

Open session

Trans-Atlantic science to do ecosystem-based management (EBM)

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There is an array of trans-Atlantic marine science throughout ICES. Several bilateral and multilateral agreements facilitate these trans-Atlantic exchanges, including the Galway Agreement and Atlantic Ocean Research Alliance.

The ICES network of scientists provides relevant and evidence-based information for sustainable management of the Atlantic Ocean area; providing a platform for knowledge exchange and best practice development on important marine science issues. In this context, many organizations are exploring strategic plans for the next decade of ocean science priorities. Science needs to be conducted to not only better understand marine ecosystems and to delineate good environmental status of marine ecosystems, but have relevance for the management of the ecosystem goods and services that marine ecosystems provide.

This session was an exploration of the science needs to implement EBM. It emphasized the needs, context and goals of EBM, the trans-Atlantic nature of this science, and the vision that the discipline needs to achieve these science goals in the coming decade. It followed on from the Atlantic Ocean Research Alliance January 2017 report. The session centred on a Kahoot poll, which participants answered through their mobile phones and laptops. The session participants (30, mostly experienced natural scientists that had worked in the applied arena, paraphrased as 'frontrunners' of EBM rather than 'backbenchers') were polled on a variety of aspects related to the operationalisation of EBM and what that requires. The purpose of the Kahoot was mainly to spur discussion as well as to gather some instant insight on how the participants thought about the issues presented.



Following the responses to the Kahoot, the participants felt that the mandate for EBM was unclear, although EBM was currently being partially and incrementally executed in the North Atlantic. EBM was seen as a process towards better management with key impediments being institutional/governance issues and poor translation of knowledge to management. The participants had limited experience of working with trade-offs. There was agreement that trans-disciplinary approaches were required, and despite the expectation of the conveners, the participants felt that there were incentives for natural scientists to engage with stakeholders, outreach and scoping for objectives.

During the broader discussion, facilitating change to increase EBM was highlighted as a challenge. It could be difficult for a researcher to engage in trade-off exploration as they will mix their researcher role with that of being a citizen. We should accept that there may not always be win-win situations for trade-offs. Scale is an important issue (both spatial and temporal) when providing the evidence for trade-off explorations.



Figure 8.2.1.1. Example questions from the Kahoot poll (pink edging shows most popular answers).

The main impediments to EBM are:

- the lack of flexibility in existing institutional structures,
- no location to resolve cross sector issues,
- scientists, business and managers in sector silos,
- scientists have as yet not found an approach to deliver evidence for EBM, and are being limited by their single sector approaches.

The summing up concluded that there was a large degree of consensus in the session. All agree that EBM is happening incrementally across the many jurisdictions in the North Atlantic. There was a positive attitude in the room. It could be that the people coming to this session were more of the 'frontrunners' of EBM (biased group), and perhaps also the question & answer sets of the kahoot were a bit leading (as they were meant to spur debate, being aimed also at the backbenchers). Through the poll, the participants had offered support to the AORA approach that the challenges to EBM were not only centred on improving the science and scientists need to be aware of the management arena to which they are contributing. The issues of complexity, dynamics, and impact of scales were not raised and the timing of change was not highlighted. There is a need for AORA as it is still unclear how to get to strategic alignment across the Atlantic.

The session was aimed at awareness raising about AORA, challenges for operational EBM and examining the ideas and concepts of providing the knowledge for EBM being developed by the AORA working group on ecosystem approach to ocean health and stressors. The answers given to the Kahoot and the discussion showed that the ideas the organisers had on what is needed to operationalise EBM were broadly supported. This suggests that the AORA working group and ICES community are aligned on the concepts of providing the knowledge base for EBM.