

NOC Association Steering Board
11 January 2024: 15:00 – 17:00 UK time
Microsoft Teams meeting

Professor Mike Inall, (MI), Chair
Alan Evans, NOC, (AE)
Professor Teresa Fernandes, Heriot Watt (TF)
Dr Kate Hendry, BAS (KH)
Professor Ed Hill, NOC (EH)
Dr Mark James, MASTS (MJ)
Professor Martin Solan, University of Southampton (MS)
Dr John Siddorn (NOC)

Secretary: Jackie Pearson, NOC (JP)

Apologies: Professor Mike Meredith and Professor Icarus Allen

Item 1 Welcome

1.1 MI noted the apologies and welcomed Dr John Siddorn, NOC's Chief Scientist and Director of Data, Science & Technology.

Item 2 Minutes and actions from May 2023

2.1 No comments received.

Action 9: Publish and highlight across usual channels. **Action 9: JFP**

Action 12: This concerned NC representation and equity across partners and whether Professor Nick Owens (SAMS) and Professor Willie Wilson (MBA) should also be on the NOCA Board. EH advised that this topic (this Board and its future configuration) would be addressed later, adding that NC delivery, in terms of science, is covered under the new Atlantic Climate and Environment Strategic Science (AtlantiS) programme and representation from SAMS and the MBA is there.

Action 15: Get update on Rock Store Working Group for next meeting. **Action 15: KH**

Actions 17 & 18: The GERC report had been circulated to the Board. Action 18 referred to the NMF Technology Roadmap and gaps in capability. Both documents date from 2020 so we should review and include in our AGM discussion.

Post meeting note from Secretary: an updated version of the TRM is in progress.

Action 19: MI: JP had done good job of circulating outputs to the community.

Item 3 Update on the National Decade Committee (NDC) – Alan Evans

3.1 MI recommended that the Board look at the [NDC website](#).

3.2 The NDC has four subgroups: policy, communications, international and support for calls for actions.

- 3.3 The 'Calls for actions' group is seeking opportunities to promote the NDC and share the experience of those who have gone through the UN Decade endorsement process.
- 3.4 The Policy Group will be engaging with FCDO and Defra to develop policy briefs, promote the value of the Decade, and look for funding both to support the NDC and encourage engagement.
- 3.5 The International Group had been planning to host a reception at the Decade conference in Barcelona, however, following poor response to a questionnaire (due to uncertainties), it has been agreed to hold an event in the UK later in 2024. As more than 4,000 people had pre-registered for the conference, the organisers decided to look for a bigger venue, which had led to delay. The NDC is asking the UK community to let them know who plans to attend. AE asked the Board to inform the [NDC Secretariat](#) if they are aware of anyone intending to participate in the conference. **Action 20: All**
- 3.6 The NDC discussed how to contribute to [Vision 2030](#). Working groups are writing white papers to see what success will look like for the ten challenges at the end of the Decade. The papers will be produced in the next couple of months and the community will be able to provide feedback. AE asked that members make their colleagues aware. **Action 21: All**
- 3.7 The working groups appear to be working in isolation and it uncertain how they are engaging with the community. AE showed slides which were shared with the group. MI: the list of programmes and projects is somewhat arbitrary and appear to depend on who has gone through the process. AJ agreed that the UK process is individually, rather than centrally driven, however, globally, there are different models. The NOCA Decade Working Group joined the NDC meeting in Plymouth in 2023. There are no funding opportunities on the horizon. The next NDC meeting will be in March 2024. Although the UK NDC will participate in the Barcelona meeting, there won't be a 'UK stall'.
- 3.8 JS: with reference to Vision 2030, there are UK contributions to the UN Decade organised working groups. Should we encourage feedback from those groups and see if there is another method of engagement with the community? MJ commented on the amount of work spent on this with little clarity or incentive. MI: it's still helpful to have the update. MJ: what the white papers will do; what will they be used for? MI asked AJ to give update on the working groups and to produce a one pager for the next NOCA Steering Board meeting. **Action 22: AJ**

4. Potential gaps in capability in the NMF Technology Roadmap

- 4.1 MI referred to the GERC roadmap (2020) for ecological research technology and the NMF Roadmap and asked if we should combine these as a discussion item at the AGM.
- 4.2 MS: re: the GERC document, frustration had been voiced around NC which has tended to mean autonomous technology. Although there are advances in that capability, who is driving that direction of travel? Some NERC calls have required

use of autonomous technology which, in some cases, has been more than is required. There are also some basic activities we can't do, e.g. recover live organisms from the sea floor whereas other countries can. Which are the areas of NC where the UK is losing out? There is a lack of low tech where much is achievable with instruments that are cheaper than autonomous vehicles. A lot of equipment can be bought 'off the shelf' and there are many user groups in ecology, for example, that are able to assemble kit which will allow us to ask big questions, at half the cost, with less effort. So, what is NC? This **must** go beyond the small suite of sensors that we use in different payloads.

- 4.3 MI: Although autonomous vehicles are high profile, the NMF Roadmap has a broad remit which covers seismics, winches, magnetometers, ships, containers etc. but perception is important. MS: Whether perceived or otherwise, there is a gap between what we want to know scientifically and whether the capability behind that is fit for purpose. In many cases it is, but there are significant gaps emerging e.g. coverage and types of data. Recent NERC marine calls involve social economics and whole ecosystem thinking. Much of our capability only contributes to part of that holistic thinking and there are gaps, particularly in relation to species interactions and behaviour where we don't have strong capability. For example, bringing intact benthic cores containing animals onto the ship is a major undertaking for the UK. KH suggested we involve Dr Katy Hill, from the FMRI perspective. MI: Whether FMRI is a NC concept or not is undecided, but the NOCA AGM is a fair place for this conversation. JS disagreed as we already have two major fora for discussing future marine infrastructure (MFAB and FMRI) so technology challenges, in the short term, come under MFAB; longer term comes under FMRI. FMRI is planning workshops so we could possibly end up duplicating work. Perhaps ask Dr Hill if she would like to use NOCA as a sounding board for FMRI. MI: agreed. **Action 26: MI/JP**
- 4.4 MS: We need to consider who is invited to meetings. MS doesn't know anyone in his area who has been asked about NC. It is important to ask the community about NC which will highlight the gaps. At Oceanology International, there is technology which can be cheaper than items we are investing in. What are the novel areas that the UK is working in? Questions around NC would be useful to bring into the research agenda.
- 4.6 MJ agreed with JS and MS and in using the NOCA as a sounding board for the FMRI. There is a strong focus on 'shinney new technologies' whereas some inexpensive technology can still generate useful results. MI: countered that the autonomous technology is fantastic for deployment in the north Atlantic in the winter! This is about balance.
- 4.7 JS: MFAB is careful to give an independent view but there is always the question as to whether it has the right balance of expertise, although this applies to any group. There is always the option to speak to MFAB Chair Carol Robinson about this, although in John's experience, MFAB meetings do try to achieve a broad spectrum of views. Ensure that Carol Robinson has seen the GERC paper. **Action 27: JP**
- 4.8 KH went to an FMRI in-person meeting about biological sensors and platforms. There were several technologists in the room which was male dominated but several invited scientists who pulled out at the last minute, many of whom were female. If we

give another opportunity to come together at the AGM, making it hybrid or on-line would be good to ensure that people can make it.

- 4.9 MS: what challenges are we trying to address either with technology or other solutions. We should make the agenda topic driven which may help produce the most relevant solutions. These may be a biosensor, or an autonomous vehicle or novel capability that enables us to manipulate environmental variables on the ship etc. It would be nice to ask a wide-spread community about what options are available to answer these challenges. The same questions keep coming up in call after call. There are certain activities that we might want to do across multiple calls that would be advantageous and competitive internationally, in terms of capability.

Action 5: An update on how the relationship between NOC and NOCA might evolve.

- 5.1 EH: The NOC Association started in 2011, when NOC was reconstituted as a wholly owned NERC centre, as the delivery lead for NC and NC focus for the marine delivery partners, to aid engagement with the wider community. Now that the status of NOC has changed, this is a good time to see if all of the elements for the rationale of the NOCA when formed, are still relevant.
- 5.2 Between 2011 to 2019, the NOCA not only looked at NC but also brought together the marine science community and achieved many activities around its plenary meetings, much of which went beyond its NC role. At this point, the NOCA was accused, by some in the science community, of *'treading on other people's territory'*. This was concerning as this was not intended. In reality, rather than pro-actively pursuing activities, the NOCA often filled gaps left by others. Eventually, however, post-2019, NOCA refocused on NC. The narrowed remit caused some disappointment as there was a concern that the Challenger Society and the MSCC would not be able to cover the wider interests. The narrower remit was maintained, however, perhaps this should be revisited now.
- 5.3 In terms of NC, we have other fora which are focused on engaging the community. For example, the ALICE programme (now renamed AtlantiS), which has its own steering group and stakeholder engagement. NOC is also in the process of reconfiguring MFAB as NERC didn't want it anymore, however, NOC decided that it does want MFAB because it delivers clear input from the science community around the marine NC facilities that we deliver. Is there duplication of effort between the NOCA and other groups? Recently, the MSCC was disbanded but it was effective at bringing the community together. There is also the question about the future role of the Challenger Society and whether it could take on a more dedicated professional role.
- 5.4 EH does not want the NOCA to be seen as a barrier to, for example, Challenger undertaking activities. NOC has been considering playing a more convening role in the science community, to talk about issues, not specifically around NC, although the Challenger Society could also do this. NOC could regard the NOCA as a wider academic stakeholder committee, something broader than the NC role. Sometimes, NOCA reports with the name 'NOC' can be perceived as 'NOC-orientated'. Perhaps we should decouple the NOC branding from the 'NOCA'.

- 5.5 KH: the Challenger Society is structuring a new strategy and has just appointed a policy liaison officer on Council. MJ: The MSCC wasn't properly resourced and didn't have a delivery programme. If the science community wants to be represented at government level, there needs to be a properly resourced secretariat. This never happened with the MSCC - none of the government bodies involved would invest in it. EH: The NOCA has never been a science policy interface and we shouldn't be that as this would overlap with Challenger. Is there another role? NC delivery is clear, but this may be too narrow and may be covered elsewhere. All these groups, including the NOCA, should not shy away from considering whether they should exist.
- 5.6 MI: In improving the policy interface, with Challenger, resource is the issue, although it's good a policy officer has been appointed. MI does not want NOCA to wander too wide. The convening power of the Challenger Society needs to increase to fill the vacuum left by the NOCA when its remit reduced. The Challenger Society needs to do more convening in the UK. The NOCA, in gaining inputs from the community about NC, could operate as a sub-function under another entity. To increase convening power and providing community guidance to NOC requires resource. JS: the lack of a high-level interface to government is the challenge and it is important to fill this gap now, as well as to industry and the public.
- 5.7 MI: these points don't speak to the NOCA function. EH mentioned having more convening operated by NOC without treading on Challenger's toes. This group is resourced through JP. MI thanked Jackie and the team in the background as this allows us to meet, and produce and circulate reports etc. These activities wouldn't happen otherwise. The question is whether the national good could be maintained to provide a function for the community of convening, although this would broaden the current scope of national good support. Can we help Challenger in its convening role? Could Challenger take over the current role of NOCA as a specific function with people appointed or elected with some resource from NOC which would be NERC-labelled National Public Good?
- 5.8 EH: we don't support NOCA through NPG funding, although used to. That budget was squeezed so we now fund NOCA as part of the governance structure of NOC so, this is resourced outside NERC. Returning to the MSCC, ultimately, NOC ended up supporting the MSCC entirely and despite encouraging others to support, no progress was made. Perhaps NOC was part of the problem as we kept the MSCC going beyond the point when it should have ended. Though not the same, NOC wouldn't want to end up supporting the Challenger Society but ultimately becomes a prop which, despite the best of intentions, could end up becoming a barrier. MI: could we persuade NERC to direct NPG funding to Challenger? Others also receive NPG so although direct support from NOC to Challenger would not be helpful but if NERC could do this, under national good, this may be beneficial. MI agreed to write some notes as a working document about the future of the NOCA. **Action 23: MI**

MI thanked Ed for his role on the NOCA Board and wished him well for his retirement.

- 5.9 JS: It is a challenge to ensure that UK science is widely accessible. NOCA beneficiaries are wider than NERC: this area, beyond UKRI's perspective, is something that either the NOCA or Challenger Society could evolve to support. MI commented on 'mission creep', noting that the NOCA should not expand into

convening but stay focused on NC. Although the NOCA could do more, its remit is tightly defined. The broad convening/interface should happen elsewhere, but this comes back to the issue of resource. MJ: there are financial models, e.g. MASTS. EH had asked if there was still a requirement for the NOCA, given the existence of other organisations. To answer this, we would need to understand more about the remit of other groups, to know if there is sufficient overlap. Is the work of the NOCA being done by others? MI thought this was not the case. MJ suggested gathering evidence to answer this. In terms of convening, the purpose of the MSCC was to be a conduit between the science community and government but this didn't happen. This activity is still needed and might need a conversation with Professor Gideon Henderson. MI advised that those discussions have taken place and involved NOCA and Challenger but the objectives are not yet clear. MJ: what does the government want from this? [From the chat: JS: the Coasts group, set up in Defra, is fulfilling one level of function.] MI: Government has its own team to cover much of this work and Challenger is aware of this, however, this is not for the NOCA to cover. The NOCA's in person London meetings were a convening opportunity which had been helpful. MJ suggested asking government to explain COAST; how it operates, what it is delivering etc. JS advised that Professor Henderson is revisiting this so there will be information soon. Maybe invite Professor Henderson to NOCA AGM. **Action 24: JP**

6. Preparing the next generation of professionals

- 6.1 JS: Asked whether this is more of a Challenger activity? MI needs to know more so will arrange a conversation with Professor Angela Hatton who suggested it. **Action 25: JP**

7. Planning for the NOCA 2024 AGM

- 7.1 MI believes that attendance has dropped since we have stopped doing in person, however, the diversity of those attending has increased. JP disagreed and advised that more have signed up, since providing the on-line option, however, many don't actually join on the day. IF agreed and said that some of those joining probably wouldn't previously have taken part. MI proposed that the AGM should be two half days on-line in June with a focus on a 'technology roadmap morning', in discussion with FMRI. MI mentioned a parallel initiative to NZOC, about the atmosphere called [NZArC](#) and is similarly funded by NERC. MI agreed to talk to Dr Hill and Leigh Storey with the expectation that they could participate at the AGM. **Actioned above at 26.**
- 7.1 MS asked if it would be possible to arrange for the two days to be apart this time, even up to a week apart. If day one is recorded, it could then be broadcast in the evening before day two. Could we enhance audience interaction e.g. workshops, digital interactive elements, break-out rooms for topics.
- 7.2 If the meeting is not on consecutive days, ensure there are questions at the end of day one to encourage people to come back. Lots of interactive tools are available e.g. break-out rooms and it will be possible to do background polls run on Slido. These can run afterwards as well if there is an on-demand system.
- 7.3 MI: A more active meeting may require more input from this group. MS suggested inviting experts to champion topics. IF's point about questions (e.g. what do you want

from NC?) at the end of day one is good and may enhance appetite for day two. IF suggested inviting ECRs to take part. TF liked the breakout groups last year and had appreciated the input from ECRs. We could invite ECRs to chair this time.

- 7.5 MI will summarise these thoughts, approach Katy Hill and copy Leigh Storey. MI liked the idea of splitting the meeting over different weeks or two days within the week. MI suggested that there is a need to include NC science. JS agreed that a topic on NC infrastructure is fine. Also, there is a need to initiate new data stakeholder groups for BODC and the Environmental Data Service so speak to NOC's Dr Helen Snaith about this in case the AGM might be an opportunity to launch/promote this. **Action 28: JP**
- 7.6 MI: agreed to have the main interactive piece, then updates on what is new in the NC space e.g. promote the new item around data. It was agreed get the ASM dates and meeting structure outline a.s.a.p. **Action 29: MI & JP**
- 7.7 MI agreed to two mornings with a separation between the two. We will start the draft programme now and this group should meet again before the AGM. MJ: suggest talk to Dr Katy Hill in advance to see if there are particular areas to be addressed. We could even hand the floor to FMRI to facilitate.

Actions

Number	Action	Who
9	Publish article about NOCA, Challenger and MASTS and highlight across usual channels.	JP
15	Get update on Rock Store Working Group for next meeting.	KH
17 & 18	Discuss GERC report and NMF Technology Roadmap during the AGM discussion.	MI
20	Board to inform the NDC Secretariat if they are aware of anyone intending to participate in the conference.	All
21	Regarding the Vision 2030 process working groups and white papers around the success of the challenges at the end of the Decade. Members to make their colleagues aware.	All
22	Update the next board meeting about progress of the working groups by producing a one pager.	AJ
23	Write some notes as a working document about the future of the NOCA.	MI
24	Invite Professor Henderson to the NOCA AGM.	JP
25	Arrange a phone call between Mark Inall and Angela Hatton about the next generation of marine professionals.	JP
26	Speak to Dr Katy Hill about using the NOCA as a sounding board for FMRI.	MI/JP
27	Send Carol Robinson the GERC paper	JP
28	Speak to Helen Snaith about promoting the new data stakeholder groups for BODC and Environmental Data Service at the NOCA AGM.	JP
29	Set the ASM dates and meeting structure outline.	MI & JP