

# Open session

## Emerging science topics for ICES

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The session was attended by approximately 50 persons. The session was organized around a software platform that could take comments and rate the different comments on the fly.

The session started by informing the audience about the status of the current and future ICES strategic plans. The current plan will expire in 2018, and SCICOM has started a process that will lead up to the next science plan. After setting up the technological platform and testing that it worked, we started off by asking the audience the question what are the Emerging Science Topics most relevant to ICES?

The three main themes that came up were “Marine Litter”, “Open Data” and “Human Dimension”. The word cloud from all the themes that were proposed also highlighted wider social and data topics as being important (Figure 1a). After the poll was closed the results were discussed. Some themes were mentioned that the audience thought were missing. These included mesopelagic exploitation, risk-based monitoring, assessment and management, topics on effectiveness of monitoring, communication of science and management, spatial ecology and planning, and emerging techniques using genetic methods.

After we finalized the discussion on the first poll we presented the SCICOM science priorities list, and asked for comments on the list. The idea was to see if the audience could identify any gaps in the list as compared to the initial list. One emerging topic from the SCICOM list was how to handle rebuilding fish stocks and it was mentioned that this should be broadened to address predation from other species than fish, e.g. seals and whales. Some topics were missing from the SCICOM list of topics like marine litter and social and economic aspects. However, this is probably because the SCICOM list is high level.

The next step was to go back to the initial question, to see how the discussion had influenced the process. The main themes in the second round were “Management”, “Open Data”, “Marine Litter” and “Human dimension”, and the word cloud from all comments included monitoring, social and management topics (Figure 1b). The second iteration included more managerial topics. There was a clear signal from the audience that ICES is moving truly moving towards integrated management, including the human dimension and larger parts of the ecosystems. Open data access ranked on top on both iterations. There was a discussion about data collection in general and ecosystem data collection was proposed as a science topic itself.

The session was rounded off by a quick evaluation of the format, and we got several good comments on how to improve the format. An obvious comment is that the composition of the audience influences the outcome of the exercise, and the results should be interpreted with this in mind. The open sessions on stock assessment and integrated assessments were held in parallel which may have biased the results. It was also questioned whether there was a majority of social scientists in the room, but when checked there were 9. There was also some discussion of how to differentiate between “emerging” and important topics. The software platform allows for rapid comments and likes, and it could have been better to pose several shorter questions to get more dynamics into the session. However, others liked the open question that allowed the audience to propose any theme, which was also very much aligned

with the objective of the session. A combination of the two would probably have been the best solution.



Figure 1. The word clouds from the first (a) and second (b) iteration.