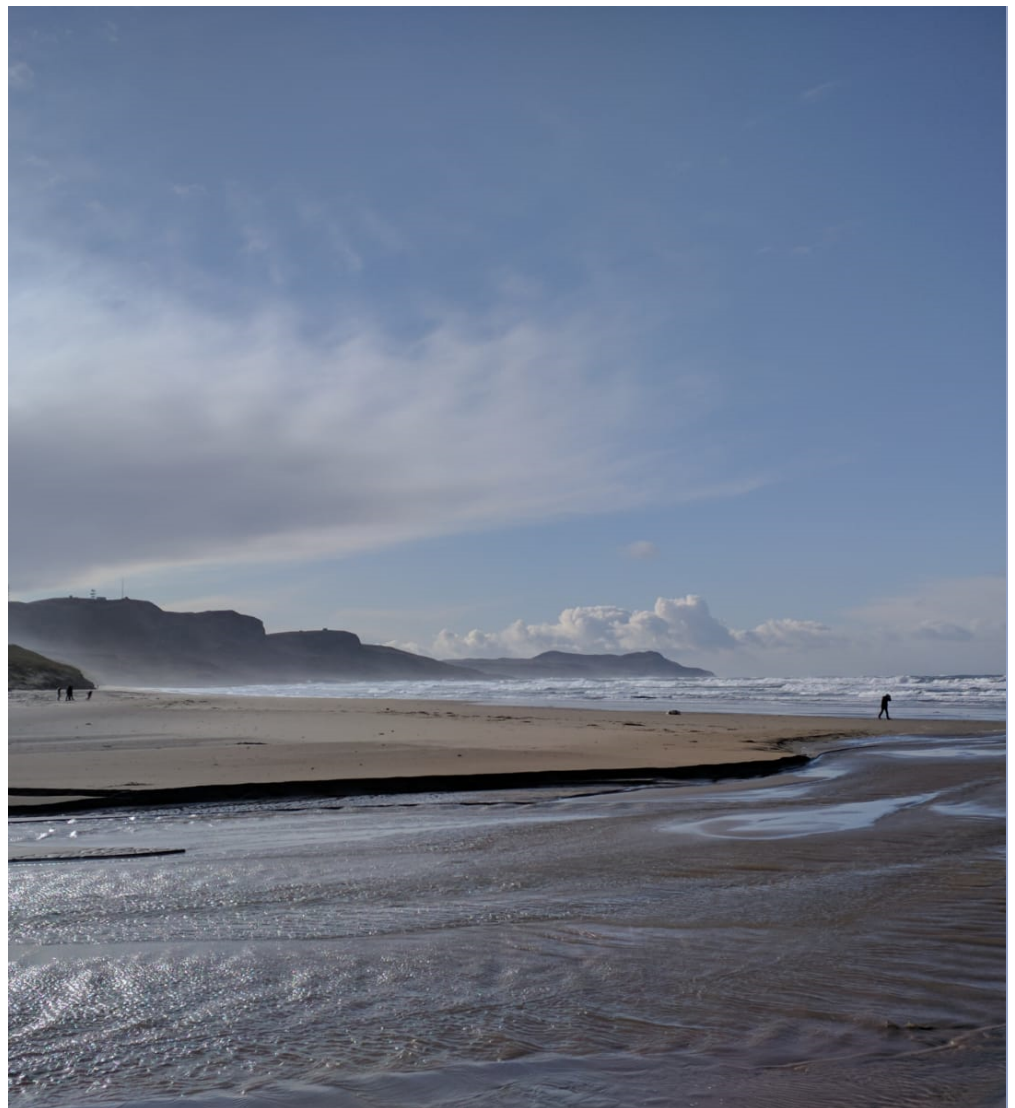


REPORT OF THE SCIENCE COMMITTEE (SCICOM), MARCH 2021

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ICES BUSINESS REPORTS



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i Executive summary

The Science Committee (SCICOM) met remotely and received updates on ongoing activities and discussed strategic developments relevant to the Committee.

Strategic issues included updates on activities within the UN Decade of Ocean Science for Sustainable Development and the joint group with the North Pacific Marine Science Organization (PICES), on activities on gender, diversity, equity and inclusion, as well as updates on increasing the engagement with physical and chemical oceanographers and the work of the Ecosystem Based Management (EBM) group.

SCICOM started a process to identify ways of increasing engagement with national activities and national priorities, as well as how international collaboration with other organisations can be strengthened and extended.

The Steering Groups (SG) gave a short update on their work, having now short regular meetings with Expert Group (EG) chairs and between SGs to increase communication and coordination.

Updates from the Operational Groups included the implementation of the new library system on the ICES webpage (Science Impact and Publications Group, SIPG) and the new online format for training courses (Training Group, TG). SCICOM supported the recommendation of new data policies and licensing schemes presented by the Data and Information Group (DIG). The Strategic Initiative on the Human Dimension has initiated meetings with relevant EGs.

The Secretariat gave an update on the development of the Resource Coordination Tool (RCT) and presented a draft of an online portal and dashboard, informed about a video project to highlight the work of EGs across the network through interviews with Early Career Scientists (ECS). The Chair of the Advisory Committee (ACOM) gave an update on developments in advice, including the advice in 2020, the process of advice production and the identification of science needs for advice.

Key actions from the meeting included SCICOM support of an initiative to develop a Strategic Initiative on Early Career Scientists, the approval of the “Symposium on Capelin – The canary in predicting effects of climate on the Arctic marine environment” to be held in 2022 and the “5th International Symposium on the Effects of Climate Change on the World’s Oceans (ECCWO)” to be held in 2023, and the further actions in relation to the Annual Science Conference (ASC) in 2021 and 2022. The 2021 ASC will be held as a fully virtual conference and SCICOM appointed the Award Selection Group. The ASC 2022 will be held as a hybrid conference in Dublin, Ireland, and SCICOM appointed the ASC 2022 Group tasked to do the pre-selection of 2022 theme and network session proposals for final approval by SCICOM.

1 Opening

The SCICOM Chair welcomed participants to the virtual SCICOM March meeting, 16–18 March 2021, 14:00–18:00 CET.

A warm welcome was extended to the new participants (Andreas Kannen, Germany; Mette Skern-Mauritzen, Norway; Robert Aps, Estonia (as alternate), John Pinnegar, UK; Sarah Bailey (representing Canada, in addition to being HAPISG Chair), Debbi Pedreschi, IEASG Chair; Steven Degraer, EPDSG Chair; Jens Rasmussen, DSTSG; Joel Vigneau, EOSG Chair, Sjur Ringheim Lid, DIG Chair, as well as to Bill Karp, First Vice President, Mark Dickey-Collas, ACOM Chair, and Anne Christine Brusendorff, General Secretary. Thanks were also extended to all alternates, who had taken the opportunity to join the online meeting.

SCICOM Chair drew the attention of participants to the [ICES meeting etiquette document and ICES Code of Conduct](#) and asked that if anyone was unable to abide by the code, they should make this clear to the meeting. No person suggested they could not follow the code.

2 Introduction of agenda and timetable (SCICOM Chair)

The SCICOM Chair introduced the meeting agenda.

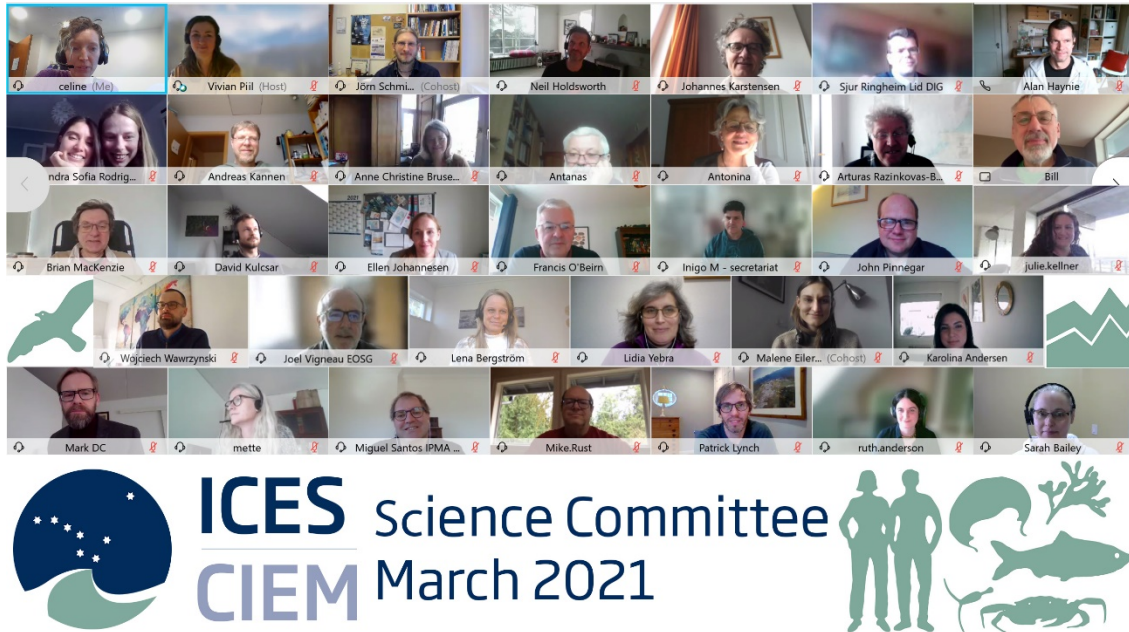


Figure 2.1 A subset of SCICOM and ICES staff members present at the SCICOM March 2021 meeting. The full list of participants is available in Annex 1.

3 Accomplishments in 2020

SCICOM Chair presented an overview of the accomplishments achieved in 2020:

- 204 meetings in 2020 (9+ groups held more than 1 meeting, 189 meetings in 2019);
- 2900 active participants in meetings in 2020 (2400 in 2019);
- 11 joint expert groups with other organisations (+ 2 workshops);
- Joint ICES/PICES UN Ocean Decade programme proposal (submitted 15 January 2021);
- Communication project to highlight the work of expert groups through interviews with Early Career Scientists;
- Change in leadership (SCICOM Chair, 3 Steering Groups, 1 Strategic Initiative, DIG and SIPG);
- New Data Science and Technology Steering Group;
- Training Courses went online;
- New library platform to come;
- Webinar on “Understanding the impacts of COVID-19 pandemic on fisheries, markets, communities, and management”.

4 Follow-up on decisions taken at the meetings of SCICOM (September 2020 meeting and on SCICOM Forum) and other action items (SCICOM Chair)

SCICOM Chair drew everyone's attention to Document 3.1, Minutes of September 2020 SCICOM meeting, 4.1, Actions completed from September 2020, and 4.2, Summary of decisions made on SCICOM Forum and ICES Resolutions Forum. All actions in Document 4.1, Actions and decisions from the SCICOM September 2020 meeting, had been completed prior to the meeting, and the SCICOM Chair thanked all contributors. There were no comments to the documents.

5 Tour de table (all)

National SCICOM members were invited to report on one key experience from the last year and a short update on national activities.

Steven Degraer (Belgium)

[BICEpS](#) was established in 2018 and stands for reinforcing Belgian ICES People! BICEpS envisages, the ICES network, 1) to be the marine science broker in Belgium, 2) to support ICES as a world-leading marine science organization on and beyond fisheries. The colloquium is held on an annual basis, but unfortunately was not able to meet in 2020. SCICOM members were invited to watch a [video about BICEpS and how to get connected to ICES and BICpS](#). BICEpS includes 102 scientific members and 12 stakeholders. In 2020, ca 80 scientists attended ca. 60 Expert Groups. Belgium is preparing to offer hosting the ASC in 2024 or 2025.

Sarah Bailey (Canada)

Sarah Bailey reported on behalf of Ellen Kenchington and Canada. Breaking news from Canada is that they have started to upload maritime groundfish data into DATRAS. This work will rapidly progress now, and once completed the plan is to move to other regions with similar data. Will be great to have that data accessible in DATRAS!

Plans are underway to renew DFO engagement in ICES activities. A virtual workshop is planned to be held in late spring, early summer for DFO staff. Canadian SCICOM members have set up a shared Teams channel, trying to improve communication. The purpose is to raise awareness and encourage engagement in ICES groups.

Brian MacKenzie (Denmark)

The key experience has been how to continue the science, monitoring and advice during a pandemic. It has been a challenge in 2020, but we have all learned to work remotely. The advantage has been reduced CO₂ and reduced travel, but the disadvantage has been in terms of less productive networks as when meeting in person. Denmark managed to continue the monitoring of stocks and most have been conducted as planned. Denmark is planning to continue ICES engagement in ICES Expert Groups remotely. Most have been conducted as planned.

Involvement in EU projects include Mission Atlantic, MEESO, SUMMER, and SEAwise, and Denmark is coordinating and participating in writing proposals for new EU projects under Horizon Europe.

Robert Aps (Estonia)

During the last year, all the fisheries data and the marine monitoring data collection went according to the schedule. There were no unusual problems related to group participation. Focusing on the science part of their activities, several projects and focus areas were presented: the MAES project on mapping of ecosystem services in the central Baltic was initiated; the BalticRIM project about maritime cultural heritage management especially related to the MSP and sustainable solutions was finalized last year; Estonia is focusing on blue economy development related activities; they have been looking at the cumulative effects of human activities on ecosystem components; microplastic research has also been a focus area. Estonia is looking at cross-border

collaboration, they have currently one Estonian/Russian project in the Gulf of Finland progressing. They are looking at future partnership and collaboration with all suitable partners concerning different projects and calls that are coming out.

Henrik Nygaard (Finland)

One highlight during the past decade has been the work of researchers on dumped munitions in the Baltic Sea, which has now led to an article collection in [Marine Environmental Research | Dumped munitions in the sea: fate, impacts and risks | ScienceDirect.com by Elsevier](#). This work is particularly interesting for WGBEC and WGPDMO.

Activity in ICES groups have been similar to previous years with ~80 experts involved in ~50 groups. Some stepping back, retirements, etc., but also some new people joining.

Pierre Petitgas (France)

France focused on three main issues that are growing in importance nationally:

1. The tradeoff between exploitation and conservation based on sustainability issues: There is an increase of advisory requests on the impacts of human activities on the environment and fishing. ICES is well equipped for those requests with many groups focusing on those issues. However, there are not many groups in ICES dealing with Marine Protected Areas (MPAs) (only WKTOPS). There is therefore a need to have a permanent WG dealing with this issue (incl. BBNJ, Natura 2000 etc.). France has, for instance, by law, a network of MPAs, each with a government structure and management plan.
2. The pandemic: France has continued to observe the fishing activities during the confinement thanks to automated systems to track the vessels and the landings. This applied mostly to vessels over 12 m and poses the question of how we will observe fishing and environment in the future. DSTSG is well-prepared, however with the CFP revision coming in 2022, perhaps there is an agenda that would be of interest for DSTSG to contribute to.
3. Climate and global change issues are becoming a background for all management actions. Some regions in France have their own regional IPCC groups that develop risk and mitigation plans at a regional scale. This means that we need products/models on a regional level and on a cascade of scales. Should groups like from IEASG, WGOOFE or SICME connect with these initiatives?

Andreas Kannen (Germany)

A personal highlight presented by Andreas Kannen, was that his institute was able to collect social science data from e.g. young fishermen via interviews even during the pandemic (via Zoom etc.).

A highlight from the research perspective is that Germany is soon starting projects under the new "German Marine Research Alliance (DAM)", involving all the large marine research organizations in Germany. Proposals for two so-called missions were written - the Mission on Marine Carbon Sinks and the Mission on protection and sustainable use of ocean. The projects that will run under those missions are expected to contribute towards ICES with cooperation on some issues related to wind farms, climate change, protected areas and fisheries.

On the policy side, Germany is about to reach the final political stages to approve the second generation of MSPs for the EEZ in the Baltic Sea and the North Sea.

The German Research Ministry (BMBF) will host, virtually, the first UNDOS conference, the International Conference of the UN Decade of Ocean Science for Sustainable Development, on 1 June 2021 with activities until mid-2022.

Gudmundur Oskarsson (Iceland)

MFRI was able to undertake all the planned research surveys since the pandemic started and they have also moved to new HQ. A major research activity was that acoustic measurements allowed for advice on fishery for capelin this winter, following two years of zero catch advice. The prospects for the 2021/22 fishing season are also good, following measurements of large abundance of juveniles in autumn 2020. This is important as it has various implications, as capelin is a key foraging species, thus a large stock size of capelin is positive for the ecosystem around Iceland. Being able to give fishing advice has also had a positive impact on trust for the institute and science in general (e.g. through media) and benefitted the economy. MFRI has been in contact with the Ministry on UNDOS activities, but nothing has been decided on the national level yet. MFRI plans to follow up on this as UNDOS is anticipated to serve as a valuable platform to step-up, highlight the work of MFRI and the ocean affairs and to leverage more funding.

Francis O'Beirn (Ireland)

The key experience is linked to how Ireland adapted to Covid in our work. Part of the core work is carrying out surveys onboard our two research vessels (RVs Celtic Voyager, Celtic Explorer). Only one survey was cancelled, practices were modified to facilitate the restrictions, there was comprehensive testing on-board, but it all went well.

Research – field sampling has been impacted, a lot could not be completed. Has been hard on post-graduate students, has resulted in reanalysing the targets of projects.

ICES involvement has remained strong with participation in 151 meetings (ACOM, SCICOM, SGs, ADGs, Wks & EGs),

Expert Group participation: 105 meetings with 63 individuals (17 Chairs).

Maris Plikshs (Latvia)

Latvian ICES activity in 2020 with regards to meeting participation was higher compared to previous years, mainly due to some new ICES workshops, but also due to reduced travel time associated with meeting participation. The fish surveys and field data collection were mostly unchanged in 2020, however, there was a decrease of onboard sampling, but an increase of fishermen assistance. The international collaboration was increased, Poland, for instance, agreed to carry out surveys and provide Latvia with survey data, as it was not possible for the Latvian researchers to go onboard Polish vessels, due to the pandemic, as they would do under normal circumstances when carrying out acoustic surveys in the Baltic. Latvia had some new important innovations – they have installed a fish counter to monitor the salmon river index, the institute moved to a new building and drafted new projects on MPAs.

Artūras Razinkovas-Baziu (Lithuania)

Lithuania presented two drivers of the last year: Covid-19 and a Government change – two Ministries relevant to ICES have been reorganised (on Agriculture and Environment) and are expected to become more environmentally concerned. New developments, mostly related to ICES, were presented. Several adjustments to the national data collection programme have been made

with the inclusion of migratory species, as Lithuania has a short coastline and a big lagoon (Curonian Lagoon) and the fish population is affected by what is happening in this lagoon. Regarding the science progress, there is good development in coastal and marine ecosystem services and aquaculture science thanks to the ongoing national and international projects. Last year, the Klaipėda University hosted the online Biannual Marine and Coastal Research conference and they expect to have Keynote Speakers from ICES in the next conference that will occur in 2022.

Jos Schilder (the Netherlands)

The highlighted national activity was the achievement of the “Noordzeeakkoord” – North Sea Agreement, which is a long-term agreement between the government, fisheries stakeholders, aquaculture, energy companies and Nature-NGO’s on the transition to a different way of obtaining energy and food, while keeping the ecosystem carrying capacity intact. This includes the MONS-programme on monitoring, research, strengthening of nature and species. The focus points, e.g. ecosystem carrying capacity, food web structure and functioning, are generated through the involvement of many scientist, also those involved in ICES and one goal is to bring a lot of that research to ICES. In the Netherlands, there is also a more general trend of more policy attention for the marine environment, biodiversity and indicators, also in relation to the 2030 EU goals. The topic of UNDOS is under discussion in the government, but there is no national coordination yet.

Dariusz Fey (Poland)

Poland focused on the national activities and national science priorities. Aquaculture was mentioned as an important topic in Poland and a new aquaculture project was initiated and presented – “PIKE – Experimental stocking with pike fry in RAS as a method of managing the coastal fisheries crisis (2020-2022)”. It was stressed that the focus of this project is not the single pike species but the coastal environment and the challenges of changes in the coastal population structure, and the effects of human activities on the coastal environment resulting in a coastal fisheries crisis, being of major concern in Poland. A hatchery – experimental lab was built in relation to this project, which allows for experimental work, related to the Baltic Sea environment, to be carried out.

Antonina Santos (Portugal)

The research lines in Portugal continue, but they were impacted by the pandemic. They experienced difficulties adapting to the new situation. They have a new director for the IPMA Marine Research Department, Ivone Figueiredo, who is involved in many ICES activities, mainly related to the Working Group on the Biology and Assessment of Deep-sea Fisheries Resources (WGDEEPS). Ivone was interested to prepare some internal sessions, which had to be postponed due to the pandemic, but will be resumed this year. The national activities, in relation to ICES, that were highlighted, were regarding the marine research community in Portugal which started to implement an ICES Science Day in 2019. This event is planned to occur this year with a virtual communication, and the ACOM and SCICOM chairs will be invited. Last year, they had a good participation in ICES activities (more than in previous years), likely due to the online format, as Portugal often experiences difficulties to attend physical meetings.

Svetlana Kasatkina (Russian Federation)

Participated in 15 meetings in 2020 and contributed to ICES international surveys:

- 2020: Ecosystem survey in the Barents Sea, Norway and Russia (RV “Atlantniro”, RV “Vilnyus”, September-November 2020);
- 2021: Baltic Sea survey (RV “Atlantida”, BITS, March 2021);
Irminger Sea survey (IS-IDPS for June-July 2021, Germany and Russia).

One key experience from 2020 was a joint project on Baltic Sea ecosystems. The scientific team was composed of scientists of the Atlantic Branch of the Institute of Oceanology of the Russian Academy of Sciences and Atlantic branch of VNIRO (AtlantNIRO).

- Study of the habitat of marine biological resources (hydrometeorological, oceanological and hydrochemical data), bio-productivity indices (chlorophyll, primary production, phyto-, zoo- and ichthyoplankton), including eutrophication and chemical pollution of waters.

Rafael Gonzalez-Quirós (Spain)

The Spanish activity has not changed excessively, although Spain has been affected by the pandemic situation and had to cancel several stock assessment surveys at the beginning of 2020, when the outbreak began. The situation improved in June 2020, where all the surveys were conducted as planned. The participation in WGs has been similar to previous years. It was noted that most of the involvement comes from IEO, AZTI and CSIC, which are heavily involved with fisheries science. However, Spain experiences difficulties disseminating ICES outside of those three institutes. IEO is planning to carry out more activities related to this dissemination this year.

A specific challenge was presented, regarding the integration of IEO into the CSIC, an institution covering a broad range of research areas. IEO is going to maintain its integrity within the CSIC, but will undoubtedly have to face some loss of independence. The advantage will hopefully be that this will help to overcome some bureaucratic problems that will improve IEO's cooperation with ICES.

On a positive note, a 70 m research vessel is going to be built by 2023 and the Spanish government has decided to increase the IEO budget by around 20 %.

Lena Bergström (Sweden)

Sweden is looking into how to operationalize Ecosystem-Based Management (EBM) and another key aspect is the initiation of the UN Decade of Ocean Science (UNDOS). They are planning to have dedicated research projects funded to facilitate this work nationally and internationally with the focal areas of EBM supported by innovation, data modelling and ocean literacy. Two examples of national work were highlighted: 1) Sweden is setting up test cases of EBM implementation in pilot areas (Bothnian Sea, Northern Baltic Proper and Skagerrak), 2) they are also working on a governance commission to develop a long-term project on the future of the Baltic Sea. The question that was posed by the government was “How could the Baltic Sea's marine ecosystems and ecosystem services be developed in the next 30 years”. Sweden is here looking into the possibility that this could be conducted within the frame of ICES.

John Pinnegar (UK)

UK presented the Brexit issue, where lots of the activity has been focused on during the last year, especially around the zonal attachment. A new Trade and Cooperation Agreement was reached in January 2021 and the UK signed an MOU with ICES the same month to reaffirm that UK is still part of ICES. The UK has a new Fisheries Act to replace CFP (encapsulates many of the same

themes incl. EBM). The MSFD was replaced and rolled over to the UK law, they have their own version of EMFF now and had a replacement of the DCF - everything is coming from national budgets now. They have a new FY (research proposals) plus additional £100 million support for fisheries. The UK will still be part of the EU Horizon EU programme.

As to the Covid-19 situation, most of the UK surveys went out as planned, however there were some disruptions mainly due to poor testing capacity in the beginning of the pandemic. They've also experienced problems getting fisheries observers onto boats (especially overnight). The otolith analysis and labs have been working normally. The ICES WG participation has been as normal (or more). Cefas moved to new offices in October 2021. With the COP26 coming up in November 2021, there is a lot of focus on climate change (incl. fisheries) in the UK at the moment.

Kevin Friedland (United States)

One specific issue that was highlighted by the US, was related to the wind energy development that is taking off on the East Coast of the US and will affect the Northeast Shelf ecosystem in many ways (incl. commercial, scientific and socio-economic impacts). With a focus on monitoring, current surveys will have to adapt their designs to the restrictions imposed by wind energy infrastructure. The expectation in the US is that the wind energy footprint will expand and include sites in other parts of the country. The US foresees that this will be a very active area of research and collaboration with ICES and they will look to ICES for assessment and advice on a range of issues related to wind energy.

SCICOM Chair ran a tour de table for all non-national members (alternates and SG / OG / SI chairs) and staff participants to introduce themselves.

6 ICES/PICES Ocean Decade Steering Committee (IPOD SC)

ICES, jointly with PICES, has submitted a UN Ocean Decade programme proposal. The Decade is seen as a major opportunity for the marine science community to leverage activities, projects and also funding. How can SCICOM most meaningfully support and coordinate activities in the ICES network?

The full programme proposal is a high-level document that sets the framework for joint ICES-PICES activities, mutual research interests and cross-cutting inclusivity themes that will be part of the UN Ocean Decade. As part of this proposal, ICES and PICES have set up a working group that will work on a work plan for UNDOS activities and asks SCICOM for national activities and points of contact, in order to strengthen the coordination with the Joint ICES-PICES steering committee.

Action: SCICOM national members requested to send information on national UNDOS activities relevant to ICES, including contacts to national focal points of planning groups, to the SCICOM Chair.

National UNDOS activities are available in Annex 2.

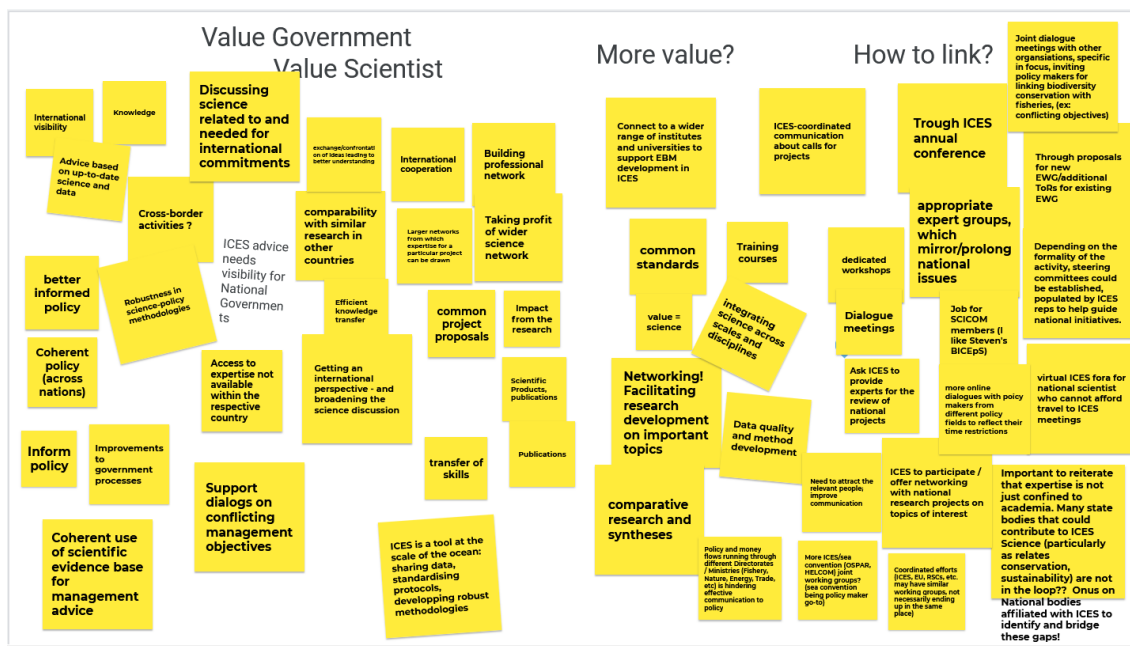
7 Breakout groups

SCICOM Chair introduced the two breakout groups and the guiding questions in Document 07.1-1 and 07.2-1.

7.1 Link to national science activities

Jos Schilder served as rapporteur for the breakout group. The group used the platform “Jam-board” to brainstorm on the topic and the questions posed by the SCICOM Chair. Guiding questions for the discussion were:

- what do national governments and scientists (academic or not) have to gain from working with ICES and vice-versa?
- how can we add more value (e.g., Early Career Scientist training)?
- how can we link ICES to national science activities, including national projects, to the benefit of ICES and the national activities?



One of the conclusions was that the value for Government and scientists overlap strongly, so there is a clear benefit for both to be engaged in ICES.

Problematic for the science part of ICES to connect to the policy side of ICES. How do you get the right policy makers to the table? One solution could be having EGs identify relevant aspects for policy and seek an outlet. This could be a dedicated workshop.

One hindering aspect is that money flows through different directorates and ministries – one policy maker has conflicting interest from another policy-maker, so how do you get an integrated approach?

The group had a good conversation about all aspects and how to have policy more involved in the science work of ICES. This could tighten the two realms. Examples of recent policy facing workshops WKEFA, WKTOPS.

Comments

SCICOM Chair asked for suggestions concrete follow up and who takes the lead in organizing something?

ACOM Chair: There seems to be a dis-joint between what is a heavy programme of talking to policy makers that goes on the Advice side that does not get through to SCICOM. Concern raised that there is no sharing of this information – we need to have a better information flow through the system.

IEASG Chair suggested that WGBESEO could take this question on (if not too big for one group to investigate?)

Action: Breakout Group 1 members were tasked to contribute to finalizing the report, based on the Jamboard sticky notes.

7.2 Increasing international collaboration

The guiding questions for the discussion were:

- Are our current collaborations effective? (i.e., are they operational and more than just words on a paper)? What can we do to make them more effective?
- Are there more activities other than joint groups and symposia that we could be doing?
- Are there more partnerships that we should build, including brand-new partnerships or formalizing existing informal partnerships?

Alan Haynie served as rapporteur for Breakout Group 2 on 'Increasing International Collaboration' and presented the key points discussed:

- Some Expert Groups are formally joint groups – and some have informal connections, but there are a lot of separate projects and scientific work happening outside those agreements.
- WGECON and IEA groups are trying to reach out to people involved in relevant technical fields and bringing them into help ICES. How can we do more proactive outreach?
- Discussion on whether there is coordination across different regional science organisations, bilateral collaboration and joint work, but not much of a consistent, ongoing process. FAO led RFMO coordination meeting that happens annually, and in Korea there is a regular UN regional seas coordination meeting that does have the regional science organisations.
- How can we take advantage of the virtual link to allow us to better connect to other organisations.

SCICOM Chair noted that there are links between the feedback received from the two groups. Between these two discussions, we can identify how to move forward within the current structure rather than creating new bureaucratic structures.

The discussion will be summarized and then it will be taken further in September meeting. Also there can be a discussion on SCICOM forum, and it was noted that through whatever means a discussion is welcome.

Action: SCICOM Chair will summarise and propose actions to be discussed at the SCICOM September meeting.

8 Update from Secretariat

8.1 Update on resolutions and reporting

The Secretariat gave a presentation on the status of the resolutions database and reporting in PowerBI. Two new resolution forms (symposia and publications) are now available [online](#); one for expert groups will be forthcoming later this year. A beta version of the ICES Activities Dashboard was also presented to SCICOM and is available [online](#) to explore 2021 meetings and expert group membership by steering group, country, and institute.

- Importantly, the dashboard currently provides information on membership, not participation. For example, a person may be a member of a group, but they may not have participated in a recent meeting;
- As we need to adhere to GDPR, there are some limitations to how information can be presented,
- The Secretariat notes that this is a beta version, so information, while mostly accurate, may need some corrections. Information on how to send these updates is provided on the landing page of the dashboard.

SCICOM members gave positive feedback about the dashboard, indicating that this will be helpful to examine and fill in gaps in national representation for both national members, steering group chairs, and expert group chairs. One SCICOM member would like to have historical data on participation included in the dashboard; this has already been under consideration by the Secretariat and we recognize it will be valuable. However, with limited resources, the Secretariat is putting their immediate efforts into updating the expert group resolution form to be more granular so that information is collected in a way suitable for searching and reporting, and developing the resolutions part of the database which is being built from scratch.

The Secretariat and SCICOM chair thanked many of the SCICOM members for helping with the tidying of the institute names, and many of the Secretariat staff for contributing to getting the information organized for the dashboard.

8.2 Update from Communications

The Secretariat gave a presentation on a new video project that highlights the scientific work in our network of early career scientists. Names of potential interviewees were suggested from expert group chairs (refer to the list below). 20 videos will be prepared in total, with interviewees coming from different expert groups and member countries, to showcase the breadth of ICES science and broad geographic representation. Videos will appear online on our [YouTube](#) page and social media ([Twitter](#), [Facebook](#)), as well as the relevant expert groups web pages, on a rolling basis from mid-2021. A preview video was shown to SCICOM from Fedor Lishchenko, a member of the Working group on Cephalopod Fisheries and Life Histories (WGCEPH) from the Russian Federation.

Broad coverage of ICES work and people

Ecosystem Observation

Baltic International Fish Survey Working Group (WGBIFS)

Working Group on Fishing Technology and Fish Behaviour (WGFTFB)

Working Group on the Integrated Assessments of the Norwegian Sea (WGINOR)

Integrated Ecosystem Assessments

Working Group on Maritime Systems (WGMARS)

Working Group of International Pelagic Surveys (WGIPS)

Working Group on Integrated Assessments of the Baltic Sea (WGIAB)

Working Group on Integrative, Physical-biological and Ecosystem Modelling (WGIPEM)

Working Group on Comparative Ecosystem-based Analyses of Atlantic and Mediterranean marine systems (WGCOMEDA)

Working Group on the Northwest Atlantic Regional Sea (WGNARS)

Aquaculture

Working Group on Application of Genetics in Fisheries and Aquaculture (WGAGFA)

Working Group on Risk assessment of Environmental Interactions of Aquaculture group (WGREIA)

Ecosystem Processes and Dynamics

Working Group on Cephalopod Fisheries and Life History (WGCEPH)

Working Group on Zooplankton Ecology (WGZE)

Data Science and Technology

Working Group on Size and Species Selection Experiments (WGSSE)

Working Group on Biological Parameters (WGBIOP)

Fisheries Resources

Working Group for the Celtic Seas Ecoregion (WGCSE)

Working Group on Mixed Fisheries Advice (WGMIXFISH)

Joint NAFO/ICES Pandalus Assessment Working Group (NIPAG)

Human Activities, Pressures and Impacts

Working Group on Ballast and Other Ship Vectors (WGBOSV)

Working Group on Marine Benthic and Renewable Energy Developments (WGBRED)

SCICOM noted that this is a great development to promote the ICES community, especially engaging early career scientists. EPDSG steering group and expert group chairs discussed promotion videos at their recent Steering Group meeting, and will get in touch with ICES Communications to discuss this further after their next meeting in May.

SCICOM also asked about the effort that was needed to develop these videos. The Secretariat relayed that it is a lengthy process that also depends on the responsiveness of participants. The process includes numerous steps from scoping (collecting potential names, getting people to agree to participate), preparation (sending participants a list of questions), and production (checking quality of information in the video and reshoots, editing, fine-tuning). Additionally, many of the videos will need additional footage to make the video engaging, which may sometimes be provided by the participant, but additional footage often needs to be acquired by the Secretariat.

8.3 ICES co-sponsored symposia, including approval of draft resolutions

Malene Eilersen, Science Programme Supporting Officer, presented an update of postponed 2020 co-sponsored symposia and plans for future symposia, many of which plan to include an online component. A revolving list of past and future symposia is provided in the SCICOM meeting folder.

For 2021:

- The International Symposium on Plastics in the Arctic and Sub-Arctic Region was successfully held online in early March 2021 with over 40 posters and several pre-recorded presentations;
- The World Fisheries Congress will be held in September as a hybrid meeting (Australia in person);
- The Baltic Sea Science Congress will be in Aarhus in October with registration and abstract submissions opening in June;
- The Marine Socio-Ecological Systems (MSEAS) to be held in Japan will decide on new dates in April and has recently been endorsed as UN Ocean Decade event.

A number of symposia have already been approved for co-sponsorship in 2022 including:

- International Symposium on Small Pelagic Fish to be held Feb 2022 in Lisbon, Portugal;
- 4th Decadal Variability of the North Atlantic and its Marine Ecosystems 2010-2019 to be held in April 2022 in Bergen, Norway;
- The 4th ICES/PICES Early Career Scientist Conference to be held in May 2022 in Newfoundland, Canada;
- The Oceans Past IX Conference to be held in Ostend, dates TBD.

SCICOM was asked to review and approve the following two symposia for co-sponsorship; copies of the resolution drafts are available in the SCICOM folder.

- 2022 Symposium on Capelin—The canary in predicting effects of climate on the Arctic marine environment;
- 2023 Symposium on Ecosystem Effects of Climate Change on the World's Ocean 5 (ECCWO-5).

Some conversation about ECCWO was raised by SCICOM; it was relayed that approximately 500 participants are expected and that more international national partners are anticipated (ICES, PICES, FAO, and IOC). One SCICOM member mentioned that the timing in 2023 may be less than ideal given that a number of other climate-related symposia are already planned for 2023. Another SCICOM member indicated, and the SCICOM chair agreed, that it would be helpful if the symposium included more regional and local applications relevant to management, to complement global level work (e.g., IPCC). As planning is in the early stages, SCICOM chair indicated that there is room for this to be included in the discussions with the SSC and becoming part of the theme session development.

ACOM chair noted that an additional symposium focused on the Arctic may be in the planning for 2023. The Secretariat relayed that all ICES community members, including SCICOM, are welcome to think ahead about future symposia co-sponsorship, and that the process for application and SCICOM review is on an annual cycle. The next call is expected to open in December 2021, will be for 2023 and 2024 symposia and will be announced on ICES forums, news, and social media.

A SCICOM member asked whether financial support could go towards expenses to hold meetings online. The Secretariat and SCICOM chair reiterated that at the March 2020 SCICOM meeting, when the last round of symposia were reviewed by SCICOM, it was relayed that all funds should be focused on supporting early career participation, as it is a targeted way to encourage ECS involvement at our co-sponsored symposia and will also facilitate growth in our network.

<p>Decision: SCICOM approved the two submitted resolutions, including the requested support.</p>

9 Addressing ToR from CO₂ Bureau Group

SCICOM Chair with reference to Document 11-1 explained that SCICOM has been requested to comment on ToR 5, 6 and 7 of the CO₂ Bureau Subgroup and report back in time for the first meeting which is expected to take place in the autumn 2021:

5. Together with other relevant organizations, consider approaches for auditing and reducing emissions associated with:

- a. research and monitoring, including use of research vessels and alternative platforms
- b. fishing, aquaculture and fish processing operations
- c. CO₂ offsets (e.g. mitigation, offshore energy, biomass /biofuel production)
- d. additional science focus areas?

6. Emphasize net-zero thinking in everything we do and miss no opportunity to advance on this goal (e.g. upcoming relocation of Secretariat, planning for future ASCs) (e.g. standard ToR for EGs?)

7. Work with partner organizations such as PICES and OSPAR, to develop joint policies and procedures and take a leadership role in CO₂ reduction strategy development and implementation

Comments/discussion

The task of this group and ToR 5–7 will be a complex challenge for an organization like ICES as it considers two aspects 1) the scientific work in conducting surveys, data collection, etc. and 2) the meeting and network coordination that ICES facilitates. Perhaps, the group should only consider these questions with regards to the scientific work. There is also the concern if ICES has the expertise to address this topic, both as a sensitive subject with regards to telling people how to conduct their scientific work, but also with regards to ToR 5 on creating CO₂ budgets. ICES should consider how to get people with this specific expertise involved? Consider rephrasing of ToR 6 as it reads like a net-zero organization is more important than the science that is good for the world.

The CO₂ group should consider linking with the Global Ocean Observation System who is doing an assessment of global ocean emissions and looking to several facets of the carbon footprint of ocean observations.

A suggestion was put forward to lump meetings together into mega meetings in order to reduce the emission of ICES meeting activities. WGECON and WGSOCIAL had a good experience doing this remotely and a combination of remote and combined meeting activity may be considered as a good practice. There are also decision support tools, like the [Tyndall Travel Decision Tree](#), that can help work out which format meetings should take.

Action: A subgroup was established and tasked to draft a response to the CO₂ Bureau Subgroup, for comments and feedback at SCICOM September meeting. The following subgroup members volunteered: John Pinnegar, SCICOM member, UK; Johannes Karstensen, SCICOM Alternate, Germany; Alan Haynie, SCICOM Alternate, US and SIHD Chair; Lena Bergström, SCICOM member, Sweden; Jörn Schmidt, SCICOM Chair; and Wojciech Wawrzynski, Head of Science Support. The Subgroup will work from now until autumn and will then work with the wider group from autumn onwards.

10 Engaging oceanographers in ICES

Johannes Karstensen (Subgroup Chair and SCICOM Alternate, Germany) provided an update from the Subgroup. Two meetings were held in 2021, and the membership of the group was extended to include Diego Alvarez Berastegui (IEO, ICCAT member) to be co-leading the group together with Johannes Karstensen.

The objective of the Subgroup to assess the internal and external ICES efforts that already link with the oceanographic community was expanded to specifically cover physical **and** chemical oceanographers. There are two ways experts are currently working in ICES, explicitly and ‘visible’ via dedicated groups like WGOH, WGOOFE and MCWG, and embedded in other expert groups (WGS2D, regional groups) and within institutes with strong ICES links.

A number of questions have been raised by the subgroup:

- Does the oceanographic community see the value of ICES as a network for themselves?
- Are the knowledge products from WGOH/WGOOFE/MCWG relevant and appropriate for other ICES EGs?
- Where does the oceanographic information for ecosystem overviews currently come from?
- How can oceanographic and ecosystem information feed directly into fish stock advice?

The subgroup has also looked into how information is exchanged between EGs. A successful exchange requires that the Expert Groups are aware of each other, their operations and their output.

Next steps include:

- “Assess” in collaboration with others WGs (WGOOFE, WGOH, MCWG tbc.) the current use of oceanographers expertise (data, science, data products) in ICES e.g. “Data mining ICES Library” Tool;
- Create a map over the ICES WG and the scientific strategy of ICES to reveal the opportunities, needs and challenges in which ICES community need to develop synergies with oceanographers;
- Articulate recommendations that help facilitate oceanographers from member countries to become active contributors to the ICES communities;
- Articulate a potential strategy using a few case studies;
- Explore opportunities to engage through WGCHAIRS.

Comments/discussion:

Oceanographers contributing to EOs

Many integrated ecosystem assessment groups have oceanographers as members, and they are very much involved in discussions and provide information feeding into the Ecosystem Overviews. Many other groups also contribute to Eos, but WGOH is currently not involved in a formal way. IEASG is trying to map out better ways for groups to contribute to the Ecosystem Overviews.

Aquaculture and oceanography

Action: ASG Chair invited the subgroup leaders and WGOH to give a presentation at one of the monthly ASG webinars on “What can oceanography do for aquaculture”?

Case studies

Case studies need to be identified in dialogue between the subgroup and assessment groups. It could be beneficial if the work of WGIPEM is leading to a model platform and regional applications to bring different model expertise within a region together.

Action: The subgroup should investigate how engagement with the community working on Digital Twin Ocean can be established. What role do other organizations play, e.g. the Copernicus Marine Service.

SCICOM Chair thanked for the presentation and also for all the good comments and feedback received.

11 Update from EBM ad-hoc group

Debbi Pedreschi (Chair of IEASG and EBM ad-hoc group) gave an update on the background, process and current status of the group. In October 2020, ACOM and SCICOM Leadership proposed a coordinated way forward and changed the group to a joint ACOM/SCICOM ad hoc group tasked with producing a strategy for EBM. The group identified three ToR that they have started working on in smaller sub-groups:

- a) Progress the implementation of EBM evidence into ICES advice;
- b) Prioritise the development of the evidence basis for EBM within ICES; and
- c) Facilitate and improve the integration of EBM evidence across ICES.

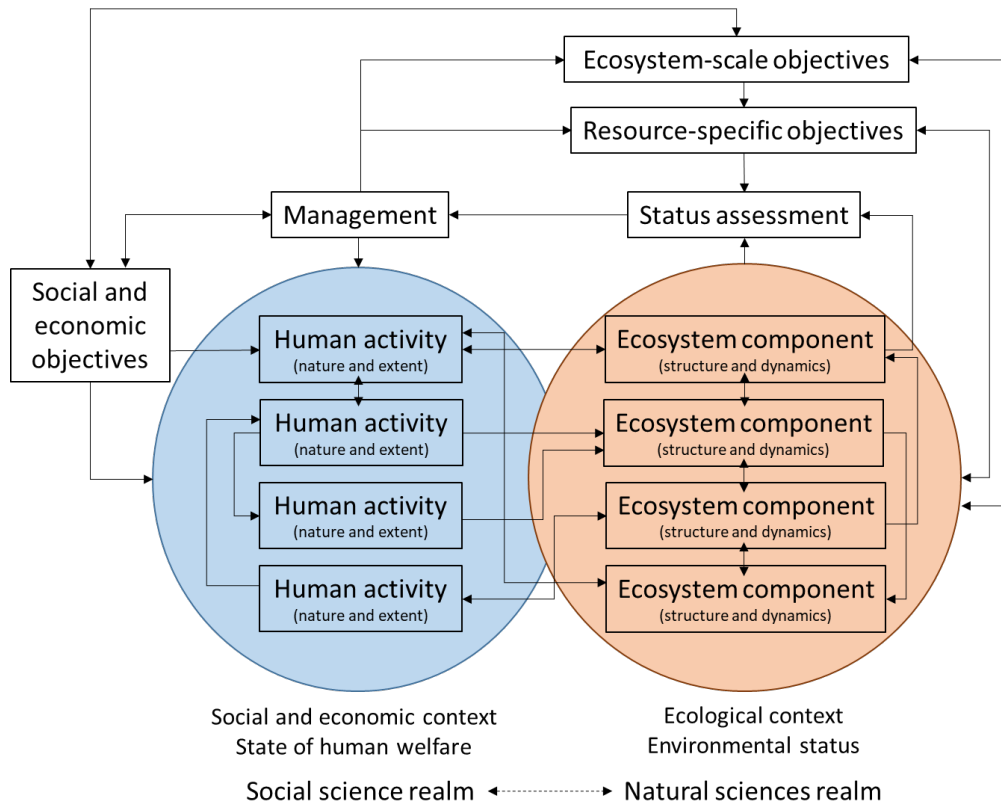


Figure 11.1. Ecosystem-based science advice and decision-making process considering all relevant sectors/human activities and ecosystem components (and interactions among them), as well as resource-specific, socio-economics and overarching ecosystem-scale objectives.

The group concludes that to consistently deliver EBM-aware scientific advice for the management of human activities affecting ecosystems, their components and the services they provide, clear definitions, a common direction and flexible approach is needed. A multi-directional process and operational definition for EBM was presented, along with the current state of advice provision in support of EBM. An indicator-based framework and a risk-based approach were proposed as a mechanism to provide the desired common direction and flexible approach. Through discussion it was identified that the group’s work has evolved from making a strategy to developing a framework within which EBM can be progressed.

Marie-Julie Roux (ACOM member and Chair of EBM ad-hoc group) explained the thoughts behind the framework figure below.

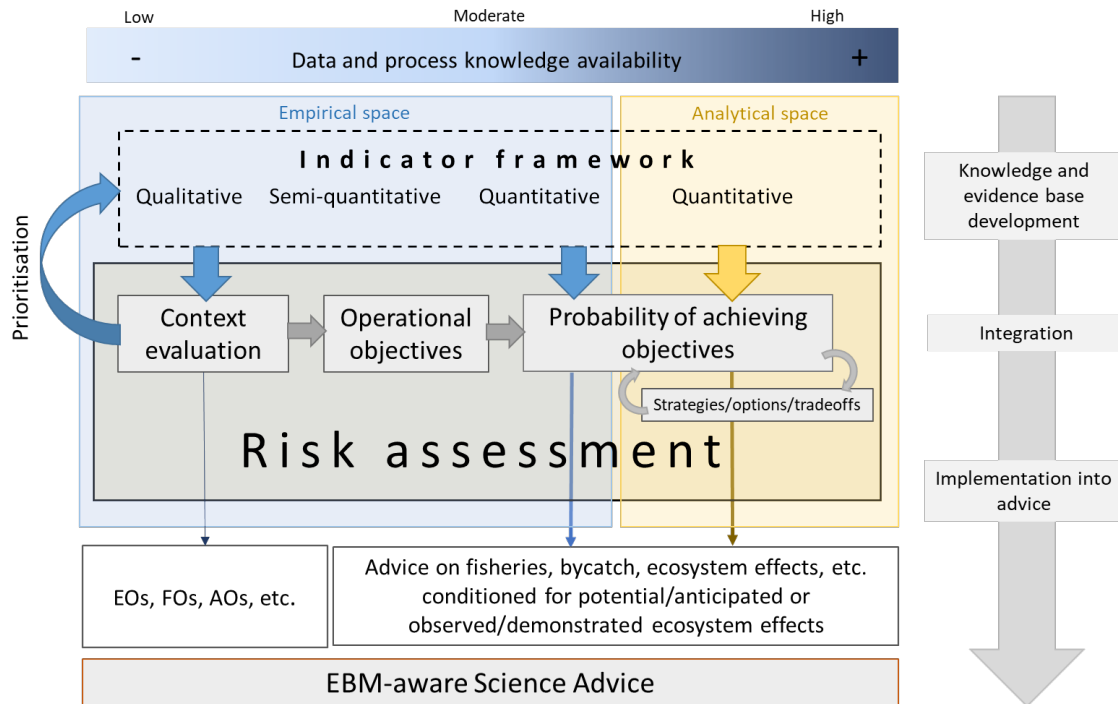


Figure 11.2. Framework for operationalising EBM-aware science and advice. The framework is designed to be effective in all knowledge scenarios (data rich vs. data limited environments) through the use of qualitative, semi-quantitative and fully quantitative indicators to carry out risk assessment. Two key pathways are identified for integrating the ICES knowledge and evidence base into current ICES advice pathways; those contributing to ‘context evaluation’ such as the Overviews (e.g. identification of highest risk components/elements of concern), and those relating to component-specific elements, such as advice on fisheries catch (e.g. risk to the specific component of interest).

Next steps (March to September 2021):

- Reach out and engage with relevant groups within ICES;
- Finalise an operational framework for EBM-aware science and advice and supporting document(s);
- Report back to committees in September 2021;

If anyone is interested in joining the work this is still possible.

The sub-group was congratulated highly for their great work and for their excellent work progress. Most of the questions and the discussion focused on how this could work and how the framework can be implemented going forward. Discussion is summarised in the following bullets:

- It was pointed out the there is a lot of high-level strategy and statements on ecosystem-based management within ICES and that it is also stated as an ICES goal. This is why the group wanted to make the framework to clarify how it can be done;
- To make an implementation plan it was suggested to set milestones and action points and look at: how to put it into practice, how do we get groups to take it on and how do we bring it into Terms of Reference. Apart from that it is important to make sure ACOM and SCICOM agree on the approach before trying to make an implementation plan going forward;
- It was clarified that “ecosystem functioning” is included and considered in the framework as a part of “ecosystem structure and dynamics”. This is an important aspect and it was agreed to make it more explicit in the text for the infographics;

- It was questioned if the group will investigate the ICES community to look for indicators that are relevant and if they will also look outside the ICES community since a lot of development outside of ICES is happening as well. The group will not be looking outside of the ICES context since it is outside the scope of the group. What the group will do is to encourage groups to take their inspiration or knowledge from anywhere, so it is up to them to propose what indicators or frameworks are relevant for the knowledge and science they are producing. That is why the indicator framework at the moment is very much a framework in the broadest sense and is purposely vague so different groups can propose what works for them;
- The ACOM productivity subgroup reviewed the WKIRISH proposal to use indicators to adjust the F_{MSY} target in fisheries advice. It was questioned how that idea fits into the framework? It was explained that it fits really well and that this group has been involved and aware of that work. There are really good parallels also with the previous presentation on the oceanographic initiative as well since the information potentially could be used in the same way as the information that has been used in WKIRISH to inform the setting of an ecosystem-informed F_{MSY} (or F_{ECO}). The idea is to distinguish different types of risk assessments. There is your broad qualitative/semi-quantitative context evaluation, one that feed into the Ecosystem Overviews process. Those risk assessments will help to inform the definition of operational objectives in order to bring forward advice-specific quantitative risk assessments, which is where WKIRISH fits into the framework. The EBM framework has two big block arrows going towards the probability of achieving objectives - a blue one in empirical space and a yellow one in analytical space. In the yellow/analytical space, the indicator is incorporated into the model used to estimate the F_{MSY} range. WKIRISH concerns the blue/empirical space, where indicators are used in parallel (or externally to the stock assessment) to adjust the F_{MSY} target. This empirical approach can be extended to assess whether indicators are affecting the probability of achieving objectives or the objective itself (i.e. the risk-based approach proposed by the EBM subgroup);
- It was explained that too often organizations are not accredited for their incorporation of EBM or being EBM aware. ICES is receiving requests about indicator development and is therefore already feeding into indicator framework. The important thing with the further implementation is to ensure that it does not contradict our existing advice and that we use the leverage of OSPAR, HELCOM and MSFD and the Norwegian management plans etc. Finally, it was pointed out that in order to move forward towards an implementation plan the key is to maintain momentum and make sure it is in a direction that we can tell the world that ICES is providing the evidence for ecosystem based management.

12 Report from WGCHAIRS 2021

The Annual Meeting of ICES Expert Group Chairs (WGCHAIRS) was held as a four-day online event in January with one day for incoming chairs, one joint advice/science day, and separate days focused specifically on advice or science.

SCICOM Chair reported from the WGCHAIRS meeting which was very well attended (at times over 140 participants) and there was good interaction with the participants, particularly on the extra day for incoming chairs.

An afternoon session was arranged by three expert group chairs (Paulina Ramirez-Monsalve, Jan-Dag Pohlmann and Brett Alger) as a first step towards higher engagement and ownership of the meeting by chairs. Dr Kenneth Rose was invited to give a presentation on the challenges of communicating science in today's social and political climate, and how to build and maintain trust in science. Both the presentation and an escape room team building activity that followed were very well received.

13 Update reports and highlights from Steering Groups

13.1 Aquaculture Steering Group

Mike Rust (ASG Chair) presented an overview of upcoming expert group virtual meetings. In general there has been some reduced progress on ToR due to COVID-19. One highlight, has been the ASG monthly webinar series and quarterly ASG business meetings. This has led to interactive ToR amongst the expert groups. ASG is looking forward to integrating more topics like oceanography and climate change to aquaculture in the upcoming webinars.

The ASG Chair highlighted the publication from the WGSPA on how [scenario analysis can guide aquaculture planning to meet sustainable future production goals](#). Very few ICES countries have done any marine spatial planning that includes aquaculture in their national planning.

ASG has been very busy with advice. Currently, there are three aquaculture overviews in the planning stage: 1) Norwegian Sea, 2) Faroes, and 3) Celtic Sea aquaculture overviews. WKNORAO is meeting 23–25 March to finalize the background scientific document on the Norwegian Sea Aquaculture Overview. The first aquaculture viewpoint and underlying scientific document will be ready for the advisory process in April.

ASG Chair remarked how aquaculture as a whole is spanning science and advice in a way that we never predicted a couple of years ago. ICES is in a great place and leading in many areas, but can also better link to industry organizations and hopefully with the aquaculture overviews will broaden participation from outside ICES.

13.2 Integrated Ecosystem Assessments Steering Group

Debbi Pedreschi (IEASG Chair) gave an update on the current progress of IEASG expert groups and the effects of COVID-19. The majority of the working groups are on track and only few groups are having a harder time adapting to online meetings. Several groups in IEASG are now doing more intersessional work and having several meetings on an annual basis (e.g. WGBESEO, WGSOCIAL, WGICA, WGEAWESS and WGINOR).

It was decided to enhance the communication and knowledge exchange within the IEASG and also strengthen the link to other steering groups. Therefore, it has been decided to have regular IEASG meetings that focus on scientific knowledge exchange (inspired by ASG webinars). The first IEASG knowledge exchange meeting has already been planned in collaboration with the SIHD for 20 May 2021, 14:00-17:00 CET.

The SharePoint is also being developed to be more optimal for communication so expert group chairs will have a better overview.

IEASG Chair gave an overview of the upcoming Ecosystem Overviews (EOs), workshops and plan for the IEASG knowledge exchange. She highlighted the work of WKTRANSPARENT which had important outputs in the form of a new common methodology for developing the EO conceptual/network diagrams and new EO technical guidelines that have been approved by ACOM and published 5 March. A follow-up training course will be planned to ensure proper implementation of the outputs in the ICES network. A number of follow up workshops related to the WKTRANSPARENT work have been suggested and are currently in development:

- A 2022 workshop on ecosystem services focused on EOs, linking to established methods

- A 2022 or 2023 workshop on food webs to improve their inclusion in the EOs and to potentially include food-web indicators. This workshop will build on work of [WKFooWI](#).

SCICOM was asked for nominations and suggestion of chairs for such workshops and to send these directly to Debbi Pedreschi (debbi.pedreschi@marine.ie).

Debbi Pedreschi also mentioned that the Joint ICES/PICES Working Group on Integrated Ecosystem Assessment of the Northern Bering Sea-Chukchi Sea (WGIEANBS-CS) is looking for nominations for more ICES members.

It was pointed out by the SCICOM Chair that doing the knowledge exchange within the steering group is a great initiative that will help in managing knowledge and making knowledge more accessible to the ICES network.

13.3 Fisheries Resources Steering Group

Patrick Lynch (Chair of FRSG) gave a brief update of highlights covering the period since the SCICOM September meeting.

The first 20201 meeting of FRSG was the Steering Group breakout session at WGCHAIRS. A range of topics was discussed. Gender and Demographic equality in EGs presentation stimulated discussion. It was found that remote work improves Diversity & Inclusion (D&I), but training within ICES is probably needed regarding unconscious bias and other aspects (perhaps via Training Programme). Concerns were raised in relation to COVID pressures and the 2021 advice process. There was a brief Transparent Assessment Framework (TAF) usage discussion. Overall there is a need for more strategic discussions (e.g., science advancement) – would like to engage with SCICOM on how to advance science in the stock assessment process.

An additional FRSG meeting was held on 11 February. It was very operational/advice-related, dealing with advice sheets, Regional Database & Estimation System (RDBES), more COVID discussion, survey naming consistency, advice Quality Assurance and Control (QA/QC). There was an update on productivity audit – accounting for ecosystem dynamics. The audit is almost complete, and results will be communicated to SCICOM.

SCICOM was updated on the following FRSG workshops

- WKMSYPICT: 15-19 February (benchmarked production model assessment method for numerous stocks)
 - WKRPCHANGE: 21-24 September (reference points vary w/changing demographic parameters, trophic interactions, and the environment; consider variable RFPs when changes in density dependence or environment are likely)
- WKFEA: 1-5 February (needs: spatialized stock assessment, better data for stock analysis, and holistic/whole ecosystem approach was recommended.)

SCICOM feedback requested

Within FRSG the concept of capacity keeps coming up, and the SG would like to figure out ways to get more support from science-related groups, for instance helping make assessments more holistic, team approach, data-limited gaps, methods training, etc.

Also, the Methods Working Group (MGWG) under HAPISG could shift from being a theoretically oriented group to becoming a more hands-on type of group? HAPISG Chair responded that she would be open to discuss a way forward for MGWG.

Comments:

ACOM Chair asked FRSG Chair to clarify what is meant by operational and strategic. FRSG Chair explained that operational means the tactical advice generation process (doing stock assessments specifically for providing advice). The strategic approach is more about improving assessments, or thinking bigger about general initiatives that ICES could take. ACOM Chair suggested setting up a FRSG meeting without Secretariat and ACOM leadership to have a more open discussion about long-term needs.

13.4 Ecosystem Observation Steering Group

Joel Vigneau (Chair of EOSG) introduced himself as the new chair of the Ecosystem Observation Steering Group and gave an overview of his views and approach to leading EOSG.

EOSG Chair presented an overview of EOSG which is responsible for guiding and supporting expert groups that are meeting immediate data demands. The group also contributes to running and developing effectively coordinated, integrated, quality assured, and cost-effective monitoring surveys in the ICES region and beyond. EOSG currently consists of 15 expert groups and 4 workshops out of which 3 are new workshops in 2021: WKMACHIS, WKAPEM and WKFDNG.

Twelve of the fifteen EGs within EOSG are coordinating around 7–8 different research surveys at sea, this big number of surveys represents a very challenging and complex coordinating task for the steering group. The EGs main focus is the collection of data for stock assessment and stock indices, however now that new relations are being built with other expert groups EOSG has been asked to add more variety in their data collection.

Taking these challenges and request in consideration, Joel's approach on stepping in as the chair to EOSG is to start his new role by observing the current landscape of the steering group and then act into developing a strategy that can ensure the generation of reliable data. As a starting point the chair has pointed out the importance of interacting with new 3-year resolutions by thoroughly analysing them before moving forward. A good example of this situation is an ongoing reviewing process to the new resolution for WGISUR, the long reviewing to this resolution has been complex but is needed since this is an important group for EOSG.

Looking forward the group needs to secure WGISUR and WGISDAA as two transversal EGs for EOSG, these groups are crucial because they are technical groups that can help with the coordination of other EGs. Currently these two groups are experiencing a lack of participation and we need to address this issue by finding a way to encourage participation with a better promotion of the work that is being done by these groups and eventually as a last resource merging the two groups if needed.

The priority for 2021 is to establish a communication channel that will allow coordination among groups, this will be done by taking quarterly meetings. Another important point is the transition from SISP to TIMES and taking the time to address all the questions related to this transition to ensure people involved with SISP understand the transition and adapt to the change. Additionally, EOSG needs to frame a commonly agreed horizon for all the expert groups since this is an important part of addressing 3-year resolutions.

Lastly, the EOSG Chair would like to work together with ACOM and SCICOM chairs to improve participation in WGISUR and WGISDAA. As a solution to the issues related to WGISUR, it was suggested that WGISUR could be linked to the developing EBM framework. Regarding WGISDAA, this groups could be brought back to the assessment working group trough FRSG to revive the group. However, these suggestions need more consideration.

13.5 Data Science and Technology Steering Group

Jens Rasmussen (Chair of DSTSG) gave an update from the Data Science and Technology Steering Group (DSTSG), which was formally convened in January 2021.

An overview of the 13 Expert Groups under DSTSG was presented: three groups are wrapping up in 2021, and many groups will reach the end of their term in 2022, so that year will be more intense in terms of group renewal and looking at the strategic direction of those groups. Generally, the groups are mixed and dealing with various different topics: methodology, governance groups and machine learning. There are eight workshops lined up for 2021, many will focus on methodologies and RDBES. Jens noted that there is a need to have and maintain a dialogue with the EOSG groups, which are dealing with similar topics.

DSTSG Chair discussed where the DSTSG fits in with regards to the Science Plan to try and understand how well the groups span out across the intended work on science. He mapped 58 ToR into the Science Plan and noted that it was not surprising that the peak was observed in the “Emerging techniques and technologies” and “Observation and exploration” priorities. No links were observed to the “Sea and society”. When looking more into details into the “Observation and exploration” priority, the ToR link primarily to “developing and coordinating monitoring programmes” and “evaluating and optimizing survey design”. For the “Emerging techniques and technologies”, the ToR link to the more generic tasks – “horizon scan and new technology” and “improve efficiency in analyzing and sharing data”.

DSTSG Chair presented his early stage considerations for this steering group. He shared his general observations on remote meetings that were mainly collated at the DSTSG session during the WGCHAIRS meeting, and the most common ones were:

- Larger load on chairs – multiple channels to maintain;
- More participants – especially younger scientists, but less participation in delivery than normal;
- Variable experiences (because it’s completely new?)

He ended his presentation by asking SCICOM members, whether the complete lack of linkage to “Sea and society” is a concern and whether the steering group should seek to address this possible issue.

Comments were supportive of having more linkage to “Sea and Society” in DSTSG, especially if ICES seeks to include the social and economic dimension into our advice and research and to use an ecosystem-based approach that incorporates those. It would therefore be very useful to have a high-quality data stream with clean data from ICES countries. It was also noted that several groups (WGECON and WGSOCIAL) are working on social data and on standardizing some of those data sets to get them into for instance the EOs, but the key question is how it can be disaggregated at the ecosystem level. One problem that was highlighted was that organizing that data and accessing it is very difficult because it tends to not be sampled within the countries, so even when we are trying to find common data streams, the sampling scales are often different. Social indicators were also mentioned as a problem, as the issues are different across different countries, however they are not impossible to work with as they don’t necessarily have to be the same, it should be possible to make them comparable. Jens Rasmussen noted that implementing the “Sea and society” into DSTSG is going to take time, but he would be interested in maintaining some communication with the various WGs working on this to understand this work better.

13.6 Human Activities, Pressures and Impacts Steering Group

Sarah Bailey (Chair of HAPISG) gave an update on the current progress of HAPISG Expert Groups and the effect of COVID-19. Most of the working groups have remained functional with remote meetings but productivity and interaction has of course been limited. Expert group strategies have varied considerably and some have had meetings few hours per year whereas other groups have had 2-week marathons or multiple meetings per year. It was positive that more chairs from HAPISG participated at WGCHAIRS this year.

Guidance has been finalised on how ICES community can participate in International Maritime Organisation (IMO) work.

HAPISG Chair explained that planning has been initiated for how to engage the HAPISG expert groups more with IEASG expert groups to better understand how to contribute to the Ecosystem Overviews.

A proposal for a HAPI Theme session at ASC 2022 is proposed partly to encourage more participation from the steering group.

Sarah has also worked with EOSG/FRSG Chairs to support the WGOWDF survey: Impacts of Offshore Wind Development on design/methods of fisheries data.

Finally, SCICOM was reminded that this year is her last year as the HAPISG Chair and a new replacement is needed. SCICOM members were encouraged to start considering candidates and initiate the recruitment process looking for the next HAPISG Chair.

The discussion focused on the on-going work related to off-shore windfarms where ICES currently have 3 working groups related to the topic: WGMRE, WGMBRED, and WGOWDF. It was pointed out that this issue has been increasingly highlighted particularly by the fishing industry (e.g. during the MIACO meeting) and they turn to ICES to ask to improve the knowledge base on this topic.

HAPISG Chair clarified that WGMRE is not an overarching group for the three ICES working groups mentioned as such but this could be considered if useful. It was also clarified that these three working groups, although linked closely, have separate focus and are not overlapping in their ToR.

It was suggested that maybe it could be of interest to address how the developments in the field will fit into Marine Spatial Planning (MSP) of course in collaboration with the working group on marine spatial planning.

13.7 Ecosystem Processes and Dynamics Steering Group

Steven Degraer (Chair of EPDSG) gave an update on the current progress of the Ecosystem Processes and Dynamics Steering Group.

The new SG Chair and EGs Chairs met in connection with the WGCHAIRS January meeting to discuss an operational plan for EPDSG. There was representation of 13 Expert Groups during WGCHAIRS and the fact that this was an online meeting contributed a great deal to high participation. The goal of the operational plan is to create a sense of ownership among the steering group and to try to get the most out of the work that is done by ICES community. As an entry strategy the group discussed the following points to achieve this goal:

- Facilitate interactions among EGs;
- Identify gaps and rationalize overlaps in EGs;

- Identify missing skills and knowledge;
- Assist EG science highlights and impact;
- Assist improving EG impact and influence;
- Contribute to science and advisory objectives;
- Feed-back on research priorities.

The group will define the actions and deliverables needed to achieve the goals and objectives set at WGCHAIRS. An interesting suggestion was to create a mind map to identify the links between EGs and use it as a starting point to develop new ideas. Another suggestion was made to organize a business-to-business fair to think about what each group offers, and what is needed from other groups in order to build collaborations. The group also discussed strategies to attract more people to fill the gaps on missing skills and knowledge within EPDSG by creating videos which could be a nice outreach project and has become fairly easy with today's technology. The group agreed on organizing round table discussions and also felt there is a need for bilateral meetings to feed the information acquired into the next 6-monthly EPDSG chairs meeting. The Steering Group concluded that the WGCHAIRS meeting was a great starting point to move forward but there is need to self-reflection on the feasibility of this plan.

During the presentation the importance of connectivity on ecosystem processes was addressed, currently there is no group within EPDSG that has an overview on the ecosystem process as a whole, the existing groups focus on specific taxonomic groups or specific components of the environment. However, the Mind Map that has been proposed in the operational plan might be a good fit to address this gap.

14 Gender equality, diversity, equity, and inclusion

Ellen Johannesen (ICES Coordinating Officer) introduced the theme of gender equality, diversity, equity and inclusion, with reference to her ongoing PhD research that uses ICES as a case study, with focus on gender in the practice of marine science at international levels. ICES is contributing as a partner to the, DFO-sponsored, World Maritime University project called “Empowering Women for the United Nations Decade of Ocean Science for Sustainable Development”. Ellen acknowledged the positive response to her presentation during the WGCHAIRS meeting, with some Chairs taking these issues for further discussions at their EG meetings.

In the latest ICES Strategic plan (2019), ICES recognized the importance of a diverse, inclusive and gender-balanced organization, for the first time. This goal requires further discussion among member countries. ICES does not currently collect gender-disaggregated data for all activities, however, there are plans for systematic collection of this information. Initial results of one year of data gender ratios in the ICES structures are similar to other organizations, with women under-represented in decision-making roles.

In order to start the discussions within the ICES community on how to make our organization more diverse and inclusive, an online viewing of the documentary ‘Picture a Scientist’ was hosted. A successful screening with 420 views, as part of the ICES event. The documentary takes an evidence-based approach to explore the challenges faced by women working in science today, exploring the role of implicit bias (Ellen included a link to an implicit bias test and encouraged everyone to test their own bias) and gender-based harassment as a cause for under-representation.

A survey was sent after the film to gather more information from the ICES community. The initial results of the survey shared experiences of harassment and unconscious bias also present in the ICES Community - over 30 % of the respondents had experienced gender biased harassment while working in ICES related activities.

The next steps towards improving gender equality, diversity and inclusion are to listen to the community and figure out how to continue work together to achieve this goal. SCICOM was encouraged to consider how members can further collaborate on these issues to help our network improve on dimensions of diversity. A proposal for a network session at the 2021 ASC is in development. During the discussion, a range of suggestions were provided by the Committee members, including:

- Supporting the development of systematic collection of gender disaggregated data- both for membership and participation, to go beyond the static evidence currently available;
- Suggested strategies for change like Athena Swan (CEFAS, UK) or personal pledges for action on diversity and inclusion (NOAA, US).

15 Early Career Scientists

SCICOM Chair introduced the ECS segment and informed SCICOM that there is already engagement and initiatives in place to foster them.

Three early career scientists (Amanda Schadeberg, Fedor Lishchenko and Alina Wieczoriek) had been invited to attend the SCICOM meeting to give a presentation on the proposed Strategic Initiative.

A first scoping meeting was held with 27 invited Early Career Scientists from across the whole network and showed the interest and enthusiasm to engage and lead such an initiative. There was a mix of nationalities but it was quite a homogenous group most being from natural science background and only one social scientist. First ideas included making ICES more accessible and promoting more networking between ECS, as well as capacity-building activities.

The meeting also revealed that people would be keen to have a platform for networking and to help them navigate within ICES. This could also help across disciplines, which ECS are passionate about. ECS could also get involved with a ToR promoting equity, diversity and inclusion. Videos, social media campaigns and awards, all could be ideas. Apprenticeship with more senior ICES members could be useful.

SCICOM members were invited to discuss the proposal of establishing a Strategic Initiative for ECS.

Comments/Questions:

Although criteria are needed to define the age and career stage of participants joining the initiative, these criteria can be less restrictive as long as no funding is involved and need to consider structural issues, e.g. related to child care. The initiative should link to other ECS networks, like PICES and to the ECOP network under the UN Decade of Ocean Science and the Virtual Early Career Ocean Professional (V-ECOP) day organized by the Early Career Ocean Professionals (ECOPs). The initiative should also clearly express how ICES can support career development, as the SI should be of mutual benefit to the organization, as well as the ECS.

Action: SCICOM Chair noted that there was general support in favour of putting forward a draft resolution for a new Strategic Initiative on Early Career Scientists. SCICOM members would be asked to review and approve the draft resolution on the Resolutions Forum (June 2021).

16 Update reports from Operational Groups

16.1 ICES Training Group

Katla Hrund Björnsdóttir (ICES Conference and Training Coordinator) gave an update from the Training Group with reference to Document 19.1-1.

An update regarding the online format of the training courses was presented, including a newly added clause in the instructors' contracts regarding copy right and privacy issues concerning recordings of the training courses. The clause states that all recordings are intended to facilitate participation from different time zones and should not replace possible live participation. All recordings from the training course will be stored on ICES hard drives and will be deleted after 2 weeks.

An overview of courses for 2020–2021 was presented. In 2020 ICES offered one physical course and two online courses and the year ended with a surplus of money coming in from courses. Two courses originally scheduled for 2020 have been cancelled until it is possible to host physical courses again. All courses in 2021 are organized as online courses, with five confirmed courses.

Within the ICES Joint work Plan 2019–2024 the Training Group is tasked to evaluate, develop, and implement a strategy for the ICES Training Programme. As a first step, the training group has sent out a survey to all participants that have attended a training course from 2015 – 2020 and received over 130 responses. The results will be used to develop and implement a further strategy in 2021.

Overview of promotion methods for the training courses was presented and national representatives to SCICOM and ACOM are encouraged to disseminate information about ICES training courses in their own organisations.

16.2 ICES Science Impact and Publication Group

Ruth Anderson (ICES Editor) presented a brief introduction to the remit of SIPG (see ToR), and a brief description of the new library system, which was approved by SCICOM in 2020, and will be hosted by the commercial platform Figshare. Expected go-live date is September 2021. Currently, SIPG and ICES editorial office, in coordination with Figshare, are planning how the library system and content will be structured. In addition: (i) SIPG has proposed that the ICES external publications database be incorporated into the new library in the form of a metadata-only library catalogue which links to the respective publishers – this will allow the database to be open to the public and searchable; and (ii) SIPG has developed a list of all historical ICES publications that are not currently in the library, and are establishing a priority ranking system for the digitization process.

Action: A request is made to SCICOM to enquire whether ICES material might already be digitized by member country institutions, and whether this content could be shared with ICES (to be sent to ICES Editorial Office). A list will be provided with the content of interest by ICES Editorial Office.

Some beneficial new functions of the Figshare library were listed, such as a better search function, contents indexed by Google and Google Scholar, and a clear and intuitive system to navigate between versions of a publication. The system supports many content formats, including audio-visual content. Citations can be exported, there is a built-in PDF viewer, and the number

of reads, downloads, and citations can be viewed, along with the social media attention generated (Altmetrics).

Other business:

- New publication series, ICES Business Report series. This is a 'sister' publication series to the ICES Scientific Report series, and contains reports from EG and committees with an ICES procedural, rather than scientific, content;
- New publication resolution;
- The TIMES and CRR author guidelines have been updated. Updates can be expected annually;
- The CC-BY licence has now been adopted for all ICES current publications. Commercial use is now allowed; there are also new disclaimer texts;
- There have been changes to personnel in the Editorial team – Associate Editor back from maternity leave and new Copy Editor;
- There have been improvements made to the Publications pages on the ICES website, where current and upcoming publications can now be seen.

Comments / Questions

- Question on whether the new library system has bibliometric analysis ability. It does, but the level of detail of the reporting capabilities will depend on the final structure decided upon. SIPG will update in September;
- The need for a custom disclaimer text was queried, since CC-BY licences already have a disclaimer. For ICES publications the need for an extra disclaimer comes from the fact that ICES is the author, but the contents are the views of the authors/committees/expert groups authoring the publication, and not necessarily of ICES;
- A comment that the ability to add tags to content is great and would need highlighting.
- Highlighting the importance of authors including DOIs in their references;
- Query about the advantages of using a commercial platform for our new library, and whether there are risks to it. SIPG conducted extensive research before committing to this solution. We have been guaranteed by Figshare that the content and metadata in the library is ours, and they will help to migrate out if we change our mind. In addition, we will still be keeping our own copies of all content. For reference, Figshare is owned by Digital Science, which also owns the Nature publishing group, among others.

16.3 Data and Information Group

Sjur Ringheim Lid (Chair of DIG) presented a proposal to clarify data policy and licensing, and the status of a unified data format for oceanographic data and rules for hosting external data services. DIG reviews the ICES Data Policy on a four-year basis, and as part of its last review a need for clarification was identified. The proposed changes were presented to SCICOM as a package consisting of an updated data policy, adoption of CC-BY 4.0 as a license for unrestricted data and specific licenses for restricted data that has been developed together with the respective governance groups.

Actions to be taken:

- Data policy and licensing to be divided and treated as separate issues. Licensing: CC-BY 4.0 is proposed to be adopted. It would allow appropriate credit to providers, but free and open to use at the same time;
- Restricted data license: existing licenses refactored to follow the same structure as CC-BY;

- Rules for hosting external data services: to set up a decision tree, to make clear rules for what needs to be in place when these are requested. This is currently being drafted by DIG and will be presented at the SCICOM September meeting, as well as to ACOM at the ACOM December meeting;
- For the oceanographic data delivery to only accept two community formats from July 2021: ICES Environmental Reporting Format (ERF 3.2) and Ocean Data View (ODV).

Discussion:

Q: What happens to data that is not presented in the two formats from July? A: 90% of providers use the two formats already. The aim is to work with them to provide them enough time to transition to these formats. It will not have a noticeable impact on the regular data flow.

Q: If a data provider has the data somewhere else in some commonly agreed format, is there a way to link that data to the Data Centre. A: Distributed data networks data have developed over a number of years, we link up to Seadatanet and Emodnet etc, who are linking distributed data. However for data products i.e. harmonized datasets and map layers, they take a similar approach to ICES in that they centrally collate these data and essentially make duplicates of the original data. Meta data is possible to link between different data collection centres, and there are mechanisms where example through the meta data catalogue to have a discovery service where you could find these sources.

Action: Rules for hosting external data services: to set up a decision tree, to make clear rules for what needs to be in place when these are requested. This is currently being drafted by DIG and will be presented at the SCICOM September meeting, as well as to ACOM at the ACOM December meeting.

Decision: SCICOM supported the changes proposed by DIG and recommended the [revised package of data licenses and data policy](#) for adoption by ICES Council in 2021.

17 Update from Strategic Initiative on the Human Dimension

Alan Haynie (Chair of SIHD) gave a short update from the Strategic Initiative on the Human Dimension.

Recent activities include many large expert groups meetings of the SIHD related groups, and many SIHD members have been very actively involved in COVID-19 related work (such as the ICES Webinar held in September and surveys of fisher and community impacts).

In 2021 SIHD started SIHD related Chairs (involving chairs of (WGECON, WGSOCIAL, WGBESEO, WGMARS, WGSEDA, WGRMES and WGHIST) meetings and one of the tasks going forward will be to develop the SIHD Roadmap 2021.

The SIHD roadmap was established in 2018 and the aim now is to make it an open document, trying to coordinate the goals of the different working groups. SIHD will solicit input from SCICOM in coming months to make sure the strategic initiative is connecting to all important areas.

SCICOM will receive an update on Workshop on Stakeholder Engagement Strategy (WKSHOES) to be held in June. The focus of the workshop is to provide the background for ACOM and SCICOM to formulate and develop a stakeholder strategy

SIHD leadership

Decision: SCICOM welcomed the news that Katell Hamon (the Netherlands) will be joining Alan Haynie as new Chair of SIHD.

18 Update from Advice

Mark Dickey-Collas, ACOM Chair, provided an update from Advice.

The major challenge for ICES as an adviser is how to keep advice resilient to the quality demands, and complexities of ecosystem-based management. Advice must be credible, legitimate, and relevant integrate fisheries and ecosystem advice and keep advice consistent across a broader set of requesters and sectors. ICES advises decision-makers and policy developers in governments and intergovernmental organisations that are in the Northeast Atlantic and Baltic, and occasionally Mediterranean and Arctic. Advice is currently based around narratives published pdfs and also giving advice as data products and visualisation tools. The ACOM chair presented a range of advisory activities in 2020 on fisheries and management plans, biodiversity, ecosystem and fisheries overviews, maritime and fishing and a new guide to advice.

ICES fisheries advice conforms to best practices based on best evidence, compiled data following data standards, agreed objectives, transparent decision making and access and participation. ICES also provides advice on wider issues than fisheries and this is given with an ecosystem based management awareness. The ACOM chair thanked the ICES community who have contributed to the ICES advice, in particular the overviews.

The production of advice is based on 4 key steps: 1) request formulation, 2) knowledge synthesis, 3) peer review, and 4) advice production. 10 principles of ICES advice was published in December goes through the four steps of advice in detail. A key principle of ICES advice is that it is explained without advocacy. The approach, framework and methods are explained in the [Guide to ICES advisory framework and principles](#). The guide has been refocused to be heavily focused to ecosystem based management.

The ACOM Chair presented what's new within the Advisory Plan priorities: assuring quality, incorporating innovation, highlighting benefits, sharing evidence, evolving advice and identifying needs. The ACOM chair presented the stocks for proposed benchmark that will be initiated in 2021 and completed in 2022, as overseen by the benchmark oversight group (BOG). The Secretariat is working on further development of taking the advice online and is working with DIG to improve the standards and approaches to data layers and interactive tools, as well as working with industry to improve data input and sense testing advice.

Discussion/Comments

Risk assessment is an important tool for aquaculture and renewables, where do you see that particular product of skillset fitting into the advice process? This has been highlighted by the Joint ACOM/SCICOM EBM group and is about prioritising objectives and understanding what the risks are in these situations. Different fields have different understandings of risk assessment and it may be worthwhile to have an ASC session on this.

What is the way forward with regards to the evolving policy on EBM? Will the legislation be revised and is ICES contacted to provide advice on this revision? ICES played a fundamental role as an adviser jointly with JRC, in setting up the Marine Strategic Framework Directive (MSFD) and in the reform. ICES has been approached by HELCOM in the preparation of the Baltic Sea Action plan, particular on fisheries. ICES is in conversation with OSPAR on the quality status report, as well as requests from NEAFC and OSPAR. ICES is talking to many of the international commissions and conventions, and the weakness may be that ICES is not talking to the national countries as much.

Evolving advice and identifying needs of advice is particularly interesting. What is being developed in a country is dependent on what is being developed internationally and looking into how

to work with trade-offs in a scientific and transparent way. Is the evolving advice being discussed with regards to the parallel development in national and international scales. And what is new with regards to the ecosystem productivity assessment? At the moment, ICES has a particular approach on trade-offs, where ICES, with DGENV, is feeding into the WGS process with trade-offs with seabed impact, value and quantity of fish landed. These workshops are currently ongoing. With regards to the ecosystem productivity, now have listed from every single working group (data limited and data rich) where productivity/changing in productivity has been incorporated in to the stock assessment, forecast or the management strategy evaluation. That is now available in an excel spreadsheet and will be added to a database that is updated every time a stock is benchmarked.

19 Annual Science Conference Subgroup

SCICOM Chair, with reference to Document 22-1, presented the ASC subgroup work. The ASC Subgroup worked through the course of the last couple of months focusing on the format for the Annual Science Conference, considering the implications of remote participation in the future. The following Terms of Reference for the Subgroup were drafted keeping in mind the challenges presented to the ASC:

- a) Identify how to ensure remote participation at the ASC, and identify the options and feasibility for an extra online component;
- b) Identify implications of the above on theme and network sessions;
- c) Explore how the extended remote participation and online formats will affect the awards;
- d) Define the timelines and priorities for the ASC 2022, including the call for theme and network session proposals.

Currently the baseline is to focus on the ASC being a physical conference since there is a decision on the venue which will define the time zone for the conference. The core of the work of the ASC Subgroup is to explore ways to ensure remote participation as well as a possibility for exclusive online components to increase the outreach of the conference. The current number of sessions will be kept but the number of parallel sessions will be decided at a later stage.

A very specific activity that needs to be considered is the way we give merit awards (best presentation and best poster) since a physical presentation is very different to a remote presentation we need to think further about the approach to be taken. An Award Selection Group will be appointed to engage in discussions regarding the criteria to be developed for the mixed presentation formats.

The call for session proposals for ASC 2022 will be announced after the SCICOM March meeting and there will be no changes in terms of numbers and topics. However, we need to consider resource implications in terms of the technical facilities at the venue to allow remote participation. ICES would like to learn from other organizations and conferences that are run using a hybrid meeting format and are experiencing similar challenges.

20 Update on ASC 2021

Katla Hrund Björnsdóttir (Conference and Training Coordinator) presented the updates on the plans for ASC 2021. Current plans are made for a virtual conference due to the pandemic. The contents of the conference will remain the same as planned for ASC 2020. The virtual platform for the conference will be an app called Whova. Access will be given to participants two weeks prior to the conference, including access to pre-recorded presentations and virtual poster presentations. Pre-recorded presentations will have a maximum duration of 6 minutes. An ECS forum and how to get involved with ICES is also being planned. Registration for the conference will open soon.

Actions:

The draft programme was presented and SCICOM members were asked to send their comments to ICES Conference Coordinator, with regard to theme sessions that should not run concurrently.

SCICOM members were encouraged to volunteer for the online mentoring of ECSs (Mike Rust, ASG Chair, Debbi Pedreschi, IEASG Chair, Alan Haynie, SIHD Chair, and Julie Kellner, Secretariat, volunteered)

Decision: The following SCICOM members volunteered to convene the ASC 2022 Contributed Papers Session: Antonina Santos, Portugal; Joël Vigneau, EOSG Chair; and John Pinnegar, UK.

20.1 Appointment of Award Selection Group for ASC 2021 (tasked to select the ASC merit awards)

Decision: Lidia Yebra, Chair, Spain; Mike Rust, ASG Chair, Gudmundur Oskarsson, Iceland, Antonina Santos, Portugal, Svetlana Kasatkina, Russian Federation; and Myron Peck, ACOM member (TBA) were appointed for the 2021 ASC Award Selection Group.

21 ASC 2022

21.1 Appointment of 2022 ASC Group

Francis O'Beirn (SCICOM member, Ireland) presented updates regarding ASC 2022 in Dublin. The conference will be hybrid, which will be a challenge as a first hybrid conference organized by ICES. The planning is in its very early stages, but a conference coordinator has been appointed from the Marine Institute in Ireland. More updates to follow at the SCICOM September 2021 meeting.

Decision: Francis O'Beirn, Chair, Ireland, Steven Degraer, Belgium, EPDSG Chair; Brian MacKenzie, Denmark; Pierre Petitgas, France; Maris Plikshs, Latvia; Rafael Gonzales-Quiros, Spain; Joël Vigneau, EOSG Chair; Jos Schilder, the Netherlands; John Pinnegar, UK; Mark Dickey-Colias, ACOM Chair; and Henn Ojaveer, ACOM Vice-Chair were appointed for the 2022 ASC Group doing the pre-selection of 2022 theme and network session proposals for final decision of SCICOM and to support the whole planning process.

22 Dates of next meeting and closing

SCICOM Chair asked for comments on whether to plan the SCICOM September meeting after the ASC, or to keep the original format with a meeting day before the conference and a meeting day after. Comments were made that after the ASC would work fine, and it was suggested to avoid meeting during weekends. The meeting would be held as an online meeting. The dates will be communicated to SCICOM.

Considering that the structure for this meeting was slightly changed to limit the time for presentations and allow more time for discussion, SCICOM Chair encouraged members to provide feedback on this.

SCICOM Chair thanked for good attendance, interesting presentations, and lively discussions, and thanks were also extended to the Secretariat supporting team for all the meeting preparations.

Annex 1: List of participants

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Annex 2: National UNDOS activities

Belgium

Belgium has discussed launching initiatives several times, in particular in relation to the ASC in 2023 or 24. The Belgian SCICOM member will follow up on any concrete plans.

Canada

Canada, hosted by DFO, held a [domestic launch event](#) for the Ocean Decade on March 3 to highlight and provide information about the Decade. A follow-up workshop is being planned for May 2021 that will dig into potential Canadian priorities and outline a framework for Canadian engagement (details TBC).

Canada, led by DFO, is in the process of setting up its National Coordination Committee and expects this to be established by early spring 2021. (lead Allison Webb; Allison.Webb@dfo-mpo.gc.ca)

Canada is participating in the ICES-PICES Ocean Decade group with Arran McPherson (DFO) co-chairing and Andrea White (DFO) and Jen Jackson (Hakai Institute) representing Canada.

Canada was active during the Ocean Decade's Preparatory Phase (2018-2020) including:

- co-hosting the North Atlantic Regional Workshop with Ocean Frontier Institute (January 2020)
- co-hosting the virtual North Atlantic Co-Design Session with the USA and European Commission (November 2020)
- co-hosting three virtual sessions (November 2020, February and March 2021) with IOC and Canadian Commission for UNESCO to discuss how to advance gender equity in ocean science and to promote the empowerment of women and girls in the Ocean Decade
- participating in various other regional and global events and workshops.

Canada is pleased to be hosting the ICES-PICES Early Career Scientist Conference in St. John's, NL in May 2022 which is aligned with Ocean Decade themes.

Iceland

MFRI has been in contact with the Ministry about UNDOS but nothing has been decided on the national activities yet. MFRI will follow up on this.

MFRI agrees that UNDOS should serve as a valuable platform to step-up, highlight our work and the oceans affairs and seek for more funding.

Iceland is eager to learn what other institutes/countries are planning.

Ireland

Ireland is in the process of setting a national committee on UNDOS and hopes to engage with other national bodies that have submitted proposals and are engaging with the Ocean Decade.

Spain

Spain is currently setting up a UNDOS national committee that the Spanish SCICOM member will take part in. One thing that is missing from the topics outlined in the ICES-PICES proposal is ocean observation, not only in relation to physical oceanography but also to the input of biological parameters and integrated ecosystem observation. This is something to keep in mind with the planned ICES-PICES activities.

Portugal

Portugal has an inter-oceanographic committee that supports the UNDOS. There are several initiatives that are already planned, such as the All-Atlantic 2021 on the Azores, a high-level ministerial and stakeholder conference and in 2022 will host the International Symposium on Small Pelagic Fish as well as the UN Ocean conference.

[Portuguese Committee for the IOC](#)

France

The National Agency will be launching a multi-year call on the ocean, which has a priority programme on different topics: impact of climate change, multiple stressors, more resilient ecosystems, governance and sustainability, twin model of the ocean and ocean literacy. The French SCICOM Alternate is part of the national programme. At the moment, unsure if there is a French national committee on UNDOS. The Working Group on Machine Learning are also partly involved in the digital twin ocean model call in the Green Deal, which can also be followed up on.

United States

Links to activities coordinated by the national academy of sciences and coordinated by NOAA:

<https://www.nationalacademies.org/our-work/us-national-committee-on-ocean-science-for-sustainable-development-2021-2030>

<https://www.research.noaa.gov/UN-Decade>

Lithuania

Thanked the SCICOM Chair for making the Lithuanian SCICOM member aware of UNDOS activities and will reach out to the regional government who has declared the ocean as a priority area and will ask about national UNDOS activities.

Norway

Institute of Marine Research has submitted a workshop on integrated monitoring and data management with Ifremer, ICES and NOAA, and this workshop will take place on a cruise ship that will sail around the world to discuss data management, data availability and data analysis.

United Kingdom

[UK National Decade Committee \(NDC\)](#)

Netherlands

The Dutch SCICOM Member will use input from the meeting to activate and motivate people at the ministries in the Netherlands.

Annex 3: List of SCICOM actions and decisions

Action/Decision	Section	Deadline	Responsible
Action: SCICOM national members requested to send information on national UNDOS activities relevant to ICES, including contacts to national focal points of planning groups, to the SCICOM Chair.	6 ICES/PICES Ocean Decade Steering Committee (IPOD SC)	September SCICOM meeting	SCICOM national members
Action: Breakout Group 1 members were tasked to contribute to finalizing the report, based on the Jamboard sticky notes.	7.1 Link to national science activities	done	Breakout Group 1 members
Action: SCICOM Chair will summarise and propose actions to be discussed at the SCICOM September meeting.	7.2 Increasing international collaboration	31 August 2021	SCICOM Chair
Decision: SCICOM approved the two submitted resolutions, including the requested support.	8.3 ICES co-sponsored symposia, including approval of draft resolutions	done	-
Action: ASG Chair invited the subgroup leaders and WGOH to give a presentation at one of the monthly ASG webinars on "What can oceanography do for aquaculture"?	10 Engaging oceanographers in ICES	September SCICOM meeting	Subgroup leaders/WGOH Chairs
Action: The subgroup should investigate how engagement with the community working on Digital Twin Ocean can be established. What role do other organizations play, e.g. the Copernicus Marine Service.	10 Engaging oceanographers in ICES	September SCICOM meeting	Subgroup leaders
Action: SCICOM Chair noted that there was general support in favour of putting forward a draft resolution for a new Strategic Initiative on Early Career Scientists. SCICOM members would be asked to review and approve the draft resolution on the Resolutions Forum (June 2021).	15 Early Career Scientists	June 2021	SCICOM
Action: A request is made to SCICOM to enquire whether ICES material might already be digitized by member country institutions, and whether this content could be shared with ICES (to be sent to ICES Editorial Office). A list will be provided with the content of interest by ICES Editorial Office.	16.2 ICES Science Impact and Publication Group	List has been provided (see SCICOM Forum).	SCICOM / ICES Editor
Action: Rules for hosting external data services: to set up a decision tree, to make clear rules for what needs to be in place when these are requested. This is currently being drafted by DIG and will be presented at the SCICOM September meeting, as well as to ACOM at the ACOM December meeting.	16.3 Data and Information Group	September SCICOM meeting	DIG Chair
Decision: SCICOM supported the changes proposed by DIG and recommended the revised package of data licenses and data policy for adoption by ICES Council in 2021.	16.3 Data and Information Group	done	-

Action/Decision	Section	Deadline	Responsible
Decision: SCICOM welcomed the news that Katell Hamon (the Netherlands) will be joining Alan Haynie as new Chair of SIHD.	17 Update from Strategic Initiative on the Human Dimension	done	-
Action: The draft programme was presented and SCICOM members were asked to send their comments to ICES Conference Coordinator, with regard to theme sessions that should not run concurrently.	20 Update on ASC 2021	done	SCICOM
Action: SCICOM members were encouraged to volunteer for the online mentoring of ECSs (Mike Rust, ASG Chair, Debbi Pedreschi, IEASG Chair, Alan Haynie, SIHD Chair, and Julie Kellner, Secretariat, volunteered)	20 Update on ASC 2021	July 2021	SCICOM
Decision: The following SCICOM members volunteered to convene the ASC 2022 Contributed Papers Session: Antonina Santos, Portugal; Joël Vigneau, EOSG Chair; and John Pinnegar, UK.	20 Update on ASC 2021	done	-
Decision: Lidia Yebra, Chair, Spain; Mike Rust, ASG Chair, Gudmundur Oskarsson, Iceland, Antonina Santos, Portugal, Svetlana Kasatkina, Russian Federation; and Myron Peck, ACOM member (TBA) were appointed for the 2021 ASC Award Selection Group.	20.1 Appointment of Award Selection Group for ASC 2021 (tasked to select the ASC merit awards)	done	-
Decision: Francis O'Beirn, Chair, Ireland, Steven Degraer, Belgium, EPDSG Chair; Brian Mac-Kenzie, Denmark; Pierre Petitgas, France; Maris Plikshs, Latvia; Rafael Gonzales-Quiros, Spain; Joël Vigneau, EOSG Chair; Jos Schilder, the Netherlands; John Pinnegar, UK; Mark Dickey-Collas, ACOM Chair; and Henn Ojaveer, ACOM Vice-Chair were appointed for the 2021 ASC Group doing the pre-selection of 2022 theme and network session proposals for final decision of SCICOM and to support the whole planning process.	21.1 Appointment of 2022 ASC Group	done	-