

ICES Roadmap – an ecosystem based approach towards understanding the effects of offshore and marine renewable energy developments on the environment and society (WKOMRE)



Science for sustainable seas



Existing OMRE WGs

Steering Group - Human Activities, Pressures and Impacts (HAPISG)

Working Group on Marine Benthic and Renewable Energy Developments (WGMBRED)

Considers benthic ecosystem and renewable energy related research, cause-effect relationships and develops guidelines to aid future research.

ToRs on non-invasive data collection; energy emissions (noise, EMFs); ecosystem services; biological traits



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Working Group on Offshore Wind Development and Fisheries (WGOWDF)

Focuses on the interactions between fisheries and offshore wind energy.
ToRs on the fisheries resource species, fisheries related scientific data collection and the effects in fishers/fisher communities; strategic approaches to manage OSW and fisheries

Working Group on Offshore Renewable Energy (WGORE)

Coordinates the flow of science between certain working groups and its application in relation to offshore energy installations.

ToRs on cumulative effects assessment, environmental effects of chemicals; new and (re)emerging environmental issues; new technologies



Other linked Working Groups (WG)



WG Marine Planning Coastal Zone Management (WGMPCZM)
Current developments around marine spatial planning (MSP) and coastal zone management (CZM) in the ICES area.

ToR D: Identifying spatial planning requirements for large scale scenarios of Offshore Wind and Hydrogen

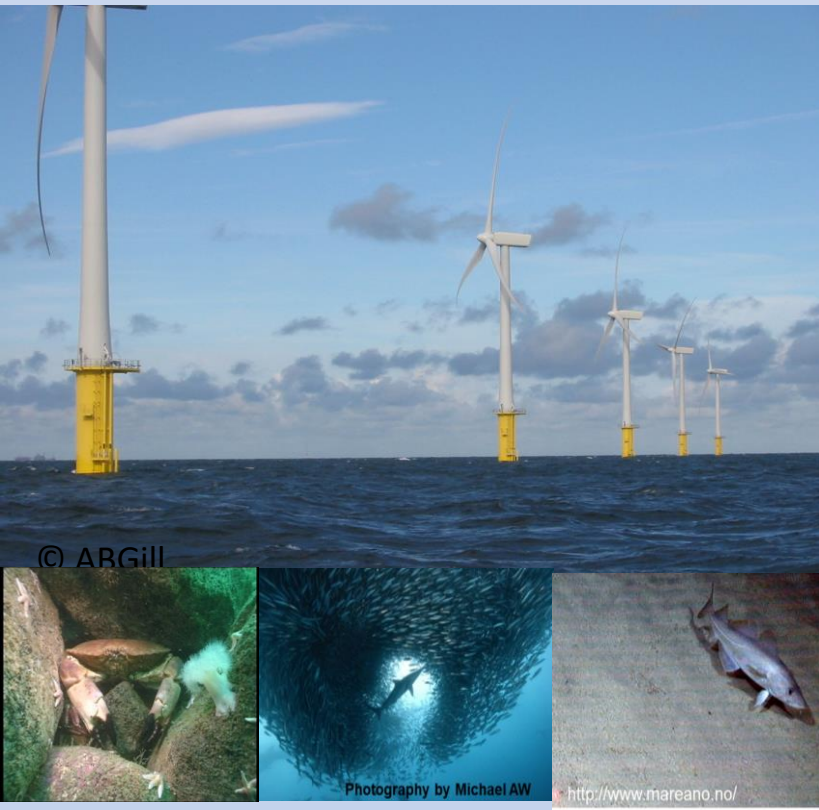
WG Cumulative Effects Assessments in Management (WGCEAM)
Develop a common framework for cumulative assessments to be applied in the context of ecosystem-based management.

WG Balancing Economic, Social and Ecological Objectives (WGBESEO)
Develops generic methodology for identifying, characterizing, and classifying social, economic, and ecological objectives - enabling awareness in ICES advisory process.

WG Social Indicators (WGSOCIAL)
Focuses on improving the integration of social sciences in ICES Ecosystem Overviews and integrated ecosystem assessments through the development of culturally relevant social indicators.

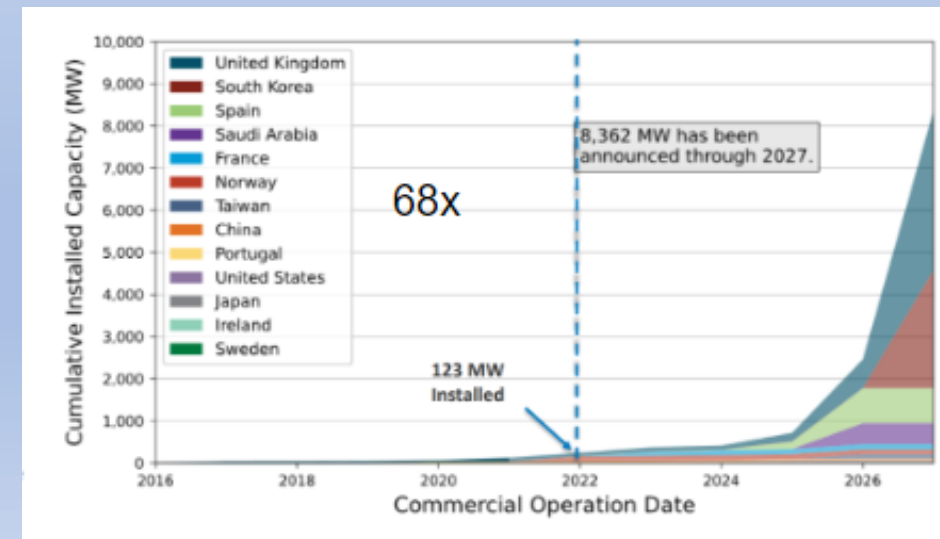
Working Group on Spatial Fisheries Data (WGSFD)
Collates and analyses spatial fisheries data in order to evaluate fishing effort, intensity, and frequency in European waters.

Case study : displacement of fishing effort related to OSW



An Essential Activity for ICES

- 120 years of ICES led international marine science collaboration towards sustainable ocean use
- Climate change and energy security = urgent need for energy transformation
- Blue Industrialisation response through Offshore Wind and marine renewable energy
- Rapid transformation of our oceans in coming years for member countries
- Through utilising our network of 1000s of the best scientists in the world, ICES can lead on providing scientifically informed knowledge, data and advice for sustainable blue ecosystem
- ICES must respond or the decisions for ocean space use may be made without robust and relevant marine science and data at ecoregion scale central to the picture.
- ICES needs to act urgently - to fill knowledge gaps, develop and use best practices and synthesise information
- The Workshop on Offshore and Marine Renewable Energy (WKOMRE) was the first step on the road to coordinating ICES response



WK OMRE

- 16 in-person participants (ICES HQ Copenhagen)
- 7-9 remote participants
- Co-Chairs: Jon Hare (NOAA) and Andrew Gill (Cefas)

WKOMRE Terms of Reference

- a) Identify the main challenges and opportunities regarding ecosystems associated with offshore and marine renewable energy developments and scope their characteristics, policy drivers and evidence requirements across ICES member states (Science Plan codes: 2.2, 2.7);
- b) Review ongoing work on offshore and marine renewable energy development in ICES to identify synergies and knowledge gaps (Science Plan codes: 6.1);
- c) Develop recommendations for a roadmap for the integration, coordination and delivery of science on offshore renewable energy developments (Science Plan codes: 4.5).



Challenges Identified to be Addressed

Science

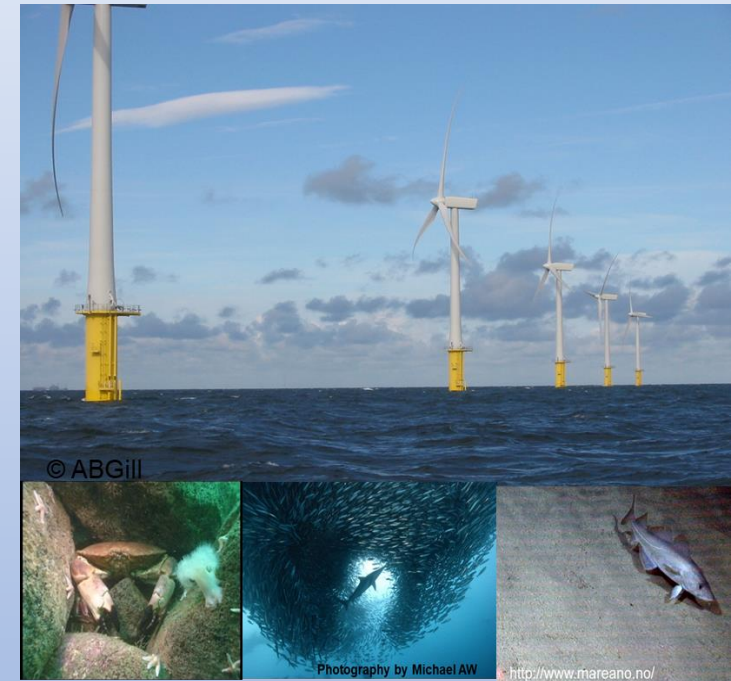
1. Understand the effect of offshore and marine renewable energy development on the structure and function of marine ecosystems.
2. Understand the effect of offshore and marine renewable energy development on current and future human uses.
3. Understand and address the effect of offshore and marine renewable energy development on scientific data collections to support sustainable management of marine resources.

Data

1. Identify, standardize, collect, integrate, and provide the data necessary to inform the best approach for offshore and marine renewable energy development considering diverse management objectives.
2. Adapt current data systems to changes in data collection resulting from offshore and marine renewable energy development.
3. Maintain and adapt as necessary the, data collection, management and dissemination systems necessary for ongoing sustainable management of fishery resources and conservation of biodiversity (including threatened and endangered species).

Advice

1. Modify current advice process to include quickly evolving scientific information resulting from offshore and marine renewable development.
2. Develop new advice to meet the needs of current and new advice requestors.
3. Improve and develop tools to inform offshore and marine renewable energy development in the context of ecosystem-based management and using adaptive management and assessment approaches.



Next Steps

- Participants write a strategic document for OMRE @ ICES
 - WKOMRE report early May for the attention of ICES ACOM and SCICOM
 - Title: ICES RoadMap: Integration of Science, Data, and Advice in a New Era of Human Use of the Ocean
 - Aim - to better coordinate data, science, and advice on offshore renewable energy development in an ecosystem-based management context.
- Focussed on overarching themes
 - marine ecosystem (structure and functioning)
 - effects on marine resources
 - data collection and analysis
 - ICES advice and communication
- Set out Challenges and Opportunities for ICES and potential outcomes
- Propose strategic approach to take forward to an ICES OMRE road map

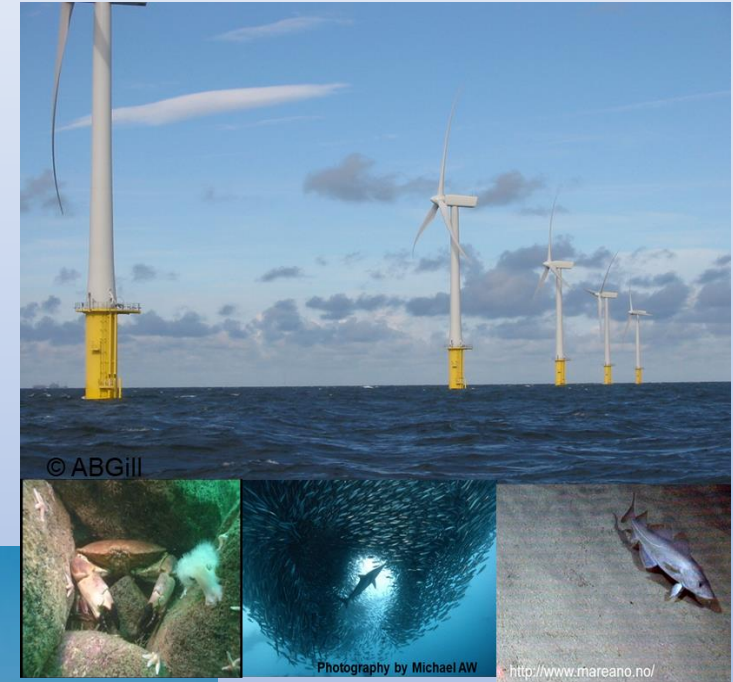


Thank you for listening:

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Questions?



(Source: iO.wp.com)