

# ICES WKCMSP REPORT 2011

JOINT SCICOM/ACOM STRATEGIC INITIATIVE ON AREA-BASED  
SCIENCE AND MANAGEMENT (SIASM)

ICES CM 2011/SSGHIE:01

REF. SCICOM/ACOM

## Report of the Workshop on the Science for area-based management: Coastal and Marine Spatial Planning in practice (WKCMSP)

1–4 November 2010

Lisbon, Portugal



**ICES**  
**CIEM**

International Council for  
the Exploration of the Sea

Conseil International pour  
l'Exploration de la Mer

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

H. C. Andersens Boulevard 44–46  
DK-1553 Copenhagen V  
Denmark  
Telephone (+45) 33 38 67 00  
Telefax (+45) 33 93 42 15  
[www.ices.dk](http://www.ices.dk)  
[info@ices.dk](mailto:info@ices.dk)

Recommended format for purposes of citation:

ICES. 2011. Report of the Workshop on the Science for area-based management: Coastal and Marine Spatial Planning in practice (WKCMSp). 1-4 November 2010, Lisbon, Portugal. ICES CM 2011/SSGHIE:01. 25 pp. <https://doi.org/10.17895/ices.pub.8935>

For permission to reproduce material from this publication, please apply to the General Secretary.

The document is a report of an Expert Group under the auspices of the International Council for the Exploration of the Sea and does not necessarily represent the views of the Council.

© 2011 International Council for the Exploration of the Sea

## Contents

---

Executive summary .....	1
1 Opening of the meeting.....	2
2 Day 1: Key Note Presentations .....	2
2.1 Plenary Discussions Day One .....	4
3 Day 2 Morning: Case Studies .....	5
4 Day 2 Afternoon: World Café .....	9
5 Day 3: Breakout Groups .....	11
6 Day 4: Breakout Groups - Plenary Discussion following report from Breakout Group Chairs.....	12
6.1 General Conclusions and Recommendations .....	16
Annex 1: List of participants.....	19
Annex 2: Programme.....	23
Annex 3: Proposal for STIG-MSP meeting.....	25



## Executive summary

---

The aims of this workshop were to establish the current scientific state of knowledge within ICES on Coastal and Marine Spatial Planning (CMSP) and to identify gaps and scientific limitations to support CMSP. Based on this, to identify the science that ICES should stimulate to service the management needs. The workshop was attended by 38 participants.

The main conclusions from the workshop and the Strategic Initiative Group on Marine Spatial Planning (STIG-MSP) meeting were that the ICES Strategic Initiative on Area Bases Science and Management (SIASM) is a very important and valuable initiative by ICES and should be continued. In addition STIG-MSP will:

- Prepare ToRs for the relevant EG's 2011 cycle on CMSP for approval by SICOM and ACOM
- Prepare and assist in the preparation on two publications, one an opinion paper tools for MSP based on the case studies and discussions from the workshop and the second a review of differences between EIA, MSP and Integrated management in support of the work initiated by the *Working Group for Marine Planning and Coastal Zone Management (WGMPCZM)*.
- Submit a theme session proposal for ASC 2012: *Integration of different sectors in MSP*.
- Hold the next STIG-MSP meeting in Copenhagen in June 2011
- Propose a follow-up workshop to the WKC MSP on the topic: *Develop a multi-disciplinary case study for MSP in ICES area (WKMDCMSP)*.
- Prepare a popularized article about CMSP and the SIASM initiative for ICES Insight.
- Consider options for further funding of SIASM activities.

## 1 Opening of the meeting

---

The organisers, Ernesto Jardim, Eugene Nixon and Erik Olsen welcomed the participants, who numbered 38, and covered a wide range of disciplines including natural and social science and planning. The first afternoon was dedicated to keynote speakers, the morning of Day 2 to presentations of case studies and the afternoon to brainstorming using the World Café technique. Day 3 consisted of more in-depth discussions, in four Breakout Groups, of key questions developed by STIG at its meeting in May 2010 and of the outcomes of the World Café. On the morning of Day 4 the Chairs of the Breakout Group reported back and this was followed by a plenary discussion.

In the introduction to the workshop the participants were reminded of the goals and objectives of the ICES Strategic Initiative, the value and extent of the ICES network and key questions for the workshop to address. The need for the participants to be creative and innovative was also emphasised.

Terms of reference, workshop programme and all presentations and reports from the World Café and Breakout Group Chairs are available on the Workshop SharePoint at <http://groupnet.ices.dk/ACOMSCICOM/SIASM/STIGMSPNOV2010/default.aspx>.

A STIG-MSP meeting took place on the afternoon of Day 4 and all Workshop participants were invited to partake.

The list of participants is available at Annex 1 and the programme for the workshop at Annex 2.

## 2 Day 1: Key Note Presentations

---

The focus of these presentations was on policy drivers for Marine and Coastal Spatial Planning (CMSP).

### **Steve Murawski, NOAA, USA: Marine Spatial Planning – US ocean policy drivers for the development of CMSP**

In this talk the philosophy and priorities of the new National Ocean Policy in the United States was outlined along with the requirements for CMSP. The complexity of the institutional jurisdictions covering 24 different federal bodies was described, including the need for special consideration to be given to military needs/requirements. In July of 2010, a National Ocean Council was formed and charged with the coordination of CMSP.

The Key Elements of the Policy are to:

- Balance ocean health and community prosperity,
- Level the playing field for All Stakeholders
- Make Decisions Based on the Best Available Science
- Respect the Unique Character of Each U.S. Region

The technical Requirements were identified as:

- Enhanced Mapping & Cadastre (record of ownership)
- Ocean Habitat Characterization Studies
- Monitoring

- Enforcement
- Hydrodynamic Models
- Living Marine Resource Assessments
- Characterization of Human Use Patterns
- Integrated Ecosystem Assessments (IEAs)

#### **Jan Olavi Ekebom, DG MARE, EU: Processes and policies for CMSP within the EU**

The importance of the EU Integrated Maritime Policy was stressed and in particular the European Commission's view that "all matters relating to Europe's oceans and seas are interlinked, and that sea-related policies must develop in a joined-up way if we are to reap the desired results" and that it is "based on excellence in marine research, technology and innovation" and "anchored in the Lisbon agenda for jobs and growth, and the Gothenburg agenda for sustainability." The need for planning and good governance to ensure safe, clean, healthy and productive seas for the benefit of present and future generations was emphasized. The series of initiatives undertaken by the EC were outlined along with the 10 Key Principles for MSP adopted in 2008. It was pointed out that the Ecosystem Approach is a key concept in the Marine Strategy Framework Directive, the Integrated Maritime Policy and MSP and will be central to the new Common Fisheries Policy. Developments in the area of data and knowledge through the European Atlas of the Sea and developments under EMODNET and other research programmes were highlighted.

The next steps for DG MARE in terms of MSP are that the Commission will bring forward a proposal on MSP requiring a common approach by Member States in order to facilitate cross-border cooperation. Both binding and non-binding instruments are being considered in an impact assessment, which is expected to be completed by the end of 2010.

#### **Hermanni Backer, HELCOM: Development of CMSP from a Baltic Perspective.**

This presentation provided an overview of the main policy drivers for Marine Spatial Planning as a means to integrated and sustainable management and described the work of, and principles used by, the HELCOM-VASAB MSP WG. The establishment of the joint HELCOM-VASAB MSP WG in May 2010 will help to clarify and integrate the diverse regulatory regimes at play in the Baltic (e.g. HELCOM BSAP, MSFD, Maritime policy) and develop regional transboundary MSP approaches through direct ministerial cooperation across sectors. During autumn 2010 the joint group has finalised set of 10 draft principles for further MSP work, to be adopted by VASAB and HELCOM in December 2010, with the following headlines and accompanying explanatory text (omitted here):

- 1) Sustainable management
- 2) Ecosystem approach
- 3) Long term perspective and objectives
- 4) Precautionary Principle
- 5) Participation and Transparency
- 6) High quality data and information basis
- 7) Transnational coordination and consultation
- 8) Coherent terrestrial and maritime spatial planning
- 9) Planning adapted to characteristics and special conditions at different

areas

#### 10 ) Continuous planning

The 2010 HELCOM Holistic Assessment is an overview of ecosystem health status as well as an analysis of the anthropogenic pressures and economic value of the Baltic Sea. It also provides methods for measuring the effectiveness of measures taken and of the implementation of marine spatial planning. The assessment utilises the Baltic Sea Impact Index, a method of relating cumulative impacts with ecosystem components which is easily mapped and communicated for the purposes of MSP.

A brief description of the EU funded preparatory action project on MSP in the Botnian Sea, PLAN BOTHNIA, was also provided. This transboundary MSP project starts December 2010 and is due to be completed in spring 2012.

#### **Neil Holdsworth, ICES Data Centre: The ICES spatial facility and the role and possibilities of the ICES data centre**

Due to unforeseen difficulties, this presentation was made via WebEx which worked reasonably well for the audience.

The presentation was divided into two parts. The first outlined the many reporting responsibilities of EU Member States under the various directives and policies. Existing data flows between the various databases and institutions are currently quite complicated and the implementation of EMODNET is designed to simplify as well as make the data more accessible for the identification of indicators by providing one portal for the extraction of all data reported by Member States.

The second part focused on the data reported to ICES and stored in the ICES data bases. These include data on commercial catches, fish trawl surveys, oceanography, ecosystems and environment monitoring. These presentations demonstrated the enormous potential of the data held by ICES for further analyses, particularly in terms of spatial management and MSP.

## **2.1 Plenary Discussions Day One**

In the discussions that followed the presentations the following points were made:

The importance of the MSFD in terms of activities was stressed and it was noted that most data collected in the future will be for the purpose of its implementation. It would be wise therefore to pay particular attention to these data in preparing marine spatial plans. This should however be balanced with an analysis of the critical data needed for MSP.

It was suggested that the cost of data collection should be incorporated into the licensing fee charged to marine users.

A note of caution was sounded in that too much data can swamp the process and it is not unusual for only a small amount of the data actually collected to be used in the process.

The maps prepared for the Great Barrier Reef management plan are an excellent example and could be duplicated by ICES.

There was a call for ICES to use its experience and become involved in defining scenarios and priority setting for both user activities (pressures) and ecosystems. There is a need to frame and define scenarios carefully to cover needs of planners, managers and decision-makers.



There is a need to make a connection between natural science and social science in an MSP process. It was noted that the economic valuation and social benefit of marine uses is not sufficiently understood.

MSP requires data on both pressures and effects on marine ecosystems.

### 3 Day 2 Morning: Case Studies

---

#### **Ingela Isakson, Sweden. Collaboration plans for valuable coastal- and sea areas in Sweden**

Collaboration Plans for Valuable Coastal and Marine Areas is a national pilot project initiated by the Swedish Environmental Protection Agency over the period 2008 to 2011. It covers five areas and involves the administrative boards of from Västernorrland, Stockholm, Östergötland, Blekinge and Västra Götaland counties. The four Baltic Sea areas are designated as Baltic Sea Protected Areas (BSPA) under HELCOM. And part of the fifth area is designated as a Marine Protected Area (MPA) under OSPAR. The five project areas vary with regard to their dimensions, populations, knowledge of marine valuable areas and users interests. The objective is to develop plans for conservation, protection and sustainable use of the five areas that will contribute to the long term management and fulfil the national and Regional Seas Conventions requirements. The implementation of the ecosystem approach, adaptive management and ICZM are the guiding principles for developing governance for the areas. A strong emphasis is placed on the approval, participation and co-operation with municipalities and stakeholders.

The presentation focused on Norra Bohuslän, constituting five municipalities, on the west-coast of Sweden in the County of Västra Götaland. More than 6000 marine species are found in Norra Bohuslän harbour, of which 200 are found nowhere else in Sweden. The tourism industry is the most important economical sector in the area and, together with other activities such as commercial fishing and aquaculture, places significant pressure on the land and water resources of the area. Current and planned future activities are the driving forces for proactive planning. An important deliverable of the pilot project has been to increase the knowledge of the area through basic mapping and environmental impact assessment of both marine and land based activities. The combined land/marine approach to mapping and assessment helps to minimise the negative impact on the marine environment. Another important aspect is working with stakeholders and at different political levels and across administrative borders to develop consensus on strategies for sustainable development. Where Open standards [www.FOOnline.org](http://www.FOOnline.org) has been successfully used as a tool for the systematic development of adaptive management processes. It is the intention to integrate the outcome of this collaborative land/marine approach into the democratic planning process at municipality level.

#### **Steven Murawski, NOAA: Marine Spatial Planning in the USA: Implementation Experience and the Search for Best Practices**

(Due to the limited time Steve had at the workshop this presentation was given on Day 1 but was intended as part of the case studies session.)

This presentation described selected MSP examples in US waters and an ongoing analysis of the characteristics of various global examples of best practices and continuing challenges.

Most current examples of plans in the US have specific goals such as species protection, MPA, fisheries management, offshore energy or military uses – none are comprehensive dealing with trade-offs between various activities. However, there are good examples of spatial management of activities; e.g. relocation of shipping lanes to reduce strikes with marine mammals and changing patterns of fishing pressures as a result of temporal and spatial restrictions.

The presentation also provided preliminary results of an analysis of best practice in MSP around the world. This analysis poses a series of questions on the objectives, scope, governance, data, participation, decision making and performance monitoring. The study systematically evaluates 18 plans from around the world and is due to be completed shortly. The series of questions could be applied to the evaluation all types MSP and planning processes.

**Bettina Käppeler, Germany: BaltSeaPlan Pilot Project – Pomeranian Bight / Arkona Basin**

This presentation identified the complex nature of the Baltic Sea in terms of the competing interests and objectives and lack of a common language to express concepts. The BaltSea Plan started in 2008 with a view to supporting the application of MSP in the Baltic by creating a joint understanding and learning together. Agreement was reached on the planning steps to be covered within project, on delineation of pilot project area and the main issues to be taken into consideration within Maritime Spatial Planning. Data on human uses, existing and future plans and benthic habitats were compiled and given spatial expression in compatible GIS layers. Stakeholder mapping and the various legal frameworks were also described. Following an analysis of demographic and economic developments and the trends and drivers the main planning principles were agreed. These included:

- working towards sustainability with regard to the ecosystem and to economic and social aspects;
- resolving conflicts between human uses as well as between human uses and the natural environment;
- applying different planning approaches with regard to different planning issues;
- ensuring effective protection of valuable nature conservation sites (e.g. habitats, spawning and nursery areas for fish etc.);
- achieving good water quality;
- ensuring safe and clean shipping/transport and development of ports;
- identifying appropriate areas for infrastructure corridors;
- finding suitable areas for renewable energy (wind farms);
- ensuring favourable conditions for tourism.

**Miguel Neves dos Santos, Portugal: The usefulness of artificial reefs as an instrument for MSP: the Portuguese case**

This presentation dealt with the use of artificial reefs as an instrument for MSP in Portugal. The difficulty in agreeing on a common definition for artificial reefs and their various uses around the world was described. These uses include fisheries protection and management, recreational activities and environmental mitigation. The use of artificial reefs in the Algarve, initially in pilot studies, and evolving towards full scale operational objectives, was described. The Algarve coast currently has

75 km<sup>2</sup> with a further 45 km<sup>2</sup> planned for artificial reefs for fisheries management, diving parks and enhanced biodiversity. Monitoring has shown that biodiversity around artificial reefs is similar to, and in some instances greater than, measured around natural reefs. The use of artificial reefs can have the following benefits:

- Environmental level - increasing biological production, mitigating habitat loss, promoting biodiversity, protecting habitats, etc.
- Fisheries level - increasing catches, reducing exploitation costs, rebuilding fisheries, alleviating pressure on natural habitats, etc.
- Scientific and planning level - experimental sites, allowing a holistic planning approach, easy to set and remove, promoting stakeholder involvement, etc.
- Management level - promoting other uses and developing new activities, facilitating co-responsible management and stakeholder involvement, promoting compliance and control, etc.
- Socio-economic level – improved conditions as a consequence of the effects mentioned above.

#### **Roland Cormier, Canada: CMSP implementation in the Canadian Ocean policy**

The example of oyster aquaculture in New Brunswick was used to illustrate the potential benefit of MSP in Canada. The complex nature of jurisdictional governance was described in terms of formulation of objectives, risk assessment and management and communication between various state bodies and stakeholders. Once integrated policy objectives were established, MSP was seen as the appropriate framework/tool to deliver them in practice. Integrated policy objectives covered the following:

- Ecosystem Objectives
  - Maintain carrying capacity of the estuary
  - Minimize cumulative effects to ecosystem components
- Environmental Objectives
  - Minimize environmental effects on human activities
- Sector Objectives
  - Sustained development
  - Equitable environmental management measures
- Regulatory Objectives
  - Meet regulatory requirements
  - Effective Management Measures
  - Efficient Approval Processes

Integrated management measures were established for the industry which considered issues such as carrying capacity, both ecological and economic, interaction with other users, cultural sites and conservation, particularly of birds. Based on these constraints, marine spatial plans were drawn up which provided space and buffer zones to minimise the impacts from the oyster aquaculture industry.

#### **Erik Olsen, Norway: The Norwegian Integrated Management plans**

Olsen presented the development of the Norwegian integrated management plans for the Barents Sea (2006), Norwegian Sea (2009) and North Sea (under development) with a focus on the Barents Sea plan which is now undergoing its first revision. Pres-

sure from the petroleum industry, together with a growing understanding of the need for integrated management (and international obligations) were the main drivers for initiating the development of the management plans. The planning process was led by a cross-ministerial group and carried out by government agencies and institutes. Stakeholders were involved through consultations, but without any real decision making power. Three government groups were established to carry out the plans; an Advisory Group, a Management Forum, and a Forum for Environmental Risk. The plans were developed through a three-stage process involving scoping, environmental impact assessment and an aggregated analysis of vulnerabilities and opportunities. The main outcomes of the plans are higher-level management goals for the state of the ecosystem and its management which are to be used to guide the specific sector-based management. Other main outcomes were various zoning plans for both petroleum and shipping seen in relation to fishing activities and ecologically valuable areas.

In the revision process for the Barents Sea plan currently under way, new risk assessment of environmental risks was conducted, in particular in relation to large accidental oil spills. The recent Deepwater Horizon disaster has had direct impact on the way risk is perceived and evaluated in the Norwegian management plan context.

Key Scientific challenges:

- Effects of climate change and ocean acidification
- Environmental risks and consequences of human activities
- Effect of fisheries on benthic habitats
- Better understanding of trophic interactions in the system
- Defining and setting value to ecosystem components and habitats
- Assessing vulnerability, cumulative impacts and cumulative vulnerability

Key possibilities for improvement:

- Based on science, but need transparency and peer review
- Socioeconomic effects are not assessed although they are instrumental in the decision-making process
  - Economic impact on communities, region and nation should be better assessed
- Ecosystem services should be assessed
- Improve sectoral cooperation, especially at ministerial level
- Identifying and clarifying disagreements (between sectors) to improve decision-making and enhancing the scientific ethos
- Communication of uncertainties!

#### **Titia Kalker, Netherlands: Dutch MSP plan**

The development of, and principles for, spatial planning in the Dutch EEZ was presented. The southern North Sea is one of the most intensity used marine areas in the world and comes under the jurisdiction of six different states. In the Netherlands there has been a progression from management plans describing the status quo to a more pro-active, forward looking planning system which seeks transnational cooperation. One of the main driving forces for MSP in the Netherlands is the demand for space from offshore wind farms and conflict resolution between conservation, sand extraction, shipping and fishing. The Dutch plan is sectorally neutral and based on

sustainable development. Stakeholder participation is central where interests are discussed but firm positions avoided so that optimum solutions are arrived at in a flexible manner. There are still national issues such as interaction of fisheries and wind farms and long term coastal management and transnational issues such as shipping lanes, fishing and energy grids to be further resolved

#### **Martin Pastoors: Preparatory Action on Maritime Spatial Planning in the North Sea (MASPNOSE)**

This is one of two preparatory action projects funded by DG MARE on maritime spatial planning, the other is in the Baltic and was mentioned above. The project will run for 18 months from December 2010 and its objectives are to:

- Encourage and facilitate concrete, cross-border cooperation among European countries
- Test applicability of the 10 key principles for Marine Spatial Planning
- Identify potential barriers in implementation of national and cross-border Marine Spatial Plans

## **4 Day 2 Afternoon: World Café**

---

(Chair Reports are available at the WKC MSP SharePoint site).

The main points identified during the World Café included:

- The planning process should incorporate geo-spatial and temporal aspects of the human activities taking into account ecosystem vulnerabilities in the design of ecosystem-based management measures.
- In a coastal context, an MSP may need to account for land-based planning objectives and interactions when being developed in a coastal setting.
- Planning process should include regularly updated or reviewed - adaptive management.
- Overarching principles to be agreed upon by stakeholders that protect the ecosystem's ability to deliver the goods and services for the needs of the present and future generations. MSP processes are goal driven and aiming as much as possible at consensus between stakeholders. Data and maps should facilitate pragmatic discussions between stakeholders.
- Stakeholders must be involved and one way they could be motivated is by involvement in the development of principles and by the use of 'messengers' e.g. UK Finding Sanctuary: fishermen talking to fishermen as "messengers" enables communication.
- Using common language in the process to enhance understanding between planners/scientists/stakeholders/decision makers.
- It is essential that the decision makers have the tools to make the "right" decisions.
  - Maps should be of the scale and detail required.
  - People, not tools and models, make decisions – societal choices are fundamental to decision making
  - Use models to forecast – make scenarios based upon today's knowledge and revise – important to develop together with stakeholders
- Scientists should be involved at an early stage.

- Publicly funded data (and its analysis) should be available free of charge.
- Establish strong links and clear common and ongoing working structures between scientists / scientific institutes and planners / planning institutions.
- Learn from each other: What are the planners' needs? What do they want to know with regard to planning decisions? What are the scientists able to provide? How should they aggregate and process data in order to being able to assess impacts and support decisions (provide products for "easy-to-apply products" for planning)?
- Planners have to make decisions or offer choices to decision-makers – to support these choices scientists should be able to make value judgements regarding their findings and the reliability and validation of their data, convey this information, and translate the data into useful, applicable and widely accessible (to stakeholders, decision-makers) ratings.
- Political reality and decision making is ongoing and scientists are often "too late" with their response. Scientists should adopt a more open and transparent way of working, especially regarding how to deal with uncertainties. Otherwise their knowledge will not be used at all.
- Transparency about required scientific information. It is important to establish in which phase of the project scientific input is required. If MSP is being considered as "dividing space," maybe the information required at that stage does not need to be as precise as sometimes thought. In other stages more detailed information can be of more use, for example, when developing management plans or when setting environmental goals.
- Monitoring programmes should be designed with input from a broad range of interests including various government institutes, planners, decision makers, and project developers, both state and private. Discuss what is being measured and whether it is really providing the information needed in a MSP process. Be critical about cost effectiveness of monitoring.
- ICES can bring together and review information, and can give advice, especially on ecological and environmental impacts and the seriousness of effects for the total ecosystem. ICES should take on a broader, more holistic approach in its advisory role so as to serve the needs of integrated management plans. A stronger capacity in economic and social issues could facilitate this.
- Future policies for fisheries might get a more spatial dimension, e.g. designation of specific areas for specific types of fisheries. ICES may consider developing strategies how to deal with fisheries in the future in intensively used seas.
- Environmental regulatory systems can be too rigid and therefore sometimes hinder sustainable development instead of enhancing it. ICES may consider developing a more flexible regulatory system that guarantees sustainable development.
- Future oriented way of thinking by scientists is needed for input to the Marine Spatial Plans of tomorrow and into the future. Scientists can help to develop innovations needed for sustainable development.

## 5 Day 3: Breakout Groups

---

The following questions were presented to the four Breakout Groups to help focus their discussions.

### **Overarching question:**

What is the way forward for this group (STIG-MSP) to handle the issues identified through the WKC MSP?

### **Session 1 – The present state:**

- 1 ) What is the role of scientists and planners in Coastal and Marine Spatial Planning processes and reviewing spatial plans?
  - 1.1 ) What are the important stages of the CMSP process where science can have an input?
    - 1.1.1 ) What are the main scientific inputs (products) at these most important stages?
- 2 ) What are the main policy drivers for existing CMSP plans?
  - 2.1 ) How are they affected by the scale of the CMSP plans?
- 3 ) Identify the strengths and weaknesses of present science in the CMSP process.

### **Session 2 – The way forward to stimulate the development of science for CMSP**

- 1 ) What are the key gaps in scientific knowledge related to CMSP?
  - 1.1 ) What products are needed to fill these gaps? (eg. assessment of ecosystem blue infrastructure, synergies and vulnerabilities)
  - 1.2 ) What methods need to be developed?
  - 1.3 ) How can ICES assist in the integration of socioeconomics into the CMSP process?
  - 1.4 ) What data need to be analysed?

## 6 Day 4: Breakout Groups – Plenary Discussion following report from Breakout Group Chairs

The full reports from the Chairs are available on the WKCMSP SharePoint site.

**Question 1: What is the role of scientists and planners in the Marine Spatial Planning Processes and reviewing spatial plans? What are the important stages of the CMSP process where science can have an input? What are the main scientific inputs (products) at these most important stages?**

One Breakout Group provided the following diagram with the associated comments in Table 1. For each step of the CMSP process the science needs have been identified from planners' and scientists' perspectives with a subsequent assessment of potential roles and tasks for ICES.

**CMSP process:**

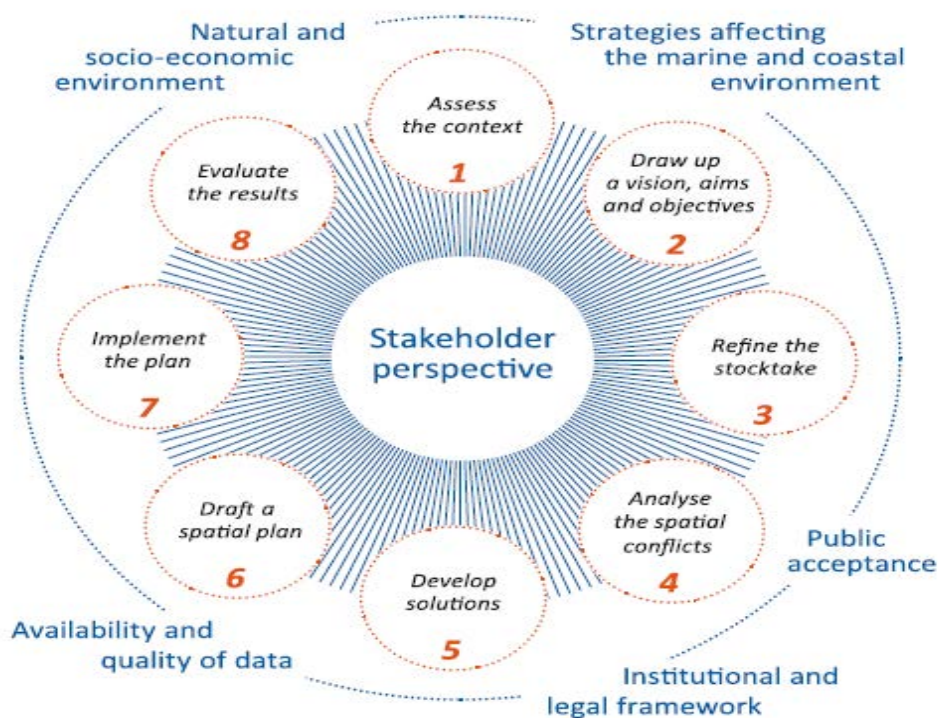


Figure 1: Illustration of CMSP process taken from PlanCoast Handbook on IMSP ([www.plancoast.eu](http://www.plancoast.eu)).



**Table 1: Science needs identified and the possible role for ICES and STIG-MSP in filling these needs.**

STEP	SCIENCE NEEDS	ICES ROLE	STIG-MSP ROLE
0		Facilitate meeting between admin bodies, policy makers and scientist to discuss cross-boundary planning issues Interface role between science and planning body	Provide contact points and network
1	More social science to facilitate dialog	Provision of context beyond spatial planning scales. Transnational dialog to address cross-boundaries issues	
2	Observer, facilitator, social science	Provision of context beyond spatial planning scales. Transnational dialog	
3	Detailed habitat maps covering system function and process. Methods to assess resistance and resilience of ecosystem components (vulnerability). Assessment of connectivity (considering for instance life-history traits) and carrying capacity.		Missing link between planners and scientist Distribution of pressing questions to WGs
4	Methods for impact assessment including cumulative impacts evaluation of impact, risk based output (probabilities). Evaluation of potential synergies and assessment of socio-economic consequences	Provision of standardized methods *	
5	Methods for scenario development including validation of probable outcomes. Behavior modeling (e.g. fishing effort displacement)	Facilitation of network (NGOs, RACs) Guidance for stakeholder communication and collation of best practice	
6	Definition of targets and measures (spatial/non-spatial)	Review process for spatial plans Use of network and experience to assess management measures	
7		ICES support on a case-by-case basis	
8	Methods for standardized audits of plans. Assessment of changes since the development.	Provision of network and interface between science and policy ☞	

\* ) There may be a need for an alternative process to draft advice in relation to spatial management that is not dependent on the schedule of the WGs annual meetings.

☞ ) When is a marine spatial plan successful? The process is the plan and it is likely that a plan is never successful. A plan would be successful when conflicts are solved by implemented regulations. Therefore the expertise of STIG-MSP will grow with time as it is a learning process. In the long term STIG-MSP could be an established institution to facilitate the dialog to and between WGs.

In the Plenary, the importance of pre-planning/scoping was discussed and was identified as an area where ICES could play an important role. ICES could facilitate meet-

ings between administrators, policy makers and scientists to discuss cross border issues. Scientists have an important role in defining the correct questions in every phase of the planning process. ICES could use its data, information and networks to identify what data is available and where the knowledge gaps exist and how these might be filled. An important aspect of this would be to point out the interconnections between the different data/information that is available. It could also identify what indicators are available for assessment purposes, suggest indicators where they are lacking and also identify which species and habitats need protection, i.e., what the key species and habitats are. ICES could also look at the possibility of providing, for example, spawning site maps and habitat maps covering ecosystem function and process, methods to assess resistance and resilience of ecosystems (vulnerability mapping), assessment of connectivity (e.g., life history traits), carrying capacity, impacts (including cumulative) and potential synergies. ICES has lots of data but should look at what format they need to be in and when they should be provided.

ICES could act in an advisory/review capacity for marine spatial plans.

The annual cycle of ICES and delays in response to requests was identified as a problem. ICES needed to be flexible at the present stage of MSFD development and should align itself to the 6 year review cycle as it becomes established. It was suggested that the permanency of ICES could help to develop the work initiated in the many funded projects on MSP. The current Workshop is a good example of building connections between planners and scientists and the ASC could be a good platform/forum for strengthen these connections. ICES could have a role in transnational communication and planning. An important aspect where ICES could provide input was scenario building through modelling of behaviours and ecosystems. ICES could review plans, measures and standards used. It is important that plans have strong and clear objectives although some saw planning as having more to do with process rather than outcomes. The use of the ICES working groups to answer pressing questions, standardisation of methods for conflict analyses, plan audits and evaluation and to collate best practices was suggested.

Key gaps in scientific knowledge:

- Carrying capacity
- Assessment of cumulative impacts
- Detailed habitat mapping
- Assessment of ecosystem functions and structure (which indicators?)
- Connectivity (land/sea/air) of processes
- Integrated ecosystem behavior (spatial)
- Understanding on the linkages of scales (management scales, process scales, evaluation/monitoring scales)
- Behavior modes (e.g. to assess direct and indirect consequences of measures including benefits)
- How can existing models, e.g. hydrodynamic models, be used or adapted to support decision making
- Risk assessment models based on probabilities and accounting for processes
- Operational objectives to define targets
- Small scale fisheries – patterns, socio-economic consequences
- Spatial optimization methods

It was pointed out that science is not structured to provide advice and that there is a need for technical translation of pure/research science into science that can be used as policy or planning advice. There was a distinction drawn between planners and managers and it was suggested that scientists are not stakeholders but should advocate for particular outcomes – this may not always be scientific and evidence based but based on their judgment and experience. There is a need for different science to resolve different problems e.g. resolving conflicts between for example shipping and conservation and shipping and offshore renewables.

The question of uncertainty was discussed and it was pointed out that when uncertainty is high, often nothing is done. In these situations clarity is needed on how much science is needed to bridge the gap to know enough to make decisions. A sharing of the responsibility for uncertainty between scientists and managers and an acknowledgement that there will always be uncertainty will make the planning process easier.

In any plan making process it is important that roles are clear – scientists can have an important role in defining and clarifying the questions in an interactive manner at the beginning of the process, i.e. problem formulation and risk/hazard analyses – this has worked well in the IPPC process and lessons could be learned from that process.

#### **Question 2: What are the main policy drivers for existing CMSP plans? How are they affected by the scale of the CMSP plans?**

It is important at the outset to establish the scale of the drivers, pressures and zone of influence of different activities – this requires a pathway-effect analysis. It is also important to establish who manages what and at what scale and to compare the policy/management scale with the effects scale.

There are two types of planning, one reactive, that focuses on conflict resolution, and the other pro-active, seeking synergies, sustainable development and the efficient use of space – it is helpful to establish which type of planning is being undertaken, bearing in mind that there is a continuum between full protection and full exploitation. Scale and number of interests add complexity to the planning process – interests are not confined to users -- institutional and competency turf wars are also often factors. These can have a serious negative effect on credibility

Along with conflict resolution and the efficient use of space, policy changes can be a driver for MSP.

Scientists must make it clear to planners what geographical scale the science applies to, bearing in mind that management at one scale can have effects at a different scale, e.g. effects of micro scale management in MPAs on macro scale biodiversity or the effects of fishing effort displacement.

#### **Question 3: Identify the strengths and weaknesses of present science in the CMSP process**

There are difficulties in that the knowledge cycle is not often in line with the planning cycle, e.g. research funded projects are not in line with demands of directives such as the MSFD and WFD.

There is a need to recognise and to measure and manage uncertainty and cumulative uncertainty. ICES could look at developing uncertainty maps; however, it must be recognised that uncertainty exists in every natural system. ICES could identify the known unknowns.

We need to be able to assess socio-economic consequences and this is very difficult in small scale coastal fisheries where data is limited. The complexity of interdisciplinary research and knowledge production is so large that natural scientists lose ownership of the end product and this is seen as a disincentive.

Science should look at the impacts of very large plans, e.g. 8000 turbines in Scotland, for potential catastrophic outcomes. For such plans tipping point/carrying capacity analyses, models and indicators are needed. ICES could look at such plans as and run a case study, as it is seen as generally objective, neutral and knowledgeable. There is currently hardly any knowledge of impacts of new industries on the environment.

#### **Question 4: The way forward to stimulate the development of science for CMSP – gaps and methods**

ICES should strive to change and broaden the way society and politicians view the marine environments and create awareness among ICES scientists on modern techniques of stakeholder management for seas and coastal areas.

ICES needs to ensure that its data can be shared and combined with external data in terms of compatibility, resolution and scale. It could look at the streamlining of data collection and presentation of data in GIS maps consistent with the requirements of INSPIRE and EMODNET. ICES could be a portal for many marine data and information sets. ICES could take a lead on establishing data standards, identifying research priorities, glossary of terms. Providing data to new or joint EG could provide valuable insight into how data could be used innovatively – can we use what we have in a different ways?

Information on bottom currents is lacking.

Experience from the forestry industry could be useful to inform MSP.

There was a discussion on web-based applications such as the use of crawlers, and an MSP wiki; however, there are quality assurance problems that would need human resources to control. Google has off the shelf products or may develop products for ICES if we approach them with a well defined problem and ideas for solutions, e.g. a web crawler/keyword spy for MSP. There was also a suggestion for a wiki glossary for MSP and it was pointed out that the ANCORA Project also used wiki.

Where small scale research is carried out ICES could set out a series of harmonised questions that should be addressed so that the results of these small scale projects can be combined to give information at a larger scale.

We need to prepare questions for the ICES groups to draw out an aggregate view, e.g. are there gaps in the SEA/EIA process? Gaps in knowledge could also be identified through reviews of existing SEA's and EIA's for the paragraph on "knowledge still lacking."

## **6.1 General Conclusions and Recommendations**

These are based on the Initiative itself, Workshop and STIG-MSP Discussions, ideas provided by participants following the Workshop, and the STIG-MSP meeting held immediately after the Workshop. All Workshop Participants were invited to the STIG-MSP Meeting.

- 1) WKC MSP is a starting point for the state of science in support of MSP, and it was agreed that STIG-MSP should initiate and support the writing of two review papers for publication in the scientific literature:
  - 1.1) Paper 1. What are the tools used in natural and social sciences to develop MSP? Opinion paper based on a study of case studies
    - 1.1.1) Erik Olsen will take a lead to initiate this paper by preparing an outline by 1 April 2011. This outline will be sent to all WKC MSP participants and STIG-MSP members who will be invited to participate in writing the review paper
  - 1.2) Paper 2. A review of differences between EIA, MSP and Integrated management.
    - 1.2.1) Roland Cormier *et al.* take a lead. Work on this MS has already been initiated and planned through the Working Group for Marine Planning and Coastal Zone Management (WGMP CZM). The author group will seek additional participation and assistance from STIG-MSP if needed.
- 2) Submit a theme session proposal for ASC 2012: "Integration of different sectors in MSP". STIG-MSP will develop a draft proposal for the next meeting to be submitted in time for the selection process at SCICOM in 2011.
- 3) The next STIG-MSP meeting will take place in Copenhagen from 20 - 21 June 2011. Details of the STIG-MSP meeting are to be found in the proposal at the end of the present report.
- 4) STIG-MSP proposes a follow-up workshop to the WKC MSP on the topic: Develop a multi-disciplinary case study for MSP in ICES area (WKMDCMSP). This will be an active workshop where real data will be used to illustrate or simulate how and when ICES can give input into an MSP process. Planning of this case study will be done in collaboration with the ICES data centre and with advice from SCICOM and ACOM if a real-world example is chosen. The details for the WKMDCMSP will be developed at the STIG-MSP meeting in June 2011.
- 5) The SIASM initiative has gathered a broad interest in ICES, and ICES members and clients are keen to know more about the progress and work of SIASM. STIG-MSP will therefore contact ICES Insight (through Editor Bill Anthony) to write a popularized article about CMSP and the SIASM initiative. Erik Olsen will follow up on this by 1 May 2011.

STIG-MSP developed a set of questions on how EGs contribute or can be useful for MSP. By the deadline of mid-October only 28 EGs have answered, and STIG-MSP is aware of MSP related activities in EGs that have not answered. STIG-MSP will therefore take steps to seek out these EG chairs to gain a more comprehensive overview of the state of MSP related science in ICES. The SIASM co-chairs will participate at the WGCHAIRS meeting in January 2011 and will seek further replies from the relevant EG chairs either in writing or through an interview.

EG chairs not present at the WGCHAIRS meeting will be contacted directly by the SIASM co-chairs and asked to answer the questionnaire.

In 2010 SIASM activities have been funded by allocations from the ICES SIF fund. Only a small amount of funds from this allocation is left to continue this initiative in

2011. At the STIG-MSP meeting following the workshop several suggestions for funding sources were made. These include potential funding from:

- European Cooperation in Science and Technology (COST)  
[www.cost.esf.org/](http://www.cost.esf.org/)
- NGOs
- US-NOR-CAN MSP initiative currently being developed

The SIASM Co-chairs will investigate these suggestions, as well as the possibility of additional funding from the SIF and report to the next STIG-MSP meeting in June.

### **Potential Spatial Planning Needs Requests to ICES Working Groups**

A list of Potential Spatial Planning Needs Requests to ICES Working Groups was presented at the Workshop. These will be translated into recommendations for Terms of Reference (ToR) to be passed to relevant Working Groups meeting during 2011 and approval for their transmission sought from SCICOM and ACOM. T

- ICES should define scenarios and set priorities for both pressures and ecosystems status. These should reflect the needs of planners, managers and decision-makers. Has or can the WG considered, identified or developed priorities or scenarios (or behaviour or ecosystem models that could be used) in terms of natural or anthropogenic pressures and/or ecosystem status, function, structure, and/or process that could be helpful in setting good environmental status (MSFD-GES) or for marine spatial planning.
- ICES should identify what indicators are available for assessment purposes and suggest ones where these are lacking and also identify which species and habitats need protection, i.e. what are the key species and habitats. Has or can the WG identify indicators for assessing which species or habitats need protection or which might be key indicator species for assessing the effects of human activities. Particular consideration should be given to assessing the impacts of very large renewable energy plans with a view to identifying/predicting the potentially catastrophic outcomes. For such plans tipping point/carrying capacity analyses, models and indicators are needed.
- ICES should also prepare spawning site maps, fishery activity maps and habitat maps covering system function and process, methods to assess resistance and resilience of ecosystems (vulnerability mapping), assessment of connectivity (e.g. life history traits), carrying capacity, impacts (including cumulative) and potential synergies. Can the WG provide or identify where any such maps may exist? Suggestions on how such maps could be generated or where data for their production could be found should also be provided.
- ICES should prepare a spatial/temporal map of fisheries management/regulation under the CFP or national regulation – scale/extent/duration/ closures/restrictions etc. In addition the maps showing the areas of each of the RAC would be helpful. This will facilitate the incorporation of fisheries management into the planning process at an early stage. Has the WG prepared or is it aware of the existence of such maps or could it provide data / information that assist in their preparation?

## Annex 1: List of participants

NAME	AFFILIATION	ADDRESS	E-MAIL	ROLE
Lodewijk Abspoel	Ministry of Transport, Public Works and Water management Directorate general of water affairs	Plesmanweg 1-6, 2597 JG The Hague (The Netherlands)	lodewijk.abspoel@minvenw.nl	Policy advisor
Hermanni Backer	Helsinki Commission	Katajanokanlaituri 6 B FI-00160 Helsinki Finland	Hermanni.Backer@helcom.fi	Planner/ Manager
Ruth Barber	Marine Management Organisation	Lancaster House, Hampshire Court, Newcastle Business Park Tyne and Wear UK NE4 7YH	ruth.barber@marinemangement.org.uk	NGO
Marisa Batista	Centro de Oceanografia, Faculdade de Ciências, Universidade de Lisboa (Centre of Oceanography, Faculty of Sciences, University of Lisbon) Campo Grande 1749-016 Lisboa Portugal	Centro de Oceanografia, Faculdade de Ciências, Universidade de Lisboa Campo Grande 1749-016 Lisboa Portugal	mibatista@fc.ul.pt	
Carlos Berrozpe-Garcia	European Commission, DG Environment	European Commission Environment Directorate-General Unit D.2 - Protection of Water & Marine Environment BU-9 3/129 - Avenue de Beaulieu 9 B-1160 Brussels	Carlos.Berrozpe-Garcia@ec.europa.eu	Manager
Lene Buhl-Mortensen	Institute of Marine Research	Institute of Marine Research PB 1870 Nordnes, N-5817 Bergen, Norway	lenebu@imr.no	Scientist/Advisor
Roland Cormier	Gulf Fisheries Centre, Fisheries and Oceans Canada	PO Box 5030 343 Université Ave Moncton, NB E1C 9B6 Canada	Roland.Cormier@dfo-mpo.gc.ca	Manager

NAME	AFFILIATION	ADDRESS	E-MAIL	ROLE
Geir Dahle	Institute of Marine Research	PO Box 1870 5817 Bergen Norway	geir.dahle@imr.no	Scientist
Jan Ekebon	European Commission, DG Maritime Affairs and Fisheries, Unit E.1 (Maritime Policy, North Sea, Baltic Sea and landlocked Member States).	European Commission, DG MARE, Unit E.1 Office J-79, 02/37 1049 Brussels Belgium	jan-olavi.ekebon@ec.europa.eu	Policy Officer
Lucy Greenhill	Joint Nature Conservation Committee (JNCC)	Inverdee House, Baxter Street Aberdeen, AB11 9QA UK	lucy.greenhill@jncc.gov.uk	
Marion Harrauld	Marine Scotland Science, Scottish Government	Marine Scotland - Science Scottish Government Marine Laboratory PO Box 101 375 Victoria Road Aberdeen AB11 9DB UK	m.harrauld@marlab.ac.uk	Scientist
Alejandro Iglesias-Campos	European Environment Agency European Topic Centre On Land Use And Spatial Information	University of Malaga - etcsia Vicerrectorado de Investigacion c/ El Ejido s/n, Pab. Gobierno, of. 314 E-29071 Malaga, Spain	alejandro.iglesias@uma.es	
Ingela Isaksson	County Administrative Board of Västra Götaland	County Administrative Board of Västra Götaland Water Protection Department SE 403 40 Göteborg Sweden	ingela.isaksson@lansstyrelsen.se	Manager (with a scientific marine biology background)
Ernesto Jardim	IPIMAR, Av. Brasilia, 1449-006 Lisbon, Portugal	IPIMAR, Av. Brasilia, 1449-006 Lisbon, Portugal	ernesto@ipimar.pt	Scientist
Titia J.J. Kalker	Ministry of Transport, Public Works and Water management, North Sea	Lange Kleiweg 34, 2288 GK Rijswijk, P.O. Box 5807, 2280 HV Rijswijk, The Netherlands	titia.kalker@rws.nl	Planner
Andreas Kannen	GKSS Research Centre Institute for Coastal Research	Max Planck Str 1 D-21502 Geesthacht Germany	Andreas.Kannen@gkss.de	Scientist



NAME	AFFILIATION	ADDRESS	E-MAIL	ROLE
Bettina Käppeler	German Federal Maritime and Hydrographic Agency	Bernhard-Nocht-Strasse 78 20359 Hamburg Germany	bettina.kaeppler@bsh.de	Planner (Manager)
Cecilia Lindblad	Sedish Environmental Protection Agency	Valhallavägen 165 106 48 Stockholm	cecilia.lindblad@naturvardsverket.se	Manager (with a scientific marine biology background)
Steve Murawski	NOAA- National Marine Fisheries Service 1315 East-West Highway Silver Spring, MD 20910	1315 East-West Highway Silver Spring, MD 20910	tylise.conrad@noaa.gov	Scientist/Manager
Carla Murciano	Consejo Superior de Investigaciones Científicas (CSIC)	CSIC, C/ Jordi Girona, 18-26,08034 Barcelona, Spain	cmvqam@cid.csic.es	Scientist
Francis Neat	Marine Scotland - Science	Marine Laboratory, 375 Victoria Road, Aberdeen, AB119DB	F.Neat@marlab.ac.uk	Scientist
Miguel Neves dos Santos	IPIMAR, Av. Brasilia, 1449-006 Lisbon, Portugal	IPIMAR, Av. Brasilia, 1449-006 Lisbon, Portugal	mnsantos@ipimar.pt	Scientist
Rosemarie Nijman	IMARES	IMARES Haringkade 1 1976 CP IJmuiden +31317 487676	rosemarie.nijman@wur.nl	Scientist
Eugene Nixon	Marine Institute,	80 Harcourt Street, Dublin 2 Ireland	eugene.nixon@marine.ie	Scientist/Planner
Erik Olsen	Institute of Marine Research	PO Box 1870 Nordnes N-5817 Bergen Norway	eriko@imr.no	Scientist
Martin Pastoors	Centre for Marine Policy	P.O. Box 1528, 8901 BV Leeuwarden, The Netherlands	martin.pastoors@wur.nl	Scientist
Ellen Pecceu	Institute for Agricultural and Fisheries Research ILVO-Fisheries	Ankerstraat 1, 8400 Oostende, Belgium	ellen.pecceu@ilvo.vlaanderen.be	Science
Søren Anker Pedersen	International Council for the Exploration of the Sea	HC Andersens Boulevard 44-46, DK-1553 Copenhagen, Denmark	sorenap@ices.dk	Science

NAME	AFFILIATION	ADDRESS	E-MAIL	ROLE
Vanessa Stelzenmüller	Johann Heinrich von Thünen Institute (vTI) Federal Research Institute for Rural Areas, Forestry and Fisheries Institute of Sea Fisheries	Palmaille 9, 22767 Hamburg, Germany	vanessa.stelzenmueller@vti.bund.de	Scientist
Alec Taylor	Countryside Council For WALES	Maes Y Ffynnon, Penrhosgarnedd, Bangor, LL57 2DW	f.owen@ccw.gov.uk	Marine planning advisor (in science org)
Remment ter Hofstede	IMARES	P.O.Box 68 1970 AB IJmuiden Netherlands	remment.terhofstede@wur.nl	
Thorbjørn Thorvik	Norwegian Directorate of Fisheries	Boks 185 sentrum 5804 Bergen Norway	thorbjorn.thorvik@fiskeridir.no	Manager
Sandra Voegelé	Senckenberg	Sandra Voegelé Senckenberg am Meer Abteilung für Meeresforschung Südstrand 40 D-26382 Wilhelmshaven Germany	sandra.voegelé@senckenberg.de	Scientist
Marcin Wichorowski	Institute of Oceanology PAS	Powstancow Warszawy 55, 81-712 Sopot, Poland	wichor@iopan.gda.pl	
Tycjan Wodzinowski	Sea Fisheries Institute in Gdynia	ul. Kollataja 1 81-332, Gdynia Poland	tycjan@mir.gdynia.pl	Scientist
Anna Zivian	Ocean Conservancy	1300 19th St, NW Washington, DC 20010 USA	ziviana@mac.com	NGO

## Annex 2: Programme

<b>MONDAY, 1 NOVEMBER</b>	
14:00	Welcome and presentation of the SIASM and STIG-MSP By: Ernesto Jardim, Eugene Nixon and Erik Olsen
14:10	Setting the Scene for WKCSMP . Introductions, workshop plan and working procedures, scope of discussions, definition of CMSP, possible outcomes and ICES core business. By: Eugene Nixon and Erik Olsen
14:30	The US ocean policy as a drivers for development of CMSP By: Dr.Steve Murawski, NOAA, USA
15:00	Case 1: The practical development of US CMSP plans By: Dr.Steve Murawski, NOAA, USA
15:30	Processes and policies for CMSP within the EU By: Jan Olavi Ekebom, DG MARE, EU
16:00	Coffee
16:30	Development of CMSP from a Baltic Perspective By: Hermann Backer, HELCOM, Finland
17:00	The ICES spatial facility and the role and possibilities of the ICES data center By: TBA
17:30	Plenary discussion Summarize policy drivers
18:00	End Day 1
<b>TUESDAY, 2 NOVEMBER</b>	
09:00	Case 2: Collaboration plans for valuable coastal- and sea areas in Sweden By: Ingela Isakson
09:30	Case 3: CMSP in the Pommeranian bay, Germany By: Bettina Kaeppler
10:00	Case 4: Use of artificial reefs as an instrument for MSP in Portugal By: Miguel Neves dos Santos
10:30	Coffee
11:15	Case 5: CMSP implementation in the Canadian Ocean policy By: Roland Cormier, Canada
11:45	Case 6: The Norwegian Integrated Management plans By: Erik Olsen, Institute of Marine Research, Norway
12:15	Case 7: Dutch MSP plan By: Titia Kalker
12:45	Preparation for World Café
13:00	Lunch
14:30	World Café. Four sessions of 30 minutes spread on 6 tables with questions about how to develop the science of: data, socioeconomics, ecosystem and managing human activities in relation to the policy drivers identified on Monday and the case studies. Table hosts sum up discussions in bullet points.
16:30	Plenary get together after World Cafe – presentation of main points
16:45	Meeting of WS Chairs and World café group leaders to sum up the days discussions and prepare the questions for breakout sessions on day 2
17:30	End of day 2
20:00	WS dinner (at own expense) venue announced on Monday. Sign up by Monday.

<b>WEDNESDAY, 3 NOVEMBER</b>	
09:00	Presentation of present state of MSP science in ICES based on questionnaires By: Erik Olsen and Eugene Nixon
09:30	Breakout session 1 Gap analysis based on questions from World Café + presentation of present state of knowledge in ICES (SWAT analysis). Work in 4 groups.
12:30	Lunch
14:00	Breakout session 2 The way forward for ICES to stimulate the development of science for CMSP. Work in 4 groups.
16:00	Plenary discussion – summing up, conclusions from the groups
16:30	Chairs meeting –pull out main issues, reporting
17:30	End of day 3
<b>THURSDAY, 4 NOVEMBER</b>	
09:00	Groups report in plenary
10:00	Plenary discussion – the way forward. How should the initiative progress in 2011?
12:00	Summing up
12:30	End of WS – Lunch
14:00	STIG meeting

### Annex 3: Proposal for STIG-MSP meeting

**2010/2/SSGHIE00** The STIG-MSP group chaired by Erik Olsen\*, Norway, and Eugene Nixon\*, Ireland, will meet at ICES Headquarters from 20–21 June 2011 to:

- a) Make plans for the Workshop to Develop a Multi disciplinary Case Study for CMSP in an ICES area (WKMDCMSP) and prepare them as TORs for approval by SCICOM/ACOM
- b) Report on progress of the SIASM in relation to the plans set down in WKCMSP report
- c) Prepare a theme session proposal for ICES ASC 2012.

STIG-MSP will report by 15 July 2011 for the attention of the SCICOM/ACOM.

### Supporting information

Priority	The STIG-MSP meeting is an essential element of the Joint ACOM/SCICOM Strategic Initiative on Area Based Science and Management.
Scientific justification	The STIG-MSP meeting is an open planning meeting for steering the activities of the SIASM initiative. Activities under the SIASM initiative are described in the SIASM proposal, STIG-MSP reports and the WKCMSP report..
Resource requirements	No additional resource requirements beyond that already provided to STIG-MSP will be needed.
Participants	This meeting will be open to all wishing to attend across all declipines relevant to ICES
Secretariat facilities	This meeting will require attendance by the Secretariat and assistance in completing the report.
Financial	Covered in budget allocated to STIG-MSP for the Initiative
Linkages to advisory committees	Joint initiative of SCICOM and ACOM.
Linkages to other committees or groups	ICES, as a trans-Atlantic international, but independent, network of marine scientific expertise, is ideally positioned to make a valuable contribution to advancing science towards resolving challenges of MSP. Consistent with the principles of sustainable development and the ecosystem approach to management of human activities, this network can also be used (or extended) to ensure socio-economics considerations are incorporated into the process at the earliest stage.  The joint initiative is the start of a process to facilitate new interest and thinking, at all levels in ICES, on integrated area-based management and spatial planning. In the short to medium term it is not intended to set up new structures, rather to modify existing work practices so as to better harness the potential of existing data and expertise within ICES. It is designed to demonstrate to ICES clients, Member Countries and stakeholders alike that ICES is responding to this need and has the expertise and facilities to develop the science and advisory services needed to deliver solid, robust and independent science and advice on marine area based management and spatial planning. This Workshop is the start of this process.
Linkages to other organizations	NA