

# MINUTES OF THE MEETING OF THE ICES ADVISORY COMMITTEE (ACOM), DECEMBER 2021

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ICES BUSINESS REPORTS



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# Contents

i	Executive summary .....	ii
1	Welcome, code of conduct, review of action points from March 2021 and review of membership .....	1
2	Fisheries Reference points .....	1
3	Risk .....	2
4	Conservation status and restoration .....	4
5	WKLIFE issues: advice for data limited stocks .....	5
6	TAF .....	6
7	Advice production .....	7
	7.1 ADG Guidelines .....	7
	7.2 Observing process by requesters .....	8
	7.3 BOG report on progress .....	9
	Review of progress of 2021–2022 benchmark processes .....	9
	Review of proposals for 2022–2023 benchmark processes .....	10
	Other BOG issues discussed at their December 2021 meeting .....	12
	ACOM further comment .....	12
	7.4 Managing IBPs .....	12
	7.5 Broadening advice into products and maps .....	13
	7.6 Social and economic knowledge in advice .....	13
8	Productivity audit .....	14
9	Sharing alternative perceptions .....	14
10	Joint ACOM SCICOM EBM group report .....	17
11	WKSHOES – stakeholders .....	17
12	Update on development of online advice .....	18
13	Recommendations to ACOM .....	19
14	Spatial conservation and management measures .....	19
15	Update from data and information .....	19
16	Climate and advice WKCLIMAD .....	21
17	Next year's work programme .....	21
18	Management objectives bycatch of threatened, protected and sensitive species .....	22
19	Expectations for 2022 .....	23
20	Closing wrap up .....	24
21	Fish list of species of bycatch concern .....	25
22	List of actions and decisions .....	26
Annex 1:	List of participants .....	28
Annex 2:	Sharing alternative perceptions of the state of stocks and fisheries .....	31
Annex 3:	List of meeting documents .....	32

## i Executive summary

The Advisory Committee of ICES met in hybrid form in ICES HQ and online. ACOM considered and took decisions on a range of operational and strategic issues. These included, risk in ICES advice, the need for advice on other anthropogenic pressures on fish stocks and the recording conservation status. Fisheries Reference points and data limited approaches were further discussed and timeline determined for operationalising findings. Concern was raised about the reduction in the use of the transparent assessment framework. Tangible steps on broadening advice into spatial products and maps, and social and economic knowledge in advice have been made. The results of the productivity audit were shared, and progress reported on the creation of a stakeholder engagement strategy. The Joint ACOM SCICOM EBM group reported. ACOM noted the development of advice online and addressed recommendations from expert groups. Decisions were taken on the management objectives bycatch of threatened, protected and sensitive species resulting in a clear statement on management objectives. The developing process for fish list of species of bycatch concern was clarified. A focus group was run on sharing alternative perceptions of fish stock dynamics was run. More broad planning took place about the work in 2022 and the further provision of guidelines and the activities of the benchmark oversight group.

## 1 Welcome, code of conduct, review of action points from March 2021 and review of membership

The meeting was opened by ACOM Chair Mark Dickey-Collas, who welcomed all participants in ICES HQ and online (see Annex 1 for list of participants).

ACOM had pre-approved the agenda on the forum and no new ACOM members were to be introduced this year. ACOM was informed and reflected on the code of conduct for ICES meetings and whilst one potential conflict of interest (CoI) was raised, ACOM did not find any reason of concern related to this declared CoI. Further to this point, the nature of CoI was addressed in terms of the National interest inherent in all ACOM members and it was concluded that all ACOM members are mindful of this while in ACOM and act accordingly.

A review of the action points from March 2021 for ACOM showed that all have been addressed between March and December apart from the following:

- 4.2 Explore with SCICOM if a workshop on methods to detect/highlight changes in productivity is useful (ACOM leadership)
- 5.1. Each ACOM member to identify 1 person from each country to act as Ambassadors. This has been partly handled and will be discussed further during ACOM 2022.

During the round the table presentation of each ACOM member the general impressions from the meeting participants were that the past year has been quite a challenge but also offered options for development. COVID-19 definitely impacted the full palette; input data, ways of working, etc. however, ACOM did find that despite working almost exclusively online and through quite an increased number of web-meetings, development of e.g. reference points and advice on e.g. bycatch and VME had been made, which was encouraging.

Finally a quick walk-through of the new technology put in place for the hybrid meetings in ICES HQ was made, introducing the 500 microphones, movable camera (to come), etc. During the ACOM meeting, 12 members of ACOM were present in the Atlantic room, the remaining participation was online. The ACOM chair underlined that inclusion of the remote participants in discussions at equal footing to the participants physically present in the ICES HQ was a priority and encouraged feedback during and after the meeting. ACOM was invited to participate in a filming by the Euronews for a piece with ICES, just in terms of footage. ACOM agreed to this and Euronews will sort out any legal concerns in terms of GDPR, etc. <https://www.euronews.com/green/2022/01/25/where-s-the-catch-the-fishery-surveys-conserving-our-seas>

Action: 1. ACOM to review and update the ACOM membership list
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## 2 Fisheries Reference points

ACOM was asked to take note of the findings of the Workshop on ICES reference points (WKREF1), that was presented by one of the Chairs, and the approach for the Workshop on guidelines for reference points (WKREF2) Amongst other potential issues and shortcoming noted were:

- There is a need to have a clear distinction between biological reference points (status definition) and operational/management parameters (HCR/advice rule)
- The analysis suggests that ICES Blim values tend to be at a lower proportion of B0 (<20%) than in many other regions, and this needs to be further explored
- The ICES framework tended to work best for stocks that cap Fmsy at Fp05
- The benchmark system helps take account of time-varying processes by regularly evaluating new data and updating reference points. This may be more effective than trying to predict long term ecosystem changes, though it could still be possible to take into account predictive relationships in reference point calculations
- Many other regions use proxies of Fmsy (e.g. Fspx%) given the difficulties in estimating the 'true' Fmsy directly

WKREF1 proposed a number of specific recommendations for WKREF2 to consider which can be found in the [WKREF1 report](#).

ACOM raised concerns about the introduction of B0 (virgin biomass) into the framework since given the long history of exploitation in the NE Atlantic this is often a largely theoretical point, which stakeholders/managers may question the realism of the concept. The current framework is less theoretical and more reflective of levels we have observed (recently). However ACOM was mindful of shifting baselines. WKREF1 found that not all B0 values were unrealistic given past observations, and that using a fraction of B0 for Blim was only proposed as another way to derive Blim when there is no clear Stock-Recruit relationship. There were also some concerns about the introduction of a biomass target reference point, given the multiple requesters of advice do not have clear agreement on (the need for) a target.

The work of WKREF2 was then introduced by one of the co-chairs of that meeting. ACOM was informed that the new suggestions coming from the WKREF process could be quite transformative i.e. potentially a revolution rather than an evolution of the ICES reference point framework. Though final recommendations would not be known until after WKREF2, ACOM should consider setting up an implementation group/workshop with an aim to layout a roadmap to implementation of the changes in the framework in 2023 (and beyond). Communication to advice requesters and stakeholders will be key during the rollout of the new framework.

ACOM noted that an important part of communicating future changes to the framework would be to have a clear narrative as to why the existing framework required changing in the first place. It would also be useful to see what the likely short-term implications of any changes would be. There were also some concerns from ACOM regarding the mixing of different approaches (MSY and PA) within the reference point framework, and the risk of potentially underfishing stocks if too high Btriggers or Btargets are used.

The process is still ongoing and ACOM has not yet been asked to endorse any particular reports yet. It is likely that another meeting will be needed to decide on this after WKREF2.

### 3 Risk

ACOM was asked to review Document 03 on the use of risk in ICES advice, and invited to join the focus group to address the recommendations in the document.

The first topic discussed was the risk tolerance around Blim. It was explained that risk was ultimately the currency that is common to all ICES advice, but also the currency for communicating

uncertainty to managers. Risk allows us to bridge different circumstances of data availability. All marine management is risk-based management.

There was a recommendation from the subgroup that ACOM should discuss and agree a new definition of risk. Currently ICES guidance is that a “high probability” of falling below Blim is a 50% chance. There was also a proposal to allow a consistently low risk (less than 5%) irrespective of the timeline of the advice.

It was acknowledged that the focus is on fisheries advice right now, but that there is a need to agree and apply a consistent risk tolerance across all types of advice.

The second topic discussed was the potential to move to a risk-based formulation of advice. This emerged from discussions this year that have challenged the formulation of our headline advice, including the single figure advice. It was suggested to remove “ICES advises” from the headline in order to remove the suggestion that ICES is advising a single option. Rather, it was proposed that ICES needs to be reinstating the assumptions that are used to inform the advice.

The ACOM chair pointed out that we actually don’t give just a number currently, we say “no more than” that number.

It was requested if there was room for discussion on giving a more useful advice to managers rather than a zero-catch advice. The ACOM leadership stated that this is a subtly different issue, but does relate to Workshop on guidelines and methods for the evaluation of rebuilding plans (WKREBUILD) and the mixed fisheries so will be considered in other forums.

An ACOM member explained that the precautionary approach requires managers to maintain a consistently low risk. The problem is that when we are giving advice, that we sometimes use 95% and sometimes 50% of falling below Blim; we are being inconsistent in how we apply the PA approach. It was suggested it would be better to just apply the PA approach consistently instead of offering different levels of risk.

Another ACOM member was concerned about changing the headline advice, stating that it has taken 40 years for managers to follow advice, and that changing it will be very difficult. Others were concerned that the methodology hasn’t been benchmarked, and asked to have an example of what would class as “prevailing conditions”. One of the subgroup agreed that there was still a lot of confusion but suggested that there would be a single number in the headline advice, but with caveats.

It was stated that ICES experience is that different advice requesters want different types of headline advice. For instance, DGMARE wants a single number advice, whilst DGENV wants to be offered options.

Specifically referring to discussion point 1, it was concluded that it was necessary to specify timeframes in the Advice on fishing opportunities (for long-lived category 1 and 2 stocks) e.g. ‘maintaining the stock above Blim with at least a 95% probability’ applies over the long-term. It was agreed that ACOM leadership would unpack point 3 of the advice rule to provide a decision tree and avoid confusions between a) the F that will bring the stock above Blim at the end of the projection year; b) forecast sensitivity to assumptions; and c) precautionary considerations (probability of  $SSB < Blim$  in short term forecasts).

There was an agreed to continue with a 50% probability of  $SSB < Blim$  to advise zero catch (status quo) but remove ‘high probability’ from the Advice on fishing opportunities text, and include and communicate the estimated probability of  $SSB < Blim$  in the catch scenario table in the advice.

Referring to discussion point 2 it was suggested that ICES continue with an operational status quo, with the inclusion of risk probabilities in the catch scenario table.



Action: 3.1 Risk. ACOM leadership to unpack point 3 of the advice rule to provide a decision tree and avoid confusions between a) the F that will bring the stock above Blim at the end of the projection year; b) forecast sensitivity to assumptions; and c) precautionary considerations (probability of  $SSB < Blim$  in short term forecasts).

Action 3.2 Risk. ACOM to further discuss the effective communicating the risk associated with the advice, and the use of risk as the currency for ecosystem-informed fisheries advice

Decision: 3.1 Risk. Specify timeframes in the Advice on fishing opportunities (for long-lived category 1 and 2 stocks) e.g. 'maintaining the stock above Blim with at least a 95% probability' applies over the long-term

Decision 3.2 Risk. Continue with a 50% probability of  $SSB < Blim$  to advise zero catch (status quo) but remove 'high probability' from the Advice on fishing opportunities text, and include and communicate the estimated probability of  $SSB < Blim$  in the catch scenario table in the advice.

Decision 3.3 Risk. Operational status quo in headline advice, with the inclusion of risk probabilities in the catch scenario table, where possible

## 4 Conservation status and restoration

ACOM was asked to review Document 04 on conservation status and restoration, and invited to join the focus group to address the recommendations in the document. Three options were presented and discussed on how to provide clear advice with a consistent framework on the conservation status and restoration needs for stocks such as eel, angel shark, and Baltic salmon, where ICES provides zero catch advice but non-fishery actions are/could be advised on by ICES.

Option 0) make no changes

Option 1) amend the current advice with a conservation/restoration advice section

Option 2) develop a new conservation/restoration advice sheet.

A very dynamic and far-ranging discussion was had in the focus group on the pros and cons of each option. Some version of option 1 is likely preferred, but more discussion is needed. ACOM agreed that change was needed. A sub-group will work offline to develop a worked example for ACOM March 2022's consideration. This will include worked examples for inclusion in the catch advice, for stocks with zero catch advice, and as a separate (non-headline) section.

Subgroup members include Henn Ojaveer, Alain Biseau, Ivone Figueiredo, Marie-Julie Roux, Niels Hintzen, Jan-Pieter Schon and Christian von Dorian.

Action: 4.1 Conservation status and restoration. Subgroup to report to ACOM March 2022 with proposal and example

## 5 WKLIFE issues: advice for data limited stocks

ACOM was asked to review Document 05 on WKLIFE issues, and invited to join the focus group to address the recommendations in the document. In March 2021 it was agreed that the WKLIFE X Annex 3 methods should be used as category 3 stocks are benchmarked or need new advice. ACOM noted that the risk associated with the methods for the stocks need to be communicated in the Introduction to the advice in terms of what is actually meant by precautionary for these stocks and methods. ACOM agreed to explore this further in early 2022 as a clear narrative need to be developed for the communication of the change advice requesters, stakeholders and the community in general.

An ACOM Vice Chair and WKLIFE co-chair presented a summary of the agreed methods and workplan. An ACOM Focus Group met and agreed that the plan remains to implement the methods for category 3 stocks needing new advice in 2022 with a common Review Group and training, recognizing that this is extra work and good planning is critical. ACOM supported the Focus Group's recommendations, briefly described below. A presentation with the actions can be lifted from the SharePoint (training, WGCHAIRS, implementation, etc.).

There will be an ICES data call (not linked to RDBES) issued no later than mid-January. ICES should try to align the data call schedules, so as not to over burden the data providers.

The implementation plan should focus on training and implementation workshops where experts can learn with their own data. TAF could be a very good tool here and the coming WGCHAIRS meeting should be used to disseminate information and develop a narrative. There are concerns in the expert community in terms of the weight of the work; ACOM suggested to 'couple up' experts who have similar assessments so they can work together on implementation of the methods. There will also be an added weight of the planned data call as well doing this.

The training session needs worked-through examples with real data and as well having the participants working with their own data in the training, depending on the availability of the data. Efficient process post-training, facilitating the implementation of the rules to individual stocks, need to be explored in order to find the appropriate format for this. It would be ideal if expert trainers could be available to help throughout.

The draft guidelines will be further elaborated including the output from the meetings with WGDEEP and WGEF concerning the new methods. The guidelines will include specific parts for short-lived species, common issues across stocks and have added guidance for drafting advice applying the new methods. They will be supplemented by a FAQ document.

Action: 5.1 WKLIFE. Enact plan developed for training and dialogue on methods.

Action 5.2 WKLIFE. Draft Guidelines to be published after working with WGDEEP and WGEF.

Decisions: 5.1 WKLIFE. Reiterate support for incremental implementation of WKLIFEX methods.

## 6 TAF

ACOM Vice-Chair, gave a presentation on the developments of TAF. The [TAF manifesto](#) was presented and the main purposes of TAF highlighted, such as quality assurance, version control, transparency etc. The status of how much TAF is being used was shown next, and it was clear to see that during the last couple of years, stock assessment integration into TAF has declined. COVID-19/time constraints in online assessment group meetings and work load/lack of time for dedicated TAF work from experts are assumed to be the main reasons for this decline. A survey targeted at TAF users were issued to find out what was happening in the community and to identify the main barriers. The results of the survey showed that main barriers for TAF implementation were time investment, technical issues and lack of training. R/Github skills on the other hand, did not seem to be a barrier. There was general agreement of the perceived benefits of TAF, but workload sharing is not helped by TAF in all cases. Improvements wished for according to the questionnaire were elements such as online documentation, a TAF helpdesk and direct import from TAF into SAG. A web application was only wished for by very few. Finally, it was highlighted in the presentation where ACOM can support the further development of getting assessments implemented in TAF: Promote TAF within institutes, embed TAF in processes like script-based EG reports (ongoing put needs help from the community) and outputs from benchmarks, include TAF in the EG audit process, the ADG process, perhaps even include a TAF indicator in the advice sheets (this is a wish coming from PELAV and NWWAC). Last but not least, ACOM should support the Working Group on Transparent Assessment Framework Governance (WGTAFGOV) – at the moment, a new chair needs to be identified and this could very well be someone from ACOM.

The main discussion points were how do we get the TAF implementation better profiled and used in 2022 – what are the steps needed? Hands-on (in person) training was mentioned as the most efficient way to get experts onboard – either in dedicated workshops or in the assessment group meetings. A 50/50 response in a survey result still means an issue needs attention – TAF is not user friendly to all. The plan to have 3–4 dedicated TAF workshops in 2022 was confirmed. The outside world sees TAF as a stamp of quality, but at the moment there are no plans of including a TAF indicator or the like in the advice sheets.

A point was raised concerning the amount of changes that are coming in the near future. ICES is always trying to be ahead of everything coming, but the focus is oftentimes mainly on the end-product. There is a need to look at the beginning of the advice process and the tools needed for experts to be able to do a good job. It is important not to rush and push certain changes too much in the light of all the issues on the agenda for the near future (WKLIFE methods, TAF, RDBES) that need priority.

The aim of RDBES being the system for data raising and stock coordination by 2024 is still achievable, and the RDBES already exists and will need huge community engagement in the coming years. This is only possible with the full collaboration and engagement from the whole of the ICES community, particularly important is the participation of stock assessors and stock coordinators of stocks in the 2022 RDBES data call.

There are a number of RDBES data calls planned for 2022, including a data call for sandeel, one for all stocks 2021 data and another for recreational fisheries data.

The core group of WGRDBESGOV consists of a limited number of experts (8 people) who are all multitasking to keep the train rolling. To give you an idea of the engagement of the core group: They met more than 34 times in the last year! They are always available for support, for example

via dedicated workshops, presence in the working groups and via Q&As through Github. But the group needs more/new experts!

It was emphasised again and again that the aims of the RDBES roll-out cannot be reached if the community is not committed and engaged.

Decisions: 6.1 TAF & RDBES. To receive attention in March 2022 ACOM meeting, to further address the issues raised.

## 7 Advice production

### 7.1 ADG Guidelines

ACOM Vice-Chair, briefly presented the updated to two existing guidelines: General Advice Drafting Group Guidelines and ICES Guidance for completing single-stock advice. ACOM was invited to consider the revisions, comment and propose any further changes. The final approval will occur after the ACOM meeting via the forum.

With ADGs moving further online there has been a tendency to not close the ADG but continue working further closer to publication date. This has increased workload and also challenge the legitimacy of the drafted advice. Also, many nominated participants are partially attending the online ADG. This patchy participation increases the workload for the chair, the legitimacy of the drafted advice and often delays or reopens consensus decisions.

Discussions following the presentation included the points below.

Two opposing views were evident:

- 1) For smaller institutes, it can be very difficult for a person participating in an online ADG to be “unavailable” to his/her colleagues for 3–4 days. Time differences also pose a real struggle in online meetings. The problem of people dipping in and out is a serious issue, but maybe there can be flexibility, in hybrid meetings especially? An “afternoon meeting” is not just an afternoon meeting for the people in Europe/ICES HQ. It becomes very long days for these people.
- 2) There needs to be firm rules of the level of participation that is expected in an ADG. It should be clear that it is expected, hoped, and intended that ADG members participate fully.

ACOM agreed that meeting deadlines is very important. One person shared the observation that more “new” people had participated in ADGs in the past year (due to the online format perhaps) and that this sometimes meant that discussions were had that wouldn’t normally be taking place (since they had been discussed in previous years), while another welcomed “fresh eyes” on the advice – even on “old issues”.

When people come in and out of ADGs, some discussions need to be had more than once. It was suggested by some to make it a “rule” that if you miss a discussion point then you also miss your opportunity to weigh in. This would perhaps encourage people to participate more.

Once again, it was stressed that online ADGs are much harder than when you are a group of people discussing in the same room.

For the “non-fishy” advice, it was mentioned that some processes take 2–3 years to get to the ADG and that it can be very difficult to set a hard deadline for the advice evolving from these processes. However, this was counterargued by the fact that fluid deadlines puts immense stress on the rest of the system as well as making it difficult for requesters’ timelines. Quality assurance can also be compromised by extending deadlines into the unknown.

In conclusion, it was suggested to include text in the ADG Guidelines describing the expectations of ADG members (full participation) and also highlight the importance of keeping within the planned dates for the ADG. Proposed text will be posted and agreed to on the forum no later than mid-January 2022.

#### ICES Guidance for completing single-stock advice

The draft of the 2022 Guidelines is a revision of the 2021 Guidelines, meaning large parts of the text remain the same as last year. However, issues discussed in the ACOM December meeting will have an impact on the final version of the 2022 Guidelines:

- Potential changes to the headline advice and the catch scenario table (i.e. probability of  $SSB > B_{lim}$ ) depending on the discussion on risk,
- Section describing category 3 advice will change following the decision to implement the new WKLIFE X methods for category 3 stocks. The text describing the 2-over-3 rule will be removed and replaced by similar text but relevant for the WKLIFE methods. This section needs to be wrapped up rather soon in preparation for the “advice season” 2022.
- Indication in the advice sheet that the assessment is documented in TAF? The decision from ACOM Leaderships/ACOM was “no – too early”.

Final draft of the ICES Guidance for completing single-stock advice 2022 will be posted and agreed to on the forum no later than mid-January 2022.

ACOM was asked to consider whether similar advice drafting guidelines for other advice than on fishing opportunities, VME, bycatch, etc, should be prepared, but there was no clear conclusion on this.

A question was posed regarding what will happen, should an ADG reject an assessment – new WKLIFE methods, benchmark decisions. It was reiterated that a review group will examine the implemented WKLIFE methods and report to the ADG. Hopefully, this should prevent most of the issues that may arise, but it was acknowledged that this will not solve all issues. One suggestion made was, in the case of a rejected assessment, to issue SALY advice (same advice as last year) and thereby give experts time (a year) to fix the issues detected.

Action 7.1. ADG guidelines to placed place on the forum

Action 7.2 ICES Guidance for completing single-stock advice to be placed on the forum

## **7.2 Observing process by requesters**

A new document "ICES guidelines for requesters of advice, and representatives of ICES member countries, when observing expert groups and advice drafting groups" was presented by ACOM Vice-Chair, with nine points.

ACOM raised if stronger measures on observers as withdrawing observer status were warranted and if problematic cases arose. Raising the issue on bilateral meetings and with senior management when needed is preferred as a measure, as withdrawing observer status is very difficult.

The issue of gaining privilege insight from the ICES processes was discussed together with (potential) consequences if such information will be used by the requesters. Information obtained on ICES meetings cannot be used in formal processes by the requesters.

Decision 7.1. Observer from requester guidelines agreed by ACOM with minor revisions. To be discussed at MIRIA and included in guide to expert groups

### 7.3 BOG report on progress

The ACOM Vice-Chair and head of the Benchmark Oversight Group, reported on progress from the group's activities since March 2021. The work done by correspondence during that period included:

- Adjustments to 2021–2022 processes: although approved by ACOM for a benchmark, some of the stocks were not as advanced as hoped—largely since some of the studies to be used were not finished as a result of COVID-19. All adjustments were communicated through ACOM forum.
- Reviewed conclusions of some interbenchmarks:
  - IBPNSHerring 2021 – Inter-Benchmark Protocol on North Sea Herring
  - IBPIS 2021 – Inter-Benchmark Protocol on Iberian Sardine
- Work on draft document 'ICES Benchmark Process Description' but has not greatly progressed
- Rounding up proposals for benchmarks, issues list, and prioritization scores from WGs for starting up the 2022–2023 benchmark processes. Further progressed then this time last year.

The meeting on 1 December 2021 focused on:

1. Review of progress of 2021–2022 benchmark processes
2. Review of proposals for 2022–2023 benchmark processes
3. Other issues

These three points from the BOG's 01 December 2021 meeting structured the remainder of the presentation about the BOG to ACOM.

#### Review of progress of 2021–2022 benchmark processes

- WKSALMON and WKNORTH were both approved in early 2021 but were postponed and are to be conducted in 2022.
  - WKSALMON: postponement due to scheduling issue
  - WKNORTH: postponement due to some missing data
- For the ongoing nine benchmarks (that cover 29 stocks and the VMEs), five have already completed their data compilation workshops in the autumn of 2021. Their main benchmark workshops will take place during the first quarter of 2022.

- Details for benchmarks have all been finalized except for WKSANDEEL 2022, WKSEALS 2022, and WKVMEBM<sup>1</sup> 2022. These are operating on a slightly different timeframe over 2022—some of the preparation for these already done.

## Review of proposals for 2022–2023 benchmark processes

- All working groups have now provided their submissions, the prioritization scores and issue lists are available on SharePoint.
- These are proposals for benchmarks that would start autumn of 2022 and be completed in spring 2023.
- There are currently 24 stocks (which include the five postponed WKNORTH stocks (e.g. Greenland cod, Greenland halibut) and the three salmon stocks.
- Currently, all are submissions for benchmarking stock assessments—there might be one on bycatch in the coming years but not for the 2022–2023 cycle.
- The following tables display the proposed stocks for 2022–2023 cycle distributed by assessment working group, and then by prioritization score:

NWWG	WGBFAS	WGBIE	WGCSE	WGEF
cod.21.1	her.27.25-2932	bss.27.8ab	bss.27.4bc7ad-h	rjc.27.3a47d
cod.21.1a-e	her.27.28	pol.27.89a		rjh.27.4c7d
cod.2127.1f14	spr.27.22-32	whg.27.89a		rjm.27.3a47d
ghl.27.561214				
reg.27.561214				

WGHANSA	WGNAS	WGNSSK	WGWIDE	AFWG
ane.27.8	sal.nac.all	mur.27.3a47d	boc.27.6-8	ghl.271-2
	sal.neac.all	pok.27.3a46	hom.27.2a4a5b6a7a-ce-k8	
	sal.wgc.all			

Stock code	Expert Group	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Criteria 5	Total score
<a href="#">whg.27.89a</a>	WGBIE	4	5	5	5	5	4.6
<a href="#">cod.21.1a-e</a>	NWWG	5	5	2	5	3	4.5
<a href="#">rjh.27.4c7d</a>	WGEF	4	5	3	5	5	4.4
<a href="#">bss.27.8ab</a>	WGBIE	5	4	5	3	2	4.2
<a href="#">mur.27.3a47d</a>	WGNSSK	5	4	2	5	3	4.2
<a href="#">boc.27.6-8</a>	WGWIDE	4	5	4	2	5	4.2
<a href="#">cod.21.1</a>	NWWG	5	4	2	5	2	4.1
<a href="#">pol.27.89a</a>	WGBIE	4	4	5	3	5	4.1
<a href="#">rjc.27.3a47d</a>	WGEF	4	4	3	5	5	4.1
<a href="#">rjm.27.3a47d</a>	WGEF	4	4	3	5	5	4.1
<a href="#">ghl.27.1-2</a>	AFWG	5	3	3	2	3	3.7
<a href="#">hom.27.2a4a5b6a7a-ce-k8</a>	WGWIDE	3	5	4	4	2	3.7

<sup>1</sup> Originally named WKVMEBENCH. ToRs have been put on the resolution approval forum since.

Stock code	Expert Group	Criteria 1	Criteria 2	Criteria 3	Criteria 4	Criteria 5	Total score
<a href="#">ghl.27.561214</a>	NWWG	3	5	4	2	3	3.6
<a href="#">pok.27.3a46</a>	WGNSSK	3	4	5	4	3	3.6
<a href="#">her.27.25-2932</a>	WGBFAS	3	3	5	4	3	3.3
<a href="#">spr.27.22-32</a>	WGBFAS	3	3	5	4	3	3.3
<a href="#">ane.27.8</a>	WGHANSA	3	4	4	3	1	3.2
<a href="#">cod.2127.1f14</a>	NWWG	3	3	2	5	2	3
<a href="#">reg.27.561214</a>	NWWG	3	3	4	2	3	3
<a href="#">sal.nac.all</a>	WGNAS	2	3	3	4	5	2.9
<a href="#">sal.neac.all</a>	WGNAS	2	3	3	4	5	2.9
<a href="#">sal.wgc.all</a>	WGNAS	2	3	3	3	5	2.8
<a href="#">bss.27.4bc7ad-h</a>	WGCSE	2	3	3	3	2	2.5
<a href="#">her.27.28</a>	WGBFAS	2	2	5	1	4	2.4

- Some proposed stocks might have low prioritization scores, but may still be included since they are relevant to include with other stocks with higher scores (and may not require that much work)—potential stock ID issues or boundary issues, etc.
  - E.g. herring in 28 is still being assessed with XSA, have tried to benchmark those stocks with other methodologies in the past few years so that you can have uncertainty estimates and provide the probabilities of being below  $B_{lim}$
- After the initial review by the BOG of these proposals, most of the benchmarks appear warranted. However, some further information will be pursued in the next couple weeks—especially a check-in on the state of readiness of the work is required.
- At the moment, the amount of stocks proposed are at about the maximum possible—very likely some will drop out and others will be added however. Unclear if capacity will be sufficient. To compare to the 24 this cycle:
  - 16 stocks in 2019–2020
  - 25 stocks in 2020–2021
  - 30 stocks in 2021–2022 (current)
- There are also other stocks suggested for benchmarks in ADGs or in ACOM web conference but not proposed by assessment working groups that would benefit from a benchmark:
  - some XSA assessments : had.27.6b, sol.27.7e, sol.27.8ab
  - stocks with retrospective patterns: ple.27.7a, Faroes stocks
  - other issues, Baltic salmon – benchmark approach to providing advice as opposed to maybe the assessment (?)
  - stocks that have gone through a benchmark a long time ago
- Clarifications/missing info to be collected from working groups by mid-January, a list to be provided to ACOM by end of January for 2022–2023 benchmarks.
  - Note: There are requests for benchmarks to be approved in advance November–December (mistakenly thinking it can be) through BOG. The reason for the request is that many institutes set their budgets on the calendar year.



- So far responded that BOG doesn't approve the benchmark, but that ACOM approves it, and that all of the benchmarks are needed before any are approved.
- Typically ACOM agrees to the benchmarks in March meeting, but that could be something ACOM can discuss if they want to agree to them earlier by correspondence.

### Other BOG issues discussed at their December 2021 meeting

- The status in terms of the WKLIFE implementation and the status of the WKIRISH process in terms of advice and the catch scenarios was discussed.
- The draft ICES Benchmark Process Description was discussed and volunteers from the BOG will work on this over the next little while and get this document widely available.
- There will be a new BOG Chair announced early in 2022.

### ACOM further comment

In terms of timing, one member noted there are two options:

1. Once the list is available at the end of January we call a web conference (in February) because it's not very helpful doing it via the forum
2. Or do it in March with the full ACOM meeting

Decision: 7.2 BOG Extra web-conference in February to address the proposed list of 2022-2023 benchmarks.

## 7.4 Managing IBPs

Inter-benchmarks (IBPs) are a poorly defined process within the advice schedule. This has led to a number of operational and tactical challenges. In recent years, ICES has seen an increasing number of IBPs and the nature of an IBP has changed; they look more and more like a full benchmark but they're conducted in an ad hoc manner with short timelines. The peer review process, given the tight timelines, is very difficult. This increase could be an unforeseen consequence of the BOG, which works very well in many respects, but it takes a while to get on the benchmark calendar, but an IBP is sorted immediately.

ACOM had several comments that fell along two veins: (1) IBPs are symptoms, not the sickness; we need diagnostic toolbox for use in benchmarks to help stand up assessments; and (2) we need the flexible process of an IBP because we must engage with poorly performing assessments when they fail so that we can provide advice; and (3) let's give the experts more freedom to make changes and this will reduce the need for IBPs.

Decision: 7.3 IBP5. Secretariat and ACOM Leadership will draft and put a document on the ACOM forum for decision in March, 2022.

## 7.5 Broadening advice into products and maps

The ACOM Vice-Chair gave an overview on the ICES advisory products and the ICES advisory framework and principles. Special attention was given to the request formulation, clarification of objectives and risks and the principles to develop clear and consistent advice (principles 2, 3 and 8 respectively). 3 recent pieces of advice were used as examples on the type of products delivered and stakeholder engagement. The presentation ended with an open question on how could the future advice products look like.

It was pointed out that this is not an ICES decision but had been asked by the advice requesters. One ACOM member asked if the requesters are happy and satisfied with ICES products. ACOM leadership response was that indeed they are happy with the products and with being involved in the process.

The main challenges were the branding, resourcing (network and secretariat) and the quality assurance of the products and used the benchmark of VMEs as an example of the challenge of doing a first benchmark for non-fisheries.

The SCICOM Chair pointed to the scientific community as a pool of expertise and resources to be used.

ACOM offered support but no formal action or decision were agreed.

## 7.6 Social and economic knowledge in advice

In December 2021 the Celtic Seas Ecosystem Overview and the Norwegian Sea Aquaculture Overview will be published both containing advice relating from social and economic knowledge.

ACOM was invited to comment on the new version of the Celtic Seas Ecosystem Overview and Norwegian Sea Aquaculture Overview with respect to the social and economic knowledge included in these overviews.

There was a general agreement that this work is important and inclusion of the information is a positive direction. One ACOM member expressed the view that ICES should stick to the marine natural science and that this new direction will challenge the resources needed to move that way and could include new political discussions possibly making consensus harder. As a response it was pointed out that the Aquaculture Steering Group as well as the Strategic Initiative on the Human Dimension are already actively bringing in socio-economic experts from both the national institutes and academia into the ICES network. It was also highlighted that social and economic objectives are directly linked with environmental objectives and are therefore an integral part of any discussion in marine science.

During the discussion, the ACOM vice chair presented a recommendation made by the Advice Drafting Group on Aquaculture Overviews to include a separate section on 'management frameworks' into aquaculture overviews. ACOM agreed with the recommendation to be effective since 2022.

Decision: 7.4 Aquaculture Overviews. ACOM agreed to add a separate section to Aquaculture Overviews on 'management frameworks' from 2022 onwards.

## 8 Productivity audit

The audit of how changes in productivity are incorporated into fishing opportunities advice has been completed. ACOM was shown the broad results and informed of the next steps. The results have been published in an ICES scientific report <https://doi.org/10.17895/ices.pub.10037>

Work to analyse the results of the productivity audit that had been ongoing for the last few years was presented. In 2021 additional stock were added.

ACOM noted that for some stocks time varying trends were considered but ultimately excluded as not considered significant. Future questionnaires could include an option for 'considered but excluded'. There were some clarifications needed on the terms and stages where ecosystem considerations were accounted for (e.g. forecasts vs advice, if it is included in the assessment is it not included in the advice? Etc.). These will be clearly explained in the coming scientific report. ACOM also noted that ICES is not communicating these considerations effectively in the advice, suggesting that the advice sheet needs to be clearer on this: when are we propagating uncertainty rather than incorporating mechanistic processes?

ACOM welcomed the work and findings. It was felt that the process should be repeated in a few years, and updated through benchmarks and refined to take into account lessons learned from the first round. It was also proposed that ACOM should consider showing more of these behind-the-scenes considerations in the advice sheet.

No specific actions or further decisions taken.

## 9 Sharing alternative perceptions

The advisory plan commits ICES to “Improve the mechanism for sharing alternative perceptions of the state of stocks and fisheries”; this could be reframed as sense checking the advice. It was also highlighted in Workshop on a Research Roadmap for Mackerel (WKRRMAC). ACOM was asked to review Document 09 on Sharing alternative perceptions of the state of stocks and fisheries, and invited to join a Focus Group to explore the issues. A presentation set the scene and provided food for thought and ACOM was invited to ponder on a brief questionnaire (Annex 2) in advance of the focus group. The outcome of the Focus Group discussions was presented to ACOM.

The focus group was invited to answer to three questions:

- What is ICES desired outcome of sharing alternative perceptions of the state of stocks and fisheries? i.e. what does ICES want to do with the alternative perceptions?
- What are risks and opportunities associated with sharing alternative perceptions?
- What actions are need to address the risks and opportunities?

**What is ICES desired outcome of sharing alternative perceptions of the state of stocks and fisheries? i.e. what does ICES want to do with the alternative perceptions?**

- Assessing the risk associated with different assumptions in relation to status quo advice.

- Looking to economics and climate science – ensemble modelling for forecast advice gives probability of events to occur. Same could be done for fisheries – ensemble forecasts and ‘what happens?’
- ‘Best practice’ – about maintaining and improving ICES credibility. Are we looking for a science solution to something that is wider issue about science best practice?
- Validation of assessments, or some kind of comparison to show assessments are appropriate is required.
  - Validation of inputs – e.g survey trends, as well as assumptions in the assessment. If these are validated the assessment should be consistent with these perceptions.
  - Example – Easier to accept advice when there is an understanding of especially what’s gone wrong by talking with the expert. Opportunities to engage more in the understanding are important.
- There was some discomfort with word validation of assessments – this should be carried out by scientists. It is more about checking whether comfortable with assessment. Maybe confirmation is a more appropriate word.
- Comment made as sometimes ICES assess stocks to way above or way below where the observation data may suggest. When a stock is assessed to be way outside the range experienced in the period for which we have good data, extra care is needed concerning different opinions. It does matter not only that we are outside previously experienced range, but also how far out (eg high stocks of mackerel or NEA cod)
- Opinion based on fishers CPUE only may not helpful. Need to take account that alternative perceptions might be based on lack of understanding, so better to be involved to mitigate this lack of understanding. Just expressing opinion is not sufficient – gives us nothing.
- Recognize that good strides have been made, such as including stakeholders in benchmarks. Some stakeholders are extremely well informed, so we should not be quick to discount information as opinion. Instead, use to stimulate reflection on what we are doing. Example: current example is North Sea herring where people are against the advice for increasing TAC, but that is what ICES is advising.
- To be open to hold discussions on alternative perceptions to try and get to the bottom of why they exist and see if they can be upheld with information that validates them. i.e to be able to understand and evaluate the root of the perceptions.
- Getting opinions (subjective) in to a shape requires a lot of work and Bayesian methods and other tools can be useful here.
- Observational information comes with uncertainty – best to include this directly in the model. This is not planned very often in ICES work.
- Knowing alternative perceptions that are out there are important when the advice is communicated, so that explanations can be provided in advance rather than waiting for questions to come.

Possible ‘Points of contact’ for sense-checking (as a way to think about where and how it is relevant)

**The assessment input** – via influence on model specification and parameterization.

**The quality of the assessment output** – how likely it is to be reality given what other information is available. An appraisal of its strength/ weaknesses and areas for improvement.

**The risk associated with uncertainty in advice** - consequence of leading to a bad outcome. Or missing a good one.

**The credibility of the assessment and/or advice** – when alternative perceptions are at odds with the assessment. How believable it is given what other information is available.

**The palatability of the advice** – when alternative perceptions of the state of stock mean the advice is not easy to swallow – a source of resentment and contention.

### **What are risks and opportunities associated with sharing alternative perceptions? And What actions are need to address the risks and opportunities?**

With these question the participants were invited to rate (from 0-5) the relevance of each of the “**Possible risks and opportunities**”. The rating was done only by a few of the participants in order to gage the feeling of the room.

#### Possible risks and opportunities

Open to disingenuous (misleading) influence  
*-may not be deliberately misleading, just not so well informed*  
*- see in stock assessment groups where assessors come already with prior expectations at the back of their minds about the consequences]*

Multiple competing unreconciled views undermining the scientific credibility of assessments

Convergence of perceptions leading to improved confidence

Divergence of perceptions leading to improved understanding and identification of information gaps

#### Actions to address

**Discuss the roles of stakeholders in the whole ICES process (ref: WKSHOES).** When is a stakeholder and observer, or independent expert. Need for different codes of conduct. System is transparent but open to abuse.

Different views are welcomed but need to be discussed and verified. After appropriate evaluation the best one should be the only basis for advice.

If it is multiple perceptions of reality it is not about risk. First need to integrate the alternative perceptions, then evaluate whether reality A is more or less plausible than reality B. Ensemble approach and relevant diagnostics. Weightings of alternative perceptions so information is taken up but influence proportional to the information content. See Mander paper. Likelihood to occur of different realities vs. the risk (Severity x likelihood to occur).

To evaluate risk need to move from subjective to objective representations of alternative views.

Communicating changes in risk can allow us to better communicate uncertainty associated with the advice and the influence of factors either included or not yet included in the advice.

What information is it that stakeholders are bringing in? – first need to identify the content and relevance of the information (relates to subjective vs objective comment). Need to find more structured ways to ‘collect’ such information.

unlikely to occur, but if it does then very important

Identify barriers to engagement of stakeholders who want to engage but might not be able to do so effectively.  
 different views are welcomed but need to be discussed and verified

Finally trying to catch the mood of the group the ACOM Chair highlighted some key points:

- Divergency in opinion in ACOM particularly with regards to disingenuity influence is important to note.
- The group was clearly more focused in improving knowledge base rather than the advice process.
- ICES needs move towards to evolving the processes rather than adding to the processes.

This exercise was designed to scope ideas in ACOM. No decisions were taken.

## 10 Joint ACOM SCICOM EBM group report

ACOM was briefed on the findings of the Joint Group on EBM and proposals for next steps.

- ACOM welcomed the report on EBM as it helps to provide EBM context to different pieces of advice. The next step to advance would be to integrate aspects of the ecosystems incrementally in the advice. In addition, ICES should try to volunteer to test ensemble models.
- ACOM asked to pin-point where ICES need to start influencing the network according to the EBM presented scheme; in terms of branding, developing risk assessments, real case studies, working with Regional Sea Commissions on indicators development; who we need to work with on this?

A two-step approach was discussed:

1. Find volunteers to implement ecosystem models, including the process in the Baltic Sea. Link this through the data profiling tool.
2. Identify who is responsible for further implementation within ICES. This is an ACOM and SCICOM joint action but champions are needed for next steps implementation.

Action 10.1 EBM subgroup. Find champions to implement next steps and apply in case study.

## 11 WKSHOES – stakeholders

The main outcomes of the Workshop on Stakeholder Engagement Strategy (WKSHOES) were presented.

Stakeholder engagement has become increasingly important within ICES in recent years and requesters of advice start asking for consultation of specific stakeholders especially with regards to methods, data and communication of advice.

ICES has been opening to stakeholders since 1980s (first Dialogue Meeting with fisheries managers). This process is described in a new CRR [https://www.ices.dk/sites/pub/Publication%20Reports/Cooperative%20Research%20Report%20\(CRR\)/CRR353.pdf](https://www.ices.dk/sites/pub/Publication%20Reports/Cooperative%20Research%20Report%20(CRR)/CRR353.pdf). Today stakeholders are involved in many processes and Expert Groups, on diverse topics, methods and outcomes. There is a growing demand for dialogue and cooperation with actors from outside

academia. However, there are various viewpoints within ICES on engagement and also an overarching concern about the scientific integrity of the organization and discussions about “bias” that could arise when stakeholders are brought in. In this context, ICES decided to go forward and develop a stakeholder engagement strategy.

Key results of WKSHOES include the definition of ICES stakeholders (Experts, Observers, Participants, Partners); the review of an Expert Group Chairs survey (based on 35 answers); and the agreement of five engagement principles, as base of ICES stakeholder engagement. Gaps and risks were also identified and addressed in relation with Stakeholders engagement.

Next step is to develop a Strategy that will be presented to Council in October 2022, following a discussion with MIRIA and MIACO and a consultation with the ICES Community, ACOM, SCICOM, and Bureau in 2021-2022.

ACOM commented that there is a need to take out the concept of stakeholder when engaging with indigenous community, as they prefer to be considered as knowledge holders and not stakeholders.

All the participants to MIACO were contacted, which include NGOs. It is important to have a good understanding of how stakeholder’s engagement function at a national level as it can differ across ICES Areas.

ACOM Chair added that National approach needs to be recognized, like discussed earlier with indigenous participation. ICES Strategy needs to consider national differences and their responses in their national activities. Until now ICES has been only talking to stakeholders that have the power and resources to attend MIACO and expert groups. ICES Engagement Strategy aims to involve stakeholders that are less visible. Small scale and recreational fishers for instance are more and more active since they realize that our advice impacts their activities.

Action 11.1 Stakeholder engagement. Drafting group to prepare strategy for SCICOM and ACOM consideration in march 2022.

## 12 Update on development of online advice

ACOM was briefed on developments for online advice and was invited to comment.

ACOM welcomed and supported the development and had questions such as whether there will be implemented links to previous advices/data which was confirmed at least for 5 most recent years, facilitating comparisons across time. PDF export options were confirmed, first step will be to have a direct link to the actual advice-pdf and further options will be explored.

Logging in and saving the preferred settings was suggested; this has not been in the development plan as yet, however, it should not be that difficult to implement and could be explored. It does challenge the openness of the system, however.

ACOM was invited and strongly encouraged to provide ideas for graphic presentation of catch scenarios/fisheries scenarios.

ACOM offered continuing support, but no further actions and decisions were made.

## 13 Recommendations to ACOM

Recommendations from expert and advice drafting groups were made available online. ACOM were asked to review the responses. ACOM was invited to contact the ACOM Chair for any additions or follow-up questions to the responses to the recommendations.

## 14 Spatial conservation and management measures

New initiatives/activities in science and advice on spatial conservation and management measures was reported to ACOM.

The SCICOM Chair presented a short summary of ongoing ICES activity related to spatial conservation and management measures. This included the annual ICES VME advice (EU and NEAFC) and work on the EU deep sea access regulation, and associated data products, that will be used as a basis for the VME benchmarking process for 2021. Work on seafloor impact relative to catch/value of landings has also progressed over the past 10-20 years to operationalize assessments on spatial trade-offs for several of the ICES ecoregion. Similarly, a recent SCICOM OECM (other area-based conservation measures) workshop (WKTOPS) evaluated, using six cases studies, how fisheries restricted areas can function as a biodiversity conservation tools by evaluating their performance against a set of IUCN/FAO criteria. Given the recent momentum to implement spatial conservation measures in recent international legislation initiatives (CBD Aichi Target 11, UN SDG 14, EU Biodiversity Strategy 2030, OSPAR NEAES) ICES is also setting up a working group on spatial management measures that will focus on the benefits to the wider ecosystem, trade-offs, and design of network of MPAs. Synergy and opportunity between these related initiatives is being sought through targeted workshops and advisory processes.

ACOM recognised the progress being made, and welcomed the initiative to establish an ICES working group on spatial conservation and management measures (WGMPA). The draft terms of reference for the working group (in the process of being finalized) are to be posted on the forum shortly.

It was questioned whether the MPA group would look at displacement of other human activities as a consequence of establishing spatial management measures for conservation. ACOM was assured that yes this will be one of the focuses of the group, and that climate change will also be considered. It was added that one of the draft sub tasks of the group is to produce a guidance document on how MPA (including OECM) networks can be best designed to optimize conservation and fisheries (and other activities) benefits while reducing displacement 'costs' as much as possible.

No further actions or decisions were required, and the TORs for the new working groups will be posted on the resolution forum.

## 15 Update from data and information

Initiatives in data and information was reported by the Head of Data and Information.



The **Core Trust Seal (CTS) accreditation** was acquired in April 2021 to address several concerns arising when data is shared. In scope are the 30 data flows directly managed by ICES Data Center. It was explained that based on this, the following actions would be taken in the next cycle (some of them were already in progress):

- The creation of a **data preservation plan**.
- The **data licensing and data access** (completed).
- The **data flows thematic**. It involved a lot of steps and inputs from stakeholders.
- A **new accessions system** would be ready by the second half of 2022.
- The **Data Profiling Tool** (<https://www.ices.dk/data/tools/Pages/Data-profiler.aspx>) to enable a wider understanding of all the data flows that are not directly managed by ICES. A score card is being developed for ACOM. The Data Profiling Tool was briefly described to address a question from an ACOM member. The aim of the tool is to both document the dataflow or product, but also use the answers here as a gauge for completeness of the dataflow, and document ICES efforts to quality assure all aspects of its advice production. The checklist comprises questions on data sharing, data categorisation, storage and access, data quality, and data format. The tool was already tested for the Celtic Seas ecosystem overview and partly also for the Norwegian Sea aquaculture overview.
- It was agreed to start documenting the data flows by using the Data Profiling Tool for the revised ecosystem overviews and all aquaculture overviews since 2022.
- The clarification of the **data policy**. This work started in 2019. It was explained that ICES has a lot of public open access data (80 to 85% of all of the data holdings) plus 15% of restricted access. A **new data policy** was published, more streamlined and in which all data that is considered **open access** that comes to ICES or is provided by ICES is under **CC-BY 4.0**, meaning that a citation or reference to the source is needed. It was explained that there are no restrictions or commercial restrictions to the data.
- Regarding the **restricted data**, we have different licenses.
- A **clarification from the UK** about data access was obtained in 2021 to clarify what can be accessed historically, presently and in the future in terms of the UK providing data to ICES which they are committed to through their MOU. It was explained that the UK will only respond in relation to an ICES data call.

**Data infrastructure** - A new data portal called [data.ices.dk](http://data.ices.dk) was created to bring together both data inputs but also allow data products and data outputs to be fed into the data portal and therefore ties together the data and advice more coherently.

**Project requests and contracts** - The advice request from OSPAR about the swept area calculations had been a long process but a great effort.

**Baltic data flows project (HELCOM)** - Although a lot of work was required, it has been an interesting project that underlined the challenge ahead of the community. It involved data harvesting from different institutes.

**The Joint Cetacean Data Programme workshop** - Will be a regional database. The group WGJCDP under the ICES umbrella will oversee the development of this work. There will be 18 European data providers.

The newly published **Arctic Assessment Tool (AHAT)** can be found on ICES's website and is similar to the tool developed for OSPAR and ACOM.

It was asked if the issue of sorting data only for one ecoregion was solved. The Head of Data and Information explained that it had always been possible to segment the data by regions but it was

difficult for some users to find the proper functionality. He further explained that the new data portal could perform the same function in terms of segmentation by regions.

There were no comments from ACOM and no further actions or decisions.

## 16 Climate and advice WKCLIMAD

Progress of the Workshop on pathways to climate-aware advice was reported to ACOM.

ACOM was invited to comment on the WKCLIMAD process for the, the workshop on constructing actionable strategies to include climate considerations into different advice products. This process included 6 months of intersessional work, Delphi surveys, and two interactive online workshops, with results projected to be available in early 2022.

There were no comments from ACOM.

## 17 Next year's work programme

The work programme for 2022 was presented to ACOM and ACOM was informed about planning for work in 2022 on:

- Data collection, industry perceptions and advice on cod in mixed fisheries
- Ecological and commercial consequences of fisheries on sticklebacks and round goby in the Baltic Sea
- The EBFM initiative in the Baltic Sea
- Further developments of overviews
- Spatial conservation and management measures
- Benchmarking VMEs
- Bycatch of protected, endangered and threatened species (PETS)

The difficulties in preparing the workplan was explained. The processes are scheduled around the Advice Requester deadlines and the Expert Group meeting dates at the same time as trying to avoid overlapping meetings, allowing for enough time between the expert groups, ADGs and WCs to perform the quality checks and updates and formatting of advice sheets.

Experts are often very enthusiastic and underestimating the time needed for preparing for requests and in 2021 some experts had to pull out of processes they had agreed to be part of due to overlapping work tasks. This demonstrates the difficulties in making workplans for people ICES does not have mandate for.

The development tracked for 2022 were explained and the advice drafting group planning was presented. ACOM members were asked to come forward to fill out the Chair role for ADGs still needing a Chair and also nominate members for the advice drafting groups

ACOM was informed that there will be no new viewpoints in 2022 but there are candidates for 2023.

Action: 17.1 Workplan. ACOM members to come forward to fill out the Chair role for 2022 ADGs.

Action 17.2. workplan. ACOM members to nominate members for the 2022 advice drafting groups.

## 18 Management objectives bycatch of threatened, protected and sensitive species

The large amount of work and advice that ICES has produced and will produce in 2022 on the bycatch of PETS is being challenged by the lack of clarity on management objectives. Across all the requesters of advice, there are many management objectives and approaches to fisheries and marine environmental managers for clarification of the objectives have not resulted in resolution of the challenge. Thus in the absence of management guidance ICES needs to form an advice framework.

ACOM Vice-Chair, introduced the subject and put forward four recommendations to ACOM:

1. In the absence of clear guidance from managers, and to be able to proceed with development of biological reference points for PETS bycatch, to adopt the following higher order management objective: “minimize and, where possible, eliminate bycatch of PETS”.
2. To adopt the operational objective on route to the higher order objective “to continue to mitigate and reduce bycatch of PETS, a threshold approach is required to enable evaluation of bycatch mortality in relation to population size”
3. Start work on proposing thresholds (reference points) for marine mammals, seabirds, marine turtles and relevant fish species bycatch via EG activities and establishing dedicated workshop(s) whenever feasible, in light of the ICES interpretation above.
4. That ICES continues efforts with requesters of advice to provide guidance on management objectives for bycatch of PETS.

The ACOM Chair reiterated that there is a frustration in the ICES scientific community in terms of the clarity of management objectives as clear answers from managers are not available.

In previous ICES advice it was stated that a clear message from managers in terms of management objectives in relation to PETS bycatch were needed.

One ACOM member asked who the requester for this advice is. It was clarified that there are several requesters, by including DGMARE, OSPAR, DGENV, NEAFC. However different requesters have different approaches to the management objectives of PETS bycatch, as outlined in the ACOM Document 18. It is impossible to reconcile the different existing management objectives in ICES member countries. One ACOM member asked whether ICES wants to align objectives or propose a new and consistent approach.

The ACOM Vice-Chair clarified that what ICES is proposing (i.e. to minimize and where possibly eliminate bycatch of PETS) is already stated in several legislative instruments such as those of UK, US, EU. As a second step, threshold approach can be taken as already implemented by ICES in the emergency measures bycatch advice of common dolphins and harbour porpoises in 2020c.

It was suggested that ICES should push for a formal change and agree on some level of numerical threshold (e.g. 95% or 80%). However, unless a decision is made there will be no progress.

Another ACOM member considered that ICES should be able to evaluate limits and thresholds in the bycatch advice.

It was also noted that recommendation 1 should be related to lack of evidence base to assess population status and not only to lack of clear guidance from managers. Clear objectives are needed but we also need to know where the point of no return for the different populations is, and in many instances we don't know this. It was also commented that regarding recommendation 2, what we want is to understand the "population level consequences of various levels of bycatch mortality". It was suggested that the wording for the proposed recommendations 1 and 2 to be amended.

It was questioned during the discussion the need of recommendation 1 because independently of this recommendation thresholds need to be developed anyway. Some other ACOM members noted that recommendations 1 and 2 arise from the current legislation. Further it was noted that recommendation 1 refers to the advice ICES is currently providing and can provide because we don't have defined thresholds, while recommendation 2 is aspirational.

There was a consensus that thresholds and reference points are needed to provide better ICES advice.

Consensus was reached, with the following recommended text.

- 1) Considering important differences and limitations in the evidence basis available for population-level assessments of PETS, and the absence of agreed and comparable objectives for the management of PETS bycatch, ICES will provide advice in accordance with the generic and precautionary objective to "minimize and, where possible, eliminate bycatch of PETS", consistent with several legislative instruments and governmental initiatives (e.g. in EU, UK and US)<sup>2</sup>.
- 2) ICES will work with requesters of advice to prioritise species for the development of population-level assessments enabling the evaluation of bycatch mortality and associated consequences for PETS populations.
- 3) For those species that have been prioritised, and for which the data and knowledge basis can support an evaluation of population status in response to fishing-induced mortality, ICES will explore and advise on the definition of precautionary biological viability limits/thresholds of PETS bycatch and apply such thresholds to advise on mortality levels that might threaten the conservation status of species.

Decision 18.1. Bycatch of PETS. Agree to new text on objectives given above.

## 19 Expectations for 2022

Each ACOM member was invited to share their expectations for 2022 with the rest of the committee.

ACOM noted that there are many challenges ahead, not least of which is the ongoing Covid19 disruptions, but also highlighted many positive ongoing developments and interesting work to be done. A common theme in the expectations for the coming year was a desire from ACOM to

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<sup>2</sup>EU Common Fisheries Policy; Regulation 2019/1241; EU Biodiversity Strategy 2030; EU Action Plan for reducing incidental catches of seabirds in fishing gears; UK Fisheries Act; U.S. Marine Mammal Protection Act.

have more in-person meetings, acknowledging that these would be hybrid meetings for the foreseeable future. The potential changes to the reference point framework are much anticipated given the potentially large impacts this could have on fishing opportunity advice in the coming years, which will tie in to more broad consideration of the advice framework and evaluation of rebuilding plans. It is also hoped that TAF can become more prominent and more widely used. A first benchmark for VME definition and more workshops on bycatch were also highly anticipated. Many members were looking forward to developing and implementing improvements in ecosystem advice (communication, format), and exploring how can we deal with climate change more directly in our work.

ACOM also welcomed the addition of two new ACOM vice-chairs, but many in ACOM will miss outgoing ones. Ghislain will shift to work on his wife's to-do list in retirement, while Colm will remain actively involved with ACOM in his new position at Marine Institute Ireland. There was a huge thank you to outgoing vice-chairs who have contributed significantly to the work of ACOM and been much appreciated colleagues over the last few years.

## 20 Closing wrap up

ACOM have a highly ambitious agenda for 2022 and beyond, the developmental work will be demanding of all experts and as well ACOM and need to be considered in the light of the workload. The two issues are not necessarily directly linked, however, as most ACOM members are not involved with the management of experts/staff. The ICES Council has asked that workload issues are brought up at WGCHAIRS in terms of how to improve the conditions/options for ICES experts (and ACOM) to work on ICES related matters.

The ACOM chair wholeheartedly thanked the two outgoing ACOM Vice Chairs, Ghislain Chouinard and Colm Lordan as well as the outgoing ACOM member Fatima Borges. All will be greatly missed and their contributions to the development of ICES advice and science have been pivotal. The two new ACOM Vice Chairs will be introduced in early January, one is a well-known ACOM member, Joanne Morgan and the other a well-known ICES expert, Dorleta Garcia. Both are looking forward to beginning their terms in ACOM Leadership.

## 21 Fish list of species of bycatch concern

On 7<sup>th</sup> December an extra session was held to consider the ICES list of fish species of bycatch concern initially proposed by Workshop on Fish of Conservation and Bycatch Relevance (WKCOFIBYC) that required ACOM approval and adoption.

In 2020 a dedicated workshop, WKCOFIBYC, took place with the main aim of suggesting regional lists of species of conservation and bycatch concern. The [Roadmap for ICES bycatch advice](#) includes as one of its aims to “establish an “ICES bycatch fish species list” by 2021, which will be periodically re-evaluated and updated”. Regional lists were produced by the workshop and peer reviewed. Relevant corrections highlighted by reviewers were implemented to the lists before they were circulated to ACOM for examination. ACOM members from some ecoregions pointed out that the proposed lists for their particular area needed amendments since for example some commercial species assessed at national level were still included in the list.

It was raised that relevant experts from some respective ecoregions did not participate in WKCOFIBYC and thus important regional knowledge may have been missed. Some wondered what is the ACOM member role in cases such as this when a process pertains all ICES Ecoregions; are they responsible to involve relevant experts from their respective ecoregions?

It was clarified that this work was not done in relation to a special request, but it was work agreed by ACOM under the Roadmap for ICES bycatch advice. The tasks were described under the WKCOFIBYC ToRs. There was a request about the methods used to arrive to the lists and it is explained that the methods are described in specific sections of the WKCOFIBYC report.

ACOM should decide whether stocks that are assessed nationally should be removed from the lists (e.g. lumpsucker in Norwegian Sea and Icelandic Waters). It is clarified that WKCOFIBYC methods included the removal of fish stocks that were assessed by ICES only because the members of the workshop lacked information on national assessments. However, removing species that are assessed nationally follow the general methodology applied at the WK.

### **Decisions and agreements:**

Action 21.1 Fishlist. ACOM members to review the lists by ecoregion, Category 5-6 stocks to be removed and ACOM to send feedback and amendments by 10<sup>th</sup> January. Amendments to the lists should be justified.

Decision 21.1 Fishlist. The final agreed list of fish species of bycatch concern will be included in the upcoming data call for WGBYC.

## 22 List of actions and decisions.

Action: 1. ACOM to review and update the ACOM membership list

Action: 3.1 Risk. ACOM leadership to unpack point 3 of the advice rule to provide a decision tree and avoid confusions between a) the F that will bring the stock above Blim at the end of the projection year; b) forecast sensitivity to assumptions; and c) precautionary considerations (probability of  $SSB < Blim$  in short term forecasts).

Action 3.2 Risk. ACOM to further discuss the effective communicating the risk associated with the advice, and the use of risk as the currency for ecosystem-informed fisheries advice

Action: 4.1 Conservation status and restoration. Subgroup to report to ACOM March 2022 with proposal and example

Action: 5.1 WKLIFE. Enact plan developed for training and dialogue on methods.

Action 5.2 WKLIFE. Draft Guidelines to be published after working with WGDEEP and WGEF.

Action 7.1. ADG guidelines to placed place on the forum

Action 7.2 ICES Guidance for completing single-stock advice to be placed on the forum

Action 10.1 EBM subgroup. Find champions to implement next steps and apply in case study.

Action 11.1 Stakeholder engagement. Drafting group to prepare strategy for SCICOM and ACOM consideration in march 2022.

Action: 17.1 Workplan. ACOM members to come forward to fill out the Chair role for 2022 ADGs.

Action 17.2. workplan. ACOM members to nominate members for the 2022 advice drafting groups.

Action 21.1 Fishlist. ACOM members to review the lists by ecoregion, Category 5-6 stocks to be removed and ACOM to send feedback and amendments by 10th January. Amendments to the lists should be justified.

Decision: 3.1 Risk. Specify timeframes in the Advice on fishing opportunities (for long-lived category 1 and 2 stocks) e.g. 'maintaining the stock above Blim with at least a 95% probability' applies over the long-term

Decision 3.2 Risk. Continue with a 50% probability of  $SSB < Blim$  to advise zero catch (status quo) but remove 'high probability' from the Advice on fishing opportunities text, and include and communicate the estimated probability of  $SSB < Blim$  in the catch scenario table in the advice.

Decision 3.3 Rick. Operational status quo in headline advice, with the inclusion of risk probabilities in the catch scenario table, where possible.

Decisions: 5.1 WKLIFE. Reiterate support for incremental implementation of WKLIFEX methods.

Decisions: 6.1 TAF & RDBES. To receive attention in March 2022 ACOM meeting, to further address the issues raised.

Decision 7.1. Observer from requester guidelines agreed by ACOM with minor revisions. To be discussed at MIRIA and included in guide to expert groups

Decision: 7.2 BOG Extra web-conference in February to address the proposed list of 2022-2023 benchmarks.

Decision: 7.3 IBPS. Secretariat and ACOM Leadership will draft and put a document on the ACOM forum for decision in March, 2022.

Decision: 7.4 Aquaculture Overviews. ACOM agreed to add a separate section to Aquaculture Overviews on 'management frameworks' from 2022 onwards.

Decision 18.1. Bycatch of PETS. Agree to new text on objectives given above.

Decision 21.1 Fishlist. The final agreed list of fish species of bycatch concern will be included in the upcoming data call for WGBYC.



## Annex 1: List of participants

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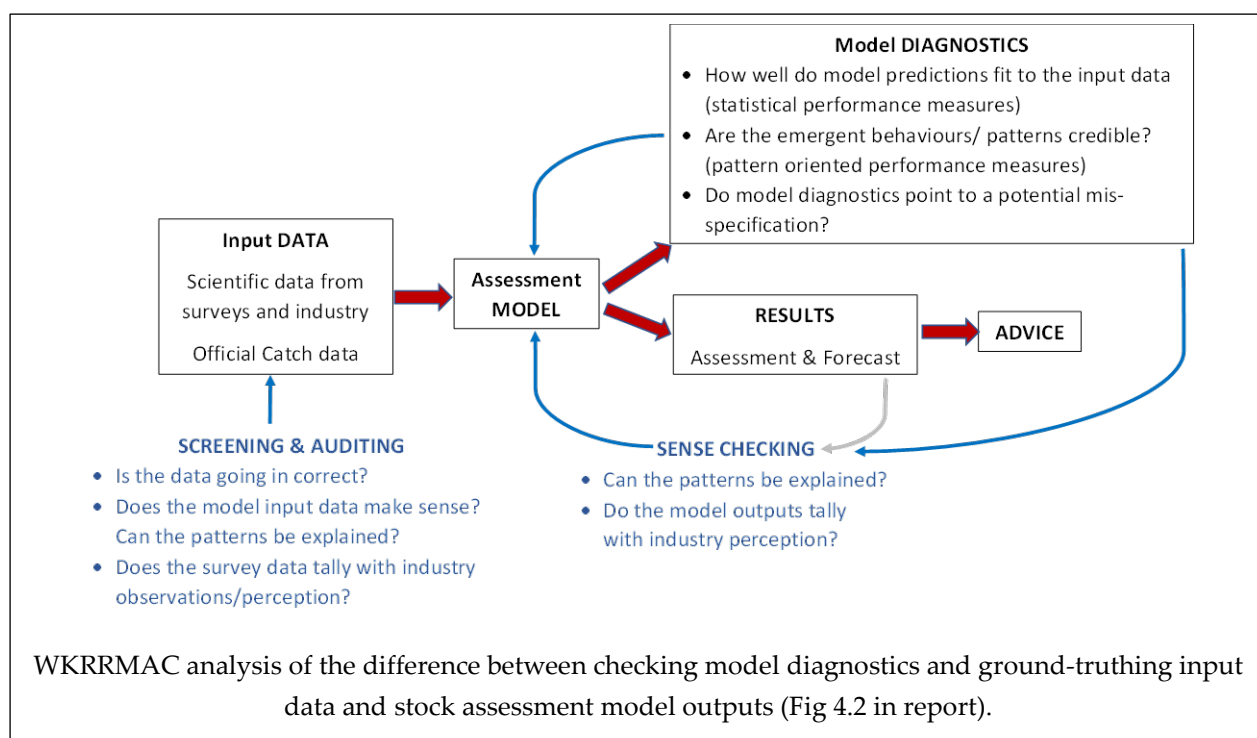
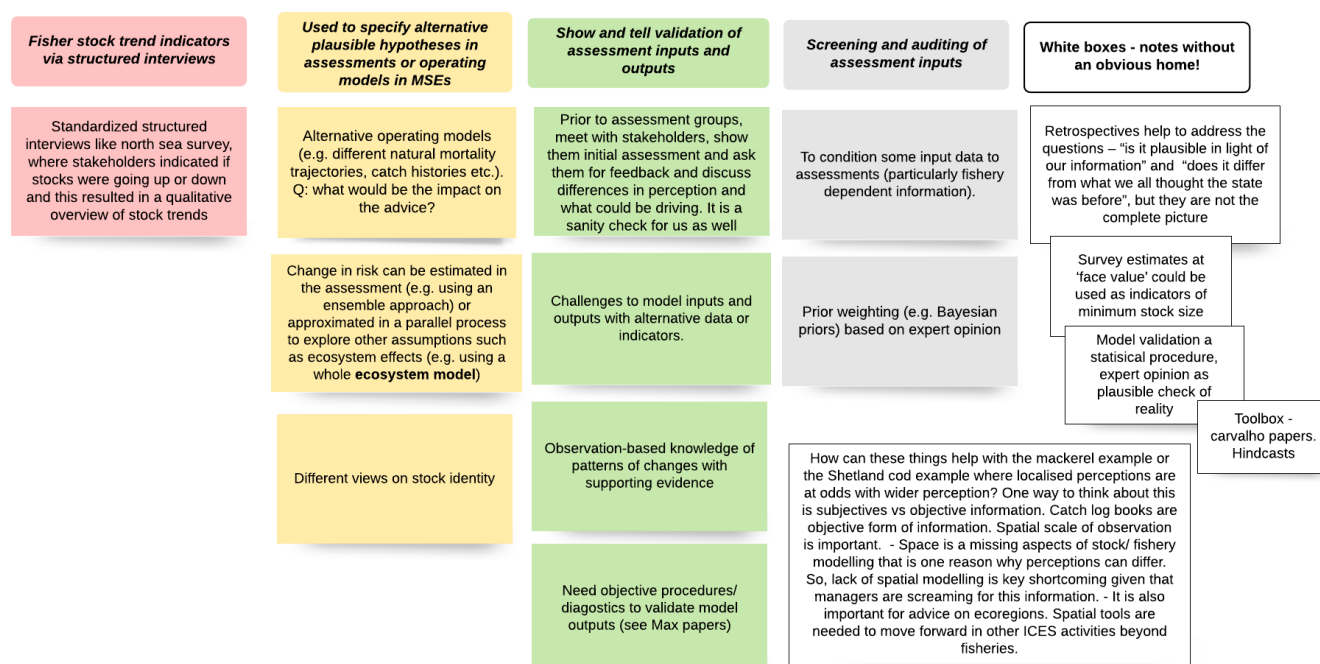
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## Annex 2: Sharing alternative perceptions of the state of stocks and fisheries

‘What forms could credible alternative perceptions of stocks and fisheries (advice) take?’

ACOM December 8, 2021

What forms could credible alternative perceptions of stocks and fisheries (advice) take?



## Annex 3: List of meeting documents

Doc 01a	Draft agenda
Doc 01b	Membership of ACOM
Doc 01c	ICES Code of Conduct
Doc 01d	List of action points and decisions of ACOM March 2021
Doc 03	Use of risk in ICES advice (
Doc 04	Conservation status and restoration
Doc 05a	WKLIFE Issues
Doc 05b	ICES technical guidance on harvest control rules for stocks in category 3
Doc 07.1a	Guidelines for Advice Drafting Groups
Doc 07.1b	ICES Guidance for completing single-stock advice
Doc 07.2	ICES guidelines for requesters of advice, and representatives of ICES member countries, when observing expert groups and advice drafting groups
Doc 7.3	BOG (Benchmark Oversight Group) Report on progress
Doc 7.4	Managing IBPs
Doc 09	Sharing alternative perceptions of the state of stocks and fisheries
Doc 10	ICES Framework for Ecosystem-informed Science and Advice
Doc 11	Workshop on stakeholder engagement strategy (WKSHOES)
Doc13	Recommendations made to ACOM during 2021
Doc17b	Workplans
Doc 18	Management objectives in relation to the bycatch of protected, endangered and threatened species
Doc 18b	Management objectives in relation to the bycatch of protected, endangered and threatened species - Recommendations