



# The MSFD Competence Centre (MCC)

Establishing an European marine knowledge base for Good Environmental Status

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## "Knowledge Base"

- the content of a particular domain or field of knowledge
- a store of information or data that is available to draw on

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## What is the MCC?





The MCC is a science-policy interface, facilitating cooperation and information exchange between several ongoing activities that support the MSFD.


The MCC provides a "platform" for sharing knowledge and scientific expertise on methods and modeling tools.

<http://mcc.jrc.ec.europa.eu/>

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## MCC components/modules



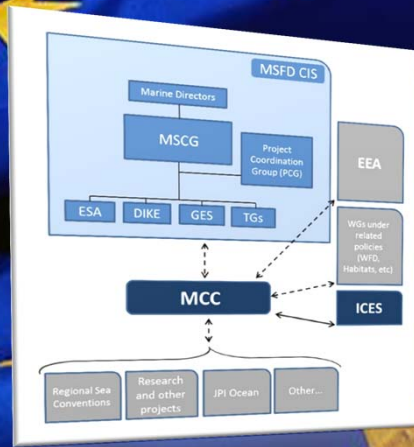
The MCC provides users with:

- easy access to scientific knowledge related to the monitoring and assessment of the environmental status of the European Seas,
- information about relevant policy structures and scientific information regarding environmental data acquisition, modeling and evaluation, and
- a common platform for shared guidance on MSFD implementation.

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## MCC governance

The MCC directly exchanges with all MSFD Common Implementation Strategy (CIS) players:

- Marine Directors,
- Marine Strategy Coordination Group (MSCG),
- CIS Working Groups
  - Economic and Social Assessment (ESA)
  - Data, Information and Knowledge Exchange (DIKE)
  - Good Environmental Status (GES)
  - and other Technical Groups (TGs)
 related to each of the MSFD Descriptors.

The MCC activities include providing guidance documents, assessments and reviews, in close collaboration with:

- EC services & agencies
- EU Member States
- Regional Sea Conventions
- International Council for the Exploration of the Sea
- and the European research community at large ...

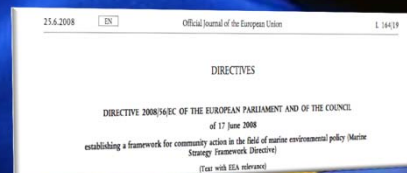
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## MCC Policy

## Marine Strategy Framework Directive

... other related (IMP) policies



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## MCC Guidance

*e.g. monitoring*  
*e.g. methodological standards*






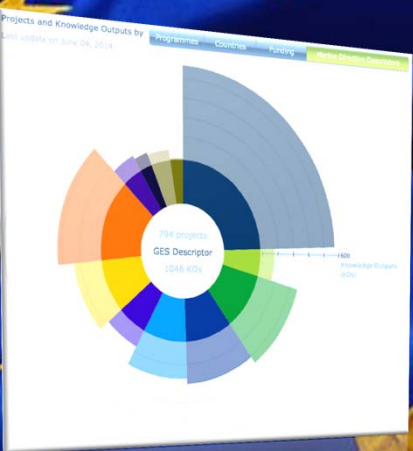
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## MCC Knowledge Brokerage



- The MCC bridges science and policy by providing a link between the marine scientific community and the implementation strategy for the MSFD.
- This includes access to information from relevant EU marine research projects, with direct links to research projects specific to the MSFD, as well as dedicated projects to support MSFD implementation (e.g. EurOcean's Marine Knowledge Gate 2.0).
- The MCC extracts MSFD-relevant knowledge from past projects (with DG RTD) and channels it into the MSFD implementation and adaptation process. This 'knowledge brokerage' system provides highly relevant scientific knowledge to inform the appropriate users involved in policy development and implementation.
- This requires linking different networks such as the MSFD implementation strategy, the MSFD expert networks and the scientific community.

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## Linking to other policies ...

### Information Systems

- the European Atlas of the Seas, developed by JRC in partnership with DG MARE  
[http://ec.europa.eu/maritimeaffairs/atlas/index\\_en.htm](http://ec.europa.eu/maritimeaffairs/atlas/index_en.htm)
- the JRC's own Environmental Marine Information System (EMIS) and European Alien Species Information Network (EASIN)  
<http://emis.jrc.ec.europa.eu>
- the European Marine Observation and Data Network (EMODnet) of DG MARE  
<http://www.emodnet.eu/>
- the EEA Water Information System for Europe - Marine (WISE-Marine)

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## MCC Modeling Toolbox

The modeling toolbox proposes **end-to-end modeling** which aims to represent the entire marine system by including all relevant processes, from physics to bio-geo-chemistry. This is explicitly linked to the descriptors of the MFSO.

Four types of models are incorporated into a single modeling framework/toolbox:

- hydrological models (that provide information on river discharge in terms of flow and nutrients),
- hydrodynamic models (that simulate marine water and water constituents transport),
- lower-trophic-level biogeochemical models (including phytoplankton and zooplankton),
- higher-trophic-level food-web models (from phytoplankton to marine mammals and seabirds).

The models will be aligned for comparison with policies, i.e. hydrological models with the WFD, higher-trophic-level food-web models with Biodiversity policies, etc ...

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**MCC:**  
a platform  
and a resource

... we are just at the beginning...

The MCC will be developed and improved over time in line with the evolution of the MSFD processes.

It will be instrumental in linking this Directive with other relevant policies.

The number and nature of modules may change, reflecting users' feedback and the requirements of the current and future implementation cycles.

We want this to be a living process that supports the development of European marine policy.

Your contribution and feedback will be critical.

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