Communications and the chair of the parent steering group. Guidelines for developing and submitting science highlights are provided in Annex 7.

3.7.4 Dissemination of expert group reports

Following completion of the expert group report, the Secretariat informs the expert group that the report is published on the ICES website and groups are encouraged to share the link with interested parties.

Since expert groups do not and may not provide ICES advice on behalf of the Council (Section 3.1.3), the information, results of analyses, or conclusions contained in the reports of expert groups supporting advice requests cannot be assumed to represent the final advice prepared by the advice drafting group and signed off as advice by ACOM.

Perspectives on other topics addressed by expert groups are not ICES advice and should only be described as outputs of the expert groups. In drafting executive summaries in particular, care should be taken to use language that does not to give the impression that the expert group report could be treated as advice.

As described in Section 3.1.3 the status of expert group reports is explained in the following statement that is always included in the report "The document is a report of an expert group under the auspices of the International Council for the Exploration of the Sea and does not necessarily represent the views of the Council."

3.7.5 Archiving and documentation of work referred to in ICES advice or other official ICES documents, and which is not included in expert group reports or otherwise published.

There may be cases where documentation, which is not part of an expert group report or otherwise published, needs to be used as the basis for advice or referred to in official ICES documents. In the interest of transparency such documentation must be made publicly available.

There are two categories of documentation to consider: 1) work done in the expert group but not included in the report as agreed by the expert group; 2) work done outside expert groups and not published.

In relation to the first category, a description of the work should be published as an annex to the relevant expert group report.

In relation to the second category, the work should be published as an ad-hoc report. These reports will be authored.

If the author of the work does not want it published as described above, because it is to be published in another way, then the work cannot be used, or referred to, before it is published.

3.8 Recommendations

Recommendations are requested from expert groups to ensure that other expert groups, steering group chairs, ICES Secretariat, ICES Data Centre, ACOM, and SCICOM are aware of information from the expert group that influences work in other parts of the network. Expert group chairs are encouraged to upload recommendations online.

Recommendations and their implications should be carefully considered by the expert group before submission and should relate to issues that the ICES network has the

capacity to address (i.e. consider if there is a mechanism by which the network can take action). As a guide, expert groups should list up to five recommendations that they deem to be of high priority. Each year, ICES Secretariat extracts all recommendations for systematic review, by the ACOM and SCICOM chairs and the Secretariat in the first instance. Please apply the following guidelines when developing and writing recommendations:

- Add text to say they should have stand-alone meaning:
- Include a clear action that ICES Secretariat, Data Centre, ACOM, or SCICOM can consider. For example:
    - To establish an expert group (these also require draft resolutions, which must be included in a separate annex to the report of the originating expert group);
    - To propose a ToR for another ICES expert group (draft the ToR and name the receiving expert group and state whether they have been consulted and the outcome- as recommendations will only be progressed when such consultation has taken place);
    - To propose a Theme Session for an ASC (Theme Session proposals must also be submitted in response to the call for proposals distributed by the Secretariat in Spring);
    - To propose generic issues to be addressed by e.g. ACOM or SCICOM.
- Spell out any acronyms used.
- Make it clear that it is the expert group (not ICES) presenting the recommendation.

Recommendations can be addressed to one or more of the following: other expert groups, ICES Secretariat, ICES Data Centre, ACOM, or SCICOM (to include material for the attention of operational groups as well) or an RCG (any recommendation directed to an RCG will simply be passed to PGDATA). Recommendations not clearly addressed to one or more of these bodies are not processed.

It is good and necessary practice that recommendations for other expert groups are discussed with the chair of the receiving expert group before they are added to the database, both to assess the feasibility of following the recommendation and to avoid surprises at the time of review. It should be stated on the recommendation whether this discussion has taken place and what the outcome of the discussion was. If there is no indication that the discussion has taken place then the recommendation cannot be progressed.

If an expert group identifies another issue of high importance or urgency that cannot be addressed through the recommendations process then it should be raised directly with the relevant steering group chair.

Recommendations are processed annually by a group including the secretariat, ACOM chair and SCICOM chair. Those recommendations that lead to actions are redirected to the appropriate group by the Secretariat.

Please do not:

- Address recommendations to “ICES” or “ICES Member Countries”;

- Include recommendations for the originating expert group. These should be recorded in a separate action list or included as ToR in the draft resolution for the following year.
- Include recommendations giving advice.
- Include recommendations for other expert groups that have not been discussed, in advance, with those groups.
- Request funding or ask that other funding agencies should support expert group work.

4 ICES Code of Conduct and Conflicts of Interest

4.1 Background

Given ICES role as a knowledge provider, it is essential that experts contributing to ICES science and advice maintain scientific independence, integrity, and impartiality. It is also essential that their behaviours and actions minimize any risk of actual, potential or perceived Conflicts of Interest (CoI). A CoI arises when there is an actual, potential or perceived possibility that a scientist or adviser makes a contribution to ICES work that is not based on a systematic scientific review of the available information and evidence. An actual, potential, or perceived CoI arises because the decision or outcome of a process may be influenced, or is perceived to be influenced, by self-interest, professional-interest, external pressures and other factors.

ICES has the ambition to be an inclusive organization. This implies that experts are primarily judged by their expertise, behaviours, and contributions, not their affiliations. Experts with a potential or perceived CoI can be included, provided they follow the Code of Conduct (below) and show through their behaviours and contributions to be fully capable of managing the CoI.

To ensure credibility, salience, legitimacy, transparency, and accountability in ICES work, to avoid CoI, and to safeguard the reputation of ICES as an impartial knowledge provider, all contributors to ICES work are required to abide by ICES Code of Conduct below.

The ICES Code of Conduct provides guidance on identifying and handling actual, potential or perceived Conflicts of Interest, defines the standard for behaviours of ICES experts contributing to ICES science and advice and sets the responsibilities of those contributing to ICES work.

4.2 Roles of delegates and chairs

The national Delegates and chairs (in the case of "chair-invited experts") are the gatekeepers of the system when nominating experts. It is their responsibility to ensure active adherence to ICES Code of Conduct. This implies that they are responsible for ensuring:

- All experts contributing to ICES work are aware of ICES Code of Conduct.
- Actual, potential, or perceived Conflicts of Interest are identified and assessed prior to nominating experts.
- Experts are only nominated or invited if the nominating delegate or inviting chair are confident that the experts have provided adequate evidence that they can and will abide by this Code of Conduct.

4.3 Relevance of the Code of Conduct

The Code of Conduct applies to all scientists participating in ICES expert groups, Review and advice drafting groups and ACOM and SCICOM meetings. Occasionally, ICES may run meetings which are intended to solicit stakeholder views. For these meetings, explicitly identified by the Secretariat and in advance of the meeting, participants will be asked to represent specific professional interests.

4.4 Code of Conduct

1. The purpose of this code is to ensure transparency and accountability in ICES work and to safeguard the reputation of ICES as an impartial knowledge provider

2. The Code of Conduct applies to all contributors to ICES work and all contributors to ICES work must abide by the Code of Conduct.

3 All contributors to ICES work are expected to conduct themselves in a manner consistent with scientific independence, integrity, and impartiality and to declare any Conflicts of Interest.

4. All contributors to ICES work must actively support ICES vision and mission.

5. All participants at the meeting, including the chair, are required to declare any Conflicts of Interest and their commitment to abide by the Code of Conduct before their work commences. It is the responsibility of the chair to ensure these declarations are made.

6. In cases of uncertainty as to whether an action or activity constitutes an actual, potential, or perceived Conflict of Interest, it is expected that all persons engaged in ICES work will err on the side of caution and identify, disclose, and manage the actual, potential or perceived Conflict of Interest. In situations of actual, potential, or perceived Conflict of Interest, all those involved in the discussions are expected to actively seek feedback from one-another, in an open and transparent discussion and in line with the expectations outlined in this Code of Conduct.

7. In cases of actual, potential, or perceived Conflict of Interest an expert can still contribute to ICES work if the national Delegate and chair involved are satisfied that the independence and objectivity of work to be carried out are not at risk, or will not be perceived to be at risk, and that long-term confidence in the impartiality, vision and mission of ICES will not be diminished.

8. In cases when there is an actual, potential or perceived Conflict of Interest of the chair, the chair can still contribute to ICES work if the National Delegate and Secretariat are satisfied that the independence and objectivity of work to be carried out are not at risk, or will not be perceived to be at risk, and that long-term confidence in the impartiality, vision and mission of ICES will not be diminished.

9. Chairs should ensure that the full range of available data, evidence, and scientific opinions are considered in their groups and that any differences are identified and explored before reaching conclusions.

10. All contributors to ICES work should present and review data, scientific evidence, theory, or interpretation honestly and accurately and no contributor to ICES work should knowingly mislead, or allow others to be misled, about scientific matters.

4.5 Action in case of a perceived or actual breach of the Code of Conduct

1. The expert involved must seek feedback, from the meeting chair and participants, on how to resolve the breach and ensure the Code of Conduct is followed.

2. If the discussion (1) does not resolve the issue, the chair should consult the Secretariat before making a decision on the participation of the expert, either excluding the expert for the entire meeting or for the period during which the issue leading to the perceived or actual breach is being addressed. In this case, the Secretariat will inform and if necessary consult ICES Bureau about the decision within 24 hours. Council acts as the final arbiter in the case of ongoing dispute.

3. To record perceived or actual breaches of the Code of Conduct and to ensure that the Code is being applied in a consistent and transparent manner, the Secretariat will provide Council with an annual report listing breaches and the actions taken to address them.

4.6 Adoption and review of the Code of Conduct

The Code of Conduct in Sections 4.4. and 4.5. was adopted by ICES Council on 17 October 2018. The Code of Conduct will be evaluated after 3-years. To inform this evaluation, expert group chairs are encouraged to provide ongoing feedback to the ACOM and SCICOM chairs on their experience with applying the Code of Conduct and proposals for improvement. Specific breaches of the Code of Conduct should always be reported to the ACOM chair, SCICOM chair and secretariat as outlined in Section 4.

4.7 Practical application of the Code of Conduct in meetings

The Code of Conduct is a relatively long document. While all people participating in ICES work are expected to read it and act on it, meeting chairs will have to strike a balance between drawing attention to the code and timely management of the introduction to a meeting. But, at the **start of each meeting**, expert group members should always be given an opportunity to declare any conflicts of interest and to indicate their willingness to abide by the code.

In case of doubt, then the following words would provide an appropriate introduction to the code at the start of a meeting.

"*Before we begin our work, I am drawing your attention to the ICES Code of Conduct. This code applies to all of us in this group as well as to me/us as chair/s.*

The code exists to ensure transparency and accountability in ICES work, to guarantee the impartiality of our work and protect ICES reputation as an impartial knowledge provider. The full code should be read in the "Guidelines for ICES groups".

The code requires that all of us should conduct ourselves, throughout this meeting and in relation to issues addressed at this meeting, in a manner consistent with scientific independence, integrity, and impartiality.

The code also requires that we should also declare any Conflicts of Interest that may prevent us from acting with scientific independence, integrity, and impartiality.

As chair/s, I/we am/are therefore asking you to state immediately if, first, you have any Conflicts of Interest that prevent you from acting with scientific independence, integrity, and impartiality, and second, if you cannot abide by the Code of Conduct."

In the event that members (or the chair):

(1) declare a conflict of interest, or

(2) state they cannot abide by the Code of Conduct,

then the following actions should be taken:

(1) refer to item 7 and 8 in the Code of Conduct to decide how to proceed

(2) the member or chair should not participate in ICES work

Breaches of the Code of Conduct should always be reported to the ACOM chair, SCICOM chair and secretariat.

To minimise the risk of breaches it is important that expert group chairs should only invite members to expert groups if they are confident that the invitees can, and will, abide by the Code of Conduct.

5 Guidelines for the Advisory Committee (ACOM)

5.1 Responsibilities of ACOM

In ICES, ACOM has sole responsibility for generating and signing-off scientific advice in support of the management of coastal and ocean resources and ecosystems. Its tasks are to oversee ICES advisory services, set the strategic direction and provide leadership in all areas linked to the provision and development of advice.

ACOM's main responsibilities are to:

- Design strategies and processes for preparation of advice,
- Manage advisory processes,
- Create and deliver advice,
- Interact with SCICOM to identify science priorities in support of ICES advisory services.

ACOM has the authority to establish and dissolve expert groups as well as advice drafting groups, benchmark groups/processes, scoping workshops and review groups, and to add advisory ToR to existing expert groups in consultation with the Fisheries Resources Steering Group chair and the Secretariat.

5.2 Membership and chair of ACOM

ACOM has one member per country appointed by the respective national Delegates, as well as a chair and vice-chairs. The SCICOM chair and the chair of the Fisheries Resources Steering Group are *ex-officio* non-voting ACOM members. National Delegates can appoint alternates to their ACOM member.

The ACOM chair is appointed by Council following a recruitment process managed by the Secretariat. Vice-chairs are nominated by ACOM and appointed by Council. The Fisheries Resources Steering Group chair is elected by ACOM and SCICOM.

The ACOM chair and vice-chairs constitute the ACOM Leadership. The FRSG chair works pro-actively with the ACOM leadership group to guide and support expert groups and identify advisory priorities.

5.3 Role of ACOM members

Members and alternates of ACOM are expected to use their expertise in ensuring that ICES advice is based on best-available science, ensuring that the advice is relevant, timely, unbiased, independent, peer-reviewed and transparent.

1. Collectively, ACOM members:

a) ensure that ICES Advisory Services responds to current needs of ICES clients;
b) ensure that ICES Advisory Services develops to meet strategic needs of both ICES and its clients;
c) support the development and implementation of mutually agreed frameworks for advice between ICES and its clients;
d) agree on an annual plan for ICES advisory activities;
e) help to develop Terms of Reference and scientific ideas of relevance for ICES Advisory Service for ICES expert groups;
f) ensure procedures/best practices / guidelines of relevance for ICES Advisory Services are developed.

In addition, ACOM will

g) help SCICOM to define and to develop a science programme to underpin current and emerging needs for advice;
h) identify shortfalls in skills and knowledge needed in support of ICES Advisory Service and to work with ICES community to develop the required skills and knowledge.

2. Individually, ACOM members:

i) participate in all aspects of ACOM activities;
j) chair advice drafting groups as agreed by ACOM;
k) take a strategic view of direction of ICES advice, provide an oversight of the ICES advisory process, agree /modify guidelines, provide input to strategic and immediate planning of advisory process;
l) communicate frequently and actively with national Delegates and SCICOM members on advisory matters relevant to their work with ICES;
m) maintain and further strengthen links between ICES Secretariat, science, data, and advice;
n) encourage experts to take part in ICES activities, particularly advisory work by highlighting the benefits and importance;
o) ensure adherence to procedures, best practices and guidelines.

In addition, ACOM members may:

p) review outputs from the expert groups and other structures in the network, identify gaps in scope and impact of work, or shortfalls in skills and knowledge, and advise on ways to fill these gaps and to improve our advice;
q) provide feedback to ACOM on science work needed for advice and the development of methods.

3. ACOM members also play a role individually in their home countries through:

r) coordination of Member Country advisory role;
s) promote and support effective communication between ACOM and the ICES Clients and national administrations/ bodies, including representing ICES advisory service nationally;
t) inform relevant national science communities about ICES advisory work;
u) managing national involvement in ACOM work, ensuring range of science/knowledge covered;
v) ensuring relevant expertise supplied to advice drafting groups allocated to the country in addition to those of national interest;
w) ensuring that nominated advice drafting group members understand their role;
x) working with national SCICOM Member to support national participants in expert groups supporting ICES Advisory Services.

5.4 Role of ACOM Leadership

The ACOM Chair's main roles are to work in close cooperation with the vice-chairs, the Head of ICES Advisory Support and the Fisheries Resources Steering Group chair to:

a) Chair ACOM and the ACOM Leadership meetings,
b) Oversee the delivery of ICES advice,
c) Ensure that ICES continues to respond to advisory requests,
d) Develop ICES advice to meet the demands of evolving maritime policies,
e) Implement advisory elements of ICES Strategic Plan,
f) Engage with ICES community on all matters of relevance for ICES Advisory Services,
g) Cooperate closely with all parts of ICES organization including participation in the Coordination Group, Bureau meetings, and SCICOM meetings.
h) Maintain and develop contacts with established and new clients to ICES advice,
i) Engage with stakeholders,
j) Present ICES advice to stakeholders,
k) Promote communication of ICES process, products, and work.

The roles of the ACOM vice-chairs are to:

a) Oversee advisory processes addressing recurrent and special requests,
b) Chair advice drafting groups, review groups and ACOM web-conferences,
c) Present advice to advice recipients and observers,
d) Contribute to development of ICES advisory approaches,
e) Participate in ACOM leadership meetings, ACOM meetings, and meetings with recipients and observers.

6 Guidelines for the Science Committee (SCICOM) and steering group chairs

The Science Committee (SCICOM) is the consultative committee of ICES as specified in the Rules of Procedure. SCICOM shall *inter alia* oversee the scientific interests of the Council and its scientific work as well as the programmes of research organized or coordinated by the Council through expert groups. The broad objectives of SCICOM are:

a) To keep ICES science programme dynamic, internationally relevant, and impactful;
b) To engage scientists in ICES Member Countries and beyond by planning an annual cycle of meetings and workshops as well as the Annual Science Conference;
c) To ensure seamless links between ICES science, data, and advice.

6.1 Responsibilities of SCICOM

SCICOM is empowered to speak on behalf of ICES on science priorities and strategies, and on the state of knowledge of topical marine issues. The empowerment is provided by national representation from member countries on SCICOM.

SCICOM has the authority to establish and dissolve expert groups and subordinate governance bodies (strategic initiatives, operational groups) as deemed necessary to deliver ICES Science Plan.

The following functions are the responsibility of SCICOM:

a) Working with ACOM to identify science priorities
b) Strategic science planning
c) Implementation of the science plan
d) Management of science activities to support ICES vision and mission
e) Implementation of cross-cutting science activities through partnerships
f) Nurturing scientific disciplines and methods
g) Overseeing and guiding the Annual Science Conference and co-sponsored symposia
h) Overseeing and guiding operational groups focused on data, training and publication

6.2 Membership and chair of SCICOM

SCICOM has one voting member per ICES member country and alternates nominated by the national Delegates. The six steering group chairs are voting members and the ACOM chair, General Secretary and Head of Science Support are *ex-officio* members. If needed, up to five members-at-large may be appointed by the Committee. The members-at-large are to fill gaps in disciplinary expertise, or other gaps that SCICOM need to fill to fulfil its mandate. In practice, most members-at-large are the operational group chairs.

The chair is a full-time position and the chair is appointed by Council following a recruitment process managed by the Secretariat. Emphasis will be placed on selecting a

chair with leadership, communication, scientific, and managerial skills. There is an option to appoint vice-chair(s), who (if required), would be elected by SCICOM members. In practice, steering group chairs currently fulfil the roles of vice-chairs.

6.3 Role of SCICOM members

Members of SCICOM are expected to use their expertise in the practice and management/coordination of marine science, including national, international and subject-specific expertise, and to draw on their networks:

a) To actively participate in SCICOM and to effectively represent SCICOM and ICES science within ICES network and beyond;

b) To help SCICOM to define and to develop a science programme that is dynamic, inclusive, internationally relevant and impactful; underpinning current and emerging needs for advice and shaping the medium and long-term direction of marine science;

c) To help develop and sustain effective and mutually beneficial collaborations with other international organizations working on marine science and management;

d) To contribute to planning an annual cycle of meetings and workshops, as well as the Annual Science Conference, to support ICES mission;

e) To help develop Terms of Reference and scientific ideas for ICES expert, steering and operational groups and to participate in meetings or calls to discuss/approve their resolutions;

f) To communicate frequently and actively with national Delegates and ACOM members on science matters relevant to their work with ICES;

g) To communicate with the science community in the member country, raise awareness of their activity within SCICOM and identify opportunities for international collaboration through ICES;

h) To identify shortfalls in skills and knowledge needed to achieve ICES objectives and to work within or through SCICOM, ACOM, steering groups, operational groups and strategic initiatives to develop the required skills and knowledge;

i) To contribute to updating communications and web materials relating to ICES science and scientists to increase awareness, visibility and impact of our science and scientists;

j) To maintain and further strengthen links between the Secretariat, science, data, and advice;

And, to contribute to the role of SCICOM in some of the following ways:

k) By promoting and supporting effective communication between SCICOM and the international marine science community, including speaking on behalf of ICES on our science priorities and achievements;

l) By encouraging scientists to take part in ICES activities and highlighting the benefits;

m) By working with other SCICOM members to identify where multidisciplinary and cross-cutting issues can add value to marine science;

n) By reviewing scientific outputs from the expert group and other structures in the network, identifying gaps in scope and impact of work, or shortfalls

in skills and knowledge, and advising on ways to fills these gaps and improve our knowledge;

o) By providing feedback to SCICOM on research priorities and the conduct of science-related activity identified in ICES strategic plan;

p) By guiding and informing the work of SCICOM operational groups and strategic initiatives and proposing consolidation, rationalization, or forming of SCICOM structures to best support the SCICOM role and ensure visibility of ICES science;

q) By encouraging colleagues and/or taking roles as steering group chairs or in SCICOM operational groups, strategic initiatives and ad-hoc groups to further the work of ICES.

6.4 Steering groups

Interaction between SCICOM, ACOM, and the expert groups is supported by steering groups. Each steering group addresses a broad and enduring area of science and advice and "parents" a number of expert groups.

There are six steering groups:

Ecosystem Processes and Dynamics Steering Group

Human Activities, Pressures and Impacts Steering Group

Ecosystem Observation Steering Group

Aquaculture Steering Group

Fisheries Resources Steering Group

Integrated Ecosystem Assessments Steering Group

Each chair is elected and appointed by SCICOM and ACOM and becomes a member of SCICOM (if not already a member of SCICOM in a national capacity). The chair of the Fisheries Resources Steering Group also becomes a non-voting *ex-officio* member of ACOM (if not already a member of ACOM in a national capacity). Chairs of all expert groups parented by a given steering group are members of that steering group.

Nominations for steering group chair candidates are sought from among SCICOM, ACOM, Delegates and the members of the steering group. Candidates for the position of steering group chair do not have to be SCICOM or ACOM members and are often expert group chairs from within a given steering group. If an elected steering group chair is not already a SCICOM member, he/ she becomes *ex officio* member of SCICOM. If the chair of the Fisheries Resources Steering Group is not already an ACOM member, he/ she becomes *ex officio* non-voting member of ACOM. If an elected steering group chair is a SCICOM member, then a new SCICOM member for the relevant country is appointed by the relevant national Delegate. If an elected steering group chair is an ACOM member, then a new ACOM member for the relevant country is appointed by the relevant national Delegate. A steering group chair has one three-year term, which can be extended by one year with the approval of ACOM and SCICOM.

6.5 Role of steering group chairs

Steering group chairs are voting members of SCICOM and, in addition to their roles as SCICOM members, they:

a) Engage with and work with chairs of expert groups to ensure that expert group work supports and meets the science objectives and advisory needs of ICES;
b) Help expert groups formulate and prepare their draft terms of reference and resolutions;
c) Review and report on the science being undertaken within expert groups to SCICOM and ACOM, with a focus on identifying science highlights and priorities and demonstrating the impact of their science;
d) Review scientific products/deliverables of the expert groups and provide feedback on ways to improve the impact and influence of their work;
e) Provide feedback to SCICOM on research priorities and implementation of ICES strategy;
f) Identify shortfalls in skills and knowledge needed to achieve ICES objectives within the steering groups area and work within the steering group and through SCICOM, ACOM and operational groups to develop capability;
g) Identify gaps and overlaps in the work of expert groups, and propose consolidation, rationalization or forming of new expert groups to SCICOM and ACOM as appropriate;
h) Help expert group chairs to adopt working practices, which ensure scientific information generated by expert groups is receiving adequate quality control consistent with scientific norms;
i) Facilitate active horizontal and vertical communication, collaboration and coordination between expert groups and all other relevant ICES groups and identify, in cooperation with expert group chairs, opportunities for internal and external collaboration;
j) Represent the steering group at SCICOM meetings (and ACOM meetings in the case of the Fisheries Resources Steering Group chair), at SCICOM/ACOM leadership meetings and at the ASC.

6.6 Strategic initiatives

Strategic initiatives can be established by SCICOM. Strategic initiatives are intended to introduce innovative and interdisciplinary thinking to ICES on topics that are cross-cutting and require input from partners outside the existing ICES network. Their work helps to increase the profile and relevance of ICES in a rapidly changing scientific and policy landscape. Strategic initiatives are always time-bound and have clear objectives that are reviewed by SCICOM. Council may also establish strategic initiatives that are referred to as Council strategic initiatives. Council strategic initiatives are managed by Council and not by SCICOM.

To encourage wide engagement and interaction, strategic initiatives can appoint up to four chairs. At least two chairs should come from ICES Member Countries and be active in ICES networks. At least one chair of the strategic initiative should usually be a SCICOM member and should provide regular reports to SCICOM on objectives and outputs of the strategic initiative. This allows SCICOM to help guide the work of the strategic initiative and to assess benefits to ICES. In the event that two or more chairs of the strategic initiative are members of SCICOM one of the chairs should undertake to represent the strategic initiative at any given meeting. If no existing national

SCICOM member is a co-chair of a given strategic initiative, or if there is a national SCICOM member who is a co-chair of the given strategic initiative but cannot attend a given SCICOM meeting, then SCICOM may identify a single co-chair of the strategic initiative as a non-voting member of SCICOM for the duration of the meeting. This non-voting member of SCICOM is funded to attend the SCICOM spring meeting. This approach helps to ensure that the strategic initiative is represented by at least one member who can report to SCICOM. The co-chairs of the strategic initiative are responsible for deciding who to propose to SCICOM as the single non-voting member. Any strategic initiative co-chairs who are not SCICOM members, or have not been identified as non-voting members, are invited to attend SCICOM meetings as observers, but are not funded to attend these meetings.

6.7 SCICOM operational groups (OG)

SCICOM oversees three operational groups: Data and Information Group (DIG), Science Impact and Publication Group (SIPG), and the Training Group (TG). It forms temporary groups such as the Annual Science Conference Group to address specific short-term (typically less than one year) tasks. SCICOM also provides three members for the Awards Committee, a body established and chaired by Council but also reporting to SCICOM.

6.7.1 Data and Information Group (DIG)

The Data and Information Group provides ICES with advice on all aspects of data management including data policy, data strategy, data quality, technical issues and user-oriented guidance. DIG provides feedback and guidance to ICES Data Centre on topics such as existing data products, current developments in data management and potential new data products. DIG acts as a coordinating body between the Data Centre, ACOM, and SCICOM on issues related to the national data centres and data policies, data handling and storage, metadata, and the use of IT in the Data Centre.

DIG members are nominated by Delegates (managed as part of the process for handling EG nominations) with the intention of developing a group that provides broad representation by the national data centres and disciplines. A representative of ACOM, the Head of Data Centre and the Head of Science Support are *ex-officio* members of the Data and Information Group. DIG meets annually with the Data Centre in Copenhagen. In addition, a subset of members of the DIG meet during the ASC. DIG reports to the full meetings of ACOM and SCICOM. DIG Group may invite additional expertise to address requirements at an individual meeting. The chair of DIG is elected by SCICOM for three years, with the option of a maximum one-year extension. Candidates for the chair are usually based on a recommendation from the group.

6.7.2 Science Impact and Publication Group (SIPG)

The Science Impact and Publication Group monitors ICES publication output and provides advice to SCICOM, ACOM, the Secretariat and network on increasing the reach and impact of ICES publications and science, including expert group reports. It also develops and recommends policies governing scientific publications as requested by SCICOM, reviews and provides guidance (to SCICOM, ACOM, the Secretariat, and network) on the evolution of science publication and communication and the opportunities and risks it presents for ICES and reviews and provides recommendations on category 1 resolutions for ICES publications prior to SCICOM meetings and intersessionally.

Science Impact and Publication Group members are appointed by SCICOM following a call on the Forum. Members are selected for their expertise in assessing scientific impact, analysis of publication and citation metrics, editorial experience and interest in developing ICES scientific impact. ICES Editor (a post in the Secretariat, not the Editor of ICES Journal of Marine Science) and the Head of Science Support are *ex-officio* members of SIPG. SIPG reports to all full meetings of SCICOM. Membership terms are 3 years in the first instance with the possibility of renewal for a maximum of a further 3 years. SIPG may invite additional expertise to address requirements at an individual meeting, by requesting a membership of one calendar year. The chair is elected by SCICOM for three years, with the option of a maximum one-year extension. Candidates for the chair are usually based on a recommendation from the group.

6.7.2.1 Series Editors

The SCICOM chair and General Secretary are responsible for appointing Series Editors for ICES Publications. This task is not within the remit of the Science Impact and Publication Group. For the appointment of Series Editors, a recruitment panel, consisting of the Head of Science Support and ICES Editor will compile and evaluate applications/appointments, and re-appointments, supported by relevant colleagues in the Secretariat, and make a recommendation to the SCICOM chair and the General Secretary for approval.

The Series Editor contracts are awarded for a three-year period. For all reappointments it will be possible for successful applicants to be reappointed twice, but following that period they will need to re-apply through an open and competitive recruitment procedure.

6.7.3 Training Group (TG)

The Training Group oversees ICES Training Programme and guides the development of the training provided by ICES. This involves identifying and developing courses with instructors, running and annual programme of courses, soliciting feedback on those courses and ensuring that training supports demands for expertise in science and advisory processes.

Training Group members are appointed by SCICOM. ICES Conference and Training Coordinator and the Head of Science Support are *ex-officio* members of Training Group. Members are selected for their interest and expertise in education and training and technical knowledge of the development of training methods and courses. Membership terms are 3 years in the first instance with the possibility of further 3-year terms. The chair of Training Group is elected by SCICOM for three years, with the option of a maximum one-year extension. Candidates for the chair are usually based on a recommendation from the group.

6.7.4 Annual Science Conference Group (ASCG)

The Annual Science Conference Group is established at the spring SCICOM meeting, approximately 18 months in advance of each ASC. The group guides the selection of theme and network sessions for the ASC (Annex 10) and keynote speakers based on the votes and rankings provided by SCICOM members, as well as advising on formats and logistics for the ASC.

Members are a subset of SCICOM members selected to provide broad coverage of the scientific topics that may be addressed at the ASC. The Head of Science Support is an

ex officio member of the group. The chair is always the SCICOM member who represents the country hosting the ASC.

6.7.5 Awards Committee (AC)

The Awards Committee is established and chaired by Council but also reports to SCICOM. SCICOM appoints three members of the Awards Committee from among SCICOM members for a maximum of two three-year terms. Council appoints the chair and one member from among Council members.

6.7.6 Overview of steering group and operational group member and chair selection

Group[1)]	SIPG	TG	DIG	ASCG	AC	SG
Member	Appointed by SCICOM	Appointed by SCICOM	Based on representation by national data centres and good coverage of disciplines subject to SCICOM approval.	Appointed by SCICOM	Three members appointed by SCICOM (chair and one member from Council)	All chairs of expert groups parented by the SG
Chair	Chair appointed by SCICOM (Term 3+1yr)	Chair appointed by SCICOM (Term 3+1yr)	Chair nominated by DIG, subject to SCICOM approval (Term 3 + 3yr)	Chair is the SCICOM member from the ASC host country (Term 18 mo)	Chair appointed by Council (Term 3 + 3yr)	Chair appointed by ACOM and SCICOM (Term 3+1yr)

[1)] SIPG: Science Impact and Publication Group, TG: Training Group, DIG: Data and Information Group, ASCG: Annual Science Conference Group, AC: Awards Committee, SG: steering group, SCICOM: Science Committee, ACOM: Advisory Committee

6.8 SCICOM Report

SCICOM produces an annual report for Council to describe the scope, scale, and impact of ICES science and plans for future science delivery. The review of scope, scale, and impact describes the delivery of science and supporting activity in the SCICOM steering groups, expert groups, strategic initiatives and operational groups and outcomes of the Annual Science Conference. The report is made available on ICES website.

Annex 1: Example of draft resolution for an ICES publication (category 1)

Please use the example below to formulate your draft resolutions.

A report on **Cephalopod Species in Europe**, edited by members of WGCEPH and other colleagues (Graham Pierce, Patrizia Jereb, Louise Allcock, Uwe Piatkowski, Eugenia Lefkaditou, and Lee Hastie), and comprising descriptions of the distribution, identification, life history, ecology and fisheries of those cephalopod species of commercial interest, will be published in ICES Cooperative Research Report series. The estimated number of pages is 200.

The editors agree to submit the final draft of the proposed publication by 31 December 2013.

Supporting information

Priority:	The proposed Cooperative Research Report presents a review and synthesis of knowledge, including recent research results, on the taxonomic status, identification, geographic distribution, life history, ecology and exploitation of European cephalopod stocks, covering 17 species of current or potential fishery interest. It complements a subject-based CRR on cephalopods published in 2010. The report aims to disperse the findings of the EU-funded CEPHSTOCK project, extensively and comprehensively updated, to the wider community.
Scientific justification:	• Cephalopods support important large- and small-scale fisheries in the ICES area. However, they remain essentially outside the scope of the European Community's Common Fisheries Policy and understanding of their stock dynamics, particularly in European coastal waters, remains variable. The forthcoming WKCCA addresses these issues and the proposed report is therfore timely. • The availability of syntheses of baseline knowledge of less well-known species such as cephalopods is currently very relevant to IEA and in relation to the MSFD. Historical note: completion of this report was a Term of Reference for WGCEPH during several years (2006-08) but following concerns that the material was out of date and would be superceded by the (recently published) updated FAO guides, a new round of review and writing was instigated in 2009, and the bulk of the work passed to the current group of editors. Fully revised species accounts (all 17) were sent to reviewers during 2013 and the process is therefore expected to be completed during the present calendar year.
Linkages to the Advisory Committee:	This report arises from the science side (through WGCEPH and (historically) LRC). As illustrated by the forthcoming WKCCA, cephalopods are increasing of interest in relation to fisheries advice and in any case are important ecosystem components relevant to IEA.
Linkages to other committees or groups:	It is expected that the CRR will be of interest to a range of end-users both within ICES and outside, reflecting the increasing interest in fisheries (and more recently culture) of cephalopods in Europe. The availability of syntheses of baseline knowledge of less well-known species is currently very relevant to IEA and in relation to the MSFD.
Linkages to other organizations:	In addition to their links with WGCEPH, five of the six editors are current or former members of the Cephalopod International Advisory Council.
Draft outline of publication:	Where possible, provide a thematic overview of the proposed publication e.g. draft table of contents or overview of possible sections.
Resource requirements:	Colour illustrations of the species are included
Participants:	Members of editors aim to complete revisions following referee comments and final compilation of the bibliography during the remainder of 2013.

Annex 4: Example of a draft resolution for a working group with multi-annual ToR (category 2)

A **Working Group on Whatever Business** (WGWB), chaired by Name, Country, will meet in Town, Country, Date Year, to work on ToRs and generate deliverables as listed in the Table below.

WGWB will report on the activities of 20YY (the first year) by Date Month Year to XXSG.

ToR descriptors[1]

ToR	Description	Background	Science Plan topics addressed	Duration	Expected Deliverables
	This should capture the objectives of the ToR	Provide very brief justification, e.g. advisory need, links to Science Plan and other WGs	Use codes	1, 2 or 3 years	Specify what is to be provided, when and to whom
a	e.g. Review and report on the science of offshore wind farms effects on the benthic system in the North Atlantic	a) Science Requirements b) Advisory Requirements c) Requirements from other expert groups	1.3, 2.4	e.g. year 1	Review paper
b					
c					
d					

Summary of the Work Plan

Year 1	
Year 2	
Year 3	

Supporting information

Priority	The current activities of this Group will ……
Resource requirements	The research programmes which provide the main input to this group are already underway, and resources are already committed. The additional resource required to undertake additional activities in the framework of this group is negligible.
Participants	The Group is normally attended by some 20–25 members and guests.
Secretariat facilities	None.
Financial	No financial implications.

[1] **Avoid generic terms such as "Discuss" or "Consider". Aim at drafting specific and clear ToR, the delivery of which can be assessed.**

Annex 5: Example of a draft resolution to hold an ICES-sponsored symposium (category 3)

Please use the template below to formulate your draft resolutions.

A **symposium on "Full title of the symposium"** will be held during [dates], at [place name and country] with [names and nationalities] as conveners.

A Scientific Steering Group and/or an Organizing Committee will be established with members nominated by ICES in order to assist the conveners in planning the symposium.

Supporting information

Priority:	Specify why the symposium is of high priority for ICES.
Scientific justification:	Specify the relevance of the topic for ICES Science Plan and Strategic Plan. Indicate if and how the topic will reinforce existing relationships with other organizations and institutions. Not to exceed half a page of text
Resource requirements:	Organizing a symposium entails significant resource requirements, which are largely met by the imposition of a Conference Fee. Indicate where and why additional support is needed.
Participants:	Indicate the number (ranges) of participants from ICES member and other countries that can be anticipated.
Secretariat facilities:	The ICES Secretariat may be involved in providing general professional and secretarial support, and the Secretariat may provide direct assistance during the Symposium. Indicate where secretariat involvement will be expected.
Financial:	Specify if co-funding is expected from ICES. Note that ICES contributes to co-funds early career scientists (maximum total of 10,000 euro) and may consider travel and subsistence for keynote speakers and ICES representatives in the symposium organizing committee.
Linkages to the Advisory Committee:	Specify here if the symposium topic is directly related to the remit of ICES advisory services and if members of the ICES Advisory Committee may contribute to the symposium.
Linkages to other committees or groups:	Specify here if the symposium topic is directly related to the remit of one or several ICES expert groups and if members of the expert groups may contribute to the symposium.
Linkages to other organizations:	Mention here the organizations in question and the contact person(s), if applicable
Publication of proceedings	Indicate if conveners intend to use ICES Journal of Marine Science for the proceedings. If known, mention whom you propose to be the guest editor(s). Contact Ruth Andersen, ICES Editor, for further information before completing this section.

Annex 6: Example of a draft resolution requiring Secretariat action (category 4)

Please use the example below to formulate your draft resolutions.

The General Secretary will write to CORE (Consortium for Oceanographic Research and Education) offering ICES co-sponsorship of the Census of Marine Life Workshop on the History of Marine Animal Populations

Supporting information

Priority:	High strategic priority for wider core role of ICES.
Scientific justification:	The Census of Marine Life, a programme sponsored by the Sloan Foundation, USA, aims to improve our understanding of the abundance, distribution, and trophic relationships of global living marine resources. The programme hopes to estimate the abundance and distribution of fish, cephalopods, siphonophores, and other key planktonic and benthic species, using existing regional and global survey programmes, and possibly, new programmes. Key elements will include the development of new remote sensing, acoustic, and sampling techniques, as well as the use of historical data. The programme will establish a baseline of data for comparison with future long-term changes in the oceans and will use historical data to assess how the oceans have changed to the present. In addition to regional pilot projects, a specific meeting on the use of historical data, H-MAP (the History of Marine Animal Populations), will be held in February 2000. The principle aim is to increase our understanding of marine ecosystem dynamics through interdisciplinary studies of historical records of exploitation of marine animals since human predation became important. The workshop will establish a research agenda and organizational structure for H-MAP. ICES could make a major contribution to the historical aspect by identifying available historical data and how they should be assembled and used as a benchmark for assessing the difference between historical times and the present.
Resource requirements:	1. Time for national scientists from regional laboratories (travel will likely be paid); 2. Meeting facilities in Denmark.
Participants:	N/A.
Secretariat facilities:	ICES Secretariat will be required to notify participants of the meeting and produce the report. Significant involvement concerning exploitation of ICES fishery databases may evolve. ICES Professional staff should be directly involved in the programme.
Financial:	No other financial implications.
Linkages to the Advisory Committee:	In the long term, links to the ecosystem elements of ACOM.
Linkages to other committees or groups:	Living Resources Committee, the sponsor of this resolution. Fisheries Technology, Marine Habitat, and Oceanography Committees may become involved as contact escalates.
Linkages to other organizations:	Significant global biological and oceanographic linkages, and with the academic world.

Annex 7: Science highlights in ICES

Coordination, leadership, and facilitation of science are central to realizing ICES vision: to be a world-leading marine science organization, effectively meeting societal needs for impartial evidence on the state and sustainable use of our seas and oceans.

Science highlights are used to draw attention to the most impactful and societally relevant science from our ICES network. Highlights serve to raise awareness of the breadth and impact of our scientific activity and expertise and to demonstrate the importance of our science for understanding marine ecosystems and securing their sustainable use.

What are science highlights?

Science highlights are concise and accessible written summaries of the most novel, important and impactful ICES science.

Science highlights include a link to a paper, book or other scientific output and can report science from anywhere in our network.

Ideally, the highlights are newsworthy because they are based on a very recent or forthcoming finding and supported with accessible images and a short biography of the scientist(s) conducting the work.

Highlights are used to promote ICES science on the web and in printed and spoken communication targeted to the network and beyond. Highlights will, for example, be used by the Communications Team in ICES and by communications teams in national laboratories to develop stories, news releases and tweets on work in ICES network.

Contents of science highlights

Science highlights are ideally provided with a short and accessible title of eight words or less. This title is often written in the style used in newspapers and other media to capture potential readers' attention, but it should not misrepresent the underlying science.

The main text of the highlight is typically 100-150 words and covers:

- what was the challenge/ problem to address/ solve
- what was found/ achieved/ solved
- what is the expected significance/ impact of the finding (often with a focus on societal or management impacts)
- what will follow

The main text is accompanied by additional text on scientific and related background of 100–150 words, a full reference to the book, paper, or other document (or expert group) and the full contact details of at least one lead scientist.

If photographs or figures are provided they should have a short accessible caption and ideally be provided in a form that does not restrict copyright (e.g. figures redrawn with font sizes and content to increase suitability for web use).

Rigour of science highlights

ICES is renowned for generating authoritative science and it is essential that highlights and any communications derived from them do not compromise or unreasonably sensationalise the underlying science. Steering group and strategic initiative chairs should review science highlights with their authors to ensure ICES science is accurately represented.

How to solicit science highlights

Expert group, steering group and strategic initiative chairs should regularly encourage their networks to provide highlights as well as actively asking for highlights if they are aware of important science being conducted in their networks. It is important highlights are captured in a timely way so current and forthcoming findings are still newsworthy.

Where to send science highlights

Science highlights should be sent to the Communications Officer (Terhi Minkkinen communications@ices.dk) and the SCICOM chair. Communications will discuss plans for further development and dissemination. It would be helpful to also copy science highlights to other steering group and strategic initiative chairs to raise awareness of network activity.

Processing of science highlights by ICES communications team

Submitted highlights are treated as suggestions for potential news and/or social media stories. If ICES communications team decides to develop a suggested highlight for promotion, they will communicate with the scientist who submitted to develop the final text. This development is expected to involve reshaping and editing the text according to a news article format and ICES editorial standards.

Annex 8: Acknowledging ICES in publications

To allow the Science Publication and Impact Group, SCICOM, and the Secretariat to track ICES outputs and impacts it is helpful if an ICES acknowledgement is added to the acknowledgements section in papers, reports, and books.

The following generic acknowledgement should be used when ICES facilitates or supports the scientific work and/or resulting publication. The most important requirement is to name the "International Council for the Exploration of the Sea" in full as well as referring to "ICES".

"The authors thank the [XXX Group] of the International Council for the Exploration of the Sea (ICES) for facilitating this research"

This generic acknowledgement should be treated as a minimum requirement when part or all of a published work is developed in an ICES expert group, but authors may wish to add to this acknowledgement to recognize the work of specific individuals or other services, support, or data provided by ICES. In the case that a group is co-sponsored by another organisation (e.g. PICES) this organisation should be mentioned alongside ICES in the text above.

When published analyses draw extensively on the work of Expert groups that have generated and processed data it is important that their contributions to the work are also recognized. Specific citations for ICES datasets are already linked to data and data products available through ICES data portal: http://www.ices.dk/marine-data/data-portals/Pages/default.aspx. These should always be used in publications, in addition to the generic acknowledgement above if the work uses ICES data and is also facilitated by an ICES expert group.

Annex 9: Guidance for ICES expert groups seeking to use their science as an input to ICES advice

Introduction

A key criterion for ICES advice is that it should be based on the best available science. For this reason, ICES wants to facilitate the uptake and translation of science into the advisory process.

This guidance is for expert group chairs and members who would like to see the science they are developing used in ICES advisory system or consider that the science they have developed is sufficiently mature to be used to support advice. It is written primarily for expert groups that rarely receive advice-related terms of reference.

This guidance was developed following a review of the factors affecting the influence of science conducted in a range of expert groups on ICES advisory process. Perhaps the most important lesson from this review was that successful uptake relies on a pull from the needs and priorities of the advisory system and a push from the expert group to raise awareness of their science among advisers and to develop it in ways that meet advisory norms for quality, repeatability and fitness for purpose.

Key action for expert group chairs

If the science developed by an ICES expert group is not used in the advisory system and the expert group would like to see it used in this way then the key action for the expert group chair is to:

Contact the ACOM leadership (cc SCICOM leadership and relevant Steering Group chair) to explore if the science is relevant for ICES advisory services

If the science is considered relevant the expert group should, in cooperation with the ACOM and SCICOM leadership, set up a plan detailing responsibilities for translating the science into advice, including development of advice-related terms of reference.

Further guidance

If expert group chairs and members are committed to applying their science in the advisory process, the probability of uptake is increased when the advisory community is willing to accept and assimilate their science. The chance of such acceptance is increased by interaction between the expert group and members of ICES Advisory Committee (ACOM). Increased interaction leads to a better understanding of ACOMs emerging needs and priorities, makes ACOM members aware of the possibilities provided by the available scientific methods or information, and encourages support from the committee that is responsible for signing-off ICES advice. Thus, we recommend that scientists who are seeking to contribute to advisory products make early contact with the ACOM leadership to gauge the role of their science in supporting future advice (cc. SCICOM and Steering Group chair). The ACOM leadership can then assess whether there is a current or future advice need or priority relating to the topic proposed by the expert group and can give them further guidance on developing advice-related terms of reference.

Translation of science into advice requires a significant commitment of time and resources to engage people and groups with expertise in advice generation. However, it

is highly rewarding for the people involved, can create an impactful legacy for the expert group, and make a real difference to the conservation and management of the seas.

It is helpful if people with experience generating advice can actively contribute to the expert group and if the majority of expert group members are motivated in their own right to translate science into advice.

Within ICES, the translation of science into advice has generally been more successful when one person takes clear responsibility for maintaining strong and active links between science and advice. This person may be, but does not have to be, the chair of the expert group. It is also more likely to be successful if the terms of reference of the expert group clearly explain the intention to generate products that can help to meet advisory needs and are developed in consultation with scientists familiar with the advisory system.

When working planning the work of an expert group it is important to allow a reasonable allocation of time and effort for developing existing science to meet advisory needs. The allocation of time and effort to this step of the process is often underestimated, and an appropriate allocation to support translation should be carefully considered with scientists who are familiar with the characteristics of scientific studies and methods that would underpin draft advice that would ultimately meet expectations for sign-off by ACOM (because it is based on the best available science and characterized by quality assurance, developed in a transparent process, unbiased, independent, and recognized by all relevant parties as applicable to management).

The following summary highlights factors that previous analyses have shown to influence the probability of successfully translating science to advice, categorized according to the roles and expertise of people involved in the expert groups and the advisory system, the fitness for purpose of science conducted, the perceived legitimacy of the science, and the analytical approaches applied and their repeatability.

People	Many people with advisory expertise engage with the expert group
	There are positive incentives for a range of experts with advisory expertise to contribute to the expert group and they are motivated to do so
	Expert group members develop high awareness of opportunities to contribute to advice
	Expert groups seek to draw in participants with knowledge of advice development from inside and outside ICES and seek to constructively engage these new contributors
	Expert group members devote a larger proportion of their working time to developing existing science to meet advisory needs
	Expert group terms of reference are reviewed by people with sufficient knowledge to assess the viability of a process leading to advice
	Diverse expertise is engaged in the translation of science to advice, in and outside the expert group (spanning science, advice, advice recipient, knowledge broker and stakeholder)

	There is a clearly defined and known person(s) responsible for taking the science into advice
	ACOM members' have high awareness of the work of the expert group and support the plans of the expert group to translate their science into advice
Analytical approaches	Quality assurance of the science has been conducted
	There is a clearly defined and durable follow-up process to support contributions to advice after terms of reference are fulfilled
Fitness for purpose	Term of reference formulation is effectively and strongly tailored to supporting advice priorities
	Terms of reference focus on the suitability of proposed work to support advice and advisers have been consulted during their development
	The science output is salient to the advisory needs and priorities
Trust and legitimacy	The advisory community have trust in the impartiality and credibility of scientists in the expert group
	The advisory community is willing to accept and assimilate subjects and the scientific evidence base
	The scientific consensus on the science that may form the basis for advice is strong

Annex 10: Theme and network sessions at the Annual Science Conference

This is a guidance document prepared by ICES Science Committee (SCICOM) and Secretariat to describe the content of theme sessions and network sessions at ICES Annual Science Conference (ASC) and the processes and timetable for choosing conveners and session content. Theme sessions provide the main forum for talks and poster presentations at ASC and showcase new and emerging marine science. They cover a range of defined science topics of relevance and interest to the ASC audience and ICES community as a whole. Network sessions aim to introduce, discuss, and get feedback on science, data, and advisory topics of relevance to ICES, and to engage existing or potential partner organizations internationally. As such, they may have more eclectic formats than the theme sessions and provide flexibility for engaging a large proportion of those people joining the sessions. Typically, there will be four times as many theme sessions as network sessions at an ASC. The timetable for proposing and selecting both types of session is the same.

Theme sessions

Purpose

Theme sessions provide the main forum for talks and poster presentations at ASC and showcase new and emerging marine science. Theme sessions address a range of defined science topics of relevance and interest to the ASC audience and ICES community as a whole

For speakers, the purpose of the theme sessions is to provide a welcoming and collegiate environment where they have an opportunity to present their latest scientific work to other scientists. The conveners help to place the presenters' scientific work in a wider context.

For poster presenters, the purpose of the theme sessions is to provide a welcoming, constructive and brightly lit environment for them to showcase and share their work with other scientists.

By sharing their scientific work with the ASC attendees, theme session speakers and poster presenters increase the profile of their work, make new contacts, and benefit from feedback from peers. Contacts made during the theme sessions may lead to ideas for further research and opportunities for future collaboration.

Process

Theme session topics are proposed by conveners, following a call for proposals that closes around 13 months before each ASC. Each theme session proposal should be supported by at least two conveners from different countries, with a maximum of three conveners for regular ICES sessions and up to four when the session is co-sponsored by another organization (e.g. PICES). Theme session proposals are reviewed and selected by ICES Science Committee.

Conveners of theme sessions accepted by SCICOM are notified around 10 months before the ASC. In broad terms, conveners may propose any science topic of relevance and interest to ICES community. ICES Strategic Plan describes the breadth of science relevant to ICES.

Around nine months before the ASC the chosen theme sessions are advertised on ICES website and a 'call for submissions' to the theme sessions opens. The call is for oral as

well as poster presentations, with posters being linked to the relevant theme session in the poster display area. The call remains open until approximately 6 months before the ASC. Conveners should be proactive in encouraging scientists to submit oral presentations and posters to their theme sessions. When the call for theme session submissions closes, the conveners are responsible for selecting the submissions, oral and poster, to be presented in their theme sessions. If there are not enough submissions to run a theme session, SCICOM may decide to cancel it.

Typically, each theme session is scheduled for a duration between two and six hours (with longer sessions divided into sub-sessions with breaks) and includes oral presentations of 10–12 minutes each in 15-minute slots. When the call for submissions closes, time is allocated to individual theme sessions by the ASC hosts and ICES Secretariat, broadly in proportion to the number of submissions received. Typically, theme sessions account for 75–80% of the total number of sessions (combined number of theme sessions and network sessions) run at an ASC. The total number of theme sessions it is possible to accommodate varies with ASC venues and durations, but we avoid having more than four parallel theme sessions at any time. Thus, a typical four-day ASC will include 16–18 theme sessions.

The number of posters that can be presented is not limiting in most ASC venues, and conveners may suggest that oral presentations that cannot be accepted will be accepted as posters. Conveners are asked to report selected oral presentations and posters for their theme sessions to ICES Secretariat at least 4 months before the ASC, to allow time for development, publishing, and advertising of the full ASC programme.

At the ASC, theme session conveners are responsible for hosting, introducing, and chairing their selected session and liaising with ICES Secretariat and ASC organizers to ensure it runs smoothly. They should also be available at the poster sessions linked to their theme sessions to meet presenters and people viewing the posters. Some theme sessions include introductory and/or synthetic talks by the conveners, to place the presentations and posters in a wider context and propose ideas and directions for further scientific development.

Once the theme session is complete, conveners are responsible for writing a short theme session report. ICES Secretariat provides a template for this purpose. The report is posted on ICES website and used for reporting to SCICOM and the Council. Theme session reports should be submitted within two weeks of the ASC ending.

Network sessions

Purpose

Network sessions aim to introduce, discuss, and get feedback on science, data, and advisory topics of relevance to ICES, and to engage existing or potential partner organizations internationally. As such, they may have more eclectic formats than the theme sessions and provide flexibility for engaging a large proportion of those people joining the sessions.

Outcomes of network sessions should be tangible, resulting in proposals for new collaborations, expert groups, lines of scientific research, data products, conferences, and future theme sessions, for example. All network sessions are expected to address topics that are accessible to, and will engage, a reasonable proportion of attendees at the ASC.

Process

Network session topics are proposed by conveners, following a call for proposals that closes around 13 months before each ASC. Each network session proposal should be supported by at least two conveners from different countries, with a maximum of three conveners for regular ICES network sessions and up to four when the session is co-sponsored by another organization (e.g. PICES). Network session proposals are reviewed and selected by SCICOM. Conveners of those network sessions that are accepted by SCICOM are notified around 10 months before the ASC and details of the sessions are posted on ICES website 9 months before the ASC.

Each network session is usually scheduled for one hour but, occasionally, this time allocation may be increased slightly at the discretion of the ASC hosts and ICES Secretariat to fit the ASC schedule. Network sessions normally account for 20–25% of the total number of sessions (combined theme sessions and network sessions) accommodated during an ASC. We avoid having more than four parallel network sessions at any time.

Annex 11: Working groups with ACOM affiliation prior to 1 Jan 2019

Acronym	Name
AFWG	Arctic Fisheries Working Group
HAWG	Herring Assessment Working Group for the Area South of 62° N
JWGBIRD	Joint OSPAR/HELCOM/ICES Working Group on Seabirds
NIPAG	Joint NAFO/ICES Pandalus Assessment Working Group
NWWG	North-Western Working Group
SCRDB	Steering Committee of the Regional Fisheries Database
WGBAST	Assessment Working Group on Baltic Salmon and Trout
WGBFAS	Baltic Fisheries Assessment Working Group
WGBIE	Working Group for the Bay of Biscay and the Iberian Waters Ecoregion
WGBYC	Working Group on Bycatch of Protected Species
WGCSE	Working Group for the Celtic Seas Ecoregion
WGDEC	Working Group on Deep-water Ecology
WGDEEP	Working Group on the Biology and Assessment of Deep-sea Fisheries Resources
WGECO	Working Group on Ecosystem Effects of Fishing Activities
WGEEL	Joint EIFAAC/ICES/GFCM Working Group on Eels
WGEF	Working Group on Elasmobranch Fishes
WGHANSA	Working Group on Southern Horse Mackerel, Anchovy, and Sardine
WGHARP	ICES/NAFO/NAMMCO Working Group on Harp and Hooded Seals
WGMIXFISH	Working Group on Mixed Fisheries Advice
WGMIXFISH-METH	Working Group on Mixed Fisheries Advice Methodology
WGMME	Working Group on Marine Mammal Ecology
WGNAS	Working Group on North Atlantic Salmon
WGNSSK	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
WGWIDE	Working Group on Widely Distributed Stocks