

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.