

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 Executive Director of the National Oceanography Centre (NOC) on current capability and future development of the Natural Environment Research Council (NERC) National Marine Equipment Pool (NMEP) including the Marine Autonomous and Robotic Systems (MARS) autonomous equipment. The NMEP is co-ordinated through, and lead, 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) in order to inform the NERC Director of Science and Innovation (DSI), and to 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.

Remit

MFAB will provide advice to the Executive Director of NOC in developing a medium to long-term holistic strategy for future equipment 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 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.

This is essential information, both for supporting the current portfolio of NERC-funded marine science (including Discovery, Strategic Programmes, and NC 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. 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.

National Marine Facilities

The remit of National Marine Facilities (NMF) is to develop, co-ordinate and provide major platforms, observing systems and technical expertise required by the UK's marine science community - the NC LRI grant pays for the National Marine Equipment Pool (NMEP) to be maintained in a '*ready to go*' state and available for use by the UK marine science community - the grant covers technicians, workshops, test and calibration facilities, storage facilities, spare parts and consumables.

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 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 capital plan. 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.

Methods of Working

The Advisory Board will meet once a year in April. An exceptional, additional meeting may be held if required. It will also be possible 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 produced for consideration by NOC Executive after each meeting

Report collated and agreed for CPEB meetings.

Meeting agendas will normally be agreed with NERC Head of Marine Science (on behalf of DSI), NOC COO and NOC AD NMF 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

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 February 2017 is detailed in Annex B.

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 meeting with all papers and 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, to directly to the Board member

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 COO
NOC AD NMF
Head of BODC (NOC CIO)

At least ten members from the UK marine scientific user community ²

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 they are unavailable.

Current membership of MFAB is at Annex C

Expenses

Please refer to the NERC policy on fees and allowances claimable by members of NERC Boards and Advisory Groups. A copy is available on request.

² 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 March 2016 is detailed in Annex B.

Annex A

Ship Governance arrangements: A new governance board will be convened and will be chaired by the NERC Director, Science & Innovation. The board's membership will also include –

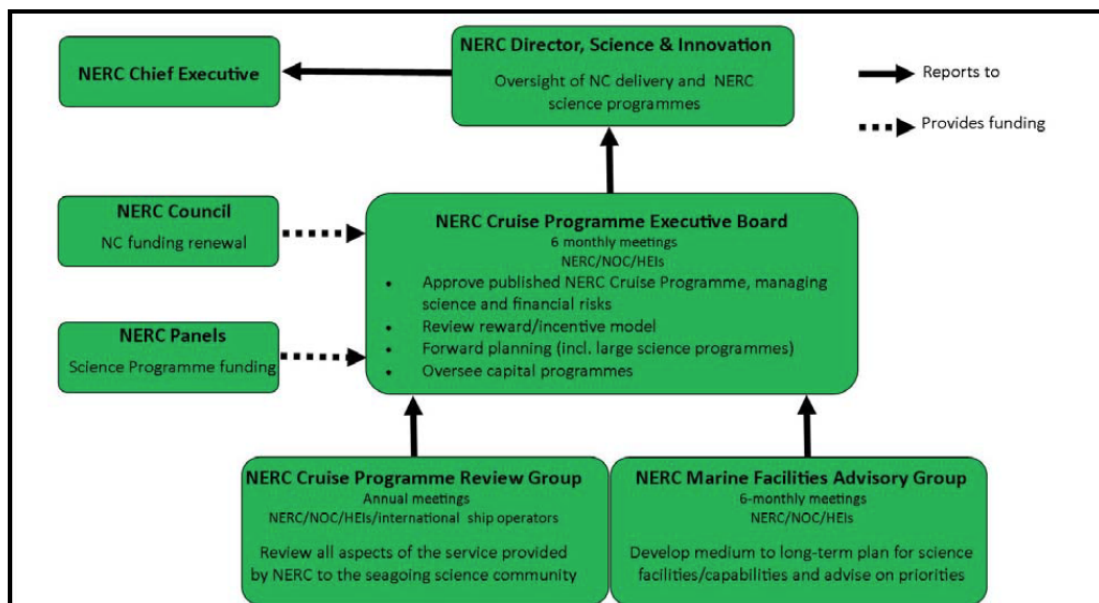
NERC Director, Finance
Chair of the NERC Cruise Programming Review Group*
Chair of the NERC Marine Facilities Advisory Board*
NOC Director of the National Marine Facilities
NOC Director, Finance and Operations

(* - These two NERC advisory groups (whose membership includes 17 member of the seagoing science community) advises 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 (Professor Paul Tyler, University of Southampton and Professor Mark Inall, SAMS).

The 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 association science and financial risks
- Forward planning (including large science programmes)
- Reviewing the rewards/incentive model
- Overseeing the capital programme



Annex B
Membership of the NOC Association at February 2017

Marine Biological Association
Plymouth Marine Laboratory
British Antarctic Survey
Sea Mammal Research Unit
Scottish Association for Marine Science
National Oceanography Centre
British Geological Survey
Scottish Association for Marine Science
The Sir Alister Hardy Foundation for Ocean Science

Universities

University of East Anglia
University of Plymouth
University of Stirling
University of Glasgow
University of Sheffield
University of Newcastle
Imperial Collage/Grantham Institute
University of Leicester
University of Nottingham
University of Dundee
University of Hull
University of Swansea
University of Portsmouth
University of Liverpool
University of Essex
University of Reading
University of Cardiff
University of Oxford
University of Cambridge
University of Strathclyde

Bangor University
University of Leeds
University of East Anglia
Heriot Watt University
University of Oxford
University College London
University of Aberdeen
University of Southampton
University of St Andrews
University of Durham
Queen's University Belfast
University of Edinburgh
University of Exeter
University of Liverpool

Clusters and Societies

The Challenger Society

Annex C

Current membership of the Marine Facilities Advisory Board February 2017

*Identified UK marine scientific user community members

| NAME | Affiliation | e-mail address | Interest |
|--|----------------------|--|--|
| Stuart Cunningham* | SAMS | stuart.cunningham@sams.ac.uk | Physical Oceanography |
| Sophie Fielding* | BAS | sof@bas.ac.uk | Pelagic Biology |
| Jackie Pearson (Secretary) | NOC | ifpea@noc.ac.uk | International and Strategic Partnerships Office |
| Robert Gatliff* | BGS | rwga@bgs.ac.uk | Geology |
| Karen Heywood* | UEA | k.heywood@uea.ac.uk | Physical Oceanography |
| Mark Inall (Chair) | SAMS | Mark.Inall@sams.ac.uk | Physical Oceanography |
| Erica Koning | NIOZ | Erica.Koning@nioz.nl | O/S interests |
| Matt Mowlem* | NOC | matm@noc.ac.uk | Geochemical Sensors |
| Phil Nightingale* | PML | PDN@pml.ac.uk | Air/sea exchange |
| Christine Peirce* | University of Durham | christine.peirce@durham.ac.uk | Geophysics |
| Andy Rees* | PML | APRE@pml.ac.uk | Biogeochemistry |
| Captain Tim Stockings or Randolph Sliester | BAS | timtoc@bas.ac.uk | Operations Director |
| Randolph Sliester | BAS | ranies@bas.ac.uk | Ships Programme and Operations Manager |
| Mike Webb | NERC | mweb@nerc.ac.uk | Science and Innovation Manager – Marine Science |
| Angela Hatton | NOC | andh@noc.ac.uk | NOC Director of Science and Technology |
| Russell Wynn* | NOC | rbw1@noc.ac.uk | Chief Scientist, Marine Autonomous and Robotic Systems |

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 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.

