consulting with the UK marine scientific user community¹
- demonstrating the success of investment consultation for UK marine science
- changing behaviour and/or perceptions where necessary.

An annual statement of consultation undertaken and replacement/development investment decisions made is to be drawn from the MFAB papers and five-year NMEP and ship capital plans. This should be drawn up by the Associate Director National Marine Facilities and the MFAB Chair. This should also summarise equipment to be mothballed and/or scrapped. The report should be circulated widely (via the NOC Association) and form part of the process of reporting to CPEB.

¹ The marine science community is defined as that established by the NOC Association: a network of identified, institutional representatives of Universities and research centres. Membership of the NOC Association as at January 2022 is detailed in Annex B.

Summary actions

1. To provide advice to develop a medium to long term strategy for future equipment requirements and data management and storage requirements for UK Marine Science.
2. To continually assess the National Marine Equipment Pool.
3. To understand the needs of the UK marine science community, the requirements of NERC strategic science programming, advances in equipment and the need for long term availability of data to prioritise replacement and losses, manage obsolescence, invest in capability and advise on data and sediment core management.
4. To provide an annual statement of consultation with the UK community and replacement / development investment decisions undertaken, to form part of the process of reporting to CPEB.

Methods of Working

MFAB will meet twice a year, in the spring and virtually in the autumn. It may also be necessary to hold special working group meetings.

At each meeting each member will report back on the views and advice of their section of the community.

Reports to be produced for consideration by NOC Executive after each meeting.

Annual report collated and agreed for CPEB meetings.

Meeting agendas will normally be agreed with NERC Head of Marine Science (on behalf of DSI), NOC Chief Operating Officer (COO) and NOC Associate Director National Marine Facilities (NMF) (see Annex E) and usually take the form of:

1. Minutes and matters arising
2. Report on community engagement undertaken
3. Report and discussion on collated community views
4. Reports and discussions on equipment condition and maintenance lists provided by NOC annually
5. Recommendations for retirements
6. Future recommendations for investment
7. Specific Issues as they arise.

The draft agenda is to be circulated two to three weeks prior to a meeting along with all papers and the final agenda to be circulated two weeks prior to the meeting.

The following actions will be taken to elicit specific input from the user community prior to each meeting:

1. A call for input via an internet portal; call made via the NOC Association members to alert individuals in their institutions.
2. Call from named 'science users' on MFAB to elicit input from their network, either via the web portal, or directly to the Board member.

Draft minutes of the meeting will be circulated to the Chair of MFAB within two weeks of the meeting and then to the rest of MFAB within one month of the meeting to enable agreed actions to be started as soon as possible.

Membership

Membership should be kept under review to ensure it is relevant and representative of the whole community although it should include:

A chair that is independent of NOC
An external equipment specialist
An international barter partner
NERC Head of Marine Science
NOC Chief Operating Officer
NOC Associate Director, National Marine Facilities
Head, British Oceanographic Data Centre

At least ten members from the UK marine scientific user community². Members will be appointed for a three-year term. The Chair may invite members to renew their membership at the end of the term.

If members are unable to attend more than two meetings in succession, the Chair reserves the right to appoint an alternative member.

Members may nominate a delegate to attend a meeting when they are unavailable.

Membership of MFAB is at Annex C.

General Data Protection Regulation (GDPR)

The National Oceanography Centre (NOC) provides the Secretariat for the MFAB so applies the NOC approach to GDPR. For further information, please see the [NOC Privacy Notice](#).

Expenses

NOC will pay all reasonable expenses of the Chair in preparing and attending meetings of the MFAB and all reasonable T & S expenses of the members of the Board in attending meetings of the MFAB. Reimbursement will be in accordance with NOC policy.

² The marine science community is defined as that established by the National Oceanography Centre (NOC) Association: a network of identified, institutional representatives of Universities and research centres. Membership of the NOC Association as at January 2019 is detailed in Annex B.

Annex A

Ship Governance arrangements: A new governance board (Cruise programme Executive Board, CPEB) will be convened and will be chaired by the NERC Director, Science & Innovation (DSI). The board's membership will also include –

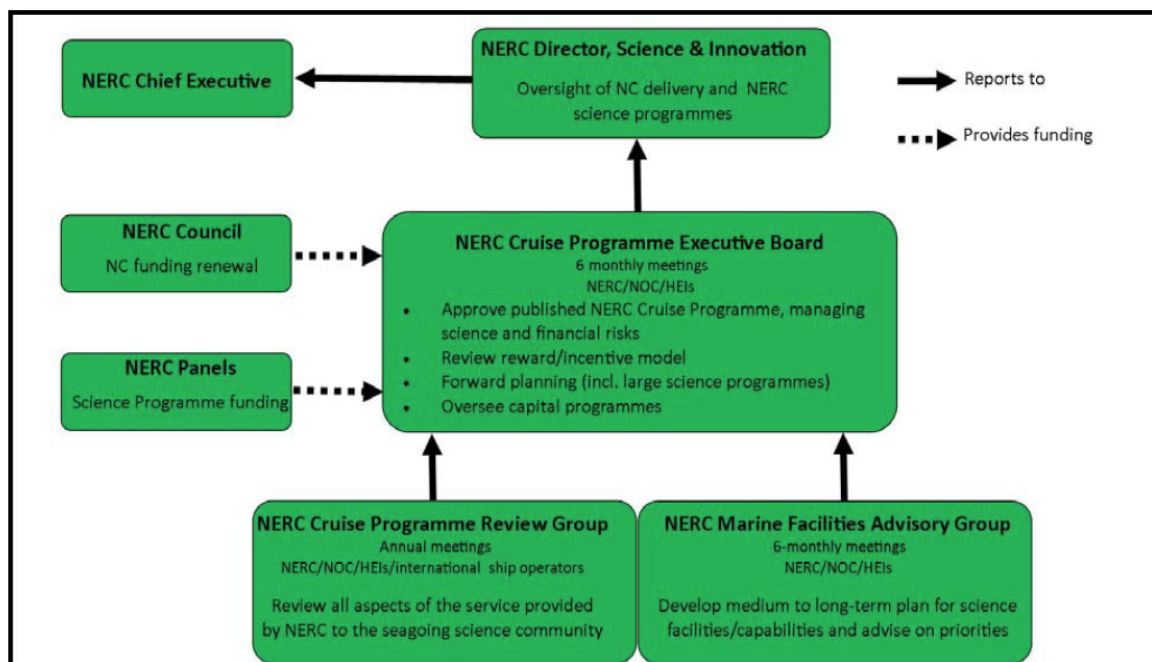
NERC Director, Finance
 Chair of the NERC Cruise Programme Review Group*
 Chair of the NOC Marine Facilities Advisory Board*
 NOC Associate Director (National Marine Facilities)
 NOC COO

(* - These two NERC advisory groups (whose membership includes 17 members of the seagoing science community) advise on all aspects of the cruise programme (including current/future marine facility and equipment requirements) and are chaired by senior members of the seagoing science community.

The British Antarctic Survey (BAS) Director of Operations may attend for discussions pertaining to BAS-operated ships and aircraft.

The new governance board's Terms of Reference includes –

- Approving the published cruise programme, managing associated science and financial risks
- Forward planning (including large science programmes)
- Reviewing the rewards/incentive model
- Overseeing the capital programme



Annex B

Membership of the National Oceanography Centre Association at March 2022

British Antarctic Survey
British Geological Survey
Heriot Watt University
Imperial College/Grantham Institute
Marine Biological Association
Plymouth Marine Laboratory
Queen's University Belfast
Scottish Association for Marine Science
Sea Mammal Research Unit
University College London
University of Aberdeen
University of Bangor
University of Bristol
University of Cambridge
University of Cardiff
University of Dundee
University of Durham
University of East Anglia
University of Edinburgh
University of Essex
University of Exeter
University of Glasgow
University of Hull
University of Leeds
University of Leicester
University of Liverpool
University of Newcastle
University of Nottingham
University of Oxford
University of Plymouth
University of Portsmouth
University of Reading
University of Sheffield
University of Southampton
University of Surrey
University of Sussex
University of Stirling
University of Strathclyde
University of Swansea
University of York

Clusters and societies

The Challenger Society
The Marine Alliance for Science and Technology for Scotland (MASTS)
Society for Underwater Technology

Annex C

Membership of the Marine Facilities Advisory Board - 2022

*Identified UK marine scientific user community members

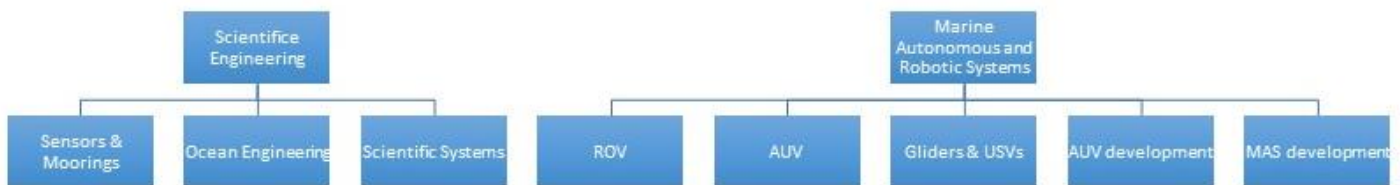
NAME	Affiliation
*Professor Mike Elliott	University of Hull
*Dr Kate Hendry	University of Bristol
*Dr Joanne Hopkins	National Oceanography Centre
*Dr Kerry Howell	Plymouth University
*Dr Chris McGonigle	Ulster University
*Dr Clara Manno	British Antarctic Survey
*Professor Mark Moore	University of Southampton
*Professor Carol Robinson, Chair	University of East Anglia
*Professor Nick Wright	Newcastle University
*Dr Tim Smyth	Plymouth Marine Laboratory
Dr Joerg Bialas	International Barter Partner, GEOMAR Helmholtz-Zentrum für Ozeanforschung Kiel
Dr Adrian Baker	Defence Science and Technology Laboratory
Randolph Sliester	Ship Operations Manager, British Antarctic Survey
Dr Mike Webb	Head of Science, Natural Environment Research Council (NERC)
Dr Natalie Powney	Marine Planning Officer, NERC
NOC Representatives	
Colin Day	Head of Strategic Projects, National Marine Facilities
Dr Eleanor Darlington	Group Head, Programme Management (NMF)
Dr Maaten Furlong	Associate Director, National Marine Facilities (NMF)
Professor Angela Hatton	Director of Data, Science and Technology and Chief Scientist
Professor Ed Hill	Chief Executive
Ian Moores	Head of the British Oceanographic Data Centre
Helen Oldridge	Head of Scientific Engineering, NMF
Dr Matthew Palmer	Chief Scientist, Marine Autonomous and Robotic Systems (MARS), Science Community Engagement
Dr Alex Phillips	Head of MARS Development, NMF
Julie Pringle-Stewart	Chief Operating Officer
Juan Ward	Engineering Manager, NMF
Secretary	
Jackie Pearson	National Oceanography Centre

Annex D

The National Marine Equipment Pool (NMEP)

The NMEP is the UK's central equipment pool for Marine Science and is available to the UK's marine science community. It is supported by an annual grant from NERC and the majority of it is kept within a Customs Warehouse. It is maintained and operated by the engineers and technicians within the NMF (see Annex E) group based at the NOC. The NMEP includes equipment developed or purchased to support the following capabilities:

- a. Seismic Source and Recording
- b. Deployed Sensors
- c. Ship-borne Sensors
- d. Benthic Sampling
- e. Fixed and Towed-body Sampling
- f. Laboratories and Equipment
- g. Long-range Marine Autonomous Systems (MAS) Platforms
- h. Ship-deployed MAS Platforms and ROVs



The Engineering groups within NMF are arranged as per the organisational chart below. There are 'operationally focussed' teams and 'development focussed' teams who interact closely in the development of specific equipment/platforms and their subsequent adoption into the NMEP for use by the wider community. The operational teams are funded by NERC via a National Capability Large-scale Research Infrastructure (NC LRI) grant however the development groups are self-funded.

Annex E

National Marine Facilities

NMF is a NOC Group with the remit to develop, co-ordinate and provide major platforms, observing systems and technical expertise required by the UK's marine science community funded via a NC LRI grant. This grant pays for the maintenance and operations of the RRS *James Cook* and RRS *Discovery* and the NMEP to be maintained in a 'ready to go' state and available for use by the UK marine science community - the grant also covers technicians, workshops, test and calibration facilities, storage facilities, spare parts and consumables.

Annex F

British Oceanographic Data Centre (BODC)

BODC is the NOC-managed, NERC-designated UK national data centre for marine data. Under the remit of the [NERC Data Policy](#) BODC is responsible for the long-term archiving and availability of all marine data funded by NERC research projects. As a NOC Group, BODC works closely with NMF to deliver a seamless data life cycle from collection, to archival, to user discoverability and availability.

British Ocean Sediment Core Research Facility (BOSCORF)

Operated by the NOC, BOSCORF is the UK national deep sea core repository, set up by the Natural Environment Research Council (NERC) to store marine sediment cores collected by NERC ships and NERC-funded researchers. BOSCORF maintains databases of its collections, and these can be searched online through the Index to Marine and Lacustrine Geological Samples (IMLGS).

BOSCORF provides specialist non-destructive logging facilities and cores entering the repository are routinely logged.

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