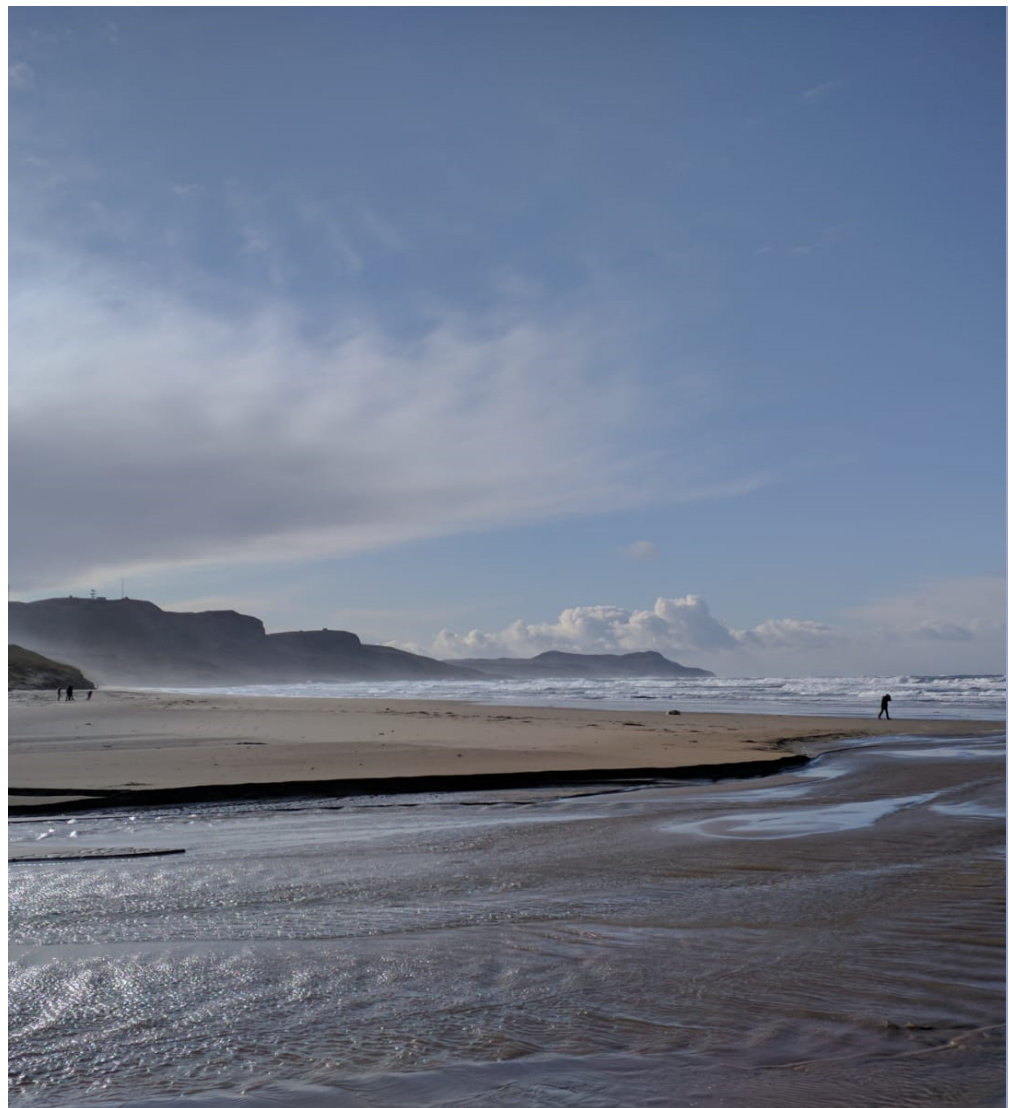


Annual Meeting Between ICES, Advisory Councils and Other Observers (MIACO)

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i Executive summary

MIACO is the annual meeting between ICES and Advisory Councils and other Observers. An overview of the advice process and the advice provided in 2023 was given. MIACO was invited to review the advisory process in 2023 and to discuss any issues and concerns that had arisen since the 2023 MIACO meeting. Unexpected changes in advice after benchmarks was raised as a concern and ACOM is working to address this. MIACO was also informed that ACOM were planning to discuss mixed stock fisheries guidelines at their meeting in March.

MIACO 2024 specifically considered quality control and developments to improve quality and transparency of the assessments and advice. It was agreed that there had been significant progress but further work was needed. A link to TAF for the stocks/advice that have been through the TAF process should be included in future.

Two ICES roadmaps were presented and discussed. The Offshore Marine Renewable Energy Roadmap was published the same week as the meeting. MIACO expressed interest in cumulative and combined effects, mentioning concern regarding lack of knowledge on ORE impacts. ICES is working on a Special Request and is collaborating with OSPAR and others in this key area. An advanced draft of the ICES Endangered, Threatened and Protected (ETP) species by-catch roadmap was also presented and discussed. Input was sought from MIACO to the draft which will be published later in the spring.

Other key advice topics discussed included; conservation advice, VME advice, reference points, rebuilding plans and mixed fisheries. The most recent developments around stakeholder engagement and the conclusions of WKSTIMP, WKAFPA and WKENSURE were discussed these will be followed up on by ACOM in March. MIACO were also briefed on the plans and process for the Science and Advisory Plans revision and inputted to a prioritisation exercise around science needs.

1 Welcome and opening of the meeting

MIACO was welcomed by ICES president by Bill Karp who emphasised the importance of expertise brought in on all levels of the system. And that the network is way bigger than the individual contributions which is the collective strength of a collaborative organization.

ICES General Secretary, Alain Haney, welcomed the meeting and the new ACOM Chair. He underlined the importance of the stakeholder engagement and how important this is to ICES; stakeholders are recognised as an essential part of the system.

The new ACOM Chair, Colm Lordan, presented himself, his background experience and vision for his time as ACOM Chair

The welcomes and introductions were followed by presentation of meeting etiquette and code of ethics and professional conduct. <https://doi.org/10.17895/ices.pub.21647825> and participants presented themselves in a round table of introductions (see list of participants in Annex 1).

2 Adoption of agenda

The agenda (See Annex XX) was presented by the Chair and was adopted by the meeting

Dates suggested for MIACO 2025 are 23–24 January 2025.

3 Review of 2023

An overview of the advice process and the advice provided in 2023 is given in document 03.

The transparency in the benchmark process was raised as it was perceived not being complete given that the BOG reports are not publicly available; an example case in the Central Baltic herring where a minority statement in the benchmark report got 'disclosed' through the process and was not discernible in the final advice outcome. ACOM will reflect upon this 'gap' in transparency. The BOG consists of ACOM and SCICOM members and is supported by the Secretariat. The members are appointed by the Committees. In terms of ICES working procedures, these are available in the following guidelines:

[Guidelines for ICES groups](#)

[Frameworks and Principles](#)

[Advice on Ecosystem Services and Effects](#)

[Advice on fishing opportunities](#)

Recommendations from the WKRRCod led to inconclusive discussions in ACOM. WKAFPA will feed into this discussion and elaborate on how to be operational including data from other sources than surveys run by institutes, etc. Pre-meetings to working groups where

industry/stakeholders can feed into the work has been discussed as well. ACOM will pick this discussion up when they meet in March.

The advice provision and formulation of advice requests was raised in terms of the responsibility of ICES and managers, specifically with a focus on EB(F)M. During MIRIA this was discussed at a general level and in order to get a more detailed input on specific issues (risk management in relation to rebuilding plans and other factors), technical meetings under the umbrella of MIRIA has been formed to operate during 2024. A detailed guideline concerning the formulation of advice requests can be found at [ICES \(2023\)](#).

Bias/retrospective patterns are focus and quality metric for all stock assessors. There are a variety of reasons for retrospective bias and these quite often are stock-specific. The benchmarks are the main avenue for dealing with these patterns, and BOG is involved to identify any patterns apparent across benchmarks.

DLS methods was raised as lacking input from stakeholders when it was made operational for individual stocks. Closer engagement with the stakeholders is needed and to improve the underpinning data and evidence for assessments e.g. reference fleets could be explored. Improved information on the catch data across the year and other monitoring of the individual stocks will be taken into consideration when selecting the assessment models and capacity to benchmark.

Finally, the Northern Shelf Cod advice process was brought up. Some MIACO participants stated that this was lack in transparency in the final advice production step. ACOM Leadership explained the circumstances and rationale behind this. The main focus for ACOM was to make an implementable advice, thus the mixed-fisheries advice approach was chosen. This was the first time such a situation has arisen, thus as well a learning experience and the feedback from MIACO was considered very useful to carry forward. The mixed stock fisheries will come up with the same complexity for other species (herring, salmon, cod, others). ACOM will discuss in March on how to generalise guidelines for mixed stock fisheries and how to inform managers about mixed stock complexities of this without jeopardising the credibility, independence and consistency of the advice.

Action: ACOM to discuss mixed stock fisheries guidelines at their meeting in March.

4 Quality assurance of ICES Advice

4.1 Towards a Quality Management system

ICES advice is produced through an advisory process built on its ten principles. At its March 2023 meeting ACOM approved the Quality Policy proposed by WGQUALITY, the foundation of which is these ten principles. This has now been published at <https://doi.org/10.17895/ices.pub.23864760>

ACOM also agreed at its meeting to begin to implement procedures to deliver the quality management system to meet the requirements of ISO 9001:2015. To that end a workshop [Workshop on the ICES Quality Management System. (WKQMS)] is planned for 2024.

MIACO was invited to comment on recent ICES developments related to QA. A representative from a fishermen's organization (KFO) noted the importance of the subject and welcomed the development even though it is slower than hoped for.

The ISO certification is an important step but work on quality assurance and TAF can be progressed at this stage. An important aspect is to ensure the system is robust and to look for ways to test robustness. The ACOM vicechair replied that once the QMS is in place, we will be able to look into objectives and targets to check for success and robustness.

Action: Include a link to TAF for the stocks/advice that have been through the process

Pew charitable trusts was also happy to see this development as it connects to the principle 8 of ICES advice and the need to be consistent. However, more clarity is needed to explain the inconsistency between special requests and advice.

The ACOM vicechair responded that it will be included when looking at targets and objectives.

4.2 Reproducibility of ICES advice

To ensure that the quality assurance and quality checks are kept up to date there have been transformative developments going on with the Transparent Assessment Framework (TAF) and Regional Database and Estimation System (RDBES). These tools will give insight into the sampling and fisheries data and help address the underlying complexity, scale and resolution of the data and process that goes into the production of advice. Ultimately there will be fully reproducible dataflows into and out of the assessments (models).

TAF was officially launched at the end of 2018 and was created to reduce the workload of assessment groups and achieve transparency and reproducibility of ICES advisory products by developing a new way of working for the expert community with a supporting system linking to existing and new databases and providing tools. TAF is a multifaceted tool that incorporates guidelines and rules on coding practices (the TAF workflow) using R as the coding language; it uses version control (Git) to track changes to codes, and GitHub for online storage. It facilitates access to data web services through the development and maintenance of R packages, providing connectivity to a range of ICES databases and systems.

In 2022 and 2023 a considerable focus was put on training experts in using TAF since the number of stocks implemented in TAF had declined since its implementation in 2019. This focus on TAF has led to an increase not only in the stocks that have been implemented into TAF but also in the number of users using TAF for stock assessments. Although TAF was initially designed to make stock assessments reproducible and transparent, it has also been used to make other processes more transparent such as Smartdots, VMS data products, Fisheries Overviews and indices in eggs and larvae.

The future development of TAF in 2024 will include increased hands-on training at marine institutes throughout the ICES area, the creation of more ready-to-use templates for stock assessments, development of an online interface (tafXplorer) which will allow users to browse and interact with TAF analyses and go deeper into the code, methods and results behind advice products, and a TAF database where a wide variety of outputs from the analyses used to produce ICES advice will be stored and made available. Also, there will be the development of TAF workflows for RDBES, and Acoustic indices.

MIACO thanked the secretariat for their efforts and said it's welcome to see the increase in the use of TAF. The problem is it is still difficult to find errors in the code itself. What steps do we have in place to ensure that these sorts of bugs are found, and the same goes for the ICES R libraries. The answer given was that there are a few working groups already that do an internal audit of their code. The ICES R packages supporting the data extraction and building and creating the workflow for assessments are all published on CRAN (Comprehensive R Archive Network) and they have their quality assurance checked before R libraries are published.

Also, ICES is moving away from a system where there was no transparency and people are running scripts on their own computers, to a transparent system where the code can be viewed and audited. Building a culture of transparency is a work in progress, but ICES is moving in the right direction, and if you consider groups like the WGSFD which have built visualisation tools to quality assure their processes, you can see the direction ICES is heading. Bespoke databases are part of TAF and are supported by the ICES data centre who have expertise in database design and implementation.

This is a laborious process involving a lot of back and forth to get the code reviewed and publicly available. But we are looking to do further automation in the future, which is something further implementation of TAF will support.

5 Transparency of ICES advice

5.1 ICES Guidelines on the formulation of advice requests (Doc 5a).

In October 2023 ICES published a new guideline the formulation of advice requests <https://doi.org/10.17895/ices.pub.24338032>. Transparency of the advisory process is best practice in the provision of advice for societal decision-making. The intended audience of these guidelines is ACOM, requesters of advice, and informed interested third parties.

The guidelines describe the process agreed upon by ICES Advisory Committee (ACOM) for the development of both recurrent advice and special advice requests. Transparency of the advisory process and the delivery and publication of clear and unambiguous advice is fundamental for an effective ecosystem approach and best practice in the provision of advice for societal decision-making. Any ICES Member Country or intergovernmental organization that has an agreement/memorandum of understanding with ICES can make an advice request. The guidelines are

designed to underpin the legitimacy and relevance of ICES advice. While the nature of advice requests is broad, and each advisory product is individually tailored, the mechanism by which the requests are formulated does conform to a process, and the guidelines describe that process.

The differences in the processes for recurrent and special requests was explained, including the formulation of MoUs and grant agreements and the screening process that is carried out for all special requests.

As MoUs, grant agreements and special request are only shared when approved by both the requester and ICES, it was requested how stakeholders can be involved in the formulation of the requests to ensure relevance of the advice products for all stakeholders. The Chair acknowledged that it is important to consider how stakeholders are included in the process, but that it is also important to outline that the requesters are in the driver's seat and to decide how much they wish to involve stakeholders as they are the ones paying for the product. It was highlighted that some previous requests have been direct response to interactions with stakeholders.

In this connection MIACO requested if a joint session of MIRIA and MIACO could be arranged.

EU-DGMARE informed that they are aware of the concerns raised by stakeholders and are planning a dedicated meeting with relevant advisory councils and stakeholders before a finalization of the 2025 grant agreement with ICES.

5.2 AdviceXplorer

Luca Lamoni presented the adviceXplorer together with the infrastructure that has been developed to support it, highlighting the beta release in January 2023 and subsequent full release in June 2024. It was noted that ICES successfully updated the application in parallel to new advice releases. Development objectives for the adviceXplorer in 2024 were outlined, including:

- Addressing graphical inconsistencies for stocks with custom reference points
- The addition of substocks where these are subject to assessments
- The ability for Stock Assessors to upload Catch Scenario using the icesASD R package.

A walkthrough using the adviceXplorer was conducted before MIACO were asked to comment.

MIACO expressed a desire to be able to aggregate more disaggregated data in order to be able to view fleet segments or gear types individually, and to include additional catch scenarios in the management options. ICES clarified that stocks with different components will be addressed in the future, but that the adviceXplorer should match the advice given in the advice sheet. The catch scenarios presented are those specified in the MOU's with advice requestors or following Special Requests.

The chair noted the existence of applications under development with the ICES community that may be able to display the information being requested (e.g. by WGMIXFISH), but that are not currently available. Discussions in MIRIA were referenced, noting the potential use of Shiny applications to display multiple options for multidimensional trade-off advice needs.

6 Evolving Advice

6.1 Advice on conservation aspects

The ACOM vicechair Henn Ojaveer presented doc 6a. The conservation advice (CA) was also presented a year ago and the technical guidelines were published in 2023. Some changes in the guidelines were presented based on the experience on the 2023 application. Examples of stocks where CA was implemented were shown.

MIACO raised why the effect of seals and cormorants on Baltic cod are not mentioned under conservation advice for these stocks. BSAC carried a workshop in 2023 on seal and cormorants in the Baltic showing that their effect in the cod stocks is significant. However, this is not taken into account until now in the assessment. There are also two projects being carried out by DTU aqua on Baltic on seals and cormorants.

One of the ACOM vice-chairs mentions that this issue is related to the second bullet point in his presentation under “Background” (i.e. the poor status of these stocks is directly associated with changes in the ecosystems/habitats, or combination of ecosystem/habitat change). Natural Mortality can be re-evaluated based on seal and cormorants’ predation where estimates exist. Quantitative estimates of M can be included into the conservation advice section.

Another ACOM vice-chair clarifies that until now ICES has, in some cases, changed the M in stock assessments based on the abundance of predators. Multispecies models can also be used to estimate M from predation. The projects currently ongoing at DTU aqua could help to tune M for Baltic cod assessments in the future.

It is also mentioned by the ACOM vice-chairs that for Baltic cod higher predation is combined with shortage of demersal food and oxygen depletion, these cumulative effects contribute to the poor status of the cod stocks.

MIACO also notes a mistake on one slide; there are 4 additional herring stocks not shown in the list of 14 stocks for which conservation advice was provided in 2023. These are herring in 6a N, in 6a S, in Irish Sea (7a) and herring in 7.a South of 52°30’N, 7.g–h, and 7.j–k.

The ACOM vice-chair indicates that additional stocks may be added in 2024 since 2023 was the first year when conservation advice was incorporated and the head of the advisory department notes that HAWG discussed conservation advice for all its stocks. Scientific evidence was higher for those stocks for which habitat disturbance (e.g. dredging) was identified as an issue.

MIACO also questioned why the section on conservation advice relates only to species affected by pressures different to fishing since fishing is still an issue affecting species and stocks. It was also noted that the conservation advice section is included for some stocks identified as of conservation concern by IUCN (e.g. Basking shark). On the other hand, for other species also identified as a concern by IUCN (roundnose grenadier) no section on conservation advice is included.

The 2023 paper by Trenkel et al. (Marine Ecology Progress Series, MEPS) where the inclusion of ecosystem considerations (EBFM) in stock assessments is considered, was also mentioned.

The ACOM vice-chair notes the high expectations regarding conservation advice (i.e. expand it to all stocks), which is good. 2023 was the first year when this section was included in the single stock advice sheets and ICES decided to start with those stocks where there is a clear signal of other threats than fishing.

Whether some IUCN highlighted species are included or not, depends on the ICES decision tree presented. When no conservation aspects are identified for a stock (even if it is a IUCN species of concern) then no more information (i.e. conservation advice section) is provided.

Action points:

MIACO were asked to provide comments and feedback to ACOM leadership by the end of January. ACOM to discuss the inclusion of the conservation advice section in all stocks. ICES to evaluate what is possible in coming years.

6.2 Progress towards rebuilding scenarios in the advice

MIACO was informed about the work that had been done in WKREBUILD 2 in November 2023, and why ICES needs rebuilding advice. A simulation tool for rebuilding was developed before the meeting and tested there on three case studies (western Baltic spring spawning herring, western horse mackerel and Celtic sea whiting). Everything undertaken was fully consistent with TAF. It was explained that the final rebuilding HCR would be chosen by consultation with managers from a subset of possible HCRs, with the default being the one providing the highest cumulative catches over the rebuilding period. This new framework was presented to ACOM in December presented to ICES Working Groups in 2024. ACOM agreed to implement the work for Celtic Sea whiting and western horse mackerel already in 2024, but not WBSS herring, as the stock is scheduled for benchmark in 2025.

MIACO questioned the timing of the meeting in November as it meant that many interested parties could not attend, due to clashes with negotiations. MIACO asked if periods of lower production in the simulations tested would impact on current reference points. Leadership explained that regime shift had not been considered here and should rather be considered at a benchmark. There would need to be evidence from science that the productivity change is not reversible. This work assumed reference points were well-defined.

MIACO asked how it had been decided that $2 \cdot T_{min}$ was the appropriate time frame for recovery? Some would have preferred a number of generations. ACOM leadership acknowledged that this was somewhat of a subject choice but this is a timeframe used in other parts of the world, and looking at the case studies thought that it was a reasonable target (technically the UN agreement calls for 'quickest possible' recovery).

Clarification was asked for concerning using WBSS herring as an example as this contrasts with central Baltic herring: both are below B_{pa} , but recruitment has dropped in WBSS herring, whereas in the central Baltic herring it is a case of too high a F . Would simulations still consider poor recruitment scenarios if they were looking at rebuilding for the Central stock? It was stated that this would only be done if there was evidence of a recent low productivity period.

MIACO asked if the rebuilding plan for western horse mackerel put forward by PelAC has been examined as part of the meeting. Leadership confirmed the current plan was tested and found not to be precautionary.

It was clarified that ACOM considered that the advice sheet in the future could show several HCR options in the options table for managers to consider in the first year. In the following years one HCR will need to be chosen and consistently applied until recovery.

It was noted that useful information from the WKREBUILD2 was gained, such as showing that $MSY B_{trigger}$ was not well defined for WBSS herring (SSB jumped from above it to below B_{lim} in

one advice period). ACOM leadership conformed that this will be taken into account at the benchmark.

MIACO asked if there was any useful information for future collaborations on selective fishing impact for all species, especially small pelagics? It was stated that no analyses on gear selectivity were undertaken, but these kinds of simulations could be used to explore possible impacts of future selectivity changes. If managers want to consider rules that improve selectivity, this could be examined, however post escapement survival, which is very difficult to estimate, may be an issue for some species.

MIACO were interested to note that rebuilding starts from B_{pa} and not B_{lim} in the new framework. This would imply a lot of work if bringing this in for all stocks, especially in the Baltic. ACOM leadership confirmed that in principle rebuilding scenarios could replace the current MSY rule approach below B_{pa} but this will require further dialogue.

6.3 Fisheries reference points

MIACO was informed about the upcoming WKNEWREF meeting. The WK is a key step towards making a proposal for a potential new definition of reference points based on the application of theory in practice. It will be held 5-9th February 2024, chaired by Cólín Minto (Ireland) & Dorleta García (ICES). There is expected to be a large turnout (~50 experts, dealing with ~20 stocks). They will empirically test the proposal of previous working groups on reference points (WKREF1 & WKREF2) to identify advantages and disadvantages of the different approaches and propose reference points for the stocks considered. The WK will report to ACOM in March 2025. ICES does plan to inform and discuss developments from this workshop with managers before implementing any outcomes in the advice system. WKREFFRAME later in 2024 will make the final proposal on the new framework, and managers will be consulted before then in a MIRIA subgroup meeting.

Some MIACO members questioned the change of direction ICES from a focus on fishing mortality (F) reference points towards biomass (B) targets. The previous F-based approach was viewed as a strength of the ICES approach, and it was noted that the EU CFP approach to MSY focusses mainly on F rather than B reference points. Various MIACO members felt that determining B_{msy} and B_0 based reference points often involves extrapolation beyond observations and as such they are affected by subjective choices during the calculation. They may also rely heavily on historic data that ignores potential subsequent ecosystem changes. Biomass reference points may be unstable and highly uncertain. Other members of MIACO welcomed the move to incorporate B_0 or B_{msy} based reference points in the framework, noting that having higher target biomass reference points could lead to more resilient stocks. It would also bring the ICES framework in line with other areas of the world that used B_{msy} based reference points to define status. Of course ICES already uses biomass reference points and triggers such as B_{pa} and MSY $B_{trigger}$ are used to determine status. MIACO would want very strong evidence to move away from the current approach.

ICES replied that it has always had biomass reference points as part of its framework and will continue to have both F and B reference points. Biomass points are needed to avoid collapse and know the status of stocks. It is true that in recent years B_0 approaches have been applied in some cases, and this approach is part of the proposal from WKREF2 to examine. WKNEWREF will check to see how this approach, alongside others, works across a range of stocks in

practice. The basis for defining and estimating reference points will not be changed without thorough testing and consultation.

MIACO wanted to know what the requesters of advice felt about these potential changes in the reference point framework. There was no request from clients to re-evaluate the framework. Rather, internal concerns about the existing framework have led to this work (current framework has some frailties, ICES reference points being incorrectly used in some fora, trying to improve consistency and appropriateness of points etc.). There are a lot of complexity and issues, so this process was required to thoroughly revisit the reference point framework. This was discussed at MIRIA, and the findings of WKNEWREF will be reported back to managers to discuss how to progress further to ensure consistency with their legal requirements and international best practice.

MIACO noted the interaction between this process and the REBUILD process. If significant changes to the reference point framework occur, there may suddenly be many more stocks requiring rebuilding. They hope ICES will be pragmatic in its approach, producing realistic reference points rather than speculative/academic ones. There was also a preference to allow experts to have freedom to decide the best approach for specific situations, rather than having a general rule for setting all reference points i.e. scientists should investigate all options, rather than it being a bureaucratic approach. ICES replied that the current approach allows such flexibility but is structured through the approved guidelines. Deviations from the guidelines are allowed with good reasoning, and a similar approach will apply in future. Guidelines are required to be more objective and to help ensure consistency amongst stocks.

7 ICES Roadmaps

7.1 Offshore Marine Renewable Energy Roadmap

ICES presented the Offshore Marine Renewable Energy roadmap (Doc 07) and announced its press release on ICES website. General needs and challenges for ICES were outlined, as well as data, science and advice objectives for the roadmap, and priority actions and next steps were described.

MIACO asked whether this is a new chapter in ICES work or if it has been involved in monitoring ORE developments that have been ongoing in the last 20 years. ICES replied that for many years planning decisions have been made on a national level, and ICES has had working groups working on issues such as cumulative effects. There is now an increase in transnational issues and cumulative effects on a much larger scale, where ICES can play a broader role, for example best practice for monitoring discussions in member countries, on territorial waters, among others. ICES will start reaching out to working groups who have been gathering and working with this data. Transnational cooperations will be crucial to deliver evidence joined up thinking in the ICES network could facilitate it.

MIACO expressed interest in cumulative and combined effects, mentioning concern regarding lack of knowledge on ORE impacts, specifically from turbine decommissioning, and asked if ORE-related advice will be a recurrent ICES product. ICES answered that for the moment the request is isolated, and future actions depend on whether ICES will receive more similar requests. ICES reiterated that several working groups are already working on many aspects of the science around ORE.

ICES was asked about a way of mapping existing projects and emerging science on national level, and replied with the existence of one such website ([Global Offshore Renewable Map | 4C Off-shore](#)). ICES continued saying it could leverage its network and use it to try and forecast cumulative effects, and acknowledged the need for developing and maintaining a centralized database with all projects and the resolution of information need to inform assessments.

MIACO asked whether WKWIND is open for application for externals, to which ICES replied affirmatively.

MIACO requested more understanding on cumulative impacts, particularly regarding the mixing of ORE and MPAs, and links with environmental impacts and restoration. One member asked whether results of the roadmap would soon be available to enable assessment of the impact of windfarms across the EU. ICES replied that WKWIND will be strategic and affirmed that there are already cumulative approaches, stressing the need to add knowledge incrementally.

BSAC voiced interest in developing a platform with data information and conclusions on this topic, in collaboration with ICES. BSAC is closer to the people and could gather data, promote workshops. It also raised the question of member states' awareness on environmental non-fishery related impact.

MIACO asked if there is alignment between the aim of the roadmap and work done by OPSAR. ICES answered that there is very close cooperation and a large overlap between their members and the ICES community to ensure maximum synergy between the organizations. ICES has also provided OSPAR with ORE advice and is currently building on that.

7.2 ICES Endangered, Threatened and Protected (ETP) species by-catch roadmap

ACOM agreed in March 2023 to revise the text of the [ICES Roadmap for bycatch advice on protected, endangered and threatened species](#). The draft of the updated Roadmap was presented and discussed during MIACO 2024.

The ACOM vice chair introduced the issue with a presentation (document 7b). It is highlighted that ICES has provided annual advice on bycatch of protected species to EC since 2001. In addition, from 2020 onwards ICES has been addressing multiple special requests per year on bycatch of protected species for several advice requesters. At the moment five processes are running in parallel including; special requests, the preparations for a benchmark in 2025 and the revision of the list of species of bycatch relevance by ecoregion.

MIACO was requested to provide written feedback on the bycatch roadmap revision by end of January 2024. More information on the proposed changes for the ETP bycatch roadmap can be seen in document 7b.

One MIACO participant commented that there is a lot of knowledge around ETP bycatch in the ICES community and recommends that ICES transmits the knowledge into more useful management recommendation. They also encouraged other stakeholders to put it in their comments in the bycatch roadmap.

8 Vulnerable Marine Ecosystems Advice (VMEs)

The topic was introduced by the responsible ACOM vice-chair, who led the group through a presentation on the work done recently around VME's, processes around spatial advice in ICES more widely, and then opened a discussion on the concerns which had been expressed by stakeholders over the year regarding this advice.

MIACO thanked ICES for the presentation, welcomed the work that has been doing in this area, and stressed the need for transparency, quality assurance and clearly defined roles in the advisory process for all participants. The ACOM vice chair responded that while various bodies within ICES are responsible for parts of the work around VMEs, ACOM is the advisory body, and is solely responsible for the provision of advice. Improving transparency is a high priority for ICES, and while many of the steps in this advice process have been developed in a short timescale, work is underway to further clarify the steps involved. For example, the secretariat has been working to make the code used to produce the area closures under the different scenarios easier to understand and to make it available via TAF.

MIACO appreciated the long and detailed answer, and followed up by querying whether, assuming the changes in input data result in changes in areas identified as VME, would there be a new advice release on VMEs?

ICES responded by saying it would provide advice in line with its benchmarked procedures. This issue is very different to a "classical" advice correction, but that would be a matter for ACOM. Under the EU Grant Agreement, new advice should be forthcoming in the near future, so it is unlikely that there will be time to revisit and reissue that previously given.

This was followed by a more general question regarding the benchmark process, which it was noted occurs every few years, what is ICES approach if the evidence changes rapidly. ICES responded that the benchmark schedule is less fixed than was initially envisaged. In practice, such a change would result in issues with stock assessment and advice, which would begin the benchmarking process, or lead to alternative steps to incorporate new information.

Stakeholders raised a number of questions about VME indexing and ICES interpretation of the FAO Guidelines on Deep Sea Fisheries. ICES responded that while we are trying to incorporate predictive habitat modelling it may not be the strongest measure of VME presence, and highlighted the problems caused by VME absence data not being routinely recorded.

A further question was raised regarding the 400m isobath as the cut-off for consideration in the VME advice. It was explained that this advice is framed around the provisions of the EU Deep Sea Access Regulation, and ICES works off the definitions therein. While VME may be present at shallower depths, their protection would be subject to alternative legislation and beyond the scope of this request.

Finally, a question was raised regarding whether types of gear other than mobile bottom contacting ones are being considered by ICES in this context. The answer was that yes, they are, and examples could be found in recent advice on bird bycatch and fishing in the NEAFC regulatory area, however in this context, given the need to quantify benthic impacts, only swept area ratio for mobile bottom gears was used.

9 Stakeholder Engagement Strategy

Chair of [WKSTIMP](#) presented the key outcomes of the workshop to operationalize the stakeholder engagement strategy and create practical actionable steps. WKSTIMP produced a report which highlights fundamental principles for engagement and defines the roles of both stakeholders and scientists in the engagement process ([ICES, 2023](#)). This report defines stakeholders as those who affect or are affected by ICES decisions. The strategy emphasizes the four key roles and responsibilities of stakeholders in specific engagement situations which is elaborated in presentation 9 ([available here](#)).

The WKSTIMP report lists the scope, context, and rationale for engagement, recognizing the increasing importance of stakeholder engagement in ICES work. In the process of producing the strategy, all stakeholders were consulted, engaging in various types of meetings to gather knowledge and feedback on system processes, methods, scientific approaches, and data. The goal was to integrate expert knowledge into the scientific framework for evidence-based advice.

Presenter stressed that principles of engagement must align with the principles of impartiality, independence, and integrity of ICES. Communication of both the process and results, needed to be in harmony with ICES' overall communication and strategy promises.

The workshop report detailed topics such as research ethics, data protection, informed consent, conflicts of interest, and transparency. Stakeholders were recognized as central to the process, serving as data, information, and knowledge providers. Mapping actions that were taken for stakeholder interactions such as through WKEnsure and WKAFPA.

WKSTIMP produced tangible and non-tangible outcomes which were briefly presented at MI-ACO:

Non-tangible WKSTIMP outcomes were presented which was good practices such as transparency in roles and responsibilities of stakeholders to ensure accountability to the general public. Opportunities for engagement needed to be inclusive and proportional, addressing gender balance and diverse expertise.

Additionally, complex issues, including conflicts of interest and advice shopping, were recognized and the importance of a clear and transparent structure to address these complexities was highlighted to build trust in the process.

Non-tangible WKSTIMP outcomes were good practices such as transparency in roles and responsibilities of stakeholders to ensure accountability to the general public. Opportunities for engagement needed to be inclusive and proportional, addressing gender balance and diverse expertise.

Additionally, complex issues, including conflicts of interest and advice shopping, were recognized and the importance of a clear and transparent structure to address these complexities was highlighted to build trust in the process.

Tangible outcomes from WKSTIMP were 35 time-based actions which can be read in the WKSTIMP report. Suggestions on how to achieve them were presented by different scenarios and the financial and staffing cost. Responsibility was taken to propose draft elements for the implementation plan, acknowledging that ICES would ultimately decide the content. A monitoring and evaluation exercise was carried out at the WKSTIMP meeting, guided by the idea of assessing the implementation plan's effectiveness in the years following its initiation.

These 35-time based actions were divided into immediate and short-term actions based on feasibility. Examples of actions included updating the stakeholder engagement strategy and

uploading the stakeholder engagement presentation online, and developing a pilot initiative for stakeholder engagement in integrated environmental assessments.

Specific actions or recommendations were highlighted such as, opening a targeted call for stakeholders, linking communication and training to ICES communication strategy, assessing training needs, and addressing annual reporting requirements. Additionally, reviewing and updating the strategy was proposed to be carried out every five years to ensure accuracy and relevance.

Four success criteria were presented which were the (1) inclusion of a diverse, competent, reliable, and experienced pool of experts committed to working with ICES, (2) the active collaboration and contribution of expertise to ICES, (3) that ICES integrates relevant knowledge that has an influence on the ICES advice and the scientific knowledge and (4) full traceability throughout the engagement process which involves monitoring and evaluating exercises to determine the number of stakeholders consulted at each stage.

General actions were defined, and specific implementation methods for each type of meeting were explored, recognizing the distinctions between expert groups, advisory drafting groups, MIACO, and MIRIA.

WKSTIMP concluded presentation with recommendations and suggestion to ACOM and SCICOM which can be seen in presentation 9.

The aim of WKAFPA was to identify where and how stakeholder information could be incorporated in the ICES fisheries advice process. One of the chairs presented the main conclusions that engagement before benchmarks meetings take place and before preliminary assessment results are used as the basis to predict total allowable catches for upcoming advice is needed. It is important to ensure a common language is spoken between scientists and stakeholders, that there are clear and transparent processes in place on how to deal with stakeholder information and communicate clearly how this information is used in the preparation of ICES advice. The WKAFPA and WKENSURE reports will be considered by ACOM in March.

One MIACO participant asked about notification systems for ICES events, meetings and workshops. It was raised that the current method of having to individually seek the information was difficult. ICES Secretariat responded that the Advice Activities Forum is currently in process of being re-activated. Additionally, MIACO SharePoint has been updated with accessible links to ICES events calendar that is regularly updated.

Another MIACO participant shared experience of being denied joining an ADG meeting as an observer, because they registered late. They also lost access to the ADG SharePoint due to this. They found this concerning because the guidelines for ADG participation is not clear on the ICES website for observers, especially what would cause exclusion from an ADG.

Another participant raised cases and experiences of intimidation and bullying between certain members of the ICES community. They asked if there is any process or place to report such cases of breach of code of ethics in ICES meetings. The ICES Secretariat responded that we have an [ICES Anonymous Reporting Tool](#) but agreed that it has to be made more visible.

MIACO also asked about the inclusion and role of stakeholders in special request processes. The process and guidelines on participation in working groups or workshops remain unclear for external parties. Concerns were also raised that certain stakeholders were prevented from attending certain meetings because their interests were considered already represented in the meeting.

ICES Secretariat informed MIACO participants that the information on participation on workshops and working groups are available in the '[Guidelines for ICES groups](#)' document. Groups with limited participation access are listed in Annex 10 in the document.

Action Point: ICES will inform stakeholders about upcoming meeting on the Advice Activities Forum. ICES will also investigate whether it might be possible to make a stakeholder webpage to facilitate access to key information.

10 Prioritisation of science needs

SCICOM chair summarized the results (qualitatively) from the online survey regarding re-visit from 2023 on observer's to ICES view on what the science priorities are. MIACO engaged in an exercise to prioritise science needs the results of which are shown below. MIACO's input will be incorporated in the ongoing SCICOM process to update the ICES science plan. Other input includes national priorities as well as the input received in 2023 MIACO. The first draft will be consulted for feedback via the ICES expert group channels and the Science Committee. The September Science Committee meeting will finalize the science plan proposal with an aim to have it approved by the ICES Council in October, so that ICES can start 2025 a newly adopted science plan.

MIACO 2024 have (like MIACO 2023) put high priority in relation to ecosystem restoration, climate effects in the medium-term goals, bycatch mitigation and the stakeholder knowledge data. Similarly, advice requesters have emphasised a need to develop the science around habitat/ecosystem restoration. This is not surprising, as the nature restoration law has just come into effect. Similarly, big data and artificial intelligence (also ensuring data security) has been highlighted as a science need for ICES.



11 Mixed Fisheries

ICES continues to develop mixed fisheries data and methods to progress in the development of its capacity to provide advice on multispecies fisheries. The Second Scoping workshop on next generation of mixed fisheries advice (WKMIXFISH2) took place in March 2023 <https://doi.org/10.17895/ices.pub.22665112>. The ACOM vice-chair presented doc 11, updating MIACO on the developments of 2023 and the workshops planned for 2024. The next steps include two important workshops planned back-to-back in March 2024: The Workshop on mixed fisheries fleets (WKMIXFLEET) in March 2024 and The third Scoping workshop on next generation of mixed fisheries advice (WKMIXFISH3).

12 Providing advice in 2024

12.1 ICES Advisory Work-plan 2024

The meeting was provided with a presentation with information and key links to aspects of the work-plan for ICES advice and relevant science initiatives in 2024. These links are shown below:

[Meeting Links](#)

[ICES advice processes](#) (note you may need to edit in the browser to <http://> and not <https://>)

[ICES Resolutions](#)

[Calendar planning view](#)

[News on Advice activities](#)

Expert Group dates are fixed to allow sufficient time for ADGs and ACOM advice approval web conferences ahead of advice requester deadlines for advice. It is not a trivial task particularly when trying to avoid to schedule overlapping meetings and allowing for enough time between the expert groups, ADGs and WCs to perform the quality checks and updates and formatting of advice sheets. Sometimes ICES have to deviate from this approach when processes are extended, requests have short deadlines or other obstacles have to be handled.

12.2 Benchmark procedures

The meeting was reminded of the current procedure for prioritising benchmarks and the ACOM review of benchmarks. ICES uses best available science, and its peer review are core principles. The benchmark process is how ICES brings new science into advice and provides the quality control of peer review. Benchmarks arise from Expert Groups recommendations which outline the issues and approaches to solving them. A prioritization table is filled in and a benchmark timeframe is propose by the experts or sometimes based on feedback from the advice drafting group or ACOM. The Benchmark Oversight Group (BOG) reviews information from EGs and Recommends to ACOM which proposals to accept and how to group them. ACOM decides on which benchmarks go ahead. Professional officers in the ICES secretariat work with experts and ACOM leadership to organize the meeting and timelines and external review. BOG reviews and recommends to ACOM. ACOM must approve the results before use in the advice.

Stakeholder input in benchmarks is very useful/important. This is particularly the case in the DWK. Benchmarks and their timing are advertised on the advice activity forum [News on Advice activities](#).

A table of scheduled benchmarks in 2024 was presented in document 12b https://community.ices.dk/Committees/mirac/MIACO%202024%20Meeting%20Documents/01.%20Documents/Doc_12b_Benchmark_procedure.pdf

Planning is underway for the next round of benchmarks. The list of proposed benchmarks along with their supporting information (issues, proposed approaches, prioritization table, proposal) has been compiled. It was being reviewed by BOG. Recommendations to ACOM will be made in advance of the March ACOM meeting with ACOM decisions expected no later than the conclusion of that meeting. Benchmarks can take longer than one year to complete. Benchmarks approved for 2025 may not be complete and approved in time for the advice released in 2026 (just as those planned for 2024 may not be ready for 2025 advice).

13 Wrap up and close

Main points covered in MIACO were summarised by the ACOM Chair, these were:

- Advice activities, new developments. Transparency in BOG decisions were discussed and ICES will work with this feedback.
- SCICOM develops the science, ACOM produces the advice, the QC process is comparable across the committees.
- WKRRCOD recommended a 2 step process pre-WG meetings & pre-Benchmark meetings. ACOM will discuss this when considering the results of WKAFPA in March but we do need to be mindful of the resources needed and maybe this could also happen at a national level.
- The feedback on the Northern Shelf cod will be discussed at ACOM in March in relation to advice on mixed stock fisheries and decisions on the science\management interface.
- Objectives for management must be clearly defined in requests.
- DLS calls for an enhanced collaboration at the national level in order to increase the dataflow into such processes in ICES.
- Retrospective bias will be explored further in the community and potentially WGMG.
- QC process and the clear marking of assessments in TAF was discussed and principles behind the ICES advice, in particular the independence, must be adhered to in a transparent manner.
- TAF developments and as well the AdviceXplorer were presented.
- Formulation of requests (special requests and MoUs/GAs) and the process for accepting these in ICES was presented and it was discussed how involvement of stakeholders in the formulation of advice requests could be facilitated, however, to happen between managers and stakeholders directly involved.
- Conservation advice should be considered in contexts of EBFM and EBM. Consistency in reporting on criteria, e.g. IUCN, was discussed.
- Rebuilding plans are very much in the interface between science and management; risks and catch trade-offs are discussed in that area, MIACO was informed about the newly established MIRIA subgroup on this matter. Selectivity changes could be tested through simulations in the future (if data were available).
- Reference point evaluation process was discussed; WKNEWREF was presented and the sceptics concerning biomass reference points among MIACO participants was noted. These are used in the framework at the moment, however. ACOM recognise that there needs to be an extremely strong rationale for changing the reference point framework.
- VME methodology improvement process was presented, including a review of data. Update of the 2021 advice would need to be discussed with advice requesters as the methodology and data has changed since, which could have a significant effect on the advice, more so than potential errors in the database.
- ORE roadmap is building on a long track-record on the science evaluating installations and need a cross-national focus, which ICES can and will facilitate.
- ETP bycatch roadmap was presented, feedback from stakeholders was kindly requested, deadline by end of January 2024.
- Very useful and insightful discussion on the stakeholder involvement in ICES and the implementation of the stakeholder strategy was undertaken and outputs will be brought to the attention of ACOM in March.
- The 35 WKSTIMP recommendations will need to be prioritised by the Council as some have resource implications for ICES.

- Key science themes were identified and compared to what the MIRIA meeting identified.

The ACs appreciated and would like to continue having MIAC as pre-meeting to MIACO. The PELAC emphasized that they would like ACOM to discuss re-inserting the 'Information from stakeholders' into the advice. The outlook on ORE work was highlighted as being very useful and insightful. A point for next year's agenda was suggested to be the revised Advisory Plan. Website navigation was raised as an issue; this will be taken to consideration in the ongoing communication strategy discussion. The ACOM chair concluded by acknowledging the contribution of Seán O'Donoghue to MIACO meetings over the years and wished him well in his retirement.

Annex 1: List of participants

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Annex 2: Draft Agenda

Meeting between ICES and Advisory Councils and other Observers (MI-ACO)

Thursday 18th (13:00) – Friday 19th (12:00) January 2024

Hybrid: physical & online

Chair: Colm Lordan

Draft Agenda

1) Welcome and opening of the meeting.

Presentation of the new ACOM Chair, introductions, followed by code of ethics and professional conduct. <https://doi.org/10.17895/ices.pub.21647825>.

2) Adoption of agenda (Doc 02a).

Suggested dates for MIACO 2025 – 16-17 January 2025.

Minutes of MIACO 2023 in Doc 2b

3) Review of 2023 (Doc 03)

An overview of the advice process and the advice provided in 2023 is given in document 03.

MIACO is invited to review the advisory process in 2023 and to discuss any issues and concerns arose since the 2023 MIACO meeting. This will be done through round table contributions from each organisation represented, and observers.

4) Quality assurance of ICES Advice

a) Towards a Quality Management system (Doc 04a)

ICES advice is produced through an advisory process built on its ten principles. At its March 2023 meeting ACOM approved the Quality Policy proposed by WGQUALITY, the foundation of which is these ten principles. This has now been published at <https://doi.org/10.17895/ices.pub.23864760>

ACOM also agreed at its meeting to begin to implement procedures to deliver the quality management system to meet the requirements of ISO 9001:2015. To that end a workshop [Workshop on the ICES Quality Management System. (WKQMS)] is planned for 2024.

MIACO is invited to comment.

b) Reproducibility of ICES advice (Presentation)

Over the past few years ICES has been engaging with the expert community to make all assessment and advisory products fully reproducible. This involves developing a number of key databases and the TAF tool to store and version control computer code/scripts used to process data and carry out the assessments. An overview of the various databases and TAF tool will be presented.

MIACO is invited to comment.

5) Transparency of ICES advice

a) ICES Guidelines on the formulation of advice requests (Doc 5a)

In October 2023 ICES published a new guideline the formulation of advice requests <https://doi.org/10.17895/ices.pub.24338032>. Transparency of the advisory process is best practice in the provision of advice for societal decision-making. The intended audience of these guidelines is ACOM, requesters of advice, and informed interested third parties.

b) Advice eXplorer (Presentation)

adviceXplorer is the new app to access and visualise ICES advice on fishing opportunities. The app is fully integrated with ICES databases and services and allows users to quickly find, visualize and access the data used for advice.

adviceXplorer will be demonstrated, and MIACO will be asked to provide feedback as key end-users of the tool.

6) Evolving Advice

a) Advice on conservation aspects (Doc 6a)

ICES has stepwise implemented conservation advice in 2023. An overview of this implementation will be presented in Doc X. ACOM will carry out a detailed analysis on the implementation of conservation advice in 2023 for discussion at ACOM March 2024 meeting.

MIACO is invited to provide feedback on the conservation advice.

b) Progress towards rebuilding scenarios in the advice (Doc 6b)

WKREBUILD2 has developed and implemented a tool to test different rebuilding scenarios. The main outcomes of WKREBUILD 2 will be presented.

MIACO will be asked to provide stakeholder perspectives on including rebuilding scenarios in the ICES advice.

c) Fisheries reference points

WKNEWREF the Workshop on the calculation and evaluation of new reference points for category 1-2 stocks will take place from the 5/2/2024 to 9/2/2024. The plan for the workshop will be introduced to MIACO.

7) ICES Roadmaps

a) Offshore Marine Renewable Energy roadmap (Doc 07a)

The science and advisory needs around offshore renewable energy is evolving rapidly. ICES need to address this in an agile and flexible way. The newly created ICES roadmap will be informal launch at the MIRIA and MIACO meetings.

b) ICES Endangered, Threatened and Protected (ETP) species by-catch roadmap (Doc 07b)

ACOM agreed in March 2023 to revise the text of the [ICES Roadmap for bycatch advice on protected, endangered and threatened species](#). The draft of the updated Roadmap will be presented and discussed during MIACO 2024.

8) Vulnerable Marine Ecosystems (VMEs) Advice (Doc 08)

The policy and management objectives around protection of VMEs are increasing and evolving in response to global biodiversity protection agreements and regional policies and strategies. ICES is a process of developing and improving the science and evidence-based advice on occurrence or likely occurrence of VMEs and the potential for significant adverse impacts of human activities.

There have been a number of challenges because the science and evidence base is also evolving and the expert resources work in this area are limited. ICES will present the developments to date and inform MIACO of plans to further improve the assessments and the advice in the short and medium term.

9) Stakeholder engagement strategy

The outcome of the Workshop on Implementation of Stakeholder Engagement Strategy (WKSTIMP) will be presented <https://doi.org/10.17895/ices.pub.23507958>. The next steps in terms of implementation will be discussed at MIACO.

10) Prioritisation of science needs

Last year MIRIA and MIACO were asked to consider emerging science needs.

ICES is currently reviewing the Science plan

MIACO will be asked to engage in an exercise to try to prioritise science needs required to underpin ICES advice and services.

11) Mixed Fisheries (Doc 11)

ICES continues to develop mixed fisheries data and methods to progress in the development of its capacity to provide advice on multispecies fisheries. The Second Scoping workshop on next generation of mixed fisheries advice (WKMIXFISH2) took place in March 2023 <https://doi.org/10.17895/ices.pub.22665112>. The main conclusions of this group will be presented and the plans for 2024 will be outlined. The next steps include two important workshops planned back-to-back in March 2024: The Workshop on mixed fisheries fleets (WKMIXFLEET) in March 2024 and The third Scoping workshop on next generation of mixed fisheries advice (WKMIXFISH3).

MIACO is invited to comment.

12) Providing advice in 2024

a) ICES Advisory Work-plan 2024

The meeting will be updated with information on the Work-plan for ICES advice and relevant science initiatives in 2024.

MIACO is invited to comment on the presented plan including the timing for release of recurrent advice.

b) Benchmark procedure (Doc 12b)

The meeting will be reminded of the current procedure for prioritising benchmarks and the ACOM review of benchmarks.

MIACO is invited to comment.

13) Wrap up and close

