

An Ecosystem Approach for the North-East Atlantic

OSPAR's view of Regional Implementation



David Johnson, Executive Secretary, OSPAR Commission

PISCES Workshop 4: Dorking, 9 November 2011

David Johnson ...

- Geography, Recreational management, Coastal ecology
- Royal Navy
- Environmental consultant
- University professor
- OSPAR Commission Executive Secretary
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An Ecosystem approach for the NE Atlantic Covering ...



- OSPAR Convention
- North-East Atlantic Environment Strategy and OSPAR structure
- QSR 2010
- MSFD and EcoQOs
- Marine protected areas
- Stakeholder involvement
- Implications and conclusions
- Questions

OSPAR Convention

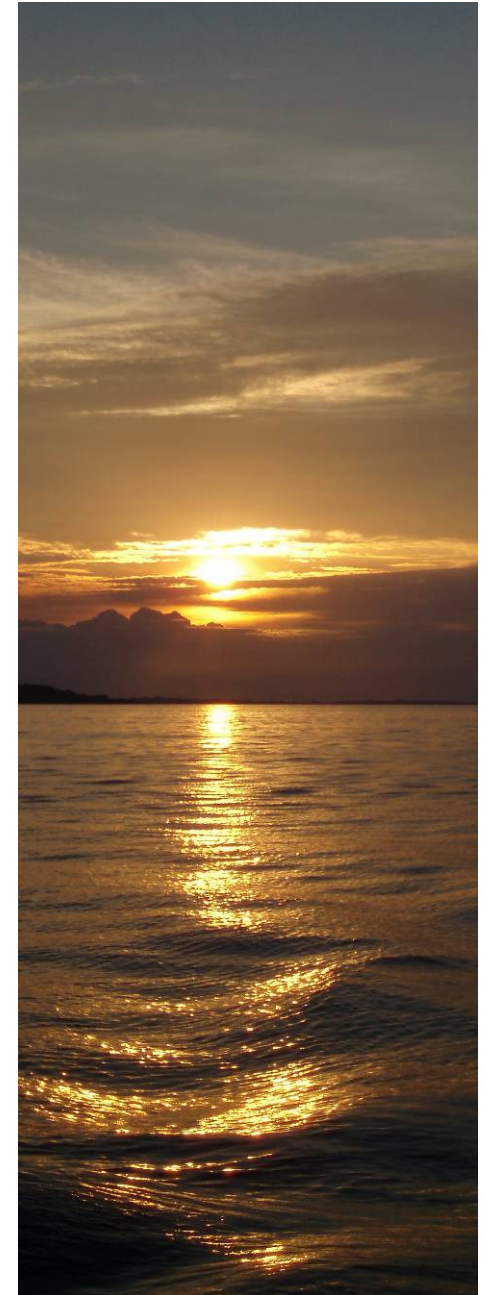
Main Objectives

The Contracting Parties shall, in accordance with the provisions of the Convention, take all possible steps to **prevent and eliminate pollution** and shall take the necessary measures to **protect the maritime area against the adverse effects of human activities** so as to safeguard human health and to conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected” (Article 1.a)

Guiding Principles

- Ecosystem Approach
- Precautionary Principle
- Polluter Pays principle
- Best Available Techniques (BAT) and Best Environmental Practices (BEP)

5 Annexes



but no competence over fisheries management or shipping

OSPAR Commission

16 Contracting Parties

- Belgium
- Denmark
- Finland
- France
- Germany
- Iceland
- Ireland
- Luxembourg
- The Netherlands
- Norway
- Portugal
- Spain
- Sweden
- Switzerland
- The United Kingdom
- European Union



OSPAR Maritime Area and Regions:

Region I: Arctic Waters

Region II: Greater North Sea

Region III: Celtic Seas

Region IV: Bay of Biscay/Iberian Coast

Region V: Wider Atlantic

OSPAR Strategy

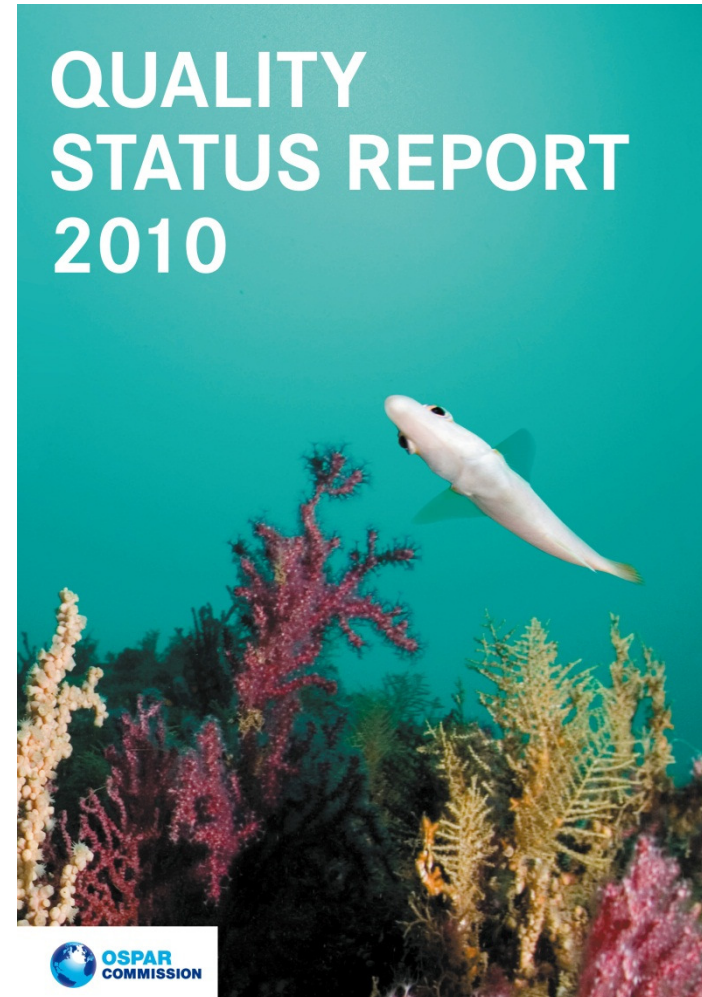
The North-East Atlantic Environment Strategy

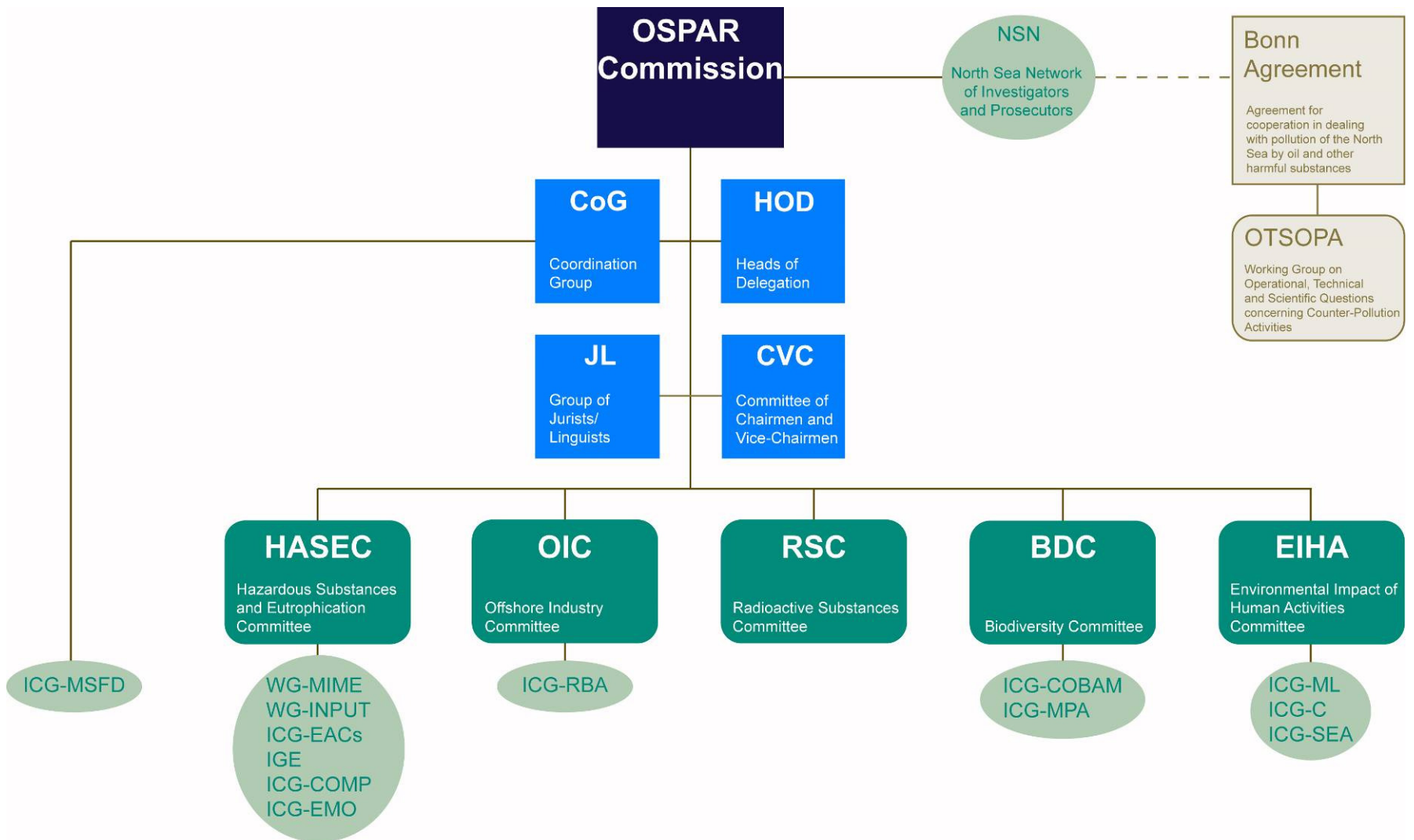
Part I: Implementing the Ecosystem Approach

Part II: Thematic Strategies

- Biological Diversity and Ecosystems
- Eutrophication
- Hazardous Substances
- Offshore Oil and Gas Industry
- Radioactive Substances

The Joint Assessment and Monitoring Programme (JAMP)



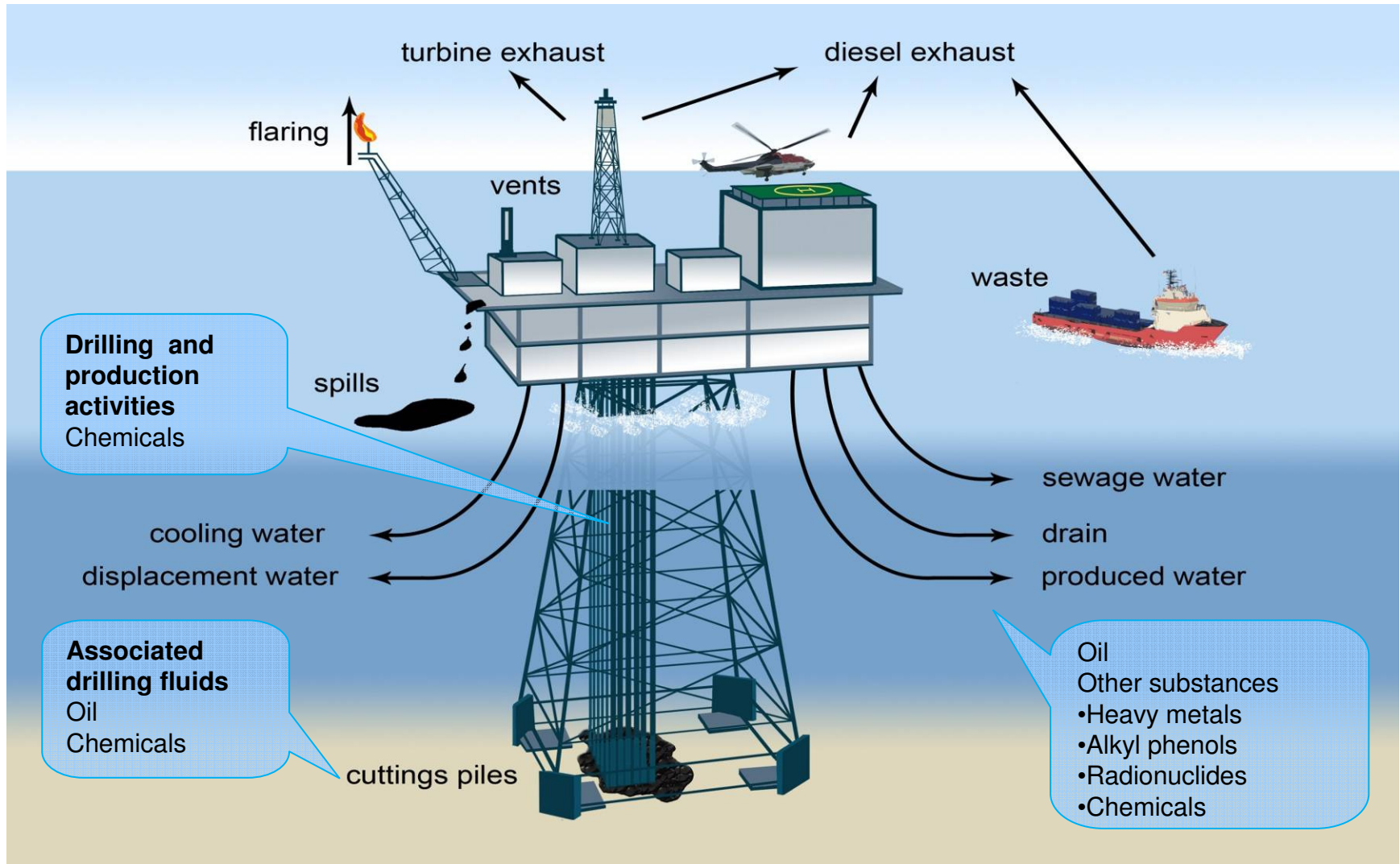


 OSPAR Commission and advisory groups

 Main Committees

 OSPAR expert groups (report to subsidiary bodies of the OSPAR Commission and work intersessionally)

What are the problems?



What has been done?

OSPAR Convention and OSPAR Strategy

Discharges of chemicals and oil

Recommendation 2006/5 on a Management Regime for Offshore Cutting Piles

Recommendation 2001/1 for the Management of Produced Water

Decision 2000/3 on the use of Organic-Phase Drilling Fluids (OPF) and the discharge of OPF contaminated cuttings

Use of chemicals offshore

Decision 2000/2 on a Harmonised Mandatory Control System for the Use and Reduction of the Discharge of Offshore Chemicals

Recommendation 2010/3 on a Harmonised Offshore Chemical Notification Format

Recommendation 2010/4 on a Harmonised Pre-screening Scheme for Offshore Chemicals

Decision 2005/2 on Environmental Goals for the Discharge by the Offshore Industry of Chemicals that Are, or Contain Added Substances Listed in the OSPAR LCPC

Recommendation 2006/3 on Environmental Goals for the Discharge by the Offshore Industry of Chemicals that Are or Contain Substances Identified as Candidates for Substitution

Decommissioning

Decision 98/3 on the Disposal of Disused Offshore Installations

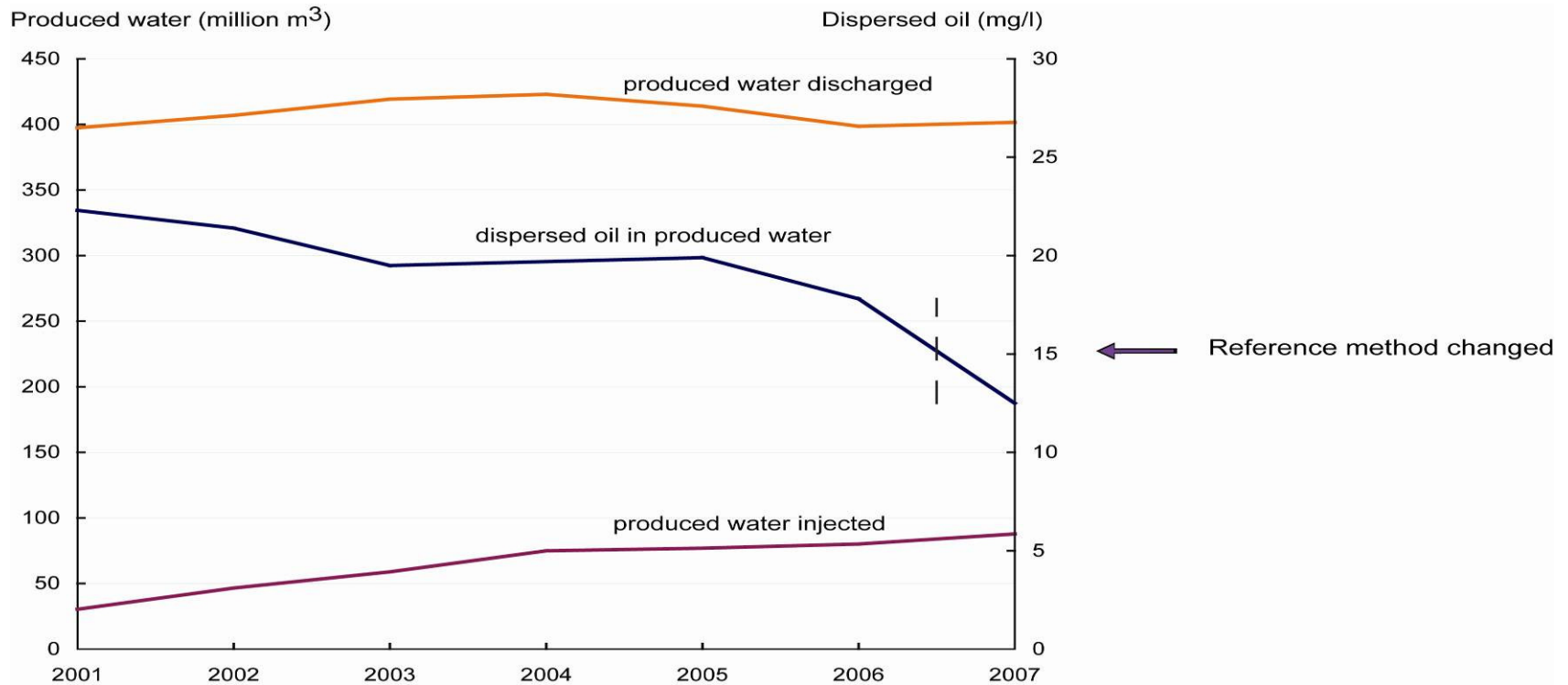
Environmental Management

Recommendation 2003/5 on the Promotion of the Use and Implementation of EMS

Offshore Drilling activities

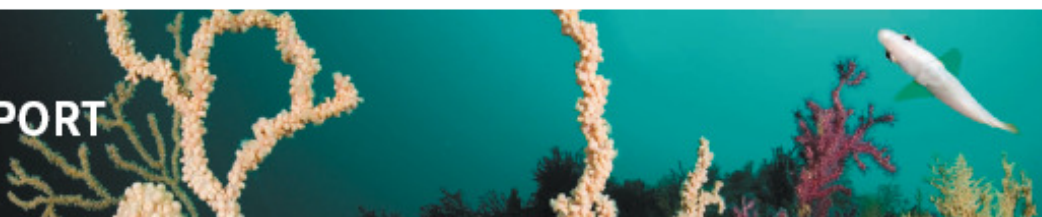
Recommendation 2010/18 on the Prevention of significant acute pollution from offshore drilling activities

Did it work?



Annual amounts of produced water discharged and injected (2001-2007)

QUALITY STATUS REPORT 2010



CHAPTERS

FEEDER REPORTS

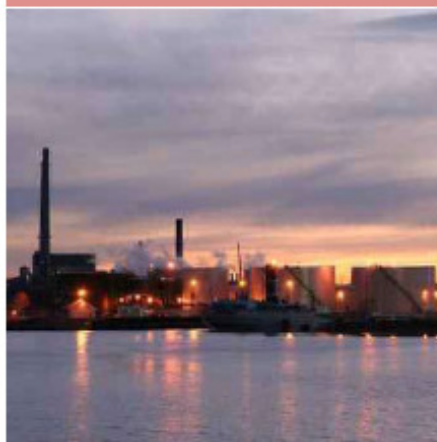
GLOSSARY

DOWNLOAD

SEARCH ...

5 HAZARDOUS SUBSTANCES

- Conclusions and Recommendations
- What are the problems?
- **What has been done?**
- Did it work/is it working?
How does this affect the quality status?
- Lessons learnt and what happens next?



5 HAZARDOUS SUBSTANCES

DOWNLOAD

What has been done?

More than 30 years of OSPAR work to control releases of hazardous substances to the marine environment

During the 1980s and 1990s, OSPAR agreed more than 60 Recommendations and legally-binding Decisions to regulate the main point sources and diffuse sources (e.g., products and wastes) of pollution in the OSPAR area. OSPAR countries were required to implement best available techniques (BAT) and to achieve specified limit values for emissions and discharges for major industrial sources of heavy metals, organohalogen and polycyclic aromatic hydrocarbons (PAHs). For example, large combustion plants; the manufacturing of iron, steel, aluminium, textiles, chlorine, pharmaceuticals, organic chemicals, pulp and paper, vinyl chloride; and the refining of crude oil in refineries. Other measures targeted the uses of particular hazardous substances in industrial processes and consumer products, for example, the phase-out of TBT, PAHs, nonylphenols and short chained chlorinated paraffins in main applications. Periodic reporting shows that these measures have been broadly implemented across the OSPAR area. Since 1998, this has been increasingly supported by implementation of similar EC legislation.

Efforts now focus on specific hazardous substances

Since 1998, OSPAR's work on preventing and reducing pollution has moved from targeting industrial and diffuse sources of pollution to a focus on action for specific hazardous substances. OSPAR has taken a systematic approach to identifying which of the steadily increasing number of substances on the market pose a risk for the marine environment. This takes into account both the properties of the substances (i.e., their persistence, liability to bioaccumulate and toxicity) as well as equivalent levels of concern, for example, based on more subtle effects on organisms (e.g., endocrine disruption caused by substances which mimic hormones and interfere with hormone-controlled processes). More than 300 substances are considered to be of possible concern for the marine environment. Forty substances and groups of substances have been identified for priority action, of which 26 pose a risk for the marine environment due to their use patterns → [Table 6.1](#). OSPAR has undertaken and published a series of assessments of these priority chemicals to evaluate the extent of these risks and to identify priorities for action. OSPAR actively co-operates in this work with non-governmental organisations representing both industry and wider society.

Ongoing collaboration with other international bodies

The EC has covered the field of OSPAR's work on hazardous substances to an increasing extent over recent years and is now the main driving force for action by OSPAR countries. Its main instrument in this respect is the Integrated Pollution Prevention and Control (IPPC) Directive (96/61/EEC) and the Marketing and Use Directive (76/769/EEC) → [Table 6.2](#). As a result, OSPAR's work has moved towards contributing to and promoting actions within the EC that are complementary to its own objectives. This will ensure that one set of control measures applies in Europe which takes into account concerns for the marine environment. OSPAR has, therefore, given priority to contributing to the development of BAT under the IPPC Directive over updating its own measures on point sources. Measures that OSPAR has promoted include marketing and use restrictions for mercury (in measuring devices),

 Feeder Report 123

Title of the report or very short summary...

 **Table 6.1**

OSPAR priority chemicals, their key sources, selected measures to control their releases...

 Lightbox
PDF

 **Table 6.2**

Selected international and European Community instruments which are complementary to OSPAR's objectives


**OSPAR
COMMISSION**

OSPAR Regions III and V QSR conclusions

Positives

Region III

- Radionuclides down; TBT down; recovery for some fish communities

Region V

- International cooperation to control fishing; protecting deep sea habitats

Ongoing concerns

Region III

- Damage to seabed habitats from benthic trawling; some low fish stocks (trawl effort v fishing effort); discards / bycatch
- Offshore turbines (future pressure); high levels of litter
- Hazardous substances unacceptable in some coastal locations
- Poor knowledge of the status of marine mammals

Region V

- Information limited; long-lived species slow to recover; bluefin tuna; increasing industrial activity

Scientific challenges

- Scale – regional, sub-regional, local sub-divisions
- Deviations between observed and target conditions – is pristine what we want?
- Improved assessment criteria – robust sound messages
- Methods to allow integration / aggregation of data



MSFD (2008/56/EC)

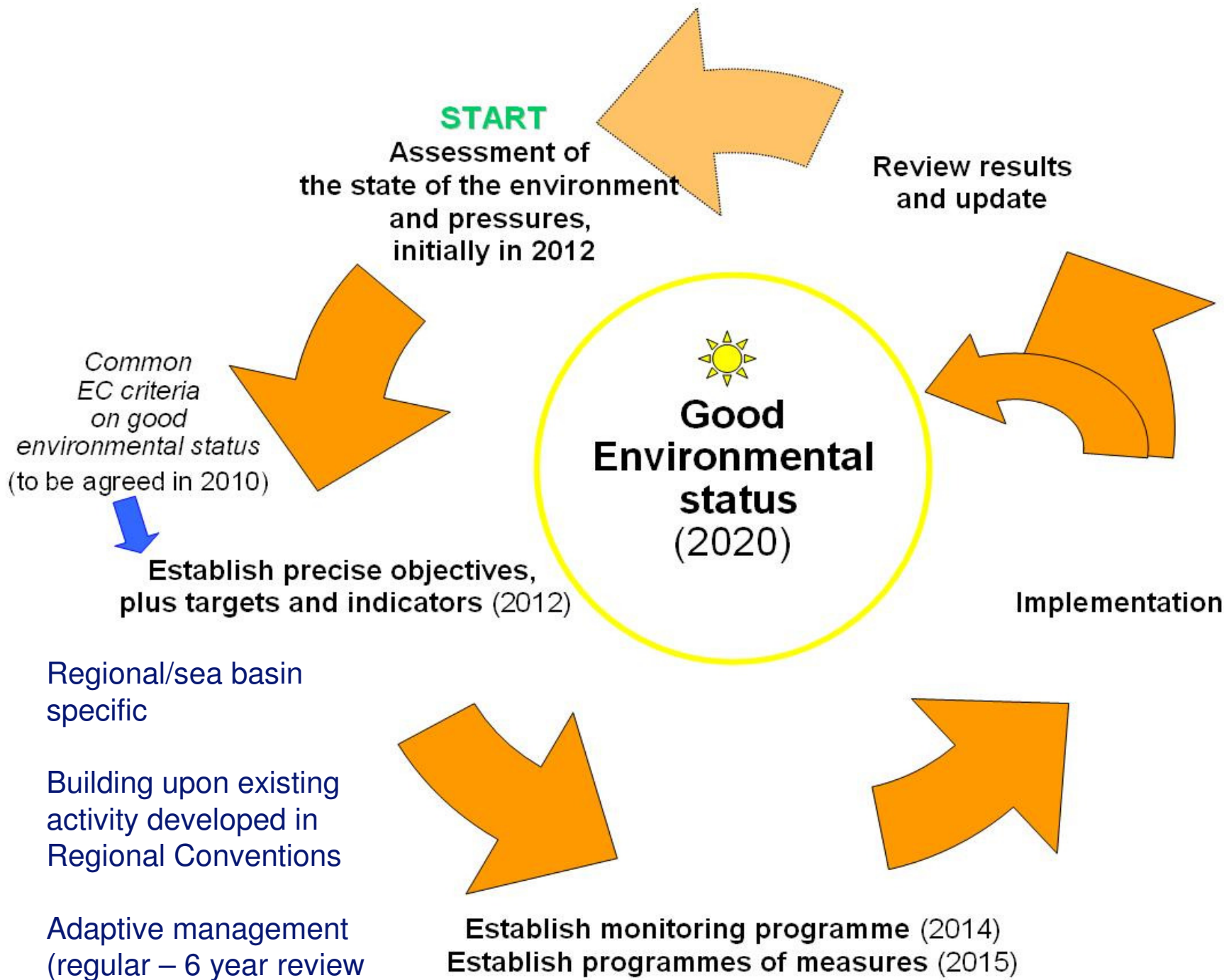
environmental pillar of IMP

Key milestones

- 15.7.2012 : Initial Assessments, GES to be achieved (precise ecological objectives), environmental targets and associated indicators
- 15.7.2014 : Monitoring programmes (adapted to assessment of progress towards GES)
- 2015 : Programmes of measures (introduced by 2016)

Towards Good Environmental Status

- 11 Descriptors – Task Groups informed criteria and methodologies
- EC regulatory procedure with scrutiny – Commission Decision
- Member States – first overall screening, identify specific areas, select adequate indicators
- Regional coordination of implementation



What is GES?

- GES definition (Art. 3.5)
 - Ecologically diverse and dynamic seas which are clean, healthy and productive
 - Use is at a sustainable level
 - Fully functioning and resilient ecosystem
 - Biodiversity decline is prevented, biodiversity is in balance and protected
 - Hydro-morphological, physical and chemical state support above
 - No pollution effects

MSFD and Ecosystem Approach

- The Marine Strategies to be developed by EU Member States will apply an ecosystem-based approach to the management of human activities:
 - ensuring that the collective pressure of such activities is kept within levels compatible with the achievement of good environmental status
 - and that the capacity of marine ecosystems to respond to human-induced changes (e.g. climate change) is not compromised,
 - while enabling the sustainable use of marine goods and services by present and future generations
- Integration of environmental concerns into the different policies (i.e. CFP) which have an impact on the marine environment

ICZM and Ecosystem Approach

- An **eco-system based approach** to the management of human activities in the coastal area
 - Preserving its integrity and functioning, and sustainable management of the natural resources of both the marine and terrestrial components of the coastal zone
 - Appropriate and ecologically responsible coastal protection measures
 - Sustainable economic opportunities and employment options
 - Recognition of the threat to coastal zones posed by climate change
 - Improved coordination of the actions taken by all the authorities concerned both at sea and on land, in managing the sea-land interaction
 - Working with natural processes and respecting the carrying capacity of ecosystems
- Priority themes for EU ICZM
 - Adaptation to coastal risks and the impacts of climate change
 - Cooperation in the context of regional seas including Marine Spatial Planning



OSPAR Tools: EcoQOs

OSPAR strategic objective for offshore oil and gas

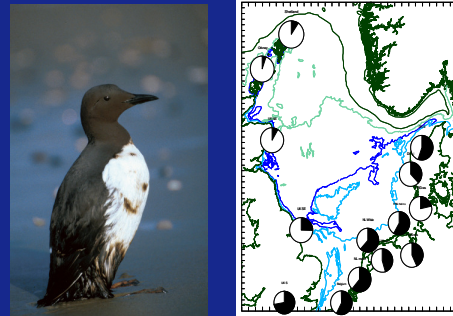
To prevent and eliminate pollution and take the necessary measures to protect the maritime area against the adverse effects of offshore activities, so as to safeguard human health and to conserve marine ecosystems and, when practicable, restore marine areas which have been adversely affected.

OSPAR strategic objective on radioactive substances

Concentrations of radioactive substances in the environment are near background values for naturally occurring radioactive substances and close to zero for artificial radioactive substances.

EcoQO oiled guillemots:

The average proportion of oiled common guillemots in all winter months (November to April) should be 20% or less by 2020 and 10% or less by 2030 of the total found dead or dying in each of 15 areas of the North Sea over a period of at least 5 years.



© Kees Camphuysen

Tools for targets and indicators:

OSPAR Guidelines for monitoring environmental impacts of offshore oil and gas activities (agreement 2004-11, and agreement 2006-7)

JAMP Guidelines on standard methodology for the use of oiled beach birds as indicators of marine oil pollution (agreement 1995-6)

Tools for targets and indicators:

Monitoring programme for concentrations of radioactive substances in the marine environment (agreement 2005-8)

OSPAR and species in need of protection



Orange roughy
© IBC/OSPAR

There is general agreement that marine biodiversity globally is facing unprecedented threats due to pressures from human activities. In 2003, OSPAR established a list of threatened and/or declining species and habitats, highlighting some of the biodiversity in need of protection in the North-East Atlantic.

OSPAR 2010 will consider the adoption of the first formal OSPAR measures for species on the List addressing the protection of a set of long-lived, slow-growing fish species which have been impacted by fishing. OSPAR recognises the competence of fisheries management authorities to deal with questions on the management of fisheries affecting these species. The measures to be considered have been designed to support the management of fisheries by these bodies, through recommending harmonised approaches to nature protection and awareness raising.



Philippe Guillaume, Wikipedia

ANGEL SHARK (*Squatina squatina*) is a flat-bodied bottom-dwelling shark formerly a common and important demersal predator over large areas of coastal and outer shelf seas in the North-East Atlantic. It is highly vulnerable to bycatch in benthic trawls, set nets and bottom longlines which are operated over most of its range. Its abundance has declined dramatically during the past 50 years to the point where it has been declared extinct in the North Sea and is now extremely uncommon throughout most of the remainder of its range.



© Paul Kay

COMMON SKATE SPECIES COMPLEX. Common Skates can grow to over 2m in length. This very large size makes them vulnerable to capture by bottom fisheries. Formerly one of the most common and commercially important skates fished in shelf waters, it is now considered to be very rare in most of the OSPAR Area. Recent genetic research indicates that common skates comprise two large threatened species. The implications being that common skate species may be even more depleted than formerly understood.



Chris Gottschalk, Wikipedia

BASKING SHARK (*Cetorhinus maximus*). The plankton-feeding basking shark is the world's second largest fish, reaching 12 metres in length. Basking sharks are observed most frequently in the pelagic waters around the British Isles and northern France, but much is unknown about their populations and migration patterns. Historical fisheries caused large declines in numbers and recovery has been slow. Targeted fisheries on basking sharks are now banned, but the main remaining threat is from accidental by-catch.



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WHITE SKATE (*Rostroraja alba*) is a large skate formerly found in waters on the continental shelf and upper continental slope around the British Isles, France and the Iberian peninsula. It is vulnerable to capture by bottom fishing and has declined severely during the past 50 to 100 years around the British Isles, in the Irish Sea, and the Bay of Biscay and is observed only rarely.



© Thomas de Lange Wærnes, WWF (CC-BY/Companion of Marine Research), Norway

ORANGE ROUGHY (*Hoplostethus atlanticus*) is a relatively large deep-sea fish found along the continental slope down to 1800m depth, which commonly lives for more than 100 years. Populations tend to aggregate around seamounts and canyons. This makes them very vulnerable to targeted fishing and populations have been depleted over the last 25 years within the OSPAR area and elsewhere.

OSPAR threatened and/or declining Lists 2003 (additions 2008)

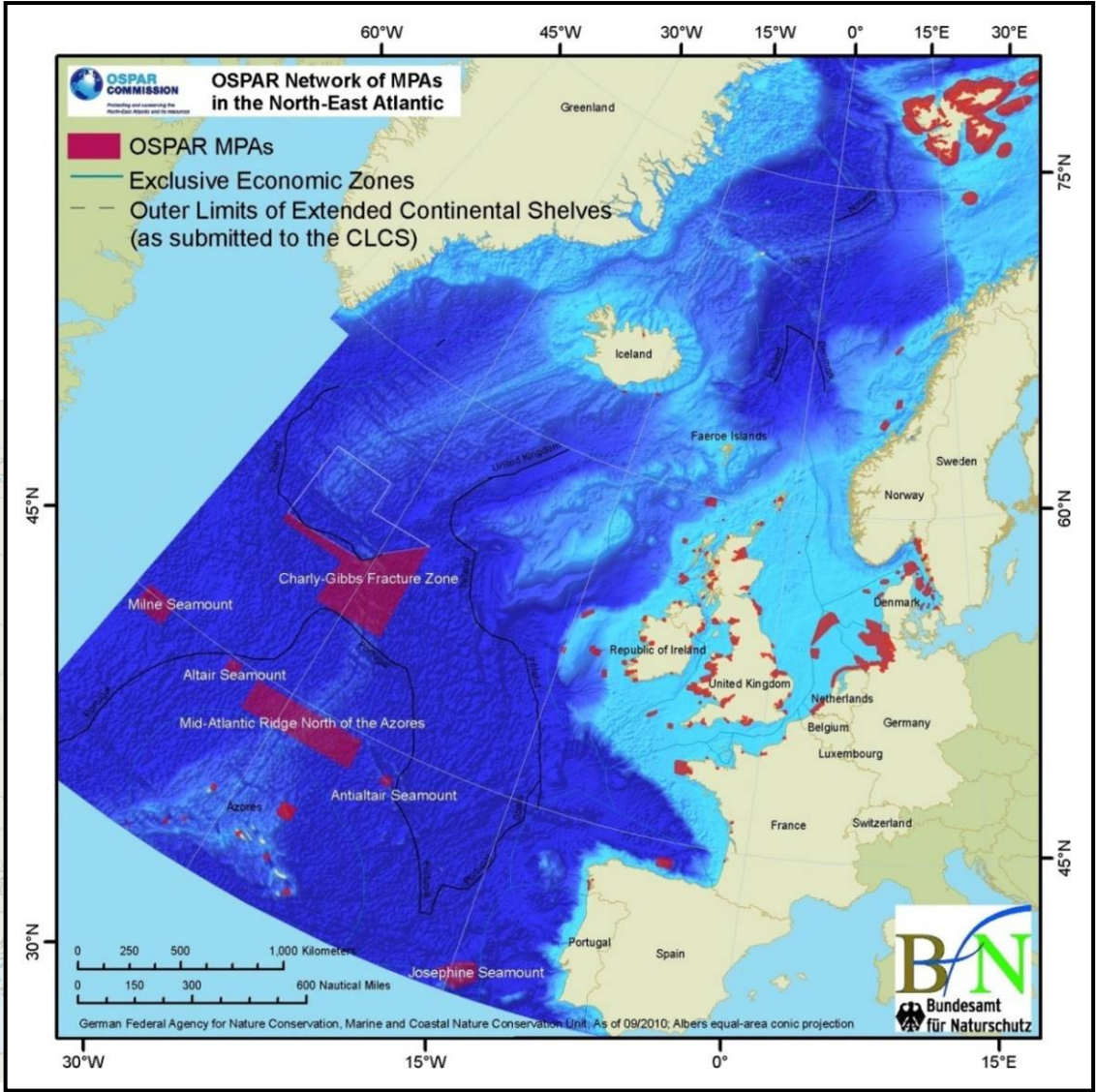
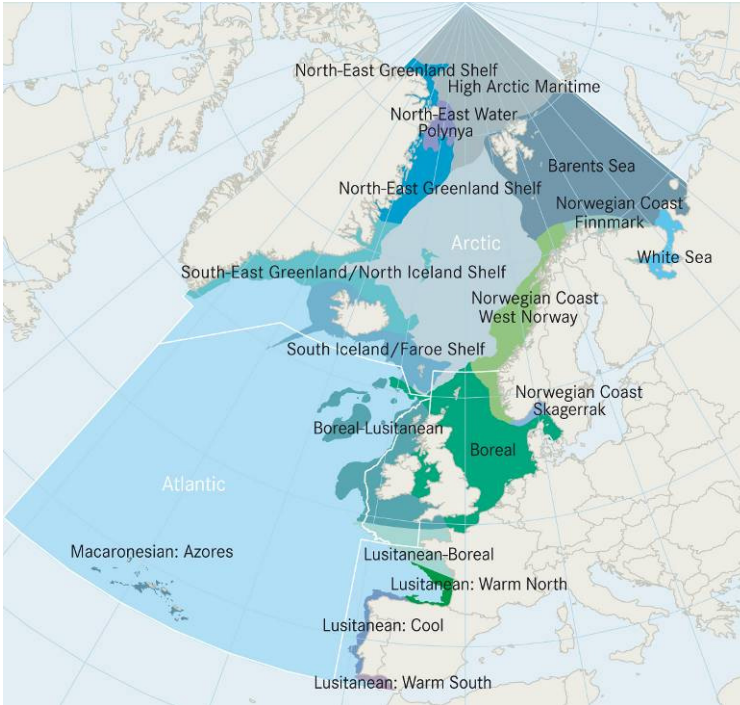
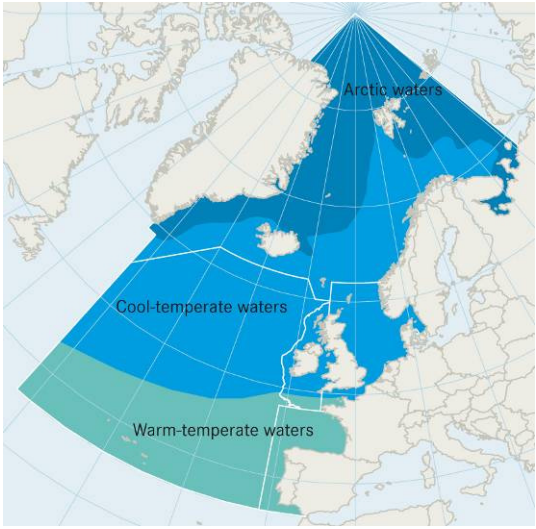
42 species

16 habitats

First measures agreed by ministers at OSPAR 2010

Measures for seabirds (OSPAR 2011)

Extending the OSPAR MPA network



Representative? Coherent? Effective?





GIFT TO THE EARTH

WWF, the conservation organization, celebrates, as a *Gift to the Earth*, the establishment of the

First High Seas Marine Protected Areas in the North Atlantic

and pays tribute for this to the

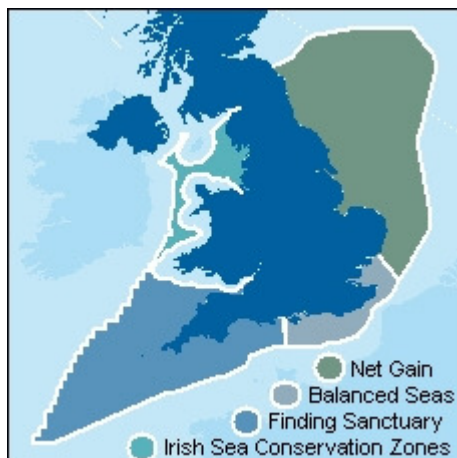
OSPAR Commission

represented by

Dr. D. Johnson & Dr. H. von Nordheim

James P. Leape
Director General, WWF International
24 September 2010





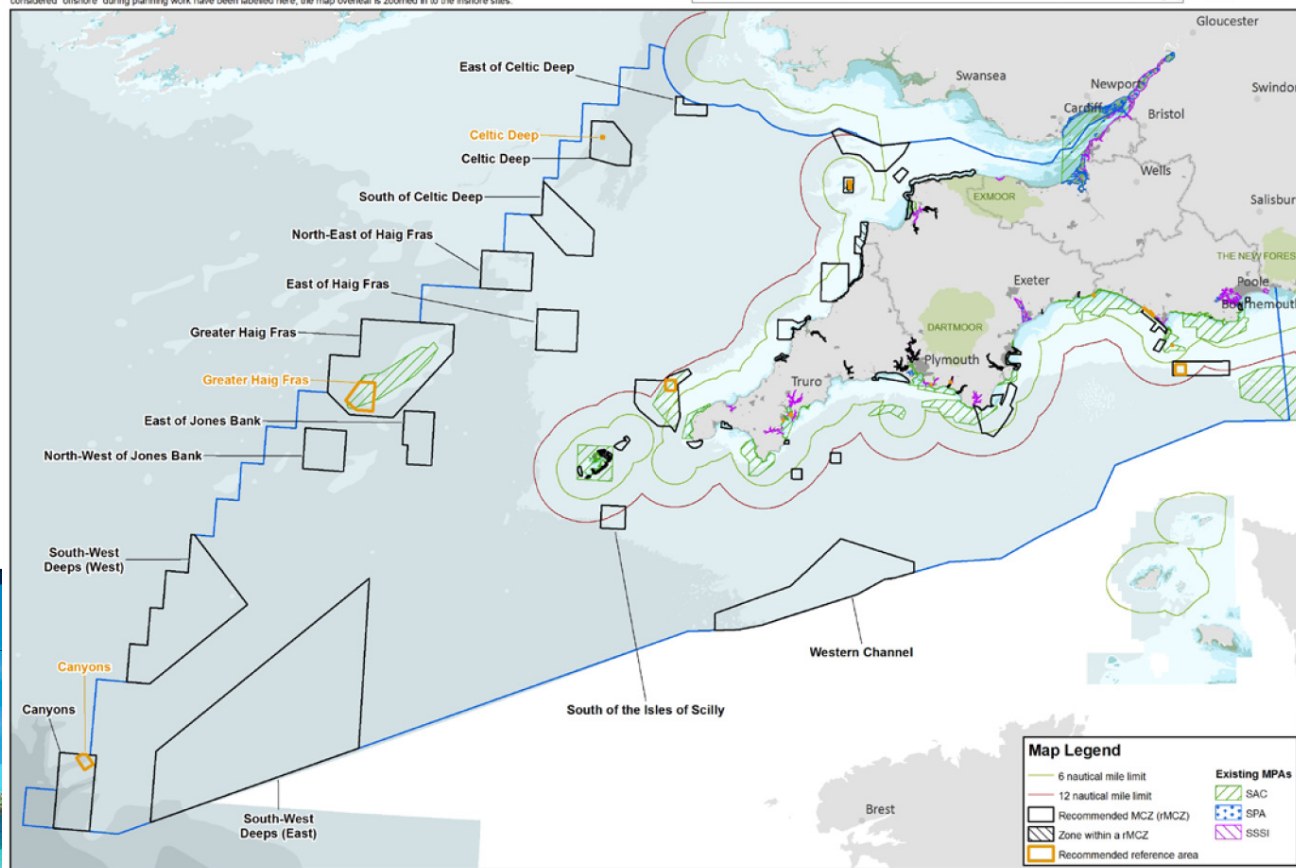
FINAL RECOMMENDATIONS
SUMMARY SUMMER 2011



Finding Sanctuary's MCZ Recommendations (offshore map)

This map shows Finding Sanctuary's network configuration (August 2011). Only recommended MCZs and reference areas considered "offshore" during planning work have been labelled here; the map overview is zoomed in to the inshore sites.

Maritime basemap © British Crown and SeaZone Solutions Limited, 2010. All Rights Reserved. Data Licence No. 162228.001. Land basemap part © OpenStreetMap & contributors, CC-BY-SA. Not to be used for navigation.

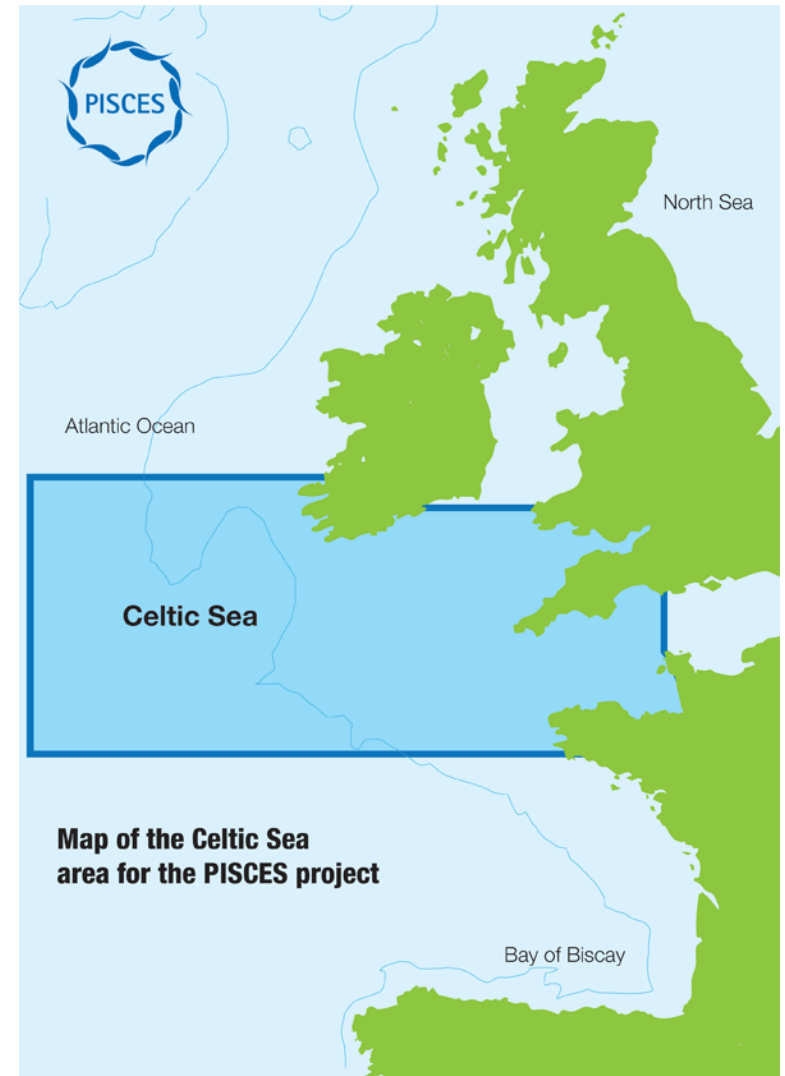


UK MCZ planning process – bottom up, comprehensive
 Extensive stakeholder engagement
 Output – managing expectations?
 Coherence of proposals in boundary locations?

PISCES – right scale, right time

- Translating the Ecosystem Approach
- Linking shallow and deep seas
- Cross-border working
- Multi-disciplinary
- Practical
- 2-way communication
- Trust building

OSPAR has traditionally had a North Sea focus (e.g. EcoQOs)



Balancing vested interests, full-cost accounting, longer planning time horizons



Implications and conclusions

Current crises

economic, climate, biodiversity, [security] – common causes, destroying capital, danger of passing on risks, cannot address separately, differing irreversibility? Many unknowns

OSPAR and MSFD are complementary governance arrangements

balancing national agendas v international consensus; hard v soft law; existing v emerging marine activities; specific targets and indicators

Ecosystem approach – QSR 2010 evidence base example

understanding species, habitats and ecosystem functioning in context of human use pressures and changing environments

(Sub) regional added value

difficult to achieve dialogue and level of detail needed for macro-areas; managing stakeholder input and expectations; making sure of a level playing field; marine protected areas/marine conservation zones as reference areas

Future potential in co-ordinated partnerships

between competent authorities to achieve proactive measures and enhanced protection of international space; with industry, NGOs, other stakeholder groups; within EU and global family

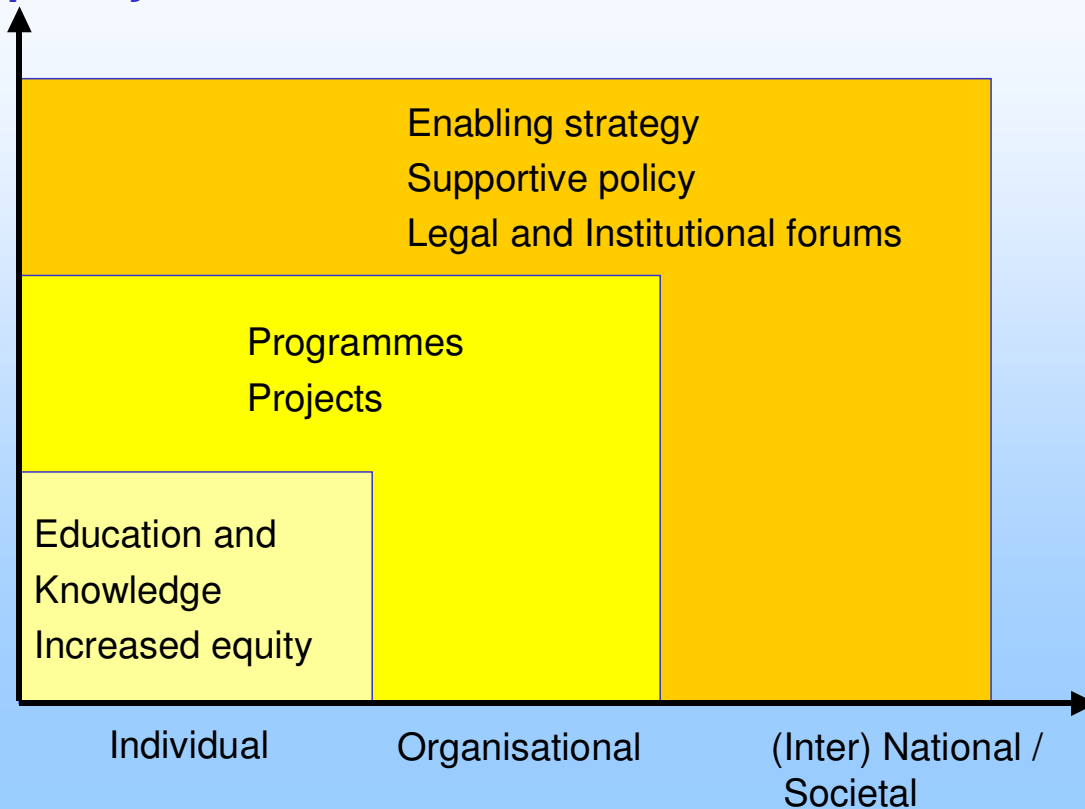
Achieving influence

understanding positions, building trust, beyond a project 'lifetime'

Rio+20: green/blue economy – governance solutions

Think global act local

Complexity



Thank you for your attention

Acknowledgement: slides on MSFD/GES are drawn from a presentation by Leo de Vrees, European Commission