

Draft Terms of Reference

of the '*Working group on data, information and knowledge exchange*'

Introduction on context and issues that this WG will address

(a) MSFD requirements for a data and information sharing platform / reporting facility

The Marine Strategy Framework Directive 2008/56/EC establishes a framework within which

Member States shall take the necessary measures to achieve or maintain good environmental status

in the marine environment by the year 2020 at the latest. For that purpose, marine strategies shall be

developed and implemented. For each Member State, the strategy(/-ies) will cover that Member

State's 'marine waters' and be developed according to the following plan of action:

(a) preparation:

(i) an initial assessment, to be completed by 15 July 2012 of the current environmental status of the waters concerned and the environmental impact of human activities thereon, in accordance with Article 8;

(ii) a determination, to be established by 15 July 2012 of good environmental status for the waters concerned, in accordance with Article 9(1);

(iii) establishment, by 15 July 2012, of a series of environmental targets and associated indicators, in accordance with Article 10(1);

(iv) establishment and implementation, by 15 July 2014 except where otherwise specified in the relevant Community legislation, of a monitoring programme for ongoing assessment and regular updating of targets, in accordance with Article 11(1);

(b) programme of measures:

(i) development, by 2015 at the latest, of a programme of measures designed to achieve or maintain good environmental status, in accordance with Article 13(1), (2) and (3);

(ii) entry into operation of the programme provided for in point (i), by 2016 at the latest, in accordance with Article 13(10).

The elements of marine strategies will consist of a variety of types of information, and it is likely

that basic information (e.g. static information describing 'marine waters') will be shared between

these elements. Furthermore, there will be conceptual linkages between numerical data and textual

information (e.g. the results of status assessments will be linked with the data derived from

monitoring programmes). All this indicates that the architecture of the information sharing platform

/ reporting facility will need to be carefully designed to accommodate all elements in a logical, userfriendly

way.

(a) WISE-Marine

The European Commission has launched in 2007 the Water Information System for Europe (WISE). Gradually WISE is covering all water-related reporting requirements, from drinking water to urban waste water. The reporting philosophy of the Shared Environmental Information System (SEIS) is fully applied. The European Commission envisages to follow a similar path for the Marine Strategy Framework Directive information infrastructure. An initial consultation was held on a concept document on 'WISE-Marine'. The results of the 2008 consultation are summarised by the Water Topic Centre of the European Environment Agency (EEA) and a report with its recommendations is now available¹. From the perspective of the MSFD reporting requirements, the Working Group will also need to consider the extent to which 'technical formats for the transmission and processing of data' should be adopted through the formal route of this Committee. The Working Group should take account of the current practice that some technical specifications for reporting under other Directives are informally agreed ('Reporting sheets'). A flexible approach may be necessary to allow such formats to be adapted regularly to changes (e.g. progress in ICT etc.). One pragmatic option could be to combine a basic template for reporting (to be agreed by the Committee in accordance with the Directive) with technical specifications agreed at informal level (easier to update). Marine strategies are likely to derive their information from monitoring, scientific research and other information sources. All elements of marine strategies should find a place in the information architecture of WISE-Marine. The European Commission and the EEA are starting the drafting of a WISE-Marine implementation plan that will set out how to build this system. This process should be guided by the working group on marine data, information and knowledge exchange. A first meeting of this working group should take place within the next months, most probably in June 2009. A final draft of this implementation plan should be ready towards the end of 2009.

(c) Taking full advantage of parallel developments regarding marine observation and data sharing systems

The marine data and information exchange under WISE-Marine should take full account of:

- The existing WISE arrangements for reporting, e.g. reporting for WFD in coastal waters and for territorial seas (for chemical status);
- the development of the European Marine Observation and Data Network (EMODNET) under the EU integrated maritime policy;
- The GMES Marine Service;
- INSPIRE implementation in Member States – building on common tools prepared in the ;
- Reporting arrangements related to thematic or sector issues (e.g. biodiversity, Natura2000 and other MPAs, Fisheries Data Collection Regulation, ...)

The Working Group should keep under review all related (but parallel) developments so that its work can maximise benefit from already ongoing developments. Especially EMODNET will be a real opportunity to enhance, for all potential users, access to relevant and comparable data that can be useful in the development and management of marine strategies. A clear link with WISE thus needs to be made, as we will need to feed into WISE many

¹ Accessible in the CIRCA IG Marine Strategy under WG Data, Information and Knowledge Exchange folder for its first meeting ([17 June 2009 - tbc]).

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indicators and other relevant information. The information tools and information infrastructure developed at EU-level ultimately rely on the data generated at national, regional and EU-level. In the early February 2009 meetings, Member States representatives have indicated that reporting and data/information sharing is an important topic. The MSFD-related developments for an EU system should take account of the already existing systems, and should avoid duplication of efforts or a too formalistic approach. More efforts should be spent in making the data and information flow easier by a more unified approach, and there is a need for better capabilities in the sphere of 'geographic information systems' (GIS) in the marine data and information exchange infrastructure, as these would allow a better exploitation of the reported data and information. In the same meetings, it was stated that there was a need to ensure that the *working group on marine data, information and knowledge exchange* would be ensure that all interested parties were involved in the proposed 'advisory stakeholder group' for WISE-Marine. COMM confirmed that this would be discussed by the working group when it first met.

(d) Continuing work on convergence of marine environmental indicators in relation to WISEMarine

The MSFD specifies in Art. 10 that Member States shall establish a comprehensive set of environmental targets and associated indicators so as to guide progress towards achieving good environmental status. MSFD Annex IV provides further guidance on their purpose and their overall properties. As a working hypothesis, it can be assumed that, while established at national level in the context of MS marine strategies, a number of these targets and indicators will be derived from action co-ordinated at (sub-)regional and EU level, with associated data sources managed at those levels. It is likely these targets and indicators will span many issues across the D-P-S-I-R spectrum in relation to the management information needs of the marine strategies². Furthermore, work under the informal 'European Marine Monitoring and Assessment' (EMMA) working group in the period 2005-2008 has already: (a) identified regional coverage of 'indicators' for the elements included in MSFD Annex III (characteristics, pressures and impacts); (b) progressed on gradually elaborating further an enlarged list of pan-European marine environmental status indicators that would enhance the coherence of such information in assessment products at EU and across regional levels. At the early February 2009 meetings, it was concluded that part of this work would be more fruitful if it could be more closely informed by the work of the Working Group on Good Environmental Status, when some of its results had emerged. Part of the current 'EMMA' work on indicators is hence still progressing, while part of it will only be taken up again somewhat later when the WG GES has progressed further. The Working Group should consider which issues should be prioritised for further EU-level indicator development (see work plan 2009-2010), taking into account that:

- (a) each element of MS marine strategies should be reviewed, and if necessary revised, at 6-yearly intervals;
- (b) monitoring programmes will be set up by July 2014, after which a steady flow of monitoring data will become available (/accessible);
- (c) the WISE online information system is also targeted at a wider audience. It should not be a static platform only for official marine strategy elements. Using it as a communication channel with the wider public requires regular addition of new topical information features – some of these may well take the shape of annually updated 'indicators'.

² 'Comprehensive' in Art. 10(1) can be interpreted as 'covering all issues that are material to monitoring the gap between current and desired status', and Member States may well consider what the most effective targets and indicators will be for the issues that will be addressed in their programmes of measures, on the basis of an overview of all options open to them.

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(e) Knowledge exchange

The challenges related to MSFD implementation require an intense exchange of knowledge at various levels. The Working Group should be instrumental in detecting knowledge gaps and needs and addressing them through:

- initiating thematic reviews of issues of common interest;
- sharing information about implementation issues and documenting best practices.

The Working Group will use its strong focus on data and information exchange also to tap into the

results of scientific research so that cutting-edge, new, information is picked up for application in

the context of MSFD implementation.

The Working Group should not duplicate whatever specific research needs emerge from the specific

work on 'good environmental status', but will focus on e.g. research needs in relation to

management measures.

In this activity, the Working Group will be informed on the tools and mechanisms becoming

available through the progressive implementation of an EU marine and maritime research strategy.

Objectives

The working group will, in relation to the challenges of data, information and knowledge exchange

for the purpose of MSFD implementation:

☐ **Lead the development of a WISE-Marine implementation plan**

☐ **Lead in the development of associated WISE-Marine reporting sheets**

☐ **Continue work on the convergence of marine environmental indicators**

☐ **Identify and address knowledge gaps and needs**

☐ **Assisting the Commission**, when necessary, in developing any formal Commission proposal on notification / reporting modalities.

Activities

[To be inserted here after consideration by MSCG of the overall work plan 2009-2010, see

Document MSCG May 09 2/5]

Lead countries - bodies

The Commission (DG ENV) will chair the working group.

Participants

The Working Group is composed of representatives of:

- European Commission and European Environment Agency;
- Member States [see first list of nominated participants in Annex];

- Representatives of regional sea conventions (Secretariats and/or specific Member States), other marine protection conventions;
- European stakeholder organisations and international marine scientific organisations [see first list of expressions of interest in Annex].

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The involvement of a range of stakeholder organisations in the Working Group should be turned

into an asset so that information from a variety of sources is considered in its work. Any workshops will be open to all participants. Specific activity groups can be formed.

The (sub-) regional and inter-regional aspects of the EU level work could possibly be fostered by:

- inviting Member States which have marine waters in different regions to facilitate information exchange to ensure that the development leads to results applicable in most of the (sub-)regions);
- exploring whether, for the different regional seas, a lead Member State (Member State "*porteparole*") can help the exchanges between the EU level work and the related work at (sub-) regional level.

Start-up activities

- Working group to be constituted, on the basis of names that have been submitted by Member States and the organisations mentioned above.
- CIRCA pages to be established under the overall Marine Strategy CIRCA site.
- Commission services and EEA to prepare discussion document for WISE-Marine implementation plan in good time for June 2009 meeting.

Meetings planned (tbc)

- ☐ [17 June] 2009 (tbc)
- ☐ October 2009 (tbc)
- ☐ March/April 2010 (tbc)

Links with other activities

The WG will keep itself informed of relevant developments in the context of (a) SEIS and WISE

development; (b) marine and maritime research strategy and any associated arrangements regarding science/policy interface

Type and intensity of work

At its inception, the WG will act as a **Plenary** including all participants and it can set up specific

Activity groups for specific (sub-)activities with selected participants and a specific convenor

from its ranks. These can have meetings such as workshops or *ad hoc* meetings to deliver their results.

For specific purposes, **other experts** may be involved and be used as a reservoir of expertise for discussing specific issues. The selection of experts to be invited will be decided in consultation with the WG chair.



DIKE 2011/2/2x

Marine Strategy Framework Directive

Working Group on Data, Information and Knowledge Exchange (WG DIKE)

Brussels

05-06 September 2011

Document:	Terms of Reference for WG DIKE
Document no.:	DIKE 2011/2/2
Agenda item:	2
Date prepared:	24/08/2011
Prepared by:	DG ENV
Background	This paper was presented to WG DIKE in May 2011 and then to Marine Directors in May 2011 for their approval. It was approved without amendment.

WG DIKE is invited to:

- a. Note the revised ToRs which were approved by Marine Directors;
- b. Notify the Commission of any changes to the membership of the Working Group (see Annex A).

Terms of Reference for the Working Group on Data, Information and Knowledge Exchange (WG DIKE)

Introduction on context and issues that this Working Group will address

(a) MSFD requirements for a data and information sharing platform / reporting facility

The Marine Strategy Framework Directive 2008/56/EC establishes a framework within which Member States shall take the necessary measures to achieve or maintain good environmental status in the marine environment by the year 2020 at the latest. For that purpose, marine strategies shall be developed and implemented. For each Member State, the strategy(/-ies) will cover that Member State's 'marine waters' and be developed according to the following plan of action:

(a) preparation:

- (i) an initial assessment, to be completed by 15 July 2012 of the current environmental status of the waters concerned, the environmental impact of human activities thereon, and the economic and social analysis, in accordance with Article 8;
- (ii) a determination, to be established by 15 July 2012, of good environmental status for the waters concerned, in accordance with Article 9(1);
- (iii) establishment, by 15 July 2012, of a series of environmental targets and associated indicators, in accordance with Article 10(1);
- (iv) establishment and implementation, by 15 July 2014, except where otherwise specified in the relevant Community legislation, of a monitoring programme for ongoing assessment and regular updating of targets, in accordance with Article 11(1);

(b) programme of measures:

- (i) development, by 2015 at the latest, of a programme of measures designed to achieve or maintain good environmental status, in accordance with Article 13(1), (2) and (3);
- (ii) entry into operation of the programme provided for in point (i), by 2016 at the latest, in accordance with Article 13(10).

Article 9(2) sets out the requirement for Member States to 'notify the Commission of the [initial] assessment ... and of the determination [of a set of characteristics for good environmental status]' within three months of their completion (i.e. by 15 October 2012).

Article 10(2) sets out the requirement to 'notify the Commission of the environmental targets' within three months of their establishment (i.e. by 15 October 2012).

Article 19(3) highlights the need for Member States to grant access and use rights in respect of data and information resulting from the Initial Assessments and the monitoring programmes to the Commission, and also to make them available to the European Environment Agency (no later than) six months after the data and information have become available (i.e. by 15 January 2013 for the Initial Assessment and 15 January 2015 for the monitoring programmes).

Article 24(2)(b) specifies that technical formats may be adopted for the purposes of transmission and processing of data, including statistical and cartographic data. The reporting sheets provide a means of specifying such a technical format.

The elements of marine strategies will consist of a variety of types of information, and it is likely that basic information (e.g. static information describing 'marine waters') will be shared between these elements. Furthermore, there will be conceptual linkages between numerical data and textual information (e.g. the results of status assessments will be linked with the data derived from monitoring programmes), as well as between the differing elements of the strategies. All this indicates that the architecture of the information sharing platform / reporting facility will need to be carefully designed to accommodate all elements in a logical, user-friendly way.

(b) WISE-Marine

The European Commission launched the Water Information System for Europe (WISE) in 2007. WISE aims to cover all water-related reporting requirements, from drinking water to urban waste water, including the Water Framework Directive (WFD). The reporting philosophy of the Shared Environmental Information System (SEIS) is fully applied. The European Commission will follow a similar path for the Marine Strategy Framework Directive information infrastructure as part of WISE. An initial consultation was held on a concept document on 'WISE-Marine'. The results of the 2008 consultation are summarised by the Water Topic Centre of the European Environment Agency (EEA) and a report with its recommendations is available¹.

From the perspective of the MSFD reporting requirements, the Working Group will need to consider the extent to which 'technical formats for the transmission and processing of data' should be adopted through the formal route of the Article 25 Committee. The Working Group should take account of the current practice that some technical specifications for reporting under other Directives are informally agreed (as 'Reporting sheets'). A flexible approach may be necessary to allow such formats to be adapted regularly to changes (e.g. progress in information technology, improved understanding of specific reporting needs). One pragmatic option could be to combine a basic template for reporting (to be agreed by

¹ Accessible in the CIRCA IG Marine Strategy under WG Data, Information and Knowledge Exchange folder for its first meeting of 17 June 2009, Document WG Data and Information June 09 5/1.

the Article 25 Committee in accordance with the Directive) with technical specifications agreed at an informal level (easier to update).

Marine strategies are likely to derive their data and information from monitoring programmes, scientific research and other information sources. All elements of marine strategies should find a place in the information architecture of WISE-Marine. The European Commission and the EEA are developing WISE-Marine so as to accommodate multiple types of information from various sources. This process should be guided by WG DIKE and be guided by a WISE-Marine implementation plan.

(c) Taking full advantage of parallel developments regarding marine observation and data sharing systems

The marine data and information exchange under WISE-Marine should take full account of:

- INSPIRE implementation in Member States – building on common tools prepared in this context, including data specifications and common data where possible;
- The existing WISE arrangements for reporting, e.g. reporting for WFD in coastal waters and for territorial seas (for chemical status);
- Reporting arrangements related to thematic or sector issues (e.g. biodiversity status for the Habitats and Birds Directives, Natura2000 and other MPAs, Fisheries Data Collection Regulation);
- the development of the European Marine Observation and Data Network (EMODnet) under the EU Integrated Maritime Policy;
- The GMES Marine Service;
- Existing and ongoing regional developments in Regional Sea Conventions.

The Working Group should keep under review all related (but parallel) developments so that its work can maximise benefit from these and seek harmonised and coordinated solutions, avoiding duplication of reporting where possible.

EMODnet can be a real opportunity to enhance, for all potential users, access to relevant and comparable data that can be useful in the development and management of marine strategies. A clear link with WISE thus needs to be made.

The information tools and information infrastructure developed at EU-level ultimately rely on the data generated at national, regional and EU-level.

Reporting and data/information sharing is an important topic. The MSFD-related developments for an EU system should take account of the already existing systems, and should avoid duplication of efforts or a too formalistic approach. More efforts should be spent in making the data and information flow easier by a more unified approach, and there is a need for better capabilities in the sphere of 'geographic information systems' (GIS) in the marine data and information exchange infrastructure, as these would allow a better exploitation of the reported data and information.

(d) Support to other indicator based assessments of the marine environment

The MSFD specifies in Art. 10 that Member States shall establish a comprehensive set of environmental targets and associated indicators so as to guide progress towards achieving good environmental status. MSFD Annex IV provides further guidance on their purpose and their overall properties. While established at national level in the context of MS marine strategies, indicators should be developed from action co-ordinated at (sub-)regional and EU level, with associated data sources managed at those levels. It is likely these indicators will span many issues across the D-P-S-I-R spectrum in relation to the management information needs of the marine strategies.

This cooperative process can help to provide useful information for additional assessment products both at EU (e.g. in European Environment Agency's annually updated marine indicators and marine assessments in its 'State of the Environment' Reports²), within regional sea conventions and at global level (UN Regular Process of global reporting and assessment of the marine environment). In view of all such processes, it will be paramount to avoid overlaps and in particular duplication.

In addition, the WISE online information system is also targeted at a wider audience. It should not be a static platform only for official marine strategy elements. Using it as a communication channel with the wider public requires regular addition of new topical information features. This can include the use of regularly updated indicators for marine assessment.

(e) Knowledge exchange

The challenges related to MSFD implementation require an intense exchange of knowledge at various levels. The Working Group should be instrumental in detecting knowledge gaps and needs. It could address them through:

- initiating thematic reviews of issues of common interest;
- sharing information about implementation issues and documenting best practices.

The Working Group will use its strong focus on data and information exchange also to tap into the results of scientific research so that cutting-edge, new, information is picked up for application in the context of MSFD implementation.

In this activity, the Working Group will be informed on the tools and mechanisms becoming available through the progressive implementation of an EU marine and maritime research strategy.

Objectives

The Working Group will, in relation to the challenges of data, information and knowledge exchange for the purpose of MSFD implementation:

² Note these present an pan-European view on the basis of four regional pictures, one per each European regional sea. They do not focus on the national situation.

- Develop and implement a WISE-Marine implementation plan, to guide the reporting, use and dissemination of data and information arising from the MSFD;
- Define a clear specification for the scope and content of WISE-Marine, including leading the development of associated WISE-Marine reporting sheets, and the necessary service and software architecture designed to serve multiple reporting needs;
- Lead in integrating WISE-Marine with other reporting process, such as INSPIRE, State of Environment reporting, and reporting under the Water Framework, Habitats and Birds Directives;
- Identify and address knowledge gaps and needs;
- Assist the Commission, when necessary, in developing any formal Commission proposal on notification / reporting modalities.

Lead countries - bodies

The Commission (DG ENV) will chair the Working Group and be assisted by Slovenia. The assistance of other countries to lead/contribute to specific tasks is foreseen.

Participants

The Working Group is composed of representatives of:

- European Commission and European Environment Agency;
- Member States [see first list of nominated participants in Annex];
- Representatives of Regional Sea Conventions (Secretariats and/or specific Member States), other marine protection conventions;
- European stakeholder organisations and international marine scientific organisations [see first list of expressions of interest in Annex].

The involvement of a range of stakeholder organisations in the Working Group should be turned into an asset so that information from a variety of sources is considered in its work.

Any workshops under the auspices of the Working Group shall be open to all participants.

For specific purposes, **other experts** may be involved and be used as a reservoir of expertise for discussing specific issues. The selection of experts to be invited will be decided in consultation with the WG chair.

Activities

The (sub-) regional and inter-regional aspects of the EU level work could possibly be fostered by:

- inviting Member States which have marine waters in different regions to facilitate information exchange to ensure that the development leads to results applicable in most of the (sub-)regions);

- exploring whether, for the different regional seas, a lead Member State (Member State "*porte-parole*") can help the exchanges between the EU level work and the related work at (sub-) regional level.

Links with other activities

The Working Group will keep itself informed of relevant developments in the context of (a) INSPIRE, (b) SEIS, WISE and BISE development; (c) the development of EMODnet and the relevant part of GMES, (d) marine and maritime research strategy and any associated arrangements regarding science/policy interface.

Type and intensity of work

The Working Group will meet at a frequency suitable to address its role in implementation of the MSFD; this will typically be twice per year.

The Working Group will act as a **Plenary** including all participants. It can set up specific **Activity groups for specific (sub-)activities** with selected participants and a specific convenor from its ranks. These can have meetings such as workshops or ad-hoc meetings to deliver their results. One such group will need to focus on the ICT architecture questions.

Documents and minutes

Participants can submit written documents for the consideration of the Working Group, e.g. comments on draft products.

The European Commission will prepare draft minutes of the meetings for consideration by the Working Group and finalise the minutes on the basis of comments received.

All documents, presentations and minutes shall be made available via the CIRCA facility.