
ICES 103rd Statutory Meeting Agenda

Copenhagen, Denmark

Chair: Paul Connolly

21–22 October 2015

1 Adopt the Agenda

1.1 President's review

The President welcomed participants to the meeting (participant list attached as annex 1) and the agenda was adopted.

The President reviewed the follow-up actions from the 2014 Council meeting which formed the basis of the Bureau work plan during 2014–2015. The President outlined the main issues for Council discussion and consideration and the Bureau recommendations on the key issues.

The sequencing of the agenda was reviewed through the meeting roadmap which highlighted the issues and decisions that Council needs to consider, including elections and appointments.

The meeting agreed that in order to ensure productive discussion at the Council meeting, strategic recommendations from Bureau and recommended actions for Council should be clearly outlined in a one page supporting document. In future, each Council document will have a one page lead summarizing the key issues, and identifying what decisions are required of Council.

The President drew attention to the reception at the French Embassy and the importance of this networking event particularly in relation to the upcoming elections. He thanked the French delegates for organizing the reception this year.

1.1.1 UN Observer Status

At the 2014 October Council meeting, ICES delegates supported a proposal for ICES to pursue observer status at the United Nations (UN). The main aim of this proposal is to access, follow, and to the extent possible contribute scientifically to the important global policy developments in the UN work on ocean sustainability, in accordance with the ICES Strategic Plan, 2014–2018. The potential to increase the knowledge of ICES within UN agencies was highlighted as an important reason for applying for UN observer status.

A follow-up letter was sent to Member Countries in December 2014. Council Members were invited to report on progress regarding the UN observer status application that must be led by a UN Member State or Member States.

Norway indicated that there is renewed progress within their foreign ministry to have this application added to the agenda of the UN General Assembly.

All delegates are requested to contact their relevant foreign ministry to communicate the need to support the application when it is submitted to the UN General Assembly.

Ireland noted the importance of stressing the international competence of ICES in further discussions with foreign ministries to avoid the perception that ICES work is regionally focused.

It was suggested that Ireland and other EU Member States support the application via the EU Law of the Sea Working Party Meeting (COMAR).

Actions:

The 2014 Council agreed that this initiative should be supported. Norway will continue to lead the process, with the support of Ireland. All delegates are requested to support this initiative and communicate with their relevant national department (foreign ministry) to ensure all ICES member countries support the ICES application for UN observer status when it is considered by the General Assembly.

2 ICES Strategic Plan and Implementation plans

The meeting was invited to discuss proposed structural changes needed to support implementation of the ICES Strategic Plan, 2014–2018 (ISP). Progress on the specific Science, Advice, Data, and Secretariat plans was reported under separate agenda items.

2.1 CAWGSAL

Cornelius Hammer, Chair of the Council-ACOM Working Group on Strengthening the Advisory Leadership (CAWGSAL) updated Council on the work of the group that developed job descriptions and recruitment procedures for the advisory leadership, as well as considered the cost implications of the changes to the leadership structure, including a full-time ACOM Chair, which was agreed by Council in 2014.

Council supported the recommendations of CAWGSAL as described in **CM_2015_Del-2.1** (station/location, recruitment process, and tenure of the ACOM Chair, and recruitment process and tenure of the Vice-Chairs), but requested some minor changes to support further integration of the ICES pillars:

- A SCICOM representative should be included in the recruitment and review panel.
- That the recruitment panel is set-up in advance, to oversee the ACOM Chair job description and to have the responsibility for the process all the way through.
- Bureau will be the main entity responsible for the entire process.

Any required changes to the Rules of Procedure will be made by the General Secretary.

Action:

The Secretariat will incorporate the three suggestions made by Council into the procedures proposed by CAWGSAL, for use as the “ACOM recruitment procedures”.

Bureau will establish a Recruitment Panel (RP) in November-December 2015 who will oversee the entire recruitment process for the new ACOM chair.

2.2 Strengthening the Science Leadership

2.2.1 Bureau proposal to strengthen the Science Leadership

In order to support the implementation of the ISP, the meeting was invited to discuss the Bureau proposal to strengthen ICES Science leadership by creating a full-time Chair of the Science Committee (SCICOM).

The President presented the Bureau proposal stressing that the successful implementation of the ICES Strategic Plan is dependent on close cooperation, communication, and integration between Science, Data, Advice, and the Secretariat, and that the Bureau is seeking a mandate from Council to make the changes (as described in **CM_2015_Del-2.2**), and summarized in the seven points below:

- (1) To set a clear direction regarding strengthening the science leadership by extending the responsibilities and employment time of the SCICOM chair and at the same time, ensuring an optimal mobilization of the expertise and capacity within the Secretariat to support the work of SCICOM.
- (2) On the need for a full time SCICOM chair (P5) based at ICES in Copenhagen and reporting to Bureau, Council, and SCICOM from 2017 to 2019.
- (3) On the need for a full time Head of Science Support.
- (4) To establish a Council–SCICOM Working Group (CSWGSSL) that will engage during November 2015 to June 2016, with clearly defined terms of reference on how to take the process forward.
- (5) To mandate Bureau, informed by the recommendations of the CSWGSSL, to prepare a proposal for the 2016 June Bureau meeting for implementation in January 2017.
- (6) The CSWGSSL will be chaired by one of the Vice Presidents and will comprise two representatives of Council, two representatives of Bureau, two representatives of SCICOM (to be decided by SCICOM), the SCICOM Chair, Head of Science Programme, the ACOM Chair, Head of Advice Support, Head of Data and Information services, the General Secretary, and staff representation.
- (7) The leadership structures of both ACOM and SCICOM will be reviewed early 2019. The results of the review will be presented to Council in October 2019 and the Council will be invited to discuss possible amendments to the structures. (Should be aligned with the development of the new ISP, and the evaluation process for the ACOM Chair).

Council approved points 1 to 7 in the Bureau proposal. During the discussion the following issues were noted:

- A full-time SCICOM Chair may not have the time to engage in research;
- The whole process of integration is important and the SCICOM Chair should be given responsibility to make this integration happen;
- The CSWGSSL group will be established to start work in November 2015 and will present its report to 2016 June Bureau. Council will approve the proposal by Bureau, informed by the recommendations of the joint group via e-approval procedure.

Council noted that the agenda included many interlinked issues that will require further consideration, change, and review of ICES science. It was agreed that linkage between these issues is essential. The CSWGSSL (as described under point 6 above) will be one component of an overarching group (Council SCICOM Working Group on ICES Science (CSWGIS)) that will consider three key science issues discussed during the Council meeting. CSWGIS will deal with CSWGSSL, the review of ICES Science, and ICES science funding (CWGSF). CSWGIS will be Co-Chaired by Tammo Bult and Pierre Petitgas, and Niall Ó Maoiléidigh will be a member, on behalf of Council. Additional Council members may communicate their interest in participating in this group by email to the Co-Chairs and Secretariat. The ToRs will be developed by the Co-Chairs and agreed by Bureau during November-December 2015 prior to be circulated to Council for information.

Action:

Council agreed that the work associated with CSWGSSL, the review of ICES Science and ICES science funding should be combined into one CSWGIS (Council SCICOM Working Group on ICES Science) to be chaired by Pierre Petitgas and Tammo Bult. The chairs will develop the ToRs for the Group and finalize the participants during November-December 2015.

Council approved the Bureau proposal and mandated Bureau, informed by the recommendations of the CSWGSSL (now CSWGIS), to prepare a proposal for the 2016 June Bureau meeting for implementation in January 2017. Council will approve the proposal by Bureau, informed by the recommendations of the CSWGIS via e-approval procedure during June.

3 Finance

3.1 Council Working Group ICES Business Model (CWGIBM)

Council noted that this was a very important work for the future of ICES and commended the chair for his thorough job. The President noted that in order to do justice to the report, a detailed discussion is required in Council.

Fritz Köster (Chair of CWGIBM) presented the key points of the report to Council. The report should be regarded as a “living” document and was updated following the June, September, and October Bureau meetings. The report outlines how ICES

operates financially and recommends a number of strategic actions that have resource implications.

The main conclusion of the report is that the different pillars of the organization are financed differently, they have different business models. This helps make the organization more stable by having multiple funding sources. The report also concludes that the Advisory programme is not quite reaching the goal of 100% cost recovery.

During the discussion the following points were noted:

Finance

- The appropriate level of the Capital Reserve Fund (CRF) should be reviewed, the main proposal was to consider increasing the CRF to 30% of income. The level of the CRF should match the risk management strategy, and the investment behaviour of the organization should be reviewed to make sure this proposal is properly grounded.
- If ICES wants to secure multi-annual agreement on increases in national contributions, an express strategy must be developed to help communicate to member country governments the added value ICES brings to them.
- Inflation alone is no longer a valid justification for requesting annual increases in national contributions. Consequences of past stable contributions are still having impacts today.
- Different argumentation will be needed to secure an increase in national contributions in the US and Canada as they do not use the ICES Advisory system the same way as other member countries.
- In order to address some of the ongoing financial issues, for instance securing a 2% increase in national contributions, annual science conference, as well as a collection of other issues specific to each country, the General Secretary will travel to interested Member Countries to meet with the relevant government ministry or institute.
- A tailored approach to different countries will be developed, the aim of the meetings is not just fund raising, but to raise the awareness of the variety of ICES deliverables and products and by that reflect that the organization offers different things to different countries.
- Increased communication and a personal visit by the General Secretary to Member Country institutes/ministry will not change some of the fundamental problems.

Actions:

The appropriate level of the Capital Reserve Fund (CRF) should be reviewed by Finance Committee in 2016. The level of the CRF should match the risk management strategy, and the investment behaviour of the organization should be reviewed to make sure this proposal is properly grounded. FC will report their recommendations to the June Bureau.

Inflation alone is no longer a valid justification for requesting annual increases in national contributions. In order to address some of the ongoing

financial issues, for instance securing a 2% increase in national contributions for 2017, as well as addressing other issues specific to each country, the General Secretary will visit Member Countries to meet with delegates and the relevant government ministry or institute to show the added value of ICES. The General Secretary will report to the June Bureau who will decide on the next steps in relation to the 2017 budget vote.

Projects

CWGIBM recommends a proactive project participation role for ICES and the Secretariat for Coordination and Support Actions (CSA projects) that are aligned with the ISP.

- A positive example of ICES involvement in such a project is with the support action for the Atlantic Ocean Research Alliance (AORAC) BG14. If ICES had not been involved, there would have been a missed opportunity to participate in the consortium for science development for the Arctic.
- As outlined by ICES project policy, ICES should not compete with member countries for research funding. However, increasingly Coordination and Support Actions are being awarded to intergovernmental agencies, the role for national institutes in these projects is declining.
- The benefit of having centralized support lies in the benefit of a centralized science identification. The advantage of involving staff from Member Countries, in case of need for additional resources in the Secretariat, was mentioned.
- Pooling of resources and focus on international cooperation is highlighted. Bureau must oversee the process.
- ICES pursuing a proactive approach to these Coordination and Support Actions is in the collective best interest.
- There is an important role for Bureau/SCICOM to identify areas where research priorities need projects, and to identify EU funding that could help ICES develop projects for the common good.

Action

Bureau will look into a more proactive project participation role for ICES and the Secretariat in relation to Coordination and Support Actions (CSA projects) that are aligned with the ISP. The Secretariat will develop a discussion document for February Bureau.

Advisory

The report of CWGIBM also highlighted that the Advisory Programme was not reaching the goal of full cost recovery. The potential of renegotiating the terms of the Memoranda of Understanding was discussed focusing on how to open a long-term discussion about the inter-connectedness of science and advice. Among the issues raised were:

- The question should be more open “Do we need full cost recovery”?

- ICES must tread carefully with this difficult question, the term “full cost” recovery should be considered as it doesn’t fully capture the contributions of member states experts.
- Given the different business models in the pillars, ICES should consider if the core funding should be distributed between science and advice.
- Coordination and support role understood as 50%. Structure means 100% of advisory costs should be self-financed, however, many countries believe their national contributions directly supports the advice. When in fact it supports the underlying science. An approach may be needed that argues for advice costs to include costs of ICES science.
- It was highlighted that special requests are additional costs, for DG MARE special requests ICES can only bill for travel and *per diem* for experts. If the special request is sent from DG ENV then Secretariat costs are covered.
- The strategy to approach any potential renegotiation of MoUs with clients should avoid too much cost recovery discussion. Work on documenting ICES costs should continue, but the goal should be for a framework agreement instead of documented cost recovery.
- Need to be flexible, need a case by case evaluation of each special request – some may be aligned with strategic goals/DEMO advice.
- ICES should interact with clients, and inform about the potential of advisory products, and their value. Based on this a Bureau discussion should be organized.
- Before meeting with clients to discuss changing the principle of cost recovery, it should be well thought through what the change indicates.
- In the annual MoU negotiation with DG MARE the issue of cost recovery has been raised and the message back has been that they give one amount for the product, whatever scientifically justified process is set up to deliver the product.
- ICES should proceed with caution, as highlighted by CWGIBM, the organization operates with multiple business models, and this should be considered before discussions with clients, and should also be discussed by Council again next year.
- The debate about cost recovery is related to that one party complains that they are paying twice.
- ICES should aim not to just recover costs but also make a marginal income for reinvestment in the system. The system will be unable to cope if costs are not being recovered. When approaching governments they are focused on products, need to formulate the ICES products, certain costs, and present this to communicate the issue.

Action:

ICES should interact with clients, and inform about the potential of advisory products, and their value. Based on this a Bureau discussion should be organized. The strategy to approach any potential renegotiation of MoUs with clients should avoid too much cost recovery discussion.

Work on documenting ICES costs should continue, but the goal should be for a framework agreement instead of documented cost recovery. Finance Committee is asked to further discuss the issue of cost recovery (and the points made above) and report to June Bureau.

Priority Issues to be funded by Equity – Council approved Investment list

The following comments were made during Council discussions:

- CWGIBM has prioritized equity investments, because they are interlinked. It was highlighted that these activities are outside the budget, there is enough money in equity, but these investment are accelerating a reduction in equity.
- Data handling is easier (than in the other pillars) to support through external financing, database development, and maintenance.
- Data is an important part of the advice, and ICES should not sell the component parts, but products as a whole, and at a cost that ensures there is money left for further development.
- In future, Finance Committee should be involved in evaluating investments by providing an update on the development of equity.
- The number and culture of assessment advisory groups needs to be reconsidered, but first the system should be optimized by freeing them from some of their work (shifting update assessment work to the Secretariat). Need to make a more efficient system and the proposed changes are a good investment in the process.
- The January WGChairs meeting could be an opportunity to communicate the need for a change in the culture, some top-down guidance is needed.
- There was support for pilot projects for Secretariat based update assessments, the part of the process that is to be done by the Secretariat must be well defined to ensure science consensus is preserved.
- Good list, but the ecosystem strategic initiative should include secretariat support for on-going demonstration projects.
- The longer term financing of pilot projects should be considered, also taking into account that demonstration projects may results in future income.
- If the secretariat based update assessment pilot is successful, there will be savings for national member states, this investment should be reviewed in the longer run.

Actions:

Finance Committee to evaluate equity investments and provide update to June Bureau on proposed equity spends. ACOM should look into the number and culture of assessment advisory groups. The system should be optimized by freeing them from some of their work (shifting update assessment work to the Secretariat). ICES needs to make a more efficient system and the proposed changes are a good investment in the process. The January WGChairs meeting could be an opportunity to communicate the need for a change in the culture, some top-down guidance is needed from the ACOM leadership.

Science Fund

The following comments were made:

- Last year Council agreed that the continuation of the science fund would depend on a detailed review of the science fund outputs. Council noted that this has not yet been received from SCICOM.
- ICES science funding was discussed and Council agreed that it is premature to discuss the future of the science fund before the projects results are reviewed. In order to avoid suspending the science fund until the review is completed, the money will be redirected to selected priorities.
- For the investment in science, there was a redirection of 300,000 DKK of the non-earmarked science fund into the activities listed in the investment list to address strategic priorities, i.e., 100,000 DKK for each of the following priority areas: Arctic, Aquaculture, and the Strategic Initiative on the Human Dimension. This reflects the proposal for investments in SCICOM activities in 2016, cf. CM 2015 Del-3.4.2 amended.
- The requested investment in SCICOM activities will be granted in the amount of 150,000 DKK to meet the need for 2016, in addition to the funds set aside for the Science Fund. A Council working group will consider the future science funding (CWGSF), and whether the ICES organisation should be a science funder.
- Strategic consideration of ICES products and the potential for new income is needed.

Actions:

Council reconfirmed, in accordance with the RoP, Rule 24, the role of the Finance Committee and accordingly requested the Committee to include a longer time and more strategic perspective in their annual consideration of ICES budget. For the 2016 meeting the Finance Committee is specifically requested to consider if there is ground to increase the CRF to 30% (or what is the appropriate level of CRF for ICES) of income and to develop guidelines that will describe how and when these funds should be used.

Finance Committee will take ownership and steward the ICES Business Model and relevant documentation.

As part of their broader mandate, Finance Committee is requested to update the Business Model as needed, keeping specific focus on the income and expenditures as outlined in the Programming Budget.

Bureau will produce a discussion document on MoU income outlining the issues and reflecting on the products, the processes to deliver these products, their costs, the interaction between science and advice, and the relation to ISP, to maximize the benefits to ICES, for consideration at the 2016 Council meeting. The Head of ACOM Support together with the ACOM Chair and the General Secretary will prepare a first draft for consideration at the 2016 February Bureau

Task the Coordination Group (the Head of Data and Information, the Chairs of SCICOM and ACOM, the Head of Advisory Support, the Head of the Science Programme, and the General Secretary) to prepare for a document on data handling for the February Bureau meeting, and to submit a full report to the June

Bureau meeting, with the aim to have recommendations for discussion and approval at the 2016 Council meeting.

The Coordination Group is also requested to prepare a discussion document for the February Bureau on how to attract (new) clients for new strategic areas, as opposed to new clients requiring different advice for the same questions/requests.

Council mandated the Secretariat to actively seek and coordinate ICES lead of specific projects that support the goals of ICES strategic plan and do not compete with Member Country institutes for research funding (coordination and support actions; CSAs).

CWGIBM prioritized the needed investments from equity, and Council approved the use of funds from equity as outlined in points 1-10 below (Total of 6.500,000 DKK), approving the use of an additional 150,000 DKK to support the request for investment in SCICOM activities in 2016(CM_2015_Del-3.4.2). Further investment for the additional years (2017-2018) will be considered following a more thorough review of the science fund and science funding.

Council Approved investments from equity		
Issue	Amount	Comment
1. ACOM assessments workload issue.	5,100,622 DKK	Additional human resources in secretariat (2 persons, P2 for 2 years, with option for additional 2 years)
2. Website development	300,000 DKK	Bids have been received and a consultant (in cooperation with Secretariat staff) is available to commence work in 2016
3. Leadership/structural changes of science programme	50,000 DKK	Coverage of travel costs for members in joint Council/SCICOM Working Group
4. Internal/external Review of ICES Science	50,000 DKK	Coverage of travel costs for members in Council/SCICOM Working Group
5. Investment in SCICOM Activities until 2018.	150,000 DKK	Awaiting outcome of proposed Council Working Group on Science Funding, but funds granted for 2016. See note under section 3.4.2 below.
6. Science Fund running:	maximum 500.000 DKK	Intermediate funding pending further review.

7. Arctic: Development of demonstration advice in this priority action area.		(100.000 DKK funded under 6.)
8. Socio-economic considerations: Development of demonstration advice in this priority action area.		(100.000 DKK funded under 6.)
9. Aquaculture: to follow-up on priorities agreed under agenda item 7.1.2. following the ICES Aquaculture dialogue meeting		(100.000 DKK funded under 6.)
10. Data quality and timeliness: development of Regional Data Base, and joint ICES–EFARO initiative on surveys.	300.000 DKK	Including funding for two pilot projects related to the ICES–EFARO initiative on surveys ICES:

3.2 Sponsors

As a follow-up to the discussions in the Council Working Group on the ICES Business Model (CWGIBM) Council was invited to discuss a proposal for potential cooperation with the commercial company H2O Sportswear, and the general criteria needed for evaluating sponsorship proposals.

The General Secretary outlined the proposal that had been sent to ICES by H2O, following solicitation of sponsorships for the Annual Science Conference. H2O was interested to donate a portion of sales from their bathing suit collection to fulfil their corporate social responsibility commitment and to help ICES reach out and communicate with a new segment of society.

Although there was support to run the project in a very limited way as a pilot process, following a close simple majority vote, Council rejected the proposal to enter into a direct sponsorship deal with H2O. The main objection was based on a perceived risk to ICES integrity and independence.

Action:

Council rejected the notion of a sponsorship deal with H2O. However the Secretariat should investigate the possibility of an ocean outreach/communications/awareness campaign between ICES and H2O where any additional costs would be met by H2O. This will be discussed by the February Bureau.

3.3 Project update

The status update on ICES involvement in projects was tabled as read in **CM_2015_Del-3.3**.

3.4 Finance Committee Report

Konstantin Drevetnyak, Finance Committee Chair presented the report from Finance Committee noting that the final accounts and audit book for 2014 had been signed and were without remarks from the auditors.

The General Secretary reported that spending in the current year is now being reported regularly to Bureau to ensure that the budget will balance at the end of the year. All national contributions have been received for 2015.

The 2016 national contributions were agreed in August by e-voting procedure. The outcome was communicated by email and by formal letter when the invoices for National Contributions were sent 1 July.

- Council **approved** the final accounts 2014, including Audit Book;
- Council **approved** the proposed budget for 2016, noting that the national contributions have already been decided;

For 2017, Finance Committee recommended a 2% increase in national contributions. However, as highlighted in the discussions of CWGIBM report, the repeating pattern of stable contributions requires a new strategy to ensure that member countries continue to support the scope of work needed to realize the goals of the ISP. Therefore, it was agreed to **delay** voting on the forecast budget for 2017, with a 2% increase in the national contributions. The General Secretary will visit Member Countries and together with the national delegates visit the ministries where budget decisions for ICES funding are made to highlight the value and breadth of ICES work, and any other issues highlighted by the national delegate. At the meetings the potential for securing multi-annual contributions or other strategies for avoiding the continued pattern of stable contributions could be discussed.

Actions:

Council agreed to delay a formal vote on the 2017 Budget. The General Secretary will travel to member countries that have indicated a need for further dialogue and to secure a 2% increase in national contributions. The objective will be to present the added value of ICES work to the Member State. An e-voting procedure to decide on national contributions for 2017 will be conducted following the June Bureau meeting.

3.4.1 ICES Science Fund

Although results of the Science Fund have not yet been reported to Council, it was agreed to intermediately continue the Science Fund in 2016 pending reporting on the value of the science fund investment and a larger review of ICES science funding (see detailed discussion and decision under 3.1).

3.4.2 Proposal for investment in SCICOM activities 2015–2018

Following the postponement of the decision on the request for funding at the 2014 Council meeting, Council agreed to support funding in the amount of 150.000 DKK.

This strategic investment recognizes the importance of the contributions of the Science Committee and the need for investment. Follow-up on these investments will also form part of the science funding review (see discussion and actions arising under 3.1).

4 Report from the Council Steering Group on the Marine Strategy Framework Directive (CSG MSFD)

The Chair of CSG MSFD, Eugene Nixon updated Council on the group's 2015 activities (as reported in **CM_2015_Del-4**).

2016 Work Plan of CSG MSFD

1. To continue to make progress on the five ToRs agreed at the 2014 Council meeting.
2. To progress the work of the CSG MSFD outlined in CM 2015 Del-4.
3. The CSGMSFD will continue to work closely with the Ecosystem Approach Coordinator, ICES Leadership and Secretariat, and be informed by the MSFD/Ecosystem Approach work in ICES when identifying specific products that ICES could deliver to support the EA approach over the present and next MSFD cycle – up to 2024.
4. Consider how best to coordinate the indicator development and assessment required under the DCR and the MSFD.
5. To oversee development of a mechanism and working relationship between ICES and the DCF regional coordination groups to ensure that data end-users receive appropriate input for MFSD and EA advice.
6. To identify appropriate mechanisms to deliver these products.

During the discussion of the report **CM_2015_Del-4** the following points were noted:

- The CSG MSFD blends strategic thinking and operational work, with its main focus on the more strategic approach.
- It is important that indicators are harmonized and that the same message continues to come from ICES across products.
- CSG MSFD aims to widen its perspective and include non-EU member states, harmonization and avoidance of misinterpretation is an important strategic issue for the group. ICES needs to continue to work to bridge the gap between fish stock assessment and environmental work. There is a need to work strategically, and identify where there are concerns at different time scales (short, medium, long-term).
- Recent requests (from HELCOM & OSPAR) for data and not for the interpretation of this data (advice) increase the risk of misinterpretation.

DG ENV is also concerned about the VMS data interpretation and have now requested ICES to look at how the products can be used for the MSFD and ensure that it is scientifically robust and also compatible with their approach to EU fisheries management.

Actions:

Council **agreed** to continue the CSG MSFD as a Council Strategic Initiative on the MSFD-Ecosystem Approach (CSIMSFD-EA).

- i) Broaden its mandate to include the Ecosystem Approach, as well as the Marine Strategy Framework Directive;
- ii) Endorse the CSG MSFD Workplan outlined above, and requested that CSG MSFD provide an update to Bureau at the February meeting, and submit a more comprehensive report to the June Bureau meeting.
- iii) Support the appointment of Eugene Nixon as CSG Chair for the next year.
- iv) Change the name of the group to refer to it as a Strategic Initiative.

4.1 Ecosystem Approach – including progress on IEAs

Mark Dickey-Collas, the Ecosystem Approach Coordinator provided perspective on the development of cooperation with strategic partners and progress towards developing integrated ecosystem assessments. The Ecosystem Overview online tool was demonstrated and is scheduled to be published online during 2016. It was emphasized that IEA groups need specific questions to test approaches, and Council was requested to consider this. Council requested guidance on how to generate questions for the groups.

During the discussion the following points were noted:

- Ecosystem Management issues are difficult as priorities are not just on fisheries but other marine living resources.
- The ecosystem overview tool is a useful product and this work is appreciated.
- There is a need to consider how to bridge the governance structures for those that make the advice and those who ask the questions to help define what kind of questions should be asked to help bring forward integrated advice.
- Questions are created internally, but a lack of resources prevents groups moving forward at a good speed. WKIrish is an example of demonstration where there is a fisheries oriented question. The perfect question would be: Can ICES provide a way to consider trade-offs between priorities? However, Policy-makers are unlikely to make that request.
- Demonstration advice is good way to make progress, ICES shouldn't wait for requests, but demonstrate what could be provided to help managers address some of these issues.
- Demonstration advice is a good way forward, however, not without some negatives e.g. prioritization of ICES resources, and the potential to create contradiction in the ICES system.

Actions:

The Coordination Group (CG) is tasked to elaborate a discussion paper on how the IEA groups could test their approaches by responding to a specific “pilot advisory request” (i.e. demonstration advice). This pilot advisory request could potentially be supported through a demonstration project. Bureau will consider potential demonstration projects and the required funding at the February Bureau meeting, noting the funding set aside from equity for strategic initiatives.

Council mandated Bureau to conduct a mid-term review on the implementation of the ISP and report to Council in 2016.

5 Report from the Council Working Group on Maritime Trans-Atlantic Cooperation (CWGMTC)

First Vice-President Cornelius Hammer reported on the activities of CWGMTC, and initiatives taken to follow-up on defining the role and contribution of ICES to the Transatlantic Ocean Research Alliance.

Council was also updated on ICES participation in the Atlantic Ocean Research Alliance Coordination and Support Action (BG-14).

CWGMTC made recommendations for Council to consider:

1. Establish a long-term high-level ICES working group on Transatlantic Cooperation, i.e. a Council WG with invited experts (“Council Strategic Initiative”).
2. The aim is to describe, design and promote a research financing structure for the NA, such as a BONUS equivalent for the NA including a definition of ICES possible advisory and supporting role in such a set-up. This should be done in close cooperation and by making use of the H2020, BG 14 project: Atlantic Ocean Research Alliance Coordination and Support Action (AORAC-SA).
3. To cater for this the group proposed ToRs for its future work.
4. Suggestion for a North American chairmanship.
5. CWGMTC also found that there is a basic need for better information on ICES role in transatlantic cooperation, and the specific activities and products delivered. For this reason, and to better inform the public, decision-makers, and potential strategic cooperation partners/clients, on-line material should be elaborated as well as succinct fact sheets (or leaflet) for handing out.
6. The Working Group proposed fields and topics where ICES could support the transatlantic cooperation (Detailed in the report of the group).
7. With regard to the Arctic it is recommended that the most appropriate way forward for ICES is to work within the Arctic Council, to link with existing working groups and working structures and to supplement where gaps have been identified. (See also item 7.1.3).

The following ToRs for the Council Strategic Initiative on Transatlantic Maritime Cooperation (CSI-TMC) were proposed:

Based on the work already carried out in CWGMTC, as well as new information made available through e.g. projects and national programmes, and the oversight of the ICES transatlantic activities:

Draft ToR 1: Provide strategic guidance to ICES groups involved in transatlantic maritime work.

Draft ToR 2: Provide strategic guidance to Council on ICES role to ensure sustainable transatlantic marine observations, data management, and research cooperation, including ideas for structures and funding of joint research.

Draft ToR 3: Continue the work of the previous CWGMTC, to cooperate with the North Atlantic Research Alliance and to represent ICES within the Alliance.

Council noted that the work of CWGMTC resulted in good strategic positioning of ICES. Council discussed, if further work is needed, if the ToRs were appropriate. During the discussion the following issues were raised:

- The idea of a “strategic initiative” to help guide ICES in this area was supported. The potential for external co-Chairs and how to recruit them should also be considered. Short-term and long-term goals should be well defined.
- It is important to advance collaboration on science and research in the Atlantic, ways to strengthen interaction with NAFO should be explored.
- ICES should use this transatlantic cooperation to strengthen its core competences/main role: as coordinator of marine science and research.
- The strategic initiative model in SCICOM (e.g. SICCMME) has been successful and should also work well at Council level.
- The potential development of a coordinated funding structure in the North Sea (similar to BONUS) is interesting and justifies the group’s relation to Council. In the North Atlantic the set-up might be different. The solution for the Med – could help inform. Good idea to get ICES on board, as this would not be limited to EU Member States, and requires involvement of all Atlantic countries. ICES needs to be involved for strategic positioning.
- Council level coordination of the group is needed. Delegates should take an active role in strategic positioning of ICES.
- The work of CWGMTC made ICES an important player in the “Galway” process. Needs a continued commitment to maintain work on this process.
- This is a good opportunity to show ICES as an added value science organization. Consider partnering with other important stakeholders.

Actions:

CWGMTC will become a Strategic Initiative at Council level (CSIMTC).

Funding and the EU (not EU dimension) will be part of the ToRs. The draft ToRs will be revised by the Co-Chairs and Bureau. Council will be informed of the new ToRs.

Council appointed Fritz Köster (with a specific focus on funding mechanisms) and Alain Vezina as Co-Chairs of CSIMTC. Members of CSIMTC will include: Tammo Bult, Pablo Abaunza, Bill Karp, and Jóhann Sigurjónsson. Other members are welcomed, and are requested to contact the Secretariat.

6 Elections and Appointments

It was suggested that in future changes to the elections procedures be considered for Council positions, for instance to take nominations on Day 1 of the meeting so that the evening reception can be used for discussion of the candidates. Another suggestion is to allow candidates to shortly address the Council to indicate why they are interested in the position.

6.1 President

Cornelius Hammer (DE) was elected ICES President November 2015–October 2018.

6.2 1st Vice-President

Fritz Köster (DK) was elected ICES 1st Vice-President.

6.3 Vice-Presidents

William (Bill) Karp was elected Vice-President.

6.4 Appointment of Advisory Committee Vice-Chair

Following the changes to the terms of vice-chairs (See agenda items 2.1 and 2.2), the approval of the extension of Advisory Committee Vice-Chairs will be conducted after the Council meeting using e-approval procedure.

6.5 Finance Committee

Piotr Margonski was appointed Chair of Finance Committee. Tomas Zolubas (LT), Alain Vezina (CA), and Ari Leskela (FI) were appointed as members of Finance Committee.

7 ICES Science

7.1 Report from the SCICOM Chair

7.1.1 Annual Progress Report

The Chair of the Science Committee (SCICOM), Yvonne Walther, reported on the 2015 activities of SCICOM, **CM_2015_Del-7.1.1**.

SCICOM is advancing the integrated understanding of marine ecosystems via activities in:

- Expert Groups
- Strategic Initiatives
- Symposia
- ASC and other Conferences
- Science Fund Projects

The science performed is supporting the goals and driving the implementation of the ICES Science Plan (ISP) forward.

A mapping exercise has been conducted with the expert groups to show where progress has been made on science priority areas. Work will continue on this mapping to help identify where new work (as demanded by ICES strategic plan) can be done within existing groups. Council commended SCICOM on this approach.

ACOM and SCICOM have a renewed focus on fostering closer working together to ensure ICES science feeds into advice, and that ICES advice requests further work on specific issues from science.

The development of Integrated Ecosystem Assessments requires social and economic context-, therefore the Strategic Initiative on the Human Dimension (SIHD) has been initiated.

The 2015 Annual Science Conference was a big success 734 participants from 37 countries. The week offered 19 theme sessions, with a total of 326 oral presentations and 118 posters.

The Science fund continues to be well received by the ICES community and is seen as seed money for new initiatives.

During the discussion the following points were noted:

- Scientists working within ICES expert groups, whether they are labelled advice or science are the same people, the role of science is to develop new methods, and those working within the advisory system are also scientists. This overlapping competence is a strength of the ICES system.
- Progress on integration is going well, though may not be sufficient.
- Support was expressed for the mapping as a good exercise to measure progress, should continue to develop this tool.
- An ongoing challenge is to manage the portfolio of expert groups, to make sure ICES is responsive to needs expressed at the top.

Council **thanked** the SCICOM Chair for her thorough report and ongoing work within the Science Committee.

Action:

Council encouraged SCICOM to continue their work on the mapping exercise in relation to implementation of the ISP.

7.1.2 Aquaculture

The General Secretary presented the report from the Aquaculture Dialogue meeting **CM_2015_Del-7.1.2**. Internally the dialogue meeting was considered a success, however, further follow-up is planned to get a view on external perspectives. A small Bureau sub-group (BSGADM), consisting of Tammo Bult, Johann Sigurjónsson, and Anne Christine Brusendorff will do an initial investigation with participants on the benefits for them and how things could be improved. Likewise it was considered important to invite relevant expert working groups, i.e., WGAQUA and WGSEDA, as well as relevant projects, i.e., BG 14/AORAC to comment on the priority list and to ensure the inclusion of new work to their ToR. Council highlighted the issues in the table: *Identify key applied science needs of decision-makers*; and *Respond to identified knowledge needs* as important priority areas for moving ICES work forward.

Actions:

SCICOM is requested to establish contact with WGAQUA/WGSEDA to ensure their input and contribution to future work around these priority areas.

A Bureau sub-group (BSGADM), consisting of Tammo Bult, Johann Sigurjónsson, and Anne Christine Brusendorff will do an initial investigation with participants of the ADM on what they got from the ADM and how future meetings could be improved.

7.1.3 Arctic

To further the discussion on the ICES strategy and roadmap for work to be carried out to implement the ICES Strategic Plan, 2014–2018 and the Arctic as an area identified for strategic development. The Head of Science Programme presented the Document **CM_2015_Del-7.1.3**. Progress on the Arctic component of ICES Strategic Plan has been accomplished in cooperation with other organizations also dealing with arctic issues.

ICES has submitted an application of observer status with the Arctic Council (deferred for consideration at the 2017 Ministerial meeting).

The list mapping strategic actions will be a good starting focus for further work by Bureau to prepare for upcoming meetings and a potential internal ICES meeting.

Norway challenged the Bureau to look into the potential strategic action mentioned in the document, and offered to host the workshop:

Potential Strategic action: *Host an arctic themed workshop to review ongoing activities (including surveys), identify gaps, building up to an Arctic dialogue meeting in 2016 to meet and discuss with strategic partners on areas for further cooperation, and specific contributions by ICES.*

Action:

Council took note of the overview of issues and progress presented in the Arctic roadmap **CM_2015_Del-7.1.3**.

If possible (if invited) ICES will participate in the Arctic Taskforce meeting Feb 4-5 2016 in Stockholm, Sweden and will use the opportunity to showcase ICES competence in the Arctic. In order to showcase ICES on-going and potential competence The President, General Secretary, Chair of ACOM, and Chair of SCICOM will develop content for the February meeting.

ICES will also consider participation in the Arctic Circles conference in Iceland October 20, 2016.

The June Bureau will consider the potential for a workshop on the arctic, noting the standing offer of Norway to host the workshop.

7.2 Conflict of Interest

The General Secretary presented to Council information about the COI issue case that arose in PUBCOM in the summer highlighting the need for the development of a Conflict of Interest (CoI) procedure or policy for ICES.

In order to create a clear Conflict of Interest policy for ICES a Bureau sub-group consisting of the President, 1st Vice-President, General Secretary, ACOM Chair, SCICOM Chair, and Head of Data and Information will consider how to define and deal with conflict of interest in ICES. BSGCOI should also consider the role of industry observers in the advisory process, and the nomination of industry scientists to expert groups. BSGCOI should seek input from the US who have experience including industry using specific guidelines. Credibility is the result of good discussion, and ICES must be willing to organize this discussion. BSGCOI will provide an update on their work to the 2016 February Bureau meeting, and make a final report to the June Bureau. Bureau will elaborate and finalize the ICES COI Policy, for release in the second half of 2016. BSGCOI will work by correspondence. BSGCOI will be tasked with the following Terms of Reference:

ToR 1: Compile examples of Conflict of Interest Policies of other international organizations, and if possible include concrete examples of conflicts of interest and how they have been handled.

ToR 2: Based on ToR 1, consider the possibility of drawing up an overall Conflict of Interest Policy for ICES, including different levels of COI, and more specifically a procedure to evaluate whether an interest constitutes a conflict, and the follow-up measures.

ToR 3: Through the Chairs of the respective Committees/Group, seek input from the Science Committee, Advisory Committee, Data & Information Group, and Secretariat.

ToR 4: Review the procedure that allows industry observers to participate in ICES work.

Action:

In order to create a clear Conflict of Interest policy for ICES, a Bureau Sub Group (BSGCOI) consisting of the President, 1st Vice-President, General Secretary, ACOM Chair, SCICOM Chair, and Head of Data and Information will consider how to define and deal with conflict of interest in ICES following the ToR above.

7.3 Review of ICES Science

Piotr Margonski, Chair of the Bureau Sub-group on the review of ICES Science presented the discussions that have been on-going to solicit Council input on a process for a review of ICES Science that aims to assess current status and identify areas for improvement. It was agreed to create a Council/Bureau group to conduct a scoping exercise, to see how this process should go forward.

Suggested Terms of References for the Council WG on ICES Science Review:

1. Develop an explicit list of what ICES wants to learn from this exercise;
2. Recommend if the review should be conducted internally and/or externally;
3. Develop a focused list of specific questions to solicit feedback on ICES science, also with a clear view on who will be asked for feedback and asking for suggestions for improvements to make changes;
4. Suggest the time frame of the review process;

5. Suggest how results could be forwarded and implemented.

Action:

As this science review issue is interlinked to many of the changes on-going in the science pillar, including the proposed mid-term review of the ISP, it was agreed that this would be one (of three) components of the overall group (CSWGIS) that will be Co-Chaired by Pierre Petitgas, and Tammo Bult. The aim is to ensure coordination between these initiatives. (See section 2.2)

7.4 2016 and forthcoming Annual Science Conferences

Pierre Petitgas, Chair of the SCICOM subgroup on the Review of the format of the ASC (SRGASC), presented a summary of the work. The group proposed to:

Optimize the current system and reduce the costs by 20%.

Council supported the recommendations and provided further feedback, including:

- Given the recommendation to reduce the conference by one day, further review the programme to consider other creative changes such as a reduction of plenary speakers to allow more room for concurrent sessions; conduct the awards ceremony on the night of the conference dinner; Condensation of the conference should also consider condensation of the lunch break.
- Focus on ensuring a high level of scientific quality, over quantity, including coverage of ICES Strategic Plan priorities and interaction with users (existing/future) of ICES products/deliverables, in order to pursue also the applied science.
- ICES should consider adopting a specified order for hosting the ASC, for some countries this would be helpful. The Secretariat will develop a list of Member Countries indicating how many and when they have hosted the ASC.
- Early career scientist participation must be protected, therefore any fee increase should not apply to students/early career scientists.

Action:

Council **supported** the continual review of the ASC to continue to improve and modernize this important ICES event.

Bureau and SCICOM will consider the proposal to adopt a revolving list of ASC hosts. The Secretariat will develop a list of Member Countries indicating how many and when they have hosted the ASC.

The 2016 Annual Science Conference will be hosted by Latvia, and will be a five day conference, otherwise taking on as many of the recommendations of SRGASC as possible. The 2017 Annual Science Conference will be hosted by the US and will follow the new format.

Sweden was investigating their possibility to host the ASC in 2019, whereas no host has come forward for 2018.

8 ICES Advisory Services

8.1 Report from the ACOM Chair

8.1.1 Annual Progress Report

The Chair of the Advisory Committee, Eskild Kirkegaard, reported on the activities of ACOM, with a specific focus on activities carried out to further the implementation of the ICES Strategic Plan.

In 2015 ICES has produced recurring Advice on fishing opportunities for 225 stocks; and three advice products on ecosystem impacts of fishing activities. Special Requests for 2015 included 25 special requests on impact of fisheries, evaluation of fisheries management strategies, MSFD, eutrophication guidelines and plastic particles in fish stomachs. In addition, four technical services were prepared by ICES Advisory services.

Resource challenges remain to address all the requests. The Benchmark process requires further optimization and needs a shift in concept from a single meeting focus to a process that starts and is carried through until the product is delivered.

Environmental Advice on the Marine Strategy Framework Directive (MSFD) has been well received.

The ongoing “workload” issue is the result of many requests for advice, a complex system, and overall an increasing demand for a limited supply of experts. Expert availability, preparatory work (in advance of the meeting), data availability, and avoiding reopening of benchmarks at the assessment working group are some of the areas where improvements could be made.

Initiatives taken to address the workload issue include: Data calls, and data management. Working to streamline data. Reducing the frequency of assessments, and streamlining the report format. The format of the advice has been revised in 2015 to be consistent for single-stock sheets and is part of the preparations needed for the developing tool Content Administration for Reports and Advice (CARA).

A request for funds to run a pilot project to transfer some of the update assessment work to the Secretariat (see discussion under 3.1) with the aim to allow experts to focus on methods and benchmarking and to free resources to respond to special requests.

During the discussion the following points were noted:

- Communication with stakeholders is important, and ICES meets annually, including information on the workplan.
- Changes in the EU Data Collection Framework and EMFF, more money has been available for data management and data processing. However, this investment is not being reflected in more resources being made available for this process.
- Expert Groups want to use the best information available, and this can often involve changing benchmarks, this puts pressure on the system as assessment working groups are going into detail that they don't have time

for. This must be resolved to resolve the wider “workload” problem and to avoid undermining the other solutions proposed.

- Clients require that the advice is delivered on time, independence and quality is also a main focus for clients. Engage in dialogue with the clients to ensure a common understanding of the request and to agree the format of potential responses.
- More MSFD requests would be welcomed- but resource constraints exist in the system. Currently, some of the clients (i.e., DG ENV) pay the Secretariat costs of the special requests, but no funding for the EG participants is available.
- There is a mismatch between money spent on data collection and the most important data sources.
- The ICES advisory process is slow to take on new approaches, there is a need to reflect on how we communicate within the advice.
- New clients could help ICES to achieve some of its goals as outlined in the ISP, as well as providing additional income, however, this requires a well thought through approach including consideration of what the incentive would be for scientists/institutes to participate in this work. Potential new areas/clients could help inform the ongoing political debate on reference points, certification bodies, for instance, all stocks that are MSC certified are based on ICES advice. New areas could also bring new clients. Could be improved (MSP could be improved and new clients could be found without making issue with the current products, clients).
- Regarding the potential for new clients, such as certification bodies and NGOs, ICES must tread carefully and be mindful of its core purpose to serve member countries, and Intergovernmental Organizations. ICES should consider whether the need for additional processes, on top of the ICES advice products, could be dealt with by ensuring that the ICES advice is as transparent and easy to understand as possible.
- There is an artificial division in ICES between science and science for advice. There is a need to close this gap in perception of scientists. Also there are synergies when scientists contribute their science to advice. This could be an incentive. The barrier between science & advice and the perceived lack of interest in advisory work for some scientists, could be attributed to the repetitiveness of the regular work, need to provide science with the required knowledge.
- Special requests cover a range of topics, ICES should use them to demonstrate its science capability. Some special requests are examples of demonstration advice. The MSFD technical service was turned into demonstration advice, and has contributed to the requests for advice that are now coming in.
- ICES should consider improved cooperation to address shared/transatlantic advisory issues.
- ICES is a main end-user of data for science and advice, reform of the Data Collection Framework (DCF) will make ICES a full member of the Regional

Coordination Meetings (RCM). The Head of Advisory Support has been representing ICES in that forum. ICES, therefore, now has the possibility to change the balance of the effort put into data collection to also focus on data processing and management. The ICES-EFARO pilot initiative is also expected to help influence change in the system. Science and Advice are working closely together on this but there is need to improve coordination.

- The new EMFF lacks coordination between member states, ICES could be part of the solution in cooperation with EFARO
- Bureau should prioritise the integration and to ensure the latest science is being fed into the advice.
- There is a need to strengthen recruitment of young people to the ICES system. This should be a constant activity, as high-quality people are needed for the work.
- The Chair of ACOM personally reflected on the change to a full-time position noting that it has worked well and feels it was the right decision.
- There is some duplication and overlap of ICES and EFARO, though EFARO includes Mediterranean countries, new more efficient means of communication and collaboration could be considered.
- More fundamental changes are needed to solve the “workload” issue, the current proposals are not sufficient to solve the problem.
- Overall it could be helpful to present to Council a list of current changes, planned changes, and a view from the ACOM Chair on what is needed to solve the problem.
- The ACOM workplan for strategic issues has been created/implemented and the issues raised by Council will be included.

Action:

Council noted that the issues raised during the Council discussions should be incorporated into the ACOM workplan for 2016:

- Make a list of actions of things to do differently, including changing the leadership structure to address the issue. Outline what will be done, state if it is sufficient, and consider how to make decisions if not all requests can be taken on with the available resources
- Manage expert groups better and change the culture of revisiting benchmarks.
- A process for evaluating capacity to respond to special requests and how to limit this work given limited resources should be considered by Bureau and ACOM.
- Consider a joint ICES–EFARO meeting soon to address the issue of member states and the resources available, with a specific focus on special requests.
- The pilot process to hire additional staff within the Secretariat to do the update assessments, thereby freeing the network to work on special requests should be pursued in 2016.

- Transatlantic cooperation and the new strategic initiative (CSIMTC) should be used to consider some of the common advisory issues and to identify potential solutions.
- The potential for new clients will be discussed further at the February Bureau meeting.

8.1.2 Resolutions/ToRs

A process for planning the annual advisory work has been adopted by ACOM with (1) the ToRs for most recurrent expert groups being developed via the ACOM Forum in the first half of October, submitted to Council in October; (2) additional EG ToRs needed being set at the ACOM meeting in December; and (3) any additional EG ToRs needed, essentially to address requests for non-recurrent advice received after December, developed via ACOM Forum throughout the year.

8.1.3 Resource Coordination Tool (RCT) and Content Administration for Reports and Advice (CARA)

Anne Christine Brusendorff, General Secretary provided an update on the development of the tools for streamlining working procedures (CM_2015_Del-8.1.3).

The “Chair-invited” member reports will now be available online as a dynamic link with the most up-to-date information available for Delegates when they need it (<https://admin.ices.dk/viewreports/report/chairinvitedfiltered.aspx>). From 2016 the weekly email notifications will be discontinued.

Council delegates were reminded to continue to update skills listed in the RCT of the experts continuously. The next phase of development will allow experts to update their own skills. This step is vital to making the RCT a useful planning tool.

Some suggestions were noted:

- It could be considered to involve the Chairs in the process of nominating and notifying delegates in the Chair invited member procedure.
- It would be helpful to be able to see who is committed to future meetings at a given moment so a delegate can judge what additional expertise could be helpful to send.
- Currently the website shows all members of an expert group (on the community pages). There is an important difference between nomination and active participation in a group and it would be helpful if this could be captured in the planning part of the RCT.

Actions:

Delegates are requested to provide feedback on what kind of reports and information would be useful for their work-planning. The General Secretary will send a letter to delegates, requesting this information. Delegate engagement is vital to ensure the work tool is developed in a way that is useful for them.

CARA will continue to develop and feedback will also be needed during 2016.

9 Data and Information Services

The Head of Data and Information, Neil Holdsworth submitted a 2015 status report on the activities and deliverables by Data and Information Group and the Data and Information Centre. The report was taken as read by the Council.

10 Secretariat

The General Secretary, Anne Christine Brusendorff presented a 2015 status report on the activities and deliverables by the Secretariat as presented in Del-10.

Delegates were asked to use their ICES “hats” in other arenas, to highlight ICES work. Effective cooperation at the operational level is possible in the absence of a formal agreement (e.g. collaboration progressing with the working groups of the Arctic Council). Training is one area where cooperation with strategic partners are advancing the goals of the strategic plan. The Secretariat continues to develop ICES Communications and outreach activities. In the coming months, in cooperation with the Training Group, the Secretariat will work further to develop online training.

Action:

Delegates are asked to use their ICES “hats” in other arenas, to highlight ICES work.

11 Any other Business

11.1 Refreshing ICES logo

Council took note of the potential to update the ICES logo and to initiate a process for change in connection with the next strategic planning cycle (to be developed during 2017 for 2018–2023).

11.2 Date of the next meeting

The next statutory meeting will take place 19–20 October 2016.

The President thanked Council, Bureau, SCICOM, ACOM, DATA and the Secretariat for all their support over the past three years. He stated that it had been a great pleasure to work with the ICES family on so many diverse and important areas for the organization. He wished the new President well over the next three years.

Annex 1 – Participants List

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ICES Council Meeting, October 2015

Key Action Points for Follow up during 2016

(Version 1 @ 11/11/15)

TASK - Key Meetings	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Bureau Meetings (Feb, Jun, Sept (ASC), Oct (Pre Council);		B Q1				B Q2			B Q3	B Q4		
Council Meeting (Oct)										Council		
EFARO General Assembly (May)					EFARO							
Finance Committee (May)					Fin. Com.							
1. Summary One Page Lead for Council Meeting Documents (Sec)										***		
2. UN Observer status - Delegates to Contact Foreign Affairs Ministries (Lead Norway, Sec Gen)		***										
3. CAWGSAL - Establish Recruitment Panel (RP) who take Ownership of Process (Lead RP, Bureau)		***				***				***		
4. CSWGSSL + CWGRIS + CWGFIS = CWGIS (Council WG on ICES Science) - TOR's (Lead PP TB)		***				***			***	***		
5. CWGIBM - Now owned by Finance Committee (FC) - Update IBM Discuss at FC (Lead PM)					***	***						
6. Review level of CRF Fund - Draft Document for June Bureau Finance Committee (Lead PM)					***	***						
7. 2017 Budget - Gen Secretary to Visit Member States on Added Value of ICES (Sec Gen)						***						
8. Proactive approach by ICES on CSA Projects (Sec Gen)												
9. Review of workload and culture of Expert Assessment Groups (ACOM)		***				***			***	***		
10. Demonstration Pilot Project on Update Assessments (ACOM, Sec)		***				***			***	***		
11. Finance Committee (FC) - Adopt a more Strategic Perspective (Lead PM)					***							
12. MOU - Document on Costs and Benefits - Draft for Feb Bureau (Sec Gen, HOAS, HOS)		***										
13. Data Handling - Draft Paper for Feb Bureau (Co-ordination Group - CG)		***				***						
14. How to attract new clients for new ICES Strategic Areas - Draft Paper - Feb Bur (The CG)		***										
15. Council approved package of equity investments - Implement List (Sec Gen and Bureau)		***			***	***			***	***		
16. CSIMSF-D-EA - Council Strategic Initiative on MSFD and EA (Chair EN)						***				***		
17. Demonstration Project on Ecosystem Advice - For discussion at Feb. Bureau (The CG)		***				***				***		
18. CSIMTC - Council Strategic Initiative on MTC (Co Chairs FK, AV)						***				***		
19. ADM- Bureau Sub Group (BSGADM)- View of External Participants - (Sec Gen, TB, JS,)		***										
20. ADM - List endorsed by Council - Prioritise - Include in TOR's of WGAQUA, WGSEDA (BSGADM)		***				***						
21. Arctic- ICES participate in Arctic taskforce Meeting - Feb 2016 (Sec Gen)		***										
22. Arctic - Arctic Circle Conference Iceland - October 2016 (SCICOM; Sec Gen)									***			
23. BSGCOI - Action 4 TOR's (Pres; 1stVP; Gen Sec; Chairs ACOM + SCICOM; Head Data;)		***				***						
24. SRGASC - Council support recommendations for 2017 et seq. Review ASC further (SRGASC)		***				***				***		
24 ACOM - Ensure issues highlighted by Council are part of 2016 ACOM Workplan (ACOM Chair)		***				***			***	***		
25. ICES - EFARO - The Issue of resources and special requests - Agenda for EFARO (Sec, ACOM)		***			***							
26. Common Advisory Issues between US/Can and Europe (CSIMTC)						***				***		
27. RCT - Delegates Feedback - Letter- Move from a scheduling to a planning tool (Sec Gen)		***				***						
28. Delegates to highlight ICES work - Sec to develop ICES Communications (Sec)		***				***			***	***		
29. Bureau to conduct a mid term review on implementation of ISP - Report to Council (Bureau)		***				***			***	***		



ICES
CIEM

International Council for
the Exploration of the Sea
Conseil International pour
l'Exploration de la Mer

ICES 103rd Statutory Meeting Agenda

Copenhagen, Denmark

Chair: Paul Connolly

21–22 October 2015

Day 1 (09:00 – 16:15)

(Followed by a cocktail at the French Embassy
from 17:00 – 18:00, leave on foot at 16:30)

Day 2 (08:30 – 18:00)

1 Adopt the Agenda

The meeting is invited to adopt the agenda.

1.1 President's review

The Meeting is invited to review the follow-up, in relation to actions decided at the 2014 Council meeting.

1.1.1 UN Observer Status

At the 2014 October Council meeting, ICES delegates supported a proposal for ICES to pursue observer status at the United Nations (UN). The main aim of this proposal is to access, follow, and to the extent possible contribute scientifically to the important global policy developments in the UN work on ocean sustainability, in accordance with the ICES Strategic Plan, 2014–2018.

A follow-up letter was sent to Member Countries in December 2014. Council Members are invited to report on any progress regarding the UN observer status application that must be led by a UN Member State or Member states.

2 ICES Strategic Plan and Implementation plans

The meeting will be invited to discuss proposed structural changes needed to support implementation of the ICES Strategic Plan, 2014–2018 (ISP). Progress on the specific Science, Advice, Data, and Secretariat plans will be reported under separate agenda items.

2.1 CAWGSAL

Cornelius Hammer Chair of the Council–ACOM Working Group on Strengthening the Advisory Leadership (CAWGSAL) will update Council on the work of the group that developed job descriptions and recruitment procedures for the advisory leadership, as well as considered the cost implications of the changes to the leadership structure agreed by Council in 2014.

2.2 Strengthening the Science Leadership

As a means to support the implementation of the ISP, the meeting will be invited to discuss the statement by Bureau on a proposal to strengthen ICES Science leadership.

3 Finance

3.1 Council Working Group ICES Business Model (CWGIBM)

Fritz Köster, Chair of CWGIBM will be invited to report to Council on the outcome of the work of the group.

3.2 Sponsors

As a follow-up to the discussions in the Council Working Group on the ICES Business Model (CWGIBM) Council will be invited to discuss a proposal for potential cooperation with a commercial company H2O Sportswear, and the general criteria needed for evaluating sponsorship proposals.

3.3 Project update

The meeting will be provided an update on the status of ICES involvement in projects.

3.4 Finance Committee Report

The meeting is invited to comment and approve the report from the Finance Committee, as well as to:

- approve the final accounts 2014, including Audit Book;
- vote on the proposed budget for 2016, noting that the national contributions have already been decided;
- vote on the forecast budget for 2017, with a 2% increase in the national contributions.

3.4.1 ICES Science Fund

SCICOM Chair, Yvonne Walther will be invited to present future funding options for continuation of the Science Fund.

3.4.2 Proposal for investment in SCICOM activities 2015–2018

Following the postponement of the decision on the request for funding at the 2014 Council meeting, SCICOM is invited to update the meeting on any potential changes to the initial request, also taking into consideration the conclusions of CWGIBM.

4 Report from the Council Steering Group on the Marine Strategy Framework Directive (CSG MSFD)

The Chair of CSG MSFD, Eugene Nixon will be invited to update Council on the group's activities.

4.1 Ecosystem Approach – including progress on IEAs

Mark Dickey-Collas, the Ecosystem Approach Coordinator will provide the perspective on the development of cooperation with strategic partners and progress towards developing integrated ecosystem assessments.

5 Reports from the Council Working Group on Maritime Trans-Atlantic Cooperation (CWGMTC)

First Vice-President Cornelius Hammer will report on the activities of CWGMTC, and initiatives taken to follow-up on defining the role and contribution of ICES to the Transatlantic Ocean Research Alliance.

Council will also be updated on ICES participation in the Atlantic Ocean Research Alliance Coordination and Support Action BG – 14.

6 Elections and Appointments

6.1 President

Council will be invited to elect a new President. President Paul Connolly will have completed his term at the end of October 2015.

Rule 8 The President shall be elected for a term of three years and shall not be eligible for re-election for the immediately succeeding term.

6.2 1st Vice-President

Council will be invited to elect a new 1st Vice-President. 1st Vice-President Cornelius Hammer will have completed his term at the end of October 2015.

Rule 11 i) The First Vice-President shall be elected for a period of three years and shall not be eligible for re-election for the immediately succeeding term;

6.3 Vice-Presidents

Council is invited to nominate and elect one new Vice-president. Vice-President Piotr Margonski (PL) has completed his term (at the end of 2015).

Rules of Procedure

Rule 11 (ii)

Any other Vice-President shall be elected for a period of three years and shall not be eligible for re-election for the immediately succeeding term.

Rule 5 (iv)

At any time not more than one member of the Bureau shall be from the same member country. (Currently Bureau consists of President Paul Connolly, Ireland, First-Vice President Cornelius Hammer, Germany, Pierre Petitgas, France, Tammo Bult, Netherlands, Kai Myrberg, Finland, Johann Sigurjónsson, Iceland.

6.4 Appointment of Advisory Committee Vice-Chair

Pending potential changes to the terms of vice-chairs (See agenda items 2.1 and 2.2), the approval of the extension of Advisory Committee Vice-Chairs will be conducted after the Council meeting using e-approval procedure.

Rules of Procedure¹**Rule 30 (iii)**

The Chair and Vice-Chair(s) of the Advisory Committee shall be nominated by the Advisory Committee and appointed by the Council. The Chair and Vice Chair(s) shall hold office for a term of three years, with the possibility of a one year extension, subject to approval by the Council. They shall assume office on the first day of January next following their election. They shall not be eligible for re-election for the immediately succeeding term.).

6.5 Finance Committee

All members of Finance Committee have now completed their terms.

Rule 24 iii) The Finance Committee shall consist of one of the Delegates of Denmark and four other Delegates appointed by the Council for a period of three years, after which they shall not be eligible for re-appointment for the immediately succeeding term unless a member of the committee is appointed as Chair of the Finance Committee in which case he/she may serve one additional term. When a member of the Committee ceases to be a Delegate, he/she shall immediately vacate office.

7 ICES Science

7.1 Report from the SCICOM Chair**7.1.1 Annual Progress Report**

The Chair of SCICOM, Yvonne Walther, is invited to give a report on the activities of SCICOM, with a specific focus on activities carried out to further the implementation of the ICES Strategic Plan as well as issues for which support is needed in order ensure progress towards the ICES Strategic Plan.

The meeting will be informed about the annual science work, including the ToRs for the expert groups, and an update on SSGs, and training.

¹ http://www.ices.dk/explore-us/who-we-are/Documents/ICES_Rules_of_Procedure.pdf

7.1.2 Aquaculture

The meeting will be invited to review and comment on the report from the Aquaculture Dialogue meeting.

7.1.3 Arctic

To further the discussion on the ICES strategy and roadmap for work to be carried out to implement the ICES Strategic Plan, 2014–2018 and the Arctic as an area identified for strategic development. An outline of ICES Arctic work has been submitted for commenting, and identification of areas of joint cooperation, to the Arctic Council Secretariat. ICES has submitted an application of observer status with the Arctic Council (to be considered at the 2017 Ministerial meeting).

7.2 Conflict of Interest

Council will be updated on the need for the development of a Conflict of Interest (CoI) procedure or policy for ICES.

7.3 Review of ICES Science

Piotr Margonski, will update Council on a process for a review of ICES Science that aims to assess current status and identify areas for improvement.

7.4 2016 and forthcoming Annual Science Conferences

The 2016 Annual Science Conference will be hosted by Latvia.

The meeting will be invited to provide input on changes needed to the format of the Annual Science Conferences (ASC) to make it more attractive for ICES member countries to act as host for the important event. A summary of the work of the SCICOM subgroup on the Review of the format of the ASC (SRGASC) and related discussions in Bureau will also be submitted for information.

Proposals for hosting future ASCs will be welcomed.

8 ICES Advisory Services

8.1 Report from the ACOM Chair

8.1.1 Annual Progress Report

The Chair of the Advisory Committee, Eskild Kirkegaard, is invited to give a report on the activities of ACOM, with a specific focus on activities carried out to further the implementation of the ICES Strategic Plan as well as issues for which support is required to ensure continued progress.

8.1.2 Resolutions/ToRs

A process for planning the annual advisory work has been adopted by ACOM with (1) the ToRs for most recurrent expert groups being developed via the ACOM Forum in the first half of October, submitted to Council in October; (2) additional EG ToRs needed being set at the ACOM meeting in December; and (3) any

additional EG ToRs needed, essentially to address requests for non-recurrent advice received after December, developed via ACOM Forum throughout the year.

The meeting will be informed about the annual advisory work, and the ToRs for the expert groups.

8.1.3 Resource Coordination Tool (RCT) and Content Administration for Reports and Advice (CARA)

Information will be submitted for consideration by Council regarding the further progress on the development of the tools for streamlining working procedures.

9 Data and Information Services

The Head of Data and Information, Neil Holdsworth will provide a 2015 status report on the activities and deliverables by Data and Information Group and the Data and Information Centre.

10 Secretariat

The General Secretary, Anne Christine Brusendorff will provide a 2015 status report on the activities and deliverables by the Secretariat.

11 Any other Business

11.1 Refreshing ICES logo

Council will be invited to share their views on the potential to update to the ICES logo and to initiate a process for change in connection with the next strategic planning cycle (to be developed during 2017 for 2018–2023).

11.2 Date of the next meeting

The next statutory meeting will take place 19–20 October 2016.

President's review

The meeting is invited to review the follow-up, in relation to actions decided at the 2014 Council meeting.

(Version 10/15/2015)

(Version 10/15/2015)		Bur			Fin	Bur				Bur	Bur Cou					Status
Issues and Tasks	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb		
1. CAWGSAL - TOR (Chair CH) - Proposal for Council						*****				*****					Agenda item 2.1	
2. CSGMSFD - TOR (Chair EN)		*****				*****				*****					Agenda item 4	
3. CWGMTC - TOR (Chair CH) (include Roadmap for Arctic)		*****				*****				*****					Agenda item 5	
4. CWGIBM - TOR (Chair FK) - Prepare Proposal for Council		*****				*****				*****					Agenda item 2.1	
5. 2016 Budget (0% increase - 1.9% increase)		*****													Completed	
6. Arctic IEA Workshop - ICES/AMAP/PAME - Bergen, May - Note Outputs						*****				*****					Agenda item 7.1.3	
7. Science - Review Outputs from Science Fund										*****					Agenda item 7.1.1	
8. ICES-PICES early Career Conference 2017										*****					Money allocated at 2014 Council meeting	
9. BSGSSL - (Chair TB) Strengthening th Science Leadership - Document for June Bureau						*****									Agenda item 2.2	
10. Secretariat - Simplify e voting procedures		*****								*****					Completed	
11. Continuity of Bureau		*****													Completed	
12. Aquaculture Dialogue Meeting		*****													Agenda item 7.1.2	
13. SRGASC - SCICOM Review Group ASC Format - Continue more "radical" review		*****				*****			*****						Agenda item 7.4	
14. RCT - Resource Managers Commitment from Member States						*****									Agenda item 8.1.3	
15. Secretariat - Monitor 2015 Spend						*****									Agenda item 2.1	
16. Meeting Arctic Fish Stocks - Seattle - April 2015		*****													Completed	
17. ICES - UN Observer Status Application		*****													Agenda item 1.1.1	
18. ACOM, SCICOM, DATA, Secretariat - Continue work on ISP - Performance Measures		*****				*****				*****					Agenda item 3	
19. Joint ACOM SCICOM Membership Rules		*****													Completed	
20. Risk Register - Next Steps - Identify Owners and Actions		*****				*****				*****					Being followed-up at February Bureau	
21. Finance Committee Review - Role in ISP and long term Financial Issues		*****													Completed	
22. BSGRIS (Chair PM) - Review of ICES Science - New TOR's and Scope out Review process		*****				*****									Agenda item 7.3	
23. BSIPP (Chair TB) - Bureau Sub Group on ICES Position and Priorities						*****									Completed	
24. Gap and Needs Analysis for Secretariat						*****								*****	Agenda item 10	
25. ACOM + Data - Discussion Document on problems with data and impacts on ICES work						*****								*****	Postponed to February Bureau	
26. A Proposal for a New ICES Logo						*****									Agenda item 11.1	
27. BSGNISL - TOR (Chair CH) -									*****						Agenda item 2.2	



ICES
CIEM

International Council for
the Exploration of the Sea
Conseil International pour
l'Exploration de la Mer

Council Meeting
CM 2015 Del-2.1 updated
October 2015
Agenda Item 2.1

Council-ACOM Working Group on Strengthening the Advisory Leadership (CAWGSAL)

Council is invited to approve the report of CAWGSAL and the proposed changes to the Rules of procedure.

This document has been amended following the Council meeting to reflect the decisions of the Council.

1 Recruitment process and length of tenure of the Chair and Vice-Chairs of the Advisory Committee following the recommendations of the Council-ACOM Working Group on the Strengthening of the Advisory Leadership (CAWGSAL) and the required changes to the Rules of Procedure.

Decisions at 2014 Council meeting

In order to strengthen the Advisory leadership, both in the Advisory Committee (ACOM) and in the Secretariat, the 2014 Council Meeting approved the Bureau proposal ([CM 2014 Del-02b](#)) whereby:

- Within the Secretariat, the post of Head of the Advisory Programme (P5) was replaced by a Head of Advisory Support (Grade P3).

The Head of Advisory Support reports to the General Secretary and focus on: (a) managing the advisory resources (staff and finances) in the Secretariat; (b) maintaining the technical/scientific knowledge base; and (c) ensuring an effective and efficient secretariat support for ACOM.

It was decided that until the implementation of the full package in 2016, and to ensure an appropriate recruitment process, the Head of Advisory Support is a temporary position, recruited from within the Secretariat and during 2015 filled by Cristina Morgado.

- Within the ACOM leadership the position of ACOM chair was increased from 50% to 100% time, with a corresponding salary increase for this additional time commitment; to recognize the new strategic responsibilities;

It was decided that until the implementation of the full package in 2016, and to ensure an appropriate recruitment process, the current ACOM Chair, Eskild Kirkegaard continued with the new functions in a full time position, and his contract was adjusted to these new terms until the end of his three year term by the end of 2016.

- Within the ACOM leadership the salaries of each of the three Vice-Chairs was increased from 33% to 38% to better reflect the time commitments that they actually devote to their responsibilities.

Update

A vacancy announcement for the Head of Advisory Support was issued in the beginning of August and with the aim to fill the position no later than the end of December 2015, for an initial period of four years. As was outlined in the Bureau proposal, and reiterated in the CAWGSAL report, the Head of Advisory Support reports to the General Secretary, with a secretariat driven open recruitment process and public vacancy announcement.

CAWGSAL proposal and Bureau approval

At its meeting in February 2015 CAWGSAL detailed the division of tasks between the Head of Advisory Support, the ACOM Chair and the ACOM Vice-Chairs, and came up with proposals for recruitment processes and a suggestion for the length of their tenures.

Station of the ACOM Chair

Given that the ACOM Chair is a full-time position, and based on the positive experience with the current ACOM Chair, CAWGSAL supported the proposal to station the ACOM Chair in the Secretariat (though remaining responsible to ACOM and Council). This was endorsed by Bureau.

Recruitment process:

The following recruitment process was suggested by CAWGSAL for the ACOM Chair and endorsed by the June Bureau Meeting:

1. *The position of Chair of the ICES Advisory Committee should be advertised as widely as possible, on the ICES website and by notifying ICES Member Countries, stakeholders, and cooperation partners, and with a clear outline of the timeframe of the various stages of the recruitment process, as well as an indication of the expected start date. The General Secretary will compile the applications.*
2. *A recruitment panel will be established with the following membership: Three ACOM members selected by ACOM of which one is appointed by ACOM as chair of the panel, two members of Bureau selected by the Bureau, a SCICOM representative, the General Secretary, and the Head of Advisory Support. The outgoing Chair of ACOM cannot be appointed as member.*
3. *The applications will be reviewed by the recruitment panel and the panel will develop a short-list (based on certain criteria defined in the job description).*
4. *The Chair of the recruitment panel will present the shortlist to ACOM for further selection of up to three candidates to go further to a more formal interview with the recruitment panel (nominations).*
5. *Based on the interviews a priority ranking of candidates will be created by the recruitment panel, i.e., specifically stating that the listed candidates are qualified and recommended in priority order to do the job.*

6. Finally, Council appoints the ACOM Chair according to the priority ranking, and thus approving that the process has been carried out according to the established procedure. This ensures that if the first priority candidate decides not to take the position, the list of candidates in rank order may be followed to fill the position.

7. The position is for a three- year term, with a possibility for another three-year term (limit of two successive terms). The ACOM chair is subject to an evaluation process after one year, led by the President and Bureau. One year before the end of the three-year term a Bureau–ACOM panel consisting of 2 Bureau members and 2 ACOM members will evaluate if the contract of the ACOM Chair shall be extended for a further three years. They will provide a recommendation to Bureau, who will decide on the renewal.

Length of tenure:

Given that the candidate will now be expected to relocate to Copenhagen, and work out of the Secretariat, CAWGSAL proposed a three-year term with an option for another three- year term (limit of two successive terms). This was endorsed by Bureau.

Bureau recommended greater clarification about the renewal process, explicitly stating that Bureau will decide on the renewal, cf. the new point 7 above.

ACOM Vice-Chairs

CAWGSAL recommended, and Bureau endorsed that the ACOM Chair should be empowered to decide on the number and the necessary qualifications of the Vice-Chairs, given the budgetary restrictions and thus awaiting the outcome of the ICES Business Model and the Programming Budget.

Proposed recruitment procedure:

CAWGSAL proposed, and Bureau endorsed, that competent Vice-Chairs are identified by the ACOM Chair. This list of potential candidates is presented to ACOM. ACOM makes a recommendation to the Chair. Based on this selection Council appoints the Vice-Chairs. In case of proposals for a three-year prolongation, the ACOM Chair will put forward an evaluation to ACOM, for them to make a recommendation to the chair, and final appointment by Council.

Length of tenures:

CAWGSAL proposed, and Bureau supported, the possibility for a three-year prolongation. To deal with Vice-Chairs whose contracts are up for renewal and the pending Council decision on length of contracts, Bureau **advised** that current contracts shall be considered by an electronic approval procedure after the Council meeting.

Cost and resource implications:

The Secretariat informed the group that according to financial calculations, comparing 2014 to 2015, the strengthening of the advisory leadership, is close to cost neutral.

Necessary changes to the Rules of Procedure following discussions at the CAWGSAL meeting and the June Bureau meeting (indicated with underline)

Rule 30,

iii) The Chair and Vice-Chair(s) of the Advisory Committee shall be **nominated** by the Advisory Committee and **appointed** by the Council, according to the established procedure¹. The Chair and Vice Chair(s) shall hold office for a term of three years, with the possibility of a three year extension, subject to approval by the Council. They shall assume office on the first day of January next following their election. They shall not be eligible for re-election for the immediately succeeding term.

iv) If, for any reason, the Chair of any Committee is unable to complete his/her term of office, or is temporarily unable to act, the President shall **nominate** an interim Chair who will serve for the remainder of the year, or for such shorter period as may be decided by the President. The Committee shall nominate a new Chair at the first opportunity, who will be appointed by Council. The interim Chair will be eligible for election as Chair.

2 Summary Report CAWGSAL

ToRs condensed:

ToR 1. Job description for the ACOM chair.

ToR 2. Job description for a full time Head of ACOM Support.

ToR 3. To elaborate the impact of resource limitations in relation to the support provided by the ACOM Vice-Chairs.

ToR 4. To examine the cost and resource implications for ICES.

ToR 5. Examine the capacity within the ICES Secretariat to respond to requests for advice and ensure the science structures are capable of providing the necessary support.

TOR 1, 2, and 3

Brainstorming: Division of responsibilities

To ensure the best possible support to ACOM a more strategic development of the advisory services the Council was agreed. The task was to identify and allocate the main responsibilities and elements of the Advisory Leadership of ICES, (i.e. ACOM Chair and Vice Chairs, Head of Advice, Advisory Department in the Secretariat) each with different responsibilities and tasks for the Advisory process. This should be achieved through a mobilization of secretariat resources; and a good supervision and control of the finances acquired from the advisory clients. In order to ensure that all workshop participants had the same idea about the allocation of responsibility between the ACOM Chair, Vice-Chairs, and Head of Advisory Support a brainstorming activity was undertaken. Using sentences from

¹ The recruitment procedure as agreed by Council in 2015.

past job descriptions and supporting papers the group assigned the following tasks and responsibilities:

ACOM Chair

Key responsibilities	Key tasks
The strategic development of ICES advice in accordance with the ICES Strategic Plan.	Chairing meetings with ACOM, clients, cooperation partners, and expert group chairs.
Maintaining the horizontal (= between EGs) and the vertical (= between years) consistency of advice.	Report to Bureau and Council amongst others on the functioning of ACOM.
Promote and organize the integration of the advice in cooperation with SCICOM Chair	Represent ACOM in external meetings
Deciding on how to address special requests	Report to ACOM
Leading the Advice and overseeing the Advisory process in terms of technical quality, relevance, and integrity.	
Keeping contact to clients, cooperation partners and observers.	
Presenting the advice to clients and stakeholders	
Establishing a communication and feedback loop on errors in advice.	
Securing the active participation of ACOM in the process.	

Vice-chairs

Key responsibilities	Key tasks
Overseeing the development of advice	Chairing and participating in a number of meetings: advice drafting

	groups, review groups, ACOM meetings, and other meetings
Support ACOM and ACOM Chair in all aspects	Maintain consistency of advice
	Present and explain the advice to stakeholders and cooperation partners

Head of Advisory Support

The meeting was of the opinion that the title “Head of ACOM Support” is functionally appropriate but may be incomprehensible to the world outside of ICES. For this reason it felt that “Head of Advisory Support” is more appropriate. The meeting recognized that the responsibilities and work tasks of the Head of Advisory Support will be defined by the General Secretary based on the needs to support the ACOM Chair and the whole advisory system. The table of responsibilities and tasks should be seen as a description/recommendation.

Key responsibilities	Key tasks
Implementing the work plan for the advisory services Plan and manage the section budget of the advisory services	Secure the consistency of the advice
Negotiation of MoUs with clients	Supervise the technical quality assurance for the advisory products
Negotiation and implementation of special request	Act as a liaison between ACOM and the Secretariat
Checking special requests on feasibility in terms of work capacity and content	Discuss feasibility and content of special requests with ACOM Chair
Management of advisory staff within the Secretariat	Coordinate public outreach (media enquiries/ACs and other stakeholders).
Assist ACOM in preparing ICES advice	Act as a member of the Secretariat management group.

Recruitment procedure:

CAWGSAL recommends the following procedure be implemented for the recruitment of the Chair of the ICES Advisory Committee:

1. The position of Chair of the ICES Advisory Committee should be advertised as widely as possible, on the ICES website and by notifying ICES Member Countries, stakeholders, and cooperation partners, and with a clear outline of the timeframe of the various stages of the recruitment process, as well as an indication of the expected start date. The General Secretary will compile the applications.
2. A recruitment panel will be established with the following membership: Three ACOM members selected by ACOM of which one is appointed by ACOM as chair of the panel, two members of Bureau selected by the Bureau, the General Secretary and the Head of Advisory Support. The outgoing Chair of ACOM cannot be appointed as member.
3. The applications will be reviewed by the recruitment panel and the panel will develop a short-list (based on certain criteria defined in the job description).
4. The Chair of the recruitment panel will present the shortlist to ACOM for further selection of up to three candidates to go further to a more formal interview with the recruitment panel (nominations).
5. Based on the interviews a priority ranking of candidates will be created by the recruitment panel.
6. Finally, Council is informed about the priority ranking (and is not be asked to select a candidate), with the aim to oversee that the process has been carried out according to the established procedure. This ensures that if the first priority candidate decides not to take the position, the list of candidates in rank order may be followed to fill the position. The final selection of the candidate is approved by Council.

Length of contracts

Given that the candidate will now be expected to relocate to Copenhagen, and work out of the Secretariat, a three-year term with an option for another three- year term (limit of two successive terms) was discussed as optimal.

Flexible contract options should continue, for instance, the potential for the future ACOM Chair to retain employment at his/her home institute, the salary just paid by ICES, thereby facilitating a return to work after the term as ACOM Chair.

The ACOM Chair should be subject to an evaluation process, led by the President and Bureau after one year. Six months before the end of the three-year term a Bureau–ACOM panel should evaluate if the contract of the ACOM Chair will be extended for a further three years.

The role of Vice–Chairs

The ACOM Chair should be empowered to decide on the number and the necessary qualifications of the Vice-Chairs.

Proposed recruitment procedure:

Competent people are identified by the ACOM Chair. This list of potential candidates is presented to ACOM. ACOM then makes a recommendation to the Chair. This selection shall finally be approved/supported by Council. The duration of the contracts are equally to the contract of the ACOM Chair 3 year with the option for the prolongation of another 3 years term. In case of proposals for a three-

year prolongation, the ACOM Chair will put forward an evaluation to ACOM, for them to make a recommendation to the chair, and final approval/support by Council.

Action: There are two Vice-Chairs contracts up for one-year renewal next year (2016) and this situation needs to be evaluated, in the light of the need for continuity. This was highlighted to Bureau in June.

SCICOM

The group was of the opinion that a profound analysis of the functioning and role of SCICOM was needed, in particular with its role in contributing to the integrated assessment and advice.

Recommendation: CAWGSAL recommends that should Council decide to implement similar structural changes to ICES Science, similar recruitment procedures be adopted by the Science Committee.

ToR 4: Consider the cost implications for ICES, and resource implications in the Secretariat

The workload in the Secretariat was addressed, and the new tools and streamlining of working procedures were pointed to, as a means to address some of the workload issues. At the same time it was emphasized that the development and taking into use of new tools/procedures are resource demanding.

If a more general line is followed, i.e., dividing the tasks between the Expert Working Groups (responsible for the development of science and methods) and the Secretariat (responsible for the application of the methods, as developed by the Expert Working Groups), the group considered that it is likely that a need for additional staff in the advisory department in the Secretariat would arise.

The Secretariat informed the group that according to financial calculations, comparing 2014 to 2015, the strengthening of the advisory leadership, is close to cost neutral.

ToR 5 Capacity of the Secretariat

The meeting discussed the capacity of the ICES Secretariat to respond to requests for advice, noting the major components as:

- **Competencies necessary** to deal with current work, as well as to develop future strategic work, in accordance with the ICES Strategic Plan, 2014-2018.
- **Modern working tools**, to help facilitate the work of the experts, to ease and streamline the working procedures in the secretariat, as well as to free some resources for other tasks, both for assisting secretaries and for professional officers.
- **Assessment of working procedures within the Secretariat**, and what is needed to support ACOM in the provision of scientific sound advice on a regular basis (annual/biennial assessments and/or advice).
- **Employment of additional staff in the secretariat.**

The Secretariat recruitment procedures within the Advisory department have recently aimed at hiring people with a possibility to facilitate some of the scientific processes/advice deliverables, requiring scientific skills, rather than process management. This change is related to the expectation that support for the advisory process will need to become more technical, related to application of scientific methods, decided by ACOM and the Expert Working Groups.

It may be necessary to **evaluate if there is a mismatch** between the support that the EGs need and the current role of the Secretariat. In line with the recommendations from the External Advisory Review² (2012), the development of the Secretariat should be further explored to help address workload issues and provide greater support to the ICES network. The role of expert groups and the scientists should focus on science and methods.

The group was of the opinion that it was technically not in the position to comprehensively analyze the capacity of the Secretariat in relation to the expected workload. The group felt that within the Secretariat adaptations to the new set-up are needed and possible but must go hand-in hand with the further development of the RCT and CARA. In addition a transfer of routine assessment work from the EGs to the Secretariat is expected to be a gradual process also depending on the staff development within the advisory department.

Even though it was felt that the Secretariat is in a good position to face and cope with these changes, it cannot be ruled out that additional work coming into the Secretariat can eventually not be solely compensated by increased efficiency through CARA, the RCT and new staff in compensation for outgoing staff. In this case more staff would be need to be employed for the advisory department of the Secretariat.

Bureau Proposal to Council on Strengthening the Science Leadership¹

The proposal to Strengthen the Science Leadership has been discussed and elaborated by Bureau at their February, June, and September meetings in 2015. This resulted in a Bureau Statement on Strengthening the Science Leadership which was presented to SCICOM at the Annual Science Conference. Bureau has received valuable feedback from SCICOM which it has incorporated into an evolved proposal that will be presented to Council in October 2015.

Bureau has concluded that the successful implementation of the ICES Strategic Plan is dependent on close cooperation, communication, and integration between Science, Data, Advice, and the Secretariat. ICES now has a full-time ACOM chair, a full-time Head of Data and Information Services, and a full-time General Secretary, all based in Copenhagen, overseeing three of the four pillars. Thus, there is a need for a corresponding full-time SCICOM Chair. Without a full-time SCICOM Chair, available to work cooperatively with the other full-time leads of the ICES pillars, it is evident that ICES will not professionalize the organization across all pillars, and will not achieve integration. If the science pillar is left out of this change, it will have implications for the scientific work of the organization.

Consultation with SCICOM

Bureau recognizes that SCICOM input to and support for the proposal is crucial. Bureau has revised its proposal following the feedback from SCICOM during the ASC, on 20 September. This revised Bureau proposal was presented at the joint Council/SCICOM/ACOM/Secretariat meeting during the ASC on 24 September, where SCICOM generally supported the proposal, but stress the need for the details to be worked out with the involvement of SCICOM. Further discussions took place at the SCICOM meeting on 26 September, leading to the SCICOM response submitted to Bureau on 5 October 2015, and again stressing the need for clarification on a number of issues and on the need for SCICOM to be part of the process of detailing the strengthening of the science leadership.

Following the ASC discussions and SCICOM feedback, Bureau would like to clarify the framework and procedure in relation to the proposal to strengthen the science leadership.

Bureau proposal

The Bureau proposal aims to ensure an effective and efficient ICES organization by safeguarding a well-defined division of responsibilities and tasks, allowing the

¹ This proposal was circulated to SCICOM and Council members via email 13 October.

full-time SCICOM Chair to focus mainly on strategic issues and allowing the more operational and administrative tasks to be dealt with by the Head of Science support within the Secretariat.

Bureau would like to present the following proposal to Council with the aim of Strengthening of the Science Leadership;

- (1) To set a clear direction regarding strengthening the science leadership by extending the responsibilities and employment time of the SCICOM chair and at the same time, ensuring an optimal mobilization of the expertise and capacity within the Secretariat to support the work of SCICOM.
- (2) On the need for a full time SCICOM chair (P5) based at ICES in Copenhagen and reporting to Bureau, Council, and SCICOM from 2017 to 2019.
- (3) On the need for a full time Head of Science support
- (4) To establish a Council–SCICOM Working Group (CSWGSSL) that will engage during November 2015 to June 2016, with clearly defined terms of reference on how to take the process forward.
- (5) To mandate Bureau, informed by the recommendations of the CSWGSSL, to prepare a proposal for the June Bureau meeting for implementation in January 2017.
- (6) The CSWGSSL will be chaired by one of the Vice Presidents and will comprise two representatives of Council, two representatives of Bureau, two representatives of SCICOM (to be decided by SCICOM), the SCICOM Chair, Head of Science Programme, the ACOM Chair, Head of Advice Support, Head of Data and Information services, the General Secretary, and staff representation.
- (7) The leadership structures of both ACOM and SCICOM will be reviewed early 2019. The results of the review will be presented to Council in October 2019 and the Council will be invited to discuss possible amendments to the structures. (Should be aligned with the development of the new ISP, and the evaluation process for the ACOM Chair).

CSWGSSL would have the following Terms of Reference (ToRs);

- (1) To develop a detailed job description for a full time SCICOM chair, particularly in relation to the implementation of the ICES Strategic Plan and making best possible use of Secretariat resources in accordance with SCICOM needs;
- (2) To suggest tasks for a full time Head of Science support, for use by the General Secretary, in relation to ensuring optimal mobilization of the expertise and capacity within the Secretariat to support the work of SCICOM, and the SCICOM Chair;
- (3) To outline a recruitment process and timeline for the Chair of SCICOM.
- (4) To explore possible responsibilities and tasks in the SCICOM leadership in order to align working procedures to the new leadership structures, for further specification in the SCICOM proposal to Finance Committee (see below).
- (5) To elaborate the scope and timeline for the review of the leadership structures of ACOM and SCICOM, as outlined in No 7 above.

SCICOM proposal to Finance Committee

A sum equivalent to around 60 % of a P5, step I salary will be made available, and SCICOM should make recommendations to the May 2016 Finance Committee meeting on how this money can be spent to further strengthen the SCICOM leadership. Bureau emphasizes that any SCICOM proposal to Finance Committee must be cost-neutral and must ensure integration between Science, Data, ACOM, and the Secretariat.

Revised on 30 September 2015

SCICOM response to Bureau on

“Bureau Proposal to Council on Strengthening the Science Leadership”

SCICOM welcomes the opportunity presented by Bureau to strengthen the Science leadership across the four ICES pillars.

SCICOM invites Bureau to clarify the framework and procedure within which SCICOM will contribute. In particular, clarification is sought on whether a full-time chair position and a head of support in the secretariat has already been decided by Bureau as this will clearly influence how SCICOM can develop operational structures.

SCICOM also welcomes the opportunity to engage with Council in a Council-SCICOM group to:

- consider the overall leadership structure across ICES pillars as suggested by Bureau to evaluate and propose alternative scenarios for the Science leadership,
- design and propose a leadership structure for SCICOM that is adapted to SCICOM internal and external procedures as well as fulfilling the needs identified by Bureau for leadership across ICES pillars which will also be viewed favourably by ICES members and clients,
- develop the strategic and operational tasks of the SCICOM leadership and develop corresponding job descriptions,
- recommend a recruitment process with its timeline.

SCICOM is pleased to contribute to a constructive dialogue with Bureau, and SCICOM is available to Bureau to finalise the Bureau proposal to Council. SCICOM would appreciate if its views could appear in the Bureau proposal to Council.

Bureau Statement

Bureau Proposal to Council on Strengthening the Science Leadership

This Bureau Statement outlines a Bureau proposal to Council on strengthening the science leadership. The proposal incorporates initial feedback from SCICOM and requests additional feedback. Council is asked to endorse the direction for the proposed changes which will be developed by SCICOM. A timeline for implementing the changes is proposed over 2016 and 2017.

Background

ICES is facing a changing science and policy landscape¹. In our ICES Strategic Plan we have recognized our new role and the increasing demand for our knowledge. However, there are also limited financial and human resources to deliver these services.

Bureau recognizes the need to:

- Continue to implement our Strategic Plan.
- Foster cooperation and integration within ICES.
- Strengthen ICES role as an appreciated knowledge partner.
- Provide a platform to facilitate, focus, and expedite research and make its outcomes valuable.

To achieve these points listed above, integration and cooperation between the four ICES pillars (ACOM, SCICOM, DATA, Secretariat) is essential.

Bureau believes that the proposed changes outlined below are necessary and will improve the cooperation, integration, and efficiency between the pillars to encourage “real working together” around the activities associated with the goals set in the Strategic Plan.

Setting a direction – A proposal from Bureau to Council incorporating initial feedback from SCICOM, and requesting additional input:

Bureau proposes to strengthen the Science Leadership by:

- increasing the SCICOM chair to a full-time paid position (100% honorarium);
- basing the SCICOM Chair in the Secretariat to ensure better communication between pillars;
- The SCICOM Chair will continue to report to SCICOM, Bureau, and Council;

¹ http://ices.dk/explore-us/what-we-do/Documents/ICES_Science_Policy_landscape.pdf

- converting the position of the Head of the Science Programme in the Secretariat (P5; current contract expiring end of September 2016) to a Head of Science Support (P3);

- asking SCICOM to propose how to best use the available funding to strengthen the Science Leadership, e.g. investing in SCICOM Vice-Chairs. The overall proposal must be cost-neutral.

- providing specific suggestions for how to invest in the SCICOM leadership structure for the 2016 June Bureau meeting;

Bureau is seeking additional feedback from SCICOM on the overall direction of this proposal by the 6 October 2015, in order for Bureau to submit the final proposal to the October 2015 Council meeting.

Bureau proposes a Council—SCICOM working group be established and work in 2015 and 2016 and report to the February 2016 Bureau meeting, also informing SCICOM in March, on the following issues (specific ToRs to be developed at Council):

- develop a job description for the full time chair of SCICOM and in cooperation with the Secretariat, the head of SCICOM support.
- recommend the recruitment process in 2016 for the full-time SCICOM Chair (and possibly Vice-Chairs), modelled on the suggested proposal for the recruitment of the ACOM Chair/Vice-Chairs (CAWGSAL)

Other linked issues

The broad issues around data collection, management, and use will be addressed during 2016 and 2017 by a joint ACOM/SCICOM/Data/Secretariat group that will be established by Council in October.

A Coordination team consisting of the leaders of the pillars meets regularly to focus on implementation of the ICES Strategic Plan, cooperation, and integration. The Group reports to Bureau.

A full-time ACOM Chair will be starting 1 January 2017 following an open and competitive recruitment procedure.



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Agenda item 3.1

Council Working Group ICES Business Model

Revised tables

Issues Raised in the IBM

IBM Issue	Status of Issue	Suggestions for future Actions to address
Strengthening Science leadership	Council to discuss (Agenda item 2.2)	Based on Council decision, to be further specified during 2015-2016 in cooperation with SCICOM
Review of ICES Science	Council to discuss (Agenda item 7.3)	Timeline to be agreed taking into account the preparation for the new ICES strategic Plan, to be finalised by October 2018
Science fund	Document to be submitted by SCICOM for further discussion by Council (AI 3.4.1).	To consider the external possibilities from ICES being considered as a funding agency. To balance this with the internal considerations on the benefits from the Science Fund, and the question where to obtain continued funding to maintain the Science Fund.
Resource constraints in the advisory system	Increase efficiency of the system, while at the same time acknowledging that a change in the system requires increased resources during a transitional period.	Request from equity: 5,022, 622 DKK for additional (time-limited) human resources in the secretariat. Other issues to be highlighted in the ACOM report (Agenda item 8.1.1)

	<p>The need to reorganize task distribution and workflows.</p> <p>On-going work on RCT and CARA</p>	
Role of Finance Committee	CWGIBM has identified the need for strategic considerations of the financial footing of ICES.	<p>Council to support a longer-time and more strategic perspective for Finance Committee considerations. Finance Committee to take ownership of further developments of the IBM.</p> <p>e.g. risk register</p> <p>trends in income and expenses</p> <p>programming budgets</p>
Secure multi-annual agreement on increased national contributions	Consequences of frozen national contributions	Council to discuss potential strategies for securing increases in national contributions to reflect widening scope of ICES work (ICES Strategic Plan)
Sponsorships	Consideration of new funding sources and increased outreach	Council to discuss under agenda item 3.2, based on a pilot case as presented by Anne Christine Brusendorff, General Secretary
Identify new advisory clients	Consideration of new funding sources	Council to discuss based on an input from Eskild Kirkegaard, ACOM Chair (Included in CM 2015 Del-8.1.1)
Increased participation project	Increased support to the implementation of ICES Strategic Plan	Council to request the Secretariat to proactively search for CSA projects, where ICES can take the lead, and ensure the involvement of the ICES community in activities supporting the

		implementation of the ICES Strategic Plan.
MoU income	Need to ensure full cost recovery of the advisory services. The need to examine and rationalize the delivery of annual advice	Ensure that we are implementing identified efficiencies
Data handling income	Foster a strategic approach for data handling and products	
External Projects	ICES project policy approved (2011)	
Other income: ASC; IJMS; sponsorships,		Suggestion for a new financial ASC model and sponsorships
Development of Training programme	On-going SCICOM work	Council has supported through equity
Web development	Further investment needed for improved accessibility	Included as part of the package of equity investments
Demo advice development	The need to bring research project outputs into the advisory system	Included as part of the package of equity investments
Equity	A package is proposed for Council agreement	Finance Committee to oversee development of equity

Package of equity investments for Council to approve

Proposed Investment	Amount needed	Status
<p>1. Support the transition to a more cost-efficient use of resources in the advisory system (deliver the same, with less resources)</p> <p>Benchmark process – integration between science, data, and advice</p> <p>And invest in demonstration advice in priority areas</p>	<p>5,022, 622 DKK</p> <p>to cover the salary costs of two P2's needed to run the pilot processes/ demonstration advice, for an initial period of two years, and with a possibility of two years prolongation.</p>	<p>Identify a pilot process for 2016 (Category 3 & 4 stocks, or by ecoregion selecting a few stocks). Needs to be discussed at Council 2015, incl. improved linkage between survey and assessment groups, cf. joint ICES-EFARO initiative, to be discussed in joint meeting during November</p> <p>Benchmarking process could be made more effective by freeing experts from the operational assessment task (to be done by Secretariat, cf. No. 5 above) The Benchmark Steering Group (BSG) has on a bottom up request from scientists started the process but BSG sees a problem in ownership of and commitment to the full process.</p>
<p>2. Website development</p>	<p>300, 000 DKK</p>	<p>Bids have been received and a consultant (in cooperation with Secretariat staff) is available to commence work in 2016.</p>
<p>3. Leadership/structural changes of science programme</p>	<p>Aiming to be cost-neutral.</p> <p>Coverage of travel costs for members in joint Council/SCICOM Working Group</p>	<p>Awaiting the outcome of Council discussions.</p>

Proposed Investment	Amount needed	Status
4. Internal/external Review of ICES Science	Estimate of costs needed. Coverage of travel costs for members in Council Working Group	
5. Investment in SCICOM Activities until 2018	Awaiting outcome of proposed Council Working Group on Science Funding	Council agreed to fund the proposals for 2015 (CM 2014 Del-5.1.2) and deferred further decisions on this item pending the report of CWGIBM.
6. Science Fund running until 2015	Awaiting outcome of proposed Council Working Group on Science Funding Intermediate funding for 2016, maximum 500.000,- DKK.	Council discussion needed to evaluate if the fund is important, e.g. to position ICES as a funding organization. Prioritize projects that focus on integration.
7. Development of demonstration advice in priority action area: Arctic	100,000 DKK amount included in No 6 above	Strategic initiative in SCICOM.
8. Socio-economic considerations	100,000 DKK not covered financially under No 6 above	Strategic initiative in SCICOM.
9. Aquaculture	100,000 DKK not covered financially under No 6 above	Following Council approval of the follow-up recommendation from the dialogue meeting; address more specific actions.
10. Data quality and timeliness	300.000,- DKK	Look into the need for further development of

Proposed Investment	Amount needed	Status
		<p>the Regional Data Base, as well as the joint ICES-EFARO initiative on surveys. The latter comprises two pilot studies assessing how to design surveys used in stock assessment and delivering into the MSFD. Joint ICES-EFARO meeting scheduled for 19. November 2015.</p>

Overview of funding by year

Proposed investment		2016	2017	2018	2019	Total	comments
	1	1255655	1255655	1255655	1255655	5022622	
	2	300000					one time investment
	3	50000					travel costs
	4	50000					travel costs
	5						Awaiting Council decision (Past)Science fund
	6	200000					500,000 (including 7, 8 and 9)
	7	100000					Deducted from science fund
	8	100000					Deducted from science fund
	9	100000					
	10	300000					RDB
		2555655					
					Total	7578277	



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Agenda Item 3.2

ICES and H₂O

A test case for sponsors of ICES work

Council will be invited to discuss a proposal for potential cooperation with a commercial company H₂O Sportswear, and the general criteria needed for evaluating sponsorship proposals. Below is a draft sponsorship agreement that is simultaneously being reviewed by the potential sponsor.

Draft proposal for a Sponsorship agreement

SPONSORSHIP AGREEMENT between the International Council for the Exploration of the Sea and H₂O (Business CVR number(s) to be inserted,

This Sponsorship Agreement (this "Agreement") is entered into as of ###, 2015 between the International Council for the Exploration of the Sea (hereinafter ICES) and the company H₂O (hereinafter H₂O).

1. BACKGROUND AND PURPOSE

- A. ICES.** The International Council for the Exploration of the Sea is a global intergovernmental organization that develops and provides unbiased, non-political science and advice for decision-makers to support the sustainable use of the marine environment and its living resources. ICES is a network of more than 4000 scientists from over 350 marine institutes in more than 20 member countries, cf. further information in Annex 1
- B. H₂O.** H₂O is a high-end sportswear brand, aiming to be known as an honest brand. H₂O has a limited supplier network to help manage their brand appropriately as far as possible conforming to best practices and a standard system, cf. further information in Annex 1.

The parties have a common interest of entering into a sponsorship agreement. However, the Parties agree that the relationship between them shall be that of independent contractors and this agreement shall not be deemed to create any relationship of partnership or joint venture between the Parties, and neither ICES nor H₂O shall make such representations to anyone.

The purpose of this Agreement is to set forth terms by which:

- H₂O will sponsor ICES through specific pre-agreed sponsorship activities, giving ICES the opportunity to reach out to a broader group of stakeholders, including through non-conventional means to raise awareness, hereby supporting an efficient and effective organization that foster cooperation and communication with society as outlined in the ICES Strategic Plan; and
- H₂O will be able to use the ICES brand in a campaign that links their swimsuit collection to the ICES work on sustainable ocean management.

2. SPONSORSHIP

2.1 CONDITIONS

This sponsorship is carried out under the following conditions:

- ICES independence must be protected, avoiding negative impacts and potential conflicts of interest. ICES can neither be seen as providing unequal access to companies nor should ICES be exploited by cooperation with a commercial company. For this reason the below will set the basis for the activities to be covered by the sponsorship agreement and will guide the agreement throughout its tenure.
- H₂O wants to fulfill the requirements of its Corporate Social Responsibility policy through sponsorship of specific, tangible ICES work or projects.

2.2 ACTIVITIES

ICES and H₂O have agreed on the following activities

H₂O activities

- Annex 2 outlines the generic activities which have been planned by H₂O, in which they intend to make use of ICES name/logo, or in any other way affiliate with ICES activities.
- all activities shall be carried out by one of the H₂O group companies approved by ICES, see above CVR number(s). The counterparty in question shall be responsible for such activities

ICES activities

- Annex 3 outlines examples of specific activities that ICES foresees the sponsorship funds can be allocated to. Activities sponsored through this agreement shall be clearly constrained to an explicit activity, and of a time-limited nature. It shall be clear to outsiders that the H₂O sponsorship covers these specific activities, rather than support to ICES activities in general.
- all sponsorship activities must be agreed in writing between both parties in advance. Details about any activity where ICES logo/brand is being used by H₂O, must be communicated at least two weeks in advance, including details and location of the activity.
- the use of either parties logo may not take place without prior permission from both parties; the ICES General Secretary and a designated H₂O representative. For specific agreed activities, this will also include an agreement on the use of the logo.
- in accordance with a prior agreed format ICES shall report on the use of funds obtained through the sponsorship, and how this has supported specific ICES science activities, rather than general administrative tasks. This information will also be made publicly available.

No changes may take place without the prior written consent of the other Party.

3. INFORMATION ABOUT SPONSORSHIP AGREEMENT AND SPECIFICALLY SPONSORED ACTIVITIES/PRODUCTS

Provided prior written agreement each party may insert general information regarding the sponsorship agreement on its website, other on-line communication tools, and other media.

Provided prior written agreement, in case of specific sponsor activities H₂O can make use of the ICES logo, written information and potentially other agreed specific activities.

H₂O agrees to provide ICES with copies of reviews, other press material, brochures, notices of exhibitions and any other pertinent information.

Provided prior written agreement, and that a substantial part of the funds for a specific activity stems from the sponsorship agreement (more than xx%), ICES will communicate this publically, either by use of the H₂O logo, or by some other mutually agreed communication.

4. Record-keeping and Reporting

H₂O agrees to maintain financial records as well as supporting documents of incurred costs directly expended by H₂O for the activities with ICES and if demanded by ICES make such records available to ICES. ICES will maintain financial records relating to contributions and grants received for specific activities according to general accounting principles.

Such documentation must be kept for a period of at least 3 years following the relevant financial year.

5. RESPONSIBILITY

H₂O is liable for any debt or obligation due to the activities of H₂O during the period of the Agreement, unless such debt or obligations are the result of ICES or any of its officers negligence and shall indemnify and hold harmless ICES and any of its officers for claims, liabilities or losses which arises from or in connection with implementing the activities of H₂O.

6. OTHER PROVISIONS

Any expenses incurred by either institution under this Agreement will be the sole responsibility of the Party.

7. DURATION AND TERMINATION OF AGREEMENT

The Agreement shall come into effect when signed by both parties and shall have duration of two (2) years, after which any extension or amendments may be made as agreed by both parties. The parties will meet as need be to review progress, explore the cooperation, as well as potentials for improvement in cooperation and communication.

Either party, upon 60 days written notice to the other party, may terminate this Agreement. Already agreed activities will still take place. In case of negative publicity on either side, including issues within the production/marketing of H₂O products, ICES General Secretary or H₂O representative must immediately be informed by the other party. Should either party (within two-weeks of notification) find that this has the potential of inflicting on their reputation, the agreement can be terminated with immediate effect. In case of immediate termination there will be no obligation to carry out already agreed activities.

In case of gross misconduct by a Party, the Agreement can be terminated with immediate effect.

In case of termination no documentation nor logos can be used by the either Party after the termination. In case of termination with immediate effect funds related to future activities shall be returned to H₂O.

8. JURISDICTION AND APPLICABLE LAW

Any dispute arising out of or in connection with this Agreement, including any disputes regarding the existence, validity or termination thereof, shall be settled by arbitration administrated by The Danish Institute of Arbitration in accordance with the rules of simplified arbitration procedure adopted by The Danish Institute of Arbitration and in force at the time when such proceedings are commenced.

- "The arbitral tribunal shall be composed of one - three arbitrators."
- "The place of arbitration shall be Copenhagen."
- "The language to be used in the arbitral proceedings shall be English."
- "This agreement shall be governed by the substantive law of Denmark."

This Agreement has been executed in two original copies, each Party receiving one copy.

Place:

Place:

Date:

Date:

For ICES:

For H2O:

Annex 1 Further information on H₂O and ICESH₂O

With due respect to the criteria in ICES CM 2013 Del-11.3*	H ₂ O's documentation
<ul style="list-style-type: none"> • name, address, telephone, and e-mail address of H₂O 	
<ul style="list-style-type: none"> • a description of activities/ accomplishments and foreseen benefits of entering into this sponsorship agreement. 	

ICES

With due respect to the criteria in ICES CM 2013 Del-11.3*	ICES documentation
<ul style="list-style-type: none"> • name, address, telephone, and e-mail address of ICES 	
<ul style="list-style-type: none"> • a description of the activities/ accomplishments and foreseen benefits of entering into this sponsorship agreement. 	

* ICES policy on observer status

http://www.ices.dk/community/Documents/Observers/CM_2013_Del-11%20Observer_rules.pdf

Annex 2 Outline of the potential activities which have been suggested by H₂O, under the sponsorship agreement

- A portion of profits from the sale of the H₂O swimsuit collection being donated to fund specific ICES science activities.
- Other mutually agreed fundraising opportunities.

Annex 3 Examples of specific activities that ICES suggests to support through funds for the sponsorship agreement:

- production and printing of brochures and other information material
- specific arrangements, such as the launch of a product, or opening of a conference/symposia.
- Support for participation in events that help ICES to communicate about its work with a wider group of stakeholders and society.

Update on international projects

*Council is invited to **take note** of recent ICES work on projects.*

AtlantOS

Part of the Horizon2020 package of projects and with the goal to optimize and enhance the Integrated Atlantic Ocean Observing System (IAOOS). ICES is involved in three of the work packages, however the main focus is WP2. Together with the ICES acoustic survey groups and led by the SSGIEOM chair, Nils Olav Handegard (Norway), ICES Data Centre is establishing for the pelagic fisheries an end-to-end system data flow for acoustic processed data and pelagic biological trawls. This builds on existing infrastructure for trawl surveys but also established new standards and databases for the acoustics in the ICES network.

<http://www.ices.dk/explore-us/projects/Pages/ATLANTOS.aspx>

European Topic Centre (ETC-ICM)

Although technically classed as a project, this is really the long term partnership and provision of technical advice and support to the European Environment Agency (EEA). ICES Data centre, and the Ecosystem approach coordinator are the main deliverers of these services which range from provision and quality assurance of data flows, support to MSFD reporting, particularly in bridging understanding between regional systems and the European level.

<http://www.ices.dk/explore-us/projects/Pages/ETC-ICM.aspx>

EMODnet Biology II and EMODnet Chemistry II

The European Marine Observation and Data Network is a major infrastructure investment from the European Commission. It is split into thematic lots and regional expertise. ICES Data Centre partners in both biology and chemistry.

For biology, as well as providing deep linkages to ICES datasets to ensure their discoverability and compatibility with other regional and national data networks, the initiative on ICES Operational Oceanographic Products (OOPS) is receiving a major suite of biological services via the project. For chemistry, ICES provides technical expertise on regional data assembly and products and leads the user feedback work package.

<http://www.ices.dk/explore-us/projects/Pages/EMODNET-Biology.aspx>

<http://www.ices.dk/explore-us/projects/Pages/EMODnet-Chemistry2.aspx>

BalticBoost

Starting in September 2015, this is a HELCOM led project that builds capacity in the Baltic region for delivering on a number of key elements for the MSFD. ICES will be working on operationalizing the fish indicators in the Baltic, streamlining the data flow and outputs for the contaminants and contributing to the benthic habitats work package.

SeaDataNet II

The continuation of an existing infrastructure project that aims to provide a pan-European infrastructure for ocean and marine data management. ICES Data Centre contributes to the standards and harmonization initiatives within this infrastructure and specifically manages the platform system, with the inclusion of WMO-IOC Joint Technical Commission for Oceanography and Marine Meteorology (JCOMM) into this work it is now a truly global management platform for an array of monitoring platforms.

<http://www.ices.dk/explore-us/projects/Pages/Sea-Data-NET-II.aspx>

MicroB3

This project focuses on bioinformatics. The ICES Data centre has been involved in developing standards that enable the genomes data to be more easily linked to the contextual environmental data. MicroB3 were also present at the project market place at the ASC in 2015.

<http://www.ices.dk/explore-us/projects/Pages/Micro-B3.aspx>

The Fish Pi project

This project focuses on Fisheries Data Collection Cooperation, and aims to Propose Regional Sampling Designs, using probability based selection methods, as well as to propose mechanisms for international cooperation. ICES has a smaller role under work package 2.2 Data Formats and code lists and is linked to the Regional Database based on FishFrame.

LME-LEARN

In September 2015 the planning meeting for the project took place, back to back with the ICES WGLMEBP. The project's approval is now finalized by the GEF Council, it will officially kick-off early 2016, together with the IW-LEARN4 GEF project.

FP7 COFASP (Cooperation in Fisheries, Aquaculture and Seafood Processing –ERA NET)

The ERA-NET's first projects call was launched in February 2014, and include topics in all three sectors that COFASP covers; the second call was launched in February and closed on 17 June 2015. The third call is planned for 2016. Workshops within case studies on fisheries, on regional differences in aquaculture and on the European Maritime Fisheries Fund took place in 2015.

Workshop: *Towards new solutions on mobility and learning tools for human capacity building on the fisheries, aquaculture and seafood processing chain* took place in October 2015 (attended by the Training Coordinator and the DHoS).

MAREFRAME

MareFrame is an EC-funded RTD project which seeks to remove the barriers preventing more widespread use of the ecosystem-based approach to fisheries management. This entails development of new tools and technologies, development and extension of ecosystem models and assessment methods, and development of a decision support framework that can highlight alternatives and consequences. ICES role is in analysis of current fisheries advisory processes; assisting with the design of a decision support framework; and provision of case studies.

<http://ices.dk/explore-us/projects/Pages/FP7-MAREFRAME.aspx>

HORIZON 2020 projects

The following H2020 projects with ICES participating as partner organization have kicked-off in 2015:

- BG8-2014 Developing in-situ Atlantic Ocean Observations for a better management and sustainable exploitation of the maritime resources: ATLANTOS project; (see details above)
- BG11-2014 Monitoring, dissemination and uptake of marine and maritime research: COLUMBUS project;
- BG14-2014 Supporting international cooperation initiatives: Atlantic Ocean Cooperation Research Alliance: AORAC project; A separate document on the AORA is prepared for the 2015 Council meeting.
- H2020-EINFRA-2015-1 E-Infrastructures for virtual research environments: BlueBRIDGE project.

Projects under evaluation (H2020 2nd round, 2nd stage):

- BG1: Improving preservation and sustainable exploitation of Atlantic marine ecosystems (2 competitive proposals);
- BG2: Forecasting and anticipating effects of climate change on fisheries and aquaculture;
- SFS11b: Consolidating the environmental sustainability of European aquaculture.

Interreg Baltic Sea Region Programme 2014-2020, priority 2 'Management of natural resources', - the BalticBLUE project with ICES contribution, under evaluation.

Concluded project (2015):

BALSAM

Baltic Sea Pilot Project: Testing new concepts for integrated environmental monitoring of the Baltic Sea

Lead Organization: Helsinki Commission HELCOM, Finland

Duration: 2013 - 2015

ICES contact: Neil Holdsworth, Head of Data and Information

Project objectives:

Develop integrated environmental monitoring in the Baltic to support the MS in implementing HELCOM BSAP and the MSFD;

Provide input to the development of online HELCOM monitoring manual (cataloguing current monitoring);

Focusing on gaps (fisheries, seals and seabirds, NIS, benthic habitats, coordination in research vessel use) provide recommendations for coordinated monitoring.

ICES role:

Sub-contractor for work package 2 (monitoring catalogue, recommendations and actions for streamlining of monitoring reporting and data management)



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Agenda Item 3.4

Finance Committee

*Finance Committee met 27 May. This report was submitted to the June Bureau meeting. Council is invited to comment and **approve** the report from the Finance Committee. This compilation includes:*

- Report of Finance Committee.
- Finance Committee Agenda
- Final accounts 2014 including signed copies:
 - Letter of Representation
 - Statement on the Final Accounts for 2014
 - Final Accounts 2014
 - Audit Book Comments on the Final Accounts 2014
- Status Report 30 April 2015
- Proposed Budget 2016 and Forecast Budget 2017
- National Contributions 2012-2016
- Programme Budgets 2015-2017
- Projects ongoing and in the pipeline
- Development of the Capital Reserve Fund
- Development of the Strategic Investment Fund
- Science Fund and SCICOM Strategic Initiatives

Finance Committee
Draft Report
Chair: Konstantin Drevetnyak

Present: Joost Backxx, Piotr Margonski, Konstantin Drevetnyak, Fritz Köster, Kai Myrberg. Secretariat: Anne Christine Brusendorff, Helle Falck, Kirsten Gudmandsen, and Ellen Johannesen (Rapporteur).

1 Approval of Agenda

(FC_2015-05 Doc 1)

The meeting approved the agenda.

2 Strategic Financial Issues

2.1 ICES Business Model (FC_2015-05 Doc 2)

Chair of the Council Working Group on ICES Business Model (CWGIBM) Fritz Köster reviewed the report of CWGIBM, noting the aim was to describe the business model, and to list and review the decisions made that have led to the current financial status. The report gives an overview of development of the finance over the past 15 years. Possible future scenarios have been considered and finally priorities for spending have been suggested. Further consideration of the necessary strategic investments for implementation of the strategic plan will be considered at the (next) meeting of CWGIBM 28 May, and will be submitted to Bureau and to Council for approval.

Anne Christine Brusendorff, General Secretary updated the meeting regarding other ongoing Bureau and Council sub-group work that are considering changes and the strategic direction of the organization. These groups are the Council-ACOM Working Group on Strengthening the Advisory Leadership (CAWGSAL), Bureau Sub-Group to Strengthen the Science Leadership (BSGSSL), Bureau Sub-Group on the review of ICES Science (BSGRIS), Council Working Group Maritime Transatlantic Cooperation (CWGMTC), Council Steering Group Marine Strategy Framework Directive (CSG MSFD), Bureau Sub-group on ICES Position and Priorities (BSGIPP), SCICOM Review Group for future formats of the ASC (SRGASC). There is also a Needs and Gaps analysis being conducted for competence in the Secretariat, specifically focussing on the Advisory Department.

The report highlights important problems of liquidity with late payment of national contributions that need to be solved (ensure payments are made timely, and not later than 31 January of the budget year).

The process of reviewing the IBM has been an important exercise that has made council members more aware of the issues around ensuring that ICES remains on sound financial footing, including the importance of paying national contributions on time, annual inflation regulated national contributions, hosting ASCs, the interconnected nature of science, data, and advice which does not always reflect the division between national contributions and the principle of 100% cost-

recovery for advisory products, the link to strategic participation in projects that help realize the implementation of the ICES Strategic Plan as well as providing financial contributions to the budget. This exercise should be reviewed over a longer-term. However, there are costs involved with the process– it was very time intensive for the Secretariat. It was suggested to identify some of the figures that are important for continued monitoring and to evaluate them in Finance Committee in a longer term perspective. The CWGIBM report will now be left with Finance Committee.

Costs are increasing but a quantitative overview is lacking of the resources being used for ICES science and advice. The Resource Coordination tool will eventually provide an overview of how much time is being used by the network for developing advice. It will take time to see the development of the data, and be able to identify trends.

CWGIBM will highlight which sections of the report should be updated more regularly in future to keep watch on long term trends helpful for making decisions on spending and income and for monitoring how the business model change/does not change.

The process revealed that the goal of 100% cost recovery is not being realized. Science is needed for advice – but this cost is not paid for by clients. Changing the model would be very difficult, but important to recognize. It was agreed to add a discussion on the importance of the science for quality of the advice to the CWGIBM report, while balancing the text for the realities of non-EU ICES Member Countries.

Action: Finance Committee request that CWGIBM identify sections of their report as candidates for regular update. CWGIBM has been very useful but with these sections identified Finance Committee will now continue to be responsible for monitoring development of the finances and business model. Based on the recommendations by the CWGIBM Bureau should suggest to Finance Committee which sections of the IBM, and which risks need to be considered and updated on a regular basis. New risks should be linked to scenarios about how the risks may impact ICES business. Finance Committee can also highlight to Bureau any risks that they identify. Updates to the Risk Register should consider how they interact with other issues.

2.2 The Role of the Finance Committee

Finance Committee was invited to reflect on its role in the organization and make suggestions on how to contribute with strategic input, and consider longer-term financial issues.

Finance Committee should note that Bureau can refer specific issues to the Committee for consideration, and that the Committee can take up issues on its own, cf. Rule 24, ii) of the Rules of Procedure (*“The Committee shall consider such other matters as may be referred to it by the Bureau or as it may deem desirable and shall report its observations and conclusions to the Bureau.”*)

See further discussion under section 7.

3 Final Accounts 2014, Audit book comments on the Final Accounts 2014, and report

(FC_2015-05 Doc 3)

The Final Accounts 2014 were audited by Deloitte. The General Secretary reviewed the documents and clarified questions on overhead and the development of the Capital Reserve Fund. Section 1.2.1 was noted for its seeming recommendation for a larger administration – though this issue is resolved with internal procedures for segregation of duties.

Action: Finance Committee approved and signed the Final Accounts 2014, Audit book comments on the Final Accounts 2014, and the Chair of the Finance Committee signed the Statement on the Final Accounts 2014.

4 Status Report as of 30 April 2015

(FC_2015-05 Doc 4)

The General Secretary presented the status of accounts report (as of 30 April 2015).

The final Budget for 2015 was approved by Council at the 2014 Statutory Meeting. It is the working budget for the Secretariat in 2015. Important activities that result in income and expenditures such as the Annual Science conference (ASC), Training Programme, Travel and meetings in relation to the Advisory Programme are still to come, and a precise prognosis on total spending for 2015 is not possible at this stage.

In order to reduce costs related to ICES as host for the 2015 Annual Science Conference, sponsors have been sought with varying degrees of success. The training programme has already been subject to some course cancellations and there are efforts underway aimed at resolving the issues to ensure the training programme continues to be a success (and cost neutral). Secretariat expenses have been reduced as far as possible including reduction of printing costs, the Secretariat continues to try to find ways to offer the same level of service to the network with less money.

During the discussion the following points were noted:

- Sponsors are a good development for supporting the Annual Science Conference.
- Special requests have been included to the Budget heading “Project Income – Projects in Pipeline” – DG ENV pays for their special requests outside of the MoU, though they are channelled through the DG MARE focal point under the MoU. DG MARE special requests are part of the MoU overall budget.
- The budget of expenses for the ICES Journal of Marine Science Editor-in-Chief has been cut, it is not clear how he is covering this change.
- If some 2015 expenses are paid in 2016 they are kept in the year to which they belong/ were incurred (accrued expenses) – given it can be done prior to the closing of the books for auditing.
- Transfer from Equity; Change the heading “Training programme/science fund 2014” to “Science Fund 2015” to make it clearer.

Action: The Meeting noted the explanation by the Secretariat that all expenses are within the quarterly range, and when this is the case, there is an explanation to this.

5 Proposed Budget for 2016 and Forecast Budget for 2017

The meeting was invited to discuss and comment on the budgets outlined below.

5.1 Proposed Budget 2016

(FC_2015-05 Doc 5 and 6)

The proposed budget for 2016 was not approved by Council in October 2014. A proposed budget for 2016 with a 1.9% increase was approved electronically by Member Countries in April 2015.

The meeting was invited to discuss various scenarios, as outlined in the draft report from the Council Working Group on the ICES Business Model, in order to balance the proposed 2016 budget.

The General Secretary reviewed the documents noting that projected income (national contributions and income from MoUs) is shown with inflation regulation where it is known, while expenses, apart from salaries, are not inflation regulated.

The EU MoU has not been increased from 2013–2014. The European Maritime and Fisheries Fund (EMFF) is the money used by the EU to pay ICES for the advisory work. International collaboration funding is not being increased. The EU has informed ICES that the current ceiling on the MoU cannot be increased without requiring ICES compete for the work (tender). It would be good to find alternatives to the stable EU MoU and consider potential consequences or reactions from the European Commission/DG MARE.

The 1.9% increase in national contribution was secured for 2016. But there is still a need to continue to communicate the importance of the 2% inflation regulation in the coming years to member countries. The declining MoU and increasing advice demands could be used as a justification.

Following discussion on the various options presented in section 7 of the CWGIBM report, to balance the budget the Finance Committee made the following recommendation.

Action: Increase the amount of money for promotion of young scientists (sponsoring travel to the ASC) to 110,000 DKK and to find the savings by a 40,000 DKK reduction in office expenses.

Forecast Budget 2017

For the 2017 Forecast Budget a 2% inflation increase is recommended and a fall-back option with no (0%) increase is to be prepared for Council, but again stressing the financial implications of a stable budget, and that ICES has already had a substantial decrease in income, due to stable national contributions in 2010 and 2012–2015 (Document 6).

Action: In order to continue to highlight the importance of regulation of national contributions Document 6 comparing the proposed and actual development of

National Contributions from 2012–2016 should be submitted to Council delegates. This should be done in connection with the letter sending out the forecast budget for 2017, stating the importance of a 2% increase in the national contributions. The letter should explain why this 2% increase is necessary and how the work of the organization will be affected in case it is not approved at the October Council meeting. The letter should also specify how much a 2% increase represents in real costs.

5.2 Programme/departmental Budgets for 2015–2017

(FC_2015-05 Doc 7)

The General Secretary presented a review of the programme and departmental budgets pointing to some specific issues, including:

- a need to further specify how the income from the MoUs, especially the EU MoU, are contributing to salaries of not only the Advisory Department;
- the income from projects doubling from 2016 to 2017, and the need to further specify how the work, as well as the income is divided among departments in the Secretariat, not only the Science Department; and
- that the increase in the Administrations' percentage of ICES expenditure is due to coverage of additional project resources, to help fulfil the ICES work under projects (given the uncertainty that there are still projects in the pipeline, that we do not yet know whether they will be approved.)

Action: Finance Committee commended the Programme budget document as it provides a good overview. In discussions about the principle of 100% cost recovery there needs to be clarity about if this refers to total costs or direct costs. Taking into account the points above, regarding a need to further specify the income under the appropriate department in the Secretariat, the Programme Budget should be revised, for further use in the IBM to be submitted to the September Bureau Meeting

5.3 Overview of on-going external projects and external projects in the pipeline.

(FC_2015-05 Doc 8)

The meeting took note of current and planned ICES project participation. The Project table is constantly updated as new information is received. Projects are an important part of strategic development.

During the discussion the following points were raised:

- It was suggested that it might be possible to get a better understanding of the likelihood of securing the project participation through informal communication (project rating) with the coordinators of the project.
- Currently projects are helping some of the core business to be carried out. Projects are not specifically supporting the Advisory Services, and the potential for the use of projects as input to the advisory services should be evaluated.

- Income for projects is important for Data Centre. The strategy to apply for projects depends on the part of the organization.
- It is acceptable to use a risky strategy in relation to science as long as failure does not bring down data or advice, which must be insulated from risk. Project participation allows the secretariat some flexibility. This could be discussed by ACOM and SCICOM where they could highlight issues they would like to have addressed by projects. Advice could help Science by providing input to research priorities.

6 Development of the Capital Reserve Fund (CRF)

(FC_2015-05 Doc 9)

The Finance Committee took note of the development of the CRF as stated in FC_2015-05 Doc 9. The General Secretary noted that the mistake in 2013 meant ICES was not at the agreed 20% level at the close of the account in 2013, but that this was rectified in the ensuing budget year 2014. And at this year's account closure, the CRF was at its required level.

7 Development of the Strategic Investment Fund (SIF)

(FC_2015-05 Doc 10)

The Finance Committee took note of the development of the SIF, and that by the end of 2015 the remaining funds will have been used to finance the second year of the Science Fund.

The SIF has been used to cover some operational costs. Retrospectively, this would have needed some strategic considerations on how to ensure coverage in the budget over the long-term. The idea of the SIF is good, as it avoids more ad hoc decisions, and enables a more strategic and long-term planning. Recently, decisions have been made in very ad hoc nature.

It should be borne in mind that the existence of the SIF may have contributed to some of the problems in securing increases in national contributions.

Finance Committee discussed its role in considering spending that is not coherent and leading towards desired future states, financially as well as in accordance with the ICES Strategic Plan. Finance Committee's role should also include consideration of investments and priorities, as well as considerations of the proposed investments from a strategic point of view.

Action: Finance Committee to review spending, also strategically i.e. by considering if ICES will be able to continue with investments in the long term.

8 Science Fund and SCICOM Strategic Initiatives, beyond 2015

(FC_2015-05 Doc 11)

The Council approved a new Science Fund for the year 2014, which was continued in 2015, with a maximum amount of 500,000 DKK/year. During the first two years the Fund was financed from the Strategic Investment Fund. Furthermore, the Council in 2014 agreed to use necessary funds from equity for SCICOM strategic

activities in 2015 and specifically to support the joint ICES/PICES early Career Scientist Conference in 2017.

The Strategic Investment Fund has now been exhausted, other ways of financing must be sought, taking into account the financial footing of ICES, and the work of the Council Working Group on the ICES Business Model.

The Finance Committee considered these two initiatives, and their financial sustainability having in mind the draft ICES Business Model.

One possibility for the continuation of the Science Fund is to search for external sources of funding and allow SCICOM to distribute the money they secure.

The Science fund does provide a strategic position by making ICES “a funding agent”, making ICES eligible for funding for Coordinated Support Actions (CSA)/ European Research Area Networks (ERA-NET). The issue of what kind of power this is adding to the organization must be considered more strategically. The results of the Science Fund must be reviewed and the vision for the future developed.

Action: Awaiting the evaluation and further argumentation by SCICOM on the impacts of the Science Fund and the SCICOM Strategic Initiatives, it will be important to consider both the possibility of sponsorship for these activities and to consider whether and how especially the Science Fund could open ICES up to some strategic opportunities as funding agent.

9 Any Other Business

9.1 Membership

In accordance with Rule 24 of the Rules of Procedure “The Finance Committee shall consist of one of the Delegates from Denmark and four other Delegates appointed by the Council for a period of three years, after which they shall not be eligible for re-appointment for the immediately succeeding term unless a member of the committee is appointed as Chair of the Finance Committee in which case he/she can serve one additional term,”.

Three members have served their term, Kai Myrberg (Finland), Joost Backx (the Netherlands), Piotr Margonski (Poland) as well as the Chair Konstantin Drevetnyak (Russian Federation).

Therefore, the Council will have to appoint four new members to the Finance Committee, and a new Chair from among all members.

According to Rule 30, ii) “The Chair of the Finance Committee shall be nominated by the Bureau from among the members of the Committee and appointed by the Council”.

9.2 Possible Change of Bank

ICES currently bank with Nordea, however a letter was recently received notifying ICES that negative interest will be applied to ICES accounts. The Secretariat Finance Officers are in discussion with other banks and are scoping the potential for changing to a bank with more favourable conditions.

Finance Committee

Agenda

Chair: Konstantin Drevetnyak

Whole day meeting, on Wednesday 27 May, starting at 09:00 in the office of the General Secretary.

1 Approval of Agenda

(FC_2015-05 Doc 1)

The meeting is invited to approve the agenda.

2 Strategic Financial Issues

2.1 ICES Business Model (FC_2015-05 Doc 2)

The meeting is invited to review and comment on the report from the Council Working Group on ICES Business Model (CWGIBM).

2.2 The Role of the Finance Committee

Finance Committee will be invited to reflect on its role in the organization and make suggestions on how to contribute with strategic input, and consider longer-term financial issues.

Finance Committee should note that Bureau can refer specific issues to the Committee for consideration, cf. Rule 24, ii) of the Rules of Procedure (*"The Committee shall consider such other matters as may be referred to it by the Bureau or as it may deem desirable and shall report its observations and conclusions to the Bureau."*)

3 Final Accounts 2014, Audit book comments on the Final Accounts 2014, and report

(FC_2015-05 Doc 3)

The Final Accounts 2014 have been audited by Deloitte. The members of the Finance Committee are required to approve and sign the Final Accounts 2014 and the Audit book comments on the Final Accounts 2014.

4 Status Report as of 30 April 2015

(FC_2015-05 Doc 4)

The meeting will be invited to discuss and comment on the status report as of 30 April 2015.

5 Proposed Budget for 2016 and Forecast Budget for 2017

The meeting will be invited to discuss and comment on the budgets outlined below:

5.1 Budget 2016

(FC_2015-05 Doc 5 and 6)

The proposed budget for 2016 was not approved by Council in October 2014. A proposed budget for 2016 with a 1.9% increase was approved electronically by Member Countries in April 2015.

The meeting will be invited to discuss various scenarios, as outlined in the draft report from the Council Working Group on the ICES Business Model, in order to balance the proposed 2016 budget.

For the 2017 Forecast Budget a 2% inflation increase is recommended and a fall-back option with no (0%) increase is to be prepared for Council, but again stressing the financial implications of a stable budget, and that ICES has already had a substantial decrease in income, due to stable national contributions in 2010 and 2012– 2015 (Document 6).

5.2 Programme/departmental Budgets for 2015–2017

(FC_2015-05 Doc 7)

The meeting will be invited to review the programme and departmental budgets.

5.3 Overview of on-going external projects and external projects in the pipeline.

(FC_2015-05 Doc 8)

The meeting will be invited to take note of current and planned ICES project participation.

6 Development of the Capital Reserve Fund (CRF)

(FC_2015-05 Doc 9)

The meeting is invited to take note of the development of the CRF.

7 Development of the Strategic Investment Fund (SIF)

(FC_2015-05 Doc 10)

The meeting is invited to take note of the development of the SIF, and that by the end of 2015 the remaining funds will have been used to finance the second year of the Science Fund.

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The Finance Committee is invited to consider these two initiatives, and their financial sustainability having in mind the draft ICES Business Model.

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According to Rule 30, ii) “The Chair of the Finance Committee shall be nominated by the Bureau from among the members of the Committee and appointed by the Council”.

Deloitte Statsautoriseret Revisionsaktieselskab
Attn.: Peter Z. Skanborg
Weidekampsgade 6
P.O. Box 1600
0900 Copenhagen C
Denmark

Letter of representation on the Final Accounts for 2014

We submit this letter of representation in connection with your audit of the Final Accounts 2014. The Final Accounts shows a loss of DKK 1.816k, total assets of DKK 50.476k, and equity of DKK 24.038k, and we confirm to the best of our knowledge:

1. That we are aware that Management is responsible for preparing the Final Accounts in accordance with Rule 18 of the Rules of Procedures, and for the Final Accounts giving a true and fair view of the organisation's financial position and the results of its activities, and for the General Secretary's review containing a fair review of the affairs and conditions referred to therein.
2. That the Organisation's capital resources, including its financial position, and its future prospects support the application of the principle of going concern.
3. That the management commentary contains all the required information, also for the purpose of evaluating the profit/loss for the year and the financial position.
4. That the General Secretary's review and the Final Accounts comprise the required disclosures about any unusual or uncertain circumstances.
5. That we are aware of Management's responsibility for the design and implementation of internal controls to prevent and detect fraud.
6. That we have disclosed the results of our assessment of the risk that the Final Accounts and the General Secretary's review may be materially misstated as a result of fraud.
7. That we are not aware of information on known, alleged or suspected fraud that may have involved Management, employees who have significant roles in internal control, or others where the fraud could have a material effect on the annual report.
8. That the Final Accounts does not contain material misstatements.
9. That we have made available all accounting records and supporting documentation up to this date.
10. That the disclosures provided to Deloitte on related parties are correct and complete.

Deloitte Statsautoriseret Revisionspartnerselskab
Attn.: Thomas Wikkelsø
Weidekampsgade 6
P.O. Box 1600
0900 Copenhagen C
Denmark

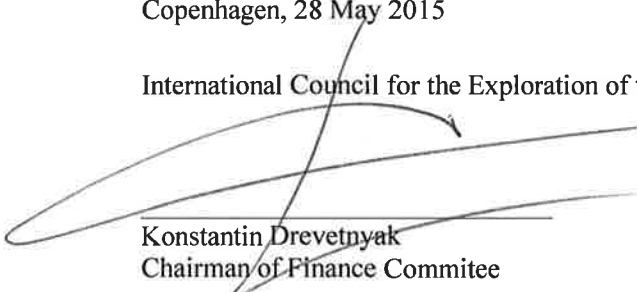
Statement on the Final Accounts for 2014

This statement is given in connection with the audit of the Final Accounts for 2014. On behalf of the Finance Committee, I confirm the following to the best of my knowledge:

1. That the Finance Committee is aware of Management's responsibility for designing and implementing internal controls to mitigate and detect fraud.
2. That the Finance Committee does not consider a specific risk of fraud to exist and that the organisation has an efficient control environment mitigating the risk of material misstatement in the Final Accounts, including misstatements in the Final Accounts as a result of fraudulent financial reporting or misappropriation of the organisations assets.
3. That the Finance Committee has no knowledge of information about actual, presumed or alleged fraud which may have involved Management or staff and which may be material for the Final Accounts.

Copenhagen, 28 May 2015

International Council for the Exploration of the Sea (ICES)



Konstantin Drevetnyak
Chairman of Finance Committee

11. That we have provided information about all existing or possible violations of law or other regulations of relevance to the Final Accounts.
12. That the Organisation has complied with all aspects of contractual agreements that could have a material effect on the Final Accounts in the event of non-compliance.
13. That all assets have been recognised in the balance sheet, that these assets exist and belong to the Organisation, and that they have been measured reliably, and also that any impairment losses, etc are adequate to match the risk associated with the assets.
14. That there are no liens or encumbrances etc on the Organisation's assets other than what is disclosed in the Final Accounts.
15. That all existing liabilities and contingent liabilities incumbent on the Organisation have been recognised or disclosed in the Final Accounts, and that these items have been measured reliably.
16. That there are no pending or threatening claims for damages, lawsuits, tax cases, etc or contingent liabilities such as pension, recourse and non-recourse guarantee commitments or financial obligations, including currency exposure and lease commitments, other than those disclosed in the Final Accounts which could have a material influence on the evaluation of the Organisation's financial position.
17. That we have no plans or intentions that may materially alter the carrying value or classification of the assets and liabilities reflected in the Final Accounts.
18. That such insurance policies have been taken out as are considered sufficient in the Organisation's circumstances to cover any situations of loss which the Organisation might experience.
19. That all transactions carried out in the financial year under review have been carried out on an arm's length basis.
20. That no events have occurred after the balance sheet date to this date which influence the evaluation of the Final Accounts, and which require adjustment of or disclosure in the General Secretary's review or notes to the Final Accounts.

Copenhagen, 27/5-2015

International Council for the Exploration of the Sea



Anne Christine Brusendorff, General Secretary



Kirsten Gudmandsen, Finance Officer

**International Council for the Exploration
of the Sea**

Final Accounts 2014

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Organisation details

Organisation

International Council for the Exploration of the Sea

Central Business Registration No: 12063814

Registered in: H.C. Andersens Boulevard 44-46, 1553 Copenhagen V, DK

Phone: 0045 3338 6700

Fax: 0045 3393 4215

Internet: www.ices.dk

E-mail: info@ices.dk

General Secretary

Anne Christine Brusendorff

Finance Committee

Konstantin Drevetnyak (Russian Federation; Chair)

Joost Backx (Netherlands)

Fritz Köster (Denmark)

Piotr Margonski (Poland)

Kai Myrberg (Finland)

Organisation auditors

Deloitte Statsautoriseret Revisionpartnerselskab

General Secretary's and Finance Committee's statement

The General Secretary and the Finance Committee have today considered and approved the Final Accounts of International Council for the Exploration of the Sea (hereafter "the Council" or "ICES") for 2014.

The Final Accounts have been prepared in accordance with Rule 18 of the Rules of Procedures.

We consider the accounting policies applied appropriate and the accounting estimates made reasonable. Therefore, in our opinion, the Final Accounts give a true and fair view of the financial position at 31 December 2014 of the International Council for the Exploration of the Sea and of the result of its operations for the financial year 1 January to 31 December 2014.

We believe that the General Secretary's review contains a fair review of the affairs and conditions referred to therein.

We recommend that the Final Accounts be adopted.

Copenhagen, 28 May 2015

General Secretary

Anne Christine Brusendorff

Having examined the Final Accounts, we recommend that the Bureau submits the document to the Members of the Council for approval.

Finance Committee

Konstantin Drevetnyak
(Russian Federation; Chair)

Piotr Margonski
(Poland)

Joost Backx
(Netherlands)

Kai Myrberg
(Finland)

Fritz Köster
(Denmark)

Independent auditor's report

To the members of International Council for the Exploration of the Sea Report on the Final Accounts

We have audited the Final Accounts of International Council for the Exploration of the Sea for the financial year 1 January to 31 December 2014, which comprise the accounting policies, income statement, balance sheet and notes. The Final Accounts have been prepared in accordance with Rule 18 of the Rules of Procedures.

General Secretary's and Finance Committee's responsibility for the Final Accounts

The General Secretary and Finance Committee are responsible for the preparation and fair presentation of Final Accounts that give a true and fair review in accordance with Rule 18 of the Rules of Procedures and for such internal control as Management determines is necessary to enable the preparation of Final Accounts that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these Final Accounts based on our audit. We conducted our audit in accordance with Rule 20 (VII) of the Rules of Procedures adopted by the Council on 20 October 2005, International Standards on Auditing and additional requirements under Danish audit regulation. This requires that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Final Accounts are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Final Accounts. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the Final Accounts, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of Final Accounts in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by The General Secretary and Finance Committee, as well as evaluating the overall presentation of the Final Accounts.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Our audit has not resulted in any qualification.

Independent auditor's report

Opinion

In our opinion, the Final Accounts give a true and fair view of the International Council for the Exploration of the Sea's financial position at 31 December 2014 and of the results of its operations for the financial year 1 January to 31 December 2014 in accordance with Rule 18 of the Rules of Procedures.

Statement on the General Secretary's review

We have read the General Secretary's review. We have not performed any further procedures in addition to the audit of the Final Accounts. On this basis, it is our opinion that the information provided in the General Secretary's review is consistent with the Final Accounts.

Copenhagen, 28 May 2015

Deloitte

Statsautoriseret Revisionspartnerselskab

Peter Z. Skanborg

State Authorised Public Accountant

General Secretary's review

General Operating Principles

The operations of the International Council for the Explorations of the Sea (hereafter ICES) are governed by the 1964 Convention agreed among the 20 Contracting Parties¹ and entered into force on 22 July 1968.

According to Article 2 of the Convention ICES shall be concerned with the Atlantic Ocean and its adjacent seas and primarily concerned with the North Atlantic, with the main goal:

- (a) to promote and encourage research and investigations for the study of the sea particularly those related to the living resources thereof;
- (b) to draw up programmes required for this purpose and to organize, in agreement with the Contracting Parties, such research and investigations as may appear necessary;
- (c) to publish or otherwise disseminate the results of research and investigations carried out under its auspices or to encourage the publication thereof.

In addition the 2002 Copenhagen Declaration stress the need for ICES to strengthen working relationships with users of scientific information on living marine resources and marine ecosystems, including fisheries management organizations and environmental commissions and with stakeholders that are effected by or have an interest in, ICES work, thus requiring that ICES:

- apply quality assurance scheme for its advisory function;
- adopt procedures to consider the full consideration of data from a wide range of stakeholders;
- be flexible and timely in providing scientific advice to meet the needs of decision makers responsible for the stewardship of living marine resources and marine ecosystems without compromising the quality or reliability of the advice;
- ensure that ecosystem considerations, including the effects of human activities and climatic and oceanographic conditions are taken into account;
- frame advice in relation to fisheries management, giving full consideration to the ecosystem context

The ICES Secretariat is located in Copenhagen, Denmark. A Host Agreement between the Government of Denmark and ICES on the office and the privileges and immunities entered into force on 24 July 1968.

The Council is an international legal entity with the capacity to enter into contracts, to acquire and dispose of immovable and movable property, and institute legal proceedings. The Council and its property, income and expenditures are also exempt from all national direct and other taxes or duties.

¹ Belgium, Canada, Denmark, Estonia, Finland, France, Germany, Iceland, Ireland, Latvia, Lithuania, the Netherlands, Norway, Poland, Portugal, Russia, Spain, Sweden, United Kingdom, and the United States of America.

General Secretary's review

Primary activities

The Final Accounts for the year 2014 show total revenue for ICES of 41,981,294 DKK, of which 21,935,000 DKK was from national contributions. Another major component was income received from Recipients of Scientific Advice in the amount of 14,978,356 DKK. .

The result of revenue and expenditures was a deficit of 1,816.175 DKK which is within the budgeted amount and a result of ICES decision to promote one-time investments in improved IT tools (tools for supporting and creating science and advisory products – CARA and RCT), support to an ecosystem advisor, and for the 2014 Science Fund

National contributions to ICES are due in advance, or by the end of January of the budget year, at the latest. However, by end of 2014, less than half (45%) of the national contributions due for 2014 were received, which is the same % as for the budget year 2013. The outstanding contributions from Belgium (a partial payment of 254,261 DKK for the year 2006 and the contributions for 2013 and 2014, totalling 1,894,261DKK) were paid during 2015. The other national contributions due 31 January 201 were paid in the meantime.

This continuing trend of late payments by Member Countries, influences the liquidity and could lead to increased financial risk for the budgets. As a consequence, in 2010 Council decided to increase the Capital Reserve Fund (CRF) to 20% of total income.

Development in activities and finances

In five years, during a six year time-frame the national contributions have remained stable. The relative share of national contributions in 2014 was 52,3% (the same percentage as for 2013).

On the expenditure side, salaries increased with the cost of living (based on the Danish inflation rate). The secretariat salary cost in 2014 was 32,492,418 DKK including honorarium for ACOM Chairs and SCICOM Chair. Following the Council's directions to achieve full costs recovery for the advisory services an increasing share of the salary costs are covered through MoUs, but it also increases the risk for future budgets in case the re-negotiations of the MoUs would result in fewer advisory tasks for ICES and lower contributions from the Recipients of Advice."

Events after the balance sheet date

The ICES–EU MoU for 2015 was signed on 20 February.

Accounting policies

The Final Accounts have been prepared in accordance with Rule 18 of the Rules of Procedures.

The Final Accounts have been presented applying the accounting policies consistently with last year.

Recognition and measurement

Assets are recognised in the balance sheet when future economic benefits are probable and the value of the asset can be measured reliably.

Liabilities are recognised in the balance sheet when it is probable that economic benefits will flow out of the Organisation and when the value of the liability can be measured reliably.

In recognising and measuring assets and liabilities, any gains, losses and risks occurring prior to the presentation of the Final Accounts that evidence conditions existing at balance sheet date are taken into account.

Income statement

Contributions and Costs

Contributions are booked as revenue in the financial year to which they relate. Equally, costs incurred to generate the earnings of the year are recognised in the income statement.

Financial income and expenses

Financial income and expenses comprise interest income and expenses. Realised gains and losses on bonds classified as investments are recognised in the financial year to which they relate. Unrealised gains and losses on bonds classified as investments are recognised directly on equity.

Projects funded by third parties

Revenue from projects funded by third parties is recognised as income at the same time as costs related to the project are incurred as expenses.

Profit or loss on projects funded by third parties is recognised in the income statement when the project is finalised.

Accounting policies

Balance sheet

Non-current assets

Non-current assets comprise investments and cash at bank dedicated to Capital Reserve Fund.

Investments

Investments comprising listed bonds are measured at fair value at the balance sheet date, however, at a maximum price of 100, corresponding to the redemption price. Gains and losses on investments from the Capital Reserve Fund and General Fund are recorded in the associated equity accounts. All other gains and losses are recorded in the income statement, except for unrealised fair value adjustments of investments which are recognised directly on equity.

Receivables

Receivables are measured at cost. Provisions are made for bad debts.

Unpaid contributions from projects funded by third parties (assets)

Unpaid contributions from ongoing projects comprise costs related to work performed on projects during which funding is not yet received from third party.

Unpaid contributions are measured at cost.

Prepayments from projects funded by third parties (liabilities)

Prepayments from projects funded by third parties comprise funds received from third parties regarding projects which are not finished at the end of the year.

Prepayments from projects funded by third parties are recognised as funds received from third parties.

Income statement for 2014

	Notes	2014 DKK	2013 DKK'000
Contributions from member countries	1	21.935.000	21.935
Contribution from Faeroe Island and Greenland		410.000	410
Recipients of Scientific Advice	2	14.978.356	14.964
Income from Projects		2.744.677	2.005
Other income	3	1.897.411	2.629
Sales of publications		15.850	15
Total revenue		41.981.294	41.958
Salaries	4	-32.492.418	-31.187
Office expenses		-1.490.091	-2.040
IT expenses		-3.049.370	-3.863
Expenses for Council and ASC		-1.082.362	-1.272
Travelling and meeting expenses		-5.290.707	-4.738
Publications		-542.732	-793
Total expenditure		-43.947.680	-43.893
Result of revenue and expenditure		-1.966.386	-1.935
Projects funded by third parties		2.889.652	2.950
Salaries and fees relating to projects		-2.353.227	-2.023
Other expenses relating to projects		-536.425	-927
Result of projects		0	0
Financial income	5	163.298	207
Financial expenses	6	-13.087	-14
Income over expenditure		-1.816.175	-1.742
The years income over espenditure is distributed as follows			
Use of fund "Strategiv Investment Fund (equity)		-500.000	-415
Accumulated income over expenditure (equity)		-1.316.175	-1.327
Total		-1.816.175	-1.742

Balance sheet at 31 December 2014

	Notes	2014 DKK	2013 DKK'000
Capital Reserve Fund – Investment & cash at bank	10	8.381.197	5.384
Non-current assets		8.381.197	5.384
Receivable member contribution	7	13.374.261	13.374
Other receivables	8	4.919.708	5.418
Prepayments and accrued income	9	801.685	869
Receivables		19.095.654	19.661
Investments	10	13.428.160	20.400
Cash at bank and in hand		9.571.097	4.537
Current assets		42.094.911	44.598
Assets		50.476.108	49.982

Balance sheet at 31 December 2014

	Notes	2014 DKK	2013 DKK'000
Capital Reserve Fund (CRF)		8.400.909	8.426
Strategic Investment Fund (SIF)		600.130	1.100
Accumulated income over expenditure		16.852.849	17.947
Profit/loss for the year		-1.816.175	-1.742
Equity	11	24.037.713	25.731
Prepaid/preinvoiced contributions		21.935.000	21.935
Prepaid projects funded by third parties		622.923	1.302
Other payables	12	833.419	1.014
Short term dept	10	3.047.053	0
Total short-term liabilities		26.438.395	24.251
Equity and liabilities		50.476.108	49.982
Additional information			
Lease of IT equipment	13		

Notes

	2014 DKK	2013 DKK'000
1. Contributions from member countries (shares)		
Belgium (2)	820.000	820
Canada (3)	1.230.000	1.230
Denmark (3)	1.230.000	1.230
Estonia (1)	410.000	410
Finland (1,5)	615.000	615
France (4)	1.640.000	1.640
Germany (4)	1.640.000	1.640
Iceland (3)	1.230.000	1.230
Ireland (2)	820.000	820
Latvia (1)	410.000	410
Lithuania (1)	410.000	410
The Netherlands (3)	1.230.000	1.230
Norway (4)	1.640.000	1.640
Poland (3)	1.230.000	1.230
Portugal (2)	820.000	820
Russia (3)	1.230.000	1.230
Spain (3)	1.230.000	1.230
Sweden (3)	1.230.000	1.230
United Kingdom (4)	1.640.000	1.640
The USA (3)	1.230.000	1.230
	21.935.000	21.935
2. Recipients of Scientific Advice		
European Commission	10.402.283	10.402
NEAFC	2.328.717	2.313
OSPAR	1.238.747	1.156
HELCOM	475.533	564
NASCO	533.076	529
	14.978.356	14.964
3. Other income		
Income from ICES Journal	859.200	1.245
Income from Training courses	544.675	863
ASC Fees	444.342	518
Miscellaneous	49.194	4
	1.897.411	2.630

Notes

	2014 DKK	2013 DKK'000
4. Salaries		
Salaries are divided as follows:		
Salaries Secretariat	30.228.874	28.778
Other salaries relating costs	<u>382.253</u>	<u>491</u>
	30.611.126	29.269
 Honorarium to external Chairs	 <u>1.881.292</u>	 <u>1.918</u>
	32.492.418	31.187
 5. Financial income		
Interest	147.512	181
Exchange gains	<u>15.786</u>	<u>25</u>
	163.298	206
 6. Financial expenses		
Exchange losses	-1.812	-3
Bank charges	<u>-11.274</u>	<u>-11</u>
	-13.087	-14

Notes

	2014 DKK	2013 DKK'000
7. Receivable member contributions		
Belgium	254.261	254
Related to previous or current year	254.261	254
Belgium	1.640.000	1.640
Denmark	1.230.000	1.230
France	1.640.000	1.640
England	0	1.640
Estonia	410.000	410
Iceland	0	1.230
Ireland	820.000	820
Norway	1.640.000	0
The Netherlands	1.230.000	1.230
Poland	1.230.000	1.230
Portugal	820.000	820
Russia	1.230.000	1.230
Spain	1.230.000	0
Related to the following year	13.120.000	13.120
	13.374.261	13.374
8. Other Receivables		
European Commission	3.601.779	4.287
VAT due from the Ministry of Foreign Affairs	1.185.033	621
Deposits due from parking spaces	0	13
Miscellaneous receivables	132.896	497
	4.919.708	5.418
9. Prepayments and accrued income		
Prepaid pensions	752.166	815
Accrued interest from investments	49.519	54
	801.685	869

Notes

10. Investments

General investment and Capital Reserve Funds are invested in Danish short-term bonds listed on the Copenhagen Stock Exchange.

The organization has signed a repo agreement with the bank corresponding to 3.047.052 DKK. Bond portfolio corresponding to 8.257.459 DKK is pledged as security for the loan.

11. Equity

	Capital Reserve Fund DKK	Strategic Investment Fund DKK	Accumulated income over Expenditure etc. DKK	Total equity DKK
Equity at 1 January 2014	8.426.494	1.100.130	16.204.582	25.731.206
Unrealised fair value of bonds	-25.585		148.267	122.682
Profit/loss for the year		-500.000	-1.316.175	-1.816.175
Equity at 31 December 2014	8.400.909	600.130	15.036.674	24.037.713

12. Other Payables

	2014 DKK	2013 DKK'000
Accounts payable	784.729	932
Danish State Pension (ATP)	48.690	82
	833.419	1.014

13. Lease commitments

Lease obligations falling due within:

0-1 years	1.026.030	1.121
1-5 years	2.818.194	3.617
> 5 years	0	0
	4.176.644	4.738

**International Council for the Exploration
of the Sea**

**Audit book comments on
the Final Accounts 2014**

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Audit book comments on the Final Accounts for 2014

1. Our audit of the Final Accounts

1.1 Final Accounts

We have finalised our audit of the Final Accounts of International Council for the Exploration of the Sea for 2014 presented by Management. The Final Accounts show the following:

	<u>2014</u> <u>TDKK</u>	<u>2013</u> <u>TDKK</u>
Income over expenditure	-1.816	-1.742
Assets	50.476	49.982
Equity	24.038	25.731

1.2 Affairs and conditions materially influencing the evaluation of the Final Accounts

Based on our audit, we point out the following particular affairs and conditions of relevance for Management's evaluation of the Final Accounts:

1.2.1 Segregation of duties

As mentioned in our audit book comments of 19 May 2011 issued upon acceptance of the audit, the possibility of preventing material misstatements in the Final Accounts, including misstatements caused by fraud, primarily depends on the extent to which sound internal control is ensured in the organisation of the recording systems and business processes.

We draw attention to the size of ICESs administration and limited resources. Smaller administrations increase the risk of misstatements in the Final Accounts as a result of intentional or unintentional actions or omissions. Any misstatements in the Final Accounts that result from fraud may not necessarily be detected during our audit since misstatement of this nature are usually concealed or hidden. We point out that the General Secretary have mandate to solely dispose of the bank's funds. We point out that the General Secretary has sole authority to make transactions with funds with the bank.

We point out that these comments should not be taken to mean that our audit revealed specific matters that could indicate irregularities or fraud, but they are intended to emphasise that segregation of duties is usually a material element in the internal control. We also point out that during our audit we did not find any misstatements caused by fraud.

1.2.2. Inquiries of the Executive Board and the Board of Directors about the risk of fraud

We have made inquiries of the General Secretary and the Chairman of Finance Committee about the Organisation's risk of fraud as well as the internal controls implemented by the Finance Committee to mitigate such risk. They have informed us that the Finance Committee and the General Secretary do not have any knowledge of actual, presumed or alleged fraud and that no particular risk of material misstatement is estimated to exist in the Organisation's Final Accounts as a result of fraudulent financial reporting or misappropriation of organisation assets. We should point out that, during our audit, we did not identify any misstatements in the Final Accounts caused by fraud.

2. Comments on the Final Accounts**2.1 Income statement**

The individual items of the income statement have been reviewed and analysed based on specifications, vouchers and other reconciliation records prepared by ICES. We have taken a number of test samples, made analyses and reconciliations to verify the reliability of the registrations.

The audit of the income statement did not give rise to any comments.

2.2 Balance sheet

We have compared ICES' investments to confirmation from the bank, which not give rise to comment.

The 31 December 2014 the Capital Reserve Fund amounts to 8,381 TDKK, corresponding to 20% of total income.

We have made an unannounced cash count. The audit did not give rise to any comments. When auditing cash and cash equivalents we obtained lists of accounts from the organisation's bankers, and we checked the invested and liquid funds as of 31 December.

We have reconciled receivables with supporting documentation for 19.096 TDKK recognized in the Final Accounts. The individual items of the income statement have been reviewed and analysed based on specifications and decisions from the Council, regarding contributions from member countries.

The audit of the balance sheet did not give rise to any comments.

3. Other comments

3.1 Letter of representation and unadjusted misstatements in the Final Accounts

As part of our audit of complex areas, the General Secretary has issued a letter of representation to us on the Final Accounts for 2014.

The audit did not give rise to any comments.

3.2 Insurance

Our audit did not include insurance taken out by the Organisation. We recommend that the Organisation's insurance cover be reviewed with the insurance organisation or insurance broker at least once a year in order to assess the cover taken out etc., including whether the cover provided by the insurance taken out is adequate, and whether the Organisation may need to take out insurance in special areas.

In connection with the closing of accounts, we asked the General Secretary to confirm that the insurance taken out is considered adequate in view of the Organisation's circumstances to cover potential loss or damage arising in the Organisation.

3.3 General IT controls

We have not reviewed the Organisation's general IT controls as any weaknesses or inadequacies therein will not in our view cause the Final Accounts to be materially misstated. We recommend that the Organisation assess whether its back-up procedures are appropriate to ensure restoration of the books of account, if lost.

4. Conclusion

If the Finance Committee approves the Final Accounts 2014 in its present form, we will provide the Final Accounts with an unqualified auditor's report without emphasis of matter.

5. Objective and scope of the audit, including definition of responsibilities

Our audit book comments of 19 May 2011 issued upon acceptance of our appointment as auditors contain a description of the objective, scope and performance of our audit, our reporting as well as a definition of the responsibilities of Management and auditors. Please refer to those audit book comments. We recommend that a copy thereof be handed out to any new members of the Finance Committee.

Our audit did not include the General Secretary's review. However, we read the General Secretary's review to ensure that the disclosures in this report are consistent with the financial statements and with the information that came to our knowledge during our audit.. Having read the General Secretary's review, we are to issue a statement on whether or not the General Secretary's review is consistent with the Final Accounts. Our statement on the General Secretary's review has to be placed immediately after our auditor's opinion on the Final Accounts.

6. Auditor's declaration

Pursuant to Danish law, we declare that we comply with the legal requirements of independence and that we have received all the information requested during our audit.

Copenhagen, 28 May 2015

Deloitte

Statsautoriseret Revisionspartnerselskab


Peter Z. Skanborg
State Authorised Public Accountant

Presented at the Finance Committee' meeting on 28 May 2015


Finance Committee



Konstantin Drevetnyak
(Russian Federation; Chair)



Joost Backx
(Netherlands)



Fritz Köster
(Denmark)



Piotr Margonski
(Poland)



Kai Myrberg
(Finland)

Status Report as of 30 April 2015 (FC 2015-05 Doc 4)

The final Budget for 2015 was approved by Council at the 2014 Statutory Meeting. It is the working budget for the Secretariat in 2015. Important activities that result in income and expenditures such as the Annual Science conference (ASC), Training Programme, Travel and meetings in relation to the Advisory Programme are still to come, and a precise prognosis is difficult to make at this stage.

The main items to discuss are:

- 1) *Overdue amounts for National Contributions. A reminder has been sent to the Russian Federation.*

Comments to the Status of Accounts:

- 1) Reminders for payment of national contributions were sent on 5 March, 13 April and 12 May. The total outstanding amount due is DKK 2,870,000.
- 2) Expected income from the European Union has been revised to 10,400,000 DKK in accordance with the signed MoU. The invoice for the first semester will be issued in July.
- 3) Project income for the period January–April is approximately DKK 459,000 based on time recording for on-going projects. The revised project budget income for the whole year 2,670,523 DKK is considered realistic (Cf. Doc 8 Info on External Projects). This figure includes overhead. In addition, based on earlier years, it is anticipated that DKK 397,000 will come from DG ENV special requests.
- 4) Income from Eurofish represents 10% of certain office expenses.
- 5) Use of equity: i) Council approved in October 2011 the employment of an ecosystem coordinator, for four years, ii) Council approved in October 2013 investments in IT tools (Content Administration for Reports and Advice/CARA, Sharepoint update, and Resource Coordination Tool/RCT), iii) Council in October 2014 approved the 2015 Science Fund, the SCICOM Strategic Initiatives and ASC, and iv) by email voting Council in July 2014 decided to fund the development of the Regional Fisheries Database.

	Realised Jan - Apr	Budget 2015 Approved Council	Budget 2015 Revised
INCOME			
National Contribution	21.935.000	21.935.000	21.935.000
Faroe Islands & Greenland	410.000	410.000	410.000
National Contribution	22.345.000	22.345.000	22.345.000
Income from Commissions	3.406.147	15.450.000	14.916.417
Other Income	1.177.546	4.790.000	5.566.523
TOTAL INCOME	26.928.694	42.585.000	42.827.940
EXPENSES			
Salaries	10.758.533	32.330.000	32.881.440
Office Expenses	511.819	2.185.000	1.700.000
IT Expenses	1.144.034	2.885.000	2.885.000
Expenses for ASC	42.118	1.260.000	3.500.000
Travel and meetings	548.346	4.105.000	5.307.000
Publications	42.848	895.000	645.000
TOTAL EXPENSES	13.047.698	43.660.000	46.918.440
Operating Result	13.880.996	-1.075.000	-4.090.500
Interest	44.810	-250.000	-100.000
Transfer from Equity	0	-825.000	-3.990.500
Result	13.925.806	0	0

	Realised Jan - Apr	Budget 2015 Approved Council	Budget 2015 Revised
National Contribution	21.935.000	21.935.000	21.935.000
Faroe Islands & Greenland	410.000	410.000	410.000
National Contribution	22.345.000	22.345.000	22.345.000
NEAFC Contribution (Advice)	2.340.361	2.400.000	2.341.361
OSPAR Contribution (Advice and Data)	292.279	1.230.000	1.169.315
HELCOM Contribution (Data)	237.766	470.000	470.000
NASCO Contribution (Advice)	535.741	550.000	535.741
Special requests			
EC Contribution (Advice)	0	10.800.000	10.400.000
Income from Commissions	3.406.147	15.450.000	14.916.417
Project income - hours incl. overhead	459.038	1.400.000	2.670.523
Project income - Projects in Pipeline	0	1.445.000	397.000
ASC income	32.476	490.000	490.000
Income from ICES Journal	474.673	1.200.000	1.554.000
Sale of Publications	2.625	25.000	5.000
Income Eurofish	58.409	200.000	200.000
Income Training courses	91.214		190.000
Miscellaneous income	59.111	30.000	60.000
Other Income	1.177.546	4.790.000	5.566.523
TOTAL INCOME	26.928.694	42.585.000	42.827.940
Salaries - Management and Administration	1.572.648	5.210.000	5.026.151
Salaries - Communications	399.133	1.000.000	1.097.230
Salaries - Advisory Programme	2.400.355	7.800.000	6.857.909
Salaries - Science Programme	1.487.452	4.500.000	4.716.899
Salaries - Publications	462.810	1.300.000	1.581.074
Salaries - IT	555.293	1.700.000	1.667.892
Salaries - Data Centre	2.879.685	8.100.000	8.609.483
Salaries - Total	9.757.376	29.610.000	29.556.638
Fees for External Consultants	30.221	310.000	310.000
Overtime for Gen. Staff	33.332	25.000	25.000
Social activities Cond. /Cond.	12.444	65.000	65.000
Education, Training, Team building	20.028	215.000	215.000
Honorarium ACOM Chair and Vice Chairs	719.704	1.545.000	2.158.273
Honorarium SCICOM Chair	145.708	450.000	436.529
ATP Pensions ICES 2/3 share	39.720	110.000	115.000
Salaries	10.758.533	32.330.000	32.881.440
Electricity	97.536	150.000	131.000
Heating	212	220.000	235.000
Safety and Security	87.354	190.000	190.000
Cleaning	48.091	200.000	166.000
Stationery	4.163	20.000	31.000

Photocopy and Printer paper	0	10.000	5.000
Paper (Letterhead, envelopes etc.)	0	20.000	1.000
Postage	21.994	250.000	99.000
	Realised Jan - Apr	Budget 2015 Approved Council	Budget 2015 Revised
Telephone, Fax, Etc	21.170	80.000	63.000
Office Equipment (Workplace furniture)	14.617	90.000	111.000
Insurance	172.452	225.000	287.000
Miscellaneous Expenses (Coffee, Water)	22.144	160.000	120.000
Office Maintenance	12.681	70.000	81.000
Facility improvements	1.528	330.000	13.000
Library: Books, Subscriptions	3.152	20.000	30.000
Public Relations (Including souvenir shop)	4.724	40.000	47.000
Accounting and Auditing	0	90.000	90.000
Legal Assistance	0	20.000	0
Office Expenses	511.819	2.185.000	1.700.000
Leasing Contracts	407.078	910.000	910.000
Hardware Support Contracts	230.164	515.000	515.000
Software Support Contracts	123.003	150.000	150.000
Software License Contracts	10.242	370.000	370.000
Hardware non-contract	39.986	300.000	300.000
Software non-contract	116.893	130.000	130.000
Outsourcing	0	80.000	80.000
Remote/cloud services	10.500	70.000	70.000
Communication	144.699	239.000	239.000
Domains/certificates	45	6.000	6.000
IT-investments	0	0	0
Consultancies	28.832	55.000	55.000
Other costs	32.592	60.000	60.000
IT Expenses	1.144.034	2.885.000	2.885.000
General Expenses: Transport, Handbooks, Gifts	42.118	375.000	2.615.000
Travel: Secretariat Staff and Chairs	0	565.000	565.000
Host Country Share	0	160.000	160.000
Enhance Science/Keynote Speakers	0	50.000	50.000
Promotion for Young Scientists	0	110.000	110.000
Expenses for ASC	42.118	1.260.000	3.500.000
Statutory meeting	0	30.000	10.000
President, Bureau + sub Groups	56.857	340.000	300.000
Secretariat travel per Cost Center	161.118	750.000	750.000
External reviewing of assessments/benchmarking	421.317	340.000	475.000
Travel costs for RAC	0	100.000	100.000
ACOM travel and meeting costs	2.631	300.000	300.000
ACOM Chairs and vice chairs travel	79.422	400.000	580.000
Advice Drafting Groups travel	154.343	900.000	1.100.000
SCICOM travel and meeting costs	170.610	420.000	420.000
ICES co-sponsored Symposia (per Symposia)	-519.379	225.000	225.000
Young scientist conferece	0		
SCICOM strategic activities	21.428		267.000
Science Fund	0		500.000
Training support for DG MAREs officials	0	150.000	150.000
Course income/expenses	0	150.000	130.000
Travel and meetings	548.346	4.105.000	5.307.000

	Realised Jan - Apr	Budget 2015 Approved Council	Budget 2015 Revised
ICES Marine science Symposia	0	160.000	150.000
Publications general	0		96.800
ICES Annual Report	23.120	65.000	79.000
ICES Cooperative Research Reports	0	265.000	82.000
ICES Leaflets for Plankton and Diseases	5.020	10.000	11.200
ICES Times	10.050	55.000	11.000
ICES Newsletters	0	80.000	65.000
ICES Advice Publications	0	10.000	0
Editor in Chief ICES JMS reimbursement of expenses	0	100.000	0
ICES Communications	4.658	150.000	150.000
Publications	42.848	895.000	645.000
TOTAL EXPENSES	13.047.698	43.660.000	46.918.440
Operating Result	13.880.996	-1.075.000	-4.090.500
Interest	44.810	-250.000	-100.000
Transfer from Equity		-825.000	-3.990.500
Result	13.925.806	0	0
Transferred from Equity:			
IT Investments			-306.000
Training Programme/Science Fund 2014		-505.000	-505.000
Eco-System Advisor		-320.000	-320.000
SCICOM strategic activities			-267.000
Young Scientists Conference			
Regional database			-352.500
ASC			-2.240.000

Proposed Budget for 2016 and Forecast Budget for 2017

The **Proposed Budget 2016, with a 1.9% increase** was approved by Council by email approval procedure in April 2015. The updates presented below named **Proposed Budget 2016** have been made with the agreed 1.9% increase in national contributions (Rule 18 ii).

This version will be sent to Contracting Parties in July 2015 with the invoice for the annual contributions 2016 (The contributions are to be paid between July 22, 2015 and January 31, 2016, cf. Rule 19 i).

The updated **Proposed Budget 2016 will be** distributed to Member Countries one month before the Council meeting in October 2015 for final approval.

The **Forecast Budget for 2017** was prepared by the Secretariat and is submitted to the Finance Committee (FC) for review. The **2017 Forecast Budget** has been elaborated with a 2% inflation increase and it is recommended to be presented to Council in October 2015. After discussion and approval by the FC, this budget will be forwarded to the Bureau (June) for approval and will then be sent to Contracting Parties one month before Council. Council will approve the national contributions 2017 based on the **Forecast Budget 2017** in October 2015.

For the Forecast Budget 2017 Finance Committee is asked to discuss and approve the proposal to increase national contributions by 2%.

The Forecast Budget for 2017 shows an increasing income from projects; in 2017 estimated to more than 4 million DKK. If ICES participation in projects in the pipeline will not be approved, there is a need to reduce expenses accordingly. Already with the current numbers of projects, and especially if there is a further increase related to the approval of the additional projects in the pipeline, there is a need for additional work resources in the Secretariat.

In 2017, there will be a number of changes in the staff, due to retirement, expiry of contracts, and review of the science leadership, which makes it difficult to estimate the exact salary scale and amount. The increased salary amount under "Administration" therefore has to be read with caution: this is to cater for the increased workloads under the projects, and will only materialize if all projects in the pipeline will be approved.

In the case that the 2% increase of national contributions for 2017 is not approved, this will further complicate the situation, and put a strain on the budget, with a need to identify reduced activities equivalent to 436.000 DKK

Comments to the budget:

National Contributions:

The Member Countries decided in April 2015 that National Contributions for 2016 should increase with 1.9% in relation to 2015. The Forecast Budget for national contributions in 2017 has been increased with an expected inflation of 2%.

Income from Commissions:

Expected income in 2016–2017 from the European Union has not been increased with expected inflation, with the assumption that the MoU will continue in 2016 and 2017 with the same amount.

Expected income in 2016–2017 from NASCO and NEAFC has been increased with the expected inflation of 1.2 % for 2016 and unchanged for 2017.

Expected income in 2016–2017 from OSPAR is demand driven for Advice and for Data based on a fixed amount increased with inflation. The budgets for 2016–2017 reflect the projection made by OSPAR in cooperation with ICES.

Other Income:

Pay back from projects (hours x hourly rate) reflects the expected amount to be charged to on-going projects, including overhead, with the actual knowledge for approved projects. With the actual knowledge about approved projects it is difficult to predict the precise amount for 2016 and 2017. For income from projects in the pipeline in 2016, the amount of 1,074,400 DKK represents the expected amount if all currently known projects are approved. The number of projects, related work and expected income, all influence the amount of Secretariat resources needed, as well as impacts the budget. Income from projects in pipeline in 2017 is expected to be 1,074,400 DKK.

Expected income from ICES Journal of Marine Science in 2017 has been increased to 1,000,000 DKK based on budget received from Oxford University Press.

Income from Eurofish represents cost recovery of approximately 10% of some office expenses.

Salaries:

For 2016 and 2017, respectively salaries have increased with the expected inflation rate of 0.5% plus the annual within grade step increase, according to the staff rules.

Salaries within the Advisory Programme as well as ACOM Honoraria are to be recovered from the MoUs with Recipients of Advice.

Office Expenses:

The overall budget has in 2016 been slightly increased in order to cater for the maintenance needs, partly stemming from the cuts in 2014. Reallocations between budget lines will be applied where necessary.

IT Expenses:

The overall budget has been maintained on the same level. Reallocations between budget lines will be applied where necessary.

It should be noted that a major item represents long-term leasing contracts for the purchase of hardware, mainly servers.

Expenses for ASC:

In February 2015 Latvia confirmed their readiness to host the 2016 ASC in Riga. At the 2014 Council meeting USA (2017), Germany (2018) and Sweden (2019) confirmed their willingness to look into their possibility to host future ASC, and to report back as soon as possible. Future ASC hosts are also awaiting the review of

the current ASC format, conducted by SCICOM and a SCICOM-led sub-group, which will report to the 2015 June Bureau meeting.

Travel and Meeting expenses:

Travel and meeting costs for advice related expenses are to be recovered from the MoUs with Recipients of Advice.

Publication and Communication:

The overall budget has been maintained on the same level. Reallocations between budget lines will be applied where necessary.

Updated following Finance Committee meeting

	Forecast Budget 2016	Proposed Budget 2016	Revised Budget 2016	Forecast Budget 2017
National Contribution	22,470,000	22,363,000	22,363,000	22,791,000
Faroe Islands & Greenland	420,000	418,000	418,000	426,000
National Contribution	22,890,000	22,781,000	22,781,000	23,217,000
NEAFC Contribution (Advice)	2,400,000	2,435,000	2,356,743	2,400,000
OSPAR Contribution (Advice and Data)	1,230,000	1,260,000	1,250,000	1,190,000
HELCOM Contribution (Data)	470,000	470,000	470,000	470,000
NASCO Contribution (Advice)	550,000	560,000	539,492	550,000
Special requests	0	0	0	250,000
EC Contribution (Advice)	10,800,000	10,800,000	10,400,000	10,400,000
Income from Commissions	15,450,000	15,525,000	15,016,235	15,260,000
Project income - hours incl. overhead	1,400,000	1,320,000	3,320,453	3,007,953
Project income - Projects in Pipeline	1,445,000	2,265,000	1,074,400	1,074,400
ASC income	490,000	490,000	490,000	490,000
Income from ICES Journal	1,200,000	970,000	1,000,000	1,000,000
Sale of Publications	25,000	5,000	5,000	5,000
Income Eurofish	200,000	200,000	200,000	200,000
Income Training courses	0	860,000	860,000	700,000
Miscellaneous income	30,000	20,000	20,000	20,000
Other Income	4,790,000	6,130,000	6,969,853	6,497,353
TOTAL INCOME	43,130,000	44,436,000	44,767,088	44,974,353

Salaries - Management and Adm.incl. project assist	5,300,000	5,210,000	6,518,053	6,731,227
Salaries - Communications	1,000,000	1,120,000	934,074	540,000
Salaries - Advisory Programme	7,800,000	8,050,000	6,626,972	6,770,125
Salaries - Science Programme	4,500,000	3,960,000	4,545,706	4,600,000
Salaries - Publications	1,300,000	1,350,000	1,639,641	1,700,000
Salaries - IT	1,700,000	1,800,000	1,708,212	1,800,000
Salaries - Data Centre	8,100,000	8,500,000	8,405,469	8,400,000
Salaries - Total	29,700,000	29,990,000	30,378,126	30,541,353
Fees for External Consultants	460,000	250,000	250,000	250,000
Overtime for Gen. Staff	25,000	15,000	15,000	15,000
Social activities Cond. /Cond.	75,000	75,000	65,000	65,000
Education, Training, Team building	225,000	225,000	190,000	200,000
Honorarium ACOM Chair and Vice Chairs	1,545,000	1,555,000	2,169,053	2,200,000
Honorarium SCICOM Chair	450,000	455,000	438,709	455,000
ATP Pensions ICES 2/3 share	110,000	115,000	115,000	115,000
Salaries	32,590,000	32,680,000	33,620,888	33,841,353
Electricity	180,000	180,000	131,000	132,000
Heating	250,000	250,000	235,000	236,000
Safety and Security	190,000	200,000	190,000	191,000
Cleaning	200,000	190,000	166,000	167,000
Stationery	20,000	20,000	31,000	31,000
Photocopy and Printer paper	20,000	15,000	5,000	5,000
Paper (Letterhead, envelopes etc.)	30,000	25,000	1,000	2,000
Postage	300,000	150,000	99,000	100,000

Telephone, Fax, Etc	80,000	71,000	63,000	63,000
Office Equipment (Workplace furniture)	110,000	100,000	111,000	112,000
Insurance	225,000	245,000	287,000	288,000
Miscellaneous Expenses	160,000	160,000	120,000	121,000
Office Maintenance	70,000	90,000	81,000	81,000
Facility improvements	365,000	300,000	233,000	223,000
Library: Books, Subscriptions	30,000	30,000	30,000	30,000
Public Relations (Including souvenir shop)	60,000	60,000	47,000	47,000
Accounting and Auditing	90,000	100,000	90,000	91,000
Legal Assistance	20,000	20,000	20,000	20,000
Office Expenses	2,400,000	2,206,000	1,940,000	1,940,000
Leasing Contracts	910,000	972,000	972,000	1,010,000
Hardware Support Contracts	515,000	483,000	483,000	470,000
Software Support Contracts	150,000	248,000	248,000	334,000
Software License Contracts	370,000	408,000	408,000	453,000
Hardware non-contract	300,000	260,000	260,000	189,000
Software non-contract	130,000	130,000	130,000	58,000
Outsourcing	80,000	0	0	0
Remote/cloud services	70,000	80,000	80,000	80,000
Communication	239,000	200,000	200,000	161,000
Domains/certificates	6,000	8,000	8,000	8,000
IT-investments	0	0	0	0
Consultancies	55,000	55,000	55,000	50,000
Other costs	60,000	66,000	66,000	80,000
IT Expenses	2,885,000	2,910,000	2,910,000	2,893,000
General Expenses: Transport, Handbooks, Gifts	375,000	400,000	300,000	300,000

Travel: Secretariat Staff and Chairs	565,000	565,000	450,000	450,000
Host Country Share	160,000	160,000	160,000	160,000
Enhance Science/Keynote Speakers	50,000	60,000	60,000	50,000
Promotion for Young Scientists	110,000	110,000	110,000	110,000
Expenses for ASC	1,260,000	1,295,000	1,080,000	1,070,000
Statutory meeting	60,000	30,000	15,000	15,000
President, Bureau + sub Groups	340,000	340,000	320,000	320,000
Secretariat travel per Cost Center	790,000	685,000	685,000	685,000
External reviewing of assessments/benchmarking	340,000	400,000	400,000	500,000
Travel costs for RAC	100,000	60,000	60,000	60,000
ACOM travel and meeting costs	300,000	300,000	300,000	300,000
ACOM Chairs and vice chairs travel	400,000	400,000	400,000	480,000
Advice Drafting Groups travel	900,000	910,000	1,100,000	1,100,000
SCICOM travel and meeting costs	420,000	420,000	400,000	400,000
ICES co-sponsored Symposia (per Symposia)	225,000	225,000	150,000	75,000
Young scientist conferece	0	0	0	450,000
SCICOM strategic activities	0	0	0	0
Science Fund	0	0	0	0
Training support for DG MAREs officials	0	100,000	100,000	100,000
Course income/expenses	300,000	780,000	780,000	620,000
Travel and meetings	4,175,000	4,650,000	4,710,000	5,105,000
ICES Marine science Symposia	160,000	160,000	160,000	160,000
Publications general		40,000	70,000	80,000
ICES Annual Report	65,000	100,000	80,000	80,000

ICES Cooperative Research Reports	265,000	95,000	80,000	82,000
ICES Leaflets for Plankton and Diseases	10,000	30,000	5,200	21,000
ICES Times	55,000	30,000	11,000	12,000
ICES Newsletters	80,000	80,000	0	40,000
ICES Advice Publications	10,000	10,000	0	0
Editor in Chief ICES JMS reimbursement of expenses	100,000	100,000	0	0
ICES Communications	150,000	250,000	200,000	200,000
Publications	895,000	895,000	606,200	675,000
TOTAL EXPENSES	44,205,000	44,636,000	44,867,088	45,524,353
Operating Result	-1,075,000	-200,000	-100,000	-550,000
Interest	-250,000	-200,000	-100,000	-100,000
Transfer from Equity	-825,000	0	-258,000	-450,000
Result	0	0	0	0
Transferred from Equity:				
Regional database			-258,000	
Science Fund 2014	-505,000			
Eco-System Advisor	-320,000			
Professional Secretary for Scientific Cooperation				
Young Scientists Conference				-450,000



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Finance Committee

May 2015

Doc 6

Agenda item 5.1

National Contributions

Finance Committee is invited to review the table below showing the proposed and actual development of National Contributions from 2012–2016.

		actual 2012	actual 2013	actual 2014	actual 2015	actual 2016	actual Total	Proposed 2012	Proposed 2013	Proposed 2014	Proposed 2015	Proposed 2016	Proposed Total	Diff.
Price for one share (DKK)		410,000	410,000	410,000	410,000	418,000		428,000	437,000	446,000	455,000	464,000		
Inflation		0%	0%	0%	0%	1.9%		2%	2%	2%	2%	2%		
no of shares:		53.5	53.5	53.5	53.5	53.5		53.5	53.5	53.5	53.5	53.5		
Belgium	2	820,000	820,000	820,000	820,000	836,000	4,116,000	856,000	874,000	892,000	910,000	928,000	4,460,000	-344,000
Canada	3	1,230,000	1,230,000	1,230,000	1,230,000	1,254,000	6,174,000	1,284,000	1,311,000	1,338,000	1,365,000	1,392,000	6,690,000	-516,000
Denmark	3	1,230,000	1,230,000	1,230,000	1,230,000	1,254,000	6,174,000	1,284,000	1,311,000	1,338,000	1,365,000	1,392,000	6,690,000	-516,000
Estonia	1	410,000	410,000	410,000	410,000	418,000	2,058,000	428,000	437,000	446,000	455,000	464,000	2,230,000	-172,000
Finland	1.5	615,000	615,000	615,000	615,000	627,000	3,087,000	642,000	655,500	669,000	682,500	696,000	3,345,000	-258,000
France	4	1,640,000	1,640,000	1,640,000	1,640,000	1,672,000	8,232,000	1,712,000	1,748,000	1,784,000	1,820,000	1,856,000	8,920,000	-688,000
Germany	4	1,640,000	1,640,000	1,640,000	1,640,000	1,672,000	8,232,000	1,712,000	1,748,000	1,784,000	1,820,000	1,856,000	8,920,000	-688,000
Iceland	3	1,230,000	1,230,000	1,230,000	1,230,000	1,254,000	6,174,000	1,284,000	1,311,000	1,338,000	1,365,000	1,392,000	6,690,000	-516,000
Ireland	2	820,000	820,000	820,000	820,000	836,000	4,116,000	856,000	874,000	892,000	910,000	928,000	4,460,000	-344,000
Latvia	1	410,000	410,000	410,000	410,000	418,000	2,058,000	428,000	437,000	446,000	455,000	464,000	2,230,000	-172,000
Lithuania	1	410,000	410,000	410,000	410,000	418,000	2,058,000	428,000	437,000	446,000	455,000	464,000	2,230,000	-172,000
Netherlands	3	1,230,000	1,230,000	1,230,000	1,230,000	1,254,000	6,174,000	1,284,000	1,311,000	1,338,000	1,365,000	1,392,000	6,690,000	-516,000
Norway	4	1,640,000	1,640,000	1,640,000	1,640,000	1,672,000	8,232,000	1,712,000	1,748,000	1,784,000	1,820,000	1,856,000	8,920,000	-688,000
Poland	3	1,230,000	1,230,000	1,230,000	1,230,000	1,254,000	6,174,000	1,284,000	1,311,000	1,338,000	1,365,000	1,392,000	6,690,000	-516,000
Portugal	2	820,000	820,000	820,000	820,000	836,000	4,116,000	856,000	874,000	892,000	910,000	928,000	4,460,000	-344,000
Russia	3	1,230,000	1,230,000	1,230,000	1,230,000	1,254,000	6,174,000	1,284,000	1,311,000	1,338,000	1,365,000	1,392,000	6,690,000	-516,000
Spain	3	1,230,000	1,230,000	1,230,000	1,230,000	1,254,000	6,174,000	1,284,000	1,311,000	1,338,000	1,365,000	1,392,000	6,690,000	-516,000
Sweden	3	1,230,000	1,230,000	1,230,000	1,230,000	1,254,000	6,174,000	1,284,000	1,311,000	1,338,000	1,365,000	1,392,000	6,690,000	-516,000
United Kingdom	4	1,640,000	1,640,000	1,640,000	1,640,000	1,672,000	8,232,000	1,712,000	1,748,000	1,784,000	1,820,000	1,856,000	8,920,000	-688,000
USA	3	1,230,000	1,230,000	1,230,000	1,230,000	1,254,000	6,174,000	1,284,000	1,311,000	1,338,000	1,365,000	1,392,000	6,690,000	-516,000
Total National Contribution	53.5	21,935,000	21,935,000	21,935,000	21,935,000	22,363,000	110,103,000	22,898,000	23,379,500	23,861,000	24,342,500	24,824,000	119,305,000	-9,202,000
Faeroe Islands		328,000	328,000	328,000	328,000	334,400	1,646,400	335,000	342,000	349,000	356,000	371,200	1,753,200	-106,800
Greenland		82,000	82,000	82,000	82,000	83,600	411,600	83,000	85,000	87,000	89,000	92,800	436,800	-25,200
Total	1	410,000	410,000	410,000	410,000	418,000	2,058,000	418,000	427,000	436,000	445,000	464,000	2,190,000	-132,000
Total Contributions		22,345,000	22,345,000	22,345,000	22,345,000	22,781,000	112,161,000	23,316,000	23,806,500	24,297,000	24,787,500	25,288,000	121,495,000	-9,334,000

Programme Budgets

This document aims to provide a detailed analysis of how ICES resources are allocated to current activities and programmes. The tables and figures below give an oversight of how income and cost are allocated to the different ICES programmes.

The Advisory Programme through income from Recipients of Advice is expected to contribute with a cost recovery of 100% of the direct cost. The advisory programme in 2014 provided 35% of the indirect cost. The Advice programme consist of 12,6 out of 41 secretariat staff members which are not part of the general cost or equivalent to 30%. This contribution to the general cost is expected to decline in the budget period 2015–2017 mainly due to budget restraints in the EU-Commission.

Table below in for the realized figures for 2014

	<i>Direct income</i>	<i>Direct cost</i>	<i>Net balance</i>	<i>Cost recovery of total cost %</i>
<i>Advice</i>	14,542,244	13,186,997	1,355,247	100
<i>Science</i>	2,026,350	7,810,470	-5,784,120	26
<i>Publications</i>	875,049	3,111,309	-2,236,260	28
<i>Data Centre</i>	2,143,457	8,187,932	-6,044,475	26
<i>IT</i>	0	4,685,684	-4,685,684	
<i>General income</i>	22,596,310	0	22,596,310	
<i>General cost</i>	0	7,167,405	-7,167,405	
<i>Interest</i>	0	0	150,212	
<i>Total</i>	42,183,410	44,149,797	-1,816,175	

	INCOME	COST	INCOME	COST	INCOME	COST	INCOME	COST
	2014	2014	2015	2015	2016	2016	2017	2017
ADVISORY PROGRAMME								
Contribution from NEAFC	2,328,717		2,341,361		2,356,743		2,400,000	
Contribution from OSPAR (Advice)	644,148		596,351		643,000		607,000	
Contribution from HELCOM (Advice)	0		0		0		0	
Contribution from NASCO	533,076		535,741		539,492		550,000	
Contribution from EC	10,402,283		10,400,000		10,400,000		10,400,000	
Income from Projects	634,020		397,000				250,000	
Direct Advisory income	14,542,244		14,270,453		13,939,235		14,207,000	
Secretariat travel for advice		495,576		430,000		390,000		390,000
External reviewing of Assessment		425,425		475,000		400,000		500,000
Travel cost for RAC		32,941		100,000		60,000		60,000
ACOM TRAVEL		267,275		300,000		300,000		300,000
ACOM Chairs and vice chairs Travel		437,788		580,000		400,000		480,000
Advice drafting Groups Travel		1,076,887		1,100,000		1,100,000		1,100,000
ICES Advice Publications		0		0		0		0
Training support to DG MARE's officials		21,506		150,000		100,000		100,000
Budgeted salaries		8,903,116		6,857,909		6,626,972		6,770,125
ACOM Chair and vice-chairs honorarium		1,446,518		2,158,273		2,169,053		2,200,000
External Contracts		79,965		310,000		250,000		250,000
Direct advisory cost		13,186,997		12,461,182		11,796,025		12,150,125
Staff		13		13		13		13
Staff as % of non general staff		30%		31%		32%		31%
Share of General cost		2,150,221		2,319,061		2,917,547		2,913,743
Total Advisory cost		15,337,218		14,780,243		14,713,571		15,063,868
% Cost recovery		95%		97%		95%		94%
% of ICES income		34		33		31		32
% of ICES expenditure		35		32		33		33
Input from Equity					0		0	
SCIENCE PROGRAMME	INCOME	COST	INCOME	COST	INCOME	COST	INCOME	COST
	2014	2014	2015	2015	2016	2016	2017	2017
Income from Projects	1,037,332		1,066,750		3,479,713		3,479,713	
Income Training courses	544,675		190,000		860,000		700,000	
ASC Income (Fees)	444,342		490,000		490,000		490,000	
Direct Science income	2,026,350		1,746,750		4,829,713		4,669,713	
ASC General expenses		299,477		2,615,000		300,000		300,000
Secretariat travel		132,588		110,000		100,000		105,000
Travel ASC		484,625		565,000		450,000		450,000
ASC Keynote Speakers		76,876		50,000		60,000		50,000
Host Country of ASC Fee		150,790		160,000		160,000		160,000
Young Scientists at ASC		70,594		110,000		110,000		110,000
Symposia		447,700		225,000		150,000		75,000
SCICOM travel and meeting		380,049		420,000		400,000		400,000
Training Programme		555,383		130,000		780,000		620,000
Science Fund		500,000		500,000				
SCICOM strategic initiatives				267,000				
Young Scientist Conference		0		0		0		450,000
Budgeted Salaries		4,277,614		4,716,899		4,545,706		4,600,000
Chair of SCICOM		434,774		436,529		438,709		455,000

Direct Science cost		7,810,470		10,305,428		7,494,415		7,775,000
Staff		7		7		7		7
Staff as % of non general staff		22%		18%		19%		18%
Share of General cost		1,604,133		1,361,988		1,713,480		1,711,246
Total Science cost		9,414,604		11,667,416		9,207,894		9,486,246
% Cost recovery		22%		15%		52%		49%
% of ICES income		5		4		11		10
% of ICES expenditure		21		25		21		21
Input from Equity	1,240,000		825,000			450,000		
PUBLICATIONS AND COMMUNICATIONS	INCOME	COST	INCOME	COST	INCOME	COST	INCOME	COST
	2014	2014	2015	2015	2016	2016	2017	2017
Income from <i>ICES Journal of Marine Science</i>	859,200		1,554,000		1,000,000		1,000,000	
Sale of Publications	15,850		5,000		5,000		5,000	
Direct publication and communication income	875,049		1,559,000		1,005,000		1,005,000	
Library		29,872		30,000		30,000		30,000
ICES Marine Science Symposia Publications		0		150,000		160,000		160,000
Publications general		74,218		96,800		70,000		80,000
ICES Annual Report		63,275		79,000		80,000		80,000
ICES Cooperative Research Reports		82,791		82,000		80,000		82,000
ICES Leaflets for Plankton and Diseases		58,330		11,200		5,200		21,000
ICES TIMES		10,040		11,000		11,000		12,000
ICES Newsletters INSIGHT		74,248		65,000		0		40,000
ICES Communacations		179,830		150,000		200,000		200,000
Secretariat travel		13,540		20,000		18,000		20,000
Editor in Chief ICES JMS		0		0		0		0
Budgeted Salaries		2,525,165		2,678,304		2,573,715		2,239,999
Total Publication and communication cost		3,111,309		3,373,304		3,227,915		2,964,999
Staff		6		5		5		5
Staff as % of non general staff		14%		12%		13%		12%
Share of General cost		1,023,915		920,262		1,157,757		1,156,247
Total Publication cost		4,135,224		4,293,566		4,385,672		4,121,247
% Cost recovery		21%		48		31		34
% of ICES income		2		4		2		2
% of ICES expenditure		9		9		10		9
DATA CENTRE	INCOME	COST	INCOME	COST	INCOME	COST	INCOME	COST
	2014	2014	2015	2015	2016	2016	2017	2017
Contribution from OSPAR	594,599		572,964		607,000		583,000	
Contribution from HELCOM	475,533		470,000		470,000		470,000	
Income from Projects	1,073,325		1,603,773		915,140		602,640	
Direct Data Centre income	2,143,457		2,646,737		1,992,140		1,655,640	
Secretariat travel		29,470		70,000		63,000		60,000
Budgeted salaries		8,158,462		8,609,483		8,405,469		8,400,000
Total Data Centre cost		8,187,932		8,679,483		8,468,469		8,460,000
Staff		14		14		14		13
Staff as % of non general staff		33%		34%		35%		32%
Share of General cost		2,389,135		2,576,734		3,241,718		3,006,243
Total Data Centre cost		10,577,067		11,256,217		11,710,187		11,466,242
% cost recovery		20%		24%		17%		14%

4						May		
% of ICES income		5		6		4		4
% of ICES expenditure		24		24		26		25
Input from Equity	412500							
IT INFRASTRUCTURE	INCOME	COST	INCOME	COST	INCOME	COST	INCOME	COST
	2014	2014	2015	2015	2016	2016	2017	2017
Direct income IT	0		0		0		0	
Hardware Leasing		1,076,657		910,000		972,000		1,010,000
Software licenses, external support contracts		956,897		1,035,000		1,139,000		1,257,000
Purchase of soft and hardware		571,338		430,000		390,000		247,000
Consultancies		7,875		55,000		55,000		50,000
Various expense		336,603		455,000		354,000		329,000
IT-investment		100,000		0		0		0
Budgeted salaries		1,636,314		1,667,892		1,708,212		1,800,000
Total IT cost		4,685,684		4,552,892		4,618,212		4,693,000
Staff		3		3		3		3
Staff as % of non general staff		5%		5%		5%		5%
Share of General cost		341,305		368,105		463,103		462,499
Total IT cost		5,026,989		4,920,997		5,081,315		5,155,499
Cost recovery		0.00%		0.00%		0.00%		0.00%
% of ICES income		0		0		0		0
% of ICES expenditure		11		10		11		11
Input from Equity	186,000							
SECRETARIAT, COUNCIL, BUREAU	INCOME	COST	INCOME	COST	INCOME	COST	INCOME	COST
	2014	2014	2015	2015	2016	2016	2017	2017
National contributions	21,935,000		21,935,000		22,363,000		22,791,000	
Faroe and Greenland	410,000		410,000		418,000		426,000	
Income Eurofish	202,116		200,000		200,000		200,000	
Miscellaneous income	49,194		60,000		20,000		20,000	
Total general income	22,596,310		22,605,000		23,001,000		23,437,000	
Office expenses		1,662,335		1,670,000		1,910,000		1,910,000
Statutory meeting		5,945		10,000		15,000		15,000
Travel Bur., Pres,		328,648		300,000		320,000		320,000
Secretariat travel		161,492		120,000		114,000		110,000
General direct cost		2,158,420		2,100,000		2,359,000		2,355,000
Budgeted salaries		4,626,732		5,026,151		6,518,053		6,731,227
Overtime (all programs)		13,461		25,000		15,000		15,000
Education and training (all)		248,956		280,000		255,000		265,000
Danish state pension (all)		119,836		115,000		115,000		115,000
Total general cost		7,167,405		7,546,151		9,262,053		9,481,227
% of ICES income		54		53		51		52
% of ICES expenditure		16		16		21		21

interest	150,212		100,000		100,000		100,000	
Sum above	42,183,409	44,149,797	42,827,940	46,918,440	44,767,088	44,867,088	44,974,353	45,524,353
Sum in account budget	42,183,409	44,149,797	42,827,940	46,918,440	44,767,088	44,867,088	44,974,353	45,524,353
Difference	0	0	0	0	0	0	0	0



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Finance Committee

May 2015

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Agenda Item 5.3

Overview of on-going external projects and projects in the pipeline

Finance Committee is invited to take note of current and planned ICES project participation.

2015

Project Title	Responsible	Starting Date	Completion Date	Grant Amount *) (DKK)	2015:Hours Expected Project income **) (DKK)	Participants	Estimate cost/Travel	Estimate hours*	Estimate hours*2	Total Hours(realised + estimate) + %	Maximum Contribution %	Maximum Contribution	% Adm.	% Advice	% Science	% Data
2016 - EEA-ETC-IMC	JNJ - Data	1 January 2014	31-Dec-18	N/A	558,000	Neil			558,000	669,600	602,640	602,640				100
2017 - Sea Data Net II	NH - Data	1 October 2011	30-Sep-15	1,190,000	256,000	Neil			256,000	437,760	328,320	328,320				100
2022 - Micro B3	NH - Data	1 January 2012	31-Dec-15	1,160,000	125,000	Neil			125,000	213,750	160,313	160,313				100
2028 - EMODnet Chem II	NH-Data	1 May 2013	31-Dec-16	820,000	247,000	Neil					200,000	200,000				100
2030 - EMODnet Bio II	NH-Data	1 June 2013	31 May 2016	750,000	112,500	Neil			#VALUE!		112,500	112,500				100
2031 - BALSAM	NH-Data	1 October 2013	31 May 2015	410,000	206,000	Neil			#VALUE!		200,000	200,000				100
DG MARE Tender 2014/19	H Kjems N	Spring 2015	End of 2015	20,000	0	Henrik Kjems Nielsen	20,000	0								100
Total				2,000,000	946,500		0				1,603,773	1,603,773				
Project Title	Responsible	Starting Date	Completion Date	Grant Amount *) (DKK)	2015:Hours Expected Project income **) (DKK)	Participants	Estimate cost/Travel	Estimate hours*	Total Hours(realised + estimate)	Total Hours(realised + estimate) + %	Maximum Contribution %	Maximum Contribution	% Adm.	% Advice	% Science	% Data
2032 - MAREFRAME	WW-Science	1 January 2014	31-Dec-17	420,000	60,000	Cristina, Eskild, MDC, Wojciech	11,000	80	60,000	79,800	75% personnel + 46% overhead, 100% other	59,850		70	30	
2024 - COFASP - ERA-NET	WW-Science	1 February 2013	1 February 2017	750,000	48,000	Adi, Wojciech	110,000	70	40,000	48,000	120%	48,000			100	
BG8 AtlantOS	NH-Science	Spring 2015	Summer 2019	1,788,000	300,000	Mark, Neil	45,000	320	240,000	300,000	125%	300,000			50	50
BG11 COLUMBUS	WW-Science	Spring 2015	Spring 2018	450,000	43,750	Adi, Wojciech	40,000	60	35,000	43,750	125%	43,750			100	
BG13 SEACHANGE	WW-Science	Spring 2015	Spring 2018	100,000	15,000	Adi, Wojciech	15,000	25	subcontract	subcontract	100%	15,000			100	
BG14 AORAC	ACB-GenSec	Spring 2015	Spring 2020	7,405,000	600,000	ACB, MDC, Neil, Wojciech	500,000	900	600,000	750,000	100%	600,000	20	20	30	30
Total				11,719,000	1,066,750		1,021,000		975,000	1,221,550		1,066,600				
												2,670,373				
In Pipeline																
Project Title	Responsible	Starting Date	Completion Date	Grant Amount *) (DKK)	2016: Hours Expected Project income **) (DKK)	Participants	Estimate cost / travel	Estimate hours*2	Total (realised + estimate)	Total Hours (realised + estimate) + %	Maximum Contribution %	Maximum Contribution	% Adm.	% Advice	% Science	% Data
LME LEARN	WW-Science	End 2015/start 2016	Summer 2018	806,000	0	Adi, Wojciech	300,000	0		0	100%				100	
BG1 ACUATIK	Sebastian	Jan-16		3,700,000	600,000	Terhi, Sebastian	600,000	1,200	480,000	600,000	125%	600,000	75	25		
BG1 Sustainblue	WW-Science	Jan-16				Wojciech, Neil, Terhi					125%					
BG2 ClimeFish	Scott	Jan-16		1,700,000	400,000	Scott	100,000			400,000	125%	400,000				
Interreg Baltic Sea Region	WW-Science	Jan-16		500,000		Wojciech, Terhi	83,000	150	75,000	86,250	86,25%	74,400	25		75	
EINFRA9 BlueBridge	Anna Davies	Jan-16		3,300,000		Anna, Rachel, Neil	25,000	1720	860,000	1,075,000	125%	1,075,000	50		50	
Total												2,149,400				

2016

Project Title	Responsible	Starting Date	Completion Date	Grant Amount) (DKK)	2016: Expected income **)	Hours Project (DKK)	Participants	Estimate cost/Travel	Estimate hours*	Estimate hours*2	Total Hours (realised + estimate) + % Overhead	Maximum Contribution %	Maximum Contribution				
2016 - EEA-ETC-IMC	JNJ - Data	1 January 2014	31-Dec-18	N/A		558,000	Neil			558,000	669,600	602,640	602,640				100
2028 - EMODnet Chem II	NH-Data	1 May 2013	31-Dec-16	820000		247,000	Neil			247,000		200,000	200,000				100
2030 - EMODnet Bio II	NH-Data	1 June 2013	31 May 2016	750000		112,500	Neil			112,500		112,500	112,500				100
Total						917,500			0	917,500		915,140	915,140				
Project Title	Responsible	Starting Date	Completion Date	Grant Amount) (DKK)	2016: Expected income **)	Hours Project (DKK)	Participants	Estimate cost/Travel	Estimate hours*	Estimate hours*2	Total Hours (realised + estimate) + % Overhead	Maximum Contribution %	Maximum Contribution				
														% Adm.	% Advice	% Science	% Data
2032 - MAREFRAME	WW-Science	1 January 2014	31-Dec-17	420,000		75,000	Cristina, Eskild, MDC, Wojciech	11,000				75% personnel + 46% overhead, 100% other					
2024 - COFASP - ERA-NET	WW-Science	1 February 2013	1 February 2017	750,000		48,000	Adi, Wojciech	60,000	120	75,000	99,750	120%	74,813	70		30	
BG8(AtlantOS)	NH-Science	Spring 2015	Summer 2019	1788000		330,000	Mark, Neil	52,000	350	260,000	330,000	125%	330,000			50	50
BG11 COLUMBUS	WW-Science	Spring 2015	Spring 2018	450000		62,500	Adi, Wojciech	22,500	90	50,000	62,500	125%	62,500			100	
BG13 SEACHANGE	WW-Science	Spring 2015	Spring 2018	100000		15,000	Adi, Wojciech	15,000	25	subcontract	subcontract	100%	15,000			100	
BG14 AORAC	ACB-GenSec	Spring 2015	Spring 2020	7405000		800,000	ACB, MDC, Neil, WW	1,000,000	1100	800,000	1,000,000	100%	800,000	20	20	30	30
EINFRA9 BlueBridge	Anna Davies	Jan-16		3,300,000			Anna, Rachel, Neil	25,000	1720	860,000	1,075,000	125%	1,075,000	50		50	
Total						1,330,500			0	2,085,000			2,405,313				
													3,320,453				
In Pipeline																	
Project Title	Responsible	Starting Date	Completion Date	Grant Amount) (DKK)	2016: Expected income **)	Hours Project (DKK)	Participants	Estimate cost/Travel	Estimate hours*	Estimate hours*2	Total Hours (realised + estimate) + % Overhead	Maximum Contribution %	Maximum Contribution	% Adm.	% Advice	% Science	% Data
LME LEARN	WW-Science	End 2015/start 2016	Summer 2018	806,000		0	Adi ,Wojciech	270,000	300,000	0	0	100%				100	
BG1 ACUATIK	Sebastian	Jan-16		3,700,000		600,000	Terhi, Sebastian	600,000	1,200	480,000	600,000	125%	600,000	75	25		
BG1 Sustainblue	WW-Science	Jan-16					Wojciech, Neil, Terhi					125%					
BG2 ClimeFish	Scott	Jan-16		1,700,000		400,000	Scott	100,000			400,000	125%	400,000				
Interreg Baltic Sea Region	WW-Science	Jan-16		500,000			Wojciech, Terhi	83,000	150	75,000	86,250	86,25%	74,400	25		75	
Total													1,074,400				

2017

Project Title	Responsible	Starting Date	Completion Date	Grant Amount *) (DKK)	2017: Expected Project income **) (DKK)	Participants	Estimate cost/Travel	Estimate hours*	Estimate hours*2	Total (realised estimate) +	Total (realised estimate) + Overhead	Hours + %	Maximum Contribution %	Maximum Contribution	% Adm.	% Advice	% Science	% Data
2016 - EEA-ETC-IMC	JNJ - Data	1 January 2014	#####	N/A	558,000	Neil			558,000			669,600	602,640	602,640				100
Total					558,000			0	558,000	0			602,640	602,640				
Project Title	Responsible	Starting Date	Completion Date	Grant Amount *) (DKK)	2017: Expected Project income **) (DKK)	Participants	Estimate cost/Travel	Estimate hours*	Estimate hours*2	Total (realised estimate) +	Total (realised estimate) + Overhead	Hours + %	Maximum Contribution %	Maximum Contribution	% Adm.	% Advice	% Science	% Data
2032 - MAREFRAME	WW-Science	1 January 2014	#####	420,000	75,000	Cristina, Eskild, MDC, Wojciech	11,000	120	75,000		99,750	75% personnel + 46% overhead, 100% other	74,813			70	30	
2024 - COFASP - ERA-NET	WW-Science	1 February 2013	1 February 2017	750,000	48,000	Adi, Wojciech	60,000	70	40,000		48,000	120%	48,000				100	
BG8(AtlantOS)	NH-Science	Spring 2015	Summer 2019	1788000	330,000	Mark, Neil	52,000	350	260,000		330,000	125%	330,000				50	50
BG11 COLUMBUS	WW-Science	Spring 2015	Spring 2018	450000	62,500	Adi, Wojciech	22,500	90	50,000		62,500	125%	62,500				100	
BG13 SEACHANGE	WW-Science	Spring 2015	Spring 2018	100000	15,000	Adi, Wojciech	15,000	25	subcontract from UNESCO		subcontract	100%	15,000				100	
BG14 AORAC	ACB-GenSec	Spring 2015	Spring 2020	7405000	800,000	ACB, MDC, Neil, WW	1,000,000	1100	800,000		1,000,000	100%	800,000	20	20	30	30	
EINFRA9 BlueBridge	Anna Davies	Jan-16		3,300,000		Anna, Rachel, Neil	25,000	1720	860,000		1,075,000	125%	1,075,000	50			50	
Total					1,330,500			0	1,225,000				2,405,313					
													3,007,953					
In Pipeline																		
Project Title	Responsible	Starting Date	Completion Date	Grant Amount *) (DKK)	2017: Expected Project income **) (DKK)	Participants	Estimate cost/Travel	Estimate hours*	Estimate hours*2	Total (realised estimate) +	Total (realised estimate) + Overhead	Hours + %	Maximum Contribution %	Maximum Contribution	% Adm.	% Advice	% Science	% Data
LME LEARN	WW-Science	End 2015/start 2016	Summer 2018	806,000	0	Adi ,Wojciech	270,000	300,000	0		0	100%					100	
BG1 ACUATIK	Sebastian	Jan-16		3,700,000	600,000	Terhi, Sebastian	600,000	1,200	480,000		600,000	125%	600,000	75	25			
BG1 SustainBlue	WW-Science	Jan-16				Wojciech, Neil, Terhi						125%						
BG2 ClimeFish	Scott	Jan-16		1,700,000	400,000	Scott	100,000				400,000	125%	400,000					
Interreg Baltic Sea Region	WW-Science	Jan-16		500,000		Wojciech, Terhi	83,000	150	75,000		86,250	86,25%		74,400	25		75	
Total													1,074,400					

Capital Reserve Fund

The Capital Reserve Fund (CRF) was established in the early 1970s to balance short-term liquidity matters, to meet budgetary appropriations and unforeseen, or other authorised, purposes. According to a 2010 Council decision its size is targeted to be 20% of **total income**. The development of the CRF is presented in the table below.

By the end of 2014, the CRF was at 8,400,909 DKK and invested in Danish short-term bonds listed on the Copenhagen Stock Exchange.

Development of the CRF Fund:

Date	CRF	% of Salaries	% of Natl Contrib. and MoU	% of/Total Income
31-Dec-00	2,014,176	12%	9%	7%
31-Dec-01	2,049,523	12%	9%	7%
31-Dec-02	2,094,547	12%	9%	8%
31-Dec-03	2,544,466	13%	11%	9%
31-Dec-04	2,644,505	14%	10%	9%
31-Dec-05	3,128,999	17%	12%	10%
31-Dec-06	3,783,990	20%	14%	11%
31-Dec-07	3,891,756	19%	13%	11%
31-Dec-08	5,358,686	25%	17%	15%
31-Dec-09	5,815,970	26%	18%	16%
31-Dec-10	7,992,824	36%	25%	20%
31-Dec-11	8,181,711	32%	23%	20%
31-Dec-12	8,410,096	30%	23%	20%
31-Dec-13	5,392,023	17%	15%	13% ¹
31-Dec-14	8,400,909	26%	23%	20%

¹ Due to late payment of national contributions, money was borrowed, with security in bonds in the Capital Reserve Fund (repo), in order to maintain normal operations. The money was repaid in March 2014. Thus the Capital Reserve Fund is now again at its obligatory level of 20% of the total income.

Strategic Investment Fund (SIF)

At the end of 2012, a total of 18,889,285 DKK had been allocated to the SIF and the same amount has been committed by Council decisions (Table 1).

The ICES Science Fund 2014–2015 and the future

In 2014, DKK 500,000 has been used on the ICES Science Fund activities according to Table 1 and note 11 of the Final Accounts for 2014.

In October 2014 Council likewise decided to set aside DKK 500,000 for the ICES Science Fund.

The first and second rounds of proposals for the ICES Science Fund received a total of 21 proposals. The proposals were presented at the SCICOM SharePoint site and ranked by SCICOM using a ranking tool, grading the proposal from high (5) to low (1). A subgroup was formed which evaluated the proposals taking into consideration the ranking provided by SCICOM and made a shortlist for presentation at SCICOM Midterm meeting. SCICOM decided to fund eight projects in 2014, and seven projects in 2015. The projects vary in scope and timing, some will be completed during a short workshop, while some will be conducted over 12 months. The Chair of SCICOM, Yvonne Walther will present during the June Bureau meeting an initial review of the scope and aims of the Science Fund, and report on progress of the evaluation of whether the money is well invested after the first year. A final report will be presented to Council in October.

After reimbursement of the 2015 seven projects, there will be a remaining sum of DKK 100,130 left in the SIF.

Table 1: SIF Projects decided by Council

		Used	Used	Used	Used	Used	Used	Used	Projections	Remaining
Project	Committed	2008	2009	2010	2011	2012	2013	2014	2015	
Climate Change	600,000	-63,932	-83,996	-346,190	-105,882					
Young Fishermen	320,000	-49,571	-39,864	-45,708	-50,128	-134,729**				
SAHFOS	1,700,000		-1,377,259		-322,741					
MARCOM +	2,200,000	-196,621	-599,982	-341,445	-566,904	-495,049				
Training Programme	3,000,000		-275,800	-447,549	-692,089*	-519,609	-414,895			
Reallocated from external advisory review and Young Fishermen						450,073				
SCICOM secretary	450,000		-150,000	-150,000	-150,000					
Support of the budget 2010	642,000			-642,000						
Baltic Commitment	100,000				-100,000					
SCICOM Strategic Initiatives	600,000			-174,381	-392,466	-33,153				
Early Career Symposium 2012	400,000					-400,000				
Advisory Transition	5,300,000	-1,450,200	-1,760,547	-2,089,253						
Advisory Review	916,284				-174,962	-425,978				
Reallocated to training programme						-315,344				
SCICOM Chair & Travel	2,661,002		-697,503	-708,102	-663,926	-591,472				
Science fund								-500,000	-500,000	
Total	18,889,286	-1,760,324	-4,984,9541	-4,944,628	-3,219,095	-2,465,260	-414,895	-500,000	-500,000	100.130

* Of which DKK 124,058 is related to 2010.

** Bureau decision February 2012 to discontinue the funding and return the residual amount to the Equity.

Number	Title	Applicant 1	Applicant 2	Start date	Duration	Funding (DKK)	Funding (Euros)
01.	Exchange of knowledge for Integrated Ecosystem Assessment (IEA-Exchange)	Saskia A. Otto	Geir Ottersen	01-05-2015	12 months	57.500	7,718
02.	Implementation of a time-series MONitoring programme on MIcrobial phylogenetic COmposition (MOMICO)	Alejandra Calvo-Díaz	Eva Teira	01-05-2015	12 months	50.000	6,711
03.	Social transformations of marine social-ecological systems	Sebastian Villasante	Olivier Guyader	15-05-2015	12 months	66.216	8,888
06.	Can pelagic gastropods be used to assess the impacts of ocean acidification?	Pablo Leon Diaz	Prof. Miep Helfrich	01-06-2015	12 months	60.000	8054
10.	Study of micronecton and macro zooplankton with a broadband echo sounder	Marian Peña	Per Lunde	01-05-2015	12 months	50.000	6,711
19.	Developing species specific Heat Shock Protein (HSP) sequences for the invasive round goby to assess their environmental stress in the Baltic Sea	Riikka Puntila	Jane W. Behrens	01-05-2015	12 months	82.000	11,007
21.	POPSIZE - Estimating effective population size in populations of marine fish: an approach using inter-annual fluctuations of the genetic composition	Sara Francisco	Halvor Knutsen	01-05-2015	12 months	135.000	18,121
TOTAL						500.716	



Science Fund and SCICOM Strategic Initiatives, beyond 2015

The Council approved a new Science Fund for the year 2014, which was continued in 2015, with a maximum amount of 500,000 DKK/year. During the first two years the Fund was financed from the Strategic Investment Fund. Furthermore, the Council in 2014 agreed to use necessary funds from equity for SCICOM strategic activities in 2017 and specifically to support the joint ICES/PICES early Career Scientist Conference in 2017.

Decided at Council:

Action: Council approved the use of a maximum of 500,000 DKK from the Strategic Investment Fund to support the Science Fund in 2015. Before considering the longer-term funding for the Science Fund, Council requested SCICOM to review the outputs from the 2014 and 2015 science funds. SCICOM should pay particular attention to how project results have been integrated into ICES work in relation to implementation of the ISP. The longer-term viability of the Science Fund will be discussed at the 2015 Council meeting and will be considered in the work of the CWGIBM (see 5.1 above).

The Strategic Investment Fund has now been exhausted, other ways of financing must be sought, taking into account the financial footing of ICES, and the work of the Council Working Group on the ICES Business Model.

The Finance Committee is invited to consider these two initiatives, and their financial sustainability having in mind the draft ICES Business Model.

The SCICOM Chair Yvonne Walther will present at the June Bureau meeting an initial review of the scope and aims of the Science Fund, and report on progress of the evaluation of whether the money is well invested after the first year of the programme that will be presented to Council in October.

Proposal for investment in SCICOM activities 2015–2018

In February 2010, ICES Bureau agreed to provide funding to SCICOM in order to strengthen SCICOM operations beyond national contributions, to enhance participation of early career scientists (ECS) in the ASC, and to kick-off new SCICOM priority areas from the ICES Science Plan in 2010, under the direction of SCICOM and advice from ACOM. In total, 600K DKK led to the establishment of the SCICOM Strategic Initiatives, to the recurrent travel support for ECS from ICES member (and, if available affiliate) countries and to regular mutual support of theme sessions at ICES and PICES annual science conferences.

The funding was well invested and supported the successful performance of SCICOM over the past six years. Four Strategic Initiatives were established under SCICOM, some with joint ownership with ACOM, and a total of 13 topical sessions or workshops were supported by travel funds provided to ICES co-conveners and keynote speakers. In turn, PICES supported a total of 15 theme sessions at ICES ASCs. As another example, a total of 118 ECS received travel support for the ASC since 2010, some of which even won the prestigious ECS Award at the ASC (best presenter, best poster).

The Strategic Initiatives: The **ICES-PICES Strategic Initiative on Climate Change effects on Marine Ecosystems (SICCME)** formed during 2011 emerging from the P/ICES Working Group on Forecasting Climate Change and its Impacts on Fish and Shellfish. Ever since, SICCME produced several peer-reviewed publications, actively contributed to organizing two ICES/PICES/IOC Conferences on Climate Change Impacts on the World's Oceans in Yeosu, Korea, and in Santos, Brazil, and organized three workshops on climate modelling and forecasting in Friday Harbor (US), St. Petersburg, Russia, and Seattle (US).

The **SCICOM/ACOM Strategic Initiative on Area-based Science and Management (SIASM)** formed in 2010 and spurred two workshops on marine spatial planning science issues, one jointly with OSPAR and HELCOM (WKMCMS 2010 and 2011). WKMCMS produced several peer-reviewed publications and an interactive computer-run game on the topic of spatial planning. The game has resulted in a proposal under HORIZON 2020 for further development. SIASM successfully concluded its activities in 2012.

The **Strategic Initiative on Biodiversity Science and Advice (SIBAS)** organized a workshop on biodiversity science and its application to producing advice (WKMARBIO) in 2011 with participation of the Regional Conventions and CBD. SIBAS participated in several biodiversity-related science symposia and recently established ICES participation in the IPBES global biodiversity initiative (Intergovernmental Science-Policy Platform on

Biodiversity and Ecosystem Services). SIBAS was dissolved by SCICOM in 2015.

Strategic Initiative for Stock Assessment Methods (SISAM) started with a workshop (WKADSAM) in 2010 which produced an overview of existing stock assessment models/methods with good participation of RFMOs and scientists worldwide. SISAM activities culminated in another workshop and subsequent science symposium held in Boston, US in summer 2013 and the results published in the ICES JMS. In addition, SISAM spurred several theme sessions at ICES ASCs.

Since 2014 a new Strategic Plan is in place with an ambitious science element. The implementation of the plan, the current engagement of ICES in the implementation of the MSFD and the EU Maritime Policy will impose additional tasks for the science community. Having in view the current workloads in the ICES member institutes, putting the science element into practice will require additional resources. In addition, ICES has two new strategic areas, the Arctic and Aquaculture. While good working relationships with the key players have been established in both these fields, the next stage is to actively participate in the main events and involve ICES Expert Groups and key scientists by providing travel money.

ICES has committed to an Ecosystem Based Approach to Management (EBM) and has put Integrated Ecosystem Understanding at the core of its Strategic Plan and the Implementation Plans. This Integrated Ecosystem Understanding requires not only the physical and ecological, but also the human dimension to be an integral part of ICES work. The Human Dimension encompasses the social, cultural, economic and governance aspects of the EBM. For an integrated understanding of marine socio-ecological systems, methodologies from the natural and the social sciences need to be applied as well as methodologies integrating across disciplines to be developed. Whereas the natural sciences are strongly developed within ICES, social sciences are considerably less well developed and not used to their full extent. Further, if the understanding is to be translated into advice and management, the interface between science and policy, including the involvement of wider civil society, needs to be taken into account.

Consequently, a new Strategic Initiative was established: The **Strategic Initiative on the Human Dimension in Integrated Ecosystem Assessments (SIHD)** in order to explicitly address the Human Dimension in Integrated Ecosystem Assessment, not only considering the pressures of human activities on the ecosystem but to take into account social, cultural, economic and governance conditions when assessing the marine system and giving advice on its use.

The ICES Science Fund: All 2014 Science Fund projects have reported and have been evaluated. For the evaluation process SCICOM established a subgroup. One reviewer per report was assigned by SCICOM chair. The review and evaluation were based on the format below. The evaluations were discussed and finalised in a video meeting of the SCICOM subgroup:

- Did the project meet the objectives?
- Did the methodology fit the objectives?

- How well is the report presented?
- How does the project contribute to the ICES Strategic Plan/Science Plan?
- How can the results be used in the ICES community, create new initiatives?
- How was the results disseminated to ICES and elsewhere?
- Were there adequate links between Governmental and Academic Institutes?

All reviews were positive and recommend a finalization of the projects. Some general remarks were forwarded to be considered in future calls:

- Scope of the project was in some cases too wide and the Science Fund project was likely part of a bigger project. It is necessary to clarify what the Science Fund will be used for.
- Dissemination should be clearer especially the linkage with ICES Expert Groups, ASC Theme Sessions and science symposia
- Links to ICES Science Plan needs to be clearly recognizable.

For the future, SCICOM considered narrowing the thematic scope of the call for proposals with a closer linkage to the Strategic Plan and complementarity to the work of the Expert Groups.

The SCICOM Chair proposes the following funds for SCICOM activities:

Strategic Initiatives: biodiversity, climate change and impacts of marine living resources and human activities, stock assessment methods for the period 2015-2018: 441.000 DKK

Science cooperation with PICES: Travel support for ICES conveners and invited speakers at PICES Annual Meetings 2015-2018, meetings of the P/ICES Group on Strategic Cooperation: 165.000 DKK

It is good tradition also from PICES side to support conveners to ICES sessions at our ASCs.

Science cooperation with CIESM: Travel support for ICES conveners and invited speakers at CIESM Science Meeting 2016, meetings with CIESM scientists and secretariat on strategic cooperation: 20.500 DKK

The Arctic and aquaculture: Travel support for ICES EB scientists to participate in key events: 204.000 DKK

The ICES Science Fund: to continue and build on the 2014 and 2015 successful projects and deliverables: 1,575.999 DKK

Funding will be used to also address the new and unploughed areas of the science implementation plan, in support of low performance areas.

	2016	2017	2018	2016-18
Science Fund				
total grant	512000	525000	538000	1575000
SCICOM Strategic Initiatives				
SICCME	47000	49000	51000	147000
SISAM	47000	49000	51000	147000
SIHD	47000	49000	51000	147000
PICES scientific cooperation				
conveners/speakers at PICES				
ASM	33500	34000	34500	102000
Strategic P/ICES group meeting	20500	21000	21500	63000
CIESM scientific cooperation				
session convener, keynote				
speaker	20500			20500
Strategic science areas				
Aquaculture	33500	34000	34500	102000
Arctic	33500	34000	34500	102000
	794500	795000	816000	2405500

DRAFT
**Report from the Council Steering Group on the Marine Strategy Framework Directive
(CSG MSFD)**

This document provides the Council with a follow up from last year's report to Council and an overview of the work of CSG MSFD.

It highlights of some the work of ICES that is of relevance to the MSFD.

It proposes that the CSG continues its work for the next year and sets out a work plan if so agreed.

Background:

The CSG MSFD was established in 2011.

The CSG had two short meetings during 2015, online 9th July 2015 and at the ASC 25th September 2015. The reports of these meetings are available on sharepointⁱ.

In 2014, the CSG made a number of recommendations to Council and agree 5 separate ToRs for the CSG. Progress on these is reported.

Specific response to Actions/Recommendations from last year's CSG MSFD Report to Council.

Action: The Secretariat is asked to develop a paper on the intended participation, and purpose of future CSG MSFD annual meetings with external MSFD partners.

Response: The Secretariat prepared a list of over 60 people where were invited to the 2015 meeting between external partners and the CSG MSFD. These included the EU, EEA, OSPAR, HELCOM, JRC, Barcelona Convention, Black Sea Commission, UNEP/MAP, Oceana, FAO, VisNed, WWF, RAC/SPA, MSC. The meeting was attended by 12 external people, covering 11 different organisations – see below.

Recommendation: CSG MSFD welcomes and appreciates very much that Bureau has (i) considered its concerns regarding ICES coordinated surveys at sea and (ii) tasked ACOM and SCICOM to conduct a review with a view to adapt and optimise existing surveys with a view to free resources for integration of ecosystem and environmental aspects.

ⁱ Available at <https://community.ices.dk/Committees/Council/CSGMSFD/SitePages/HomePage.aspx>

Response: The ICES/EFARO initiative on ICES and EFARO to cooperate on developing two pilot studies to streamline surveys and data collection using vessel surveys is in place – see below.

Recommendation: The SCICOM chair, Yvonne Walter was asked to consider how to ensure the involvement of and synthesis from the work of the SCICOM expert groups, including suggestions for possible new mechanisms or better use of existing mechanisms, as well as potential barriers to better integration of MSFD work within the ICES Science pillar.

Response: Discussions have taken looking at an IEA symposia bringing all the IEAs together to discuss the methods and processes used and how to serve policies.. The aim would be to share experiences, present results from each Group and discuss scientific products such as:

- Produce a manuscript on the issues surrounding IEA and the way forward – covering both ecosystem and human wellbeing and related policies such as MSFD, possibly as a food-for-thought paper in ICES JMS.
- Develop a position paper on a possible future H2020 project call in the arena of IEAs.

Recommendation: ACOM should be encouraged to continue developing proactive demonstration advice where appropriate, e.g. on integrated advice on basis of the ecosystem overviews and emerging integrated assessments, to be presented to the relevant authorities as basis for dialogue on further development of advice needs.

Response: MSFDEmo Working Group was established to demonstrate a regional approach (Celtic Seas) to the application of fisheries related science to the implementation of the Marine Strategy Framework Directive –see below.

Progress on ToRs

- 1. *To identify the principal elements of ICES work that are relevant to the implementation of the MSFD, and to consider how best to achieve the internal coordination of these elements.***

The principle elements of ICES work related to the MSFD are identified at **Annex I**. These clearly show the extent and broad nature of the work currently being undertaken by ICES that is relevant to the MSFD. Given the requirement of the MSFD to apply adaptive management based on the ecosystem approach to achieve Good Environmental Status (GES) most of the work of ICES is in some way relevant.

Examples during the past year where coordination facilitated by the CSG include:-

- Input of MSFD monitoring needs to the EFARO/ICES Survey initiative
- Identification of the needs relating to the benthic habitat assessments
- Exchange with Clients on MSFD Science needs
- Progress on the “clean up” of DATRAS for MSFD needs

These are discussed in more detail below.

Action:- Council is requested to note the range of MSFD related work ongoing in ICES and areas where coordination was facilitated by the CSG.

2. *Maintain strategic oversight of how current or new working arrangements with strategic cooperation partners, principally the European Commission, OSPAR, and HELCOM, may be best used to link the ICES Science and Advice structures to those of the Regional Seas Conventions so that ICES can provide appropriate input to the continuing MSFD process.*

The CSG invited our Strategic Partners (EU, EEA, OSPAR, HELCOM, JRC, Barcelona Convention, Black Sea Commission, UNEP/MAP, Oceana, FAO, VisNed, WWF, RAC/SPA, MSC.) to meet in Brussels, 22nd May 2015, back to back with the DGMare and DGENv "Marine environment and fisheries" workshop facilitated by ICES. The meeting was kindly hosted by the Royal Belgian Institute of Natural Science (BNIS) and the report is available on the sharepoint ⁱ.

The partners that attended included OSPAR, HELCOM, EEA, JRC, VisNed and representatives from a number of Member States. A written submission was received from The Barcelona Convention. The discussions were wide ranging.

A number of areas were identified at the meeting where input from ICES could be particularly helpful, including:-

- Data management and quality control at a regional scale for regional-scale indicator and assessment procedure needs to be transparent, effective and regular clear guidelines for data flows need to be established. Several types of data streams will be required that include not only species composition from more traditional monitoring programs, but also data on pressure(s), benthic habitat modelling, and other supporting environmental variables.
- Scientific input on methods to evaluate indicators used and measures implemented to achieve good environmental status (GES).
- Coordinated and integrated monitoring balancing limited resources and survey optimisation. Workshop to Plan and Integrate Monitoring Program in the North Sea (WKPIMP) was identified. Consideration could be given to collaboration with industry as monitoring platforms. The AtlantOS project – kicking off this year to integrate monitoring and marine monitoring technologies.
- Methods for integration/aggregation of indicators and descriptors are required – MSFDEmo is looking at this.
- A focused discussion on developing standard methods for assessing impacts on benthic habitat, from anthropogenic activities such as fisheries or eutrophication, took place in the afternoon. Issues regarding the interpretation of VMS maps provided by ICES to infer impacts were identified.

ICES is working on providing advice and input on all of these issues. In particular the CSG is working closely on :-

- The ICES/EFARO initiative to cooperating on developing two regional pilot studies to streamline surveys and data collection using vessel surveys. As agreed at the CSG in September, the CSG is preparing input on the monitoring requirements in relation to agreed and potential MSFD indicators. CSG has sought input from the SG on Integrated Ecosystem Observation and Monitoring (SGIEOM). WGMSFDemo has considered new approach to integrated ecosystem monitoring developed by in the TIME and the JMP NS/CS projects and has developed a stratification map for demonstration purposes for the Celtic Sea that reflects meaningful ecosystem entities which could be used to allocate survey stations by stratum and to collect sampling/monitoring data on this basis. The CSG will provide this information to the ICES/EFARO initiative and further consideration is needed to ensure coordination between MSFDemo and the ICES/EFARO initiative.
- In relation to developing standard methods for assessing impacts on benthic habitat ICES had made some progress. It has provided advice in 2015 to both HELCOM and OSPAR on pressure maps based on VMS and Log Book dataⁱⁱ. The CSG see this as an important issue as there is the risk of misinterpretation of the data. In particular, the need to examining the pressure-ecosystem component relationship (including frequency, resilience and recovery) and establishing the swept area at an appropriate scale so as to avoid overestimated or underestimating pressures and impacts. ICES advice on developing standardise methods would be valuable and, working with partners, the following progress is expected in 2016:-
 - **DG-ENV:** As part of the 2015 DG-ENV requests (still pending) ICES will be requested to provide, “Guidance on how pressure maps of fishing intensity contribute to an assessment of the state of sea bed habitats.” The next challenge in the process of developing indicators is to interpret what fishing pressure maps based on VMS and logbook data ([OSPAR](#) and [HELCOM](#)) mean in terms of impact on benthic habitats and their utility in management. Some European-funded projects and RSCs have made early progress on this, but central to the work requested by DG-ENV would be to identify both the environmental benefits and trade-offs for fisheries management. The work will be further illuminated by a separate ICES stakeholder workshop (Dec 2015, planned outside this request). ICES working groups will use both fishing pressure and available work on “maps of habitat sensitivity” (from EU projects such as BENTHIS, RSCs and ICES working groups) to investigate the robustness of assumptions associated with the methods in relation to fishing pressure (i.e. the influence of the assumptions on the sensitivity scores will be examined). A further workshop will be used to evaluate and synthesis the overall findings aimed at tangible use of indicators of the state of the seabed in relation to fishing pressure. This will provide a foundation for exploration of the environmental

ⁱⁱ Fisheries spatial data products (VMS data call) Data layers and shape files of fishing activity in the ICES area, based on VMS and logbook data available [HELCOM Area](#) and [OSPAR Area](#)

benefits and trade-offs for fisheries management. The work will be reviewed and lead to formal ICES advice published in 2016.

- **OSPAR** has requested ICES advice to further develop fishing intensity/pressure maps based on VMS and logbook data using 2014 data. This advice for OSPAR, will also look into the applicability/use of AIS data, as well as how alternative smaller grids (smaller resolution than 0.05°) can be used to improve the analysis of fishing abrasion data.
- **HELCOM** has recently received funding for their BalticBOOST project that will be used to make their HOLAS II (Second Holistic Assessment of the Ecosystem Health of the Baltic Sea, 2014–2018) a more complete assessment of the Baltic Sea, which will also be used in the next MSFD reporting cycle in 2018. Within the BalticBOOST project there will be a “physical loss and damage to seabed habitats” theme 3, under which ICES will be involved in two work package: “WP 3.1 Development of joint principles to define environmental targets for pressures affecting the seabed habitats” and “WP 3.2 Development of a tool to assess the impact of fisheries on seabed habitats”
HOLAS II: <http://www.helcom.fi/helcom-at-work/projects/holas-ii>
- WGMSFDemo identified the need to establish a standardise protocol to “clean up” the DATRAS data and the production of an ICES data product suitable for the calculation of MSFD Indicators, particularly biodiversity (D1) and foodwebs (D4). WGBIODIV is also looking at developing community level biodiversity indicators which will require such a data product. Presently, a group consisting of ICES/Marine Scotland/Cefas is working on developing this product which will include a protocol and programme to produce the data product.
- Indicator integration/aggregation was also discussed by MSFDemo and it is intended to progress this through a theoretical exercise of D3 Fish Indicators, targets and expert judgement.

Actions:- Council is requested to **note** the range of progress on MSFD related work outlined above.

3. To consider how ICES can best contribute to the development of (a) integrated surveys and monitoring in support of the MSFD, (b) programmes of measures, c) integration across indicators, and d) cumulative effects.

Progress on (a) and (c) is outlined above. Member States are required to report their programmes of measures to the Commission by March 2016. The CSG have not addressed (d) in 2015.

4. Develop a strategy that encourages expert working groups under both the advisory and science committees to contribute to producing high-quality MSFD advice products.

Not addressed by CSG in 2015.

5. To create the opportunity to co-convene an MSFD related symposium in 2014/2015 with recipients of ICES advice and interested collaborative partners.

Not addressed by CSG in 2015.

The Future of the MSFD CSG

At the CSG meeting during the ASC the need for the continuation of the CSG was discussed and it was agreed to propose to Council that the group continue its work for another year. It was further suggested that the mandate of the group should be broadened from the current MSFD focus to include the Ecosystem Approach.

The added value of the CSG identified include:-

- It is a platform for ICES to have a strategic view of all MSFD/Ecosystem Approach work of ICES
- By reporting to Council each year it facilitates an awareness of the level and nature of the effort ICES is investing in MSFD/Ecosystem Approach.
- It facilitates the development of stronger links and a coordinated approach across the relevant environmental / fisheries and scientific / advisory ICES work streams.

The counter to this is that the work on MSFD issues are now part of the normal operations of ICES and that coordination could be taken up by the SCICOM/ACOM/and DIG.

CSG MSFD Workplan 2015/16

- To continue to make progress on the 5 ToR agreed at last year's Council meeting
- To progress the work of the CSG outlined in this report
- The CSG working closely with the Ecosystem Approach Coordinator, ICES Leadership and Secretariat, and informed by the MSFD/Ecosystem Approach work in ICES identify specific products that ICES could deliver to support the EA approach over the present and next MSFD cycle – up to 2014.
- Consider how best to coordinate the indicator development and assessment required under the DCR and the MSFD
- To oversee development of a mechanism and working relationship between ICES and the DCF regional coordination groups to ensure that data end-users receive appropriate input for MSFD and EA advice.
- To identify appropriate mechanisms to deliver these products.

Action:

Council requested to **decide** on the continuation of the CSG and, as appropriate, to

- i) **Agree** broaden its mandate to Ecosystem Approach and MSFD
- ii) **Endorse** the CSG MSFD Workplan outlined above
- iii) **Support** the appointment of a CSG Chair for the next year.

The principle elements of ICES work related to the MSFD

Meetings of [WGNARS](#), [WGINOSE](#), [WGEAWESS](#) and [WGIAB](#)

Many ICES IEA groups met in the spring of 2015, they progressed methods, reviewed approaches, and further considered how ICES should conduct IEAs.

Operational products for IEAs

During autumn 2014 and spring 2015, the ICES secretariat continued the development of products for IEA, in house (DATRAS, LFI, stock assessment graphs (SAG), and ecosystem overviews) and using external project and institutions (operation oceanographic products and services with MyOcean, Emodnet-biol/SAHFOS and IMR).

[ICES WGMSFDEmo](#)

The initiative for the application of fisheries-related science to the implementation of the MSFD was launched in January 2015, with WGMSFDEmo, where Ireland, UK and France tested their national indicators on shared datasets for the Celtic Seas. The first operational meeting in Dublin (28-30 April 2015) will explore how to assist OSPAR with its next assessment.

[MSFD review of descriptors](#)

In early 2015, ICES was provided advice to the EU on revisions to the Marine Strategy Framework Directive manuals for on foodwebs, fisheries and sea floor integrity.

[WKRISCO](#)

The Workshop on Regional Seas Commissions (RSCs) and Integrated Ecosystem Assessment Scoping met with OSPAR and HELCOM in November 2014. It reported on requirements for the RSCs with regards to their upcoming ecosystem assessments and explored the need for social scientists to engage in the ICES IEA work.

EU MSFD cross-cutting issues workshop

The ICES secretariat was part of the organising team for the EU workshop on cross cutting issues (integration) for the MSFD that took place in February. This workshop brought scientists and policy makers together from the EEA, HELCOM, OSPAR, UNEP, and member countries to consider how the status of the marine system should be assessed for both state and pressures. ICES staff and ACOM leadership took part.

EU MSFD D3+ workshop (4th Marine environment and fisheries workshop) with DGENV and DGMARE

The ICES secretariat is to lead the forth EU workshop on issues associated with fishing and the MSFD (often called D3+). Preparations are ongoing for the May workshop.

Data base and operationalising eutrophication indicators for HELCOM

The ICES data centre is acting as the data base and data manager for HELCOM for their eutrophication information. ICES is creating the system that provides the indicators for HELCOM.

New Advice format

The new advice format being produced by ACOM will be more integrated in structure with clear consideration of fisheries effects on the environment (through the ecosystem overviews) and an initial analysis of fishing fleets and methods delivered through dedicated workshops during 2015 (WKFAS).

Informal AORAC-SA with NOAA and DFO

In February 2015, the ICES secretariat had informal discussions with NOAA, FAO and the oil industry about critical next steps for implementation of the ecosystem approach in the Atlantic.

ICES WGMP CZM

The ICES Working Group for Marine Planning and Coastal Zone Management is running a series of workshops on the “bow-tie” risk evaluation method for integration of knowledge for integrated ecosystem assessments and management.

WGBIODIV

The ICES Working Group on Biodiversity continued its development for a Cooperative Research Report to act as a manual for considerations of biodiversity when working towards IEAs. This was done with input from the DEVOTES project.

Integrating advice on sea mammal bycatch in ICES advice

The Benchmark steering group is working with the marine mammal ecology and bycatch working groups to investigate methods for integrating bycatch information with standard fisheries advice. This will provide a template for advice related to other protected, endangered, and threatened (PET) species and ultimately may offer a model for inclusion of other ecosystem considerations in advice.

[FP7 project Mareframe](#)

This project continues to work on providing tools for the ecosystem approach. Many ICES scientists are playing key roles in the project and the project is working with the ICES secretariat.

[FP7 project Devotes](#)

This project continues to work on providing tools for the MSFD and how to estimate GES for biodiversity. Many ICES scientists are playing key roles in the project and the products are being fed into the ICES system.

Workshops on Integration

Mini workshops on integration were held as part of WGCHAIRS and HAWG. Both of these challenged the participants to consider what we mean by integration in ICES. The participants reported that the workshops had been useful.

ETC contribution to EEA development of fisheries and society indicators

The ICES secretariat began work through the European Topic Centre on developing a framework for integrated Europe-wide assessments of fishing and food provision.

[SSGIEA](#)

The Steering Group on Integrated Ecosystem Assessments develops integrated ecosystem assessment methodologies and approaches that allow the use of both qualitative and quantitative information, and which can be used to address both specific advisory questions and broader ecosystem issues. SSGIEA met online in March 2015 to discuss progress and look to the future.

Benthic indicators for biodiversity

ICES has worked on an OSPAR request to develop and test biodiversity indicators for the benthic community. This work will be carried out during 2015.

Ocean Observing

[WGISUR](#) and Proposal for WK on Integrated Survey of North Sea

In spring 2015, WGISUR met to consider how to encourage operational progress on integrating ecosystem components into ICES surveys. A plan was formulated for a joint workshop with [IBTSWG](#) and [WGINOSE](#) to create an operational North Sea survey.

Joint ACOM/SCICOM report on survey requirements

The Workshop on the review of the ecosystem survey requirements (WKSUREQ) worked via correspondence during February. The report will soon be available.

Joint Monitoring Projects (JMP)

Members of the ICES network worked in the EU project JMP exploring opportunities for integrated ecosystem surveys for the North Sea and Celtic Seas. A final workshop is planned for spring 2015. <https://marinescience.blog.gov.uk/2014/09/10/eu-funded-joint-monitoring-projects/>

BALSAM

The ICES secretariat was subcontracted by HELCOM to work on the BALSAM project on integrated monitoring for the Baltic Sea. The final report has been submitted along with an associated action plan. There will be a joint meeting of BALSAM and JMP in Brussels in May. <http://helcom.fi/helcom-at-work/projects/balsam>

AtlantOS

The H2020 AtlantOS project (Optimizing and Enhancing the Integrated Atlantic Ocean Observing System) kicked off in spring 2015. This has the aim to achieve a transition from a loosely-coordinated set of existing ocean observing activities to a sustainable, efficient, and fit-for-purpose Integrated Atlantic Ocean Observing System (IAOOS). ICES scientists and members of the secretariat are playing various roles in the project.

BOOST

A new project proposal with HELCOM (BOOST) has been submitted. This has a clear role for ICES Data Centre to provide data services for ocean observing.

[SSGIEOM](#) met by Webex in 2015

The Science Steering Group on Integrated Ecosystem Observation & Monitoring is tasked with facilitating and working with the survey and technical groups in ICES. They recently met to look forward and plan activities to bring about the implementation plan for 2015 and beyond.

OSPAR request on how to handle large amount of observation data

In spring 2015, ICES carried out a technical service for OSPAR with ocean observing experts on best practice for data management when dealing with large amounts of data.

Operational products for IEAs.

Already mentioned above. In autumn 2014 and spring 2015, the ICES secretariat continued the development of OOPs. This was done through a call and the operation oceanographic products will cover coastal areas of both sides of the North Atlantic (with MyOcean, Emodnet-biol/SAFHOS and IMR).

Vulnerable Marine Ecosystems (VME) Database

The VME database and online portal, on which ICES Data centre has worked together with WGDEC, is ready to go live.

VMS data for ICES working groups

The ICES secretariat is facilitating coordination of VMS data and effort data for WGBYC, HAWG, WGDEEP and has worked with WGSFD to develop standard products.

Marine litter (offshore)

The DATRAS trawl reporting and Environment reporting formats have been extended in order to accommodate marine litter reporting from trawl surveys and environment surveys.

Descriptor 2 Non-indigenous Species activities:

The Working Group on Introductions and Transfers of Marine Organisms ([WGITMO](#)) is addressing MSFD D2 and this has been on the agenda for several years already. The relevant ToR for 2015 reads: 'Continue addressing EU MSFD D2 on further developing alien species indicators, incl. based on information available in AquaNIS and other sources'. WGITMO is using AquaNIS information system (hosted and managed by Klaipeda University, Lithuania) as a reporting platform for invasions and ICES Data Centre will hold since very soon copy of AquaNIS (with periodical updates).

A JRC representative attended WGITMO meetings in 2014 and 2015.



ICES
CIEM

International Council for
the Exploration of the Sea
Conseil International pour
l'Exploration de la Mer

Council Meeting 2015

October 2015

Cm 2015 Del-5

Agenda item 5

Council working group on Transatlantic Maritime Cooperation

Executive Summary

Chair: Cornelius Hammer

Council is invited to discuss the CWGMTC recommendation to Council:

To establish a longer term group, and to appoint a new Chair to continue to develop the issues of marine transatlantic research cooperation, ensuring ICES involvement. The group could be a forum for discussing potential models and mechanisms for coordination and regional funding. The group should be made of Council members, allowing for relevant experts to participate. The structure must be flexible to cover strategic, financial, and other issues that will present themselves.

Draft ToRs for this new group are presented in Section 2.

Council is also invited to take note of the recommendations of CWGMTC on the arctic.

1 CWGMTC Terms of Reference

ToR 1.

To summarize the main elements of the EU Maritime Strategy for the Atlantic Ocean Area and the subsequent Action Plan for the Maritime Strategy in the Atlantic Area, transatlantic cooperation agreements and initiatives (an example of the latter; the Galway Statement on Atlantic Ocean Cooperation), bilateral cooperation agreements, and any other relevant Atlantic research and cooperation agreements.

ToR 2.

To summarise existing ICES work and other relevant work carried out by ICES Member Countries in the area of maritime transatlantic cooperation, by reference to the agreements and initiatives summarised under ToR 1.

ToR 3.

To describe how the ICES cooperation structure could be used to facilitate and promote work under transatlantic cooperation agreements using the outputs from ToRs 1 and 2, including ICES position in relation to Horizon 2020 calls (e.g. BG-14-2014 "Supporting cooperation initiatives: Atlantic Ocean Cooperation Research Alliance").

ToR 4.

To identify new opportunities for trans-Atlantic marine science and research, that ICES could engage in to support the implementation of the ICES Strategic Plan, through the ICES network (expert groups, projects, databases, etc.), or by fostering strategic partnerships.

ToR 5

To develop an “Arctic roadmap” to identify ways ICES can be used to collaborate with partners and develop a focused plan for making progress on this important priority area.

Executive Summary

The WG came to the conclusion that there is a need for a longer-term high-level ICES working group (Council WG and inclusion of invited experts) to carry on the work being done by the present group. It should however, be designed as “think tank” focused on the long-term structures being necessary for successful transatlantic cooperation, especially with regard to research financing in the North Atlantic. It is foreseen by the group that in the long run a research funding body needs and will be developed that is similar or equivalent to a BONUS. The WG should be tasked to think of possible structures and how ICES could play a significant role in there. Strategically, this should be done in close cooperation and by making use of the AORAC project. Provisional ToRs for the group are given.

The Working Group proposes 15 fields and topics where ICES could support the transatlantic cooperation. These are inter alia, intensified cooperation with NASCO and NOAA in salmon research, provide a basis for solving problems caused by the implementation of the CFP with other RFMO (e.g. ICCAT, NAFO) for instance the discard ban, establish a transatlantic working group on survey strategies and optimization, create a transatlantic working group on deep sea marine protected areas and high seas conservation measures (including the arctic), strengthen relationships with universities and research organisations of the Americans via the Atlantos project and initiate exchange programmes for young scientists.

With regard to the Arctic it is recommended that the most appropriate way forward for ICES is to work within the Arctic Council, to join up with existing working groups and working structures and to supplement where gaps have been identified.

A document should be created that summarizes the results of the ICES Arctic work and analyses what kind of products the integrated ICES Arctic work produces and that assess the gaps and opportunities.

Moreover, the WG was of the opinion that ICES should:

1. Continue existing Working Groups to monitor and assess expanding living resources into the Arctic (recommendation of AFWG).
2. Expand the existing “ecology” Working Groups from their geographical remits into ice-free, open waters of the Arctic (zooplankton, benthos but also WGOH etc.; recommendation of AFWG).
3. Establish a working group on integrated Assessment on the Arctic or letting the existing working groups on integrated assessment develop into such.
4. Establish a survey-planning group (or expand the mandate of an existing group) for the Arctic waters that could coordinate existing surveys and identify gaps and survey needs (recommendation of AFWG).
5. Enlarge its data services with special emphasis on the Arctic Ocean.
6. Be proactive in designing conservation measures, e.g. investigating the appropriateness and dimension on Arctic MPAs.

7. Produce a comprehensive leaflet that explains to the public and the politicians what ICES competences and achievements in the Arctic are. It should present the results of the assessments and its science and based on this, demonstrate the need for scientific expansion.

2 Draft ToRs for the Council Strategic Initiative on Transatlantic Maritime Cooperation (CSI-TAMC)

The following draft ToRs for the Council Strategic Initiative on Transatlantic Maritime Cooperation (CSI- TAMC):

Based on the work already carried out in CWGMTC, as well as new information made available through e.g. projects and national programmes, and the oversight of the ICES transatlantic activities:

Draft ToR 1 provide strategic guidance to ICES groups involved in transatlantic maritime work

Draft ToR 2 Provide strategic guidance to Council on ICES role to ensure sustainable transatlantic marine observations, data management, and research cooperation, including ideas for structures and funding of joint research.

Draft ToR 3 To carry on the work of the previous CWGMTC, and to cooperate with the North Atlantic Research Alliance and to represent ICES within the alliance.

It was proposed by the WG to seek for either a Canadian or US Chair of the WG or for US/CAN Co-Chairs.

Members: An operational group of Council members, and other experts.
Depending on the agenda and topics to be discussed:
Chairs of the ICES transatlantic working groups
External cooperation partners

The full report of CWGMTC is available on the Sharepoint site:

<https://community.ices.dk/Committees/Council/CWGMTC/ layouts/15/start.aspx#/SitePages/HomePage.aspx>

Update on the Atlantic Ocean Research Alliance

The Atlantic Ocean Research Alliance¹ (AORA) is implementing the Galway Statement² signed on 24 May 2013. The Galway Statement establishes a formal Atlantic Ocean Research Cooperation between the European Union, its Member States, the United States of America, and Canada and partner countries that builds on existing initiatives and programmes to increase coherence and coordination of ocean research cooperation.

The following priority research areas adopted by the Atlantic Ocean Research Alliance were identified in the Galway Statement:

- Ocean stressors (marine ecosystem-approach)
- Aquaculture
- Observing systems
- Marine biotechnology
- Ocean literacy - engaging with society
- Seabed and benthic habitat mapping

The work on the Galway statement implementation has been streamlined through created marine working groups specific to each of the Galway priorities (some of the priorities already have their trilateral groups established, others are not yet established). Overall coordination is still on Karen Davison (DFO), Terry Schaefer, and Sieglinde Gruber (EC).

Two Galway issues that have been re-emerging recently: researchers' mobility and the South-Atlantic focus:

- The first, mentioned in the Statement, is now slowly introduced to the work of each thematic trilateral group. The parties are trying to couple funding for these activities, the Commission has the Marie Curie mechanism at hand in Horizon, and they are now after defined knowledge gaps. Once research roadmaps are agreed upon per Galway theme, implementation focus on Blue Growth will be of main concern (industry involvement, public-private partnerships).
- The second is a result of a push by the Portuguese R&I Commissioner. The Commission will attend focus meetings in Brazil and South Africa still this autumn, a big step for next year is

¹ <http://www.atlanticresource.org/>

² <http://www.atlanticresource.org/assets/galway%20statement%20atlantic%20ocean%20cooperation.pdf>

launching of the 'South Atlantic Science plan' and linking it into Galway.

Further gearing to the Galway is planned with the 'Coupled North Atlantic-Arctic System Science Plan³' (drafted in 2014, in Arlington) and with the running H2020 projects (e.g. PRIMEFISH or ATLANTOS).

Upcoming meetings with ICES participation in 2015: AORAC Operational Board (date/venue tbd) and the Trilateral Governance Meeting (organized by Trevor Swerdfager (DFO), John Bell (EC), Craig McLean (NOAA) on the 26th Oct in St. John's, NL. This meeting will be organized back to back with the Trilateral Seabed Mapping Working Group meeting and the Ocean Innovation Conference (Memorial University).

AORAC-SA

The Commission has funded a H2020 support action to underpin the Galway Statement implementation. ICES is leading work packages on aquaculture (ICES DHos), ocean stressors (ICES Ecosystem Coordinator) and knowledge sharing (Head of ICES DC). Under the umbrella of this project

The support action should also coordinate input from other running H2020 projects and several which will kick off early 2016:

- BG-1-2015: 'Improving the preservation and sustainable exploitation of Atlantic marine ecosystems',
- BG-2-2015: 'Forecasting and anticipating effects of climate change on fisheries and Aquaculture'
- SFS-11b-2015: 'Consolidating the environmental sustainability of European aquaculture'

ICES is in consortia responding to all three.

AORA aquaculture

The Trilateral Aquaculture WG and ICES are organizing a workshop on transatlantic aquaculture collaboration (October 20th 2015) in Rotterdam, back to back with the Aquaculture Europe Conference. The persons behind organization are: Jacques Fuchs (EC), David O'Brien (NOAA), Jay Parsons (DFO), and Wojciech Wawrzynski (ICES DHos). The meeting should facilitate consensus around the activities in order to implement well-developed topics (the plan is to close the discussion on priorities pre-defined in the AQ roadmap there and move on). Furthermore, discussions

³ <http://www.whoi.edu/files/server.do?id=194784&pt=2&p=192929>

will tackle an inventory of on-going cooperation initiatives (based on overview documents like the one on collaborations from the CWGMTC and several COFASP ERA-NET ones) and the establishment and funding of a trilateral aquaculture exchange programme (still in its embryonic stage). DHoS will present conclusions of the ICES AQ Dialogue Meeting and make sure these are taken on board. Some of the ADM recommendations will go to the ICES AQ WGs (e.g. 'Defining/mapping advice fields for ICES in terms of policy objectives of ICES Member Countries' or 'Identifying how social, economic, governance and environmental framing conditions influence aquaculture development').

AORA Ocean Stressors

This AORAC work package is tasked with supporting the soon to be created trilateral group (EU/USA/Canada) on ocean stressors/ecosystem approach, with input from the EU Horizon2020 projects under BG1 "Improving the preservation and sustainable exploitation of Atlantic marine ecosystems".

Following from the 2013 Galway declaration, AORAC is facilitating the Atlantic Ocean Research Alliance exploration of research and science needs for the ecosystem approach, ocean health and ocean stressors. This builds on the 2013 workshop on transatlantic marine and arctic cooperation which highlighted that "...it is crucial to assess complex effects of multiple stressors. To manage these systems following an ecosystem approach requires quantification of the influence of those multiple stressors and a systems vision of their interactions with natural processes." The workshop concluded there was considerable merit in collaborative research on "ecosystem approach for the sustainable use of marine resources". This conclusion and a further workshop in Arlington, USA were influential in creating the EU/NSF research programme on the coupled North Atlantic-Arctic system.

In preparing the foundations for describing the research and science needs, this work package is engaging "with national programmes, FAO, regional seas commissions, RFMOs and EU policy developers, including successful BG-1-2015 project coordinators, to understand what is seen as the "ecosystem approach" priorities and strategies of policy developers".

As part of a process to determine the science needs for the investigating ocean stressors and the ecosystem approach, AORAC is organizing a workshop to scope what is seen as the "ecosystem approach" priorities and strategies of policy developers and stakeholders. The *Making the ecosystem*

approach operational workshop (20-22 January 2016)⁴ will feed into the Galway process and be centred on science for blue growth.

The three day workshop (supported by ICES, FAO, NOAA and DFO), is designed to address questions currently challenging the ecosystem approach to the management of marine activities “where are we and where do we want to go, especially when considering moving from single to cross-sectoral evaluation of the ecosystem approach?”

The focus of the workshop is on the main sectors that operate in the Atlantic Ocean and adjacent seas, namely shipping and ports, oil and gas, renewable energy, fishing, tourism and aggregate extraction; specifically in relation to the blue growth agenda of the EU. The workshop is being organised, through AORAC, by the leading ecosystem approach experts from the UN, Europe, USA, and Canada.

The workshop creates an opportunity for stakeholders to come together to review concepts and address scientific, institutional, legal and socio-economic challenges related to operationalizing the ecosystem approach. It also allows for the exchange of experiences and constraints encountered, and the identification of approaches and strategies to make this approach operational.

AORA Knowledge Sharing Platform

For knowledge sharing, there is no tri-lateral working group to support this area for the time being. The Commission, US, and Canada are still lining up their respective experts.

So far efforts have focussed on establishing contacts with the key players. For the Commission, Marco Weydert (DG R & I) is the focal point. For Canada, Tobias Spears (DFO), Benoit Pirenne (ONC) and Mathieu Ouellet (DFO) have been identified as the focal points with Tobias and Mathieu also acting as joint leads in their own ‘Data management and dissemination’ working group. The US do not appear to have developed the internal leads, and so far Jennifer Jencks (NOAA) has been contacted by the US overall lead, although she is already associated with other tri-lateral working groups.

The immediate activity is now to start-up the dialogue with these contacts and start to elaborate the vision of what the three partners see as the priorities in developing an Atlantic knowledge sharing platform.

⁴ <http://ices.dk/explore-us/projects/Pages/Making-the-ecosystem-approach-operational.aspx>

Suggestions for the CWGMTC

Build visibility of ICES as a key aquaculture research player in North America: this image will need to be built basically from scratch, two potential opportunities:

- 1) The Trilateral aquaculture WG and ICES will be organizing a session/workshop during 'Aquaculture America', Las Vegas 23-26 February (overlapping with another AORAC conference 'Ocean Sciences' in New Orleans – this one observation/habitat mapping oriented); ICES visibility on aquaculture issues in Europe is progressing (with the 2014 OSPAR advisory request on interactions between wild and captive fish stocks, and a similar request received from NASCO lately – forwarded to WGAQUA and WGNAS in September. Though the ASC aquaculture session was the only one cancelled in 2015 in Copenhagen – due to low submission rate, no aquaculture-related session proposals were received for 2016 ASC).
- 2) ICES could perhaps think of acquiring invitation to another Dialogue Meeting on priority theme areas of the Galway Statement such as the Arctic, Ocean Stressors/Ecosystem Approach, Aquaculture, and/or knowledge sharing, in North America, in order to establish / strengthen ICES position in North American research.
- 3) Focus special theme sessions or activities at the ASC 2017 in the USA on priority theme areas of the Galway Statement such as the Arctic, Ocean Stressors/Ecosystem Approach, Aquaculture, and/or knowledge sharing.
- 4) First approach to a concept of a BONUS-like structure in the North Atlantic. A feasibility study / inquiry with research funding agencies in USA and Canada on possibilities to jointly fund transatlantic marine research projects, provided that EC funding is made available. Also a look at how this could support implementation of the ICES Strategic Plan.



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Council Meeting 2015/

October 2015

CM 2015 Del-06

Agenda Item 6

Elections and Appointments

Using the e-voting tool, Council will be invited to elect a new President, 1st Vice-President, and Vice-President.

Council will also be invited to appoint members, including a chair, to Finance Committee.

Elections and Appointments

President

Council will be invited to elect a new President. President Paul Connolly will have completed his term at the end of October 2015.

Rule 8 The President shall be elected for a term of three years and shall not be eligible for re-election for the immediately succeeding term.

1st Vice-President

Council will be invited to elect a new 1st Vice-President. 1st Vice-President Cornelius Hammer will have completed his term at the end of October 2015.

Rule 11 i) The First Vice-President shall be elected for a period of three years and shall not be eligible for re-election for the immediately succeeding term;

Vice-Presidents

Council is invited to nominate and elect one new Vice-president. Vice-President Piotr Margonski (PL) has completed his term (at the end of 2015).

Rules of Procedure

Rule 11 (ii)

Any other Vice-President shall be elected for a period of three years and shall not be eligible for re-election for the immediately succeeding term.

Rule 5 (iv)

At any time not more than one member of the Bureau shall be from the same member country. (Currently Bureau consists of President Paul Connolly, Ireland, First-Vice President Cornelius Hammer, Germany, Pierre Petitgas, France, Tammo Bult, Netherlands, Kai Myrberg, Finland, Johann Sigurjónsson, Iceland.

Appointment of Advisory Committee Vice–Chair

Pending potential changes to the terms of vice-chairs (See agenda items 2.1 and 2.2), the approval of the extension of Advisory Committee Vice-Chairs will be conducted after the Council meeting using e-approval procedure.

Rules of Procedure¹

Rule 30 (iii)

The Chair and Vice-Chair(s) of the Advisory Committee shall be nominated by the Advisory Committee and appointed by the Council. The Chair and Vice Chair(s) shall hold office for a term of three years, with the possibility of a one year extension, subject to approval by the Council. They shall assume office on the first day of January next following their election. They shall not be eligible for re-election for the immediately succeeding term.).

Finance Committee

All members of Finance Committee have now completed their terms.

Rule 24 iii) The Finance Committee shall consist of one of the Delegates of Denmark and four other Delegates appointed by the Council for a period of three years, after which they shall not be eligible for re-appointment for the immediately succeeding term unless a member of the committee is appointed as Chair of the Finance Committee in which case he/she may serve one additional term. When a member of the Committee ceases to be a Delegate, he/she shall immediately vacate office.

¹ http://www.ices.dk/explore-us/who-we-are/Documents/ICES_Rules_of_Procedure.pdf

SCICOM PROGRESS REPORT 2015

ICES SCIENCE COMMITTEE

ICES CM 2015/SCICOM:04

REF. COUNCIL

Del -7.1.1

SCICOM Progress Report 2015

An annual report to the ICES Council
to describe the development and implementation
of the ICES Science Plan



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1 Introduction (SCICOM Chair)

The SCICOM annual report to Council reviews the activities of the Science Committee and its science structures to implement the ICES Science Plan (2014–2018). The main responsibility of SCICOM is to enable future marine science that is relevant, credible, dynamic, and responsive in support of the ICES Strategic Plan.

The structural mechanisms that SCICOM utilizes to deliver the Science Plan are:

- Science Steering Groups – the expert groups are organized within steering groups to manage work and deliver the goals of the science vision. The portfolio of steering groups was renewed with the new Science Plan and now contains four science groups and one benchmark group that ensures the transfer of science to advice.
- Strategic Initiatives – are topical and crosscutting to introduce innovative and interdisciplinary thinking. The strategic initiatives include partnerships that strengthen ICES in a global context.
- Operational Groups – are supportive to the scientific needs of the organization and develop data policies, training, publication, and communication strategies and products.
- The Annual Science Conference – a major marine scientific event which enables ICES community to meet and network and new participants to be brought into ICES activities.
- The ICES Science Fund established 2014.
- ACOM/SCICOM Leadership meetings 4 times yearly. An important tool in strategic communication and planning of scientific developments that are of importance to current and future advice.

This document presents a summary of the establishment and achievements in the further implementation of the Science Plan. Reports from SCICOM Steering Groups, Strategic Initiatives and Operational Groups are included as well as advancements in scientific cooperation and the highlights from the Open Sessions at the ASC.

2 Science Development – The ICES Science Plan (SCICOM Chair)

2.1 Summary of SCICOM work

SCICOM is advancing the integrated understanding of marine ecosystems via activities in the Expert Groups, Strategic Initiatives, Symposia, Conferences and the ICES Science Fund Projects. The science performed is supporting the goals and driving the implementation of the ICES Science Plan (ISP) forward.

The Goals are implemented via the Science Plan and its 31 Priority areas. The Science Steering Groups (SSG) and affiliated Expert Groups each address an assigned part of the priorities and a more detailed description of activities are found under each SSG report below

SCICOM has documented the progress of the Science Plan via a mapping exercise . The course of action from Expert Group and their ToRs to implementation of a Science Priority area underwent an extensive mapping exercise and is described in Section 2.2.1.

The mapping shows that all the Science Priorities are covered from good to very well. More importantly the mapping gave the Expert Groups the opportunity to identify their position within the ICES Science landscape and contemplate their contribution to the Strategic plan. The mapping is also forward looking and gives the Expert Groups an opportunity to identify where they would consider expanding their Terms of Reference into additional work related to the implementation of ISP.

Further implementation of ISP would include strengthening strategic areas. For this purpose the Science Fund is an important tool that have been in force 2014 and 2015 and is described in 2.4. The ICES Annual Science Conference (ASC) is carefully shaped towards covering not only the areas where ICES shows an excellence but also where we would like ICES to take an active role. More detail on ASC progress is found in section 3.8 and 5.4.

SCICOM is acknowledging the importance of cooperation with external partners and have actively developed connections which has led to several products and processes described in more detail under 2.3 .

The work of SCICOM and its meetings have been changed during 2015 to be more strategic and forward looking. Recurrent tasks are done intermittently and via the SCICOM Forum established in 2015. The response to new resolutions is flexible and swift not to lose any opportunity of development. The SCICOM meeting agendas have as a consequence of the new and more effective working method more time for strategic discussion, which is highly appreciated by the members.

A Bureau proposal for a reform of ICES Strategic Leadership and Science Leadership has been evaluated. A response to Bureau with SCICOM views and suggestions for development has been presented. SCICOM is given responsibility to structure the implementation and leadership for the Strategic Plan.

2.2 Progress and Implementation of Science Plan

2.2.1 Performance Measures

A mapping exercise was made by SCICOM Chair and SSG Chairs to map all EG ToR towards the priorities in the Science Implementation Plan.

The purpose was to identify strengths as well as finding the gaps while investigating areas where the EGs could consider new ToRs in relation to the Science Priorities. The

exercise gave a clear picture where we are and what activities need to be started to further advance the Science Plan. The design of the mapping also gives a quick link to where effort on a particular science priority is available. Action can be taken directly together with current EGs without starting new groups. A very important part of the work is that it enhances the participation of EG chairs in the ICES strategic work. The mapping gave EGs a deeper insight in the ICES Strategic Plan and understanding of their position and role in the Implementation Plan.

A spreadsheet including the 31 priorities of the Science Plan was circulated to the Expert Group chairs. The document collected feedback on what priority areas the EGs currently fulfil and also a brief summary on future work related to the priority areas that would be considered for the EG.

The mapping shows that all Science Priorities are covered in the Implementation Plan. A very useful result was that the Science Priorities that were assigned to the Steering Groups are more crosscutting than expected, especially between SSGEPD and SSGEPI. Due to the crosscutting coverage of Science Priorities the actual implementation is stronger than previously shown in the performance measurement of last year.

Science Plan priority	TOTAL	
	Current ToRs	Future ToRs
1. Assess the physical, chemical and biological state of regional seas and investigate the predominant climatic, hydrological and biological features and processes that characterise regional ecosystems	14	3
2. Quantify the nature and degree of connectivity and separation between regional ecosystems	10	4
3. Quantify the different effects of climate change on regional ecosystems and develop species and habitat vulnerability assessments for key species	9	8
4. Understand the influence of climate impacts across a range of temporal and spatial scales, from local to global and from seasonal to multidecadal and identify indicators of climate driven biotic responses and forecast trajectories of change	8	4
5. Quantify the role of structural and functional diversity in marine ecosystems in providing stability and resilience	6	3
6. Investigate linear and non-linear ecological responses to change, the impacts of these changes on ecosystem structure and function and their role in causing recruitment and stock variability, depletion and recovery.	8	2
7. Develop end to end modelling capability to fully integrate natural and anthropogenic forcing factors affecting ecosystem functioning	4	3
8. Define and quantify north Atlantic Ecosystem Goods and Services, model their dependence on ecosystem processes and habitat condition and their social, economic and cultural value.	7	2

Figure 1: Detail from the overview of Science Priorities and related Terms of Reference as documented by EG chairs in a mappings exercise how the Science Plan is implemented. Full excel document is available as a background document to the Council.

The mapping will be used in future to develop new ToRs and new initiatives, e.g theme sessions or other appropriate activities selected by the Steering Group chairs to further implement the Science Priorities. The mapping is seen as a development of qualitative (gut-feeling) Performance Measurement.

SCICOM found the mapping very useful to establish where we are, but also as a tool on how to move forward. The following ideas were raised as input to the mapping exercise:

- More is not always better in terms of how many ToRs cover a SP. SSG Chairs could have a role in steering this more. Further information can be extracted from the mapping. This is a relevant job when evaluating the multi-annual ToRs and extending Groups.
- Activities undertaken by some EGs are related to data collection, analysis and review, not so obviously connected to SP but that does not imply they are not doing an important job.
- Suggestion to expand the mapping exercise to include relevant ACOM groups, Strategic Initiatives, Science fund and ASC activities.
- The presence of secretariat staff and/or SSG chair when EGs are developing their next 3-year terms would be really useful to help them shape it to be in line with the Science Plan. We could also encourage the groups to choose the venue of the SSG chair for the last year of the Expert Group meeting.

Bureau asked for some examples on how the mapping could track actual ToRs/activities from an EG to a Science Priority. The amount of information is massive but can easily be extracted and summarised. Note that the below examples do not reflect the complete activity of the EGs but is a brief example of how a Science Priority can be linked to a group's existing ToRs and will contribute to creating future ToRs..

ICES/IOC/IMO Working Group on Ballast and Other Ship Vectors (WGBOSV)

SP1-assessing biological communities nearshore, as well as investigations of climate and biological drivers. SP 10 monitoring work meets this request especially in the Arctic SP 12- work is being done to develop ballast water management systems. **Future ToRs** SP 1- quantify the connectivity between ecosystems due to anthropogenic vectors

Marine Chemistry Working Group (MCWG)

SP 13- measures contaminants, eutrophication and chemical aspects of marine litter of relevance to MSFD SP 25 Working together with ICES Data Centre and OSPAR MIME. SP 28 developing Passive Sampler systems, SP 31 constantly rewriting and amending guidelines for sampling and analysis of POP, metals and chemical Oceanography parameters

Working Group on Marine Sediments in relation to Pollution (WGMS)

SP7- use of hydrodynamic modelling to explain spatial distribution patterns of contaminants in sediment and inform on sources and relate to MSFD measures

Working Group on Spatial Fisheries Data (WGSFD)

SP13 –informative work on DCF environmental indicators 5, 6 and 7 as well as MSFD descriptor 6. SP31- best practices document for VMS/Logbook data

Working Group on Fisheries-Induced Evolution (WGEVO)

SP6-developed a framework for Evolutionary Impact Assessment that allows investigating eco-evolutionary changes in fish stocks and their utility in terms of ecosystem

services. SP14- specific case studies to evaluate the impact of fisheries-induced adaptive changes on fish stocks utility. **Future ToRs SP4** developing methods to predict evolutionary changes in fish life-history traits induced by future climatic changes

Working Group on Zooplankton Ecology (WGZE)

SP 10- Revise lists of currently suggested (e.g. by OSPAR, HELCOM, and EU Member States) zooplankton indicators for biodiversity and foodweb status of relevance to MSFD **Future ToRs SP2-** will be able to quantify the nature and degree of connectivity and separation between regional ecosystems SP 5 Quantify the role of structural and functional diversity possible in future, based on data collected in the Zooplankton Status Reports

The mapping should be considered a living document of great informative potential. The Expert Groups that have not responded should be approached again to extend the information available. In future the mapping will help to develop new ToRs, new initiatives, e.g theme sessions or other appropriate activities. Based on the outcome of the mapping exercise the SG chairs and SCICOM chair will discuss strategic steps to take to implement the Science plan further.

The mapping in form of an excel spreadsheet is available as background document to the Council.

2.2.2 Science and IEA development

The scientific part of IEA is quite advanced even though the IEA framework and cycles are assessed to be at different levels of maturity. A wish to have a symposium with all groups has been expressed, which is congruent with the planning from the CSG MSFD wish to advance the IEAs and link to MSFD activities and other advice-related products. The aim would be to share experiences, present results from each group and discuss scientific products such as:

- Produce a manuscript on the issues surrounding IEA and the way forward – covering both ecosystem and human wellbeing, possibly as a food-for-thought paper in ICES JMS.
- Develop a position paper on a possible future H2020 project call in the arena of IEAs. The EC is currently consulting with member states, on future calls and this would be an ideal time to make such an approach.

Another part to be developed within the IEAs is the “social dimension”. A Strategic Initiative on Human Dimensions (SIHD) has been established. SIHD would have the function to gather all “social dimension” activities. WGMARS is suggesting setting up “Stakeholder interactions case studies” as a way to involve the stakeholders. Case studies will be evaluated and analysed. Very important is the delivery of IEA science to advice. There is still a functional gap between the science groups and advice process. In the Baltic ecoregion WGIAB has created a daughter group (WKDEICE) to provide the advice products and avoid losing momentum of the scientific work in WGIAB. Other established frameworks that tie the science and advice together are addressing IEA in the Irish sea (WKIRISH), IEA and MSFD products in the Celtic sea (MSFDEMO), ecosystem considerations to support Ecosystem Based Fisheries Management (WKSIBCA)

The general approach is to move away from single Expert Group with a long-term planning for a framework of progressing events towards an IEA. This includes the much needed involvement from stakeholders, appropriate data calls and disseminations via symposia.

2.3 Scientific Cooperation

ICES is committed to provide the required scientific knowledge in collaboration with strategic partners. To study and understand the Marine Ecosystems we need an inclusive and inter-sectoral approach. For this reason SCICOM has started a more active outward looking approach in finding the strategic partners.

Below follow some examples of the work hitherto done on scientific cooperation. However SCICOM is planning to enter a phase of a strategic approach to find the appropriate partners. A review of ICES most strategic cooperation partners is planned.

PICES is an important scientific partner for ICES. The cooperation is productive and longstanding. PICES shows a true dedication to the ICES framework by attending the ICES ASC annually to exchange experience and review areas of importance for cooperation. The discussion in ASC 2015 included new roadmaps for currently shared groups (SICCME) and outlining potentially shared groups on ocean acidification and carbon sequestration, as well as co-sponsorship of sessions at annual conferences on plastics/micro-plastics and ecosystem services in the context of pro-actively supporting the forthcoming sustainability goals. Developing the P/ICES Early Career Scientist Conference (Korea in 2017) will kick-off soon. Discussions about the next climate change symposium have begun. ICES and PICES could consider issuing joint press releases on important topics such as climate change in advance of the upcoming COP. Highlights from the Brazil meeting might be appropriate as content. New mechanisms for ICES representation in PICES work must be considered to maintain the productive collaboration.

The cooperation with the Arctic partners has intensified rapidly during 2015. The ICES/AMAP/PAME/CAFF Workshop on Integrated Ecosystem Assessment (IEA) for the Central Arctic Ocean (WKICA) was very successful and will continue as a Working Group with multi-annual ToRs. Other scientific areas of mutual interest have been discussed including Ocean Acidification and Microplastics.

The cooperation with ICCAT has increased both on Advice and Science side. The Science Expert Group WGMG has suffered from low participation and loss of the current chair. The group worked by correspondence in 2014. The problem has been helped by organizing a co-operation with the ICCAT methods group. A resolution for a new joint methods group with ICCAT is prepared for approval by SCICOM in 2016. The cooperation with ICCAT will also result in a forum to bring regions together worldwide to compare developing methods and test new ideas. It will also be able to lobby for investment in research into stock assessment methods. ICES and ICCAT have already a well-established cooperation in the Training Programmes and advances by modelling experts will be effectively communicated to practitioners through training programmes. A coordination of expert participation in relevant meetings of relevant groups such as WGEF, WKSHARK and the benchmark process is planned between ICES and ICCAT.

SCICOM Chair and HoS attended the JPI first conference. It was noted that JPI has initiated two pilot actions in which ICES potentially can add value:

- Multi-use of infrastructures for monitoring
- Ecological aspects of micro-plastics in the marine environment

SCICOM is willing to discuss how to best support JPI Oceans and identify where links can be established for future collaboration. JPI Oceans has indicated that they will invite SCICOM Chair for a discussion on further collaboration.

The SCICOM Chair was invited to the Swedish institute for the Marine Environment (HMI) to give a presentation on ICES Strategy Plan and Scientific Implementation. HMI is a national center for interdisciplinary analysis and synthesis. On the Government's behalf they provide a coherent description of the environmental status of the seas around Sweden. A strategic area for HMI is called "People and the Sea" it addresses the opportunities and constraints for the development of maritime governance, knowledge production maritime communities and maritime regions. HMI's activities are based on collaboration among four universities: Umeå University, Stockholm University, Linnaeus University and University of Gothenburg. The participants were especially interested in the possibility to engage in ASC and Working Groups. HMI has as a consequence of the active collaboration taken active role in the development of SIHD and provides a co-chair, Eva-Lotta Sundblad.

Further outreach to partner collaboration included the Project Market Place at the ASC 2015 and an invitation to partners to submit theme sessions proposals (including in new formats (to ASC 2016).

The SCICOM Chair was invited to the European Marine Board Open session "New paradigms in science-based fisheries management" and subsequent discussion on EMB Science activities. The meeting took place in Croatia, 14–16 October.

2.4 Science Fund

The importance of the ICES Science Fund can be evaluated on different aspects of building a foundation of science around integrated ecosystem understanding: contribution to the science plan, visibility of ICES in the scientific community and the general public and scientific impact of the results and products.

SCICOM finds the Science Fund a valuable addition to the implementation of ICES Strategy. The character of seed money to kick-off research initiatives is emphasized for the Science Fund. The Science Fund makes ICES both a research performing and research funding organisation, and this enables ICES to act as a catalyst for the development of marine science as well as a potential to engage in debate and engagement within ERA-NETS. Science Fund projects can be included in the mapping of how we meet Science Priorities

SCICOM has assessed the Science Fund projects to give overall good to extremely good value for money. It is important that Science Fund is a long-term initiative. A progress in the direction of e.g sponsorship could be a way forward or collaboration with other funding mechanisms.

The Science Fund 2014 projects (8) reported by 1 July except one that was given an extended deadline and reported 1 August. SCICOM established a process for evaluating reports from Science Fund projects at the mid-term meeting. The appropriate experts within SCICOM fulfilled the review process by August. The initial reviews were discussed in the Science Fund subgroup and finally presented at the SCICOM meeting in September. All Science Fund project reports were approved by SCICOM and a letter has been sent out to the project leaders with the final payment.

The reviewers were overall impressed by the results for projects running over a short period and with small funding. It was concluded that Science Fund gives high value for the money spent. Most of the projects aimed at getting their results published in peer-reviewed journals. Given the relatively short time since the end of the 2014 call, not all these papers have yet been published but SCICOM has been notified of two published papers and three about to be published shortly.

Most of the projects presented their findings at symposia around the world. Results were presented at the ICES annual Science Conferences in 2014 and 2015, but also at the “Oceans past” conference, and the Johan Hjort symposium. One project has proposed and been accepted to lead a Theme Session in ASC 2016.

One of the explicit goals of the ICES Science Fund was to strengthen the links with academia. This goal was also clearly stated in the 2014 call for proposals, with PIs having to come from academia and applied research institutes. All projects adhered to this explicit requirement.

Some general remarks were raised by the Science Fund reviewers to consider in future:

- Scope of the project was in one case evaluated to be too wide and the Science Fund project is likely part of a bigger project. It is necessary to clarify what the Science Fund is actually paying for. However the outcome of the project and report was satisfying.
- Future products especially publications are not always clear and ICES should request notifications if and when a paper is published connected to the project.
- Dissemination should be clearer especially links to ICES Expert Groups, ASC Theme Sessions and Symposia.
- Links to ICES Science Plan should always be clearly stated.

The Science Fund 2015 was opened on 13 January. The deadline for applications was 10 March 2015 and successful applicants were informed in May 2015 for immediate implementation of their projects.

For the 2015 call a total of 21 proposals were received. The proposals were presented at the SCICOM SharePoint site and ranked by SCICOM A subgroup prepared a shortlist for review at the SCICOM mid-term meeting based on the ranking but also taking strategic evaluation into account. The process resulted in approval of 7 proposals. The Secretariat informed the approved and rejected proposals including motivations.

3 SCICOM Open Sessions

Monday, 21 September, Copenhagen, Denmark

3.1 Open Plenary: Highlights from ICES Science and Advice (Walther/Kirkegaard)

For the traditional SCICOM Open Plenary in ASC 2015 the SCICOM chair invited the ACOM chair to give a joint presentation on ICES Science and Advice.

The intention of the presentation was to highlight the ongoing communication between SCICOM and ACOM chair on the joint advancement of ICES Advice and Science. Particular emphasise was given to the intention of erasing the tradition of thinking of Science and Advice as two stand alone pillars in the ICES community

In a seamless presentation the ACOM and SCICOM Chair interacted to show what ICES Science and Advice has been, what it is now with focus on the not commonly known parts and gave the vision of what ICES Science and Advice can be in the future.

The message that ICES is a provider of Marine knowledge was a focal point and that in future the traditional advice on request will be accompanied by a wider knowledge provision. ICES is not only giving recommendations in response to requests but also helping shaping the questions in an iterative process and providing the best available knowledge on the Marine ecosystems.

The presentation was extremely well received by the audience the presentation is available to Council as a background document.

3.2 Bridging the gap between data users and data providers (Schmidt/Handegard)

The open session Bridging the gap between data users and data providers was organized by the ACOM/SCICOM Steering Group on Integrated Ecosystem Observation and Monitoring (SSGIEOM) and ACOM/SCICOM benchmark steering group (BSG) and chaired by Jörn Schmidt and Nils Olav Handegard. The meeting was attended by 40 people, representing both survey groups, and integrated and traditional assessment groups.

The session was kicked off by a brief overview of the role of the SSGIEOM and its relation to the survey expert groups, followed by a presentation of the BSG focusing on the benchmark process and how the data and information from the survey groups are linked into the benchmark process. The introduction was closed by a brief presentation from the data and information group chair (Ingeborg de Boois) on the role of DIG and the data centre in the data flow from the survey groups to the users.

To get input from the community, the discussion items that were brought up were: How are data presented from the survey groups? What is lacking? How are changes in time series documented? When new information is requested, is there sufficient feedback to the survey groups whether the product was well received and used? Do we have an efficient IT infrastructure to handle the data? Is the survey following best practice in terms of statistical design, observation methodology, and bias considerations?

The first part of the discussion revolved around how the information from the surveys was presented. It was clear from the discussion that there still is a gap between the survey groups and the assessment groups. One of the reasons for this may be the different background and skills that the survey-people and the assessment people have.

The survey practitioners often have a good understanding of the survey gear/methodology, which is important for the bias considerations, but sometimes lacks statistical expertise to set up a proper survey design with corresponding data product estimators. WGISDAA was specifically set up to address gap. The expectation on what WGISDAA could contribute with could be better overseen by the steering group. WGISDAA also struggle with participation from the assessment groups, and ACOM and the benchmark group could facilitate a better attendance from that side. One suggestion to mitigate this was to set up specific workshops where WGISDAA and PGDATA experts could work together with the survey groups to address specific challenges with survey design, including estimators for the various data products emerging from the survey groups. There was also a suggestion that the (integrated) assessment expert groups should be present in the survey planning. Another item that was brought up was that the data preparation workshop in the benchmark process could be used to enhance the communication, and the SSG chairs should engage with the survey groups and facilitate these processes.

Another discussion dealt with the form of the report from the survey groups. It was clarified that the survey groups are responsible for their data products, and it was also highlighted that standardized tools for providing these products would be an advantage. It was also brought up that the current template for EG reporting was not optimal for reporting from the surveys, and it was consensus among the participants that a broader and more standardized format for reporting from the surveys was needed.

The discussions continued on how the data is received by survey groups and the flow (or lack thereof) of information back to the survey groups. It was quite clear that the lack of communication of the survey results from the assessment groups back to the survey groups needs attention. If the survey groups are not being informed about problem or inconsistencies, like the inability of a survey to track cohorts etc, the potential to improve the surveys will be lost. This needs to be built into the benchmark process and the BSG chairs need to ensure that this information is fed back to the survey groups. Furthermore, it was suggested that when there is a proposal on a benchmark, the survey groups needs to be informed in advance to be able to engage in the process at an early stage.

When wrapping up the session, a concrete suggestion to make information from the survey more easily available was made. It was suggested to set up a WK to work intersessionally to develop guidelines for reporting from survey that encapsulates more and standardizes the content from the survey reports. Marie Storr Paulsen, Amos Barkai, Maria Manuel Angelico, Sascha Fässler and SSGIOM chair agreed to develop the ToR for the WK, and SSGIOM chair will ensure participation from all the survey group chairs.

3.3 Strategic Initiative on Climate Change and Marine Ecosystems (MacKenzie, Pinnegar)

The SICCME Open Session presented and summarized the main scientific and networking achievements of SICCME since the previous ICES ASC, and outlined plans for activities in 2016. The presentations included summaries of a major international conference and a week-long workshop. Additional presentations summarized how SICCME science and networking activities at two high-profile climate-ocean events for policymakers, and introduced a recently-started climate-ocean-fisheries research program in the north Atlantic (Færo-Greenland region). After each presentation there was discussion and questions with attendees at the session. The session was attended

by approximately 100-110 participants and jointly chaired by attending SICCME co-chairs Anne Hollowed, Brian MacKenzie and John Pinnegar.

John Pinnegar presented a summary of the 3rd Symposium on Effects of Climate Change on the World's Oceans held in Brazil in March 2015. The presentation highlighted key scientific findings related to hydrographic changes in the oceans (e. g., temperature, pH, oxygen concentration), the distribution and productivity of fish stocks and how expected future changes could affect fisheries and ecosystem management policy. One key point raised by a session attendee was how SICCME could interact with and contribute to the IPBES, given that climate change will have major impacts on population and species distributions and therefore biodiversity. This issue will need further attention in future as ICES evolves its strategy for input and collaboration with IPBES, and it is anticipated that SICCME will be able to contribute to these efforts.

John Pinnegar also presented summaries of presentations and workshops organized by former SICCME co-chair Manuel Barange at the World Oceans Day, June 8, Paris and the conference on "Our common future under climate change", 7-10 July 2015, Paris. Additional details of these presentations are available in the Appendix to the SICCME Annual Report to SCICOM.

Anne Hollowed summarized findings and outcomes of a dedicated workshop on modelling effects of climate change on fish and fisheries. This workshop was held in Seattle in August 2015 and was attended by ca. 60 participants from the ICES and PICES communities. The meeting was structured into plenum and break-out discussion groups. Intra-disciplinary breakout groups focused on regional climate modelling, modelling biological responses, and modelling fish dependent community responses. Breakout session convenors reported in plenary on the key recommendations of the intra-disciplinary sessions.

The group identified 14 potential regions where there was sufficient data to model the effects of climate change on fish and fisheries. The group recommended that a socio-economic workshop be proposed and convened in 2016 to address the range of possible management responses. The group clarified how the SICCME project is separate and distinct from a similar modelling activity, FISH-MIP. Additional details of the workshop are available in the Appendix to the SICCME Annual Report to SCICOM.

Mark Payne presented a summary of a 1-day workshop immediately preceding the Brazil symposium. The workshop was on the topic "Addressing uncertainty in projecting climate change impacts in marine ecosystems". The workshop was attended by ca. 25 participants and discussed the different sources of uncertainty in modelling climate change impacts on marine ecosystems, and how these can be quantified. The discussions have resulted in a multi-author manuscript which has been accepted for publication by the ICES Journal of Marine Science.

Eilif Gaard presented an overview of a recently started climate-oceanography-fisheries research project in the Faroe Island-Iceland-eastern Greenland region of the north Atlantic. This project started in 2014 and runs 4 years. The overall program objective is to investigate climate and oceanographic changes in this region and their influences on plankton and fish. The program is supporting Ph.D. and postdoc projects on the following topics: (1) Marine climate effects on the marine primary production around the Faroes; (2) food for mackerel and other pelagic fish near the Faroes: zooplankton in relation to ocean climate; (3) migration of mackerel and other pelagic fish in relation to oceanography in the Northeast Atlantic; (4) changing distribution and migration of mackerel and other pelagic fish against East Greenland area. Further details are available from the program coordinator (eilifg@hav.fo).

Activities in 2016

Regarding activities in 2016, the co-chairs informed attendees of plans to hold 1-day workshops in connection to major conferences and theme sessions at the 2016 ASC of both ICES and PICES.

The ICES/PICES Workshop on Economic Modelling of the Effects of Climate Change on Fish and Fisheries (WKSICCME_Econ), chaired by Alan Haynie (USA), John Pinnegar (UK), Lisa Pfeiffer (USA), Mitsutaku Makino (JPN), Jörn Schmidt (DE), and Sophie Gourget (France) will be established and will meet in Brest, France associated with the existing 'Understanding marine socio-ecological systems' symposium, in June, 2016.

A second 1-day ICES/PICES workshop on Phase 1: Modelling Effects of Climate Change on Fish and Fisheries (WKSICCME-I), chaired by Anne Hollowed (USA), John Pinnegar (UK), Myron Peck (DE), and Mark Payne (DK) will be held in September, 2016 in Riga. PICES and ICES are also planning to organize at least 2 theme sessions, pending approval by Science Committees, at their 2016 Annual Science Conferences. These will be on topics related to adaptability of marine biota to climate change impacts and predictability of climate impacts at seasonal to decadal time scales. Further details will be available from conference websites.

3.4 Ecosystem Processes and Dynamics (Pierce)

The aim of the SSGEPD session was to discuss future directions for fundamental ecosystem science within ICES, its contribution to the ICES Science Plan and its role in underpinning advice. It also discussed structures and processes within ICES. The meeting was attended by approximately 40 people including several chairs of affiliated Expert Groups (e.g. BEWG, WGCEPH, WGHABD, WGRECORDS, WGZE). The presentations comprised an introduction given by Graham Pierce, including material provided by WGIMT and WGRECORDS, a presentation about the work of BEWG given by Silvana Birchenough, and a talk about ecosystem services, linked to WGRMES, delivered by Graham Pierce due to the delayed arrival in Copenhagen of the author Sebastian Villasante.

Following the presentations, there was a general discussion ranging across many topics, often more related to ICES structure and function rather than the scope of the work undertaken:

- (a) Communication, integration and information flow within ICES – within the science structure and from science to advice
 - How to improve communication between different Working Groups; the majority of communication between chairs is currently due to personal contacts
 - How can we best integrate the work of all of the 17 EG's within SSGEPD to avoid duplication and ensure complementarity (and indeed the same applies to EGs falling under other Steering Groups and under ACOM).
 - How do we bridge the perceived gap between science and advice sides (e.g. groups may not fully understand the rationale for work requested by ACOM nor how best to contribute to advice)
 - Perhaps when relevant, ACOM could send someone to Working Group meetings to explain the Terms of Reference they have added. ACOM could also provide feedback on bottom-up generated Terms of Reference, indicating if and how they might be useful to the advisory process and if appropriate, how they could be more useful

- There is a need for EGs and their members to understand how the science feeds into the overall advisory process – while not all science feeds directly into advice, presumably much of it is ultimately useful to underpin advice
- We need to improve communication between the Science Groups and the Advisory process, particularly so science group reports don't just end up on a shelf; integration of the end products back into the mainstream advice is important

(b) Working methods and constraints

- Groups need Terms of reference relevant to member interests, while recognising that they have a job to do for ICES; a good balance is needed.
- Lack of time to complete work on Terms of Reference
- Early warning on the new requests from ICES to the EG's in case that earlier preparation could be done intersessionally. This could help groups to concentrate on wrapping up outputs during annual meetings.
- Lack of resources (e.g. for some members to attend meetings)
- It could be useful to spread the work through the year in some cases although other groups find intersessional work to be problematic
- Physical meetings effectively buy people's time; web meetings may help advance intersessional work
- Ecosystem level work is easily dealt with in small groups, but there is still a need to bring together all the work together for wider ecosystem understanding/application. ICES is placed in a unique position to steer direction and bring together the EG's to provide the science to underpin ecosystem level work.
- Some EG's also could organise back-to-back meetings to ensure the work is complemented.

(c) Reporting format

- Big reports can be very useful due to the large amount of information conveyed.
- In some EGs the most important aspects are discussions of methods, data analysis, interpretation, etc, which can help to inform other colleagues – this still needs to be captured somehow though.
- The current trend for very brief 1st and 2nd year reports means that important information may not be communicated until the end of a group's 3-year life cycle. Hence some colleagues will miss out on the details if they have not been able to attend the meetings regularly.
- Appendices can be used to include the lengthy and detailed accounts of work for future reference – this could be considered to be good practice.
- Different EGs could produce dedicated outputs that could help to extend ICES work in different formats (e.g. leaflets, synthesis with key messages, podcasts, etc.

(d) Evaluation of work (top down and bottom up)

- Could some groups undertake peer-review the work of others?

- It is important for EGs to provide ICES with clear feedback on how the different EG's find the work and reporting processes in place.

3.5 Integrated Ecosystem Assessment (Reid)

The aim of this session was to discuss future directions for fundamental ecosystem science within ICES, its contribution to the ICES Science Plan, and its role in underpinning advice.

The problem is deciding if there exists a single, optimal balance of objectives, and trade offs to make to achieve them. Probably not, but can then use, for example, weighting in IEAs to point up different stakeholder views, as in the Ocean Health Index..

Need to identify, with stakeholders, and governance/management:

- Key problems – key pressures
- Key drivers
- Key objectives – operational objectives practical and pragmatic
- Need to include explicit descriptions of trade-offs. Fish for dolphins, ecosystem health for economic benefits

Show current uses of the ecosystem today, and project to the future under a range of different management approaches, multi-dimensional examinations in the context of ecosystem goods and services.

Iterative approach with adaptive management – have a go at defining objectives etc. with stakeholders, and iterate after experience with those, revisit. Fail fast, Fail soft

Need for structure and formality in setting up relationships between stakeholders, managers, scientists etc. So everyone knows their role, so everyone is clear on validity, and credibility, and that when a group expresses a view it will be taken seriously. Also very useful when dealing with high level e.g. government departments.

BUT

Real value in very informal and unstructured discussions with stakeholders, esp. e.g. fishermen

How to widen the network. Fish is not a very rewarding area for economists, except pretty weird ones!! Actually not really true, there are plenty of economists interested and working in this field. Outreach via conferences like MARE and IFFET.

Should we keep the disciplines separate and carry out the “integration” on products/outcomes not try and integrate throughout.

Need to consider the scale of the IEA and the scale of human perception of issues. Probably SH would be more interested at scales well below the ecoregion. Temporal scales are also important, how the ecosystem looked in the past, now and in the future? MSFD allows such smaller scale analyses.

Approaches should aim to reduce the complexity of the problems to help communicate and arrive at equitable solutions.

Complexity of human use of the sea will increase and leading to increasing numbers of conflicting objectives. New and more difficult multi dimensional trade offs. Will need contributions from the law, governance and wider.

A possible place to start – common baselines

- What do we mean by baseline, scientifically, economically, socially

- What is a baseline, pristine, sustainable, acceptably impacted etc?
- A process to agree on baselines – then objectives in terms of those baselines

Is incorporating a human dimension into an IEA a “wicked problem”?

From Wikipedia, the free encyclopedia

A wicked problem is a problem that is difficult or impossible to solve because of incomplete, contradictory, and changing requirements that are often difficult to recognize. The use of term "wicked" here has come to denote resistance to resolution, rather than evil. Moreover, because of complex interdependencies, the effort to solve one aspect of a wicked problem may reveal or create other problems.

3.6 Human Dimensions in Integrated Ecosystem Assessments (Schmidt)

The open session was organized by the ICES Strategic Initiative on the Human Dimension in Integrated Ecosystem Assessments (SIHD) and co-chaired by Eva-Lotta Sundblad, David Goldsborough and Jörn Schmidt. 100 participants attended the session from social science, the humanities, natural sciences and policy. The session started with five presentations, exemplifying different activities of interdisciplinary work (see agenda).

The open session on Integrated Ecosystem Assessments on Monday, 20 September brought up a couple of issues.

- Is there a single balance of objectives and trade offs?
- What happens if we actively change the system?
- Should there be formal structures or easy going anarchy?
- How should we widen the network?
- How can we limit complexity?
- What are baselines in a system?

The general discussion was intended to explore objectives and possible tasks for the Strategic Initiative. However the discussion emphasized over large parts on inter- and trans-disciplinary research in general and how different disciplines can and should work together. This emphasize on working together showed that many obstacles still exist for interdisciplinary work. These obstacles can be institutional barriers, funding schemes or even simply not understanding each other's language. Many examples of interdisciplinary work, however, do exist and it is also encouraging that many recent master courses are teaching interdisciplinarity, e.g. environmental management and thus younger scientists will grow up in an interdisciplinary environment. All practical examples show that it is necessary to work on an actual issue rather than trying to set up a conceptional framework for interdisciplinary collaboration. What kind of questions do we want to answer? What kind of questions can we answer in the current system and where do we need to adapt? And if these answers are meant to be advice, the question arises if the policy framework is able to take up this advice. Often the governance structures are not ready to handle integrated advice and dealing with explicit trade-offs. In addition to this, advice is often needed when the science is not yet ready to deliver.

In conclusion, an interdisciplinary approach should be envisaged from the beginning on, as integrated ecosystem assessment is a process. However, within this process, disciplinary knowledge should still be embraced to widen the opportunities.

3.7 Marine ecosystem baselines as the basis for reference points (Ojaveer, Pierce)

The principal aim of this session was to address the ICES Science Plan topic '*Develop historical baselines of population and community structure and production to be used as the basis for population and system level reference points*', reviewing the state-of-the-art in relation to historical baselines and methodological challenges associated with interpreting historical data, accounting for the different characteristics of different ecosystem components and effects of human activities. The following presentations were given:

- ✓ Historical baselines in the context of fish stock assessments and fishery management (Margit Eero)
- ✓ Setting baselines for eutrophication status in the Baltic Sea: experiences from implementation processes of EU WFD and MSFD (Georg Martin)
- ✓ Understanding seafloor integrity: providing advice and advancing our current knowledge in support of MSFD (Silvana Birchenough)
- ✓ Ecosystem dynamics in the Central Baltic Sea during the 20th Century - what does the "desired or pristine state" really mean to us? (Maciej Tomczak)
- ✓ Methodological considerations for defining historical baselines (Laura Uusitalo)

Some of the key conclusions include:

- ✓ Historical information may not be crucial for single species stock assessments and tactical management focusing on present situation and near future. However, a long term perspective is considered invaluable for ecosystem-based management, as it can enhance understanding of driver impacts and interactions in the ecosystem, thus supplementing modelling exercises with empirical evidence.
- ✓ Application of historical data is one of the four recommended approaches for generating levels of environmental variables used to describe eutrophication, although currently modelling is the clearly preferred approach.
- ✓ When developing historical baselines, it is advisable to choose variables with which do not have identification / determination issues, and to choose parameters that are robust to changes in sampling regimes.
- ✓ Care must be taken when interpreting the data, since "baseline" values may vary naturally, e.g. in relation to environmental conditions, which can mean that the first impressions are misleading.
- ✓ Ecosystem baselines remain currently as an open question. When starting to develop them, it is important to consider whether the various historical baselines associated with different ecosystem components are actually mutually compatible; and if they are, if they could still occur. It is proposed that a coherent vision of desired ecosystem state would be developed in a "historical IEA" exercise.

The presentations were followed by a general discussion. Important points raised included:

- ✓ The quality of historical data and associated uncertainty. If possible, we should revisit historical data as new evidence and methodologies become available
- ✓ The legacy of the historical component (History of Marine Animal Populations) of the global Census of Marine Life, CoML programme. The Working Group on History of Fish and Fisheries (WGHIST) is continuing this activity in ICES by exploiting the data available from CoML.

- ✓ When interpreting historical data, in addition to considering abundance / biomass baseline levels, investigating variability over time is important.
- ✓ We should take account of unprecedented findings in the historical record. These help us to understand and record what we have lost over time.
- ✓ There is a clear link between how far back we are looking at and what we'll get (shifting baselines).

3.8 What makes a good conference? (Petitgas, Schmidt)

This session was co-chaired by Rudi Voss (Germany), Jörn Schmidt (Germany), and Pierre Petitgas (France).

The ASC brings together the ICES community at large, the greater marine science community as well as stakeholders and policy makers in fisheries and ocean management. Due to its importance for ICES, a group was established to review the format of the ASC (SRGASC) and evaluate whether the ASC is well on track in fulfilling its purpose. A questionnaire was developed in 2015 to get feed-back from ASC participants after the conference has ended. During the 2015 ASC, two alternative ways were organized to get direct feed back from participants, with simplified questionnaires: the session "What makes a good conference? Come and shape the future of the ASC" was organized for one hour during a lunch break and was run with the interactive online tool www.kahoot.it. Each participant in the room was connected on-line and responded to a survey by selecting answers to questions prepared in advance. Every one saw the answers immediately on the screen, which triggered lively comments. The session attracted 25-35 participants. One third were young scientists and two thirds were seniors, all mainly from national laboratories. They participated in the ASC for a mixture of reasons, including to make a contribution, network and get updated on a variety of topics. Most had the ASC high in their agendas and thought the conference was comprehensive in topics. Most agreed that the conference duration could be 4 days but with no more than 4 sessions in parallel. Most agreed that sessions should be run with flexible formats, allowing for innovative ways for presenting and interacting. Some suggested running short workshops to quickly learn hot topics. Most agreed that the poster session should be improved.

I AM ...	"Student"	"Early Career <5y"	"Senior 5-15y "	"Senior-Leader >15y "
- No.of answers	2	7	8	10
HOW MANY ICES ASCs HAVE YOU ATTENDED ?	"1"	"<5"	"5-10"	">10"
- No.of answers	6	7	9	6
YOUR CURRENT POSITION IS WITH ...	"National Lab."	"Academia"	"Policy"	"Industry"
- No.of answers	15	7	1	0
THE DURATION OF ICES ASC IS ...	"Too short"	"OK"	"1 day too long"	"2 days too long"
- No.of answers	0	17	10	4
THE NUMBER OF PARALLEL SESSIONS IS ...	"OK as is"	"Too Low"	"Too High"	"My program starts at 8 pm"
- No.of answers	9	0	18	3
YOUR MAIN MOTIVATION TO COME TO THE ASC IS ...	"a Talk / a Poster"	"Networking"	"Overview on new science"	"I was told to come"
- No.of answers	5	10	6	9
HOW IMPORTANT IS THE ASC IN YOUR CALENDAR?	"No 1 'I must have!'"	"No 2"	"No 3"	"No 137"
- No.of answers	12	9	8	0
ARE YOUR MAIN TOPICS COVERED BY THE SESSIONS ?	"Yes, I made them"	"It's ok"	"It's difficult"	"No!"
- No.of answers	6	11	9	4
SHOULD THE SESSION STRUCTURE BE RETAINED ?	"Yes"	"No, it's outdated"	"More flexibility would be fine"	
- No.of answers	4	9	16	
HOW DO YOU PERCEIVE THE ASC ?	"Too conservative"	"There is hope..."	"Just right!"	
- No.of answers	4	21	5	
EVENTS FOR YOUNG SCIENTISTS AT THE ASC ARE ...	"Great!"	"OK, but more is needed"	"Could be less"	"Didn't realize that there were any."
- No.of answers	3	13	1	12
SHOULD POSTERS RECEIVE MORE ATTENTION ?	"No, current set-up is fine."	"No. Poster are useless."	"Yes (bring more beer)."	"Yes (with innovative formats)."
- No.of answers	1	3	9	11
WOULD YOU STILL PARTICIPATE IF THE FEE WAS DOUBLED	"Yes."	"No."	"Yes, but not my students."	
- No.of answers	13	8	5	
HOW DO YOU RATE THE SOCIAL PROGRAM ?	"It's the best I know."	"Good, but should be improved."	"Poor."	
- No.of answers	2	23	1	
DID YOU LIKE THE CONFERENCE GAME ?	"Yes."	"No."	"There was a game?"	
- No.of answers	12	4	14	
WILL YOU COME BACK TO THE ICES ASC?	"Yes, as every year."	"Would like to, but not sure."	"Only, if conference improves."	"Definitely not."
- No.of answers	16	17	0	0
DID WE FORGET SOMETHING IMPORTANT ?	"No."	"Yes."		
- No.of answers	12	17		
DID YOU LIKE THIS KAHOOT ?	"Yes."	"No."		
- No.of answers	31	2		

A discussion followed after the kahoot survey. Shorter presentations would allow to increase interaction and have more discussions during the sessions. Programming parallel sessions with similar topics should be avoided as much as possible. To avoid such situation, participants when registering could tick which sessions should not be programmed in parallel (was done in a former ASC). More plenary sessions could be programmed. Although activities are offered for Early Career scientists, more could be done, especially with regard to connecting to senior scientists (mentoring). Ways to increase interaction between participants could be looked for, e.g. allowing to catch the author of an oral or a poster contribution. Meeting points, set up at coffee breaks were mentioned. The list of participants with their affiliation should be made more accessible as well as the abstracts of contributions.

This feed-back will help design future ASCs.

4 Reports of Science Steering Groups

4.1 SCICOM Steering Group on Ecosystem Processes and Dynamics (SSGEPD, Graham Pierce, UK)

The ICES Steering Group on Ecosystem Processes and Dynamics provides a forum for ICES Expert Groups which work primarily to improve our understanding of the structure and function of marine ecosystems in the North Atlantic.

	Expert Group name	Acronym
1	Working Group on Integrated Morphological and Molecular Taxonomy	WGIMT
2	Benthos Ecology Working Group	BEWG
3	Working Group on Cephalopod Biology and Life History	WGCEPH
4	Working Group on Biodiversity Science	WGBIODIV
5	Working Group on Small Pelagic Fishes, their Ecosystems and Climate Impact	WGSPEC
6	Working Group on Phytoplankton and Microbial Ecology	WGPME
7	Working Group on Crangon fisheries and life history	WGCRAAN
8	Working Group on Zooplankton Ecology	WGZE
9	Working Group on Oceanic Hydrography	WGOH
10	Working Group on the Biology and Life History of Crabs	WGCRAAB
11	Working Group on Resilience and Marine Ecosystem Services	WGRMES
12	ICES IOC Working Group on Harmful Algal Bloom Dynamics	WGHABD
13	Working Group on Recruitment Forecasting in a Variable Environment	WGRFE
14	Working Group on Operational Oceanographic Products for Fisheries and the Environment	WGOOFE
15	Working Group on the Science Requirements to Support Conservation, Restoration and Management of Diadromous Species	WGRECORDS
16	Working Group on data poor diadromous fish	WGDAM
17	Working Group on Effectiveness of Recovery Actions for Atlantic Salmon	WGERAAS
18	Working Group on Fisheries-Induced Evolution	WGEVO
19	Workshop on Growth-increment Chronologies in Marine Fish: climate-ecosystem interactions in the North Atlantic 2	WKGIC2
20	Joint Workshop of the Working Group on Eel and the Working Group on Biological Effects of Contaminants	WKBECEEL
21	ICES/PICES Workshop on Modelling Effects of Climate Change on Fish and Fisheries	WKSICCME_Project

22	Joint ICES-PICES Working Group on Climate Change and Biologically-driven Ocean Carbon Sequestration (Subject to approval by SCICOM)	WGCCBOCS
23	ICES/PICES Workshop on Phase 1: Modelling Effects of Climate Change on Fish and Fisheries (Subject to approval by SCICOM)	WKSICCME1
24	Workshop on Sea Trout 2 (Subject to approval by SCICOM)	WKTRUTTA2

4.1.1 Scope of EG work

At the time of writing (October 2015), the Steering Group oversees the work of 17 Working Groups (WG) and 7 Workshops WK. The WGs comprise 11 groups focused on particular taxa or ecosystem components (BEWG, WGCRAAB, WGCRAAN, WGCEPH, WGERAAS, WGHABD, WGOH, WGPME, WGRECORDS, WGSPEC, WGZE), four focused on concepts or processes (WGBIODIV, WGEVO, WGRFE, WGRMES) and two focused more on tool and product development (WGIMT, WGOOFE).

The most recent Science Plan mapping exercise attracted responses from 12 groups associated with SSGEPD. Focusing on replies about the first nine topics of the Science Plan, i.e. those most closely associated with ecosystem processes and dynamics, it is evident that all these topics are covered to some extent – but to varying degrees (see Table below). Some groups have a very broad focus (e.g. BEWG) while others are mainly concerned with particular topics (e.g. WGBIODIV); both approaches can be very fruitful as evidenced by the output of the two highlighted EGs. It could be argued that a more top-down approach may be needed to ensure a better balance of Science Plan coverage. However, several obvious caveats apply: (1) groups outside SSGEPD also contribute to these Science Plan topics, so coverage may be better than it appears here, (2) ToRs proposed by EG members are more likely to be embraced enthusiastically by the EGs than ToRs imposed from above, and (3) the Science Plan itself emerged to a large extent through a bottom-up process and a more relevant and agile science coverage may be achieved if EGs are able to select the topics they believe to be of most relevance. A compromise solution may be an extended dialogue between EGs and SG chairs, in which the possible future ToRs are discussed, before draft resolutions are written.

4.1.2 Overview of activities and achievements the expert groups

Four EGs completed their three year terms so far in 2015 and have submitted self-evaluations and resolutions for continuation. The working methods and deliverables of the four groups are diverse.

WGBIODIV has focused on an extensive review of MSFD implementation, generating a 310 page report. Much of the material in this report appears to be of publishable quality and its impact could be increased by turning it into a series of review papers. There were concerns during the last two years over attendance and it is apparent that the report is mainly the work of a very small core group but the outgoing chair was optimistic about future prospects under the leadership of the proposed co-chairs. WGCRAAN cited an output of 32 publications and reports from its work. Clearly this is highly commendable but this level of achievement reflects the strong overlap between

the group's ToRs and the work carried out by members in their day jobs and the question could be asked how many of these publications would have been produced independently of WGCRA. Nevertheless this is evidently an active and energetic group and one which also has an interest in contributing to the advisory process.

Table: Contribution of SSGEPD EGs to the first 9 ICES Science Plan topics (survey results).

TOPIC / GROUP	BEWG	WGBIODIV	WGCEPH	WGCRA	WGCRA	WGERAS	WGEVO	WGMT	WGOH	WGRMES	(SICME)	WGZE	COUNT
1. Assess the physical, chemical and biological state of regional seas and investigate the predominant climatic, hydrological and biological features and processes that characterise regional ecosystems	1			1				1	1		1	1	6
2. Quantify the nature and degree of connectivity and separation between regional ecosystems			1	1	1			1	1		1		6
3. Quantify the different effects of climate change on regional ecosystems and develop species and habitat vulnerability assessments for key species		1	1	1						1	1	1	6
4. Understand the influence of climate impacts across a range of temporal and spatial scales, from local to global and from seasonal to multidecadal and identify indicators of climate driven biotic responses and forecast trajectories of change	1			1		1				1	1		5
5. Quantify the role of structural and functional diversity in marine ecosystems in providing stability and resilience	1									1			2
6. Investigate linear and non-linear ecological responses to change, the impacts of these changes on ecosystem structure and function and their role in causing recruitment and stock variability, depletion and recovery.	1		1				1				1		4
7. Develop end to end modelling capability to fully integrate natural and anthropogenic forcing factors affecting ecosystem functioning										1	1		2
8. Define and quantify north Atlantic Ecosystem Goods and Services, model their dependence on ecosystem processes and habitat condition and their social, economic and cultural value.	1			1	1					1			4
9. Identify indicators of ecosystem state and function for use in the assessment and management of ecosystem goods and services	1	1	1	1	1		1	1			1		8

WGPME reported completion of a review of methodology, assembly of an image collection and >80 time series and delivery of monitoring guidelines. WGSPEC highlighted its work with PICES and GFCM and production of a journal special issue and various papers.

SSGEPD was associated with two Cooperative Research Reports published in 2015, Identification guide for cephalopod paralarvae from the Mediterranean Sea (number 234) and Cephalopod biology and fisheries in Europe: II. Species Accounts (number 235), both arising in part from the work of WGCEPH and its members, and (in the latter case) the SSGEPD chair.

4.1.3 Activities at the Annual Science conference

Several the Theme Sessions at the 2015 Annual Science Conference were convened by SSGEPD-associated chairs:

(D) New approaches to measure and assess biodiversity, convened by the current and proposed incoming chairs of WGBIODIV,

(F) Small-scale fisheries under data-limited scenarios and (G) Managing marine ecosystem services in a changing climate, both co-convened by the WGRMES chair,

(H) Ocean acidification: Understanding chemical, biological and biochemical responses in marine ecosystems, co-convened by the BEWG chair,

(P) How to hit an uncertain, moving target: achieving Good Environmental Status under the Marine Strategy Framework Directive, co-convened by the SSGEPD chair

(T) Practical application of Genetic Stock Identification for the conservation, management, and restoration of diadromous fish species, convened by the chair of WGERAAS.

SSGEPD held an Open Session on Monday 21 September at the ASC. A summary of this session is given in Section 3.4.

The SSGEPD chair also co-convened the Open Session on Marine ecosystem baselines as the basis for reference points, held on 23 September.

4.1.4 Review and evaluation of progress

During 2014, a Core Group as established within SSGEPD, the currently active members being Ann Bucklin (WGIMT), Silvana Birchenough (BEWG) and Piotr Margonski (WGZE). Along with the SSGEPD chair, this group undertook a review of Expert Group reports generated during 2014-2015. To date, reports by 16 Expert Groups have been reviewed and the intention is to complete the detailed review during 2015. Some preliminary findings are summarised here and, unsurprisingly, touch on some similar issues to those discussed during the Open Session.

A general concern apparent among many EGs is **lack of resources** (i.e., dedicated funding and participation by people with appropriate / necessary expertise) to meet the mission and goals. In general, the broader the mission areas of the EG, especially those spanning both scientific and advisory needs of ICES, the more severe the shortfall in both money and human resources. It is also evident that achievement of objectives is more easily achieved in EGs where the work of the members is more similar to their day-to-day work. Careful focusing (narrowing) and prioritization of WG goals, with detailed ToRs defining realistic deliverables, could ameliorate some instances of resource limitation. A dialogue involving Expert Group chairs, Steering Group chairs and Delegates, prior to submission of Terms of Reference, might help to better align objectives and resources, provided that an efficient way could be found to cope with information coming in from a large number of different EGs simultaneously. Note that the process could be more complicated for groups with Chair-appointed members! A related topic is the extent to which **intersessional work** may be feasible and desirable.

Improving **communication and coordination**, between Expert Groups, across Steering Group boundaries and between Science and Advice remains an area of concern – a point worth addressing if the ICES science structure is to change. Another perennial topic is finding the right balance between **top-down and bottom-up** Terms of Reference, and the trade-off between individual member interest against ICES science and advice priorities. Where Terms of Reference are provided by ICES, more detailed explanations (and/or explanation in person) may help to achieve better buy-in from Expert Group members. It may also be noted that the rather Eurocentric focus of some Expert Groups may discourage participation from non-European ICES countries.

Given the interest in defining appropriate performance measures, a focus on Expert Group **deliverables** seems inevitable. The move to 3-year Terms of Reference has to some extent removed the requirement for repetitive and formulaic annual reports. However, this can also have a downside, including uninformative intermediate report and consequent lack of evidence of progress during years 1 and 2 of the group life cycle – and the risk of delivery of enormous 3rd year reports. Arguably valuable (at least for

future reference) narrative that used to appear in annual reports is also being lost – not everything is readily captured in specific deliverables. In general, staggered production of deliverables is desirable, with some product delivered each year and more attention paid to user-friendly formatting. Some reports would benefit from substantial editing of language and format. As a final point, it would be useful distinguish those deliverables arising directly from work in the Expert Group and those brought to the group by its members as products of their day jobs.

Linked to the first two topics is the general desire for the **impact of Expert Group work** to be maximised. This does not simply mean publication, rather that the findings reach relevant end-users both within and beyond ICES, and that there is a mechanism for the findings to feed into science, advice and policy as appropriate.

4.2 SCICOM Steering Group on Ecosystem Pressures and Impacts (SSGEPI, Henn Ojaveer, Estonia)

4.2.1 Status of Steering Group Terms of Reference

General ToRs

- a) Provide guidance to constituent EGs to ensure relevance to the Science Plan;

Continuous activity

- b) Identify gaps and overlaps in the EG base in relation to the science plan and international standards in ecosystem and stock management tool; consolidate and form new EGs as appropriate;

Continuous activity

- c) Seek feedback from and participation of advisory group experts in development of appropriate management tools under the current policy environment;

Needs to be addressed in future

- d) Review the scientific products delivered by EGs to assure quality standards;

Continuous routine activity

- e) Advise SCICOM on the form and substance of the ASC, symposia and workshops;

Continuous activity, incl. proposing ocean acidification workshop in 2016

- f) Ensure communication among Steering Groups and their constituent EGs;

Continuous activity

- g) Establish and nurture collaborations within and outside the ICES community;

Discussing collaboration with PICES, CIESM, JPI Oceans and BONUS (externally)

- h) Identify and develop performance measures for realization of the Implementation Plan;

Performance evaluation of SSGEPI EG's for implementation of the Science Plan

4.2.2 EG Performance/MA ToR Progress

The following seven EG's will finish in 2015 and need to submit self evaluation reports: WGMRED, WGPDMO, WGBEC, WGAQUA, WGVHES, WGSFD and WGSAM.

Five EG's (WGBRED, WGPDMO, WGAQUA, WGVHES and WGSFD) have submitted self evaluation reports and indicated wish to continue their activities. All these five reports were positively evaluated and all EG's should continue. WGBEC hasn't submitted yet the report and WGSAM meeting will take place later in 2015.

Three expert groups (WGBOSV, WGITMO and MCWG) have not yet switched to a three-year.

In only a few cases (see below) expert groups have both sufficient numbers of experts and the proper kinds of expertise to fulfill their terms of reference.

4.2.3 EG participation

- In general, participation seems not to be the major problem at least for majority of the EG's.
- WGHIST had attendance problems in previous years, but due to back-to-back meetings with EU COST Action 'Oceans Past Platform' these difficulties are likely solved during 2015-2018.
- Two EG's have reported as having difficulties in addressing ToR's with sufficient manner and detailness: WGEXT (with slight participation issue related to underrepresentation of some countries) and WGAQUA (lack of participation with key expertise).

4.2.4 Expert Groups under SSGEPI

	Expert Group name	Acronym
1	Working Group on Marine Benthic and Renewable Energy Developments	WGBRED
2	Working Group on Marine Renewable Energy	WGMRE
3	Working Group for Marine Planning and Coastal Zone Management	WGMPCZM
4	Working Group on the Effects of Extraction of Marine Sediments on the Marine Ecosystem	WGEXT
5	Working Group on Pathology and Diseases of Marine Organisms	WGPDMO
6	Working Group on Biological Effect of Contaminants	WGBEC
7	Working Group on Aquaculture	WGAQUA
8	Marine Chemistry Working Group	MCWG
9	Working Group on Marine Sediments in Relation to Pollution	WGMS
10	Working Group on Social and Economic Dimensions of Aquaculture	WGSEDA
11	Working Group on Application of Genetics in Fisheries and Mariculture	WGAGFM
12	Stock Identification Methods Working Group	SIMWG
13	Working Group on the value of Coastal Habitats for Exploited Species	WGVHES
14	Working Group on Spatial Fisheries Data	WGSFD
15	Working Group on Marine Habitat Mapping	WGMHM

16	Working Group on the History of Fish and Fisheries	WGHIST
17	Working Group on Multispecies Assessment Methods	WGSAM
18	ICES Working Group on Introduction and Transfers of Marine Organisms	WGITMO
19	ICES/IOC/IMO Working Group on Ballast and Other Ship Vectors	WGBOSV
20	Working Group on Risks of Maritime Activities in the Baltic Sea	WGMABS
21	Working Group on Methods of Fish Stock Assessments	WGMG
22	Workshop on Probabilistic Assessments for Spatial Management	WKPASM
23	Workshop on Conflicts and Coexistence in MSP	WKCCMSP
24	Bayesian Belief Network Case Studies (Subject to approval by SCICOM)	WKBNCS
25	ICES/PICES Workshop on Economic Modelling of the Effects of Climate Change on Fish and Fisheries (Subject to approval by SCICOM)	EconWKSICCME

4.2.5 Science Highlights

All EG's under SSGEPI have several scientific outputs which deserve attention. However, due to space limitations, a few highlights of some groups are presented here. These represent already completed or near-completion work:

Jones, S. R. M., Bruno, D. W., Madsen, L. & Peeler, E. J. 2015. Disease management mitigates risk of pathogen transmission from maricultured salmonids. *Aquaculture Environment Interactions* 6: 119-134.

Establishing and standardizing methods for receiving VMS/Logbook data from ICES data calls. This includes proposing data formats, work on evaluating the data quality and in 2015 working on a Data Guidelines document.

Lipcius R., Eggleston D.B., Fodrie J., Rose, K., Van der Meer J., Van de Wolfshaar K.E., Vasconcelos R, M. Wilbur, Genny Nesslage. Populations models quantifying the value of coastal habitats for exploited species (under prep.)

Engelhard G.H., Thurstan R.H., MacKenzie B.R., Alleway H.K., Bannister R.C.A., Cardinale M., Clarke M.W., Currie J.C., Fortibuoni T., Holm P., Holt S.J., Mazzoldi C., Pinnegar J.K., Raicevich S., Volckaert F.A.M., Klein E. and Lescrauwaet A-K. ICES meets marine historical ecology: placing the history of fish and fisheries in current policy context. *ICES Journal of Marine Science* (submitted)

Extensive literature review of existing and potential molecular techniques to evaluate infectious disease and parasite spread from transferred sea-food into wild populations

Lehtiniemi M, Ojaveer H, David M, Galil B, Gollasch S, McKenzie C, Minchin D, Occhipinti-Ambrogi A, Olenin S, Pederson J 2015. Dose of truth—monitoring marine nonindigenous species to serve legislative requirements. *Marine Policy* 54: 26–35.

4.2.6 Examples of EG activities that fulfil the ICES Strategy and Science Plan

ICES SCIENCE PLAN OBJECTIVE	EXAMPLE OF THE ACTIVITY
Develop historical baselines of population and community structure and production to be used as the basis for population and system level reference points.	Open session on 'Marine ecosystem baselines as the basis for reference points' at ICES ASC 2015 (as SSGEPI/SSGEPD joint activity)
Develop methods to quantify multiple direct and indirect impacts from fisheries as well as from mineral extraction, energy generation, aquaculture practices, and other anthropogenic activities, and estimate the vulnerability of marine ecosystems to these impacts.	WGMRE ToR: Identify cross-sectoral issues involving marine renewable energy, for example opportunities for co-location, interactions with fishing, aquaculture, fisheries and Marine Conservations Zones.
Develop indicators of pressure on populations and ecosystems from human activities such as eutrophication, contaminant and litter release, introduction of alien species, and generation of underwater noise	WGITMO ToR: Continue addressing EU MSFD D2 on further developing and evaluating NIS indicators and screening and identification of species of concern WGSFD ToR: DCF indicators and MSFD Descriptor 6
Develop tactical and strategic models to support short- and long-term fisheries management and governance advice and increasingly incorporate spatial components in such models to allow for finer scale management of marine habitats and populations	WGSFD ToR: Review on-going work for analysing VMS data and developing standardized data products
Quantify and map biological, ecological, and environmental values, with an aim to optimize ecosystem use and minimize environmental impacts in relation to ecosystem carrying capacity	WGVHES ToR: Quantify the importance of habitats for exploited species
Develop science in support of advisory needs in marine aquaculture systems, minimizing environmental impacts, and integrating other marine sectors	WGAQUA ToR: Analyse and assess the potential ecosystem services and impacts of aquaculture, including extractive aquaculture approaches for environmental impact biomitigation

4.2.7 Interaction between ACOM and SCICOM

Expert groups under SSGEPI are very strongly involved in responding to the incoming advice requests. In addition, several EG's advance science directly relevant to several ACOM groups or address high-priority subject-areas in ICES (e.g., EU Marine Strategy Framework Directive, Aquaculture and Arctic). The examples from 2015 include:

- WGSFD: responding to OSPAR (Support for the development of common and candidate OSPAR biodiversity indicators for benthic habitats: Benthic habitats) and HELCOM (Pressures from fishing activity (based on VMS/logbook data) in the HELCOM area relating to both seafloor integrity and management of HELCOM MPAs) requests,
- WGBOSV and WGITMO: addressing OSPAR request to review of draft OSPAR JAMP Eutrophication Guidelines on phytoplankton species composition,

- WGAQUA: response to OSPAR request on Inter-actions between wild and captive fish stocks,
- WGMHM: responding to OSPAR request on Support for the development of common and candidate OSPAR biodiversity indicators for benthic habitats: Benthic habitats,
- WGAGFM: response to recommendations submitted from the Benchmark Workshop on Northern Haddock Stocks (WKHAD),
- SIMWG: provision of expert advice on the evaluation of stock identity of several commercially exploited species: plaice in ICES sub-area IIIa (request from WKPLE), haddock in ICES sub-area IV and V (request from WKHAD), European anchovy ICES Division IXa (request from WGHANSA), megrim in ICES subarea VIIIc and IXa (request from WGBIE) and greater silver smelt (request from ADGDEEP),
- WGPDMO: response to OSPAR request on development of a common monitoring protocol for plastic particles in fish stomachs and selected shellfish on the basis of existing fish disease surveys,
- WGEXT and MCWG: engagement in MSFD-related work (Essentially Descriptors 8 and 9, but also D1, 4, 6, 7, 11).

4.2.8 Perceived needs and gaps

- The expertise of WGAQUA does not cover all aquaculture topics that were identified by ICES prior to formation of the group. For example, WGAQUA lacks expertise on product quality, consumer safety & health, and aquatic animal health & welfare,
- Data delivery is in a few cases major issue and should deserve high-level attention. Fishing intensity maps (surface and subsurface fishing abrasion) were produced to answer requests from OSPAR and HELCOM (based on nationally submitted VMS/Logbook data). However, and because not all countries submitted the requested data, the outputs from WGSFD suffered,
- The 3-year cycle puts a major pressure (albeit unintentional) on drafting ToR reports in the final year. The absence of key members during that year prevents completion of ToRs on which they have been leading, or which they were contributing too in a significant manner. The 3-years cycle is also less favourable for conducting a 1-year scoping exercise to assess issues related to potentially recommending a new ToR,
- Several EG's under SSGEPI (such as WGEXT, MCWG, WGITMO, WGBOSV) produce valuable new knowledge which could be used in addressing MSFD. Thus, there might be a need for better coordination of such activities in ICES to assemble all the valuable science produced,
- Further communication between MCWG and ICES Data Centre is needed to ensure that the data available through the MCWG will be stored in the data centre as much as possible and feasible,
- A few EG's (WGVHES, WGBOSV) mentioned that very little work/communication happens outside the annual meeting. This was seen as problem to efficiently achieve EG ToR's,
- Not all important human-induced pressures affecting marine ecosystems are dealt with currently in SSGEPI EG's. Two of them - plastics and ocean acidification – will receive attention in coming years through dedicated activities. This will result

in more comprehensive evidence on the magnitude of external pressures and their impacts on marine ecosystems.

4.3 SCICOM/ACOM Steering group on Integrated Ecosystem Assessments (SSGIEA, Dave Reid, Ireland)

4.3.1 Status on SG Terms of Reference

General ToRs (for all SSGs)

a) Provide guidance to constituent EGs on ToRs and outputs to ensure relevance to the Science Plan;

IEA Science Plan component and EG ToRs fully aligned.

b) Identify gaps and overlaps in the EG base, and consolidate and form new EGs as appropriate;

Geographical coverage of IEA groups covering all European waters from the Barents Sea to the West Mediterranean, plus NW Atlantic. In 2015, the potential for a new area was explored under WKICA and a new IEA WG has been proposed Working Group on Integrated Ecosystem Assessment (IEA) for the Central Arctic Ocean (WGICA) in collaboration with AMAP, CAFF & PAME. The need for a dedicated EG for the provision of detailed ecosystem advice in the Baltic was identified and a new group proposed - WKDEICE – Workshop on DEveloping Integrated AdvICE for Baltic Sea ecosystem-based fisheries management. Finally, as a pilot for linking the IEA work to MSFD advice, a further new EG was set up and met in the spring (WGMSFdemo) focussed on the Celtic Sea.

c) Review the scientific products delivered by EGs to ensure the maintenance of appropriate quality standards;

No new products to date.

d) Advise SCICOM on the form and substance of the ASC, symposia, and workshops;

Done.

e) Ensure communication among Steering Groups and their constituent EGs;

Continued strong collaboration with SSGIEOM and production of a joint report - Workshop on the review of the ecosystem survey requirements (WKSUREQ).

f) Establish and nurture collaborations within and outside the ICES community;

Ongoing.

Overarching ToRs for SSGIEA

g) Map the EGs and their ToRs against the information and data that ICES needs to deliver the Science Plan and its advisory work, suitably prioritized.

IEAs, EGs, and ToRs are strongly linked to the Science Plan. Priorities for Assessments, Ecosystem Descriptions, and delivery of trend information to advice have been established.

h) Promote the development of the Regional Ecosystem Descriptions in standardized formats along the lines proposed by WKECOVER and WKDECOVER. Propose additions and improvements to those guidelines in collaboration with constituent EG.

Regional Ecosystem Descriptions have been prepared in all areas and are being updated as appropriate. Standardized formats following WKECOVER and WKDECOVER are being incorporated.

i) Work with ACOM/SCICOM Benchmark Steering Group (BSG), and chairs of WKBEMIA 2013 to develop benchmark guidance for developing IEA in the constituent IEA EG.

In general, the IEA work is not yet ready for full benchmarking. However, an approach has been piloted through WKIRISH Workshop on the impact of ecosystem and environmental drivers on Irish Sea fisheries management.

j) Promote the development of outlined Integrated Ecosystem Assessments with the IEA EG. It is recognized that a variety of approaches to IEA exist, and different approaches will be appropriate to the different IEA EG based on skill sets and local conditions. SSGIEA will promote innovative approaches including using partial component based analyses, and use of combination quantitative and expert judgement approaches.

Formal IEA, following arrange of approaches are under construction in all IEA EG. The basic approach is for full IEAs but with focus on particular key linkages.

k) Maintain a watching brief over initiatives in IEAs in the wider community beyond ICES. This should include new approaches or methods for IEAs, and broadening of the IEA concept to potentially include economic and social drivers and impacts.

Ongoing.

l) Promote the development within EGs of standards and guidelines for good practice and quality assurance in the collation and use of data. This should extend to the maintenance of archived data used in the IEAs, and documentation of all the steps taken to arrive at a conclusion for a given IEA, and the possible involvement of the ICES Data Centre.

Ongoing

4.3.2 EG Performance/MA ToR progress

All the EGs are performing well. With the exception of SGSPATIAL, the EG have all developed multi-annual ToRs. WGMSFDemo is new and had their first meeting in the last year. WGIAB successfully reached the end of their three year ToR, and have completed the self evaluation process, and submitted new 3 year ToR.

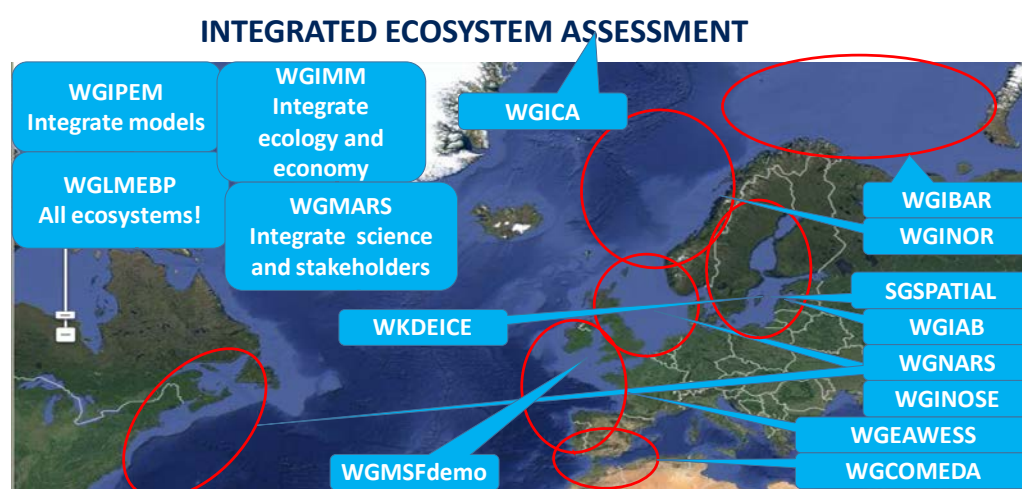
4.3.3 EG Participation

Attendance at most EG meetings held since the last report has been good.

Structural diagrams of the consistent EGs

The figure below shows the geographical coverage of the component groups of SSGIEA. The groups identified in the right-hand panels are the geographically specific Integrated Ecosystem Assessment groups. All aim to develop appropriate IEA methodologies, Regional Ecosystem Descriptions and start to identify operational ecosystem advice to managers. WGICA is a newly proposed group to set up IEA in the central Arctic Ocean. The four groups in the left panels have a more general remit and also support the work of the geographically focused groups. WGIPEM is targeted on developing the ecosystem models needed for IEA. WGMARS aims to support the integration of the wider community of stakeholders and WGIMM to link up with economists and social scientists. Finally WGLMEBP sets the ICES IEA work in the global context of the LME programme. Two further groups have been proposed.

Firstly, WGMSFdemo, to explore how to provide MSFD advice from ongoing monitoring in the Celtic Sea. WKDEICE has been proposed to develop specific proactive and responsive advice on ecosystem interactions with fisheries in the Baltic Sea.



Expert groups in SSGIEA. *=groups which are being moved to SSGIEA.

	Expert Group Name	Acronym
1.	Working Group on Integrative, Physical-biological, and ecosystem modelling	WGIPEM
2.	Workshop on Spatial Analyses for the Baltic Sea	WKSPATIAL
3.	Working Group on Ecosystem Assessment of Western European Shelf Seas	WGEAWESS
4.	Working Group on the Northwest Atlantic Regional Sea	WGNARS
5.	Working Group on the Integrated Assessments of the Barents Sea	WGIBAR
6.	Working Group on Integrating Ecological and Economic Models	WGIMM
7.	Working Group on Integrated Assessments of the North Sea	WGINOSE
8.	Working Group on Large Marine Ecosystem Programme Best Practices	WGLMEBP
9.	ICES/HELCOM Working Group on Integrated Assessments of the Baltic Sea	WGIAB
10.	Working Group on Comparative Analyses between European Atlantic and Mediterranean marine ecosystems to move towards an ecosystem-based approach to fisheries	WGCOMEDA
12.	Working Group on the Integrated Assessments of the Norwegian Sea	WGINOR
13.	Working Group on Maritime Systems	WGMARS
14.	Working Group to Demonstrate a Celtic Seas wide approach to the application of fisheries related science to	WGMSFDemo

the implementation of the Marine Strategy Framework Directive

- 15 ICES/AMAP/CAFF/PAME Workshop on Integrated Ecosystem Assessment (IEA) for the Central Arctic Ocean WKICA

4.3.4 Science Highlights

These highlights are the personal selections of the SSG Chair and in no way reflect the importance and value of any work not mentioned here. Some groups are not highlighted here, as these groups did not meet in the last year e.g. WGINOR & WGLMEBP (meeting in September 2015).

WGCOMEDA Mallorca May 2015

- Key population traits that stabilize and shape fish community dynamics: a portfolio effect analytical framework across Mediterranean and Atlantic ecosystems.
- Investigating the resilience – resistance at different levels through the patterns and drivers of functional diversity of fish communities across Mediterranean and Atlantic Seas.
- Biodiversity, community and ecosystem traits changes at regional scales.
- Exploring a demographic portfolio using pelagic forage species across Mediterranean and Atlantic ecosystems.
- Investigating patterns and drivers of functional diversity of benthic ecosystems.

WGIAB Cadiz March 3 years ToR ended. Self evaluation completed.

- The Baltic ecosystem functioning activity focused on identifying and exploring key trends and linkages in the Baltic Sea foodweb.
- DEMO 3 (DEMONstration exercise for Integrated Ecosystem Assessment and Advice of Baltic Sea cod)
- short and midterm projections/scenarios of Baltic cod dynamics based on different types of modelling,
- practical implementation of Integrated Advice for Baltic cod

WGIBAR Kirkenes June 2015

- The BS is currently changing and the state differs from previous periods.
- The recent period is characterized by
 - warming,
 - decreased ice cover,
 - expansion of boreal stocks north-wards into the Arctic subregion,
 - large and thriving stocks of cod, haddock and capelin, and moderate fishing pressure.

WGINOSE Hamburg March 2015

- Continued development of the BBN model to explore the relationships between identified important ecosystem components of the North Sea and to

make predictions of state changes in response to different management scenarios.

- The BN model structure has to be designed to answer specific questions
- Spatial scale for a BN model should be based on the spatial structure of data
- Do not over extend the spatial scale or utility of the BN model.
- Specific assessment/advice questions should be defined before the model structure is developed

WGNARS Dartmouth February 2015

- Emphasis on group discussion, interaction, analysis, and decision-making.
- Two specific ecoregions Georges Bank/Gulf of Maine and the Grand Banks
- Identify alternative management strategies to achieve 2014 objectives
- Identify multiscale ecosystem responses to large-scale drivers and key human activities outlined in 2014.
 - Bottom AND surface temperature, sea ice cover and timing, freshwater input, stratification and salinity
 - Fishing and energy development and/or exploitation

WGEAWESS Cadiz March 2015

- Full ODEMM analyses have been completed for the Celtic Seas and Bay of Biscay regions, with fishing as the main pressure sector
- Ecosystem trends,
 - decline in fishing pressure from the Celtic Sea to the Portuguese coast. But increase in the Gulf of Cadiz.
 - Possible rise in key indicators such as the Large Fish Indicator in the Irish Sea and Bay of Biscay, but not in the Celtic Sea and Portuguese waters.
- Mean Sea Surface Temperature has increased in all areas of the Celtic Seas Ecoregion.
- Zooplankton community analysis in the Cantabrian Sea suggests a regime shift between 2001 and 2006.

WK/WGICA Bergen May 2015

- Proposal for a new working group to develop an IEA for the Central Arctic Ocean

WGIMM May Webex

- Continued investigation of coupled models, currently 26 analysed models.
- ICES ASC Session “Social, economic, and ecological impact assessment across marine sectors?”
- Review paper “Evaluation of Integrated Ecological-Economic Models – Review and Challenges for Implementation” for ASC and peer reviewed journal.
- Problems with attendance and finding dates

WGIPEM Plymouth March 2015

- Focus on zooplankton modelling - joint, 1-day meeting with WGZE.
 - Identified good examples of studies that included both models and observations to integrate knowledge on processes.
 - But this is relatively rare. Collaboration needs
 - standardization of measurements;
 - stronger interaction between disciplines;
 - databases or catalogues that show where and which data are available;
 - iterative steps following data sampling, building models, integrating processes, identifying knowledge gaps, informing sampling programs on which parameters to measure etc.
 - efficient and statistically sound ways to compare (or integrate) models and observations.

WGMARS Copenhagen December 2014

- ICES Expert Group network analyses completed – we are all connected, sort of!
- “What hat are you wearing?” manuscript started in 2013.
 - the different individual and institutional roles with which fisheries scientists in the ICES community are faced.
- WGMARS catalysed a stake-holder-scientist meeting on herring spawning ground mapping in 2015.

WGMSFDemo Dublin April 2015

- CFP data use to carry out a Celtic Seas wide assessment for Descriptor 1, 3, and 6 using selected OSPAR Indicators (both common and candidate).
- Progress on an ecosystem-based stratification for the Celtic Seas.
- Quality assured data from the DATRAS data-base that is suitable of the calculation of the MSFD indicators.
- WGMSFDemo will collate and quality assure the relevant data during 2015 and should be in a position to run a Celtic Seas wide assessments using selected indicators in 2016, feeding into the OSPAR 2017 Intermediate Assessment.

WKSpatial Gothenburg November 2014

- Stomach contents showed that in more hypoxic areas cod were feeding at a lower rate, and on less benthic prey
- Low condition cod also take less pelagic (high value?) prey.
- Indicators of the spatial distribution of cod, sprat and herring, from ICES-coordinated international surveys, using the centre of gravity, were updated.
- Proposed continuation via workshops, and will continue to examine cod stomachs and the small-scale properties of fish spatial distribution

4.3.5 ACOM and SCICOM Interaction

In 2014 it was agreed that SSGIEA would be represented on both ACOM and as an *aex-officio* member of ACOM. This was discussed and agreed by SCICOM at the ASC. The SSG chair attended the autumn meeting of ACOM in this capacity, and in particular the discussion focused on advice delivery and incorporation of the human dimension. As a result, and along with the BSG, WKIRISH1 was set up and successfully run in the spring of 2015 to help link ecosystem work with fish stock advice. A similar process led to the proposal for WKDEICE to provide ecosystem and fisheries advice in the Baltic.

4.3.6 Perceived Needs and Gaps

As stated in the 2014 report, one important future need for SSGIEA is to look to holding a joint meeting of the EG groups and especially the IEA groups. It has been recognized that at this developmental stage, the different EGs will develop based on local conditions and on skills available. However, in the future, we will need to start a process of harmonizing the approaches between groups. The SSG chair explored the possibility of holding a joint workshop session under the auspices of the new EU funded project AORAC under H2020-BG-2014-1, on Atlantic collaboration on wide scale ecosystem issues, but this proved outwith the scope of that project. The SSG chair will explore with the ICES secretariat the potential for a follow up workshop to WKRISCO to fulfil this role. .

4.3.7 Examples of EG activities that fulfil the ICES Strategy and Science Plan

All the regional EG under SSGIEA have principally focussed on Goal 1 of the strategic plan *“Develop an integrated, interdisciplinary understanding of the structure, dynamics, and the resilience and response of marine ecosystems to change”*, and on Goal 2 *“Understand the relationship between human activities and marine ecosystems, estimate pressures and impacts, and develop science-based, sustainable pathways”*.

This includes the development of a range of worked IEA examples and detailed ecosystem descriptions.

Under Goal 3 *“Evaluate and advise on options for the sustainable use and protection of marine ecosystems”*, the groups are starting to develop the concepts of proactive advice, principally linked to fisheries advice, where ecosystem effects may be important, e.g. in the Irish and the Baltic Seas. The work of the new WGMSFDemo also specifically addresses this area in the context of MSFD advice using CFP data. The work on coupled models by WGIMM & WGIPEM also greatly enhances this understanding.

4.4 SCICOM/ACOM Steering Group on Integrated Ecosystem Observation and Monitoring (SSGIEOM; Nils Olav Handegard, Norway)

4.4.1 Status on SG Terms of Reference

Tor a-f) are common terms of reference for all SSGs and specifies the tasks on how to consolidate EG base, form new EGs, ensure the coupling to the strategic plan, and communication in general between the EG on matters. The specific ToRs for the steering groups are reported on in the following.

ToR g) Identify shortfalls in skills and knowledge needed to achieve the SG objectives, and where capacity building is needed in particular areas, so that ICES can develop training or other solutions. A process to address this was reported on last year, and the findings can be found in last year's report. In summary the common gaps that were reported were lack of hydrographic skills (WGIPS), socio-economics (WGRFS) and analytical skills including

survey design and statistics (IBTSWG, WGIPS, WGBIFS). The impacts of the gaps are difficulty in optimizing over complex survey objectives, the use of recreational fisheries data (socio-economics) and analyses of hydrographical data.

ToR h) Map the EGs and their ToRs against the information and data that ICES needs to deliver the Science Plan and its advisory work, suitably prioritised (SP1.1).

The WKSUREQ concluded that a formalized system for mapping the information flows across the organisation is needed. DIG has initiated a process on collecting meta-information about where the different data products are used, there is an ongoing task to map the SSGIEOM EGs to the information and data they are delivering (7 out of 11 survey groups have responded on this) and there is an initiative between ACOM chair, head of data, DIG and SSGIEOM to formalize this process. The chair aspires to have an overview that maps this in place within 2016.

ToR i-j) The development of methodology and adding value to surveys are mainly carried out within the technology groups (e.g. WGFAST, WGFTFB) and WGISUR+WGISDAA, respectively. Developments for fishery data collection schemes are considered PGDATA and associated EGs (WGCATCH, WGBIOP, WGRFS). AtlantOS is a H2020 project that several of the EGs within the SSG is involved with, and the objective is to develop data processing software for acoustic data and enable the ICES data centre to host data from acoustic surveys.

ToR m) Promote the development within EGs of standards and guidelines for good practice in data collection.

The ICES series of survey protocols (SISP) are progressing well, and almost all survey groups have either finalized the job or have an advanced draft in place. Based on discussions in the SCICOM open session on improving the linkages between data providers and data users, a more standardized way of reporting was proposed. The standard should include how to document time series changes for the data users, and a workshop (WKSUREP) to provide data reporting guidelines from the survey groups was proposed to SCICOM in response to this. The WK will approach the survey groups, the users, including assessment groups, and the survey development groups like WGISUR, PGDATA and WGISDAA.

4.4.2 EG performance/MA ToR Progress

Two groups, the IBTSWG and the WGEGBS2 completed their 3 year cycle and both groups asked for continuation, which was endorsed by SCICOM. Meetings with the chairs from both groups have been conducted and new ToR's have been prepared in accordance with the ICES strategic plan. They are included in the SCICOM resolution package.

4.4.3 EG participation

EG participation is a reoccurring theme, both in terms of skills and attendance. From the point of view of the SSG chair, there seem to be a skill-gap between the survey groups within the SSG and data user groups (typically the assessment groups) that hampers communication. Hopefully the standard data reporting guidelines from the surveys could improve this situation.

4.4.4 Structural diagrams of the consistent EGs

	Expert Group Name	Acronym
1	International Bottom Trawl Survey Working Group	IBTSWG

2	Working Group on North Sea Cod and Plaice Egg Surveys in the North Sea	WGEGGS2
3	Working Group on Recreational Fisheries Surveys	WGRFS
4	Working Group on Biological Parameters	WGBIOP
5	Planning Group on Data Needs for Assessments and Advice	PGDATA
6	Baltic International Fish Survey Working Group	WGBIFS
7	Working Group on Mackerel and Horse mackerel Egg Surveys	WGMEGS
8	Working Group on International Deep Pelagic Ecosystem Surveys	WGIDEEPS
9	Working Group on Beam Trawl Surveys	WGBEAM
10	Working Group on Fisheries Acoustics, Science and Technology	WGFAST
11	ICES-FAO Working Group on Fishing Technology and Fish Behaviour	WGFTFB
12	Working Group on Target Classification	WGTC
13	Working Group on Integrating Surveys for the Ecosystem Approach	WGISUR
14	Working Group of International Pelagic Surveys	WGIPS
15	Working Group on Improving use of Survey Data for Assessment and Advice	WGISDAA
16	Working Group on Electrical Trawling	WGELECTRA
17	Working Group on Acoustic and Egg Surveys for Sardine and Anchovy in ICES Areas VII, VIII and IX	WGACEGG
18	Working Group on North-east Atlantic continental slope surveys	WGNEACS
19	Working Group on Nephrops Surveys	WGNEPS
20	Working Group on Atlantic Fish Larvae and Eggs Surveys	WGALES
21	Working Group on Commercial Catches	WGCATCH
22	Workshop on Age Reading of Chub Mackerel (<i>Scomber colias</i>)	WKARCM
23	Workshop on Age Reading of Dab (<i>Limanda limanda</i>)	WKARDAB2
24	Workshop on Age Reading of Seabass (<i>Dicentrarchus labrax</i>)	WKARDL
25	Workshop on Age Reading of Horse Mackerel, Mediterranean Horse Mackerel and Blue Jack Mackerel (<i>Trachurus trachurus</i> , <i>T. mediterraneus</i> and <i>T. pictatus</i>)	WKARHOM2
26	Workshop on Age Reading of Saith (<i>Pollachius virens</i>)	WKARPV
27	Workshop on Maturity Staging of Mackerel and Horse Mackerel (<i>Scomber scomber</i> and <i>Trachurus trachurus</i>)	WKMSMAC2
28	Workshop on implementation studies on concurrent length sampling	WKISCON2
29	Workshop to Plan and Integrate Monitoring Program in the North Sea in the 3 rd quarter	WKPIMP

30	Workshop on the review of the ICES acoustic-trawl survey database design	WKIACDDB
31	Workshop on Egg staging, Fecundity and Atresia in horse mackerel and mackerel	WKFATHOM
32	Workshop on the ICES Egg and Larval Database	WKIELD
33	Workshop on the review of the ecosystem survey requirements	WKSUREQ
34	Workshop on evaluating current national acoustic abundance estimation methods for HERAS surveys	WKEVAL
35	Workshop on scrutinisation procedures for pelagic ecosystem surveys	WKSCRUT

4.4.5 Science highlights

The WGFAST arranged a symposium on ecosystem acoustics. The symposium attracted global participation establishing ICES as a major contributor to this field. See separate report from the symposium.

4.4.6 Examples of EG activities that fulfil the ICES Strategy and Science Plan

See the preceding section on the SSG ToR, where each SSG ToR is linked to an item in the implementation plan. Under each ToR the EG that addresses the specific ToR is mentioned.

4.4.7 Interaction between ACOM and SCICOM

There is a clear need for better communication between data users and data providers, c.f. the report from the BSG/SSGIEOM open session during the ASC 2015. Several actions have been taken to improve this, including developing data reporting guidelines, the SSG chairs participation in the ACOM meeting, and data overview portals.

It is also worth noting that it is not necessary the communication between SCICOM and ACOM at a higher level that is the challenge. It is more that specialized survey groups and data users groups need to communicate on specific issues for relevant for both groups, rather than a situation where communication is established at ACOM /SCICOM level or steering group level.

4.4.8 Perceived needs and gaps

The need for a framework to evaluate and obtain an overview of the data from the survey groups and where this data flows is seen as a main gap. This should be seen as something more than simply an overview of what is presently being collected. The idea is that this could be used as a framework to include the work of WGISUR that could visualize how additional information from the survey groups could be used in, e.g., the IEA processes. The framework must contain the use and potential use of the information, including precision and bias considerations of the various data products. For any advisory process, the information that is used in the advice should be easily available. It could also serve as tool to visualize where the information from a survey flows to document how the survey effort was spent. There are processes initiated to address this, but it will need both development and maturation to fulfil its ambition.

4.5 Benchmark Steering Group (BSG; Jörn Schmidt, Germany)

The Benchmark Steering Group has further worked since the SCICOM midterm meeting on the six tasks. BSG has met during the ASC on Tuesday, 22 September during a lunch break to update on the work on these tasks. The following report builds on the minutes of this meeting.

Task 1: Identifying gaps and incremental improvements in the current benchmark processes

- (a) Benchmark timeline: benchmark is a 1.5-2 year process, not just 1 or 2 isolated workshops. The BSG has produced a timeline to help structure the work through the different stages of this process, stressing the importance that sufficient preparatory work is conducted in advance of benchmark workshops. We are now following this timeline for the benchmarks scheduled for 2017.
- (b) The subgroup had recommended providing better guidance for external reviewers. The stock assessment benchmark guidelines were revised in January 2015 and guidance for external reviewers now indicates that reviewers must produce a short reviewer's report, which must state whether the benchmarked assessments are appropriate for the provision of management advice.
- (c) The subgroup also recommended that of the 3 external reviewers that normally participate in benchmark workshops, one is from an ICES area (but from a different eco-region than pertains to the benchmark), so as to increase the pool of potential reviewers and to ensure that one of the reviewers is familiar with the standard ICES procedures, including the framework for setting reference points. No official ICES response on this, but is happening more often in any case.
- (d) Better choice of benchmark proposals: guidance for EGs so that they can make proposals in line with ICES strategic goals.
- (e) Regional ecosystem benchmarks: Irish Sea benchmark process going on at present, and will provide ICES with very valuable experience. Detailed discussion of this benchmark process is under Task 3 (below).
- (f) One thing over which ICES has no control is the participation of relevant experts and the time they have to perform work. So whereas in the BSG we try to set up a process that can help deliver the required results, we have no power to ensure experts will be available to engage in the process and do the required work.

Conclusions: there isn't any immediate urgent task for this subgroup to perform. The 2017 benchmarks are underway and a BSG subgroup will meet shortly to review the issue lists and try to establish links with other EGs that can contribute to these benchmarks. We need to see how things progress as we follow the BSG agreed timeline for the 2017 benchmarks. For future benchmarks ICES should try to make more use of 'internal' externals (see point c above). It should be noted that a benchmark process can be stopped before the final workshop if sufficient data are not available or if too little work has been done. Rate of progress in the earlier part of the process (e.g. data evaluation workshop) would indicate if it would be necessary to stop or postpone a process.

Task 2: Integration with the data quality assurance groups (PGDATA)

PGDATA met in July 2015 co-chaired by Marie Storr-Paulsen and Mike Armstrong (Jörn Schmidt participated in PGDATA from BSG). PGDATA had 2 main ToRs of relevance for BSG:

- a) Review previous ICES benchmark and data compilation reports focusing on quality and utilisation at the benchmark meeting
- b) Use the planned benchmark meeting for the Irish Sea as a test case: work with the assessment team to identify the data needed, and develop guidelines for compilation and evaluation of relevant data for benchmark assessments

Main outputs:

- Evaluation of on-going benchmark processes with focus on data quality
- A user friendly template or guideline to improve the process by using the Irish Sea as a case study
- PGDATA shall act as a link between data expert groups and assessment groups (benchmark groups)

Conclusions: Need to ensure that PGDATA developments are incorporated in the benchmark process. In the case of the Irish Sea benchmark, Pieter-Jan Schon, who is very involved in Irish Sea benchmark, also took part in the PGDATA meeting; additionally, Mike Armstrong, co-chair of PGDATA, will chair the Irish Sea data evaluation workshop. So there should be good linkages and transfer of knowledge between the work conducted at PGDATA and the Irish Sea regional benchmark process.

Task 3: Integrated assessments and benchmarks (the presentation focused on the experiences from the WKIrish1 meeting with scientists and stakeholders on September 14-15)

The scoping meeting was held in Dublin on 14-15 September to identify priority actions for the subsequent Irish Sea benchmark meetings. Good attendance from scientists and stakeholders. Main issue identified: Truncated age structure in cod, haddock, whiting, and sole. Stakeholder partners expressed frustration that management measures continue to fail (total mortalities continue to be very high, truncated age structure continues).

Avenues for exploration during the coming months:

- Truncated age structure (cod, haddock, whiting, and sole)
 - Explore empirical evidence of changes in age structure over time
 - Investigating hypotheses of accelerated mortality in Irish Sea
 - Identify hypotheses and investigate tracks for the apparent greater mortality in the Irish Sea (e.g. Carbon 14 signature expected to be very distinctive in Irish Sea fish because of Sellafield nuclear site; the idea is to analyse otoliths of fish caught in other areas, mainly Celtic Sea, to investigate if the fish originate from Irish Sea)
- Multispecies models (results end 2016)
 - EcoPath with EcoSim
 - Ensemble model

Stakeholders will be involved in this process by providing knowledge that will help parameterize trophic interactions in EwE.

Funding is required for the Carbon 14 otolith analysis and for EwE model development; It is not entirely clear at this stage if funding will be available, some scientists are investigating possibilities.

Timeline:

WKIrish 1- Scoping with stakeholders (September 2015)

WKIrish 2- Data Evaluation meeting (November 2015)

WKIrish 3- Stock Assessment meeting, to be renamed... (March 2016)

WKIrish 4- Ecosystem Description and Model tuning (Spring 2016; in conjunction with WGEAWESS meeting)

WKIrish 5- Autumn 2016

Conclusions: very useful and challenging process that can be very helpful for the advancement of integrated benchmarks, assessment and advice. BSG will continue to follow and support this process. The funding needed to develop part of this work is a concern, given that there is no guaranteed source of funding at the moment.

Task 4: Integrating by-catch (marine mammals) advice with fish stocks advice

Simon Northridge's work is closely linked to WGBYC. Simon Northridge spent a few days with the North Sea assessment WG and the Bay of Biscay and Iberia assessment WG this year. Those meetings were to explore together with assessment experts possibilities for integrating by-catch advice with fish stock catch advice. Making progress in these WGs was difficult because even though scientists were welcoming, they were well buried in the things they needed to do to deliver the single-stock catch advice. Simon suggested 3 possible avenues for progressing with this work: provide non-quantitative advice (i.e. identify high by-catch métiers), quantitative advice based on effort data and observed by-catch rates, quantitative advice based on full integration of by-catch in stock assessment models. The first of these options is the easiest for quick delivery of a product. The intermediate option is likely possible with the available data. The third option is more uncertain and would, in any case, be more long-term. It is also necessary to find a place for this type of advice in the ICES advice sheets; it is expected that the new Fisheries Advice sheets, currently under development, would be the most appropriate location for it. WGBYC has a by-catch database and work on it is required, so that it is structured in a way that is more appropriate for a variety of uses.

Graham Pierce presented the work of WGMME, who had been given the following ToR: 'Compile a matrix of threats to the predominant cetacean species in each of the MSFD regional seas. Consider ways in which this information could be incorporated into the ICES advice'. The rationale for this ToR was to allow putting the threat posed by by-catch in the context of other threats. WGMME produced this matrix, considering the marine mammal species selected for the OSPAR common indicators and/or selected by MS in their initial evaluations for MSFD, as well as species considered common and regular. The list of pressures was that agreed by ICG-COBAM (2012). Threat levels were mainly based on informed expert judgement, referring to available data and literature, and classified as High/Medium/Low. For more detail, including explanation of these criteria, see WGMME 2015 report. The resulting matrix identifies by-catch as posing a high risk for harbour porpoise and ringed seal in the Baltic, harbour porpoise in the Greater North Sea, harbour porpoise and common dolphin in the Celtic Sea (including West of Scotland), harbour porpoise, common dolphin and coastal bottlenose dolphin in the Bay of Biscay and Iberian waters. By-catch is not considered a major threat for marine mammals in the Macaronesian area.

As part of this subgroup's work, Mark Tasker will attend the WGMIXFISH-Methods group in October to explore possibilities of integrating by-catch advice with their work on mixed fisheries. ACOM has requested that a demonstration advice on by-catches of marine mammals be available for the ACOM December 2015 meeting. This will need to be prepared over the next 2 months and should consider the work done by Simon Northridge and WGBYC as well as WGMME. There will also be a need to consider whether there should be follow up both in WGBYC and WGMME of this year's work. Mark Tasker is the ACOM leadership person that has been requested in ACOM to follow up on this entire process.

Conclusions: subgroup to work with Mark Tasker towards preparing demonstration advice for the December 2015 ACOM meeting.

Task 5: Role of WGSAM and reviewing of multispecies/ecosystem models for use in benchmarks

Daniel Howell (WGSAM co-chair) will attend WGMIXFISH-Methods in October 2015 to continue the collaboration that these two groups started last year. In particular, they are considering developing models that could account for both technical and biological interactions. The Fcube models used by WGMIXFISH have many métiers and a reduction in the number of métiers is needed to be able to deal with technical and biological interactions simultaneously.

Daniel Howell also explained that WGSAM 2014 conducted a key SMS run for North Sea and even though WGSAM reviewed it (within the available time constraints), an error was later discovered at the same time as an ICES stock assessment meeting and that ways to try and minimise the chance of error should be found. Sigrid will attend WGSAM this year to explore the development of validation methods for complex models (e.g. checks of model outputs against available historical data, sensitivity of results to key assumptions, also potentially analyses with simulated data). Mark Dickey-Collias asked how this linked with WGIPEM's work, and Sigrid Lehuta explained that she's a member of WGIPEM but that she found this group a little reluctant to get involved with the benchmark process, possibly because they are afraid that getting closer to the advisory process might burden them with tasks they consider outside their remit. However, a new subgroup in WGIPEM was proposed (in waiting for approval) to address model skill assessment and possibly start the move toward the use of model results for assessment and advice. Back to back meetings by region, of IPEM members and IEA or assessment working groups were envisaged.

Conclusions: The BSG subgroup to continue work along the lines suggested above

Task 6: Improve integration of WGISDAA (Improving the use of survey data for assessment and advice) in benchmark process

ICES continues to view WGISDAA as an important element in its advisory process by feeding into the benchmark process. However this formal arrangement has conflicted with financial and workload pressures on individuals involved in the assessment process so that WGISDAA rarely had the opportunity to contribute significantly to the benchmark procedure. To make WGISDAA expertise more widely available the meeting has been moved to a period following the July based advisory process to allow the examination of survey issues discovered during the assessment process to be evaluated when more resources are available. In addition it provides the opportunity to make plans for contributions and advice into the benchmark process, which starts with the data workshops in October. The WG group has been working with survey scientists to advise on possible improvements to survey design and efficiency, but because of the

issues mentioned earlier is still short on the input and, importantly, involvement from the assessment working groups.

The following discussion focused on how to improve the connection between the work of the survey groups and the work of those using their products, in particular, the benchmark workshops or the assessment working groups. It was felt that more coordination is necessary between SSGIEOM chair, PGDATA and WGISDAA.

Conclusions: The subgroup will be extended by SSGIEOM chair (Nils Olav Handegard) and PGDATA co-chair (Marie Storr-Paulsen) to work with WGISDAA on improving the communication between survey and assessment groups.

5 Reports of SCICOM Operational Groups

5.1 Data and Information Group (DIG; Ingeborg de Boois, Netherlands)

The Data and Information Group (DIG) met in Copenhagen, 18-20 May 2015. 15 people representing 9 different countries, a representative from OSPAR, Head of ICES Data Centre, and ca. 10 members of the ICES Data Centre joined the meeting. ACOM was represented in the group.

5.1.1 Data availability in ICES groups

The ICES strategic plan implementation influenced by the limited systematic understanding of what data sources are being used, by whom, what is the quality of these data, how access is provided to these data, and when, and where the gaps in provision of data and data products are. This undermines the advice process, and is likely a cause of inefficiencies and duplication of effort.

To (1) have an overview of the datasets/-products used and/or created by all ICES Expert Groups, and (2) gain insight in the data flows between the groups, DIG proposed the following approach to ACOM, SCICOM and SSGIOEM chairs.

Eight pre-selected ICES Expert Groups will be asked to fill in meta data of the datasets/-products they use and/or create and/or manage in an online catalogue, which will be publicly available and searchable. After the eight groups have provided the information, the information and the filling process will be evaluated by DIG, and other groups will be asked to add to the catalogue. The catalogue will also be pre-filled with information about existing ICES managed datasets and data products (stock assessment graphs, survey indices, ICES database regional datasets, etc.). Currently, ICES Data Centre works with WGHIST on the template for the catalogue. This will be ready before the WGHIST meeting in October 2015. Filling in by the eight pre-selected groups is scheduled before the DIG meeting in May 2016.

5.1.2 Automated DATRAS resubmission

ICES Data Centre and IMARES work together on automated resubmission of data in DATRAS. The facility will be available for other institutes when it is operational. By automated resubmission DATRAS and the institute's database will be identical. Currently, resubmission of data is time-consuming, resulting in differences between the source database and the information in DATRAS.

5.1.3 Digital data citation

Introducing DOIs by ICES is possible in due time (see also PUBCOM report). DIG and SSGIOEM will discuss how to implement this for survey data series.

5.1.4 DIG Strategic goals and progress

On all elements of the strategic plan related to data, there are now concrete activities and progress towards achieving the goals (see the DIG Data Plan tables in Annex 2). DIG are reviewing this twice a year and will keep SCICOM informed if further action is needed in order to facilitate progress or discuss alternative approaches.

5.2 ICES Training Programme (Steven Cadrin, USA)

The ICES Training Programme was initiated in 2009 to help build capacity in ICES and to support the scientists involved in the advisory process. ICES offers training courses by high-profile scientists and instructors to ensure that scientists whose work is related

to the advisory process, have the necessary skills. The objective of ICES training is quality assurance in the advisory process.

The ICES Training Programme has been successful in meeting its objectives of increasing the scientific capacity of the ICES community and promoting best practices in marine science. Thirty-five ICES courses and several co-sponsored courses have been offered on a wide diversity of skills, including stock assessment (introductory and advanced), ecosystem modelling, model building, management strategy evaluation, Bayesian inference, fisheries advice, trawl survey design and evaluation, integrated ecosystem assessment, analysing and visualization of Vessel Monitoring Systems, communication of science and advice, and how to lead an effective technical meeting. Each course was taught within the context of the ICES science and advisory system to demonstrate best practices as well as state-of-the-art technical skills. More than 800 students have attended ICES courses from over 30 countries. Most students have been from ICES member countries, representing all member countries but one. Many students and several instructors are from other countries and cooperating organizations.

5.2.1 Progress Report

In 2014, the ICES Training Programme offered five courses, four of which were offered subsequent to the 2014 Training Programme report:

- Stock Assessment Introduction (33 participants; 14-18 July 2014; Copenhagen, Denmark)
- Design and Analysis of Statistically Sound Catch Sampling Programmes (23-27 June 2014; Copenhagen, Denmark).
- Marine Spatial Planning: Processes and Tools (27-31 October 2014; Copenhagen, Denmark)
- Stock Assessment Advanced (12 participants; 3-7 November 2014; Copenhagen, Denmark)
- Application of Geostatistics to analyse spatially explicit Survey data in an Ecosystem Approach (27 participants; 8 - 12 December 2014; Fontainebleau, France)

Completed course reports for 2014 and 2015 are available on the ICES website (<http://ices.dk/news-and-events/Training/Pages/Previous-reports.aspx>), and the budget for each course is reported in Table 1.

The 2015 ICES Training Programme has completed one training course, and another five courses are planned for the autumn season, to take place at ICES HQ in Copenhagen:

- Stock Assessment Introduction, 15 – 19 June, ICES, Copenhagen, Denmark (22 participants)
- Opening the box: stock assessment and fisheries advice for stakeholders, NGOs and policy makers, 8-9 October, ICES, Copenhagen, Denmark (15 applicants to date)
- Social science methods for natural scientists, 13-16 October, ICES, Copenhagen, Denmark (11 applicants – tentatively postponed)
- Model development in fish stock assessment: ADMB, TMB, and SAM, 2-6 November, ICES, Copenhagen, Denmark (21 applicants to date)
- Analysing and visualization of VMS and EU logbook data using the VMS tools R package 9-13 November, 2015, ICES Copenhagen, Denmark (15 applicants to date)

- Fisheries management to meet biodiversity conservation needs, 7-10 December 2015, ICES, Copenhagen, Denmark (9 applicants to date)

The ICES Training Programme has also contributed to providing training courses for the DGMARE. This year we offered a two-day general introduction to stock assessment, another will be offered in October on Maximum Sustainable Yield, and possibly another general introduction to stock assessment in November.

5.2.2 Training courses in 2016

Proposals for new and repeated courses are being considered. The Training Group is soliciting instructors for several other courses identified by SCICOM (e.g., climate change). The training group will meet at the ICES ASC to review course proposals and evaluate the business plan as well as continue developments on online teaching and university credits for ICES courses.

New course proposals received to date:

- Training Course in the R Environment (contact Einar Hjorleifsson and Bjarki Þór Elvarsson)
- Training course on broadband/wideband acoustics (contact Dezhang Chu and Verena Trenkel)
- Data-Limited Stock Assessment (contact Anne Cooper and Jim Berkson)
- Management Strategy Evaluation: an Introduction (contact Carryn Lee Le more and Jose de Olivera)

Decisions on which courses, timing and soliciting instructors will be made at the Training Course meeting during the ASC.

5.2.3 Online Training Initiatives

In response to the SCICOM encouragement to develop online training, several initiatives were undertaken. The Training Group recognizes that participation in courses has decreased, and online training could provide a cost-effective method for reaching a wider audience for meeting the programme objectives.

The Training Group, with the support of ICES staff, has been evaluating the various approaches to online training and decided that the most appropriate step would be to expand on the current in-person, lecture-based format with a 'blended' course (i.e., partly in-person and partly online). The 2015 stock assessment introduction course included two online sessions that were designed to expand upon the course and address two deficiencies in the course. An online session was conducted via WebEx to introduce students to R, and the session was effective in preparing students for the in-person portion and allowed more effective use of the limited course time. Another online session is planned to review and discuss a written assignment, which was not possible in the 5-day lecture format, but is an important aspect of the topic. The Training Group will discuss this trial and the most appropriate next step.

ICES staff has corresponded with the World Maritime University and visited their campus in Malmo, Sweden to assess their capabilities for online training. Staff will report to the Training Group on their assessment for the consideration of online courses in the ICES Training Programme. The training group has proposed to use part of the income generated by the Training Programme as well as funding granted by the Bureau in June 2015 (100K out of the total of 300K) to develop the course "how to chair a successful technical meeting", run for the first time in 2012 into an online course. By

doing so, ICES EG Chairs (current and incoming) may better be able to participate. “Externals” will have to pay a fee taking the course.

Overview of income (negative values in red) and expenses (positive values in black) for training courses in 2014 and first half of 2015

1061-26	TCDASSCSP2014	-96,462.52	
1061-26	TCDASSCSP2014	150,950.67	
1061-26	TCDASSCSP2014	54,488.15	Design
1061-27	TCSAI2014	-174,257.99	
1061-27	TCSAI2014	65,402.21	
1061-27	TCSAI2014	-108,855.78	
1061-28	TCMSP2014	-104,071.55	
1061-28	TCMSP2014	131,914.79	
1061-28	TCMSP2014	27,843.24	
1061-29	TCSAA2014	-48,994.73	
1061-29	TCSAA2014	105,591.61	
1061-29	TCSAA2014	56,596.88	
1061-30	TCAGS2014	-156,181.90	
1061-30	TCAGS2014	101,524.19	
1061-30	TCAGS2014	-54,657.71	Geostat
1061-33	TCSAI2015	-137,125.62	
1061-33	TCSAI2015	95,784.86	
1061-33	TCSAI2015	-41,340.76	
		-65,925.98	Total

5.2.4 Training courses 2016

Following the training course meeting on Tuesday 22 September, it was decided that the following courses would be pursued, with the aim of offering them in 2016. This list is still tentative, pending the agreement and availability of instructors and course facilities

- **Training Course in the R Environment** (contact Einar Hjorleifsson and Bjarki Þór Elvarsson) (to be reduced from the proposed seven days, to five days)
- **Training course on broadband/wideband acoustics** (contact Dezhang Chu and Verena Trenkel) (pending confirmation of number of participants, and potential additional costs of survey attendance)
- **Data-Limited Stock Assessment** (contact Anne Cooper and Jim Berkson)
- **Management Strategy Evaluation: an Introduction** (contact Carryn Lee Le more and Jose de Olivera)
- **Stock assessment advanced** (Jan Jaap Poos and second instructor TBC)
- **Social Science Methods for Natural Scientists** (Marloes Kraan *et al.*). Suggested to run this course in conjunction with the ICES symposium *Understanding marine socio-ecological systems: including the human dimensions in Integrated Ecosystem Assessments* in May, in France.

5.2.5 Training courses in 2017 and beyond

- Stock assessment introduction
- Opening the box: Stock Assessment and Fisheries advice for stakeholders, NGOs and policy makers
- Climate change
- SS3 Modelling
- Geostatistics
- Ecosystem Modelling for fisheries management
- Catch sampling and design and analysis of sampling programmes.

5.3 Publications and Communications Group (Secretariat)

PUBCOM met on 19 September 2015. It was chaired by Mark Dickey-Collas, following the recent resignation of Myron Peck as chair, with 17 participants. The meeting noted and thanked Myron for his efforts and leadership during the 2½ years of his tenure as chair of PUBCOM. Then PUBCOM reviewed the year's activities and was briefed by Adi Kellermann of developments in SCICOM in relation to business groups.

5.3.1 Publications- ICES Journal of Marine Science

IJMS remains competitive and submissions continue to increase (forecast 722 for 2015 v 445 in 2012) IJMS is the largest fisheries journal in terms of submissions. Current acceptance rates ca. 35-40%, but to remain within page budget for 2016, more stringent criteria need to bring this down to ca. 30%. Marketing efforts continue to be successful e.g. popular Editor's Choice and Food for Thought articles. Many top cited articles from 2014 were from ICES symposia volumes. However, despite symposia attracting large numbers of participants (300+), some still result in very few submissions. Acceptance rates also vary greatly between symposia. Clear link between motivated conveners and resulting papers in symposia volume. EiC encouraging them to be proactive.

As submissions increase, IJMS cannot publish everything and must maintain page budget. Having increased page budget in recent years, subscriptions and prices cannot increase proportionately. OUP monitors this balance closely together with EiC and ICES. Financial implications of recent page budget increase were not as conservative as predicted due to a one-off archive deal -> 18.5% profit share increase to ICES in 2014. This is unlikely to be repeated and future financial budgets are more conservative. Production times remain competitive. Handling time from submission to first decision ca. 40 days. Time from receipt of final manuscript to online publication down from 5.5 weeks in 2014 to 3.2 weeks in 2015. Backlog of online published papers being allocated to specific volumes also dramatically reduced. Impact Factor for 2014 is 2.38 down from 2.53 in 2013. One explanation is the dilution effect of increased submissions.

OUP and ICES continue to monitor whether moving completely away from print would be beneficial. Currently 1.2% of total potential institutional readership has access to printed journal. OUP has relatively liberal embargo period (1 year). OUP website steers readers towards no-longer embargoed articles and free to read e.g. Editor's Choice as this can help citation factor. On request from PUBCOM, OUP will examine if they can provide additional regional statistics, particularly to see changes in citations and developing countries. PUBCOM is pleased with the general development of the IJMS and thanks EiC and OUP for their hard work.

The OUP contract to publish the ICES Journal of Marine Science is up for renewal 31 December 2016. The terms of the contract require 1 year's notice should ICES decide

not to renew it. The secretariat requested PUBCOM's feedback on the relationship with OUP as a publishing partner. PUBCOM finds there is a good working relationship with OUP and unlikely to do better financially elsewhere.

PUBCOM recommended to continue with OUP as our publishing partner.

5.3.2 In-house Publications (CRR, TIMES, disease leaflets, survey protocols)

Reports from the editors were reviewed and accepted. The editors were thanked again for another year of successful work. A brief discussion took place about the functioning of TIMES.

CRR series editor presented a proposal for improving publication procedure for CRRs. This led to wider discussion on the current role of CRRs. They are valuable and provide an outlet for a synthesis of the science, but the niche is narrowing, e.g. scientists increasingly encouraged to publish in peer-review journals. SCICOM was asked to consider the role of the CRRs including the including a proposal for how to establish a process within SCICOM to identify expert group reports/symposia, etc, that among other things, contribute to the implementation of the ICES Strategic Plan, and how to proceed with the synthesis of this information. The series editor's proposal will be revisited by PUBCOM once the overall CRR issue is examined by SCICOM.

PUBCOM recommended for TIMES that the series editor and secretariat address the use of TIMES with the expert groups and consider improving the TIMES relevance and delivery mechanisms.

PUBCOM recommended that given the narrowing niche of grey literature, and increasing difficulty securing submissions and finalizing reports with authors, SCICOM should consider the role of CRRs, and the need for a strategic review of how to communicate and highlight ICES Expert Group work.

5.3.3 Communications (including events, website, social media and design)

Digital communications plays a big role. Social media offers a cheap way of rapidly expanding communications to a large network. Three channels are the focus of ICES: LinkedIn (discussions and professional notifications) - 5663 members, Facebook (daily activity) - 2015 "likes", Twitter (followers of ICES account more than doubled in a year, important channel) - 2379 followers. In 2014, 9.8% of the traffic to the website came via social media.

Work of EGs is promoted more than ever – LinkedIn announcements of reports, focus articles in newsletters, and website blog "In Other Words". OUP is introducing Alt-Metrics (impact of research in social media sphere) for IJMS articles. It was noted by OUP and PUBCOM that ICES communications provides valuable service in promoting IJMS and is seen by many partners as an excellent communications tool with a wide network. The ICES design, first introduced on the website, has extended fully to publications, powerpoints, etc. Full design guide is now available for designers and inspiration for ICES community.

Numerous outreach events have been organized, particularly during ASC – providing mentoring to early career scientists and others. Science communication networking event taking place this year with participation from 11 Member Countries – aim to produce proposal for science communication Open Session at ASC 2016.

PUBCOM expressed interest in future video opportunities e.g. interviews, instructional, overviews, etc. ICES communications team open to any video/multimedia suggestions, particularly those that can be achieved with available resources.

5.3.4 Review of Category 1 and Category 3 Publications

There were three category 1 resolutions; two for CRRs and one for the re-launching of the ICES Identification leaflets for plankton (formerly Fiches d'Identification du Plankton). All three were discussed. For the plankton leaflets, following the initial submission in 2014, the editors redrafted the resolution with the requested additional detail. PUBCOM supports the proposal and suggests that SCICOM help formulate the proposal into a standard draft resolution.

There were no Category 3 resolutions provided to PUBCOM for consideration.

PUBCOM recommended SCICOM to accept all three category 1 resolutions.

5.3.5 DOI (Digital Object Identifiers)

Secretariat provided update on the progress towards the introduction of DOI (Digital Object Identifiers) numbers. A contract is being signed with DTU Library (the local provider in Denmark). ICES will be able to mint up to 1,000 DOIs annually for publications and datasets. ICES Secretariat will report back to PUBCOM on the progress of the introduction before the SCCOM mid-term meeting.

5.3.6 IJMS conveners' poll and general feedback

A previous PUBCOM and SCICOM action item asked that feedback be requested from conveners affected by the 2012 move away from guest editors of IJMS symposia volumes. A questionnaire was sent out to all concerned and two replies received. Generally positive feedback, and ICES and OUP intend to use the questionnaire for all future conveners to improve the service the journal provides.

5.3.7 Extended abstracts for the ASC

The utility of extended abstracts at ASC and the resulting additional processing time required by ICES Secretariat staff was discussed. It is still causing confusion for many presenters. PUBCOM has drafted a recommendation to SCICOM to discontinue extended abstracts (shown in Annex 1 of the PUBCOM report).

PUBCOM requested SCICOM to consider the document.

5.4 ASC 2015, Copenhagen, Denmark (ICES Conference Coordinator)

5.4.1 Participants

By 4 September, 620 participants had registered for the 2014 ASC. (510 at the same date in 2014)

The early registration fee closed on 1 August to encourage participants to register early.

At a final count on Friday 25 September, 734 people had registered in total, with participants from 37 countries. We had 77 late registrations and 34 no shows.

5.4.2 Presentations and withdrawals

In May we received 542 abstracts (448 in 2014). Following the theme session conveners' selection process, to date, we had 326 oral presentations and 126 posters during this year's ASC. We received ca 40 withdrawals.

Theme session K "Sustainable approaches to aquaculture in the context of environmental change" received only six submissions, so the conveners elected to cancel the session. Theme session J "CIA on the loose" received five submissions, so was run as a workshop. The contributors were asked to present posters.

5.4.3 Registration

The registration fee included morning and afternoon coffee. Lunches were not included this year. This model was tested and deemed successful in 2014, so was used again this year.

5.4.4 Travel funds

24 successful candidates received travel funds from ICES. Most of them were first time participants. In total funds amounting to 10,000 Euro were distributed this year.

5.4.5 Social arrangements

Copenhagen Municipality kindly invited us to an opening reception on Tuesday 22 September at the Copenhagen City Hall at 19:00, with a welcome from Lilian Parker Kaule, member of the employment and integration committee and culture committee (Medlem af Beskæftigelses- og Integrationsudvalget og medlem af Kultur- og Fritidsudvalget.)

The poster session was held on Wednesday 23 September in the foyer of the DGI byen conference centre. There were two free drinks (drinks tickets allocated upon registration), and a cash bar. Drinks were sponsored by the Danish Pelagic Producers Organisation, with a welcome from Esben Sverdrup-Jensen.

Wednesday evening also saw the launch of a new event at the ICES ASC, namely the Projects marketplace. A chance for interaction and discussion with members of key marine projects and initiatives. Project representatives were invited to exhibit in the foyer during the week, with a culmination on the Wednesday evening event (17:30 – 19:00).

The conference dinner was an informal street party, on the top floor of DGI byen, with a great view of the city. Tickets were on sale at the conference registration desk at 40 EUR (not including drinks). 202 tickets were sold.

5.4.6 Conference programme and handbook

This year the handbook was once again be available as i-paper format, available via the ICES ASC website.

The tri-folder programme was be available as usual at the conference in the conference bags.

The extended abstracts were available on a SharePoint site, with access limited to registered conference participants. Access to the site was granted one week before the conference start.

<http://www.ices.dk/sites/pub/ASCExtendedAbstracts/SitePages/Home.aspx>

Due to limited funds, and the disappointing number of users last year, we did not make use of a conference app this year. For future years a mobile version of the entire ICES website is being considered.

Average attendance at theme sessions and open sessions at ASC 2015

	Title	Av. pax
A	Advancement of stock assessment methods for sustainable fisheries	130
B	Operationalizing ecosystem-based fisheries management	112
C	Ecosystem monitoring in practice (Co-sponsored by PICES)	60
D	New approaches to measure and assess biodiversity	84
E	Beyond ocean connectivity: embracing advances on early life stages and adult connectivity to assessment and management challenges	80
F	Small-scale fisheries under data-limited scenarios	
G	Managing marine ecosystem services in a changing climate (Co-sponsored by PICES)	61
H	Ocean acidification: Understanding chemical, biological and biochemical responses in marine ecosystems (Co-sponsored by PICES)	80
I	A holistic ecosystem approach for marine management and conservation: Opportunities through the application of genetic and genomic approaches	56
J	CIA on the loose (workshop)	
L	Science-industry partnerships: The value of cooperative research in fisheries and marine management	88
M	Social, economic, and ecological impact assessment across marine sectors?	60
N	Seafloor habitat mapping: from observation to management	78
O	Marine spatial planning and fisheries: A stock-take on approaches, examples and future needs	85
P	How to hit an uncertain, moving target: achieving Good Environmental Status under the Marine Strategy Framework Directive	97
Q	From genes to ecosystems: spatial heterogeneity and temporal dynamics of the Baltic Sea (Co-sponsored by BONUS)	85
R	Causes and consequences of hypoxia	70

S	Basin-scale dynamics at lower trophic levels in the North Atlantic	
T	Practical application of Genetic Stock Identification for the conservation, management, and restoration of diadromous fish species	50

SCICOM Open Sessions		
SCICOM open plenary, highlights from ICES science and advice		–
Bridging the gap between data users and data providers		38
Strategic Initiative on Climate Change and Marine Ecosystems		68
Ecosystem processes and dynamics		42
Integrated Ecosystem Assessment		67
Human dimensions in integrated ecosystem assessments		100
Marine Ecosystem baselines to be used as the basis for reference points		
What makes a good conference?		32

6 Reports of the SCICOM Strategic Initiatives

6.1 ICES/PICES Strategic Initiative on Climate Change effects on Marine Ecosystems (SICCME; Brian MacKenzie, Denmark, John Pinnegar, UK, Anne Hollowed, USA, PICES, and Shin-ichi Ito, Japan, PICES)

6.1.1 Introduction

SICCME activities are contributing to the overall goals and objectives of both SICCME itself, as well as many of those within the existing and new ICES and PICES Science Plans. This strategic initiative is co-chaired by Drs. Anne Hollowed (USA), Shin-ichi Ito (Japan), Brian MacKenzie (DK) and John Pinnegar (UK).

6.1.2 Recent activities in 2014-2015

The largest event with which SICCME was involved since the 2014 ASC was the organisation and execution of the 3rd International Symposium on the Effects of Climate Change on the World's Oceans, March 23-27, 2015, Santos, Brazil. SICCME co-chairs and members were involved with the overall organisation and planning of the symposium (e. g. convenors or members of steering committee), as well as its execution as chairs of several sessions.

World Oceans Day 2015 Celebration, 8 June 2015, UNESCO Headquarters, Paris, France. In honour of the United Nations World Oceans Day, celebrated each year on 8 June, the Intergovernmental Oceanographic Commission of UNESCO (IOC-UNESCO) organized a full day dedicated to the ocean and its link to the climate system. This event will lead up to the 2015 Paris Climate Conference (COP21). Manuel Barange, representing SICCME, reported on scientific outcomes of the Brazil 2015 conference at a special event for politicians and policy makers (including the French minister of the environment and Prince Albert of Monaco).

Our common future under climate change, 7-10 July 2015, UNESCO headquarters, Paris France. This four-day Conference is the largest forum for the scientific community to come together ahead of the [COP21 of the UNFCCC in 2015](#). SICCME ex-Chair Manuel Barange and current co-Chair Shin-Ichi Ito addressed delegates at a parallel session entitled "Transformative pathways to sustain marine ecosystems and their services under climate change", chaired by Manuel Barange and Luis Valdes.

The ICES/PICES Workshop on Modelling Effects of Climate Change on Fish and Fisheries (WKSICCME_Project), chaired by Francisco Werner (USA), Kirstin Holsman (USA), Michio Kawamiya (JPN), Trond Kristiansen (NO), Myron Peck (DE), and Anne Hollowed (USA), will be held in Seattle, USA, August 10-12, 2015 to:

- a) identify a suite of representative future fishing and ecosystem scenarios that could be employed for use in evaluating climate change effects on fish and fisheries.
- b) identify a suite of climate models and representative concentration pathways that would be used to project climate change.
- c) Identify suites of single species climate enhanced projection models, multi-species climate enhanced projection models, full food web (e.g., EcoSIM), and dynamic spatially explicit ecosystem models that would be used to project the implications of a and b on commercially important marine fish stocks in the northern hemisphere.

The workshop is being organized primarily by NOAA and IMR as a contribution to SICCME within ICES and PICES, and is expected to attract 50-60 participants.

ICES ASC 2015 theme session G: Managing marine ecosystem services in a changing climate (Co-sponsored by PICES) Conveners: Sebastian Villasante (Spain), Manuel Barange (UK), Keith Criddle (PICES).

SICCME activities since fall 2014-2016.

2014:

Theme sessions at intl. conferences:

2nd International Ocean Research Conference "One Planet One Ocean"

Session "New frontiers in modelling for oceanography, fisheries and marine ecosystem management" Chaired by Pierre Petitgas (France) & Shin-ichi Ito (Japan), Barcelona (Spain), 18 November 2014

2015 ICES ASC Theme and topic sessions, working groups

Theme Session G: Managing marine ecosystem services in a changing climate (Co-sponsored by PICES) Conveners: Sebastian Villasante (Spain), Manuel Barange (UK), Keith Criddle (PICES)

2015 Conferences and Workshops:

3rd Intl. Symposium on Effects of Climate Change on the World's Oceans, Brazil, 2015

-conference completed successfully, including following sessions and workshops chaired by SICCME members:

Theme Session S9: Impact of climate change on ecosystem carrying capacity via food-web spatial relocations. 3rd Effects of Climate Change on the World's Oceans symposium, Brazil, 2015. Co-convenor B. MacKenzie (SICCME co-chair) and Mark Payne

Theme Session S10: Forecasting climate change impacts on fish populations and fisheries. 3rd Effects of Climate Change on the World's Oceans symposium, Brazil, 2015. Co-convenor A. Hollowed (SICCME co-chair), J. King (S-CCME, Canada) and others

Theme Session S11: Impacts on coastal communities. 3rd Effects of Climate Change on the World's Oceans symposium, Brazil, 2015. Co-convenor M. Barange (SICCME co-chair)

Workshop: Addressing uncertainty in projecting climate change impacts in marine ecosystems. 3rd Effects of Climate Change on the World's Oceans symposium, Brazil, 2015. Co-convenors: M. Payne, B. R. MacKenzie, M. Barange, W. Cheung

ICES/PICES Workshop on Modelling Effects of Climate Change on Fish and Fisheries (WKSICCME_Project), chaired by Francisco Werner (USA), Kirstin Holsman (USA), Michio Kawamiya (JPN), Trond Kristiansen (NO), Myron Peck (DE), and Anne Hollowed (USA), will be held in Seattle, USA, August 10-12, 2015

PICES Annual Meeting

Topic Session S7 "Past, present, and future climate in the North Pacific Ocean: Updates of our understanding since IPCC AR5"; Co-Convenors: Chan Joo Jang (Korea), Ho-Jeong Shin (Korea), Zhenya Song (China), Sukgeun Jung (Korea), Anne Hollowed (USA), Kyung-Il Chang (Korea), Angelica Peña (Canada), Shin-ichi Ito (Japan); Qingdao (China), 22 October 2015

PICES Annual Meeting, S-CCME business meeting, Qingdao (China), 17 October 2015

Keynote presentations at major conferences and events, 2015:

World Oceans Day 2015 Celebration, 8 June 2015, UNESCO Headquarters, Paris, France.

-presentation by Manuel Barange on behalf of SICCME

Our common future under climate change, 7-10 July 2015, UNESCO headquarters, Paris France. –presentations by Manuel Barange and Shin-ichi Ito. Session **Transformative pathways to sustain marine ecosystems and their services under climate change**

Con-vened by M. Baranage and L. Valdes.

6.1.3 Future Activities in 2015-2016

PICES Annual Meeting, Topic Session S7 "Past, present, and future climate in the North Pacific Ocean: Updates of our understanding since IPCC AR5"; Co-Convenors: Chan Joo Jang (Korea), Ho-Jeong Shin (Korea), Zhenya Song (China), Sukgeun Jung (Korea), Anne Hollowed (USA), Kyung-Il Chang (Korea), Angelica Peña (Canada), Shin-ichi Ito (Japan); Qingdao (China), 22 October 2015.

The ICES/PICES Workshop on Economic Modelling of the Effects of Climate Change on Fish and Fisheries (WKSICCME_Econ), chaired by Alan Haynie (USA), John Pinnegar (UK), Lisa Pfeiffer (USA), Mitsutaku Makino (JPN), Jörn Schmidt (DE), and Sophie Gourget (France) will be established and will meet in Brest, France associated with the existing 'Understanding marine socio-ecological systems' symposium, in June, 2016.

A 2nd 1-day ICES/PICES workshop on Phase 1: Modelling Effects of Climate Change on Fish and Fisheries (WKSICCME-I), chaired by Anne Hollowed (USA), John Pinnegar (UK), Myron Peck (DE), and Mark Payne (DK) will be held in September, 2016 in Riga.

PICES and ICES are also planning to jointly organize at least 2 theme sessions, pending approval by Science Committees, at their 2016 Annual Science Conferences. These will be on topics related to adaptability of marine biota to climate change impacts and predictability of climate impacts on marine ecosystems and biota at seasonal to decadal time scales.

6.1.4 SICCME leadership:

Three of the co-chairs of SICCME (2 from ICES and 1 from PICES) are scheduled to end their terms in 2014-2015.

The terms of the two ICES appointed co-chairs are scheduled to end at end of 2015 (i.e., following completion of the three year standard term and a 1-year extension at request of SCICOM chair.). Replacement of the chairs will be staggered to maintain continuity. M. Barange rotated off after the Brazil symposium and has been succeeded by Dr. John Pinnegar, CEFAS, UK as of April 1, 2015. B. MacKenzie will stay on until end of 2015. One scientist has indicated a willingness to serve as co-chair: Prof. Dr. Myron Peck, University of Hamburg, Germany. His nomination has been approved by SCICOM at its September meeting.

One of the PICES co-chairs, S. Kim, completed his term at end of 2014, and has been succeeded by Shin-ichi Ito (Japan).

6.2 Strategic Initiative on Biodiversity Science and Advice (SIHD; Jörn Schmidt, Germany, Eva-Lotta Sundberg, Sweden, David Goldsborough, the Netherlands)

6.2.1 Summary of activities

The Strategic Initiative had its kick-off meeting during the ICES ASC in Copenhagen at a lunch break meeting on Wednesday, 23 October. 18 participants attended the meeting representing ICES internal and external activities (see membership). In addition 5

– 8 people were not able to attend the meeting, but also expressed interest to be part of the core group. The core group wants to organize its work through concrete actions. However the meeting was too short to discuss and decide on these actions. The actions and the work plan of the Strategic Initiative will be decided on a 2 day workshop, which will likely take place early 2016 in IJmuiden in the Netherlands.

The view in the group was that there is still no clear framework or process of IEAs in ICES, which opens opportunities to develop the social sciences approaches along with approaches in natural sciences, allowing integration early in the process. This process is also necessary to exchange the understanding of language between the different disciplines and develop a common framework.

One suggestion was that IEA should be regarded as a process (in line with the NOAA approach) The SIHD could contribute to ICES work by analysing where things done by social scientists can fit in.

Among the possible actions discussed by the group was a ‘pre-mortem’ analysis of the Strategic Initiative to identify how aspects of social sciences (including economics) and the humanities can be integrated into ICES work on integrated ecosystem assessments. This will necessarily also touch aspects, which are outside IEAs, including current examples in fisheries work, but the focus was felt to be important to allow the work on concrete actions.

Another important point that was addressed during the meeting was the need to analyse the policy and governance landscape for IEAs and to identify, which questions decision makers want to get answered. Depending on the time horizon when these questions need to be answered, these questions may allow a focused development of actions for the Strategic Initiative.

6.2.2 Past events

TIME	EVENT	VENUE
23 September 2015	Open Session at ICES ASC	Copenhagen, Denmark

6.2.3 Upcoming events

TIME	EVENT	VENUE
Early 2016	Internal 2 day SIHD workshop	IJmuiden, Netherlands
23 – 27 May 2016	Theme session at World Fisheries Congress, ‘How can natural science and social science research be integrated into science advice so that it is useful to policy makers and the broader society?’	Busan, South Korea
29 May – 3 June	Symposium on ‘Understanding marine socio-ecological systems: including the human dimension in integrated ecosystem assessments’ – MSEAS 2016	Brest, France
September 2016	Open Session at the ICES ASC	Riga, Lithuania

6.2.4 Membership

SIHD decided to work with a number of core members to work on SI related activities. The activities will be led by one or two core members and can include also participants outside the core group.

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Villasante, Sebastian	WGRMS	sebastian.villasante@usc.es
Wawrzynski, Wojciech	Secretariat	wojciech.wawrzynski@ices.dk

6.3 Strategic Initiative for Stock Assessment Methods (Steve Cadrin, USA, Ciaran Kelly, Ireland, and Mark Dickey-Collas, ICES)

The ICES Strategic Initiative for Stock Assessment Methods (SISAM) was designed to assure that scientists can apply the best stock assessment methods for developing management advice for fisheries. The first stage of SISAM culminated in a simulation-based workshop to evaluate performance of stock assessment methods and the World Conference on Stock Assessment Methods (WCSAM, 17-19 July 2013, Boston USA). The second stage of SISAM involves continued coordination with Regional Fishery Management Organizations and national agencies, the development of “good practice” guidelines, and further evaluation of model performance. In the second phase of SISAM, progress was made in global coordination of advancement in stock assessment methods, and development of best practices guidance for stock assessment methods.

A theme session on “Advancement of Stock Assessment Methods for Sustainable Fisheries” was convened by SISAM leadership at the 2015 ASC. The theme session promoted the exchange of developments and identification of best practices from ICES assessment groups as well as from Regional Fishery Management Organizations, national fisheries agencies, and academic research. Contributions covered a wide variety of topics that are relevant to stock assessment methods, including the development of new stock assessment methods, performance evaluation of alternative methods for supporting management advice, methods for data-limited situations, incorporation of multispecies and environmental processes in stock assessment, methods for ecosystem assessment and supporting ecosystem-based fishery management, and effectively communicating stock assessment results to fishery managers and stakeholders.

Two joint-sessions were submitted to the 7th World Fisheries Congress (WFC, Busan Korea, 23-27 May 2016). A session on “Advancements in stock assessment and the provision of management advice,” initially proposed by SISAM leadership, will serve as the introductory session for a related session on “An honest appraisal of stock assessment, reference points, harvest control rules and management strategy evaluation.” SISAM leadership is involved in the dialog with the International Commission for the Conservation of Atlantic Tunas (ICCAT) on a joint expert group on stock assessment methods. In general, ICCAT and ICES have many of the same member countries and many of the same stock assessment scientists are contributing to science and advice for both organizations. Therefore, coordination of methods development should benefit both ICES and ICCAT. SISAM leadership is also involved in the Center for the Advancement of Population Assessment Methodology (CAPAM) and related

Good Practices Guides on selectivity, growth modelling, and data weighting. A CAPAM workshop on “Data conflict and weighting, likelihood functions, and process error” is planned for 19-23 October in La Jolla, USA.

7 Conclusions (SCICOM Chair)

- An extensive documentation by mapping of EGs and their ToRs shows that the Implementation plan and Strategic Priorities are well to very well covered.
- Overall SCICOM concludes that the Science Plan is approaching the end of its second year with implementation that proved being more extensive than shown in the previous performance evaluation, due to cross-cutting benefits not previously documented.
- The mapping includes mechanisms to identify future initiatives which can strategically be developed.
- SCICOM has worked with major organizational issues during the year.
- SCICOM responded to a proposal to reform the Science Leadership and will engage in the design of the future leadership.
- An extensive documentation and review of the ASC was performed. The ASC has already started to become an even more attractive venue.
- The first EGs have concluded their multi-annual ToRs and SCICOM has successfully implemented a process for evaluation.
- Several IEAs are working on ecosystem and fisheries advice products (WKDEICE, MSFDEMO).
- The Strategic Initiatives play a major role in ICES positioning in a global context. A Strategic Initiative on Human Dimensions in Integrated Ecosystem Assessments (SIHD) was approved and had its inaugurating meeting in ASC 2015.
- The Science Fund is an important complement to ICES Science and should be considered as a long-term approach. The concluded projects from 2014 show that Science Fund gives good to extremely good value for money.
- SCICOM has increased efficiency by working with recurrent tasks via SCICOM Forum leaving more time for strategic discussions in the real life meetings.

The launching of the new Science Plan has been well received in the marine science community. The SCICOM Chair would like to thank the SCICOM members and Chairs of Steering Groups, Strategic Initiatives and Operational Groups for their dedication, responsiveness and hard work in the first year of the new Science Plan.

Annex 1: 2015 List of ICES SCICOM Expert Groups that were dissolved, established, renamed or that changed committee

Type of Action	Name	Chair – Outgoing	Chair – Incoming
<i>Change of Chairs</i>	<i>SCICOM Steering/Operational Groups/Strategic Initiatives</i>		
SSGEPD	Steering Group on Ecosystem Processes and Dynamics	Graham Pierce, UK	TBD
PUBCOM	Publications and Communications Group	Myron Peck, Germany	TBD
TRAINING	Training Group	Steven Cadrin, USA	Daniel Duplisea, Canada
SICCME	ICES/PICES Strategic Initiative on Climate Change effects on Marine Ecosystems	Manuel Barange, UK, Brian MacKenzie, Denmark	John Pinnegar, UK, and Myron Peck, Germany
<i>Established Strategic Initiative</i>			
SIHD	Strategic Initiative on the Human Dimension in Integrated Ecosystem Assessments (SIHD)		David Goldsborough (Netherlands), Eva-Lotta Sundblad (Sweden), and Jörn Schmidt (Germany)
<i>Dissolved Strategic Initiative</i>			
SIBAS	Strategic Initiative on Biodiversity Science and Advice (SIBAS)	Henn Ojaveer, Estonia, Mark Tasker, UK	SIBAS dissolved
<i>Established</i>	<i>Expert Groups</i>		
SSGEPD	ICES-PICES Working Group on Climate Change and Biologically-driven Ocean Carbon Sequestration (WGCCBOCS)		Nianzhi Jiao, China, Louis Legendre, France, and Richard Rivkin, Canada
SSGIEA	ICES/AMAP/CAFF/PAME Working Group on Integrated Ecosystem Assessment (IEA) for the Central Arctic Ocean (WGICA)		Chairs to be decided
<i>Change of Chairs</i>	<i>Expert Groups</i>		
SSGEPD	Working Group on Biodiversity (WGBIO-DIV)	Simon Greenstreet, UK	W. Nikolaus Probst, Germany and Oscar Bos, the Netherlands
SSGEPD	Working Group on Small Pelagic Fishes, their Ecosystems and Climate Impact (WGSPEC)	Jürgen Alheit, Germany (outgoing Co-Chair)	Athanassios Tsikliras, Greece (incoming Co-Chair)
SSGEPD	Working Group on Phytoplankton and Microbial Ecology (WGPME)	Xose Anxelu Moran, Spain (outgoing Co-Chair)	Marie Johansen, Sweden (incoming Co-Chair)
SSGEPD	Working Group on Crangon fisheries and life history (WGCRAN)	Marc Hufnagl, the Netherlands	Josien Steenbergen, the Netherlands

Type of Action	Name	Chair – Outgoing	Chair – Incoming
SSGEPI	Working Group on Pathology and Diseases of Marine Organisms (WGPDMO)	Neil Ruane, Ireland	Ryan Carnegie, USA
SSGEPI	Working Group on Aquaculture (WGAQUA)	Pauline Kamermans, Netherlands, Peter Cranford, Canada, and Karin Kroon Boxaspen, Norway	Dave Jackson, Ireland, Myriam Callier, France, and Ole Torrissen, Norway
SSGEPI	Working Group on the Value of coastal Habitat for Exploited Species (WGVHES)	Rom Lipcius, USA and Håkan Wennhage, Sweden	Josianne Støttrup, Denmark, Rochelle Seitz, USA, and Karen van de Wolfshaar, the Netherlands
SSGEPI	Working Group on Marine Habitat Mapping (WGMHM)	Pål Buhl-Mortensen, Norway	James Strong, UK
SSGEPI	Working Group on Marine Chemistry (MCWG)	Katrin Vorkamp (outgoing Co-Chair)	
SSGEIA	Working Group on Integrated Physical-biological and Ecosystem Modelling (WGIPEM)	Myron Peck, Germany and Rubao Ji, USA	Morgane Travers-Trolet, France, and Marc Hufnagl, Germany
SSGIEA	ICES/HELCOM Working Group on Integrated Assessments of the Baltic Sea (WGIAB)	Christian Möllmann, Germany	Saskia Otto, Germany, Martin Lindegren, Denmark
SSGIEA	Working Group on Ecosystem Assessment of Western European Shelf Seas (WGEAWESS)	Enrique Nogueira, Spain, Dave Reid, Ireland, Pascal Lafargue, France, and Maria de Fatima Borges, Portugal	Steven Beggs, UK and Eider Andonegi, Spain
SSGIEA	Working Group on the Northwest Atlantic Regional Sea (WGNARS)	Sarah Gaichas, USA	Geret DePiper, USA
SSGIEOM	International Bottom Trawl Survey Working Group (IBTSWG)	Anne Sell, Germany	Kai Wieland, Denmark and Corina Chaves, Portugal
SSGIEOM	Working Group 2 on North Sea Cod and Plaice Egg Surveys in the North Sea (WGEGBS2)	Christophe Loots, France	Matthias Kloppmann, Germany
SSGIEOM	Working Group on Biological Parameters (WGBIOP)	Francesca Vitale, Sweden	Pedro Torres, Spain
<i>Dissolved</i>	<i>Expert Groups</i>		
SSGEPD	ICES/PICES Workshop on Modelling Effects of Climate Change on Fish and Fisheries (WKSICCME_Project)	Francisco Werner, USA; Kirstin Holsman, USA; Michio Kawamiya, Japan; Trond Kristiansen, Norway, Myron Peck, Germany; and Anne Hollowed, USA	

Type of Action	Name	Chair – Outgoing	Chair – Incoming
SSGEPD	Workshop on Growth-increment Chronologies in Marine Fish: climate-ecosystem interactions in the North Atlantic 2 (WKGIC2) [to be dissolved after the meeting on 18-22 April 2016]	Bryan Black, USA, and Christoph Stransky, Germany	
SSGEPD	Workshop of the Working Group on Eel and the Working Group on Biological Effects of Contaminants (WKBCEEL) [to be dissolved after the meeting on 25-27 January 2016]	Caroline Durif, Norway, and Bjørn Einar Grøsvik, Norway	
SSGEPI	Workshop on Probabilistic Assessments for Spatial Management (WKPASM)	Vanessa Stelzenmüller, Germany, and Roland Cormier, Canada	
SSGEPI	Workshop on Conflicts and Coexistence in Marine Spatial Planning (WKCCMSP) [to be dissolved after the meeting in February 2016]	Andreas Kannen, Germany, and Kira Gee, Germany	
SSGIEOM	Workshop on the ICES Egg and Larval Database (WKIELD)	Cindy van Damme, the Netherlands, and Carlos Pinto, Denmark	
SSGIEOM	Workshop on the review of the ecosystem survey requirements (WKSUREQ)	David Reid, Ireland, and Nils Olav Handegard, Norway	
SSGIEOM	Workshop on evaluating current national acoustic abundance estimation methods for HERAS surveys (WKEVAL)	Ciaran O'Donnell, Ireland	
SSGIEOM	Workshop on scrutinisation procedures for pelagic ecosystem surveys (WKSCRUT)	Matthias Schaber, Germany	

New Workshops

SSGEPI	Bayesian Belief Network Case Studies (WKBNCs)		Roland Cormier, Canada, and Vanessa Stelzenmüller, Germany
SSGEPI	ICES/PICES Workshop on Economic Modelling of the Effects of Climate Change on Fish and Fisheries (WKeconSICCME)		Alan Haynie, USA; John Pinnegar, UK; Lisa Pfeiffer, USA; Mitsutaku Makino, Japan; Jörn Schmidt, Germany; and Sophie Gourget, France
SSGEPD	ICES/PICES Workshop on Phase 1: Modelling Effects of Climate Change on Fish and Fisheries (WKSICCME1)		Anne Hollowed, USA, John Pinnegar, UK, Myron Peck, Germany, and Mark Payne, Denmark
SSGEPD	Workshop on Sea Trout 2 (WKTRUTTA2)		Ted Potter, UK, and Johan Höjesjö, Sweden

Type of Action	Name	Chair – Outgoing	Chair – Incoming
SSGIEA	Workshop on developing integrated advice for Baltic Sea ecosystem-based fisheries management (WKDEICE)		Rudi Voss, Germany, Christian Möllmann, Germany, and Maciej Tomczak, Sweden
SSGIEOM	Workshop on cost benefit analysis of data collection in support of stock assessment and fishery management (WKCOSTBEN)		Mike Armstrong, UK and Jon Helge Vølstad, Norway
SSGIEOM	Workshop to establish reporting guidelines from survey groups (WKSUREP)		Nils Olav Handegard, Norway, and Marie Storr Paulsen, Denmark
SSGIEOM/BSG	Second workshop on the impact of ecosystem and environmental drivers on Irish Sea fisheries management (WKIrish2)		Mike Armstrong, UK,
<i>EGs Renamed</i>			

Annex 2: DIG Data Plan tables

Regional Facilitation				Status DIG 2015	Status 2014	DIG	Resource implication		
Headline action	Detail	Performance measure	Timing				Data Centre	DIG	Other
Regional operational products for Marine Strategy Framework Directive (MSFD) and Data Collection Framework (DCF)/Multi-annual programme (DC-MAP)	(a) MSFD workflow: Collaboration between ICES Data Centre and Regional Sea Conventions/other organisations with respect to MSFD (WISE-Marine production process). This assumes a good flow of data/data harvesting into the data centre, and this can imply more resources in certain data types where data are not readily provided. (b) Leading to a joint MSFD data flow vision paper. Also depends on WISE-Marine. Link to secretariat plan.	(a) Workflow(s) operational and ready for uptake into WISE-Marine (b) Joint paper strategy accepted by stakeholders at EU level	- (a) OSPAR Hazardous substances: milestone 2014 - (a) HELCOM Eutrophication: milestone 2014 - (a) OSPAR Eutrophication (2015) - (b) MSFD Data vision paper: 2014.	05/2015: a. Progress on all workflows i.e. EUTRO-OPER, (see also chapter 4 of this report). b. complete 09/2015: a. EUTRO-OPER link: http://ocean.ices.dk/eutro-oper/ Baltic boost funded – ICES DC to build up data flow and indicators (cf EUTRO-OPER) for contaminants Impulsive underwater noise project funded under OSPAR, building up noise register before spring 2016	05/2014: a. Progress on all workflows i.e. EUTRO-OPER, (see also chapter 4 of this report). Online tools are developed. Documentation on methodology is still not there. b. Started, drafted template and vision paper under development. Vision paper accepted by WGDike.		This assumes a good flow of data/data harvesting into the data centre, and this can imply more resources in certain data types where data are not readily provided.		
	New processes/products from existing data Advisory and Science with respect to MSFD: calculations for indicators. Needed: data selections, algorithms,	a) Uptake of ICES dataset products in EG's responsible for MSFD indicators b) Operational provision of datasets, including discovery and download services	Fish and litter Timeframe: 2014-2015 for development, and from 2016 onwards fine-tuning	05/2015: (offshore) litter: see section 4.6 of this report 09/2015: OSPAR data call on litter from trawl surveys	05/2014: (Offshore) litter: In progress. Drafted extension to trawl survey format				

	calculation examples. Challenge: who is going to decide on the final calculations and data selections? Workshop on MSFD related DC-MAP indicators. Refer to table (MSFD table of ICES data/WG's and their operational product linkage)				for marine litter, needs further iteration. ICES will try to establish a WG on Marine litter as a complement to existing groups/RSC processes			
	New datasets and products Advisory and Science: MSFD - master data holdings; data storage, calculations for indicators. Noise, microplastics, acoustic fish data (WGFAST). Needed: data collection guidelines, data, responsible WGs for data, algorithms, calculation.	Products and/or regional data management established (where mandate is given)	2015 for setup, implementation from 2016 onwards.	05/2015: Microplastics & acoustic data: see section 4.6 of this report. Indicator calculation: see section 4.2 of this report 09/2015: WKEVAL (acoustics, Aug 2015) created formats and draft data flow WKIACDDB (acoustics, Oct 2015) final plan for acoustics database, trawl data and oceanographic data		Depending on the level of ambition regarding establishing new international datasets and systems, additional resources may be required		
	- Data requirements with regard to multi-species assessments (input for assessments). Currently, multi-species assessments are applied in e.g. Baltic, but insufficient spatial data products are available. Baltic, other areas. (action plan to be created). Needed: clear data request (unless no data are available)	(a) Successful data call(s) (b) Provision of spatial data products	Baltic: 2014-2015	05/2015: no action 09/2015: WGINOSE requests for data to feed the model (2014, 2015). No other requests received.	05/2014: no action			

	- Data requirements for e.g. one species from all fish surveys (WGEF, WGNEW) ; search facility over all data, not only for raw data but also for products. (joint WGEF, WGNEW, DIG proposal -action DIG chair)		workshop in 2014 to list product requirements	05/2015: WKIDP took place and was successful. Report available via ICES website 09/2015: Ingeborg check with Vaishav on WKIDP action status	05/2014: workshop is planned in October and will be chaired by Clara Ulrich	Workshop participation and follow-up	
End-to-end workflow for scientific advice production	- RA-CMS linking to data outputs from Expert groups (connecting the scientific reports to advice production).	Successful implementation of interfaces to a) scientific output from EG reports b) scientific output from assessment models	Starting 2014 (depends on timing RA-CMS development).	05/2015: Standard graphs: see section 4.6 of this report 09/2015: SLD (stock list database) – containing definition of the stock (reference database). Advice is starting to use it.	05/2014: Process delayed. Currently concentrating on stock input and expanding standard graphs to other stocks. System re-named CARA.	Volume of activity on RA-CMS would require additional technical resource	
	- RA-CMS linking to data outputs from RDB-Fishframe	See (b) above	2015	05/2015: no action 09/2015: no action as RDB Fishframe is related to RCMs. This is next phase.		Dependent on progress in development (and funding) of RDB-Fish-Frame	Dependent on progress in development (and funding) of RDB-Fish-Frame
Mobilising aquaculture specific data	- Aquaculture databases: exact description to be decided. Related to WGAQUA.	Products and/or regional data management established (where mandate is given)	starting from 2014.	05/2015: no action needed (agreed upon by WGAQUA as the group does not see the need for an aquaculture database)	05/2014: no action	Depending on the level of ambition regarding new datasets and systems, additional resources	Depending on the level of ambition regarding new

						may be required	datasets and systems, additional resources may be required	
Mobilising Arctic specific data	- In cooperation with AMAP, getting data from small arctic research institutes. Implementing data formatting tool.	Milestone: implementing the tool, first half 2014. Performance measure: receiving data	starting 2014	05/2015: Slow progress, some testfiles exchanged. The structure of the data committees is not clear. Meeting in October relate to the polar data forum; Helge Sagen and Taco de Bruin will attend 09/2015: Helge to report on it in May 2016	05/2014: In progress. Some testing and need further documentation of SIMON system Helge Sagen (DIG) nominated to Committee on Information and Data Service (CDIS) of SAON	A higher level of technical support/guidance could be anticipated		

International Standards and interoperability				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DI G	Other
Ensuring INSPIRE readiness for ICES managed datasets/data services	- describe and make available all ICES/ICES expert group managed datasets, data products or services through ISO/INSPIRE standards to allow their discovery and reuse	- All ICES datasets, including those that exist only within an expert group, are adequately described and the 'discovery' information are available	- Request to EG's to be filled 2015	05/2015: Technical complete; Jens Rasmussen helped validating the Data Centre's work. Not published yet.	05/2014: ICES Data Services have an online system (INSPIRE compatible).	Some additional guidance and tools		ICES expert groups will need to incorporate

	by other expert groups, processes and member country activities	through the ICES online portals		Content: no information from EGs 09/2015: see above		will be needed		into their work
Encouraging the broader use of ICES datasets by implementing IODE quality flagging schema	building on the quality control database that is in the process of being populated and then exposing this to online users in a digestible way to make the linkage between type of data, type(s) of QC performed and the QC flags applied to the data	- QC database online - QC flags included in data downloads	2014-2018	05/2015: is in work plan –work planned after DIG 2015 meeting. 09/2015: see action list for follow up	05/2014: no progress			

Knowledge transfer and professional development				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DIG	Other
Input to key data symposia and science meetings	- Data theme sessions (ASC, IMDIS etc): annual theme session proposal ASC by DIG	(a) presentation and promotion of ICES work at key events (b) requests for new services/projects resulting from those activities	-IMDIS runs in 2015, 2017 - ASC annual cycle	05/2015: Proposal 2015 ASC was not accepted by SCICOM. There is a need for 'Data' as a topic at ASC, but may be in a different format than a theme session.	05/2014: IMDIS will not take place in 2015 so a proposal for ICES ASC 2015 was prepared by DIG 2014			
Training and reference guides for scientists and data managers	- ICES training courses: 'Making the most of ICES Data', modular, webinars?. - Online materials and guidance: WKIDG in 2014	(a) metrics on usage of reference materials (b) requests for new services/projects resulting from reference materials/training (c) Increased awareness of data management/ICES services in new sectors	- Training: end 2017 - Workshop to produce reference guide in 2014 (WKIDG, proposed)	05/2015: DIG worked on a proposal for training development 09/2015: see action list for follow-up	05/2014: In progress.		Leading workshop	

Data stewardship and data management				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DIG	Other
Data archaeology; identifying and making available datasets that are relevant to the marine community	<ul style="list-style-type: none"> - (a) benthic historic data recovery. Plan ready, no timeframe. Connected to BEWG, DGMARE (DC-MAP related), perhaps EMODnet biology? - (b) Legacy data: data that are in other systems, but not available to the wider world. Linking to other data archives i.e. through metadata -(c) other historic data 	<ul style="list-style-type: none"> (a) inclusion of pilot project in EMODnet biology (b) Providing discovery services for archived information (through EG's) (c) Where resource, to run data recovery projects 	<ul style="list-style-type: none"> (a) Start 2014. (b) follow-on from 'INSPIRE readiness' activity under heading 3 	<p>05/2015:</p> <ul style="list-style-type: none"> a. see section 4.5 of this report b. see section b. see section 4.5 and 7.2.3 of this report c. no action <p>09/2015:</p> <ul style="list-style-type: none"> b. WGHIST & metadata from EGs c. WGHIST metadata 	<p>05/2014:</p> <ul style="list-style-type: none"> a. benthic historic data recovery proposal was ready. After discussion not put there due to wrong focus. Work package is on hold. b. See chapter DIG report 2014 chapter 5 	Historic data recovery will require additional resources/funding and this may be possible in part through EMODnet biology		
Ensuring ICES data are citeable in the digital age, and therefore making the datasets easier to discover	Digital data citation and publication: ensuring ICES data are citeable in the digital age, and ensuring contributing data sources are duly credited, as well as guiding the ICES member countries on how to approach digital citation	Creating a strategy for digital citation of data resources, in agreement with PubCom	2014-2015	<p>05/2015:</p> <p>See section 5 of this report</p> <p>09/2015:</p> <p>Minting DOIs possible in autumn 2015</p> <p>DIG 2016: practical implications of DOIs (IODE cookbook)</p>	<p>05/2014: in progress. See chapter DIG report 2014 chapter 5</p>			

Data stewardship and data management				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DIG	Other
Maintaining the user rights, security and integrity of the data sources to ICES managed datasets	<ul style="list-style-type: none"> - Data policy, facilitation of rights issues - Data security, and implications if data portfolio changes in nature (i.e. VMS, VME etc.) 		Annual basis, 2014-2018	05/2015: No action needed, data policy update scheduled for 2016. See also section 5.2.2 of this report 2016: relate to new DCF!	05/2014: RDB-FishFrame data policy drafted but not agreed by all participating countries yet			

ICES Strategic Action area: Aquaculture

Council is invited to review and comment on the list of recommendations that came out of the Aquaculture Dialogue meeting and the links to on-going and proposed work.

The [ICES Strategic Plan 2014-2018](#) identifies a need to further develop science, advisory, and data products in the field of marine aquaculture. To further define ICES focus in this strategic theme area, ICES held an Aquaculture Dialogue Meeting in June 2015 which concluded that ICES has a clear mandate to provide advice broadly on the environmental impacts of aquaculture, and stakeholders and clients within the ICES area are looking to ICES to provide such advice. ICES role is both in support of sustainable aquaculture, which is dependent on the environment, and to provide scientific advice on potential environmental impacts of aquaculture activities. Growing a sustainable aquaculture sector in the North Atlantic requires access to the best available science and information that is independent, quality-assured, and transparent—as ICES has delivered for more than 100 years.

ICES is a leading provider of applied marine science for society, and the Aquaculture Dialogue Meeting was successful in articulating key issues for ICES to focus on moving forward. A summary report of the Dialogue Meeting and the associated sub-group reports are available in the attached annexes. Below is a table mapping recommendations from the Dialogue Meeting, corresponding ICES deliverables (both ongoing and proposed), and an implementation timeline.

Recommendation category	Action	Deliverables (on-going and <i>proposed</i>)	Timing	Responsible actor(s)
Refine ICES role in providing advice on sustainable aquaculture	Conduct a gap analysis to capitalize on synergies and gaps with other organizations to optimize ICES contribution to and advancement of sustainable aquaculture.	Inventory on-going cooperation in the field of aquaculture research	2016	AORAC WP7
Identify key applied science needs of decision-makers	Strengthen the link between scientific knowledge and the needs of decision-makers.	<i>Map of ICES advice domains in terms of Member Country/client policy objectives</i>	2016	WGAQUA , WGSEDA , Secretariat
Respond to identified knowledge needs	Identify adverse impacts and challenges for the natural environment	<i>WGAQUA - Draft 2016 ToR A: Identify and assess tools for monitoring changes in rocky and mixed substrata marine benthic habitats.</i>	2016 - 2018	WGAQUA and relevant expert groups
		<i>WGAQUA - Draft 2016 ToR d: Review and report on the current status of aquaculture impacts.</i>	2016 - 2018	WGAQUA and relevant expert groups
		Report on adaptive strategies for mitigating the effects of climate change.		AORAC WP7
		Workshops that will test and refine Genetic Impact Models		AORAC WP7

Recommendation category	Action	Deliverables (on-going and <i>proposed</i>)	Timing	Responsible actor(s)
	Identify mitigation and preventative measures	<i>WGAQUA - Draft 2016 ToR b: Review and report on the state of knowledge on ecosystem interactions...</i>	2016 - 2018	WGAQUA
	Identify beneficial impacts	Workshops and outcomes focused on raising public awareness		AORAC WP7
		WGSEDA ToR b: Report on the influence of stakeholder inclusion and local ownership on aquaculture.	2016 - 2017	WGSEDA
		WGSEDA ToR c: Identify how social, economic, governance and environmental framing conditions influence aquaculture development.	2016 - 2017	WGSEDA
	Coordinate environmental monitoring and data requirements (including compilation and accessibility)	Identify and report on sensors and models to improve and integrate aquaculture monitoring systems	2016 - 2017	AORAC WP7
		Facilitate harmonisation, coordination and cooperation in the field of environmental monitoring with regards to aquaculture.	2016 - 2017	AORAC WP7
		Operationalise Spatial Planning and impact assessment models and tools	2016 - 2017	AORAC WP7
Define sustainable aquaculture in the ICES context	Define sustainable aquaculture in the ICES context	<i>WGAQUA - (Draft 2016) ToR C: Collate, analyse and assess the various environmental monitoring approaches.</i>	2016 - 2018	WGAQUA
Develop and disseminate tools for knowledge transfer and exchange	Identify funding for a trilateral Aquaculture Research Exchange Program	Secure funding for a trilateral Aquaculture Research Exchange Program on aquaculture		AORAC WP7
	Develop and implement initiatives (e.g. projects) to develop extension services for sustainable aquaculture.	<i>Develop targeted communication tools that facilitate greater use of the ICES knowledge by stakeholders and practitioners</i>	2016 - 2020	Secretariat (via projects)
	Synthesize scientific knowledge on innovations for sustainability for decision-makers through an ICES workshop and report.	WGSEDA ToR D: Identify new emerging issues of socio-economic aspects of aquaculture.	2016-2017	WGSEDA
Provide advice on sustainable aquaculture and aquaculture's environmental impact(s)	Activate ICES network to support sustainable aquaculture through advice that is accessible and useful to decision-makers, stakeholders and the public.	Provide advice on issues that are important to society	Ongoing	ACOM
	Receive requests and develop high-quality, transparent advice that is produced through consensus of all ICES member countries, not just those with a vested interest.	WGSEDA ToR A: Identify individual and crosscutting, integrative methods to support the evaluation of the direct and indirect socio-economic consequences ...	2016-2017	WGSEDA

Recommendation category	Action	Deliverables (on-going and <i>proposed</i>)	Timing	Responsible actor(s)
	Nurture a broad-based, academically and geographically diverse community of experts.	WGAQUA ToR e: Identify emerging aquaculture issues and related science advisory needs for maintaining the sustainability of living marine resources and the protection of the marine environment.	2016-2017	WGSEDA
	Advice to NASCO, June 2015 request	<i>WGAQUA ToR and ongoing work by WGNAS for 2016. Advise on impacts of aquaculture on wild stocks</i>	Spring 2016	ACOM
	Advice to OSPAR 2014 request	WGAQUA ToR 2014. Advised on impacts of aquaculture	Spring 2014	ACOM
	Advice to OSPAR 2010 request	WGNAS ToR 2010. Advised on impacts of mariculture on wild salmonids.	Spring 2010	ACOM

Annex – ICES Aquaculture Dialogue Meeting Summary



ICES
CIEM

International Council for
the Exploration of the Sea
Conseil International pour
l'Exploration de la Mer

Aquaculture Dialogue Meeting/June 2015

Draft summary report

Version 1

Revised on 16 September

Aquaculture Dialogue Meeting Bergen, Norway 1-2 June

This is an initial summary of the outcome of the 2015 Aquaculture Dialogue Meeting¹. It was made and presented in the meeting's final plenary session. In this summary, it was concluded that ICES has a clear mandate to provide advice broadly on the environmental impacts of aquaculture, and stakeholders and clients within the ICES area are looking to ICES to provide such advice. ICES role is both in support of sustainable aquaculture, which is dependent on the environment, and to provide scientific advice on potential environmental impacts of aquaculture activities. In further articulating the ICES framework on aquaculture, it is important that we capitalize on synergies and gaps with other organizations in order to optimize ICES contribution to the field and the advancement of sustainable aquaculture. The Aquaculture Dialogue meeting started this conversation; moving forward further reflection is needed to refine ICES role in this field.

ICES advice could contribute to sustainable management approaches for this sector. Aquaculture is one of the fastest growing food production sectors in the world; it leapt from a 3.2% share of total food fish production in 1950 to 42.2% in 2012 (FAO, 2014)² and future growth is projected to increase further. As such, the sector is experiencing increased environmental and regulatory challenges.

To meet this need, an important step in the near-term is for ICES is to strengthen the link between scientific knowledge and the needs of decision-makers. Scientific research on aquaculture–environmental interactions is a high priority globally and within the ICES area. Several ICES expert working groups investigate key environmental, genetic, and epidemiological effects of aquaculture. To better link the work of ICES with the needs of decision-makers, this dialogue meeting identified the need to better understand the scientific information and advisory needs of managers, industry(s), and intergovernmental organizations, to ensure that the required scientific information is available to inform decision-making.

The Dialogue Meeting identified four knowledge needs where ICES could make an impact in the medium-term (see sub-group chair summary reports):

1. Adverse impacts and challenges of increased production, including:
 - Feed production, and how to deal with a doubling in sea food production and would potentially result in increased demand on wild fish populations.

¹ More information on presenters and their presentations is available online: <http://ices.dk/explore-us/Action%20Areas/Pages/ICES-Aquaculture-dialogue.aspx>

² FAO, 2004. The state of the World Fisheries and Aquaculture 2014. FAO Rome, 223 pp

- Nutrient loads and Harmful Algal Blooms (HABs). In addition, specific issues related to the issue for semi-enclosed seas such as the Baltic, and the possibility of exploring the potential to use the surplus algae production to avoid eutrophication.
- Diseases, prevention and treatment of diseases
- Escapees and interactions with wild stocks, e.g., Atlantic salmon
- Ocean acidification – and the challenges it may create for the industry as it grows, specifically for shellfish operations.

2. Mitigation and preventive measures, including:

- Multi Trophic Aquaculture (MTA)
- Marine Spatial Planning (MSP) with an ecosystem approach perspective
- Risk assessment

3. Positive impacts of aquaculture, including:

- Ecological footprint compared with other animal production sectors (e.g. feed conversion rate and carbon footprint) is lower
- Socio-economic and other local and regional effects (e.g. increasing the resilience of working waterfronts)

4. Data requirements, including:

- Comprehensive and funded data compilation and accessibility

In the near-term, the following operational needs were identified for ICES to progress:

1. Define sustainable aquaculture in operational, practical terms

An integrated framework for operating the concept of sustainable aquaculture is needed in order for decision-makers to evaluate trade-offs, and to decide on acceptable and unacceptable impacts. This would include:

- Integrated indicators for performance evaluation, including both social, economic, environmental, and governance issues;
- Evaluating aquaculture in the light of other activities at land and sea;
- Marine Spatial Planning (MSP) criteria for aquaculture site selection; and
- Creation of landscapes of different aquaculture farms and other activities including fisheries, to ensure multi trophic integration within and/or across farms and with other users of common habitats as appropriate.

2. Knowledge transfer

The need for knowledge transfer and exchange, and to make high-quality science accessible for different stakeholders was stressed. For example:

- Synthesis and translation of scientific information for uptake by stakeholders, e.g., as is done in the USA through the use of extension services – making use of doctoral students at universities, to translate/condense comprehensive reports.
- Making better use of information from the farm-level, and ensuring its inclusion into the scientific process. Find commonalities between data from

different countries, and ensure access to and use of these data in the scientific process.

Participants highlighted the role that ICES should play in filling the need for better and more targeted information for the public that is based on scientific research and advice. For example, a comparison of the footprint of aquaculture compared to other animal farming sectors. Additionally, unconventional and creative methods could be employed, such as cooperating with new partners (e.g., partnering with chefs to act as aquaculture ambassadors).

3. Innovation

This is an important part of improving sustainability and specific examples were:

- Multi Trophic Aquaculture (MTA) impacts within an operation and among sites (landscape level).
- Exploring lower-trophic level organisms for aquaculture production and feed for aquaculture.

ICES is a leading provider of applied marine science for society, and the Aquaculture Dialogue Meeting was successful in articulating key issues for ICES to focus on moving forward. The importance of involving stakeholders in the scoping and development of ICES advice on aquaculture was stressed, and a focus on documentation, transparency, and openness in the scientific and advisory process was highlighted by the participants. Examples of ICES advisory products mentioned by the participants are listed below.

- Site-specific standards and guidelines on a regional basis
- International standards and guidelines, applicable across regions – for common issues
- Monitoring and data needs
- Governance models that are capable of outlining a process to be followed or operationalizing different scenarios (“Tools for Rules”)
- Synthesis of peer reviewed articles
- Framework(s) for Environmental Impact Assessments (EIA)
- Best Environmental Practices (BEP) and Best Available Techniques (BAT)

ICES has a long tradition in aquaculture science and advice, and it is one of two action areas in the ICES Strategic Plan 2014–2018. The Aquaculture Dialogue Meeting brought together industry, stakeholders, policy-managers, and scientists to discuss where ICES should go from here. The participants clearly identified a need for knowledge and advice on aquaculture that lives up to ICES standards of independent, quality-assured, transparent advice that is based on the best available science.

ICES Aquaculture Dialogue Meeting

Bergen 1-2 June 2015

Report from breakout group 1 - Management tools - Across scales – from farm to ecosystem

Chairperson: Tammo Bult (IMARES, Netherlands)

Rapporteur: Anne Cooper

Breakout group 1 focused on the theme of management. The group started with a list of sub-themes to inspire discussion:

- Marine Spatial Planning
- Targets and indicators / GES
- Eco-certification
- Thresholds and risk assessment
- Policy frameworks
- Interaction with Aquaculture Advisory Councils
- Conflict Resolution

At the plenary the following points were presented:

Main issues

1. Facilitate process towards more responsible aquaculture

Science and society need to collaborate to identify what ecological aspects may be impacted by aquaculture, the magnitude of impact, whether it can be measured in a reasonable fashion, and which ecological aspects are socially and ecologically important and should be protected.

- This iterative risk assessment discussion will facilitate an informed and transparent decision on not only what is better or cheaper, but what is possible and what is sufficient for society and the environment.

- ICES is well positioned to partake in this discussion given our mission for sustainable seas at the regional level and beyond.

2. Coordinate and build from ICES strengths

ICES core pillars: science, data, and advice, and our history of scientific coordination play well to the needs of aquaculture advice in the north Atlantic.

- **Data:** ICES has the demonstrated ability to coordinate both the collection of data and the management of data.
- Coordination of **research** activities towards common applied science goals for the ICES community.
- Production of **advice** for decision makers that is based on sound science, is transparent, and produced through consensus of all parties, not just those with a vested interest in the activity.

3. ICES involvement

- **Marine Spatial Planning (MSP)** is an important tool in siting fish farms. ICES has experience with **MSP** with fisheries and MPAs and a logical extension of this would be a consideration of aquaculture, not just a farm by farm approach, but a sectoral approach throughout a region or ecoregion (e.g. blue mussel farming in the Baltic).
- Develop **agreed procedures for risk assessment and impact** to facilitate discussions on acceptable effects, helicopter view and labelling criteria
- Coordinate and direct research on **optimal sustainable use of ocean resources and nutrient security, including food web and GAP analyses**
- **Monitoring;** more efficient, standardisation and data management for more cost effective and socially relevant results.

Key Recommendations

Local, regional, and global cooperation and understanding is key to facilitating the sustainable development of aquaculture in the North Atlantic. ICES has the proven capacity to facilitate sustainable fisheries advice and aquaculture is a natural extension of this.

Notes from the break-out session

ICES needs to find its focus with aquaculture. ICES is known for having quality, objective, transparent and non-political advice on fisheries. This will be the case with aquaculture as well. In addition, unlike other institutions, ICES works through consensus on each and every issue. Managers are looking for this type of advice on aquaculture. With this in mind, ICES can make a difference. ICES should build on its current and relevant expertise. Marine Spatial Planning, Good Environmental Status, WFD.

Issues ICES should consider:

- Eco-certification
- Provide aquaculture advice in a broader, more integrated fashion. The stock by stock approach, currently used in fish stock assessment advice is out of date for the needs of decision makers today. The same applies to aquaculture; let's avoid the farm by farm approach to advice.
- Aquaculture advice in relation to MSP, targets, GES, indicators, monitoring programs, standards.
- Develop data collection, coordination and sharing for aquaculture.
- Working in the Mediterranean.
- Hosting and maintaining an aquaculture–environment information repository.
 - So many authorities are asking the same questions of scientists, and it is diluting the response. A central source for information could help with this.

Issues ICES should not be involved with:

- Eco-certification
- Standards

ICES Aquaculture Dialogue Meeting

Bergen 1-2 June 2015

Report from breakout Group 2: How to Define Sustainable Aquaculture

Chairperson: Doris Soto

Rapporteur: Olav Moberg

Breakout group 2 focused on the theme of how to evaluate the sustainability of aquaculture. The group was given a list of sub-themes to inspire their discussion:

- Inclusive stakeholder involvement
- Transparency in decision-making
- Mechanisms for knowledge exchange
- Communicate and interpret scientific knowledge
- Definition of sustainable aquaculture
- Training and knowledge transfer

At the plenary the following points were presented:

Main issues

1. The concept of Sustainable Aquaculture and what it means. This includes economic, social, and environmental aspects.
2. The importance of knowledge transfer/exchange.
3. The public perception of aquaculture
4. Aquaculture production is a global activity – e.g., food production and imports from countries outside ICES.

Key Recommendations:

1. Explore lower trophic levels for food production as well as for feed. And to look into the landscape of multi-trophic integration as part of marine spatial planning.
2. Look at the aquaculture footprint in the context of other food sectors –an integrated and comparative approach is needed.
3. Develop a framework for operationalising the concept of sustainable aquaculture. This includes the need to develop integrated indicators for performance evaluation (social, economic, environment, governance), in

order for decision-makers to take into account all relevant parameters, and be able to evaluate the trade-offs.

4. Investigate knowledge transfer/exchange. Two levels:
 - a. transfer/ translate scientific information to stakeholders (extension services/synthesize topics/peer review).
 - b. how to make better use of information from farm level, through national administrations, and include to the scientific level – find commonalities between countries and ensure common access to data.
5. Suggestions on more targeted information to the public, based on scientific research and advice.
6. Collaboration with other IGOs, such as PICES – to expand global perspective.

Notes from the break-out session: How to evaluate the sustainability of aquaculture?

- **Inclusive stakeholder involvement**
While acknowledging the need for inclusive stakeholder involvement and transparency in decision-making the break-out group chose to focus on the others issues.
- **Transparency in decision-making**
- This is important to facilitate public and stakeholder acceptance.
- **Mechanisms for knowledge exchange**
The group found it important to look into various means of knowledge exchange. Ranging from scientific information (see further below), farm level information, and information from national administrations. The group acknowledged that a lot of information is available at farm level, some of this information is reported to national administrations, and used as the basis for governance and decision making. For this reason the group also found that it could be worthwhile to compare data from different countries administrations, to find commonalities and possibilities for general use. To improve the public perception of aquaculture, the group found that it would be important to target information to the public to help an informed evaluation of this food production sector compared to other animal production sectors.
- **Communicate and interpret scientific knowledge**

The groups discussed how best to disseminate scientific information, and found that there was a need to communicate in a more targeted way, taking into account the end-users. Examples were given from various countries, including the USA where University Extension Services are used to provide information to different target groups based on research reports.

- **Definition of sustainable aquaculture**

The group discussed the need for a definition of what constitutes sustainable aquaculture, and found that many generic definitions already existing. While the principles of these definitions were clear, i.e., sustainability covering the social, economic, and environmental dimension, their application was not always equally clear.

For this reason the group highlighted the need for operationalizing the concept of sustainable aquaculture, and stressed the importance of an integrated approach, through activities that could include one or more of the following:

- the use of indicators covering all three dimensions;
- the comparison with other animal producing sectors;
- the inclusion in marine spatial planning, covering both risk assessments, and site selection criteria considering an ecosystem approach¹
- the investigation of multi trophic aquaculture, and its potential impact on the sustainability of an individual farm, a region, and beyond.

Acknowledging that aquaculture is a global business, the group stressed the need for ICES to work across marine regions, and to seek cooperation and collaborations with other inter-governmental organizations. From a scientific perspective the North Pacific Marine Science Organization (PICES) was mentioned.

- **Training and knowledge transfer**

The groups stressed the importance of training as one way to ensure knowledge transfer in an interactive way, and also tailored to specific target groups.

¹ FAO.2010. Aquaculture development. 4. Ecosystem approach to aquaculture. *FAO Technical Guidelines for Responsible Fisheries*. No. 5, Suppl. 4. Rome, FAO. 2010. 53p.
<http://www.fao.org/docrep/013/i1750e/i1750e.pdf>

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Bergen 1–2 June 2015

Report from breakout group 3 International standards

Chairperson: Rob Raynard (Scotland, UK)

Rapporteur: Vivian Piil

Breakout group 3 – focused on the theme International standards. The group was given a list of sub-themes to inspire their discussion:

- Best available techniques and practices/guidelines
- Environmental Impact Assessment
- Carrying capacity/Assimilative capacity
- International review of topics based on peer reviewed publications

At the plenary the following points were presented:

Main issues discussed:

1. There are existing international standards; ICES should not develop these.
2. Environmental Impact Assessments (EIAs) and Strategic Environmental Assessments (SEAs):
 - Template examples available but lack of standard methods for completion
 - Could ICES help managers complete the assessments through provision of methodologies and data needs
3. Shared/regional problems
4. Data collection framework in support of aquaculture.

Key Recommendations:

Industry / authorities' needs for advice

- ICES should not intrude on national competencies and should not validate or comment on specific procedures.

- ICES could provide recommendations for methodologies and data requirements and standards.
- ICES could review EIAs, collate lessons learned from countries, or recommend what an environmental impact assessment (EIA), or strategic environmental assessment (SEA) should look like. ICEC could assist with the development of frameworks and identify most appropriate procedures.
- Water bodies – Aquaculture is having effects at different scales. Where there is connectivity among water bodies and aquaculture facilities, there is a need for regional assessments, e.g. the Baltic Sea.

Industry / authorities' needs in research

- A Gap analysis could be provided by expert groups and then linked to EFARO on research needs. Transparency of report outputs. Future work plans. These have been reviewed.
- ICES community should consider the capability to support aquaculture advice in the way that fisheries does i.e. Data Collection Framework (DCF) structures for primary data.

Stakeholder involvement in ICES

- Requires a formal process, to be established if this is to be successful. Currently stakeholders can write to the chair for an invitation to participate in science expert groups. Specific invitation could be sent to stakeholders.
- Ensure relevant communications are wide-reaching, accessible, and understandable.
- When it comes to formalising advice then the scientific experts should be the authors to maintain independence of advice.
- Expert groups working on thresholds could benefit from stakeholder and social science involvement when assessing scenarios of acceptable impacts.

1. Notes from the International standards breakout sessions

ICES role in international standards

There are currently many different standards and schemes available and the group did not see a role for ICES to develop anything in that area.

ICES is liaising with the International Organization for Standardization (ISO) on international standards, and therefore work should continue in this manner, duplication of effort should be avoided. There is an ISO standard on marine fish

farming, how to do benthic monitoring, but there is a limit to how specific you can get.

ICES role is on the international review side of best approach/best practices and guidelines, environmental interactions on aquaculture, and on specific advice requests.

In the event there are environmental changes that could affect the type of methodologies, ICES could ensure the assessments are appropriate.

There is a cross-over looking at climate change impacts. Looking at changes in the environment and making that information available.

Definition

What are international standards referring to? Production standards? Codes of practise? There are certain standards available already – could also be interpreted as monitoring regulations, frameworks. A lot of work has been done but some areas have not yet been touched.

International standards – is there a template set by EU?

There is an [IFOAM Aquaculture Forum](#) and an [IFOAM EU Aquaculture Expert Group](#) was established to help obtain legislation that protects organic aquaculture producers' needs. IFOAM EU takes an active role in discussions on organic aquaculture implementing rules and derogations at European level.

There is a need to distinguish between international standards and international best practices. ICES needs to define which way to go. Production standards are outside of ICES competence. The role for ICES is more related to the standards that a regulator would be looking at, or the fish farm would be managing around.

WGAQUA will consider regulations from around the world to see how the governments have looked at thresholds.

The challenge for ICES is that every national authority is a potential client. There may be a strategy but it is up to the local authority to decide. ICES has to develop a common ground for international assessment, for assessment at the intergovernmental level.

Defining sustainable aquaculture is really the core of the issue. This should be discussed by all breakout groups.

Environmental Impact Assessment (EIAs), Strategic environmental assessment (SEA) and carrying capacity/assimilative capacity

There is a role for ICES in ensuring that the best science is applied in Environmental Impact Assessment (EIAs). The ICES role could be to bring together the best available, most comprehensive science.

SEA and EIA and carrying capacity have a strong local component, but ICES can add value informing the SEA and EIA process. There is scope for international review of EIA/SEA. There are some good lessons learned on how they can be applied and how the process has worked in different countries. One way forward could be to look at what each country is doing well and create a template which is made available for others.

There are a lot of different approaches on carrying capacity and there is (could be?) a whole range of advice depending on the type of question asked.

ICES could help collate the science in these areas to inform international standards and practices. Providing information on what is the state of the art for assessing carrying capacity.

Shared/regional problems

The group identified a need for ICES to tackle shared problems. The Baltic Sea was brought up as an example. It would be interesting for ICES to explore the possibilities for aquaculture in the Baltic. For instance general carrying capacity assessments in the Baltic Sea or in other regional areas could be made.

Should there be different sets of regional standards? A general scientific framework for regional standards could be developed for application in a local context.

There are advantages of engaging with scientists who know the environment (region) in question. This would speak for regional WGs on aquaculture. However, there are also benefits related to having groups such as WGAQUA that promote intra-regional learning.

Data collection framework for aquaculture

There is no data collection framework (EU) in place to support aquaculture. On the fisheries side, there are standard methods for stock assessments and a lot of resources have gone into this area. This would be a big step in terms of money, people, and time.

International review of topics based on peer reviewed publications

This is a strength of WGAQUA.

What ICES should not do:

- ICES should avoid becoming a rubber stamp 'certification' organisation. ICES should not intrude on national competencies; but should provide access to the best available science.

ICES Aquaculture Dialogue Meeting

Bergen 1-2 June 2015

Report from breakout group 4 Interactions with natural environment

Chairperson: Maria Emilia Cunha

Rapporteur: Ellen Johannesen

Breakout group 4 focused on the theme - Interactions with natural environment. The group was given a list of sub-themes to inspire their discussion:

- Escapees
- Pests and disease
- Carrying capacity
- Predator management
- Climate change
- Goods and services
- Impact on wild fish and fisheries

At the plenary the following points were presented:

Main issues discussed

1. Climate change anticipating effects on aquaculture and fisheries – (EU Call Forecasting and anticipating effects of climate change on fisheries and aquaculture and the transatlantic perspective).
2. Data issues (mining big data, accessibility, and availability).
3. Gathering existing data and information and recognizing patterns (modelling).
4. Differences between national responsibility (legislation and jurisdiction) and where ICES can add value.

Key Recommendations

1. ICES strength could be to aggregate, anonymize, and facilitate accessibility of data at international level (e.g. for pests and disease).
2. Standardization/guidelines (e.g. escapees).

3. Regional mapping – making information accessible for stakeholders and management decisions (e.g. disease, pests).
4. Develop modelling to help make science based decisions (Carrying capacity and mapping at wider scales e.g. modelling of nutrients, organic loads, and climate change, ecological services and their valuation).

2. Notes from the Interactions with natural environment break-out session:

Escapees

New technologies are being used to help track and regulate escapees. The Institute of Marine Research (IMR) in Norway, has a research station running a program to use genetics to trace escapees back to the farm, helping to identify the source of the leak.

Escapees are also an issue beyond finfish/salmon, for instance for bivalves.

The risk associated with escapees is regionally specific. There are lower risks if escapees are grown and found in their natural environment (not being grown outside their natural environment).

There are differences in national regulations to control for escapees. In Norway for instance farmers can be held liable if individuals escape (financially responsible).

The use of sterile individuals (triploids) in aquaculture may reduce risks associated with escape and interactions with wild populations. However, triploids have their own risk issues – they may not be as productive for industry, and may be less desirable for consumers/general public.

From a management point of view, it might be helpful to consider if indicators could be developed to help advise on the use of triploids in certain areas.

Closed containment farms are a way of reducing risks related to escapees.

Communication between scientists, industry, and regulators is important to help reduce risks presented by interactions between wild and farmed populations. One national example provided was where risk was minimized by issuing guidelines for industry/regulators based on a scientific recommendation of a slaughter weight before maturity to prevent breeding (with wild populations)/escapees.

A clear definition of what is a regulatable escapee and what is not would be helpful. In aquaculture, there are many ways to escape. Guidelines/best practice on methods for monitoring and identifying escapees are needed.

Standardized methods/fingerprinting of farmed animals could also be an area for ICES science to contribute.

Pests

Pests such as biofouling, predators (e.g. cormorants, seals, otters, jellyfish), HABs and pest deterrents/management still require more research.

ICES should not focus solely on sea lice. There are many other important pest issues that require attention.

Pests and disease are a transnational issue that could be addressed through better coordination and reporting information. A large interactive map of important disease and pathogens, and reporting overview as a help for management decisions could help with coordinated treatments.

Missing from the list provided to the group: transnational persistent organic pollutants in terms of filter feeding and water quality.

National regulations on chemical use for aquaculture has ongoing work striving for similar regulations in the EU, Norway, Turkey, other areas to help make an even playing field for industry that are all selling to the same international market. (Though this was not seen as a task for ICES).

ICES could consider a pathogens and disease database as help for management decisions.

Standardized monitoring and reporting on pests and disease. Parasite data – where does it end up? Would be good to have a central place where data flows could be mapped out.

Norwegian Fish farm reporting on sea lice is available on a publically accessible website. This is not the same everywhere (e.g. UK). Making this information easily accessible would be really good.

Greater pest/predator management research is needed.

ICES strength could be to aggregate and anonymize data for pests and disease at an international level.

Carrying capacity

Carrying capacity (species, ecosystem, or nutrients) is an important science topic. Pests such as sea lice are also a factor that can limit carrying capacity.

The definition of carrying capacity is important but is also regionally specific. A potential science question for ICES to address could be to help define a structured way of considering carrying capacity for regions. A collection of national definitions and monitoring approaches to centralize the information was considered a helpful potential role.

Ecological carrying capacity, is a traditional ICES science area where a broader scale overview could be helpful. ICES could consider regional aspects e.g. synthesizing data on carrying capacity at larger scales for instance organic load for the North Sea.

Modelling aquaculture interactions with nutrient loads, etc. is an area where ICES could help with broad scale regional carrying capacity indicators and assessing knowledge gaps. Integrated monitoring of aquaculture farms is also an area where more progress is needed. Such models would be helpful for decision-making.

Detecting, monitoring and forecasting algal blooms could also improve through modelling. Modelling tools are also important with climate change and could be used for zoning and spatial planning. Integrated Multi-trophic zoning temperature limitations could also be built in (e.g. Canada frozen in the winter though has a high carrying capacity).

Climate change

Carrying capacity and the poleward expansion/migration of species is a global issue and consortia have formed around the EU call *Forecasting and anticipating effects of climate change on fisheries and aquaculture*.

Climate change and its relation to aquaculture should be looked at by ICES as it will affect feed, sites, and it is particularly the link between farming and fishery where ICES would have a natural role. Disease will also be driven by climate change, and mapping, modelling, and scenario building.

Historical farm data needs collation and could be used to support modelling.

A big challenge for researchers is integrated assessments. The development of integrated assessments may need to be accelerated to match the aquaculture growth aspirations of the EU and North America.

Field studies and monitoring is important for climate change as well and as input for modelling. Existing data should be collated before creating new monitoring programmes.

ICES should search for patterns in the monitoring data.

Poleward migration of species, and the differences between being invasive and expanding distribution in response to climate change – When are non-native species living in the natural environment not considered invasive and when can they be farmed? Important to distinguish between species which spawn in the surrounding environment and other species such as anadromous salmon.

Discussing what is not relevant for ICES

ICES should avoid work that may infringe on national competences. The importance of avoiding duplication and adding value by focusing on broad overarching issues at international level was stressed. The fluid nature of the marine environment makes international coordination of science related to supporting sustainable aquaculture an important role.

ICES Aquaculture Dialogue Meeting

Bergen 1-2 June 2015

Report from breakout group #5: Innovation

**Chairperson: Eduardo Balguerías Guerra (ICES Council
Delegate, Spain)**

Rapporteur: Wojciech Wawrzynski

17 participating persons

Breakout group 5 focused on the theme – Innovation. The group was given a list of sub-themes to inspire their discussions.

- Integrated Multi-Trophic Aquaculture (IMTA)
- Off-shore issues
- Gamete resources/strain development
- Species diversification
- Bioremediation
- Disease resistance
- Animal welfare and domestication
- Knowledge from production data

Main issues discussed

It was noted that there are networks already dealing with aquaculture issues in Europe (e.g. EATIP, FEAP, EFARO, COFASP, EC, different NGOs) and their actions and products should be taken on-board to avoid duplication and to build on what has already been achieved.

Need for advice in aquaculture governance: In Europe, contrary to the fisheries, aquaculture is in competence of member states. There is a need for innovation in governance framework of aquaculture sector. **ICES could provide guidelines to promote innovation in the governance system itself** (e.g. in the EU or Norway there are no standards for dealing with risk

assessment and so ICES could develop such instruments, coming with expertise from fishery sector and having its unique global perspective).

The main issue discussed from the innovation prospective was **how ICES could help the global aquaculture industry to acquire more marine feed from fisheries bycatch** (estimated at +30 m tonnes globally) and underexploited marine resources. This is the point where fisheries and aquaculture meet on business basis. This is the point in which ICES expertise is located. Another aspect of this issue (implicit in the landing obligation of the CFP) is how to prevent fishermen from specifically targeting bycatch in case it is profitable to market them.

More knowledge is required in growing feed ingredients for fish farms. Innovation is needed in **low-trophic aquaculture** to ease introduction of **(integrated) multi-trophic aquaculture** in Europe. Many knowledge gaps in Europe in this area.

Disease prevention and treatment in aquaculture (to some extent responsibility of the International Animal Health Organization). More innovative global solutions are needed.

Providing guidelines in the field of maritime spatial planning in relation to implementation of national aquaculture action plans (which allow countries to use the European Maritime and Fisheries Fund).

Asian farmers tend to ask for a set of universal principles of aquaculture management (valid for all regions, species, e.g. distance between farms, fallowing practices). Sometimes (IMR experience from Indonesia) the more you expand in quantity the lower the final production because of rapidly growing environmental problems and diseases. With expanded innovation human kind reaches the point where nature cannot cope anymore (e.g. fishing capacity) - same with multiplying fish production. **ICES could provide advice on carrying capacities in aquaculture and transfer best practices between macroregions.**

ICES strength in the field of ecosystem approach of fisheries management could be used to providing knowledge on the **ecosystem approach to aquaculture**. **ICES could provide guidelines, frameworks and definitions such of sustainability itself.** Europe is lacking common grounds there.

With aquaculture production growing (e.g. in Norway) **ICES could provide advice on the ecosystem / environmental effects** of such an expansion. Institutes delegating experts to ICES fisheries advice usually deal with aquaculture research so the expertise is there and could be used. Having in mind that a small fish farmer can make huge damage to environment / biodiversity **recommendations on control frameworks and trade-offs between growth and sustainability could be provided.**

Stakeholder involvement: especially in risk management ICES should take into consideration voices of local communities and stakeholders and find out what needs to be solved and how to solve issues taking into consideration possible implications on a nation or local communities.

With slower structural development in Southern Europe ICES could use its global dimension and make use of best practices from other parts in the world and try to demonstrate their applicability in Southern Europe. ICES could be a forum of opinion exchange with industry like it takes place more efficiently in livestock or salmon (in contrary to other aquaculture species).

ICES should perhaps **not** provide advice on technical issues like technology of escapee prevention or low-stress grading as expertise is already available.

3. Listed recommendations

- stakeholders' needs for advice

- **ICES could help the global aquaculture industry to acquire more marine feed from fisheries bycatch** (estimated at +30 m tonnes globally) and underexploited fisheries. This is the point where fisheries and aquaculture meet on business basis. This is the point in which ICES' expertise is located; (attention to the landing obligation clause in the CFP!!!).
- **Providing guidelines in the field of maritime spatial planning in relation to implementation of national aquaculture action plans** (which allow countries to use the European Maritime and Fisheries Fund);
- **ICES could provide advice on carrying capacities in aquaculture and transfer best practices between macroregions;**
- **ICES could provide advice on the ecosystem / environmental effects** of aquaculture sector expansion. This includes **recommendations on control frameworks and trade-offs between growth and sustainability could be provided.**

- stakeholders' needs in research

- **ICES could provide guidelines to promote innovation in the governance system itself** (e.g. in the EU or Norway there are no standards for dealing with risk assessment and so ICES could develop such instruments, coming with expertise from fishery sector and having its unique global perspective);
- More knowledge is required in growing feed ingredients for fish farms. Innovation is needed in **low-trophic aquaculture** to ease introduction of **(integrated) multi-trophic aquaculture** in Europe;
-
- **Disease prevention and treatment in aquaculture;**
- ICES strength in the field of ecosystem approach of fisheries management could be used to providing knowledge on the **ecosystem approach to aquaculture**. **ICES could provide guidelines, frameworks and definitions such of sustainability itself.**

- stakeholder involvement in decision making

Especially in the field of risk management ICES should take into consideration voices of local communities and stakeholders and find out what needs to be solved and how to solve issues taking into consideration possible implications on a nation or local communities.

With slower structural development in Southern Europe ICES could use its global dimension and make use of best practices from other parts of the world and try to demonstrate their applicability in Southern Europe. ICES could be a forum of opinion exchange with industry like it takes place more efficiently in livestock or salmon (in contrary to other aquaculture species).



ICES
CIEM

International Council for
the Exploration of the Sea
Conseil International pour
l'Exploration de la Mer

Council Meeting

October 2015

CM 2015 Del-7.1.3

Agenda item 7.1.3

Roadmap for ICES activities in 2015, 2016 (ICES Secretariat, HoS)

Objective of ICES engagement in the Arctic science arena: establish ICES as key partner with Arctic organizations of strategic importance.

The ICES Arctic Fisheries Working Group made recommendations in 2013 that were revisited by the Council Working Group on Maritime Transatlantic Cooperation in 2015.

1. Support existing Working Groups to monitor and assess expanding ranges of living resources into the Arctic (recommendation of AFWG).
2. Expand the existing “ecology” Working Groups from their geographical remit into ice-free, open waters of the Arctic (zooplankton, benthos but also WGOH etc.) (recommendation of AFWG).
3. Establish a working group on integrated Assessment on the Arctic or allow existing working groups on integrated assessment develop into such.
4. Establish a survey-planning group (or expand the mandate of an existing group) for the Arctic waters that could coordinate existing surveys and identify gaps and survey needs (recommendation of AFWG).
5. Expand data services with special emphasis on the Arctic Ocean.
6. Be proactive in designing conservation measures, e.g. investigating the appropriateness and dimension of Arctic MPAs.
7. Produce a comprehensive leaflet that explains to the public and politicians ICES competences and achievements in the Arctic. It should present the results of the assessments and its science and based on this, demonstrate the need for scientific expansion.

Since these recommendations were made, ICES has made good progress towards building working relationships and trust with the Arctic actors in the science arena. Further work is needed and further strategic cooperation with Arctic organizations should be the main priority in order to contribute ICES competence and avoid duplication of effort.

Potential Strategic action: Host an arctic themed workshop to review ongoing activities (including surveys), identify gaps, building up to an Arctic dialogue meeting in 2016 to meet and discuss with strategic partners on areas for further cooperation, and specific contributions by ICES.

Mapping existing and potential cooperation with Arctic organizations

Arctic Council – Arctic Marine Strategic Plan (AMSP)

Arctic Organizations	ICES Action
The International Arctic Science Committee	
<p>April 23-30, 2015, Toyama, Japan: The ICARP III conference and the (IASC) Arctic Science Summit Week (ASSW)</p> <p>Establish research priorities for future research in the Arctic, including social and life sciences (but not fisheries) and involving the local communities (not the industry), and to review ongoing observational systems</p>	<p>ICES will continue as partner of IASC and be part of ICARP.</p>
The coastal states to the Central Arctic Ocean: Meetings of Scientific Experts on Fish Stocks in the Central Arctic Ocean	
<p>March 14-16, 2015, Seattle, USA: 3rd Meeting of Scientific Experts on Fish Stocks in the Central Arctic Ocean Review current programs for fish-relevant research and monitoring (R&M) in the central Arctic Ocean and adjacent shelf areas, to report status of R&M, addressing gaps in knowledge on the distribution and abundance of fish in the central Arctic Ocean, and develop a framework for a Joint Program of Scientific Research and Monitoring for the central Arctic Ocean region;</p>	<p>ICES as model for inventory of research and monitoring in the CAO; ICES recognized as only organization that currently has a formal, advisory role in relation to management authorities; P/ICES-IOC Effects of Climate Change on the World's Oceans Scientific Symposia series as high-profile authority on topic</p>

Arctic Council	
<p>21-22 September 2015, Oslo, Norway: Arctic Council's Task Force on Arctic Marine Cooperation (TFAMC)</p> <p>Assess future needs for a regional seas program for increased cooperation in Arctic marine areas, and to acknowledge the importance of scientific cooperation to the circumpolar region, note the work on enhancing scientific cooperation in the Arctic, and decide to extend the Task Force mandate, including to work towards a legally-binding agreement on scientific cooperation, with a view to completing its work no later than the next Ministerial meeting (2017);</p>	<p>Moved ICES into the front row of cooperating organizations in the Arctic marine science arena.</p>

Arctic Council AMSP Strategic Action	Relevant ICES competence
<p>At the Arctic Council Ministerial meeting in 2015 a new AMSP¹ was approved. The strategic actions identified in the AMSP will guide the work of the Arctic Council and its subsidiary bodies in the coming decade. The ICES Strategic Plan 2014–2018 identifies the Arctic as a strategic action area. In order to ensure that ICES activities are linked to the AMSP, the table below has been compiled to show where AMSP strategic actions (only relevant actions for ICES have been included) could be complemented with existing ICES work.</p>	
7.1 Improve and Expand the Knowledge-base	
<p>7.1.1 Strengthen scientific cooperation and joint monitoring among the Arctic states, and with other states, organizations and stakeholders involved in Arctic research or traditional and local knowledge, with a focus on prioritizing research issues, filling knowledge gaps, and developing mechanisms to share and exchange observational data.</p>	<p>All Arctic states are also members of ICES. ICES has extensive experience coordinating joint monitoring. Science Steering Group on Integrated Ecosystem Observation & Monitoring (SSGIEOM).</p> <p>ICES will actively contribute to the preparation of the next CAFF CBMP Arctic Marine Biodiversity Report (planning group in November 2015).</p>
<p>7.1.2 Improve, synthesize, and respond to emerging knowledge across all disciplines and sectors to include government, academic and industry information, and traditional and local knowledge.</p>	<p>ICES advisory services focus on synthesising existing and new knowledge in order to provide the best possible advice. This is best known in the fisheries field but also encompasses ecosystem advice, and advice relevant to all human maritime activities.</p>

¹ <http://www.pame.is/index.php/projects/arctic-marine-strategic-plan>

<p>7.1.3 Improve the understanding of cumulative impacts on marine ecosystems from multiple human activity-induced stressors such as climate change, ocean acidification, local and long range transported pollution (land and sea-based), marine litter, noise, eutrophication, biomass overharvesting, invasive alien species and other threats.</p>	<p>ICES is committed to developing integrated ecosystem understanding. (http://ices.dk/explore-us/Action%20Areas/Pages/Integrated-ecosystem-assessments.aspx)</p> <p>IEAs are a natural progression in the ecosystem approach to marine management.</p> <p>ICES IEA groups are working to update ecosystem overviews in several regions. These overviews will feature ecosystem descriptions combined with long-term species trends and long-term trends in drivers of ecosystem change such as climate, oceanography, and fishing pressure.</p> <p>Relevant ICES Working Groups (Arctic Fisheries, IEA of the Norwegian Sea and of the Barents Sea, as well as ICES/AMAP/CAFF/PAME WG on Integrated Ecosystem Assessment (IEA) for the Central Arctic Ocean).</p> <p>ICES has advised on climate change, ocean acidification, eutrophication, avoidance of biomass over-harvesting and invasive alien/non-indigenous species.</p>
<p>7.1.4 Improve the predictive capacity and develop a common understanding of the likely future impacts of climate change and other emerging threats, such as ocean acidification.</p>	<p>Potential to assist with:</p> <p>Monitoring guidelines (climate, environment, oceanography), cf the joint ICES-OSPAR Ocean Acidification Study Group (http://ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2014/SGOA/sgoa_2014.pdf). Publishing of Series of ICES Survey Protocols (SISP).</p> <p>Quality assurance guidance and exercises</p>

	<p>Assessment frameworks (Contaminants, ocean acidification)</p> <p>Guidance on statistical analysis of environmental data</p> <p>Data management (contaminants, biological effects, oceanography)</p> <p>A joint ICES/AMAP Ocean Acidification group is being developed with marine chemistry and plankton as focus themes. The group will be supported by existing ICES working groups on Marine Chemistry, Phytoplankton Microbial Ecology, and Zooplankton Ecology.</p> <p>2013 Conference on “Acidification of the Arctic Ocean and Northern Seas: Trends and Consequences”, 6-8 May 2013, at Bergen, Norway with the Arctic Council’s Arctic Monitoring and Assessment Programme (AMAP) and ICES as Conveners</p> <p>The Strategic Initiative on Climate Change Impacts on Marine Ecosystems (SICCCME) is a mechanism set up by ICES and PICES to coordinate northern hemisphere efforts to understand, estimate and predict the impacts of climate change on marine ecosystems.</p>
7.1.6 Improve and coordinate communication of knowledge generated in Arctic Council assessments to the circumpolar and global community.	Potential to cooperate on some outreach activities for maximum impact.
7.1.7 Continue the development and standardizing of data sharing and management at a circumpolar level.	ICES Data Centre is an experienced leader in the development and standardization of marine data sharing and management at a regional and international level. The Data Centre has an established relationship with the Arctic Monitoring and Assessment Programme (AMAP) and has a representative from the ICES network on the SAON Committee on Data and Information Services (CDIS).

<p>7.1.8 Improve awareness of Arctic shipping activity and its impacts, promote expanded information sharing of ship traffic data among Arctic states and, as appropriate, other stakeholders, and update selected parts of the 2009 Arctic Marine Shipping Assessment (AMSA) Report, including those pertaining to the volume, composition and destination of Arctic shipping, shipping impacts, and key infrastructure needs such as hydrographic surveying and nautical charting.</p>	<p>ICES has an Expert Group on Risks of Maritime Activities in the Baltic Sea (WGMABS) which could consider taking into account the Arctic Ocean and shipping activities. A request to ICES to contribute to the respective work of the Working Group on Risk Assessment (EPPR) was made by Arctic Council in 2014.</p>
<p>7.1.9 Strengthen, where feasible, the collection, observation, monitoring and dissemination of relevant data on the Arctic marine environment. This could include hydrographic and bathymetric data; oceanographic data (including tides and currents) and meteorological information for numerical modeling and forecasting; pollutants; climate change-related impacts (especially ocean acidification); and ecosystem and biodiversity status and trends (including invasive species and other metrics of environmental change).</p>	<p>The annual ICES Report on Ocean Climate (IROC) and the ICES Zooplankton Report covers subarctic waters.</p> <p>ICES data centre already holds much data in these areas and is geared for further collection and is developing mechanisms to display and extract those data.</p>
<p>7.1.11 Support continued development of circumpolar indicators of changes and stressors across the Arctic marine environment, as well as metrics for monitoring biodiversity.</p>	<p>ICES working groups (e.g. Working Group on Ecosystem Effects of Fishing Activities WGEFO) and ICES advisory services have a long experience of developing indicators – most recently for the EU's Marine Strategy Framework Directive. The AORAC-SA project has links through to the International North Atlantic-Arctic Science Plan of the USA National Science Foundation to the study of ocean stressors.</p>
<p>7.2 Conserve and Protect Ecosystem Function and Biodiversity</p>	<p>Steering Group On Ecosystem Processes And Dynamics (SSGEPD)</p>

<p>7.2.1 Promote the implementation of the ecosystem approach to management in the Arctic through synthesis and application of the results of relevant work by the Arctic Council and associated efforts by relevant organizations.</p>	<p>ICES is already engaged in implementing the ecosystem approach and would be happy to be associated with this initiative. Cooperation with the Arctic Council to develop an integrated ecosystem assessment for the central Arctic Ocean through the work of WKICA/WGICA is on-going.</p>
<p>7.2.2 Identify and assess threats and impacts to areas of heightened ecological and cultural significance and how such areas may be influenced in the future by climate change and other human induced changes and activities.</p>	<p>ICES has already advised on the effects of climate change on areas of ecological significance.</p>
<p>7.2.3 Identify and develop tools and methodologies for assessing cumulative impacts and risks for Arctic marine ecosystems and areas of heightened ecological and cultural significance with the aim of using them for integrated assessments.</p>	<p>ICES Working Group on Marine Habitat Mapping (WGMHM) coordinates the review of habitat classification and mapping activities in the ICES area and promotes standardization of approaches and techniques.</p> <p>The experts in WGMHM have experience in habitat mapping and classification, and include geologists, benthic ecologists, conservation practitioners, GIS analysts and database experts. The working group meets annually to collate new information and standardize geographic information for seabed and habitat maps in the ICES area.</p> <p>http://www.ices.dk/community/groups/Pages/WGMHM.aspx</p> <p>This information has been used in ICES advisory processes, with further development of ways of assessing cumulative impact planned for 2016.</p>
<p>7.2.4 Encourage the Arctic states to implement appropriate measures, – or to pursue such measures at relevant international organizations to protect Arctic marine Areas of Heightened Ecological and Cultural Significance. Focus</p>	<p>Potential to assist with:</p> <p>Monitoring guidelines (climate, environment, oceanography)</p>

<p>should be on species and ecosystems particularly at risk from climate change and cumulative impacts, including areas of refuge for ice-associated species that are, or are expected to become particularly important to Arctic marine biodiversity under future climate conditions.</p>	<p>Quality assurance guidance and exercises</p> <p>Assessment frameworks (Contaminants, ocean acidification)</p> <p>Guidance on statistical analysis of environmental data</p> <p>Data management (contaminants, biological effects, oceanography)</p> <p>Letter of understanding under discussion between AMAP and ICES secretariats based on:</p> <ul style="list-style-type: none"> -Reporting of Arctic marine data to the ICES dataset collection; and -Assessment tools for the AMAP programme. <p>Existing:</p> <p>ICES currently operates the Arctic Monitoring and Assessment Programme thematic Data Centre for environmental data gathered by the Arctic countries and observing countries</p>
<p>7.2.5 Develop and encourage the Arctic states to implement common measures and support research into technology and techniques for early detection and reporting of marine invasive species in the Arctic marine environment.</p>	<p>Working Group on Introductions and Transfers of Marine Organisms (WGITMO) and ICES/IOC/IMO Working Group on Ballast and Other Ship Vectors (WGBOSV) are already dealing with bioinvasions in the Arctic, but in rather limited amount. It has been suggested that ICES and PAME arrange a workshop and discuss, and agree on the joint interests and design follow-up activities.</p> <p>WGBOSV has Arctic-related ToR for 2016-2018: Investigate and evaluate climate change impacts on the establishment and spread of ship-mediated nonindigenous species, particularly with respect to the Arctic.</p>

<p>7.2.6 Identify and map areas of the marine environment that are particularly vulnerable to the effects of ocean acidification to inform appropriate monitoring and adaptation measures.</p>	<p>The Working Group on Deep-water Ecology (WGDEC) is a joint ICES/NAFO expert group that deals with the biology and conservation of deep-sea habitats in the North Atlantic.</p> <p>WGDEC experts are comprised of taxonomic specialists, deep-sea survey scientists, GIS analysts, fisheries scientists, database experts, benthic ecologists, and fish biologists, and they meet annually to collate new information and map the distributions of vulnerable marine systems (VMEs) in ICES and NAFO areas. The resulting maps are combined with information on bathymetry and fishing activity to assess the risk to VMEs. In some situations closures to bottom fisheries are the best means of affording protection, and WGDEC uses the best available data on VME distribution, models, bathymetric maps and the judgement of experts to suggest appropriate closure boundaries. The working group also advises on the appropriateness of the bottom fishing regulations adopted by RFMOs as well as wider ecological questions regarding deep-sea ecosystem function and diversity.</p>
<p>7.2.7 Promote cooperation among Arctic and non-Arctic states to address threats to the staging and wintering grounds and migrating corridors of migratory species using the marine environment.</p>	<p>Existing ICES Expert groups could provide the scientific information for identifying such threats (e.g. Arctic Fisheries Working Group; Joint ICES OSPAR working group on seabirds; Working Group on Marine Mammal Ecology).</p>
<p>7.2.10 Develop a pan-Arctic network of marine protected areas, based on the best available knowledge, to strengthen marine ecosystem resilience and contribute to human wellbeing, including traditional ways of life.</p>	<p>ICES has extensive experience in developing marine protected area guidelines and facilitating stakeholder workshops. As a transatlantic network ICES has the competence and the infrastructure to evaluate the effectiveness of MPAs. It could therefore be of considerable assistance for PAME.</p>

7.3 Promote Safe and Sustainable Marine Resource Use	
<p>7.3.1 Advance EBM as an overarching framework for conservation and sustainable use of living and non-living resources in the Arctic marine environment, taking into account cumulative impacts on the Arctic and the need for adaptation to climate change.</p>	<p>The Working Group on Multispecies Assessment Methods (WGSAM) Terms of Reference (ToRs) aims at enabling research on predator-prey interactions for developing advice on the ecosystem approach to fisheries management.</p> <p>The ICES Working Group of Small Pelagic Fishes, their Ecosystems and Climate Impact (WGSPEC) encourages and gathers cross-disciplinary experts to look at the linkages between small pelagic fish and climate impacts.</p>
<p>7.3.8 Promote the management of human activities in the circumpolar Arctic in accordance with Ecosystem Based Management and international law to ensure long term sustainability of stocks and ecosystems.</p>	<p>Arctic Fisheries Working Group (AFWG) performs assessments of cod, haddock, saithe, redfish, Greenland halibut, and capelin stocks in ICES areas I and II (Barents Sea and Norwegian Sea) and on its surveys and data sampling going as far north as the ice coverage allow.</p>
<p>7.3.11 Promote cooperation to improve and expand a) hydrographic and bathymetric data collection and b) Safety of Navigation services and products (including nautical chart and publication production) to support safe and efficient marine shipping in the Arctic.</p>	<p>ICES Working Group on Oceanic Hydrography (WGOH) closely monitors the ocean conditions in the ICES area by updating and reviewing results from standard hydrographic sections and stations.</p> <p>The material presented at the WGOH meetings each year is consolidated and published as the annual ICES Report on Ocean Climate (IROC).</p>

2016 ICES Activities		
Event/meeting	Objective	Impact
2016, tbd, ICES/CAFF/PAME Working Group on Integrated Ecosystem Assessment for the Central Arctic Ocean (WGICA)	In collaboration with Arctic Council working groups consider the approach and methodologies for doing an IEA, and begin assembly of data and information building from the Inventory of Arctic Research and Monitoring (IARM).	Intensify cooperation with Arctic Council Working Groups, prepare the ground for IEA in the CAO future IEA in cooperation with Arctic Council, including the CAO.
2015 ICES Activities		
March 14-16, 2015, Seattle, USA: 3rd Meeting of Scientific Experts on Fish Stocks in the Central Arctic Ocean	Review current programs for fish-relevant research and monitoring (R&M) in the central Arctic Ocean and adjacent shelf areas, to report status of R&M, addressing gaps in knowledge on the distribution and abundance of fish in the central Arctic Ocean, and develop a framework for a Joint Program of Scientific Research and Monitoring for the central Arctic Ocean region;	ICES as model for inventory of research and monitoring in the CAO; ICES recognized as only organization that currently has a formal, advisory role in relation to management authorities; P/ICES-IOC Effects of Climate Change on the World's Oceans Scientific Symposia series as high-profile authority on topic
April 23-30, 2015, Toyama, Japan: The ICARP III conference and the (IASC) Arctic Science Summit Week (ASSW)	Establish research priorities for future research in the Arctic, including social and life sciences (but not fisheries) and	ICES visibility as convener of theme sessions on fisheries and shipping, and on communication of science.

	involving the local communities (not the industry), and to review ongoing observational systems (continue the role of ICES as partner of IASC and be part of ICARP);	
May 28-29, 2015 in Bergen, Norway: The ICES/AMAP/PAME/CAFF Workshop on Integrated Ecosystem Assessment (IEA) for the Central Arctic Ocean (WKICA)	Consider the purpose and scope of an Integrated Ecosystem Assessment (IEA) for the Central Arctic Ocean, review the data and information available from past and on-going monitoring and research relevant for IEA, consider the geographical scope for a Central Arctic Ocean IEA, in particular the relationships to the 'up-stream' Atlantic gateways, consider the thematic scope of an IEA, e.g. impacts from climate variability and change, contaminants and pollution, shipping, and fisheries, and suggest practical steps for initiating and carrying out an IEA for the Central Arctic Ocean; WKICA recommended an Expert Group to continue;	Established ICES as the authority on IEA in the Arctic science arena, established or reinforced cooperation links with Arctic Council Working Groups.
3-5 November, 2015, Pasvik, Norway, CBMP – marine annual face-to-face meeting	Expand the cooperation within the framework of the Circumpolar Biodiversity Monitoring Programme especially in its marine component and to liaise with other organizations, include ICES in view of its	Will greatly enhance cooperation with CBMP and consolidate ICES as authority on IEA.

	ecosystem observation and assessment capacities;	
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Annex: For Input to the Arctic Council:

The Arctic Council Strategic Plan

ICES as a knowledge provider with a diverse science portfolio will be able to contribute to the Arctic Council Strategic Plan to:

- Improve knowledge of the Arctic marine environment, and continue to monitor and assess current and future impacts on Arctic marine ecosystems (goal 1),
- provide knowledge to help conserve and protect ecosystem function and marine biodiversity to enhance resilience and the provision of ecosystem services (goal 2),
- provide knowledge to promote safe and sustainable use of the marine environment, taking into account cumulative environmental impacts (goal 3),
- help enhance the economic, social and cultural well-being of Arctic inhabitants, including Arctic indigenous peoples and strengthen their capacity to adapt to changes in the Arctic marine environment (goal 4).

A number of factors point to the importance of ICES as a scientific knowledge provider in the Arctic;

- the existing scientific network, including data and information products, and advisory functions, involving all Arctic Member States;
- current cooperation with the Arctic Council, and its working groups, including;
- the recent initiative to establish the joint CAFF (Conservation Arctic Fauna and Flora).

PAME (Protection of Arctic Marine Environment), and ICES Expert Working Group on the development of an Integrated Ecosystem Assessment for the Central Arctic Ocean.

ICES data services in relation to the Arctic: ICES provides the core evidence base for marine assessments in the ICES area; for example, the Contaminants and Biological Effects dataset is closely related to the AMAP monitoring and assessment programme. This includes potential further cooperation on a hazardous substances assessment tool, generating on demand a dataset product from the ICES databases, as is demonstrated by the OSPAR assessment tool.

For more than a decade ICES has produced a report from the ICES Area of the North Atlantic and Nordic seas describing the state and trends in ocean climate. More recently, this comprehensive report has been available as an operational data tool from the ICES website.
<http://www.ices.dk/newsandevents/newsarchive/news/Pages/Climate-report-enters-the-digital-age.aspx>.

Council Working Group on establishing an ICES Conflict of Interests Policy

Council is invited to discuss the need for a Council Working Group on establishing an ICES Conflict of Interests Policy.

A potential conflict of interest within the Publications and Communications group has highlighted the need for a more formal Conflict of Interest Policy, cf. the Bureau Statement distributed 16 September 2015 (Attachment 1).

Given that:

- ICES is a knowledge organization, and dependent on the expertise of its participants.
- ICES is dependent on the voluntary contributions of its experts.
- ICES advisory products are developed following an iterative process, ensuring an oversight of earlier processes, and thus impartiality and transparency through a clear audit trail to publicly show who was involved and how results were reached.
- ICES work is based on a principle of transparency, and best available information; *inter alia* supported by publishing (via the website) the names of experts participating in the scientific process, together with the scientific product.

And taking into account:

- the potential of COI to damage the integrity and reputation of ICES.
- that ICES reputation is built on ICES mission and core values that are the foundation of the ICES Strategic Plan.
- that ICES mission is to advance the scientific understanding of marine ecosystems, and provide information, knowledge, and advice on the sustainable management of human activities affecting, and affected by, marine ecosystems.
- that ICES work must be underpinned by its core values. ICES must be independent with its integrity and objectivity guiding the development of science and advice.
- that any perception that ICES is not observing these core values in its daily work, can have serious repercussions to its reputation, and must be dealt with immediately.

In order to create a clear Conflict of Interest policy for ICES it is proposed to create a Council Working Group on Conflict of Interest. CWGCOI will report their findings to the 2016 February Bureau meeting, and Bureau will elaborate and finalize the ICES COI Policy, for release second half of 2016. CWGOI will work by correspondence. CWGCOI will be tasked with the following Terms of Reference:

ToR 1: Compile examples of Conflict of Interest Policies of other international organizations, and if possible include concrete examples of conflicts of interest and how they have been handled.

ToR 2: Based on ToR 1, consider the possibility of drawing up an overall Conflict of Interest Policy for ICES, including different levels of COI, and more specifically a procedure to evaluate whether an interest constitutes a conflict, and the follow-up measures

ToR 3: Through the Chairs of the respective Committees/Group, seek input from the Science Committee, Advisory Committee, Data & Information Group, and Secretariat.

Re ToR 1:

European Maritime Safety Agency (EMSA), Rules of Procedure of the Administrative Board, including "[EMSA Administrative Board Conflict of Interest Policy](#)"

Summary of central points:

- interests declared in a transparent way are not per se considered to represent a conflict of interest
- aim of policy is to facilitate a transparent and consistent handling of situations where conflicts of interest may arise
- a conflict can create an appearance of impropriety that can undermine confidence in the person, profession, or the organisation
- a conflict of interest may exist even if no unethical or improper act results from it. On the other hand, the holding of interests does not automatically give rise to a conflict of interest, if the independence and objectivity of decisions are not at risk
- recognized that it is often difficult to objectively assess whether a conflict of interest situation exist
- primary responsibility for assessing whether an interest might impede independence or influence judgement and for declaring any possible conflict of interest is placed on the person concerned
- considered important to develop and sustain an open organizational culture where COI/measures dealing with COI can be freely raised and discussed

STECF, [Rules of Procedure](#)

- The extent of participation in the STECF work by members or external experts identified as having a conflict of interests on any items shall be decided by the Chair in consultation with the STECF membership. Any action shall be recorded. In cases where a conflict of interests exists, the members or external experts thus identified shall not be permitted to vote on the items concerned.

World Health Organization, GUIDELINES FOR DECLARATION OF INTERESTS (WHO EXPERTS), cf. attachment

- To be effective, the work of WHO and the contributions of its experts must be, and must be perceived to be, objective and independent. In this regard, to ensure the highest integrity and public confidence in its activities, WHO requires that experts serving in an advisory role disclose any circumstances that could give rise to a potential or reasonably perceived conflict of interest related to the subject of the activity in which they will be involved.

- In the context of these Guidelines, the term "conflict of interest" means any interest declared by an expert that may affect or reasonably perceived to affect the expert's objectivity and independence in providing advice to WHO.

- WHO's conflict of interest rules are designed to avoid **potentially** compromising situations that could undermine or otherwise affect the work of the expert, the committee or activity in which the expert is involved or WHO as a whole. Consequently, the **scope** of the inquiry is any interest that **could reasonably be perceived** to affect the functions that the expert is performing.

- Generally speaking, a conflict of interest analysis must be performed whenever WHO relies on the independent advice of an expert in order to take a decision or to provide recommendations to Member States or other stakeholders. [...] As explained below, this situation typically arises where an expert is either: (1) providing advice **under contract or on a voluntary basis** or (2) participating in **scientific or technical advisory meetings**.

- Section IV HOW TO ANALYSE THE INFORMATION DISCLOSED? – with four steps to be taken on 1) Initial Review; 2) Assessment; 3) The Balancing Test, and 4) Possible Options

EEA Policy for the management and prevention of conflict of interest, cf attachment and

<http://glossary.eea.europa.eu//terminology/sitesearch?term=conflict+of+interest>

- These (potential conflict of interest) situations shall be handled correctly and timely as they can negatively affect the decision-making process and lead to a loss of faith in the ability of the EU public bodies to operate impartially and in the interest of the EU citizens

- There is a conflict of interest where the impartiality and objectivity of a decision, opinion or recommendation for the EEA, including its bodies, is or might, in the public perception, be compromised by an interest held by, or entrusted to, an individual working for the Agency

- the best way to foster integrity and accountability is to ensure transparency in all instances, [...] avoiding a disproportionate administrative burden. To that end, the names of the main actors behind EEA's decision- and opinion-making are made available to the general public, together with a link to the organization they belong to...

- [...] effective application of the [conflict of interest] rules requires that the rules are clear, unambiguous and easily acceptable.

. The first responsibility in preventing and managing any potential conflict of interest situation shall lie with the person concerned working for the EEA

UK CEFAS Conflict of Interest Guidance, attached

NOAA

[http://www.cio.noaa.gov/services_programs/NOAA PRB COI Policy 110606.html](http://www.cio.noaa.gov/services_programs/NOAA_PRB_COI_Policy_110606.html)

BUREAU STATEMENT

Conflict of Interest (COI) at ICES

BACKGROUND

Conflict of Interest (COI) has the potential to damage the integrity and reputation of ICES. The COI issue was discussed by Bureau in June 2015, following concerns about a potential COI after the PUBCOM Chair Myron Peck was appointed Associate Editor-in-Chief of Marine Ecology Progress Series and its sister journal (Aquatic Biology) at Inter-Research. Bureau tasked First Vice-president, Cornelius Hammer, and the SCICOM Chair, Yvonne Walther with developing a detailed and well researched report on the COI issue.

The report was completed in August 2015 and provided a synthesis of the views of SCICOM, PUBCOM, ACOM, previous and current PUBCOM chairs, previous and current Editor in Chiefs of IJMS, the Committee on Publication Ethics, and Oxford University Press relating to a potential "conflict of interest" (COI) that has arisen with the PUBCOM chair taking office with another journal. The document also addresses COI, with regard to ICES work, on a more general level. On 10th September 2015, Bureau arranged a special on-line meeting to discuss the issue of COI in PUBCOM.

Annex 1 contains an outline of the sequence of events related to the issue of COI in PUBCOM. Annex 2 presents a summary of the COI report considered by the special Bureau meeting.

SPECIAL BUREAU MEETING ON COI

The COI report made four recommendations for Bureau to consider.

- (1) accept the resignation of the current PUBCOM chair, Myron Peck;
- (2) develop and adopt a Policy document on COI including a clear process to be followed. Request the General Secretary to prepare a draft scoping document for the 23–24 September Bureau meeting.
- (3) request the Secretariat chair the PUBCOM meeting on 19th September 2015
- (4) decide on a process for recruitment of a new PUBCOM Chair in relation to the development of the Policy document on COI.

During the online discussions Bureau recognised the potential of COI to damage the integrity and reputation of ICES. This reputation is built on ICES mission and core values that are the foundation of the ICES Strategic Plan. Bureau highlighted that ICES mission is to advance the scientific understanding of marine ecosystems, and provide information, knowledge, and advice on the sustainable management of human activities affecting, and affected by, marine ecosystems. ICES work must be underpinned by its core values. ICES must be independent, with its integrity and objectivity guiding the development of science and advice. Any perception

that ICES is not observing these core values in its daily work, can have serious repercussions to its reputation, and must be dealt with immediately.

BUREAU DECISION

- (1) Bureau accepted the resignation of the PUBCOM Chair Myron Peck, and extends their thanks to him for his valuable contribution to ICES. Bureau finds it is important to stress that this decision is not based on a credibility issue. It is based on the advice from two external cooperation partners, Oxford University Press (OUP) and the Committee on Publications Ethics (COPE) that a COI exists.
- (2) In order to deal with future COI situations at ICES in the future, Bureau has decided to develop and adopt a policy document on COI, including a clear process to be followed when COI situations arise. An initial scoping document will be considered at the Bureau meeting during the Annual Science Conference, on 23–24 September. The scoping document will include examples of best practice in other international organizations and a draft Terms of Reference for a Council Working Group on COI (CWGCOI). The COI issue will be further discussed at the Council meeting in October 2015.
- (3) The PUBCOM meeting on 19 September 2015 will be chaired by the ICES Secretariat, and the process for the recruitment of a new PUBCOM Chair will be initiated in relation to the development of the Policy document on COI.

Annex 1 – Sequence of events leading to the Bureau online meeting on 10th September 2015 on Conflict of Interest

22 April 2015: Information on Myron's position as Associate Editor-in-Chief of Marine Ecology Progress Series (MEPS) and its sister journal, Aquatic Biology (AB) at Inter-Research released.

23 April 2015: Myron Peck informs PUBCOM that he has been appointed an Associate Editor-in-Chief of MEPS and AB.

23 April 2015; a member of PUBCOM strongly objects to Myron Peck both chairing the PUBCOM, and in this role overseeing the ICES Journal of Marine Science, at the same time as he takes on his new role as Associated Editor-in-Chief.

27 April 2015; the President, First Vice-president, and the General Secretary requests the SCICOM Chair, Yvonne Walther to solicit comments from SCICOM, and together with a specifically designated member of SCICOM, to finalize a guidance document, that will form the basis for resolving the current issue on the chairmanship in PUBCOM. The SCICOM Chair, Yvonne Walther is asked to report back to June Bureau, on how the issue has been resolved. PUBCOM is informed about the initiated procedure.

Bureau June 2015; new information is tabled, when the SCICOM Chair presents her COI report, and the SCICOM Chair is requested together with the First Vice-President, Cornelius Hammer to finalize the COI document. The importance of having all views in a consolidated document is stressed, and specifically the following information is requested to be included:

- SCICOM comments and edits to the document, a summary of PUBCOM involvement, views from the current (Myron Peck) and previous (Pierre Pepin) PUBCOM chair; views from the current (Howard Browman) and previous (Andy Payne) Editor in Chief of the IJMS; the view from the Committee on Publications Ethics, as well as the official view of Oxford University Press.

11 August 2015; the consolidated COI document by the SCICOM Chair and the First Vice-President is submitted to Bureau members.

24 August 2015; Myron Peck hands in his letter of resignation as PUBCOM Chair.

Special online Bureau meeting 10 September: Bureau agrees to issue a Bureau Statement, based on the recommendations in the well-researched and detailed COI document that has been prepared by the First Vice-President, Cornelius Hammer, and the SCICOM Chair, Yvonne Walther.

Annex 2 – A summary version of the COI report presented to the special Bureau meeting on 10th September

This document provides a synthesis of the views of SCICOM, PUBCOM, ACOM, Previous and current PUBCOM chairs, previous and current Editor in Chiefs of IJMS, the Committee on Publication Ethics, and Oxford University Press relating to a potential "conflict of interest" (COI) that has arisen with the PUBCOM chair taking office with another journal. The document also addresses COI, with regard to ICES work, on a more general level.

This COI issue has the potential to damage the integrity and reputation of ICES. The document will inform and help Bureau make a decision on the way forward at a special online meeting 2015.

2 INTRODUCTION

The discussion around this specific case has made it clear that COI needs to be addressed on a more general level to ensure a process for how to deal with potential cases in the future. The issue at stake is to identify if there is a conflict of interest when scientists engage in ICES activities, while also engaged in other institutes with similar interests, and provide solutions on how to deal with COI generally.

A conflict of interests (COI) contains a primary and secondary interest where the two parties have competing professional or personal interest. In the classic conflict-of-interest model, motivation is normally based on financial benefit and or other professional or personal rewards.

However when involved in a non-profit situation the benefit of COI becomes more subtle, multi -dimensional and hard to define. In the case of engaging a scientist for a role in ICES we cannot differentiate the scientists level of interest in ICES, be it in an institute, university or journal which are all primary and respectable commitments.

In a conflict of interest between equally respectable commitments the perceived acts that are undue are a matter of judgment and depends on the context. As of now, no clearly specified situations where the PUBCOM chair would be under undue influence by another journal have been specified. The current situation is based on a general perception that COI could hypothetically become a problem. As such a perceived risk of COI should not be ignored and the standards ICES uses for evaluating this should be transparent and clearly specified.

While the issue of COI risk in other Groups, e.g. Operational Groups is noted, this document primarily addresses the role of the PUBCOM Chair and PUBCOM members' duties, including a review of precedents with regards to COI, based on the tenures of former PUBCOM Chairs or members. The conclusion of this review is followed by suggestions for an ICES policy for situations of COI.

3 THE ISSUE – POTENTIAL COI at PUBCOM

Following the announcement from PUBCOM Chair that he had been assigned as associated editor-in-chief of MEPS and Aquatic Biology, one of the PUBCOM

members strongly objected on the grounds of a potential COI, and requested the PUBCOM Chair to step down immediately.

The issue of COI must be addressed in light of any potential damage disadvantage the situation may cause for the integrity and reputation of ICES.

Based on PUBCOM ToRs we have tried to foresee situations that would be affected by COI and the risk at stake for ICES in the given situation.

4 THE ROLE OF PUBCOM

a) Provide advice and oversight on all ICES publications and communications activities dealing with public outreach.

PUBCOM Chair or members have access to all resolutions regarding publications being submitted to ICES, and therefore have considerable insight into new and innovative research topics. There is however no information or access to specific articles submitted to the ICES Journal for peer review. The potential for COI is therefore limited.

PUBCOM Chair or members get information about the number of articles rejected by country by the ICES Journal, but no information is provided about the rejection of specific papers. The potential for COI is therefore limited.

Editorial and or commercially sensitive information is available to PUBCOM Chair and members relating to OUP which is a commercial entity. This is the concern of OUP presently, cf. Section 11.2. Given that it is a concern for the publisher of ICES Journal it should not be ignored.

b) Work closely with the ICES Secretariat to ensure that the ICES website is developed in order to better serve ICES and the broader marine science community;

ICES website is a window on ICES activities and relies somewhat on being able to encourage views with information which is very new (e.g. advice) or topical (e.g. ICES influence on policy or initiatives regarding science and innovation). This information would also be of interest to competing entities including competing journals. PUBCOM chair and members could give information to commercial entities on new developments relating to science and science advice or development of the ICES website before these became live on the web. While possible COI exists, it is not clear how this would manifest and how it would cause a distinct disadvantage to ICES.

c) Review and give recommendations on requests for Symposium Volumes of the IJMS, CRRs and TIMES prior to the ASC and the SCICOM spring meeting;

As with scientific papers there is a possible COI with other competing journals if ICES symposia or special volumes were of particular significance or value. However, there is nothing currently stopping other journals from independently approaching convenors of theme sessions or symposia to get them to publish theme session, symposia special volumes with them and not ICES. And it does regularly happen.

d) Further develop plans for the implementation of the public outreach component of the Communication Strategy;

No obvious potential for COI.

e) Further develop those ICES publications media that serve the aims of the ICES Science Plan including how best to promote online media and phase out hard copy printing of some publications (CRRs and TIMES).

No obvious potential for COI.

5 PUBCOM AND IJMS

The PUBCOM Chair does not influence the contents of IJMS without the consent of the EiC. The EiC has editorial independence of the IJMS but reports to PUBCOM and SCICOM. The last issue of editorial independence was settled between EIC, PUBCOM and SCICOM in September 2014 (ICES CM 2014/SCICOM:03). The agreement was that editorial independence of the journal should include the EiC overview of symposia volumes. Therefore, it seems unlikely that a COI would arise where PUBCOM Chair could independently assert a major control over the publication process.

6 PUBCOM CHAIR AND MEMBERS

The main responsibility of a PUBCOM Chair is to ensure that the specific tasks assigned to the group in the relevant PUBCOM resolution and its ToRs are carried out. This involves making plans for the specified meeting(s) of the group, including the preparation of an agenda and work schedule in consultation with the other members, chairing the meetings, overseeing the preparation of the group's report and preparing draft resolutions in cooperation with the Secretariat.

ICES has no classified material and the Chair does not have access to material that a member cannot access. Furthermore, SCICOM is overseeing PUBCOM activities, and hence SCICOM members and alternates have access to the same information.

PUBCOM also has editors of CRR, TIMES and ID leaflets where we can find similar cases of potential COI based on affiliation with other journals and also financial interest in private companies.

7 OTHER OPERATIONAL GROUPS

Data and Information Group (DIG) act as a coordinating body between the ICES Data Centre and ACOM/SCICOM on important issues relating to the national data centres and data policies, data handling and storage, metadata and the use of IT in the ICES Data Centre. Membership is based on representation by the national data centres and a good coverage of disciplines to reflect expertise on the respective data handled by ICES.

COI could possibly occur if institutes have different views on data management and if DGI chair or members are part in projects with a distinct data management

curriculum, such as EMODNET. To date no such COI has been reported to have resulted in a major disadvantage to ICES.

ICES Training group ITG oversees the curriculum of the courses in the Training Programme. It is quite common that Chair and members oversee national training programmes also and in fact this is a distinct advantage. A member of the training group recently announced a shift of jobs to industry, however SCICOM was in unanimous agreement that was no problem in continuing their role as member of the Training Group, as well as instructor of the course on Communicating Science and Advice (ICES CM 2014/SCICOM:01).

8 EXAMPLES OF COI IN SCICOM, AND HOW IT WAS HANDLED

Historically there have been cases of COI in SCICOM and they have effectively been dealt with by the principle of disclosure and exclusion. The disclosure is handled via the person under COI making an announcement to SCICOM and due exclusion from discussion and possibly abstaining from voting.

A recent example was in connection with selecting the winning proposals of Science Fund where a SCICOM member was co-applicant. The member identified a COI directly and asked to be excluded from the discussion and abstain from any promotion of the proposal. This worked in full satisfaction and SCICOM could take a decision based on good judgement.

9 EXAMPLES OF COI IN ACOM, AND HOW IT WAS HANDLED

The COI issue arose during discussions at Council on the appointment of the ACOM chair in 2010. Some Delegates suggested a stricter approach to the selection and appointment of the ACOM chair, stating that it is not possible for the ACOM chair to have consultancy for fishing industries in areas where ICES gives advice. There should be a mechanism for the Bureau and Secretariat to look at the consultancy work one by one and to decide whether there is a conflict of interest that could be compromising the integrity of ICES. The appointment was made under the condition that the ACOM Chair should not have consultancy with stakeholders and governments who are influenced by advice of ICES. For all other consultancy a transparent process will be established with the Secretariat on a case-by-case basis.

10 THE VIEWS FROM PREVIOUS AND CURRENT PUBCOM CHAIRS

The views of previous and current PUBCOM chairs provided reflections on the conflict of interest issue. Views were divergent demonstrating the complexity of the issue. Some of the arguments presented included:

- There is precedent for the chair and members of PUBCOM to be affiliated with other journals.
- The Chair acts as impartial facilitator and it would be difficult to impart this influence to any advantage given the committee format of PUBCOM.

- There are different levels of COI, and, therefore, it is difficult in the absence of appropriate guidance to assess what is an acceptable level and what is not.
- ICES must endeavour to avoid COIs as well as the perception of COIs and issues surrounding COI need to be carefully handled.
- ICES has and should continue to rely on the integrity and good judgement of its members and leaders.
- Disagreement and debate are normal and professional societies and organizations are best served by adopting policies which foster openness, collegiality/respect, honesty and trust among their members.
- Despite PUBCOM members potentially disagreeing on specific issues, consensus views were reached. The group has provided unbiased advice to SCICOM and the general secretary.
- ICES has been given the opportunity to revisit and strengthen statements regarding professional ethics and the code of conduct of its members, employees and contracted parties.
- One cannot serve two masters fairly, and the current apparent situation places ICES present E-i-C, and also the Publisher, in an untenable situation.
- Reputations are easily lost, but take a long time to (re)build.
- The Chair of PUBCOM is responsible for guiding the committee's oversight of everything that the EiC of the ICES JMS does, as well as for all other ICES publications. In this role, the Chair has access to documents, and is involved in off-the-record discussions, about plans and strategies for our journal and all ICES publications, production matters, the economics and the promotion plans of the Publisher, etc. Much of this information is sensitive and confidential.
- The ability of people who are in conflicting roles to handle them professionally is irrelevant and does not obviate the conflict. Holding such conflicting roles does a disservice to all parties.

11 EXTERNAL STATEMENTS

11.1 THE VIEWS OF THE COMMITTEE ON PUBLICATIONS ETHICS

To clarify the situation, and upon recommendation by the publisher Oxford University Press (OUP) to seek independent and objective advice, the Committee on Publications Ethics (COPE), was asked to evaluate the situation.

Based on the description of the situation provided, COPE perceived a COI.

11.2 THE VIEWS OF OXFORD UNIVERSITY PRESS

The publisher of the ICES JMS, Oxford University Press also perceived a COI.

12 SYNTHESIS OF SCICOM VIEWS

SCICOM welcomes the overview and clarification on COI within ICES. On a generic level, an alleged conflict of interest is going to be reoccurring. If ICES decided not to use the services of people who are doing related jobs outside ICES there will not be much of the ICES community left. We have reason to trust peoples own judgement and their professional conduct until clearly proven otherwise. SCICOM particularly want to stress the importance to openly communicate about and deal with potential occurrence of COI.

In the specific case of PUBCOM chair it is important to maintain the independency of the IJMS. EiC having total editorial control is important and the independence was secured via a process completed in 2014.

The perception of COI is as important as actual COI, and this must be accounted for. While the current situation may be perceived doable from an internal (i.e. SCICOM) and pragmatic perspective, it may not be perceived as such externally. Regarding PUBCOM and the particular case at hand the conclusion that the potential extension of the PUBCOM chair should be agreed upon with OUP. However ICES / SCICOM should provide input, as the body likely to have the better understanding of the perception of conflicts of interest. We should consider when real and perceived conflicts of interest tarnish the image that the scientific community has of ICES.

13 ICES POLICY ON COI

Arising from the discussions and observations above it is clear that ICES needs to adopt a clear policy for dealing generally with COI issues in relation to selecting chairs and members of operational groups or for incumbent chairs or members of operational groups:

The current unofficial ICES policy on COI is based on the practice of disclosure and exclusion.

Any future policy may wish to include the following elements:

A prospective or incumbent Chair must declare any possible COI to ICES General Secretary.

ICES should evaluate the possibility of COI and any possible disadvantages to ICES or which “could compromise the integrity and reputation of ICES”.

Where this evaluation indicates little risk of COI then the prospective Chair should be accepted, or the existing Chair can continue.

Where this evaluation indicates COI may occur, in one or a number of instances, the Chair should:

- be requested to refrain from carrying out those functions

or

- absent themselves from any sensitive discussions and provide commitment not to disclose material which might be considered as commercially

sensitive by ICES, their contractors, partners or affiliates to be made sensitive material for all chairs and members.

Where the review indicates a major or several COIs then the prospective Chair should be rejected or the existing Chair should be asked to step down.

A clear process to follow should be defined in the COI policy document.

14 RECOMMENDATIONS TO BUREAU

In the specific PUBCOM situation, SCICOM is in general expressing support for the PUBCOM chair knowing that similar situations has been successfully handled in the past. However, the two external partners; the publisher Oxford University Press and the Committee on Publications Ethics (COPE) both find that there is a Conflict of Interest.

Bureau is recommended to develop and adopt a policy on COI based on the description above. It is important that a policy document is followed by a process to adopt when COI may arise.

The process described in a policy document should be clear both on how to act when raising concern for COI and how to subsequently deal with the situation

COPE furthermore states that a clear Conflict of Interest policy is needed in order to deal with similar situations now, and in the future, for when an association with a competing journal is workable. The Policy document on COI should apply to both the chair and members of PUBCOM.

Recommended actions for Bureau:

Based on the comments by the two external partners, Oxford University Press (OUP) and the Committee on Publications Ethics (COPE);

- accept the resignation of the current PUBCOM chair, Myron Peck;
- develop and adopt a Policy document on COI including a clear process to be followed. Request the General Secretary to prepare a draft scoping document for the 23–24 September Bureau meeting.
- Request the Secretariat chair the PUBCOM meeting on 19 September 2015
- decide on a process for recruitment of a new PUBCOM Chair in relation to the development of the Policy document on COI.

Annual Science Conference Income and Expenses

The Annual Science Conference (ASC) is an important gathering for the ICES community, however, with high costs and few Member Countries able to commit to host the event, discussions in SCICOM and in Bureau over the past year have considered the need for changes to the event to make it more attractive for participants and hosts.

The 2015 event was hosted by ICES in Copenhagen and organized by the Secretariat. Although expensive for ICES, it presented an opportunity for the Secretariat to gather some information on host costs and also to explore the potential use of sponsorships, and other creative ideas to find savings and keep costs to a minimum.

Figure 1 (below) summarizes the financial information by comparing ASC income and expenses using 2015 figures as a base under various scenarios. These scenarios include: 1. a shortened ASC to reduce the cost of renting a conference venue, 2. an increase in the fees by 40% (participants and stands) under the current split key (registration fee: 1/3 to the host country and 2/3 to ICES; stand fee; split equally between ICES and host country), and an increase in the fees by 40% as well as a new split key (equal split of all income between ICES and the host country).

1. Shortened ASC

It is clear that the rental of the ASC venue was the biggest expense for the “host” country during ASC 2015. And a shortening of the conference by two days would mean that the rental costs would decrease from 85% to 52 % of the overall costs.

2. Increase in the fees by 40%, using existing split key (1/3 – 2/3)

An increase in fees would mean that the host country would see an increase in the coverage of the overall costs from 11% to 15%, compared to the current situation.

For ICES this would mean an increase in the coverage of the overall costs from 60% to 83%.

3. Increase in the fees by 40 %, using the suggested new split key (1/2 – 1/2)

An increase in the fees and a new split key would mean that the host country would see an increase in the coverage of the overall costs from 11% to 20%, compared to the current situation.

For ICES this would mean an increase in the coverage of the overall costs from 60% to 63%.

It should be noted that there is an inherent risk in the all calculations, as these are dependent on the number of registered participants and the number of exhibitors at the conference. The cost on the other hand are more or less stable, independent of the number of registered participants. As can be seen over the years especially the number of registered participants vary, from just above 400 to the highest

number during the 2015 ASC; 734. Also, the number of paying participants vary, again with the ASC 2015 coming out with the highest number of paying participants. And this is amplified by comparing to the financial figures from ASC 2014, where the income was 250.000 DKK less than in 2015.

The meeting is invited to consider the financial implications of arranging an ASC, to both the host country and ICES, and whether a 40% increase in fees and a change to an even split of income between the host country and ICES will have a major impact on reducing the costs of the conference for host countries and ICES.

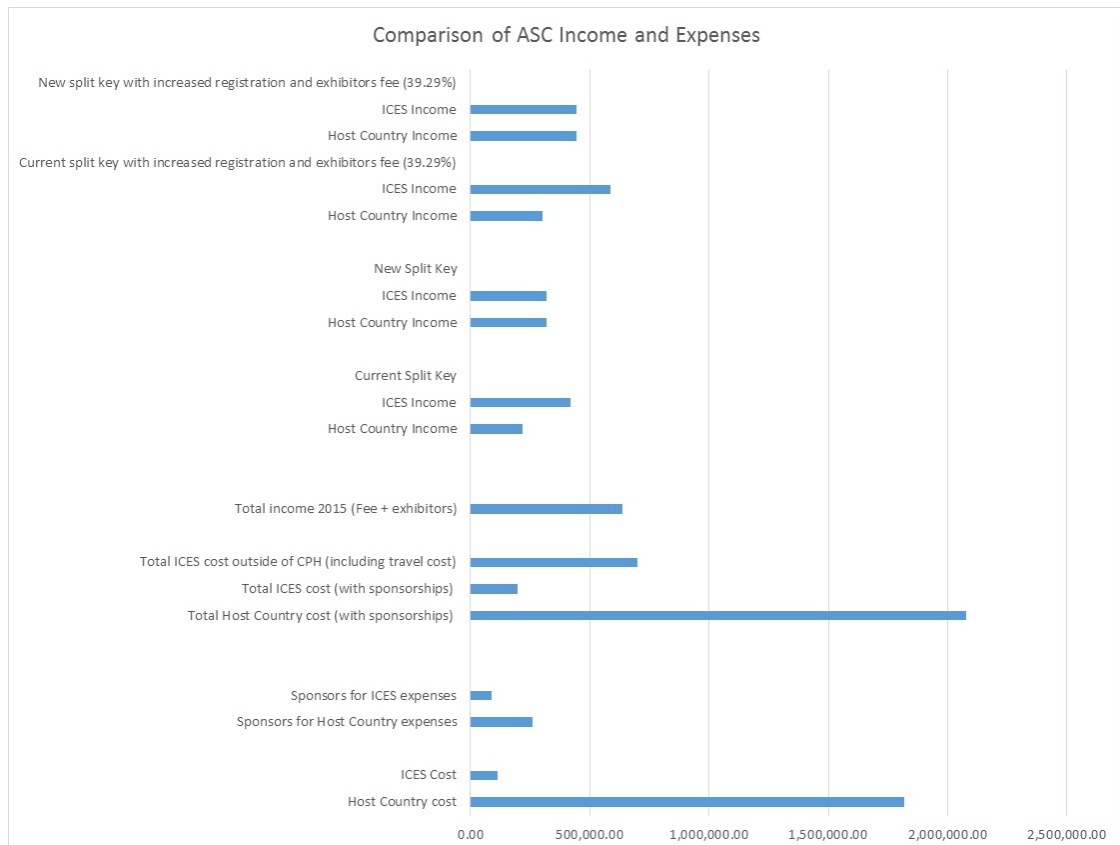


Figure 1. Comparison of ASC Income and Expenses

Based on Figure 1 the following can be stated:

1. Host country expenses

The expenses for ASC 2015, had there been a host country are close to 2.1 million DKK. This includes also direct and in-kind contributions by sponsors (e.g., direct coverage of poster session drinks and snacks, as well as in-direct coverage of the expenses by inviting to a welcome reception).

2. Host country income

2.1 Host country income, under the current system (same fee/registration: 1050 DKK and exhibitor fee: 12.000 DKK and split key 1/3 to the host country).

The host country share of income for ASC 2015 (had there been a host country) would amount to 220.000 DKK.

2.2 Host country income, with a new system, including a 40% increase in fees for registration and exhibitors.

Had the fees been increased to the suggested level the host country would have had an income of 305.000 DKK.

2.3 Host country income, with a new system, including a 40% increase in fees for registration and stand, and a new split key (50/50)

In case both the fees and the split key had been changed to the suggested levels the host country would have had an income of 445.000 DKK

2.4 Comparison between host country expenses and income

Depending on the chosen scenario the income covers from 10% to 20% of the host country expenditures.

3. ICES expenses

3.1. The ICES expenses for the ASC 2015, and adding to that the 2014 ASC travel costs as well as the direct contributions by sponsors (e.g., coverage of travel costs for keynote speakers and reduced prices for several services), amounts to nearly 700.000 DKK.

4. ICES income

4.1. ICES income, under the current regime (same fee/registration: 1050 DKK and exhibitor fee 12.000 DKK, and split key 2/3 to ICES).

The ICES income for ASC 2015 (had there been a host country) amounts to 420.000 DKK.

4.2 ICES income, with a new system, including a 40% increase in fees for registration and stand

Had the fees been increased to the suggested level ICES would have had an income of 586.000 DKK.

2.3 ICES income, with a new system, including a 40% increase in fees for registration and exhibitors, and a new split key (50/50)

In case both the fees and the split key had been changed to the suggested levels ICES would have had an income of 445.000 DKK

2.4 Comparison between ICES expenses and income

Depending on the chosen scenario the income covers from 60% to 83% of the ICES expenditures.

There is an inherent risk in the above calculations, as these are dependent on the number of registered participants and the number of exhibitors at the conference. As can be seen over the years especially the number of registered participants vary, from just above 400 to the highest number during the 2015 ASC; 734. And also the number of paying participants vary, again with the ASC 2015 coming out with the highest number of paying participants.

Reviewing the host country expenditures, the rental of the conference venue in 2015 amounted to 85% of the costs. It is estimated that had the conference been

reduced by for instance two (2) days the price of the conference venue would only have amounted to 52% of the overall costs.

2016 and forthcoming Annual Science Conferences

SCICOM at its ASC and midterm meetings in 2015 discussed the format of the ASC. Discussions were guided by the SCICOM Review Group on the ASC. The following changes were introduced so far:

New features:

At the 2015 ASC in Copenhagen some new events and formats were introduced:

- In addition to the events for our ECS introduced last year (bus stop, career chat) a mentoring event (meet senior ICES scientists, administrators) was held during the conference;
- A local student event: the secretariat invited students from “local”, Danish and Swedish (Lund and Malmö) universities to the ASC for a half-day period to learn about the ASC and marine science;
- A project marketplace where selected FP7, H2020 and other projects were given the opportunity to present themselves and to discuss benefits or drawbacks of ICES project participation;
- A reduced opening ceremony (1.5 hours);
- The extended two-hours lunch break introduced in A Coruna was kept providing opportunities for additional and ad hoc meetings;
- A communications networking and exchange event to which communicators from our member institutes were invited as well as a number of related programmes/IGOs.

Registration fee and cost-split-key

After its introduction in 1999, the registration fee was kept at moderate levels ranging at the lower third of international marine science conferences (currently 140 Euro regular fee). This has probably contributed to the attractiveness to students and ECS which usually contribute more than one-third of participants. (In 2015, 156 participants identified themselves as ECS. ICES provided travel support for 20 ECS scientists, from our fund of ca 10,000 dkk).

However, financial options to meet the emerging gap between income and expenses and to ease the burden for the secretariat and host country were explored.

SCICOM decided to increase the registration fee (regular, early bird) to 190 Euro with corresponding (30%) increases of all other, reduced and late registration fees, to be effective from the ASC 2016. SCICOM did not consider this increase a risk for reduced attendance of students or ECSs or in general to the ASC in the future.

A division of income (and costs) for the ASC was agreed by Council in 2004, whereby the host country receives 33% of the registration fee + 50% of the exhibitors fee (exhibitors pay a fee of 12.000 DKK to rent a table/booth at the conference). The remaining amount is allocated to ICES, to cover some of the expenses incurred for arranging the ASC. ICES covers travels for its secretariat staff, not related to the advisory services, ASC keynote speakers, early career scientists, and various other general expenses. The expenses are approximately double the size of the ICES share of the ASC income.

SCICOM also recommended to change the cost-split-key to 50/50 to the benefit of the host country.

This scenario has been tested, using the 2014 ASC registered participants, who paid full fee, and the new 50/50 cost split key, dividing the income equally between the host country and ICES. Using the above as the basis for the calculations, and based on a comparison of the realized income/expenditure for 2014, this would mean an increase in income as follows:

- for the Secretariat of approx. DKK 7.700.; and
- for the host country of approx. DKK 95.000.

Council is invited to decide on and approve the 50/50 cost-split-key recommended by SCICOM.

Duration of the ASC

Several scenarios for reducing the duration of the ASC, and for disentangling the theme sessions, SCICOM open sessions and the business meetings were discussed.

For the 2016 ASC in Riga, Latvia the number of theme sessions will be kept to 18, to be arranged in four parallel sessions because preparations by the host country were based on the traditional model. However, new formats of holding theme sessions and SCICOM open sessions will be encouraged and the new features introduced in 2015 be continued and developed further. One of the theme sessions accepted will be held under a strategic overarching theme (the Arctic).

For the 2017 ASC, the duration of the conference will be reduced to four days to accommodate a total of 12 theme sessions. This change will provide more flexibility for new formats of science presentations and room for other events, such as project marketplace or panel discussions. New formats of recurrent theme sessions under a strategic overarching topic may be continued as well (e.g., Arctic, Aquaculture, human dimension).

Annex. Overview of sponsorship for the 2015 Annual Science Conference

Item	Should have cost (DKK)	Actual cost to ICES (DKK)
Poster session reception sponsored by DPPO	100,000	0
Welcome Reception sponsored by the City of Copenhagen	100,000	0
Plenary speakers travel sponsored partly by the Carlsberg Foundation	80,000	20,000
Livestream service sponsored partly by Teletech	12,000	6,000
Conference bags, sponsored by IMR Norway	18,750 (estimated)	0
Gifts for award winners and plenary speakers, sponsored partly by H2O	19,750.00 (2014 cost)	12,306
Rental of 10 computers for internet café – sponsored by HP	12,196,97	0
Conference twitter game, sponsored by Kiel university	10,000	0
Walking tour, partly sponsored by Copenhagen Walking Tour	6400	3200
Printing of name tags, sponsored by Canon	6300	0
	359.096,97-	29.200,-



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Council Meeting

October 2015

Del 7.4.2

Agenda item 7.4

SCICOM review group on the ASC (SRGASC)

Participants: Yvonne Walther, Eskild Kirkegaard, Antonina dos Santos, Jan Jaap Poos, Jörn Schmidt, Dave Reid, Adi Kellermann, Vivian Piil, Anna Davies, Pierre Petitgas (Chair).

This document reports SRGASC activity 2014–2015, which concentrated on the science model for the ASC. SRGASC has worked by correspondence and with regular skype meetings as well as using the SCICOM forum. Working documents on progress were presented to Bureau in February and June and to SCICOM in April and September. We here summarize results and make proposals for change.

At the 2014 ASC, participation was lower than in former years and there was no host country for the coming years. The situation has changed. The 2015 ASC in Copenhagen has been a success with 743 participants (444 contributions: 326 orals and 118 posters). Invitations to host future ASCs are in the pipeline. Though the ASC seems attractive enough, it is worthwhile to revise/update its format and evaluate whether it is fulfilling its purpose.

1. Objectives of the ASC

The ASC is key for ICES as it brings together the marine community at large (science, policy, society) to overview ongoing science and innovation, foster trans-disciplinary exchanges and networking.

Two main objectives of the ASC:

- Update on ongoing science: overview of state of the art, present innovation, identify needs.
- Networking: incorporate early career scientists (ECS), liaise with the scientific community at large including with policy makers and society.

The strengths

- Comprehensiveness: a wide range of topics are covered.
- Inclusiveness: participants are students, scientists, directors, policy makers, stakeholders, society.

The weaknesses

- Length of the conference (full week).

- Difficult balance between business and science.
- After the ASC, multiple outcomes are difficult to summarize.

Within the current science model of the ASC, revisions have been considered to:

- ensure attractiveness
- ensure comprehensiveness in topics
- ensure inclusiveness in participation (students, scientists, policy makers, society)
- promote innovation
- facilitate networking
- incorporate young scientists

These concerns have been considered and changes are proposed to ensure that future ASCs fulfil these objectives. Costs of the ASC have also been considered with scenarios to alleviate the costs of hosting the ASC.

2. Changes considered

Feed-back from ASC participants

A questionnaire was developed to get feedback from past ASC participants and evaluate how they considered the ASC. The questionnaire was sent by the secretariat to participants of the 2014 and 2015 ASCs and results have been received. In addition during the 2015 ASC, an interactive poster was hung in one of the foyers. The poster was designed as a dart board and the participants could stick a bullet where they wanted the conference to be. Also, at the 2015 ASC a session was run on “What makes a good conference? Come and design the future of the ASC”. Participants were connected online and responded to a survey by selecting answers to questions prepared in advance. Unfortunately, the session attracted few students and early career scientists.

Participants come for a mixture of reasons, including to make a contribution, network, and get updated on a variety of topics. Most come for particular sessions and less for the entire ASC. A majority approves limiting the sessions to 1-1.5 day. They agree that sessions should be run with flexible formats, allowing for innovative ways for presenting and interacting. Some suggested running short workshops for quick learning on hot topics. Most agreed that the conference duration could be 4 days but with no more than 4 sessions in parallel. A majority is of the opinion that the poster session needs to be improved. The Wednesday SCICOM Open Sessions also need to be improved: many do not attend and only a minority of attendees find the sessions engaging. Increasing the fee above 200 euros can be a problem.

Running sessions differently

Guidelines for session convenors have been modified to make explicit that it is possible to propose at least three types of sessions: traditional theme sessions, panel discussions, and innovation or foresight discussions. The last two types are suited for involving policy makers and industry. In addition it is suggested that SCICOM takes the lead in convening sessions of non-traditional format, for instance during the Wednesday afternoon (panels or workshops). The maximum duration of 1.5 hour has been set for Panel and Foresight discussions and 1.5 day for traditional Theme sessions.

SCICOM Open Sessions

Currently Theme session are proposed bottom-up and SCICOM selects from a proposed list. SCICOM also runs so-called Open Sessions on the Monday morning before the start of the conference and on Wednesday afternoon. These sessions are run in general with a format close to panel discussions and relate to the science performed in the expert groups. It is suggested that the Open Sessions of SCICOM be included fully in the science programme of the conference. SCICOM could choose hot topics in relation to ICES Science Plan and run sessions as any other session during the conference, with non-traditional format preferentially but depending on the topic.

Long lunch breaks

Long lunch breaks (2 hours) were programmed during the 2014 and 2015 ASCs with success. It allowed to separate Science from Business as ad hoc meetings have been programmed in this time slot. The time slot can also be used for shorter and interactive meetings with society, industry or policy makers. Another use can also be for presenting projects or innovative new techniques or tools.

Opening and closing sessions.

Their duration was reduced in the 2015 ASC program, which pleased many participants. Ways to provide highlights of the week at the closing are still in discussion. Programming SCICOM Open Sessions as other sessions (non-traditional format) could allow to have the opening of the conference on the Monday morning.

How to increase efficiency of the poster session

The poster session has become a social event in addition to being a session. If this increases interaction, less attention is payed to posters. Feedback from participants demonstrates that many consider the poster session is not fulfilling its purpose. Other ways of organizing posters are still in discussion. It was also suggested to consider that all talks be short talks with a poster attached, except for a few longer talks (session keynotes). That posters be available online during the conference could also be a possibility.

Access to contributions

CM papers are no longer produced. They have been replaced by extended abstracts, produced on a voluntary basis but not required. Easy online access to abstracts, posters and participants list during the conference and from the ASC web page would be necessary. Plenary keynotes are videotaped and available online from the ASC web page.

3. New features in 2015, 2016, and 2017

At the 2015 ASC some new events and formats were introduced:

- In addition to the events for early career scientists (ECS) introduced last year (bus stop, career chat) a mentoring event (meet senior ICES scientists, administrators) was held during the conference;
- A local student event: the secretariat invited students from “local”, Danish and Swedish (Lund and Malmö) universities to the ASC for a half-day period to learn about the ASC and marine science;
- A project marketplace where selected FP7, H2020 and other projects were given the opportunity to present themselves and to discuss benefits or drawbacks of ICES project participation;
- A reduced opening ceremony (1.5 hours);
- The extended two-hours lunch break introduced in A Coruna was kept providing opportunities for additional and ad hoc meetings;
- A communications networking and exchange event to which communicators from our member institutes were invited (Iceland, Scotland, Belgium, Sweden, and Denmark).

For the 2016 ASC in Riga, Latvia the number of theme sessions will be kept to 18, to be arranged in four parallel sessions because preparations by the host country were based on the traditional model. However, new formats of holding theme sessions and SCICOM open sessions will be encouraged and the new features introduced in 2015 be continued and developed further. One of the theme sessions accepted will be held under a strategic overarching theme (the Arctic).

For the 2017 ASC, the duration of the conference will be reduced to four days to accommodate a total of 12 theme sessions. This change will provide more flexibility for new formats of science presentations and room for other events, such as project marketplace or panel discussions. New formats of recurrent theme sessions under a strategic overarching topic may be continued as well (e.g., Arctic, Aquaculture, human dimension).

4. Scenarios for the ASC

Different scenarios were discussed, some of which are a change in the current science model of the ASC.

Scenario	Advantage	Disadvantage
Smaller ASC	Shorter, more focussed Less costly	Loss of inclusiveness and comprehensiveness Less attractive for participants and also for host country
Conference organized jointly with other organizations	Potentially broader topics and multidisciplinary Potentially larger conference	Loss of ICES brand Hosting dependent on the other organization, hosting less secure Reduced costs not evident
ASC every 2 years	Costs shared among countries	Loss of momentum Risk of dissolving ICES network

If the cost is an issue and need be reduced, it will be necessary to reduce the duration of the ASC and lower the number of sessions. There is consensus to limit to 4 the number of parallel sessions and to limit the duration of sessions to 1-1.5 day. The minimum number of sessions could be 12 and the ASC reduced by one day. More reduction would damage comprehensiveness and inclusiveness of the ASC.

Another scenario is to run the ASC every two years and hold a smaller conference internal to the network every two years. Momentum would be lost and a smaller ASC would not be attractive enough. This scenario is not recommended.

Joining forces with other organizations (such like PICES) is best envisaged for particular sessions, and is then a plus. Nothing prevents currently organizing sessions with sponsors on particular issues, as the revised guide lines invites to do.

Among the diversity of conferences, the ASC is of medium-size and a comprehensive conference in applied marine science. Its interest is in that it provides update on ongoing science and strategic issues, is comprehensive in topics and inclusive from the student to the manager.

5. Cost, income and split keys

Total expenses for the Secretariat amount to € 150 000 (average 2010-2015). Total expenses for the host country are uneasy to gather. Guess estimates range from € 150 000 to € 300 000 (2010-2015) depending on countries and receptions and the split of expenses between Institute, Ministry and sponsors vary. An average ASC (2010-2015) attracts 650 participants (450 contributions). Full costs (secretariat + host) range € 300 000- 450 000 representing € 460 - 690 by participant, meaning that ICES would sponsor each participant in the range € 270 – 500 (after subtraction of a € 190 fee).

The 2015 ASC was hosted by ICES in Copenhagen and organized by the Secretariat. An analysis of the costs and incomes (incl. sponsors, fees) and split keys between Secretariat and host was performed by the Secretariat and is compiled in document CM 2015 Del-7.4.1. A change in the split keys for costs and incomes could alleviate by 20% the hosting costs. But the major cost item corresponds to renting a conference centre.

SRGASC analyses suggest that reducing the ASC by one day would not impacting the number of participants nor the comprehensiveness in topics. But more reduction would change the scientific model of the ASC. It is suggested that the split keys of expenses and income are reviewed before modifying that model.

6. Proposed way forward

This sketch attempts to make the ASC more efficient and keep the current science model, which satisfies participants. The new conference lasts 4 full days, starting on Monday morning (opening ceremony) and finishing on Thursday night (closing ceremony). Opening and Closing ceremonies are short and snappy. SCICOM and ACOM meet the day before (Sunday) and SCICOM meets the day after (Friday). Four sessions are run in parallel. Sessions are run with different formats depending on topics. Session topics and formats are chosen via a bottom up process based on proposals from the science community. In addition, SCICOM chooses a number of hot topics to replace the Open Sessions and runs these as appropriate. Sessions are run with various formats, including traditional sessions, panel discussions and innovation demonstrations. Some are co-sponsored or organized jointly with other organizations or industry. Long lunch breaks allow for programming ad hoc business meetings (non overlapping with the science program) as well as particular sessions. The mentoring program for ECSs is strengthened. Projects are given the opportunity to present themselves in various ways. Posters are considered differently in the program (still to be defined). The conference is accessible online with access to program, abstracts, posters, participants list, recorded keynotes, and comments on media. The conference average size is 650

participants with 450 contributions. The conference fee is €190. The split keys of expenses and income between ICES and host are changed from the current rules.

It is suggested that SRGASC continues until full changes have been implemented and a new ASC is in place.

7. Supporting material

The ICES Annual Science Conferences: a review of its format including the functionalities and business model. Working Document by Adi Kellerman, November 2014

SRGASC report to Bureau February 2015

SRGASC report to SCICOM April 2015

SRGASC report to Bureau June 2015

SRGASC Guidelines for theme session convenors

SRGASC report to SCICOM September 2015

SCICOM progress report to Council October 2015, section 238

CM 2015 Del-7.4.1 ASC Income and expenses



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Council Meeting

October 2015

Del-7.4.3

Agenda item 7.4.3

ASC Hosts

Extract from the 2014 Council minutes:

2015 and forthcoming Annual Science Conferences

The meeting discussed the lack of forthcoming hosts and how to make the ASC more attractive in future years. SCICOM has been tasked by Bureau to review the format of the ASC, including considerations of the need for a new business model, and if the ASC is fit for purpose. Potential changes to the format could include reducing frequency or length of the ASC. One delegation noted the moral obligation of countries to host the Annual Science Conference once every 20 years (**CM 2014 Del-7.2**).

Although changes to the format are expected, some countries indicated that they would be willing to investigate the potential to host the ASC in the next 5-years. Although no commitments were made Latvia (2016), United States (2017), Germany (2018), and Sweden (2019) indicated they would investigate and report back as soon as possible.

List of Annual Science Conferences:

<http://ices.dk/explore-us/Documents/History/List%20of%20Annual%20Science%20Conferences.pdf>

ACOM Chair – 2015 Annual Progress Report

1 Overview of the advisory process and advice provided in 2015

ICES will in 2015 provide advice on fishing opportunities for approximately 225 stocks, address 3 recurring requests for advice on ecosystem impacts of fishing activities, 25 special requests, and deliver 4 technical services.

Around 40 expert groups and workshops have been or will be directly involved in the advisory process providing the scientific basis for the advice.

The process has/will involve 34 advice drafting groups and the number of ACOM Web-Conferences planned to approve the advice is 34. Until mid-October 12 of the Web-Conferences were canceled because no substantial comments on the draft advice were received and the advices were adopted without a Web-Conference.

13 benchmark processes addressing methods and data used in the advisory process have been running in 2015.

Many of the expert groups under the Steering Group on Integrated Ecosystem Observation and Monitoring have indirectly contributed to the advisory process by delivering data and information to expert groups addressing advisory requests. This includes survey planning groups, age reading and maturity staging workshops and fisheries monitoring and data management expert groups.

1.1 Recurring requests for advice

ICES will in 2015 provide advice on fishing opportunities for approximately 225 stocks. This is a little less than in 2014. The change does not represent a reduction in the number of stocks for which ICES is requested to provide advice but the high number of biennial advice produced in 2014.

Area	Number of stocks for which advice has been or will be provided in 2015
Iceland and East Greenland	14
Barents Sea	7
Faroe Plateau	4
Celtic Sea and West of Scotland	69

North Sea, Eastern Channel, Skagerrak and Kattegat	50
Bay of Biscay and Atlantic Iberian Waters	22
Baltic Sea	19
Widely distributed and migratory stocks	40

Table 1. Number of recurring advice on fishing opportunities in 2015 by area.

Approximately one third of the stocks are category 1 stocks (stocks for which the advice is based on analytical assessments) and the advice is provided in accordance with an agreed management plan or applying ICES MSY approach. For the remaining two thirds the advice has been based on ICES precautionary approach, which includes all those under the index based methods developed for category 3-4 stocks.

In addition to the recurring advice on fishing opportunities ICES is also providing advice in response to recurring requests on ecosystem impacts of fisheries to:

EU Commission:

- Bycatch of small cetaceans and other marine animals;
- Impact of fisheries on other components of the ecosystem;

NEAFC:

- Vulnerable deep-water habitats in the NEAFC Regulatory Area

1.2 Special requests

ICES has by mid-October accepted 25 special requests that have or will be addressed in 2015. Most of the special requests are on impact of fisheries and on fisheries management strategies. The number of requests addressing non-fisheries subjects has, as in previous years, been very limited.

The special requests are received throughout the year and often with very short deadlines for the response. This poses challenges in terms of planning and ensuring participation of the required expertise including reviewers. ICES has until now accepted all the special requests and has, with one exception, been able to respond to them within the agreed timeframe.

Although the issue that resulted in the failure to answer (a request on blue whiting for NEAFC) was related to an unexpected breakdown in the assessment, the underlying cause is really the shortage of resources. Answering many of the unforeseen special requests often relies on one or a few experts being able with short notice to allocate their time to prepare the scientific basis for the response. As such the current approach with expectations for quick replies is not going to be robust.

Since 2007 ICES has in total answered eight special requests on mackerel issues of which two have been in 2015. The two latest responses have not added much new

information which had not already been provided in previous responses. With the aim of avoiding unnecessary work and to ensure that there is a better match of expectation a letter has been sent to the relevant coastal States with an invitation to discuss a process that can ensure that ICES responses to special requests are relevant and meets the expectations.

ICES has or will in 2015 address the following special requests:

The European Commission:

- Criteria and conditions for a Non-Detriment Finding regarding European eel;
- Fmsy ranges for the Baltic Sea (work started in 2014);
- Sole in Division IIIa and Subdivisions 22-24 - SELTRA trawl;
- Fmsy ranges for North Sea stocks (work started in 2014);
- Fmsy ranges for Western waters;
- Fmsy proxies for data poor stocks Western waters;
- Data collection on recreational fisheries;
- Celtic Sea herring catch advice;
- Catch advice for sole in IIIa;
- Revisions to Marine Strategy Framework Directive manuals for Descriptors 3, 4, and 6, and publication of manual for Descriptor 11;
- Boarfish evaluation of management strategy.

The European Commission and Norway:

- Herring in IIIa evaluation of management strategy (work started in 2014);
- Herring in the North Sea evaluation of management plan (work started in 2014).

The European Commission, Faroe Islands and Norway:

- Evaluation of multi-annual management strategy for mackerel in the Northeast Atlantic;
- Management of mackerel in the Northeast Atlantic (work started in 2014).

France:

- Review of SGELECTRA and IMARES work and update of advice on ecosystem effects of pulse trawl, particularly in relation to Natura habitats and species.

HELCOM:

- Pressure from fishing activity (based on VMS/logbook data) in the HELCOM area relating to both seafloor integrity and management of HELCOM MPAs.

NEAFC

- Evaluation of long-term management strategy for blue whiting (not adequately answered see above).

Norway and Russia:

- Evaluation of North-East Arctic cod and haddock harvest control rule;
- Update of North-East Arctic haddock advice for 2016.

OSPAR:

- Review of draft OSPAR JAMP eutrophication guidelines on phytoplankton species composition;
- Plastic particles in fish stomachs
- Development of common and candidate OSPAR biodiversity indicators for benthic habitats.

UK:

- Review of management proposals for Scottish MPAs.

1.3 Technical services

ICES has in 2015 until mid-October addressed the following technical services:

The European Commission:

- Evaluation of effect of increased quota flexibility for 2015-2016 on pelagic stocks;
- Evaluation of effect of increased quota flexibility for 2015-2016 on certain Baltic stocks;
- Deep-sea status of certain species.

The Netherlands

- Review of the added value of investments of fish passages to the ecological quality of the Wadden Sea.

OSPAR:

- Handling of data and statistics stemming from monitoring devices generating large amounts of data.
- With ICES Data Centre: Advice on construction of underwater noise register (may include Helcom also in future).

2 Review of advisory process in 2015

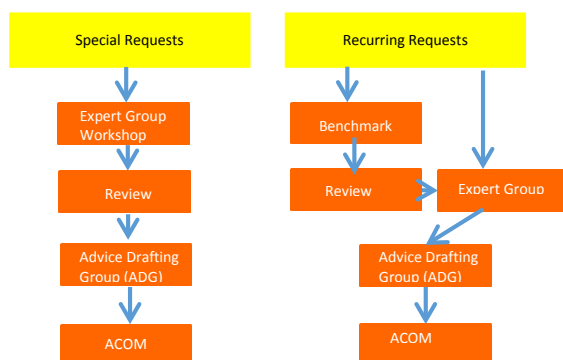


Figure 1. The advisory processes applied in 2015.

The advisory processes applied in 2015 are illustrated in the figure 1. The processes are very thorough and resource demanding both for the national institutes and for the ICES Secretariat and the workload and availability of expertise remain central issues for ACOM.

A preliminary review of the advisory process in 2015 is given below. A detailed review of the advisory process will be conducted in conjunction with ACOMs plenary meeting in December 2015 and the meeting of expert group chairs (WGCHAIRS) in January 2016.

2.1 Stock Assessment Expert Groups

The attendance of stock assessment Expert Groups seems in general to have been satisfactory and the groups have been able to address most of the ToRs of relevance for providing advice on fishing opportunities. The effort used on other ToRs (e.g. on preparation of benchmarks, fisheries advice, update of description of assessment methods applied (stock annexes)) have been very variably pending on workload and number of experts actively attending the meetings.

The current process for providing recurrent fisheries advice is based on the assessments forming the basis for the advice being ready before the expert group meetings. While a number of assessments are being prepared in advance a large proportion of the assessments are not ready before the meetings and some of the expert groups are using a substantial part of their meeting doing the assessments.

The data calls introduced in 2012 have contributed to ensuring a more consistent and systematic approach to data and more data being ready in time. The data call issued in 2015 was for the first time covering all the assessment expert groups.

2.2 Other Expert Groups

While the basis for most of the single stock fisheries advice is prepared by the assessment Expert Groups set up specifically to address the requests for advice on fishing opportunities, the development of environmental and ecosystem advice is to a larger extent dependent on contributions from Expert Groups not having the support of the advisory process as their main task. In general these Expert Groups have been supportive to the advisory process and have provided the knowledge basis required to respond to the requests for advice.

It is important that the advisory system can draw on the expertise throughout the ICES community. The distinguishing between ACOM and SCICOM Expert Groups and the different management systems set up by the two Committees are not facilitating this.

2.3 Benchmarking workshops and independent review

Because of difficulties in getting independent reviewers and recognising that the added value of the review of update assessments were limited ACOM decided in 2012 to amend the review system. Assuming that Expert Groups dealing with recurring advice on fishing opportunities will only conduct update assessments, and changes to methods or data series are only introduced during a benchmark process, the independent review was replaced by an internal audit process for these groups. The new review approach means in practice that a full review process is planned for non-recurring advice and for benchmarks, and not for update assessments.

However, the experiences have been that Expert Groups and Advice Drafting Groups often deviate from the methods and approaches agreed at benchmarks.

This may result in assessments based on methods or data series that have not been reviewed.

Examples from assessments carried out this year where substantial changes to the method and/or data have taken place outside benchmarks are: Herring in SD 30, North Sea cod, Nephrops FU7 (Fladen Ground), Sole in VIIe, Plaice in VIIe, Plaice in VIIId, and VIIIabd and Kattegat cod.

The ACOM Leadership considers it very important that changes to assessment methods or data are reviewed before being accepted and that this should be done as part of a benchmark process. However, it is also important that we can justify that the advice provided by ICES is based on the best available information and methods. There are therefore situations where revisions to the benchmarked approach done outside the benchmark system are justified and a review process has to be conducted with short notice and outside the planned benchmarks.

Regarding the stocks listed above the ACOM Leadership postponed, for some of the stocks, the release of the advice to the autumn and initiated an inter-benchmark processes. For others review processes were conducted with short notice and the advice released as originally planned. This created additional workload for the Secretariat, ACOM, the experts involved and the ACOM leadership with additional advice drafting group and Web-conference activities.

Several of the stocks listed above have been benchmarked within the latest year with the expectation that substantial changes would not be needed for a couple of years. However, the current benchmarking system for stock assessments seems not to deliver as anticipated. Part of the reason for this may be a mismatch between the adopted benchmark plans and the resources available to do the planned work.

There is also some concern that the current review process for benchmarks does not carry sufficient ACOM oversight, and benchmark outcomes accepted by the reviewers may have advisory implications outside the remit/ or knowledge of the review.

The benchmark and peer reviews system will be discussed in ACOM in December.

2.4 Advice Drafting Groups.

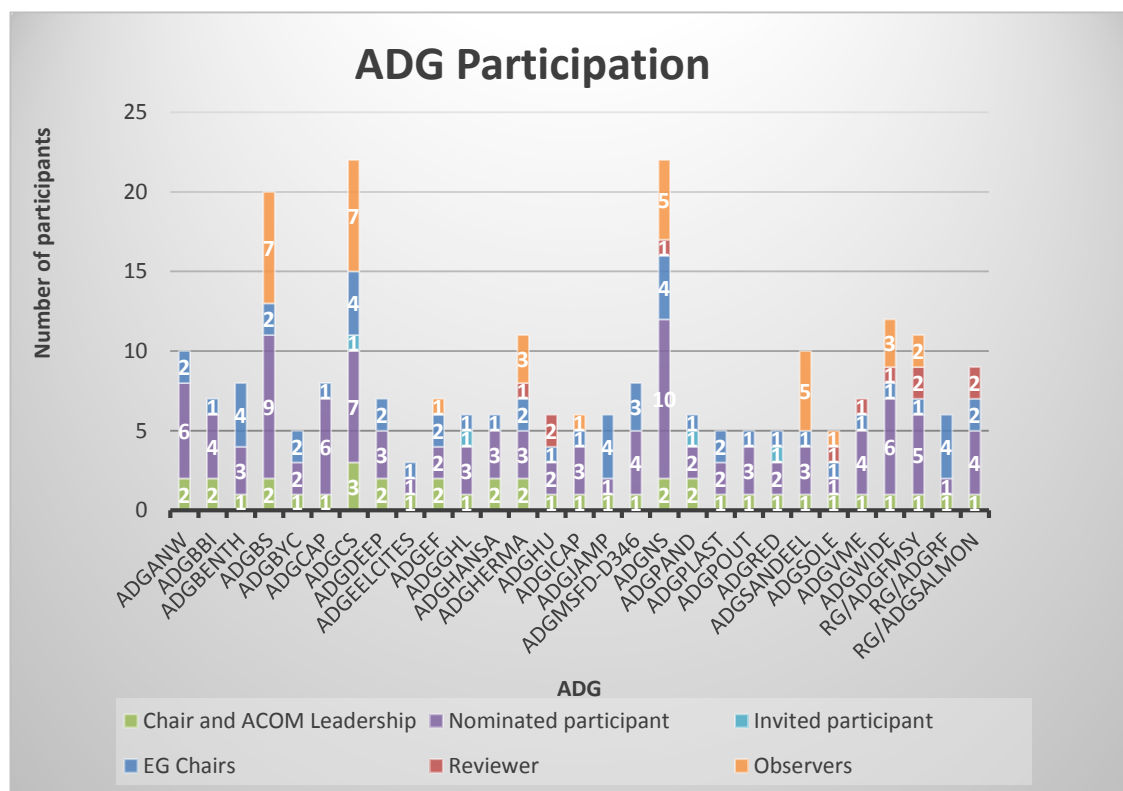


Figure 2. Until mid-October 34 Advice Drafting Groups have met or are planned to meet in 2015, 7 of which by correspondence.

The advice drafted by the Advice Drafting Groups were with very few exceptions accepted by ACOM while changes to the supporting text were made in many cases.

The number of participants in the ADGs varies between 3 and 22. Attendance by ACOM national members (excluding ACOM chair and vice-chairs) varied from 1 to 10. The attendance by ACOM national members was less than 4 in 17 of the 34 ADGs. The total number of expert meeting days (excluding travel time) used in physical attendance in advice drafting groups is estimated to be close to 450 in 2015.

The participation has in general been satisfactory in 2015 and much better than in 2014. In particular attendance for the recurrent advice ADGs with small numbers of stocks has improved.

2.5 ACOM Advice Web-Conferences.

The final approval of the advice by ACOM is done at Web-conference. The draft advice is made available on the ACOM Forum and ACOM members are invited to provide comments in advance of the Web-Conference.

The participation in advice Web-Conferences planned for 2015 until mid-October is shown in Figure 3. A total of 26 Web-Conferences were planned until mid-

October. 12 out of them were canceled because no substantial comments on the draft advice were received and the advices were adopted without a Web-Conference being held.

On average 54% of ICES Member Countries were represented at a Web-Conferences, 28% did not attend but approved the advice beforehand and 18% did not respond to the Web-Conferences invitation.

The comments and discussions of advice on ACOM Forum and at the Web-Conferences have mainly addressed editorial issues or changes to the supporting text. ACOM made changes to the draft advice in very few cases.

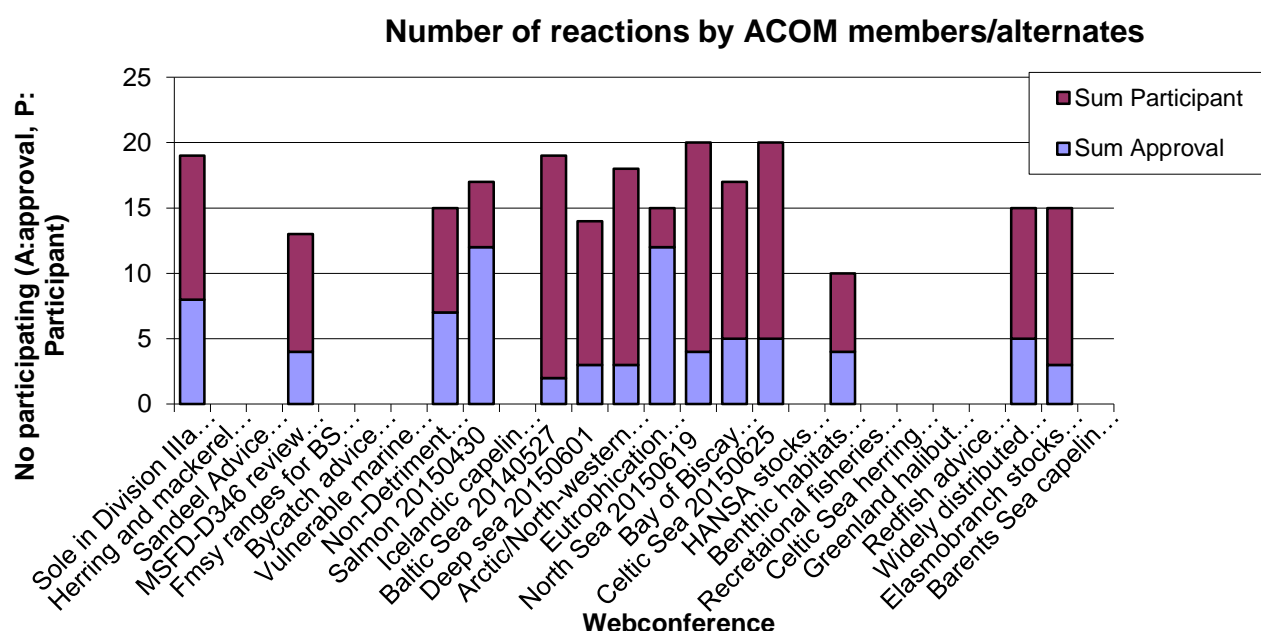


Figure 3. Number of ACOM members participating in advice Web-Conferences or approved the advice before the Web-Conference by mid-October 2015. In cases where no participation is reported the Web-Conference was canceled because no substantial comments to the advice were received

2.6 Baltic cod

A benchmarking process for Baltic cod stocks was initiated in 2014 including a scoping workshop in October 2014 and a more traditional benchmark workshop in March 2015.

Although the workshop was very successful the knowledge base remained insufficient for the benchmark workshop to propose an analytical assessment of the Eastern Baltic cod stock and the advice on fishing opportunities for 2016 for the stock had to be based on the precautionary approach as last year.

The benchmark workshop succeeded in developing an assessment method for the Western Baltic cod which for the first time takes account for the presence of eastern cod in the western part of the Baltic Sea.

The Baltic Fisheries Assessment Working Group has been requested to develop and coordinate a plan for the work needed to improve the assessment and advice

of the Baltic cod stocks and a Workshop on Developing Integrated Advice for Baltic Sea ecosystem-based fisheries management is planned under the Steering Group on Integrated Ecosystem Assessments.

It is expected that these initiatives will provide new information of importance for the assessment of the cod stocks. However, it is unlikely that a new assessment approach will be in place in time for next year's advisory work.

3 Workload

The workload issue is still high on the agenda for the ACOM leadership and ACOM, and a number of initiatives (listed below) have been taken to address it. These initiatives are expected to contribute to a reducing in the workload for the expert groups but will not be sufficient to ensure a balance between the advisory tasks and the expert resources available. This will require that ICES Member Countries give higher priority to ICES advisory work including data management and make the expert resources required to conduct the work available.

3.1 Data calls

ICES started to launch official calls for fisheries dependent data in 2012 to support the single stock and mixed-fisheries advice of demersal stocks in the North Sea ecoregion. Since then, data calls have been an integrated element in the process of addressing recurring requests as well as special requests.

In general data calls have contributed to ensure a more consistent and systematic approach to data and more data being ready on time.

3.2 Data management

A number of activities within the Data Centre are targeted at streamlining data flow. Central for the advisory work is the regional database. It is currently a key tool in planning of collection of fisheries dependent data but further development is required before the data base can be used routinely in quality assurance of data and preparation of data for use in assessments.

3.3 Frequency of assessments

For most of the stocks ICES is requested to provide annual advice. This does not necessarily means that the assessments forming the basis for the advice have to be redone on an annual basis. ACOM agreed the following process at the 2014 December meeting:

1. Relevant expert groups have been requested to apply a set of criteria to list stocks that are to be considered candidates for less frequent assessment applying a set of criteria;
2. Based on the output from the expert groups the ACOM Leadership prepares a list proposing when stocks should be assessed and a proposal for how the advice for stocks not subject to annual assessments should be presented;
3. ACOM agrees on the frequency of assessments as part of the adoption of the ToR for expert groups for 2016.

3.4 Enhance substantive support by the ICES Secretariat to the advisory process

Reporting: The ICES secretariat is preparing a proposal for the structure and content of future assessment expert group reports. Focus is on ensuring that the stock annex sections are up to date and contain complete descriptions of the methods applied in the assessments. With complete stock annexes the requirements for information to be included in the main body of the report can be reduced substantially.

Category 3-6 stocks: The ICES secretariat could assist in stock category 3 - 6 advice by doing the first draft of the advice for consideration of the EG. This was discussed at the June 2015 Bureau meeting and the Bureau supported the idea of running a pilot process to test this.

3.5 Format of advice

The format of recurring advice on fishing opportunities implemented by 1st January 2015 has been well received by the expert groups and has reduced the time spent on preparing the advice both in the expert groups and in the advice drafting groups.

4 Workplan 2016

The draft workplan for 2016 was adopted by ACOM on 19 October. It includes the meeting resolutions for 2016, an overview of meetings planned for 2016 and an overview of the processes by advice product.

The workplan is a “living plan” as changes and updates will occur throughout the year resulting from new or changed requests or need for new activities to support the advisory process.

5 Participation in Expert Groups and how to incorporate stakeholder information

The current rules for participation in Advisory Expert Groups is laid down in the Guidelines for Expert Groups. The guidelines allow for three ways of getting attendance: i) ICES Member Countries may appoint “experts and advisers”; ii) The chair can appoint experts in consultation with the national Delegates; and iii) Employees of government agencies that apply ICES advice will be allowed to observe ICES expert groups. No other observers are allowed in Advisory Expert Groups.

There have in 2015 been a number of cases where experts from organisations having observer status to the advisory process have attended Expert Group meetings being nominated by national Delegates. These experts have attended as members and not as observers. The experiences have in general been very positive.

Related to this the ACOM leadership has been discussing with the Advisory Councils how best to bring relevant stakeholder information into the advisory work before the Expert Group meetings. As a test case a Web-Conference between the Pelagic Advisory Council and WGWIDE was held just prior to the WGWIDE

meeting. The meeting did not bring much additional information into the Expert Group and it may be necessary to formalise the dialogue to ensure that it adds value to the advisory process. The issue will be on the agenda for the meeting with observers (MIACO) in January next year.

6 Facilitate transition from single stock benchmarks to regional benchmarks

The Irish Sea has been identified as a good test case for ICES to develop an integrated ecosystem benchmark. The information base for the area is very good. The fisheries components to the ecosystem are relatively well understood. There have been several recent projects looking at ecosystem models and reviewing the Irish Sea ecosystem in general. There have been major changes to fishing pressures. What has been missing thus far is how to integrate these new types of information and data into and improve the current stock assessments and management advice. A benchmarking process has been adopted and anticipated to last for 1.5 to 2 years.

7 Format of advice

A new format of recurring advice was adopted by ACOM in December 2014 and implemented 1. January 2015. The new format is designed to separately address the three requested recurring advice deliverables (stock, fisheries and ecosystem advice).

All 2015 advice on fishing opportunities has been provided in the new format. The new format represent a simplification and thereby made it easier to develop the CARA system.

It was planned to have the fisheries advice sections developed during 2015 and issued at the end of 2015. A workshop (WKFAS) was set up to prepare by ecoregion a first draft of the fisheries advice. The participation in the workshop was very limited and although the participants did a very good job the workshop was not able to develop draft fisheries advice proposals as intended and further work is required.

ACOM agreed at the Consultations at the ASC to give priority to finalize the fisheries advice for the Celtic Sea and use that as template for the other ecoregions. An ACOM subgroup has been formed to develop in cooperation with the secretariat a draft for the Celtic Sea to be discussed at the ACOM December meeting. Pending on the discussion at the ACOM meeting a number of workshops will be planned early 2016 to prepare draft fisheries advice sections for the remaining ecoregions. The draft sections will be evaluated by the expert groups and finalized by ACOM during the first half of 2016.

The ecosystem advice or overviews are planned to be released in 2016 for some Ecoregions.

8 Introduction to Advice

ACOM agreed at the 2014 December meeting to split the current introduction to the advice in two new documents: a short introduction and a technical

document/guidelines. The Introduction will provide the context and approach to the advice in a non-technical language in less than four pages. The Guidelines will serve as documentation of the technical basis for ICES advice. The aim is to have both documents adopted at the December 2015 ACOM meeting.

9 MSFD

In 2015, DG-ENV special requests have focused on the Common Implementation Strategy review of the 2010 MSFD decision. The science behind the decision text on the science descriptors D3 (commercial fish and shellfish), D4 (foodwebs) and D6 (seafloor integrity) were reviewed by ICES through an iterative process of workshops, consultation and advice drafting. ICES also published the D11 (noise) review. The final ICES advice was well received by the EU Commission, and also by the EU Member States.

ICES MSFD advisory work has also led to a strengthening of the operational and advisory partnership of ICES with OSPAR and HELCOM. ICES advice is leading to the development of indicators and monitoring products, and an improved knowledge base for the OSPAR interim assessment and HELCOM HOLAS II.

For the immediate future, ICES is working with DGENV, OSPAR and HELCOM on the development of biodiversity indicators (including how to aggregate biodiversity metrics), on practical implications of the metric of benthic impact of fishing, and the development and testing of approaches for assessing the state of fish population condition (age, length, maturity etc.).

10 Update of advice

ICES has a protocol for reopening fisheries advice for stocks where new information from fisheries independent surveys becomes available after the advice has been issued. The protocol includes criteria for identifying candidate stocks for reopening the advice based on analysis of whether including the new survey information will significantly change the assessment of recruiting year classes.

The protocol does, however, not include criteria for when the advice should be updated. Although the new survey information may have a significant impact on the assessment of the recruitment, the impact of these changes on the advised fishing opportunities may not necessarily be significant.

In addition to the reopening procedure ICES also receive requests to update advice based on the results of benchmark processes. Most benchmark workshops takes place early in the year and the results are used in the process leading to the advice for the subsequent year. ICES procedure is not to update the in-year advice but only to use the outcome of the benchmark process in the advice for the coming year. ICES, however, receives requests to redo assessments and update advice based on results from benchmarks (2 requests in 2015). The requests received are only for stocks where it can be expected that applying the results from the benchmarks will result in an increase in the advised catch.

The ACOM leadership has discussed the update issue with the EU Commission with the aim of developing criteria for when advice should be updated. While the Commission acknowledge that update requests are biased and together with the reopening process increase the pressure on the advisory system it informed that it

is not in the position to provide guidelines on criteria for updating advice and indicated that it will continue to request updates when considered necessary.

The issue will be discussed at the December 2015 ACOM meeting.

11 MSY approach

ACOM agreed at the December 2014 meeting to request WKLIFE to make further tests of the potential software to be applied in providing MSY advice for category 3 and 4 stocks. WKLIFE will report to ACOM at the December 2015 meeting. If adopted by ACOM the MSY approach for category 3 and 4 stocks will be implemented by 1st January 2016.

12 New clients

Currently ICES is providing advice on requests to inter-governmental organizations having a MoU with ICES and to ICES Member Countries. Observers to ICES advisory process have expressed interest in requesting advice from ICES. ACOM has, with reference to ICES advisory policy, refused the requests from observers. However, the Council may consider the possibility of widening the clients of ICES advice to include stakeholders recognized as observer to the advisory process.

13 ICES Strategic Plan – progress on implementation of the Advice Plan

The activities described above are part of the implementation of the advice plan of the ICES Strategic Plan. The advice plan and its implementation were the main items on the agenda for the ACOM Consultations during the ASC. Breakout groups of ACOM evaluated progress in the implementation of the advice plan and discussed the actions and associated indicators with focus on whether they are still relevant, should be updated and whether there are new actions that should be included.

The findings of the breakout groups are summarised in annex 1 to this report using the “gut feeling” scoring approach adopted by the Bureau in 2014.

As indicated in the evaluation progress on the implementation of the Strategic Plan progress is made on most actions listed in the advice plan. For a few actions progress was evaluated to have been very limited.

14 ACOM Leadership

The three year term as Vice-Chair expires for John Simmons and Mark Tasker by the end of 2015. Carmen Fernandez term was prolonged by one year last year and her term expires also by the end of 2015.

ACOM's nomination of Vice-chairs is awaiting the final Council decision on the ACOM leadership structure and the conditions under which the Vice-chairs will operate.

Annex 1. Evaluation of progress on implementation of the Advice Plan.

The advice plan and its implementation were the main items on the agenda for the ACOM Consultations during the ASC. ACOM evaluated in breakout groups progress in the implementation of the advice plan and discussed the actions and associated indicators with focus on whether they are still relevant, should be updated and whether there are new actions that should be included.

The findings of the breakout groups are summarised in table below using the “gut feeling” scoring approach adopted by the Bureau in 2014.

ACOM Category	ACOM - Actions	Supporting Activity	Breakout group score				Comments by breakout groups
			A	B	C	D	
1. Deliver relevant, timely and credible advice	Implement MOU's with advice recipient	1, 2	5	5			<p>MoUs are discussed and agreed with advice recipients and ICES recurrent advice adheres to the agreed MoUs and solutions are found if and when problems arise.</p> <p>We are meeting the objectives of the EU MOU (used as an example). The measures are rather general, which is fine.</p> <p>We need to be thoughtful on how many requests can be done well and on what time line.</p> <p>Proactive actions on ecosystem-based approach areas of advice can be beneficial.</p> <p>We need a better process outlined in the MoUs to implement a process for more productive and timely discussion to clarify aspects throughout the process of answering non-recurrent requests with clients.</p> <p>What requests are not accepted and why—this is important information for the ICES Community that should be communicated.</p>
2. Foster efficient use of	Implement RCT and priorities resource use	1	3				Progress but still needs to be tested

resources and quality assurance	Further explore and implement, where appropriate multiannual evaluations of management measures (the state of the stock) for the provision of annual advice	1	3				Progress but details are yet to be explored
	Enhance substantive support by ICES Secretariat to the advisory process	1, 2, 3, 4	4	3	3	3	<p>Support considered good but will be good to get another round of feedback from WGCHAIRS. There has been good development also from the data center to support the ICES system. Continue to find ways to support the system as it is dynamic.</p> <p>The RCT is moving this issue forward, on organizing the expertise and their associated availabilities in order to respond to non-recurrent requests in a more effective manner.</p> <p>The RCT would benefit from a “project” orientation rather than a “meeting” orientation.</p> <p>Organizing the process and responding to non-recurrent requests as a “technical service” rather than involving a full ACOM process, this is where the Secretariat can have a real impact. ACOM should be (and is) informed of all Advice products. If the request is a simple update/is straightforward, a technical service solution should be used.</p> <p>As an illustration, blue whiting. Resources at every level are lacking. One or two experts are relied on, lack of clear understanding of the stock that results in uncertainties, reports are not readily available, lax review processes/standards, etc.</p> <p>More Secretariat staff in post/available, progress good on classic strong areas of ICES (descriptors of state), new area of seabed interactions. Missing social/economics - STECF database not good enough. Easier to achieve when an advisory request has been received.</p> <p>High priority</p>

	Implement the CARA system ; Automate the process of transferring assessment results from the assessment software to the advisory sheets, including standard graphs	1, 4	2		2	Some debate in the subgroup whether it should be 2 or 3. There has been good progress with the standard graphs but nothing else is automated yet. No stocks have used CARA for production of advice. High priority
	Conduct internal audits of data. Input and assessment results for all advice providing expert groups	4			3	Very variable. Should be given high priority.
3. Improve data collection and use	Coordinate and integrate surveys	1, 2	3	2		Need to redefine the Indicator; effectively linking operational advice needs and survey groups in real-time. To achieve: all survey data of sufficient quality to answer all requests going forward. Long- term strategic planning is needed for requests to make sure the necessary data are available to answer a special request, and that synergies are identified in order to optimize survey time and resources.
	Develop guidelines for best practice in design and implementation of statistically sound catch sampling schemes	1, 2	4	4		WGCATCH is to take place in November. The impression is that work is on track. Not directly related to non-recurrent requests because it is a standard process. That said, for its primary purpose, the group sees no issues.
	Identify the data required to provide advice on fisheries and environmental issues and communicate the requirements to those responsible for the collection of data	1, 2, 3, 4	3	4 Mixed fisheries 2 Multi- species	4	3 The communication on data needs occurs via data calls and direct communication of needs to institutes. Secretariat attendance to RCMs and other means. But no definitive list of data requirements exists. An earlier proposal to develop a management strategy evaluation for data needs (such as impact of missing data on assessments and advice) seems useful and could allow the development of better guidelines concerning data needs.

							<p>MIXED-fisheries, i.e. technical interactions, data requirement definitions have made good progress.</p> <p>Multispecies advice has many data requirements that are not currently met. In order to define data requirements, ICES needs to first define what ecosystem type advice we will provide in the future. This will require an iterative dialogue with clients to better determine what clients will ask for and what ICES can deliver.</p> <p>Most data needed has been identified. Greatest need is for knowledge of how to use data rather than just collecting more data. Better use of data by a wider group of experts is needed. Some concern by fisheries scientists that wider data collection may lead to reduction in collection of fisheries data</p> <p>High priority. The data calls for the fisheries dependent data is a good progress. Further work is needed on environmental issues and fisheries independent data.</p>
	Promote efficient and effective data storage through integration of data in regional databases, including making data available for experts through intercatch	1, 2, 3, 4	4	3	2	4	<p>Good progress with promoting the development and use of this database. The subgroup considers this can help improve the quality of the advice as it allows among other things quality checking the data and assessing data gaps at a regional level.</p> <p>The system would benefit from increased focus on data processing.</p> <p>Data availability not restricted to Intercatch but is much wider. Data needs to be made available in a form that is more informative to users. Some issues in relation to data policy and actual data ownership.</p>
4. Develop scope of advice	Provide advice in relation to the changing policy environment. Facilitate transition of a new regime, new data, and ecosystem impacts and fisheries opportunities.	1, 2	4	4			<p>ICES works hard to aware of policy developments and to incorporate into the advice. There is some perception that the ICES system is sometimes not flexible enough to incorporate recent changes not formally requested.</p> <p>This defines much of ICES non-recurrent requests.</p> <p>The Indicator may not be appropriate, but we’re not sure what to use as an indicator.</p>

						ICES should be proactive in anticipating requests, in relation to policy changes, and preparing to respond to such requests.
Further develop/implement methodologies, which entails establishment of indicators and targets for all stocks, including data limited stocks (DLS)	1, 2	4	5			<p>A lot of development in the last two-three years and in autumn 2015 the actual success of this will be known in December.</p> <p>A lot of good work has been done.</p>
Provide advice taking into account technical interactions in each mixed fishery, as well as biological interactions between stocks, such as predation and competition in each ecoregion, per an established schedule, including a link with social and economic aspects when possible.	1, 2	3	4 Mixed fisheries 2 Multi-species			<p>Mixed fisheries advice available for NS and Celtic Sea gadoids, good progress in Iberian waters but there are some problems in making this advice operational.</p> <p>MIXED-fisheries, i.e. technical interactions, have made good progress.</p> <p>Multispecies advice has many data requirements that are not currently met. In order to define data requirements, ICES needs to first define what ecosystem type advice we will provide in the future. This will require an iterative dialogue with clients to better determine what clients will ask for and what ICES can deliver.</p> <p>Social and economic aspects have great scope for growth.</p>
Further develop capacity for provision of advice for emerging human activities in the Arctic - taking into account ecosystem considerations; monitor stock distributions into the Arctic region; data requirements and monitoring needs in the Arctic	2		3			<p>AFWG is the longest-running ICES expert group, and they have recommended expanding the area associated with their work.</p> <p>The Arctic Council is considering how to obtain scientific advice. ICES may play a role in this capacity going forward. All Arctic Council member states are ICES countries.</p> <p>ICES is working with the Arctic Council with regards to data holding.</p> <p>ICES held an IEA workshop on the Arctic together with three of the Arctic Council working groups.</p>

Advisory needs for aquaculture and its environmental aspects	2		5			In the context of the current metrics, success has been achieved. Goals and activities should be outlined going forward.
Integrate considerations of by catch in the advice for fisheries(including elasmobranchs, mammals and seabirds)	2, 3		3	2		<p>Fisheries advice, by ecoregion, was to be published with single stock advice in 2015. It may be published for the Celtic Seas this year, but it remains an ongoing process for the other ICES ecoregions. The ideas are there, but tools are needed to draw the data and information available and into the advice.</p> <p>Some bycatch of fish species (e.g. in industrial fisheries) has been considered, but progress for the PET species not good yet. Note good advice is needed in relation to certification (as well as more statutory requirements). If efforts to integrate at expert group level fail, then ACOM should consider adding directly at the advisory level.</p>
Integrate considerations of impacts of sensitive habitats in the advice for fisheries	2, 3		3	2		<p>ICES provides advice on several of these items (e.g. VMEs), however:</p> <p>Fisheries advice, by ecoregion, was to be published with single stock advice in 2015. It may be published for the Celtic Seas this year, but it remains an ongoing process for the other ICES ecoregions. The ideas are there, but tools are needed to draw the data and information available and into the advice.</p> <p>Offshore (high seas, NEAFC) is better than within fishing limits. May have gone backwards as old format had a paragraph whereas new format does not (so far).</p>
Prepare methodologies and examples of impact assessments of management measures that account for environmental variability and social and economic trade offs	2, 3			1		Some ToRs appear to be being prepared on environmental variability, but social and economic tradeoffs do not seem yet to have been addressed (note the data issues here also)
Include discussion on social and economic analysis needs of	2, 4		1		1	Still relevant to consult clients and stakeholders but should be linked with the SCICOM initiative

users of advice in an ICES Dialogue meeting						
Facilitate transition from single stock benchmarks to regional benchmarks	3			2		Attempting to ensure that Irish Sea benchmark is conducted on regional not single stock basis. Missed opportunities include FLEXIBEST (Barents Sea) and SMS (Baltic Sea). Baltic has reverted to single species MSY ranges
Further develop ecosystem overviews on a regional scale	3			3		ADG scheduled for November. Good progress in Celtic Sea, Bay of Biscay/Iberian peninsula, North Sea. Baltic has stalled. Initial movement in Iceland, Norwegian Sea and Faroes.
Provide advice on Marine Spatial Planning	3			2		Some advice provided in past on management of protected areas, request received from UK (Scotland). Evaluations of activities have occurred for HELCOM sites. Science has been carried out in some areas.
Develop mechanisms for promoting IEU as a basis for ICES advice	3, 4			1	3	Benchmark steering group has considered. High priority.
In cooperation with Member Countries and regional seas organisations, develop IEA for the Baltic, North Sea and Barents Sea for use in advice provide examples of how IEA can be used in advice	3, 4			2	?	Some work in MSFD area (e.g MSFD demo), but much further work required. Input into HOLAS 2 in Baltic through joint IEA with HELCOM, data provision and commercial fish input in particular. Worked with OSPAR on ecosystem overviews. Co-operation with OSPAR interim assessment (not fully an IEA) To be integrated with ICES MSFD work.
Further develop the capacity of the ICES community and the stakeholders/policy developers	4				4	

5. Develop process and communication	to facilitate their interaction and dialogue as well as involvement in the advisory process						
	Communicate advisory products to the public	4				4	
	Communicate the advice through meetings with competent authorities and stakeholders	4				4	
	Support existing expert Groups chairs and potential future chairs to ensure they have the necessary skills (e.g. Training etc.)	4				3	Try to do it in connection with the WGCHAIRS

Resource Coordination Tool and Content Administration for Reports and Advice

*Council is invited to **take note** of the further progress of the development of tools for streamlining working procedures*

Update on IT Tools – RCT & CARA

After receiving approval for further funding, new improvements are in progress to both the Resource Coordination Tool (RCT) and Content and Administration of Reports and Advice (CARA). The work on these improvements will continue through the winter and are planned for completion by spring 2016.

Improvements to the RCT include further integration with Microsoft Outlook and SharePoint as well as implementation of ToRs and Resolutions directly in the RCT. The potential to include the Recommendations database is also being explored. Furthermore, personal user profiles will be activated for the RCT, allowing individuals to access and update their personal information in the system (details on contact info, skills/ecoregions/functional groups, as well as commitments/availability for the coming year).

Reports can be generated as per Member Country wishes in dialogue with the Secretariat. An initial example is shown in Annex 2. In the next phase of development greater access to RCT by the ICES community (Delegates and others as appropriate) is being investigated to allow greater automation of the nomination system and to access reports e.g. on current and planned member activities. .

The “Chair-invited” member reports will now be available online as a dynamic link with the most up-to-date information available for Delegates when they need it (<https://admin.ices.dk/viewreports/report/chairinvitedfiltered.aspx>). From 2016 the weekly email notifications will be discontinued.

CARA has been improved with greater search and linking functionalities (now linked to historic table module and catch table module, linking in progress to stock list database for CARA & RCT). Template development is planned for early 2016, after which the templates will be functional for both Science and Advisory groups.

Council Approved Use of Equity: Strategic Investment in the Further Development of the Resource Coordination Tool (RCT), and the Content and Administration of Reports and Advice (CARA)

1 Outline of proposals for which funding from equity was approved in August 2015

In August 2013, Council via electronic decision-making procedure approved the funding from equity for necessary improvements to ease working procedures for the ICES Community and to increase the support and facilitation role of the Secretariat.

The allocated additional financing was given for additional hardware/software, and for an additional 1½ years of human resource needed for implementing the new IT tools and ensuring compatibility with existing processes and hardware/software at ICES.

Significant progress has been made and is evident externally in the ICES Stock Assessment Database, improvements to the online meeting calendar, possibility for the Secretariat to draw reports on resource use per institution/country, and the format of advice. Within the Secretariat the change from Address Manager to the RCT is a major change of interface and provides a much more powerful work planning tool.

This proposal for use of equity is a follow-up to the earlier investment. Additional investment is needed in order to capitalize on and further develop the tools to ensure an effective and efficient organization capable of serving the community in the best way, through:

1. the Content and Administration of Reports and Advice (CARA); and
2. the Resource Coordination Tool.

Support for these investments have been gauged in the Finance Committee, Council Working Group on the ICES Business Model, and the June Bureau meeting, stressing the importance of ensuring a continued development without interruption as well as understanding that this work requires a significant investment of time and cannot be accommodated within the regular work plan.

The total cost of the two proposals amounts to a need for additional resources of 525,000 DKK.

Furthermore, an additional investment in ICES training courses is requested. Over a three year period, 2015–2017, Council is requested to allocate up to a maximum of 300,000 DKK in order to develop the scope and technical infrastructure for ICES training courses.

The requested financing would not affect the agreed Budgets or change national contributions for 2015 and 2016, as the requested

funding is from equity. Altogether, the requested investment from equity is 825,000 DKK.

Below is a further description of the status of RCT and CARA and the needed work to further develop these tools. Also outlined is a description of the needed activities for the further development of the ICES training programme.

2 Functionalities of the Resource Coordination Tool (RCT)

The 2014 Council meeting commended progress on the development of the RCT and supported further development and implementation. Likewise, positive feedback on the RCT was received following presentation at the EFARO General Assembly in June 2015, where wishes for further development of the RCT were expressed.

As outlined at the 2013 Council meeting, the Resource Coordination Tool (RCT) is to serve as an information base for the planning and prioritization of overall human resources used to implement the ICES work plan. This will ease the planning and budgeting work for institutes, help experts get a better overview of their commitments, and also provide ICES (and other advisory bodies including STECF and others outside of the EU) with a better overview of the entire work processes.

While originally set up to match available scientific expert resources to the proposed work plan of the advisory process, the RCT has been expanded to also include the science process. As agreed, the next step should include the use of the RCT as a component of a larger ICES work plan tool, covering both advice and science, to deal with the process planning and deliverables.

2.1 Status by the closure of the first phase of the RCT and further needed developments

After a “soft” start in Q1 2015, the RCT is now live and being used for ICES work, primarily in the Secretariat. At the moment the RCT consists of two system frameworks: the CRM (customer relationship manager) and SharePoint.

2.1.1 CRM

All information from the former “Address Manager” database has now been transferred to the RCT’s CRM (customer relationship management) system. This means that the CRM has become the exclusive database for recording key information on ICES stakeholders and activities.

Reporting on activities by institution/country is available from 2015, and can be accessed by the Secretariat. In the next phase development will include externally accessible reports.

2.1.2 SharePoint

In this more public part of the RCT system, one can find calendar overviews of ICES activities. On the ICES website a more comprehensive meeting calendar is now available, displaying key information such as:

- Group chair,
- Assisting ICES professionals,
- Location,
- Link to group webpage, etc.,
- Meetings being held by correspondence,
- Meetings with dates still to be confirmed, and
- Advice release dates.

It is also through the SharePoint that institute directors and resource managers are able to add skills to experts in the database. So far 2550 skills have been added to a total of 246 experts. While this is good news, far more skill updates are needed in order to fully utilize the RCT in work planning.

2.1.3 Future Developments

The next phase of RCT development aims at making the system more convenient for users. The focus will be on further integration of the tool with other components and making the system accessible to external users. Proposed developments are as follows:

1. Fully base the RCT system on SharePoint (current running system) in order to keep data in one place,
2. ToRs implementation within RCT,
3. Resolution implementation within RCT,
4. Integration with Microsoft Outlook (Calendar/Contact Lists), and
5. RCT integration with SharePoint user profiles (personal pages), easing the update of expert skills.

2.1.4 Draft Work Timeline

Implementation of all above mentioned developments is scheduled to be completed by the end of Q1 2016.

Timing	Task Description
Sept-Dec 2015	Recommendation database implementation within RCT
Sept-Dec 2015	ToRs and Resolutions Implementation within RCT
Sept-Dec 2015	RCT integration with SharePoint user profiles (allowing users to update & maintain their own profiles).

Dec-Mar 2015	Full implementation of new developments
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2.1.5 Resources and Budget

To complete the next steps with RCT, one technical resource from the IT department will be required to work at 50 percent capacity for a period of approximately 7 months. Another technical resources from the IT department will be required to work at 35 percent capacity for a period of approximately 7 months. In addition, half of an administrative resource will be required throughout development for communications, testing, and teaching assistance.

Dependent upon the desired specifications of the developments, external specialist consulting may be required for timely implementation. For completion of RCT-related tasks, approximately 100,000 DKK worth of consultancy work is budgeted.

3 Functionalities and status of Content and Administration of Reports and Advice (CARA)

CARA is a tool to streamline report and advice production by linking data and analysis to reports and text, by hardwiring guidance to experts and advice drafters into their working tools, and to make reports and advice products easily available in many formats and for further analysis. In the initial phase, CARA has mostly focussed on the advisory process. Awaiting the work within ACOM to make the advice format better fit for purpose in relation to simplification and ecoregion implementation, the work has focussed on the development of the Stock Assessment Database component as part of the wider CARA.

Thus, in 2014–2015 the stock assessment database and graphs have been expanded, dealing with 70+ data poor stocks. Table generation and utilization of the data in EG reports and advice is now available. The stocks database has been developed to incorporate data as required for all parts of standard fisheries advice both regarding stocks which are analytically assessed and stocks with less data available.

3.1 Next steps and deliverables for CARA

Next steps would include testing and development of an enhanced system. The aim is to provide users in ICES Expert Working Groups and Advice drafting groups the added benefits of dynamic data linkage, an integrated advice template reflecting the new format of advice, data integrity and reusability, and enabling cross-linkage between science and advice groups.

In order to fully incorporate products from the Science programme to the CARA system, further work will be necessary to define precise

requirement specifications. These specifications will be defined in close cooperation between the IT and Science departments.

Additional developments would include the further expansion of the stock assessment database and interfaces.

3.1.1 Draft Work Timeline

Completion and testing of prototype and interfaces scheduled to be finish by the end Q2 2016.

Timing	Task Description
Sept-Dec 2015	Develop prototype.
Sept-Dec 2015	Define requirement specifications in cooperation with the Science department
Sept-Dec 2015	Incorporate “finalized” Advice & Science template(s) and underlying logic into prototype and link to other systems / modules (Stock Database, Historic tables, etc.).
Jan-Jun 2016	Test prototype within Secretariat, incorporating "dummy" ADGs and evaluation of system with Advice for potential launch in Feb 2016

3.1.2 Resources and Budget

To complete the next steps with CARA, one technical resource from the IT department will be required to work at 35 percent capacity for a period of approximately 10 months. In addition, half of an administrative resource will be required for communications, testing, and teaching assistance.

Experience has shown that dependent upon the desired specifications of the developments, external specialist consulting may be required for extended customisation and to achieve the tight timeline of timely implementation. For completion of RCT-related tasks, approximately 75,000 DKK worth of consultancy work is budgeted.

3.1.3 Overall resource and budget for RCT and CARA

In order to accomplish the described tasks, additional resources are need in the amount of 350,000 DKK to cover in-house salary costs and 175,000 DKK for external specialist consulting.

Annex 2

Below a screenshot of a report made called “Member Activity for Current year”. Showing how many days have been committed by each country. Many kinds of reports could be made based on Member Country needs. Feedback and further discussion with the Secretariat is welcomed.

Country	Institute / Department	Member	Process	Activity	Start Date	End Date	No. Of Days
Total Number of days = 8	Department of Natural & Applied Sciences	Martha Uumati		WGFAST	2015/05/29	2015/05/29	1
						Total	1
	Department of Oceanography and Climate	Vidar Lien	NA	WGIBAR	2015/06/01	2015/06/05	5
						Total	5
	Environmental Sciences Management Section	Catherine Coon	N/A	WKICA	2015/05/28	2015/05/29	2
						Total	2
Argentina Total Number of days = 16	Centro Nacional Patagonic	Virginia Roland	- N/A	WGRMES	2015/03/12	2015/03/14	3
						Total	3
	Instituto Nacional de Investigacion y Desarrollo Pesquero	Anibal Aubone	NA	WGFTFB	2015/05/04	2015/05/08	5
		Julio Garcia	NA	WGFTFB	2015/05/04	2015/05/08	5
						Total	10
	Servicio de Hidrografia Naval	Ariel Troisi		DIG	2015/05/18	2015/05/20	3
Australia Total Number of days = 90						Total	3
	Australian Antarctic Division	Martin Cox	NA	WGTC	2015/05/29	2015/05/30	2
		Martin Cox		WGFAST	2015/05/29	2015/05/29	1
						Total	3
	Center for Marine Science & Technology	Sven Gastauer		WGFAST	2015/05/29	2015/05/29	1
		Sven Gastauer	NA	WGTC	2015/05/29	2015/05/30	2
						Total	3
	Commission for the Conservation of Antarctic Marine Living Resources	David Ramm		WGFAST	2015/05/29	2015/05/29	1
						Total	1
	CSIRO Marine and Atmospheric Research	Alan Williams		WGFAST	2015/05/29	2015/05/29	1
		Beth Fulton	NA	WGIPeM	2015/03/16	2015/03/20	5
		Beth Fulton	NA	WGIMM	2015/05/11	2015/05/12	2
		Cathy Dichmont	NA	WGIMM	2015/05/11	2015/05/12	2
		Gordon Keith		WGFAST	2015/05/29	2015/05/29	1
		John Volkman	- N/A	WGMS	2015/03/02	2015/03/06	5
		Nick Mortimer		WGFAST	2015/05/29	2015/05/29	1

Data and Information Services – Report for Council 2015

Implementing the strategic plan

At the February Bureau, Data and Information services previewed its approach to the implementation, review and performance tracking of the strategic plan. Figure 1 shows how the implementation is followed through the ICES system. The bottom boxes in grey depict the entities that review and feedback on progress – starting from the left the Data and Information operational group (DIG) make the most detailed review (twice a year) – the table in Annex 1: Strategic implementation for Data: review by DIG illustrates how they track progress against the strategic milestones laid out in Annex 4 of the implementation plan. Bureau and Council should receive a more condensed summary view that highlights specific issues and identifies where action or intervention from the Bureau or Council would be necessary to progress the implementation.

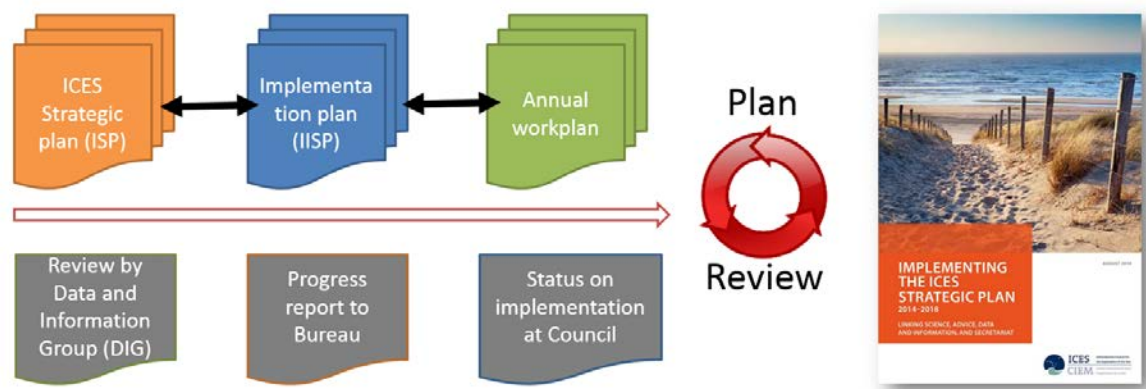


Figure 1 data strategy planning and review

In late 2014/2015 with some effort, the implementation plan for data see Figure 2 was mapped against the annual work programme for the ICES Data and Information Services see Figure 3.

What and How		How measured	When	Who/Risks		
REGIONAL FACILITATION				RESOURCE IMPLICATION		
HEADLINE ACTION	DETAIL	PERFORMANCE MEASURE	TIME FRAME	DATA CENTRE	DIG	OTHER
Regional operational products for Marine Strategy Framework Directive (MSFD) and Data Collection Framework (DCF)	(a) MSFD workflow: Collaboration between ICES Data Centre and Regional Sea Conventions/ other organizations with respect to MSFD (WISE-Marine production process). This assumes a good flow of data/data harvesting into the data centre, and this can imply more resources in certain data types where data are not readily provided.	(a) Workflow(s) operational and ready for uptake into WISE-Marine.	(a) OSPAR Hazardous substances: milestone 2014	This assumes a good flow of data/data harvesting into the data centre, and this can imply more resources in certain data types where data are not readily provided.		
	(b) Leading to a joint MSFD data flow vision paper. Also depends on WISE-Marine. Link to Secretariat Plan.	(b) Joint paper strategy accepted by stakeholders at EU level.	(b) HELCOM Eutrophication: milestone 2014 (c) OSPAR Eutrophication (2015) (d) MSFD Data vision paper: 2014			
	New processes/products from existing data within Advisory and Science groups with respect to MSFD: calculations for indicators. Needed: data selections, algorithms, calculation	(a) Uptake of ICES dataset products in EGs responsible for MSFD indicators.	Fish and litter time frame: 2014–2015 for development, and fine-tuning			

Figure 2 Extract from Annex 4 of implementation plan

Reference to IISP	Work Package	Billing	Timing	Detailed task	Resources				
IP: Key	IP: Preference	IP: Pillar	WP: ID	WP: Activity	WP: Task	WP: Status	DC Resources	Other Departmental Resources	Other Resources
Improved data collection and Annex 2	ADVICE	10 INTERCATCH (Fisheries)	Core	January	3.5 - New functionalities: Implement new needed functionalities to support the	Started	HenrikKN, Kadi		
Improved data collection and Annex 2	ADVICE	10 INTERCATCH (Fisheries)	Core	January	3.6 - Administrative codes and users: Add, update codes used by InterCatch (Jan-Dec)	Started	Anna, HenrikKN, Kadi		
Improved data collection and Annex 2	ADVICE	10 INTERCATCH (Fisheries)	Core	January	3.7 - EC and WGM/OTSH data report: Data delivery overview to EC. Export specific	Started	HenrikKN		
Improved data collection and Annex 2	ADVICE	10 INTERCATCH (Fisheries)	Core	January	3.8 - Planning: Planning of tasks and resources and strategic planning (Jan-Dec)	Started	HenrikKN		
Improved data collection and Annex 2	ADVICE	11 participants	Core	March	1 Workshop on InterCatch, organise and teach	Started	HenrikKN		
Improved data collection and Annex 2	ADVICE	12 VMS Data	Mou/Contract/Request	June	6 Give support to WIDECC with VMS Data		Carlos, Neil, Anna, Nas, MarkDC, Sebastian, Cristina		
Improved data collection and Annex 2	ADVICE	12 VMS Data	Mou/Contract/Request	January	8 Accommodate the Data from NEARF		Carlos, Neil, Anna, Nas, MarkDC, Sebastian, Cristina		
Improved data collection and Annex 2	ADVICE	12 VMS Data	Mou/Contract/Request	June	9 Handle the HELCOM request and answer HELCOM questions		Carlos, Nas, MarkDC, Sebastian, Cristina		
Improved data collection and Annex 2	ADVICE	12 VMS Data	Mou/Contract/Request	June	4 Make and handle the OSPAR request and handle the VMS Data		Carlos, Nas, MarkDC, Sebastian, Cristina		
Data archeology: identifying as	DATA	13 EMODNET Biology (B)	Project	February	3 4 - Pilot project on digitization of historical community data from the Limfjord		Jorgen, Carlos, Merdi		
Data archeology: identifying as	DATA	14 OCEAN (Hydrography)	Core	February	5 Develop a conversion program in order to process the Canadian Arctic oceanographic datasets	Started	Hjalte, Else		
Encouraging the broader use of Annex 4	DATA	15 DOME (Environmental)	Core	March	1 Send QC checks to Sweden		Mari Lynn, Periklis		
Encouraging the broader use of Annex 4	DATA	16 MicroB5	Project	January	1 - Create CD's and datasets (ODV) files for DOME plankton (ZF, PP) and other community data (ZB, PB) from DOME into the SDN infrastructure using the SDN biological format		Neil, Hans, Carlos		
Encouraging the broader use of Annex 4	DATA	17 Quality Check Database: to categorise and uniformly describe all checks made on all data collections managed by the ICES Data Centre (with DGI) (March, progress to report at DGI 17 May)	Core	February	5 Populate QC database/focus on DATRAS, DOME	Started	Periklis, Neil, Else, Anna, Mari Lynn		
Encouraging the broader use of Annex 4	DATA	17 Quality Check Database: to categorise and uniformly describe all checks made on all data collections managed by the ICES Data Centre (with DGI) (March, progress to report at DGI 17 May)	Core	September	0 Develop a web based output tool for the QC Database	Not started	Periklis, Carlos, Mari Lynn		
End-to-end workflow for Annex 4	DATA	18 Quality Check Database: to categorise and uniformly describe all checks made on all data collections managed by the ICES Data Centre (with DGI) (March, progress to report at DGI 17 May)	Core	April	3 Tool to synchronize DATRAS check updates with QC database check description	Not started	Mike, Carlos, Anna, Anne, Michala, Inigo, Ruth		
End-to-end workflow for Annex 4	DATA	19 Stock assessment graphs	Core	January	7 Expand the Stock Database for use with the majority of fish stocks		Mike, Carlos		
End-to-end workflow for Annex 4	DATA	19 Stock assessment graphs	Core	November	7 Develop web services for further integration with GSA		Carlos, Anna, Mike, Anne, Michala, Inigo, Ruth		
End-to-end workflow for Annex 4	DATA	19 Stock assessment graphs	Core	February	7 Expansion of database to include stock status, and subsequent web service		Carlos, Anna, Mike, Anne, Michala, Inigo, Ruth		
Ensuring INSPIRE readiness for Annex 4	DATA	19 EMODNET Biology (B)	Project	February	1 - Update the OBIS web service to include SDN output flag		Neil, Hans, Hjalte, Merdi		
Ensuring INSPIRE readiness for Annex 4	DATA	20 EMODNET Chemistry (C)	Project	January	4 Follow and ensure appropriate alignment between standards and vocabs used by EMODnet chemistry, SDN and the ICES Data Centre		Periklis, Hans		
Ensuring INSPIRE readiness for Annex 4	DATA	21 ICES SPATIAL FACILITIES (SRS)	Core	February	2 - Increase the number of spatial services provided by the ArcGIS server (Feb-27)	Started	Periklis, Hans		
Ensuring INSPIRE readiness for Annex 4	DATA	21 ICES SPATIAL FACILITIES (SRS)	Core	May	2 Update maps for Ecosystem Overviews	Started	Periklis, Hans	MarkDC	
Ensuring INSPIRE readiness for Annex 4	DATA	21 ICES SPATIAL FACILITIES (SRS)	Core	June	2 4 - Consistently produce metadata for our GIS services/products, i.e. WGMIST	Started	Periklis, Hans		
Ensuring INSPIRE readiness for Annex 4	DATA	21 ICES SPATIAL FACILITIES (SRS)	Core	March	2 5 - Launch the first version of the new Spatial Facility	Started	Periklis, Hans		

Figure 3 Extract from 2015 workplan for Data and Information Services

This mapping allows a better understanding of how the individual and team work activities contribute to the overall strategic aims, and enable us to see how resources are associated to the support of the strategic plan and perhaps foresee where there are disconnects between the ambition of the strategy and the reality of resource allocation and timings at the planning stage.

Figure 4 is based on an analysis of the 2015 workplan for the Data and Information services in terms of the work packages that are planned to be carried out and how they relate to the 4 strategic pillars of ICES. These figures are not based on actual effort (person hours) so they should be treated as indicative rather than absolute, however the aim is to be able to provide these figures based on effort once we have a full years workplan completed in this way. The figure does however reveal that the Data and Information Services are very much a cross-cutting support to the ICES pillars.

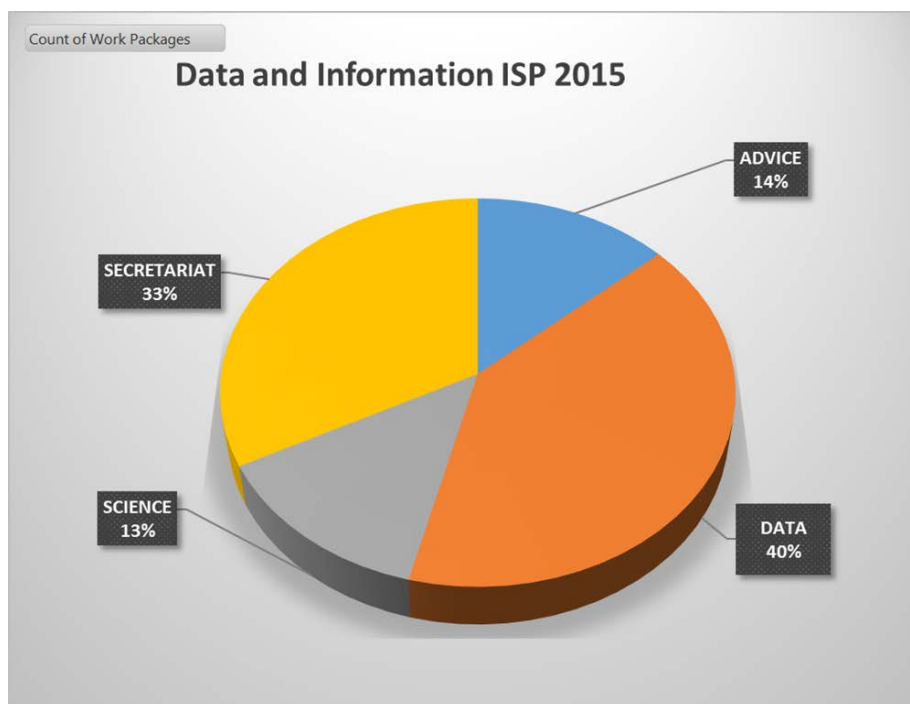


Figure 4 Allocation of Data and Information work packages to the 4 ICES pillars

Drilling into the detail of the work packages that contribute to the overall strategic implementation shows how Data and Information services underpin these, see Figure 5.

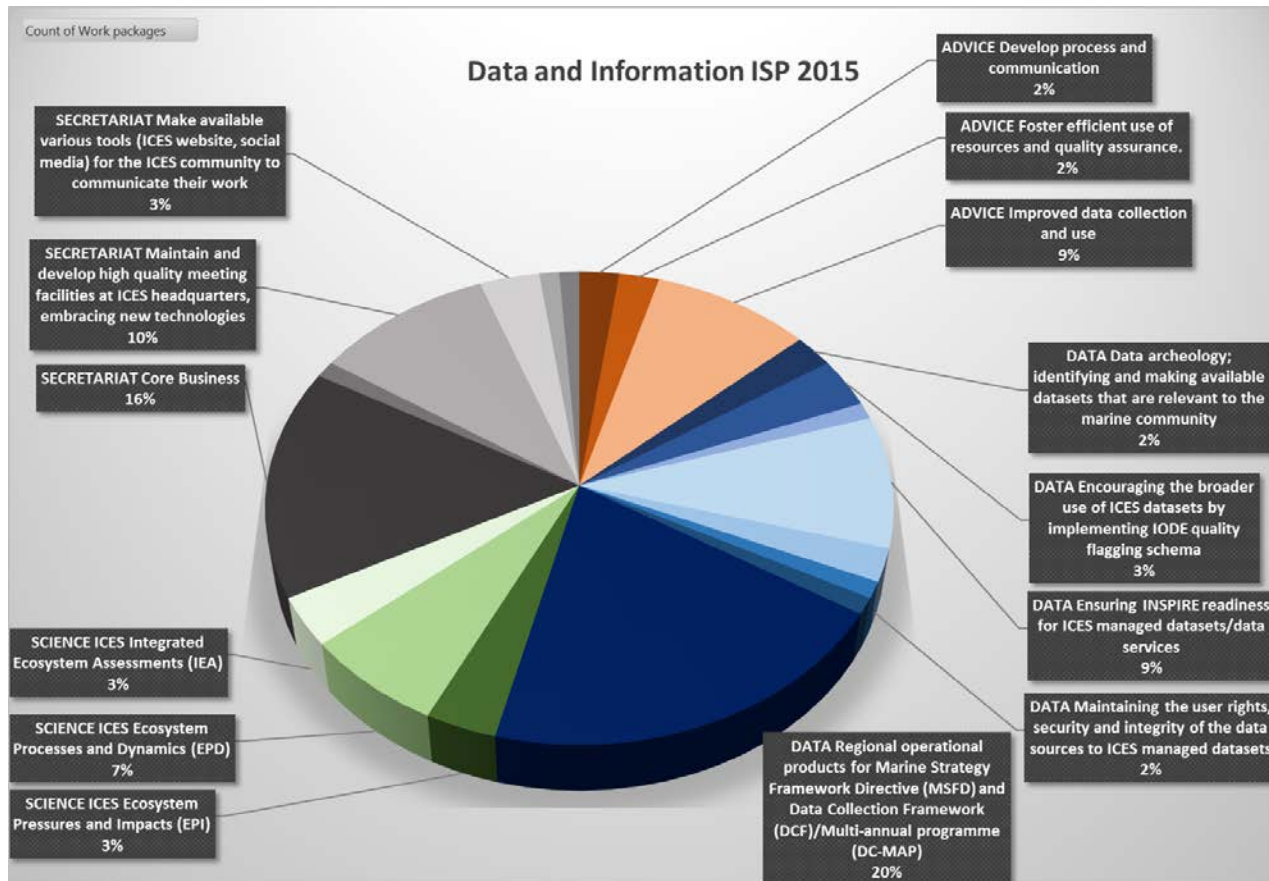


Figure 5 Division of Data and Information 2015 workplan work packages to ICES strategic objectives

Brief analysis of the half-year mark

We have now had an opportunity to look at the reality of how the mapping of the implementation to the annual work plan by looking into the time recording of resources in the Data and Information services. It should be noted that IT services (which are part of Data and Information) were excluded from the following analysis so the Secretariat goals related to IT infrastructure are not represented in the half-year analysis.

While Annex 1: Strategic implementation for Data: review by DIG demonstrates that we are making good progress against the majority of strategic goals, the recorded hours highlight a gap in relating the workplan to the implementation plan, see .

What this shows is that 48% of the effort used in 2015 between January and July is against a number of rolled-up tasks such as data infrastructure maintenance, support to working groups, support and helpdesk services, data and meta-data handling which are not specifically addressed in the implementation plan. In other words, the implementation plan focuses on specific forward looking improvements and investments, and does not adequately address the efforts to maintain and support the underlying business processes. This may well be acceptable if the principle of the strategy is to move ICES forward on a number of strategically important issues, however it should be acknowledged that there are considerable resources needed to maintain the status quo and that these should be factored in when looking at the performance measures of ICES against its strategic plan. This analysis will also be useful in redefining the time recording codes in the Data and Information services to better match the needed management outputs.

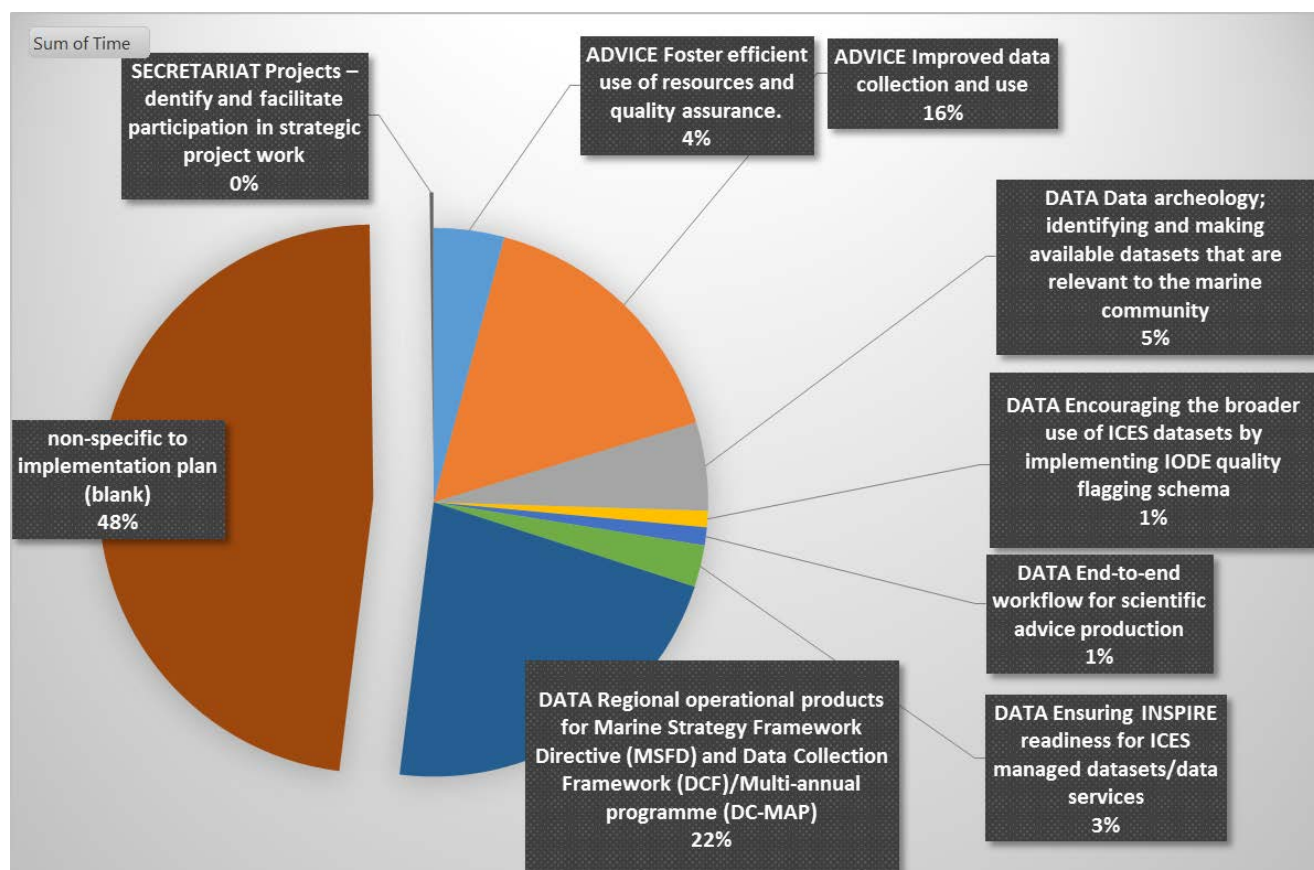


Figure 6 Data and Information time spent mapped against the implementation plan (Jan-Jul 2015 figures, excluding IT services)

Products for the integrated ecosystem approach

Building on the efforts of the ICES Ecosystem Approach Coordinator, Mark Dickey-Collas and working in close cooperation with the ICES Data Centre, a summary of the emerging ecoregion spatial products has been elaborated in Annex 2: Data products to support integrated ecosystem approach. This underpins the strategic plan in the science area in having products that help to better understand state and pressures in space and time, as well as the data strategy in the operationalisation of products for the ecosystem approach.

Figure 7 depicts how the products presented in Annex 2: Data products to support integrated ecosystem approach fit into the understanding of ecosystem processes that ICES is putting at the core of its strategic plan.

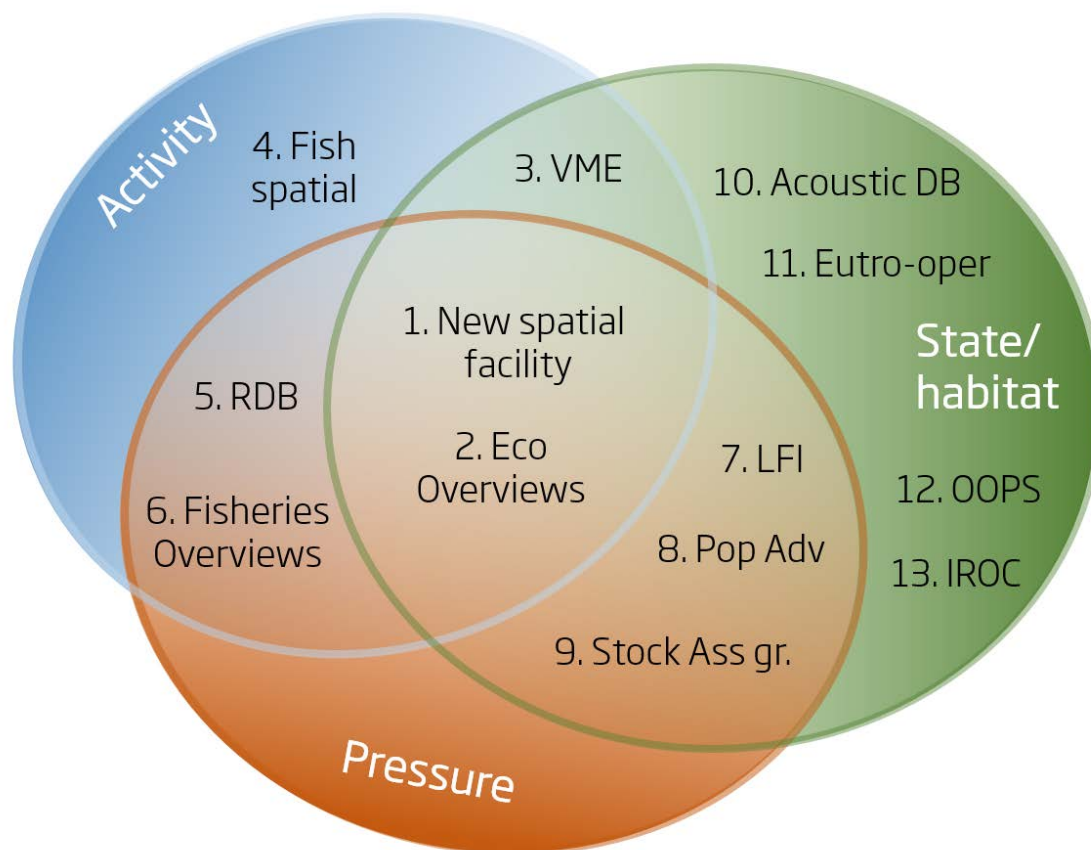


Figure 7 Synthesis of the current and upcoming data products for the ecosystem approach, available through the ICES data centre.

Annex 1: Strategic implementation for Data: review by DIG

Regional Facilitation				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DIG	Other
Regional operational products for Marine Strategy Framework Directive (MSFD) and Data Collection Framework (DCF)/Multi-annual programme (DC-MAP)	(a) MSFD workflow: Collaboration between ICES Data Centre and Regional Sea Conventions/other organisations with respect to MSFD (WISE-Marine production process). This assumes a good flow of data/data harvesting into the data centre, and this can imply more resources in certain data types where data are not readily provided. (b) Leading to a joint MSFD data flow vision paper. Also depends on WISE-Marine. Link to secretariat plan.	(a) Workflow(s) operational and ready for uptake into WISE-Marine (b) Joint paper strategy accepted by stakeholders at EU level	- (a) OSPAR Hazardous substances: milestone 2014 - (a) HELCOM Eutrophication: milestone 2014 - (a) OSPAR Eutrophication (2015) - (b) MSFD Data vision paper: 2014.	05/2015: a. Progress on all workflows i.e. EUTRO-OPER, (see also chapter 4 of this report). b. complete 09/2015: a. EUTRO-OPER link: http://ocean.ices.dk/eutro-oper/ Baltic boost funded – ICES DC to build up data flow and indicators (cf EUTRO-OPER) for contaminants Impulsive underwater noise project funded under OSPAR, building up noise register before spring 2016	05/2014: a. Progress on all workflows i.e. EUTRO-OPER, (see also chapter 4 of this report). Online tools are developed. Documentation on methodology is still not there. b. Started, drafted template and vision paper under development. Vision paper accepted by WGDike.	This assumes a good flow of data/data harvesting into the data centre, and this can imply more resources in certain data types where data are not readily provided.		
	New processes/products from existing data Advisory and Science with respect to MSFD: calculations for indicators. Needed: data selections, algorithms, calculation	a) Uptake of ICES dataset products in EG's responsible for MSFD indicators b) Operational provision of datasets, including discovery and download services	Fish and litter Timeframe: 2014-2015 for development, and from 2016 onwards fine-tuning	05/2015: (offshore) litter: see section 4.6 of this report 09/2015: OSPAR data call on litter from trawl surveys	05/2014: (Offshore) litter: In progress. Drafted extension to trawl survey format for marine litter,			

	examples. Challenge: who is going to decide on the final calculations and data selections? Workshop on MSFD related DC-MAP indicators. Refer to table (MSFD table of ICES data/WG's and their operational product linkage)				needs further iteration. ICES will try to establish a WG on Marine litter as a complement to existing groups/RSC processes			
	New datasets and products Advisory and Science: MSFD - master data holdings; data storage, calculations for indicators. Noise, microplastics, acoustic fish data (WGFAST). Needed: data collection guidelines, data, responsible WGs for data, algorithms, calculation.	Products and/or regional data management established (where mandate is given)	2015 for setup, implementation from 2016 onwards.	05/2015: Microplastics & acoustic data: see section 4.6 of this report. Indicator calculation: see section 4.2 of this report 09/2015: WKEVAL (acoustics, Aug 2015) created formats and draft data flow WKIACDDB (acoustics, Oct 2015) final plan for acoustics database, trawl data and oceanographic data		Depending on the level of ambition regarding establishing new international datasets and systems, additional resources may be required		
	- Data requirements with regard to multi-species assessments (input for assessments). Currently, multi-species assessments are applied in e.g. Baltic, but insufficient spatial data products are available. Baltic, other	(a) Successful data call(s) (b) Provision of spatial data products	Baltic: 2014-2015	05/2015: no action 09/2015: WGINOSE requests for data to feed the model (2014, 2015). No other requests received.	05/2014: no action			

	areas. (action plan to be created). Needed: clear data request (unless no data are available)							
	- Data requirements for e.g. one species from all fish surveys (WGEF, WGNEW) ; search facility over all data, not only for raw data but also for products. (joint WGEF, WGNEW, DIG proposal -action DIG chair)		workshop in 2014 to list product requirements	05/2015: WKIDP took place and was successful. Report available via ICES website 09/2015: Ingeborg check with Vaishav on WKIDP action status	05/2014: workshop is planned in October and will be chaired by Clara Ulrich	Workshop participation and follow-up		
End-to-end workflow for scientific advice production	- RA-CMS linking to data outputs from Expert groups (connecting the scientific reports to advice production).	Successful implementation of interfaces to a) scientific output from EG reports b) scientific output from assessment models	Starting 2014 (depends on timing RA-CMS development).	05/2015: Standard graphs: see section 4.6 of this report 09/2015: SLD (stock list database) – containing definition of the stock (reference database). Advice is starting to use it.	05/2014: Process delayed. Currently concentrating on stock input and expanding standard graphs to other stocks. System renamed CARA.	Volume of activity on RA-CMS would require additional technical resource		
	- RA-CMS linking to data outputs from RDB-Fishframe	See (b) above	2015	05/2015: no action 09/2015: no action as RDB Fishframe is related to RCMs. This is next phase.		Dependent on progress in development (and funding) of RDB-FishFrame		Dependent on progress in development (and funding) of RDB-FishFrame

Mobilising aquaculture specific data	- Aquaculture databases: exact description to be decided. Related to WGAQUA.	Products and/or regional data management established (where mandate is given)	starting from 2014.	05/2015: no action needed (agreed upon by WGAQUA as the group does not see the need for an aquaculture database)	05/2014: no action	Depending on the level of ambition regarding new datasets and systems, additional resources may be required	Depending on the level of ambition regarding new datasets and systems, additional resources may be required	
Mobilising Arctic specific data	- In cooperation with AMAP, getting data from small arctic research institutes. Implementing data formatting tool.	Milestone: implementing the tool, first half 2014. Performance measure: receiving data	starting 2014	05/2015: Slow progress, some testfiles exchanged. The structure of the data committees is not clear. Meeting in October relate to the polar data forum; Helge Sagen and Taco de Bruin will attend 09/2015: Helge to report on it in May 2016	05/2014: In progress. Some testing and need further documentation of SIMON system Helge Sagen (DIG) nominated to Committee on Information and Data Service (CDIS) of SAON	A higher level of technical support/guidance could be anticipated		

International Standards and interoperability				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DI G	Other
Ensuring INSPIRE readiness for ICES managed datasets/data services	- describe and make available all ICES/ICES expert group managed datasets, data products or services through ISO/INSPIRE standards to allow their discovery and reuse by other expert groups, processes and member country activities	- All ICES datasets, including those that exist only within an expert group , are adequately described and the 'discovery' information are available through the ICES online portals	- Request to EG's to be filled 2015	05/2015: Technical complete; Jens Rasmussen helped validating the Data Centre's work. Not published yet. Content: no information from EGs 09/2015: see above	05/2014: ICES Data Services have an online system (INSPIRE compatible).	Some additional guidance and tools will be needed		ICES expert groups will need to incorporate into their work
Encouraging the broader use of ICES datasets by implementing IODE quality flagging schema	building on the quality control database that is in the process of being populated and then exposing this to online users in a digestible way to make the linkage between type of data, type(s) of QC performed and the QC flags applied to the data	- QC database online - QC flags included in data downloads	2014-2018	05/2015: is in work plan – work planned after DIG 2015 meeting. 09/2015: see action list for follow up	05/2014: no progress			

Knowledge transfer and professional development				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DIG	Other
Input to key data symposia and science meetings	- Data theme sessions (ASC, IMDIS etc): annual theme session proposal ASC by DIG	(a) presentation and promotion of ICES work at key events (b) requests for new services/projects resulting from those activities	-IMDIS runs in 2015, 2017 - ASC annual cycle	05/2015: Proposal 2015 ASC was not accepted by SCICOM. There is a need for 'Data' as a topic at ASC, but may be in a different format than a theme session.	05/2014: IMDIS will not take place in 2015 so a proposal for ICES ASC 2015 was prepared by DIG 2014			
Training and reference guides for scientists and data managers	- ICES training courses: 'Making the most of ICES Data', modular, webinars?. - Online materials and guidance: WKIDG in 2014	(a) metrics on usage of reference materials (b) requests for new services/projects resulting from reference materials/training (c) Increased awareness of data management/ICES services in new sectors	- Training: end 2017 - Workshop to produce reference guide in 2014 (WKIDG, proposed)	05/2015: DIG worked on a proposal for training development 09/2015: see action list for follow-up	05/2014: In progress.		Leading workshop	

Data stewardship and data management				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DIG	Other
Data archaeology; identifying and making available datasets that are relevant to the marine community	<ul style="list-style-type: none"> - (a) benthic historic data recovery. Plan ready, no timeframe. Connected to BEWG, DGMARE (DC-MAP related), perhaps EMODnet biology? - (b) Legacy data: data that are in other systems, but not available to the wider world. Linking to other data archives i.e. through metadata -(c) other historic data 	<ul style="list-style-type: none"> (a) inclusion of pilot project in EMODnet biology (b) Providing discovery services for archived information (through EG's) (c) Where resource, to run data recovery projects 	<ul style="list-style-type: none"> (a) Start 2014. (b) follow-on from 'INSPIRE readiness' activity under heading 3 	<p>05/2015:</p> <ul style="list-style-type: none"> a. see section 4.5 of this report b. see section b. see section 4.5 and 7.2.3 of this report c. no action <p>09/2015:</p> <ul style="list-style-type: none"> b. WGHIST & metadata from EGs c. WGHIST metadata 	<p>05/2014:</p> <ul style="list-style-type: none"> a. benthic historic data recovery proposal was ready. After discussion not put there due to wrong focus. Work package is on hold. b. See chapter DIG report 2014 chapter 5 	Historic data recovery will require additional resources/funding and this may be possible in part through EMODnet biology		
Ensuring ICES data are citeable in the digital age, and therefore making the datasets easier to discover	Digital data citation and publication: ensuring ICES data are citeable in the digital age, and ensuring contributing data sources are duly credited, as well as guiding the ICES member countries on how to approach digital citation	Creating a strategy for digital citation of data resources, in agreement with PubCom	2014-2015	<p>05/2015:</p> <p>See section 5 of this report</p> <p>09/2015:</p> <p>Minting DOIs possible in autumn 2015</p> <p>DIG 2016: practical implications of DOIs (IODE cookbook)</p>	<p>05/2014: in progress. See chapter DIG report 2014 chapter 5</p>			

Data stewardship and data management				Status DIG 2015	Status DIG 2014	Resource implication		
Headline action	Detail	Performance measure	Timing			Data Centre	DIG	Other
Maintaining the user rights, security and integrity of the data sources to ICES managed datasets	<ul style="list-style-type: none"> - Data policy, facilitation of rights issues - Data security, and implications if data portfolio changes in nature (i.e. VMS, VME etc.) 		Annual basis, 2014-2018	05/2015: No action needed, data policy update scheduled for 2016. See also section 5.2.2 of this report 2016: relate to new DCF!	05/2014: RDB-FishFrame data policy drafted but not agreed by all participating countries yet			

Annex 2: Data products to support integrated ecosystem approach

Name of product	Operational status (or planned launch date)	Web link if available	Description of product/application	Linkage to policy/partners/ ICES strategy	Contact
1. New Spatial Facility	Online (Launched In August 2015 and it is currently in testing/beta status)	http://www.gis.ices.dk/sf	The new Spatial Facility offers a modern layout for our reference and working group maps. It also provides new tools and widgets to search our spatial datasets (eg datras survey areas, ICES rectangles)		Periklis Panagiotidis periklis@ices.dk Hans Mose Jensen hans.jensen@ices.dk
2. Interactive ecosystem overviews	Launching Jan 2016		Interactive diagrams of the activity/pressure/state relationships (based on expert judgement) for each ecoregion. This can link through to specific additional products	IEA	Inigo Martinez inigo@ices.dk Mark Dickey-Collas Mark.dickey-collas@ices.dk
3. Vulnerable Marine Ecosystems portal (VME)	In development BETA test with WGDEC	http://vme.ices.dk	Online database and map viewer of vulnerable marine ecosystems combining habitat and species level information. The data have some restrictions at the detail level, however all data are available to view and download at an agreed spatial aggregation. There is a connection to the OSPAR habitats dataset held at JNCC.	OSPAR, MSFD, CFP and NEAFC	Carlos Pinto Carlos@ices.dk Neil Golding neil.golding@jncc.gov.uk
4. Fisheries spatial data products (VMS data call)	Online	http://ices.dk/sites/pub/Publication%20Reports/Data%20outputs/HELCOM_mapping_fishing_intensity_and_effort_data_outputs_2015.zip http://ices.dk/sites/pub/Publication%20Reports/Data%20outputs/OSPAR_mapping_bottom_fishing_intensity_data_outputs_2015.zip	Data layers and shape files of fishing activity in the ICES area, based on VMS and logbook data	OSPAR/HELCOM/NEAFC	Carlos Pinto Carlos@ices.dk Josefine Egekvist jsv@aqua.dtu.dk
5. RDB->RCM reports Intercatch	Online	http://www.ices.dk/marine-data/data-portals/Pages/RDB-FishFrame.aspx https://intercatch.ices.dk/Login.aspx	Ranking of metiers according to: landing weight, value and effort (3 reports) Age-length relationship and age-weight relationship with charts (2 reports) Overview of number of sample measurements of length, weight, age, sex and maturity (1 report) Total removals by area.(in development)	DCF, ICES fisheries advice, EEA	Henrik Kjems-Nielsen henrikkn@ices.dk Jørgen Dalskov jd@aqua.dtu.dk
6. Fisheries Overviews	In development		VMS, log book and STECF data.	Fisheries advice, CFP	Cristina Morgado (Cristina@ices.dk)

Name of product	Operational status (or planned launch date)	Web link if available	Description of product/application	Linkage to policy/partners/ ICES strategy	Contact
7. Large Fish Indicator(s) including datras data clean up	2015- 2017 *Swept Area base calculation (Completed) *Define DATRAS DATA CLEAN-UP procedures (Completed) *Implementation of LFI algorithm and Data clean up in DATRAS	Future link will be part of DATRAS download page https://datras.ices.dk/Data_products	The LFI is defined as the proportion by weight of large fish in the sample of a specified survey, where large fish are defined as those longer than a threshold length, a survey-specific threshold value. The LFI takes no account of species identity but rather of individual sizes. However, it was shown to reflect mostly the proportion (by weight) of large-bodied species in communities.	OSPAR HELCOM DGENV EEA	Vaishav Soni Vaishav.soni@ices.dk Scott Large Scott.large@ices.dk
8. Popular Advice Map	Online (Launched June 2014)	http://www.gis.ices.dk/popadvice	Our interactive map displays popular advice for each fish stock within the various ICES ecoregions, and enables users to gain access to more in-depth information on each stock.		Anne Cooper anne.cooper@ices.dk Periklis Panagiotidis periklis@ices.dk
9. Stock Assessment Graphs including stock list	Online	http://standardgraphs.ices.dk/stockList.aspx http://stock-assessment-graphs.ices.dk	Online database and graphs of stock assessment products for the category 1-2 stocks. In the next phase more stocks will be added and the database expanded to include more variables covering most of the quantitative information presented in stock advice (category 3-5).	CFP, MSFD, OSPAR, HELCOM, EEA, NEAFC	Inigo Martinez inigo@ices.dk Carlos Pinto Carlos@ices.dk
10. Acoustic Database via ATLANTOS	Launching in 2016		Database connected to national detailed data related to acoustic interpreted data and feeding the various analysis packages i.e. STOXX. In addition, biological data will be incorporated to an extension of the DATRAS trawl portal	SSGIEOM, all Acoustic groups, CFP, MSFD, H2020	Nils Olav Handegaard nilsolav@imr.no Neil Holdsworth neilh@ices.dk

Name of product	Operational status (or planned launch date)	Web link if available	Description of product/application	Linkage to policy/partners/ ICES strategy	Contact
11. EUTRO-OPER	Online (Test Assessment planned by end October 2015)	Available through HELCOM EUTRO-OPER data reporting workspace only accessible by contracting parties. Final assessment will be available through HELCOM Data and Map Service http://maps.helcom.fi	Making the HELCOM Eutrophication Assessment Tool (HEAT 3.0) operational http://www.helcom.fi/helcom-at-work/projects/eutro-oper	HELCOM	Hjalte Parner hjalte.parner@ices.dk Vivi Flemming-Lehtinen vivi.flemming-lehtinen@helcom.fi

12. Operational Oceanographic Products and Services (OOPS)	Launching Dec 2015		Via the new spatial facility, maps and time series of copepod abundance (SAFHOS) and integrated oceanographic products (MYOCEAN),	IEA, MSFD	Mark Dickey-Collas Mark.dickey-collas@ices.dk
13. Ocean Climate report portal (IROC)	Online	http://ocean.ices.dk/iroc	The online ICES Report on Ocean Climate (IROC) provides summary information on climatic conditions in the North Atlantic.	WGOH	Hjalte Parner hjalte.parner@ices.dk Sarah Hughes s.hughes@marlab.ac.uk

Secretariat Status Report

The meeting is invited to review the status report on the activities and deliverables being developed by the Secretariat.

This report is an update of the “gut feeling” review of the status of implementation of the Secretariat component of the ICES Strategic Plan for the 2014 October Council meeting, and is contained in the attachment, together with a comparison and explanation of the status of implementation based on the developed Key Performance Indicators. The review is based on the examples below of activities and deliverables referring to the Secretariat actions outlined in the Implementation Plan (Implementing the ICES Strategic Plan, 2014-2018 Linking Science, Advice, Data and Information, and Secretariat).

ICES Strategic Plan, 2014–2018

Supporting the organization through the work of the Secretariat:

Goal 6 Foster the science, the advisory and the data information services through the work of the Secretariat

Goal 7 Ensure an efficient and effective organization

Supporting activities for Goals 6 and 7:

1. Securing the needed resources for the ICES Secretariat to support ICES science, advisory services, data processes and products and for publications and communications;
2. Implement effective tools and efficient process flows to streamline work processes and enhance the delivery of products;
3. Organizing and supporting the resource planning and coordination of network activities; and
4. Fostering cooperation and communication with Member Countries and partner organizations, stakeholders, and society.

Implementation Plan, Annex 5

Goal 6:

Strategic support to the Council, Bureau, and the Committees by provision of inputs regarding foresight of needs and options for development of science, scientific advice, and data

Interact with external networks and communicate scientific priorities

Various deliverables are contributed under this activity. Examples of this have been listed below:

Streamlining of working practices; further development of the Stock Assessment Database and the Standard Graph outputs that these feed, to be integrated with the overall Content Administration for Reports and Advice (CARA), and the Resource Coordination Tool (RCT),

- development of assessment strategies; data-limited approach, and the planned extension to cover category 3-4 stocks in addition to category 5-6 stocks,

- support to integrated advice, through work to elaborate ecosystem overviews for ecoregions, extraction of information to create fisheries overviews (main target species, catch levels, and gear type), review of descriptors under the EU Marine Strategy Framework Directive, development of descriptors using ICES held data, such as the Database on Trawl Surveys (DATRAS), for development of the Large Fish Indicator, work to elaborate methodologies for how to go from indicators to assessments (e.g., from fishing intensity to state of sea bed habitats, and from indicators on exploited fish to an assessment status of exploited fish in an ecoregion),

- input to integrated monitoring work to be carried out jointly by EFARO and ICES; work in progress to compare an overview of MSFD related indicators and data needs, to the data needs for fish stock assessments,

- data handling and streamlining, including operationalization of data reference sets e.g., operational eutrophication products for HELCOM, and operational oceanographic products (OOPS) from the ICES network, establishment of an acoustics database and data flow),

- improvement and development of the Regional Database (RDB) platform for commercial catch sampling based on the financial commitment from Council (equity).

- a data calls workflow and template, to ensure that the quality and clarity of data requests originating from ICES are of a high standard and give clear direction to recipients on the eventual use of the data and the expectation of delivery .

- dissemination of deliverables (e.g., new simplified advice format, launch of an improved GIS tool for popular advice, with products accessible per ecoregion).

With many undertakings under various policy instruments, and supported by several different organizations/initiatives, the Secretariat would at times benefit from stronger priority setting and support from the Member Countries, and contacts with national representatives who are participating in these other organizations/initiatives. This would also enhance the possibility to represent ICES in other fora.

To ensure the best possible coordination of initiatives across the pillars in the ICES Strategic Plan and improve the communication on the various initiatives, meetings are set up in the Secretariat between relevant colleagues, and in a so-called Coordination Group, consisting of the Heads of the four pillars (SCICOM, ACOM, Data and Information, and the Secretariat). It has proven beneficial to have all heads in the Secretariat, in order to coordinate on a practical and operational level.

Increase the level of professional support across the ICES work plan to provide data compilation, and initial analysis for consideration to ensure best use of expert resources, inter alia, by strengthening the ecosystem profile in the Secretariat to support priority working areas identified in the ICES Strategic Plan.

This is being achieved through a two-part approach; 1) Freeing resources through efficient processes and with products fit for purpose; and 2) Ensuring a secretariat

profile which can deliver the necessary support. A further description of these two processes are found below.

While the full development and implementation of new tools to streamline the working procedures will decrease the work load in the long run, both for the ICES community and the Secretariat, there is still some way to go before that point has been reached. This is not due to bad will, and a lack of buy in to the process, but simply a matter of a system that is so stretched that there is limited if any room for the additional work that the commissioning of a new system creates.

Re 1) Further development of efficient support involves; streamlining the processes focusing on deliverables with a quality fit for purpose, and the introduction of tools (Resource Coordination Tool, Stock Assessment Database, as part of the wider Content Administration for Reports and Advice - CARA) which will reduce the time spent by experts and the Secretariat to manage the process and deliver the products. The Secretariat is reviewing working procedures, which is necessary because of a heavy workload to support our network, and specifically:

- A new Advice format was introduced during 2015. The format was developed by ACOM with the support of the secretariat and the secretariat was responsible for its implementation. The new format has been positively received, by those developing and receiving the advice. The new Advice format will facilitate the implementation of the Content Administration for Reports and Advice (CARA), (see further below).
- Science Groups are challenged by the move to a new reporting style since the adoption of multiannual Terms of Reference. The current preparation of new streamlining tools/working procedures includes the development of the Resource Coordination Tool.

In the Secretariat this is reflected in considerable use of resources:

- Professional Officers continue to be loaded with administrating procedural tasks in the Expert Working Groups, taking away the focus from their ability to provide substantive and scientific support, especially on the advisory side.
- Assisting Secretaries have their time focused on labor intensive report formatting.

Re 2) A strategic approach has been followed and implemented in recent recruitments, whereby new profiles of Professional Officers and some Supporting Secretaries has been sought. The Professional Officer profiles demand strong analytical skills to assist with the strengthening of technical and scientific input to ICES work, including the development of new products and deliverables. The Professional Officers possess competences related to ecosystem and environmental issues, including fisheries as well as an understanding of underlying data needs. While Assisting Secretaries will still support the work with logistic and traditional secretarial assistance a new recruitment profile has been implemented for some positions where technical support to the processes is also expected.

Projects - interface with scientific groups and organizations and identify and facilitate participation in strategic work that supports the aims of the ICES Strategic Plan. Seek to link project work with participants from academia.

A more strategic and proactive approach is being sought, for both:

- 1) ICES participation in projects, and
- 2) for incorporation of project outcomes in further ICES work.

With regard to 1) there is a steady and increasing recognition by the strategic partners of the importance and value of having ICES as a partner in a project. These projects are feeding into deliverables for the ICES Strategic Plan. An example of this is the Project Market Place, arranged during the 2015 Annual Science Conference, enabling a discussion on the interaction between ICES and the projects.

Further work is still needed to consider more strategic approaches. This includes the need to consider how to deal with the increased resource demands, stemming from an increase in projects that ICES participates in, and whether there is a possibility to outsource tasks to member institutes (need to investigate both legal issues and willingness/resources).

With regard to 2) this is an important aspect of agreeing in the first instance to ICES participation in a project (cf. the ICES project policy¹). While the formal procedures will be continued to be followed for ICES participation in projects, it is also planned to make use of the Coordination Group, to ensure a wider discussion of the ICES benefits across pillars, from a participation in a project.

Goal 7: Ensure an efficient and effective organization

The Secretariat – foster a modern and fulfilling workplace.

As described above new profiles, for both the Professionals and a group of the Assisting Secretaries have been sought, in an attempt to enhance the Secretariat's ability to provide support for the new competences demanded by the ICES Strategic Plan. This has been done in connection with the expiration of existing contracts. A new role for the Secretariat is an opportunity for Professional Officers and Assisting Secretaries to improve job satisfaction and build their careers by having opportunities to develop the technical and scientific substance of their work and spend a larger part of their time on such work.

A caveat in this process is the need to both fulfil existing demands, which is already difficult with the existing staff resources, and to be able to build up new competences in accordance with the ICES Strategic Plan. This is a complicated balancing act, which requires scrutiny of the existing work processes to deliver the recurrent products efficiently, leave room in the workplan for special requests, and a need to free resources, in order to be able to carry out new tasks, as outlined in the ICES Strategic Plan.

Finance – monitor the budget and ensure resources are used as directed by Council. Prepare the draft and forecast budget for Council approval.

The ICES budget has become more and more stretched, as a consequence of the stable national contributions (without inflation regulation), and increasing dependence on external financing. With a forecast budget elaborated two years in advance of the actual budget year, estimated incomes and expenditures have to be updated more frequently, and priorities have to be made for which activities to carry out, sometimes in the middle of the budget year.

Through support to the Council Working Group on ICES Business Model the Secretariat has been able to assist with detailed analysis of income and expenditures and consider areas for improvement.

Tools to streamline processes (Resource Coordination Tool; RCT, and Content Administration for Reports and Advice; CARA)

¹ <http://ices.dk/explore-us/projects/Pages/ICES-Project-Policy.aspx>

The Resource Coordination Tool is a component of a larger ICES workplan tool covering both advice and science which is the platform for process planning starting from the advice requests /scientific issues, ToRs for groups or processes, workflow calendar, and the affiliations of experts to various groups and processes in ICES, as well as the address manager.

The RCT is intended to serve as an information base for planning and prioritization of overall human-resource use. This is to ease the planning and budgeting for the institutes, help experts get a better overview of their commitments, and also to help ICES (and other advisory bodies including STECF and others outside of EU) get a better overview of commitments and identification of experts to handle incoming requests for advice. The process is initially being set up to respond to the need to match available scientific expert resources to the proposed work plan of the advisory process, and will eventually be expanded to include the science process.

Deliverables and next steps for RCT are:

The RCT has developed successfully, and during the remaining part of 2015 more work will be invested in making the tool accessible and usable for the ICES community (More information under Council agenda item 8.1.3). It is seen as a key criteria for success not only that a tool is developed, but also that the tool is used by those who originally requested it. Both for the purpose of getting a better overview of the resource availability and commitment, and to ensure a streamlining of the work processes, e.g., approval of Resolutions and follow up of ToRs.

RCT Reports:

The RCT is a powerful database with a lot of information and data available. Council delegates are encouraged to engage with the Secretariat if they have specific needs for certain kinds of reports or information on national participation. It is possible to create many kinds of reports. An example will be provided under 8.1.3.

The “Chair-invited” member reports will in the future be available online as a dynamic link with the most up-to-date information available for Delegates when they need it. From 2016 the weekly email notifications will be discontinued.

The below gives a summary of the steps taken, and planned for the remaining part of 2015:

The RCT was soft launched in 2015, allowing ICES meetings and processes to be viewable externally in a new dynamic and detailed meeting calendar (<http://ices.dk/news-and-events/meeting-calendar/Pages/default.aspx>). Initially, the soft launch required a “double system” for work-planning, but since August the advisory process planning occurs exclusively and efficiently within the RCT.

Work has started to collate information provided by Resources Managers in the Member Countries on 1) experts in their institutes and 2) matching experts with (categories) Skills of Expertise; Ecoregions; and Functional Groups. This will allow a search for experts with specific skills, as well as inform on their availability. The process, however, has been somewhat cumbersome, and focus in the further development of the RCT is on an easier way to include this information to the RCT. Likewise further work is planned to ensure the use of RCT

- as a way to follow-up the implementation of ToRs/Resolutions for ICES Expert Groups, and as a tool to support the integration;
- as a tool to incorporate, where possible other key processes/functionalities, such as the nomination system.

ACOM has launched a better fit for purpose advice format in relation to integration within ecoregions and simplification. *CARA* is a tool which is being developed in conjunction with, and also in support of ACOM work. This tool will streamline report and advice production by linking data and analysis to reports and text, by hardwiring guidance to experts and advice drafters into their working tools and to make reports and advice products easily available in many formats and for further analysis. The development of *CARA* will also be used as an opportunity to deliberately match the scope and quality of the reports and advice products with what is required for the specific purpose, which in most cases means a simplification and tuning.

Deliverables and next steps for CARA are:

- Continued work during 2015 and into 2016: expanded stock assessment data base and graphs, dealing with 70+ data poor stocks. Available for graph generation and utilization of the data in EG reports and advice. The stocks data base will be developed to incorporate data as required for all parts of standard fisheries advice both regarding stocks which are analytically assessed and stocks with less data available.
- First quarter of 2016: testing of an enhanced system, giving the users in the ICES Expert Working Groups, and Advice drafting groups the added benefits of the dynamic data linkage, an integrated ICES advice template reflecting the new format of advice, and enabling cross-linkage between science and advice groups.

Training programme – Develop and improve the Training Programme and facilitate and test the online accessibility; reach out and engage with academia to widen target audiences of the ICES Training Programme

A discussion on the possibility for online course, or e-learning courses has been initiated with the training group. It has been agreed to initially develop and offer the course “How to Lead an Effective Technical Meeting” as an on-line course. Strategic partners with experience in this field, such as the World Maritime University (WMU) in Malmö, have been approached and through a Letter of Agreement it has been specified how ICES will be able to make use of the online facilities at the WMU. While costs will be kept to a minimum, any additional costs will be covered by the approved use of equity to enhance the training programme. The foreseen start-up of the UNDP/GEF financed project, “Strengthening global governance of Large Marine Ecosystems and their coasts through enhanced sharing and application of LME/ICM/MPA knowledge and information tools” project, will likely offer a possibility for ICES to kick-start the online work, in our foreseen role as training programme coordinator. The development of the training programme is also being sought through project participation, such as the H2020 project BlueBridge where ICES will get the possibility to test and offer its training modules as online courses.

Publications and communications

Publications – *facilitating the electronic dissemination, availability and visibility of the products of ICES processes including technical reports, scientific publications, and advice*

During 2014, and continued in 2015 a move towards exclusive electronic dissemination has been made, also due to budgetary restrictions. Use of iPaper for electronic publishing has proven an effective and appealing way of presenting various reports and brochures.

A strategy for implementing permanent strategic traceable identities for all ICES documents and datasets are under development (Digital Object Identifier; DOI), including financial implications, and implementation will start off during the latter part of 2015. The implementation also has resource implications, and progress will depend on available resources.

Communications – *promote ocean literacy by making ICES work easily understandable to decision-makers, stakeholders, and the informed public*

A variety of channels have been used and further developed in an attempt to promote the work of ICES to a wider community, and the public at large. This includes: 1) New features on the ICES website; [ICES blogs](#) and [interactive map displaying ICES popular advice](#), 2) [The e-newsletter](#) published six times a year to over 1300 subscribers, 3) [Press releases](#), 4) Social media [LinkedIn group](#), (5711 members), [Facebook](#), (2113 “likes”), and [Twitter](#) (2524 followers) – figures as of 13 October. Social media brings a lot of traffic to the website – over 21,000 redirects over the past 12 months, 5) Promotional material, including [a brochure on integrated ecosystem assessment work in ICES](#), Postcards, to promote ICES training courses, ICES data centre, and ICES ASC 2015 and 2016, and 6) further enhanced early career scientists activities at ASC.

Maintain and develop high quality meeting facilities at ICES headquarters, embracing new technologies

Meeting rooms are continuously being updated, also to facilitate online meeting participation. New screens have been installed in all meeting rooms some with touch screen capabilities. New monitors and webcams have been installed in some meeting rooms. Improved connections and wired solutions have been installed to optimize picture and sound quality. These improvements also support the new web conferencing tool, Skype for Business that was taken into use during 2015.

The ICES Strategic Plan (2014 2018) - Implementation - Linking Science, Advice, Data and Information and Secretariat

The Secretariat Picture after 9 months - A first look at Performance - A Qualitative Approach

OVERVIEW - % in each Score Category

2014		Goal 6 <i>Foster the science, advisory Data and Information Services</i>	Goal 7 <i>Efficient and Effective Organisation</i>
	1		1
	2		1
	3	2	2
	4	2	4
	5		1
		N = 4 Actions	N = 9 Actions

2015		Goal 6 <i>Foster the science, advisory Data and Information Services</i>	Goal 7 <i>Efficient and Effective Organisation</i>
	1		
	2		2
	3	2	1
	4	2	5
	5		1
		N = 4 Actions	N = 9 Actions

SCORE

1	Not Started
2	Just Started
3	Some Progress
4	Good Progress
5	Doing Well

The ICES Strategic Plan (2014-2018) - Implementation - Linking Science, Advice, Data and Information and Secretariat

The Secretariat Picture after 9 months - A first look at Performance - A Qualitative Approach

Secretariat	Secretariat Plan - Action	Gut Feeling 2014	Gut Feeling 2015	Performance Indicators
Foster the science , the advisory and the data information services through the work of the Secretariat (Goal 6)	Strategic support to the Council, Bureau, and the committees by provision of inputs regarding foresight of needs and options for development of science, scientific advice, and data.	4	4	Provision of timely & relevant inputs re. emerging science and advice
	Interact with external networks and communicate scientific priorities	3	4	Identification of new partners Reflected by new MoUs, LoAs, and strategic projects
	Increase the level of professional support across the ICES work plan to provide data compilation, and initial analysis for consideration to ensure best use of expert resources, inter alia, by strengthening the ecosystem profile in the Secretariat to support priority working areas identified in the ICES Strategic Plan.	4	4	Data & analysis made available to meetings Identification of an appropriate process where SEC support useful Meeting prep tasks re-assignment amongst SEC staff to ensure efficient use of resources
	Projects - interface with scientific groups and organisations and identify and facilitate participation in strategic work that supports the aims of the ICES Strategic Plan. Seek to link project work with participants from academia	3	4	ICES represented in project consortia Ext. projects support work of ICES

Supporting Activity for Secretariat to achieve Goals 6 and 7

- 1 . Securing the needed resources for the ICES Secretariat to support ICES science, advisory services, data processes and products and for publications and communications;
2. Implement effective tools and efficient process flow to streamline work processes and enhance the delivery of products;
3. Organising and supporting the resource planning and coordination of network activities;
4. Fostering cooperation and communications with Member Countries, partner organisations, stakeholders and society.

SCORE

1	Not Started
2	Just Started
3	Some Progress
4	Good Progress
5	Doing Well

%

1	
2	
3	
4	
5	

N = 4 Actions

The ICES Strategic Plan (2014 2018) - Implementation - Linking Science, Advice, Data and Information and Secretariat

The Secretariat Picture after 9 months - A first look at Performance - A Qualitative Approach

Secretariat	Secretariat Plan - Action	Gut Feeling 2014	Gut Feeling 2015	Performance Indicators
Ensure an efficient and effective organisation (Goal 7)	Facilitate effective and focused use of expert and infrastructure resources by making ongoing resource requirements transparent to national institute resource managers using the Resource Co-ordination Tool (RCT)	4	4	Tool developed for use internally and externally
	Facilitate common access to ICES processes by developing work that draw on external resources readily available including the tasks, processes and meetings	3	4	Accessibility to common access tool that facilitates external access and streamlines procedures
	Develop and Improve the Training Programme and facilitate and test the online accessibility of the ICES Training Programme	1 or 2?	2	A training course accessible via online participation
	Develop and improve the Training Programme: reach out and engage with academia to widen target audience.	1 or 2?	2	More joint training courses available
	Publications - facilitate the electronic dissemination, availability and visibility of the products of ICES processes including technical reports, scientific publications and advice	5	5	Move towards electronic publications dissemination ICES docs with permanent digital traceable identities
	Further develop and implement the Content Administration for Reports and Advice (CARA)	3	3	Uptake of CARA in exp groups Full use in Adv process
	Maintain and develop high quality meeting facilities at ICES headquarters, embracing new technologies	4	4	One meeting room developed with best tech, with eventual spread to other rooms
	Create communications that focus on prioritised areas as defined by the Strategic Plan - promote the work of the ICES community and its relevance to society - make available various tools (ICES website, social media) for the community to communicate their work	4	4	Outreach material linked to ICES deliverables and outcomes (ICES video) Social media presence & increased community use/discussion
	Ensure that the Secretariat is able to respond to emerging science, advisory and data needs with relevant professional competence, reviewed by Secretariat management	4	4	Ready to respond to emerging needs

SCORE

1	Not Started
2	Just Started
3	Some Progress
4	Good Progress
5	Doing Well

%

1	
2	
3	
4	
5	

N = 9 Actions

Supporting Activity for Secretariat to achieve Goals 6 and 7

- 1 . Securing the needed resources for the ICES Secretariat to support ICES science, advisory services, data processes and products and for publications and communications;
2. Implement effective tools and efficient process flow to streamline work processes and enhance the delivery of products;
3. Organising and supporting the resource planning and coordination of network activities;
4. Fostering cooperation and communications with Member Countries, partner organisations, stakeholders and society.



ICES
CIEM

International Council for
the Exploration of the Sea

Conseil International pour
l'Exploration de la Mer

Council Meeting

October 2015

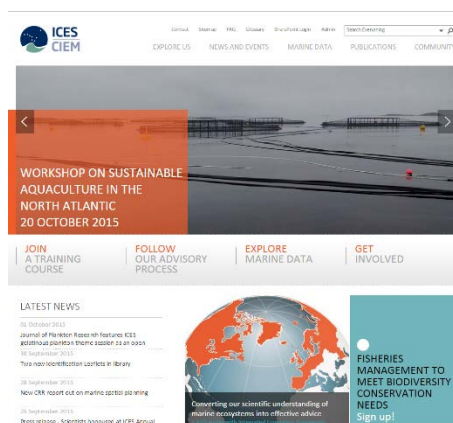
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Agenda item 11.1

Re-branding

Council is invited to share their views on the potential to update the ICES logo and initiate a process for a logo change in connection with the next strategic planning cycle (to be developed during 2017 for 2018–2022). Council is invited to review the development of the logo and the recent work to renew and modernize the ICES brand, including our logo.

ICES has a long and proud history of developing scientific understanding and advice. In this time, the ICES brand has evolved accordingly. With the launch of the new Strategic Plan, and our new website ICES has committed to establishing a new modern profile.




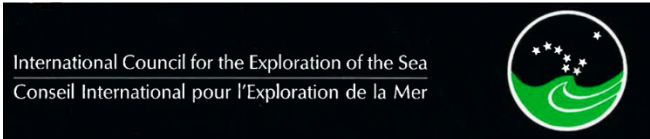



Evolving styles, technology, business models, and product offerings eventually push most brands to refresh or even reinvent their logos to stay relevant. A logo change helps to successfully differentiate an organization, gives it an updated look, and signals a new direction or shifts perception in a positive way.

An iconic logo lends personality to a brand, functions as an identifier, promotes public recognition and offers differentiation. However, even the best logos sometimes need to be adjusted. When an organization's marker no longer seems to fit, an aspect of the design seems out-of-date or no longer represents the organization, or when an organization is beginning a new era, it may be time for a logo transformation.

The aim of the new ICES brand, developed over the past year and supported by the new design guide, is to ensure consistency so the outside world can quickly recognize and identify ICES — nationally and internationally.

The new brand uses the existing logo and colours, an updated corporate font, strong images contrasted with “rescue orange” that represents the human element in the oceans, and a new graphic element – a layout grid of nodes and links that represents the ICES network.

The ICES logo has developed over time:

The 1st logo	 <p>INTERNATIONAL COUNCIL FOR THE EXPLORATION OF THE SEA CONSEIL INTERNATIONAL POUR L'EXPLORATION DE LA MER</p>
1990s	 <p>International Council for the Exploration of the Sea Conseil International pour l'Exploration de la Mer</p>
2000s	 <p>International Council for the Exploration of the Sea Conseil International pour l'Exploration de la Mer</p> <p>ICESCIEM</p>
Since 2003	 <p>ICES International Council for the Exploration of the Sea CIEM Conseil International pour l'Exploration de la Mer</p>
2014	 <p>ICES International Council for the Exploration of the Sea CIEM Conseil International pour l'Exploration de la Mer</p>

The current logo has served us well. But with our new website and modernization of publications, a new logo is needed to match our new style and to help us:

“To be a world leading scientific organization concerning marine ecosystems and to provide the knowledge to secure the sustainable use of the seas.”

An opportune time to launch a new logo would be to correspond with the next strategic planning cycle in 2017, therefore, initial Council views are sought now to ensure ample time for consideration.