



# The 6<sup>th</sup> EA Workshop on Ecosystem Approach Guidelines and Integrated Ecosystems Assessment

9-11 January 2018

Seattle, USA

## OSPAR's experience with Integrated Ecosystem Assessment - Intermediate Assessment 2017

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## **OSPAR Convention – 1992**

Convention for the protection of the marine environment  
of the North East Atlantic

### **Main Objectives and obligation to:**

- **Prevent and eliminate pollution**
- **Protect the OSPAR maritime area against the adverse effects of human activities**
- **Safeguard human health and conserve marine ecosystems**
- **When practicable, restore marine areas**

### **Guiding Principles:**

- **Ecosystem Approach – the overarching concept and basis for OSPAR's work**
- **Precautionary Principle**
- **Polluter Pays principle**
- **Best Available Techniques and Best Environmental Practices**



## OSPAR Convention – 1992

Convention for the protection of the marine environment  
of the North East Atlantic

For the purpose of the OSPAR Convention, the ecosystem approach is defined as

*“the comprehensive integrated management of human activities based on the best available scientific knowledge about the ecosystem and its dynamics, in order to identify and take action on influences which are critical to the health of marine ecosystems, thereby achieving sustainable use of ecosystem goods and services and maintenance of ecosystem integrity”*





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## 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

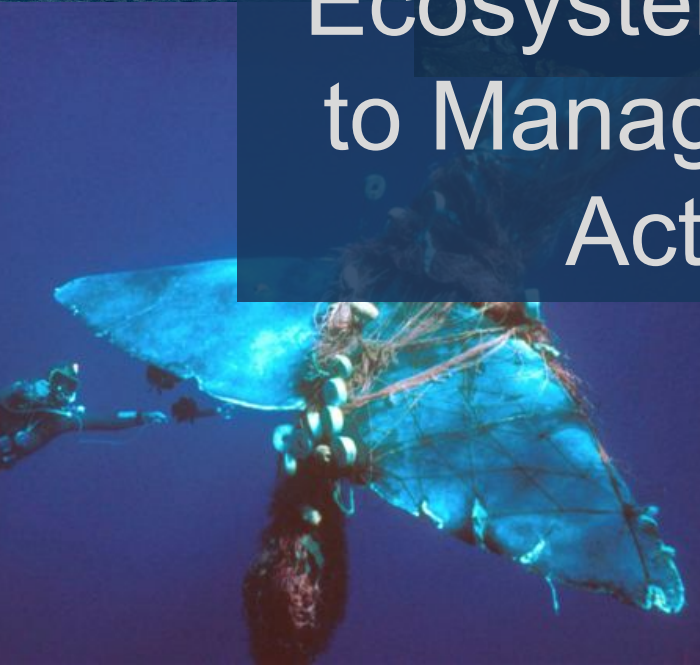
Region IV: Bay of Biscay/Iberian Coast

Region V: Wider Atlantic





# Applying an Ecosystem Approach to Managing Human Activities





## **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**



## OSPAR Quality Status Report 2010

QSRs are statements on the health status of the sea, including:

- analysis of the hydrodynamics, chemistry, habitats and biota
- the impact of humans over space and time against this background of natural variability
- the cumulative and relative impact of all the human pressures on the marine environment.
- evaluation of the effectiveness of the measures taken
- identification of priorities for action
- basis for further implementing the ecosystem approach



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## Achievements since 2010

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North-East Atlantic Environment Strategy



Biodiversity &  
Ecosystems

- + Recommendations to improve the status of 55 species and habitats of concern
- + An increase from 159 MPAs (1.06% of OSPAR Maritime Area) in 2010 to 448 (5.9%) in 2016
- + Development of >20 new regional biodiversity indicators
- + Recommendation to take account of OSPAR listed species and habitats in Environmental Impact Assessments
- + Regional Action Plan on marine litter



Eutrophication

- + A Comprehensive Common Procedure to identify eutrophication
- + Reduction of nutrient inputs from land
- + Assisting Contracting Parties to meet relevant EU Directives



Hazardous  
Substances

- + 56 measures addressing industries and diffuse sources of pollution
- + Identified chemicals for priority action and substances of concern to the marine environment
- + Helping Contracting Parties meet EU Directives



Offshore  
Industry

- + Measures in place to reduce discharges from the oil and gas industry
- + Harmonised mandatory control system for offshore chemicals
- + List of substances / preparations used and discharged offshore which are considered to 'pose little or no risk' to the marine environment



Radioactive  
Substances

- + Periodic evaluations of progress Contracting Parties have made in reducing discharges of radioactive substances
- + Across the nuclear sub-sectors, overall evidence of reductions in discharges
- + A complete and permanent ban on all dumping of radioactive waste and other matter



Assessment &  
Monitoring

- + Long-term and new regionally coordinated monitoring programmes
- + Data sharing
- + Thematic assessments and indicator assessments at the regional scale



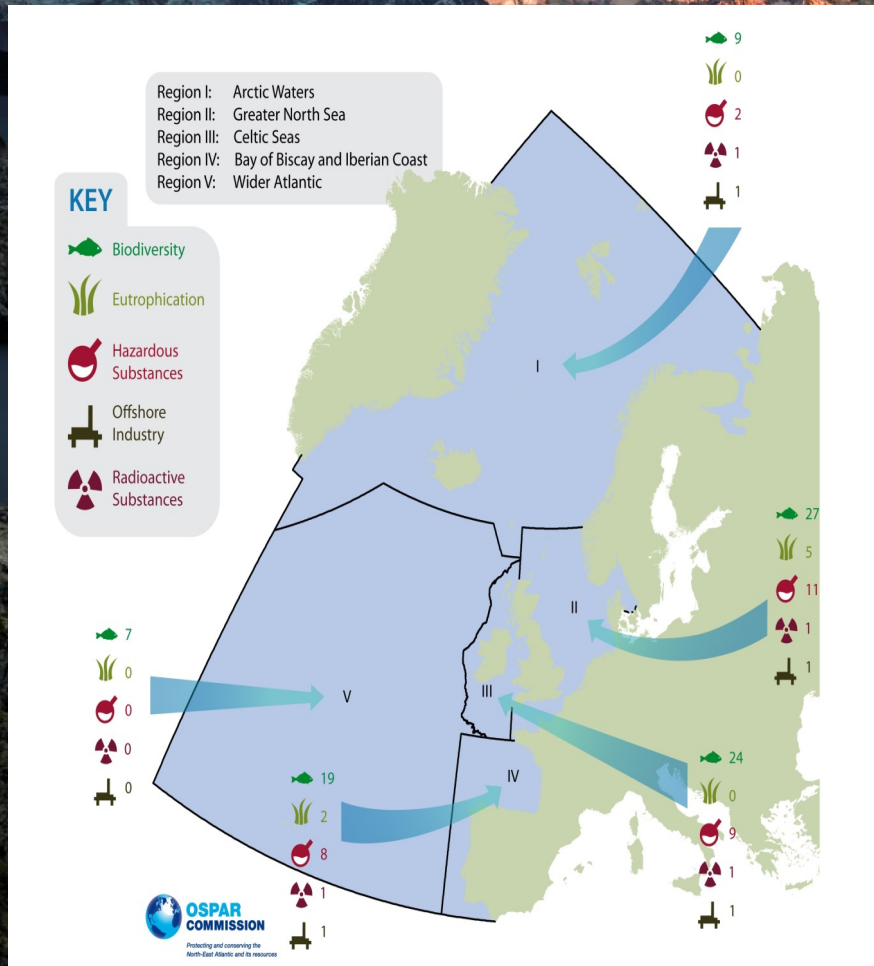


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## **OSPAR's Intermediate Assessment 2017:**

- Online
- Indicator assessments of status and trends
- Thematic assessments
- Key messages and highlights
- Metadata – WISE-marine

## Spatial Coverage of Assessments (by Strategy)

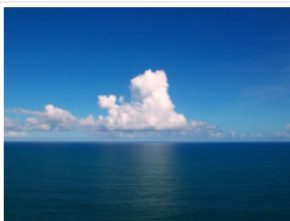


## Assessments by Theme

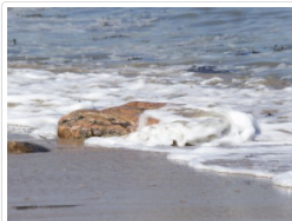
Non-Indigenous Species	1
Marine Mammals	6
Marine Birds	2
Fish Communities	3
Benthic Habitats	4
Pelagic Habitats	3
Foodwebs	3
Marine Protected Areas	1
Marine Litter	3
Noise (Impulsive)	1
Dredged Material	1
Eutrophication / Nutrients	6
Hazardous Substances (ex Radioactive Substances)	11
Offshore Industry	1
Radioactive Substances	1
<b>Total</b>	<b>47</b>



## Intermediate Assessment 2017



Key Messages and Highlights



Introduction to the Intermediate Assessment 2017



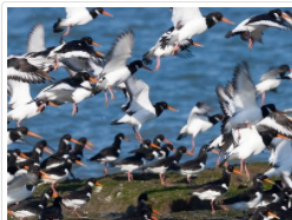
Climate and Ocean Acidification



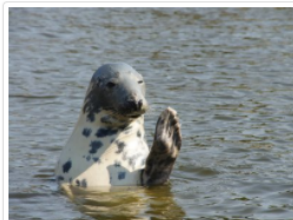
Socio-Economics



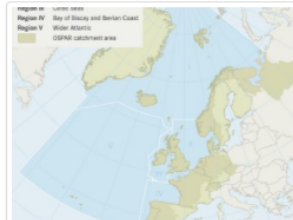
Pressures from Human Activities



Biodiversity Status



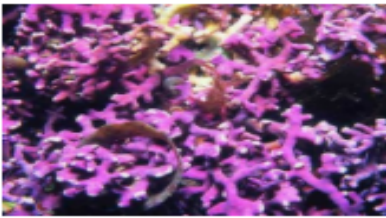
Ecosystem Assessment Outlook



Acknowledgements



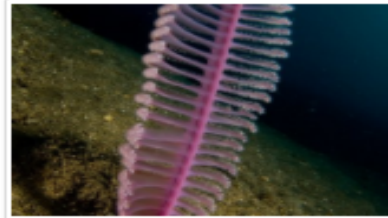
## Key Messages and Highlights



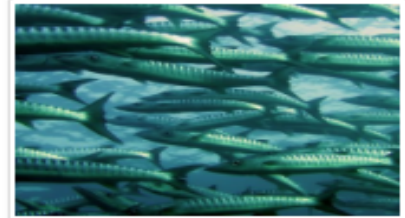
The network of OSPAR Marine Protected Areas is expanding



Marine birds in trouble



Benthic habitats affected by bottom fisheries



Fish communities show signs of recovery in some areas



Radioactive discharges from the nuclear sector have decreased



Contaminant concentrations are decreasing, but concerns remain



Discharges from offshore oil and gas installations have decreased due to OSPAR measures



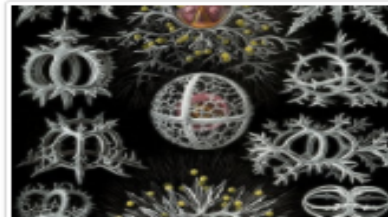
Cooperation ensures progress



Mixed signals for marine mammals



Marine litter is a problem



New developments in the way biodiversity is assessed



Eutrophication is still a problem in some areas





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## Marine birds in trouble

For more than a quarter of the marine bird species assessed, abundance has dropped considerably since 1992

Marine birds are sensitive to a variety of pressures including those from fishing, predation, loss of habitat and changes in water quality

**25**  
bird species assessed

Diving birds that feed on fish within the water column are faring much better than those that feed at the surface

**44%**  
Norwegian Arctic Waters

Percentage of species experiencing widespread breeding failure

**35%**  
Greater North Sea

**25%**  
Celtic Seas

OSPAR Regions



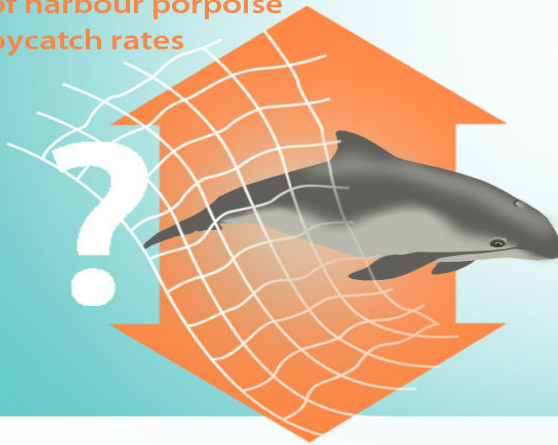
## Mixed signals for marine mammals

Harbour and grey seal populations generally stable or increasing

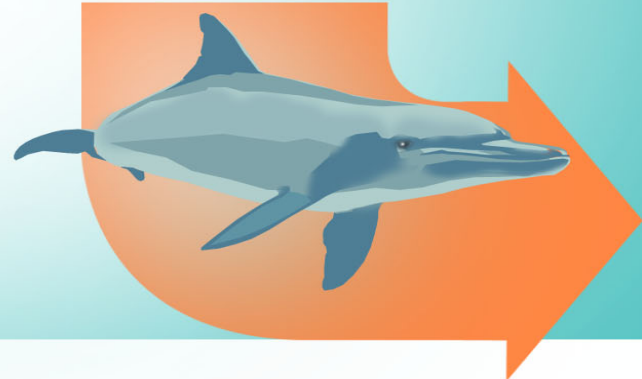


Some harbour seals declining in specific regions

Uncertainty in estimates of harbour porpoise bycatch rates



Populations of coastal bottlenose dolphins declined during the 20th century; numbers remain low

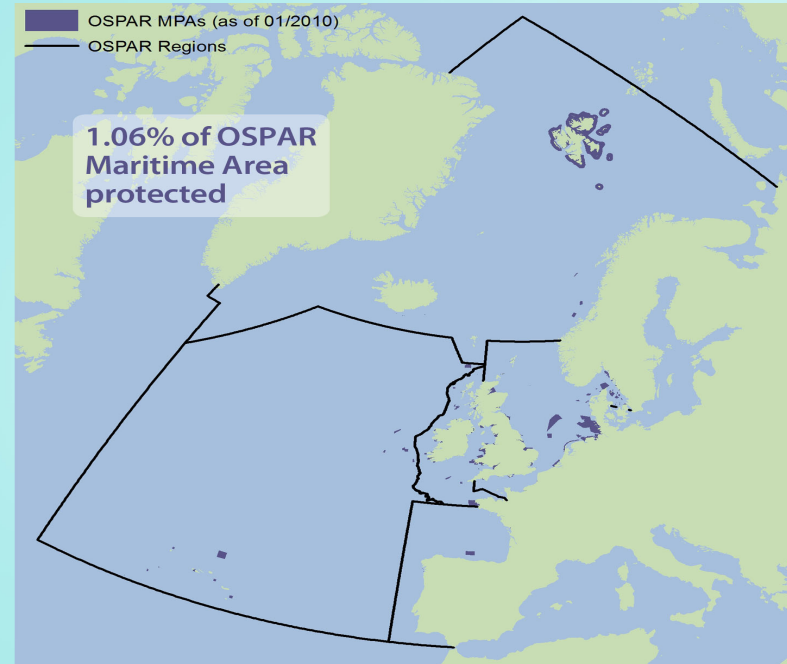




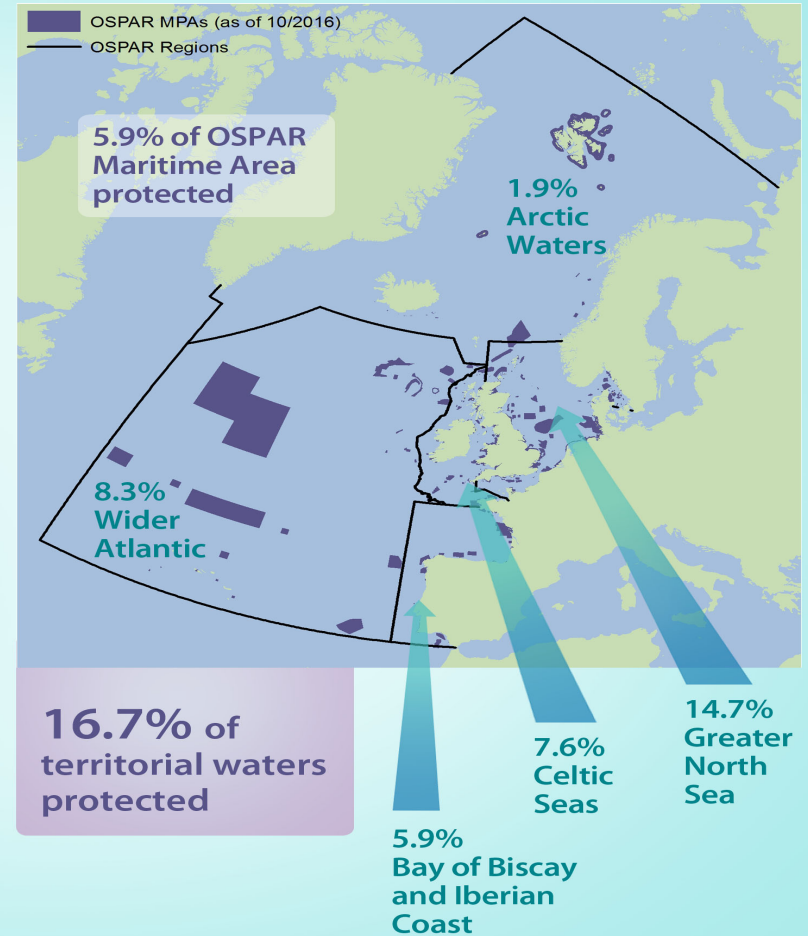


## OSPAR Network of Marine Protected Areas

There were **159** OSPAR MPAs in 2010



This had increased to **448** by 2016





## Contaminants

**SINCE 2010...**

OSPAR countries routinely measure the levels of contaminants



- Heavy metals

- Lead
- Mercury
- Cadmium

- PAH
- PCB
- PBDE
- Organotins



Concerns remain about high levels of lead, mercury and CB118 (a PCB) in some areas

No changes in amounts of dumped dredged material



Measurements focus on marine sediments as well as in species which accumulate contaminants higher up the food chain



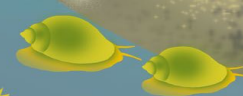
Concentrations of PAHs and Cadmium are increasing in open waters



Contaminant releases from land-based sources decreasing



Harmful effects of Tributyltin on marine snails decreasing



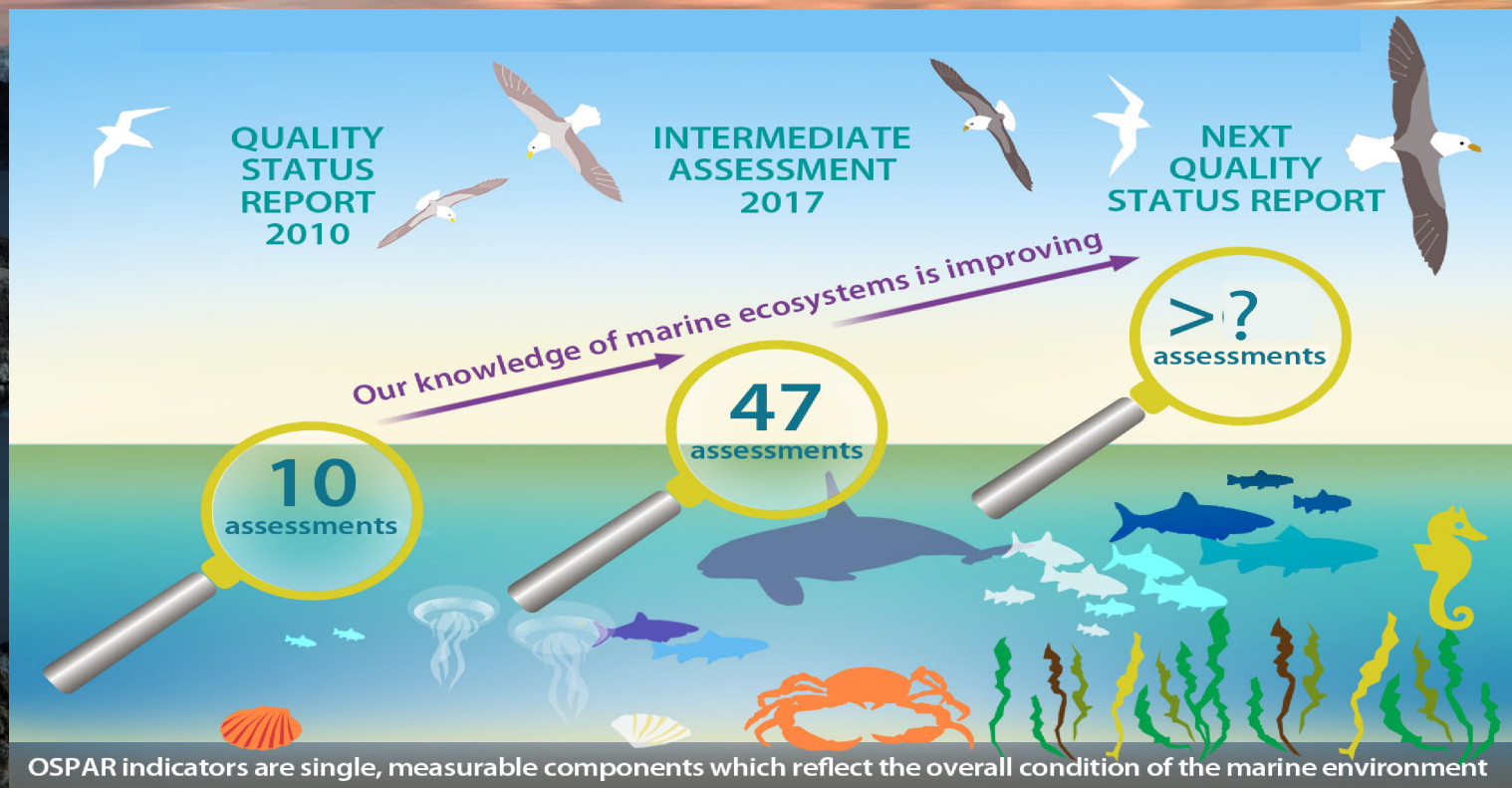
Decreasing contaminant releases from offshore oil and gas industry







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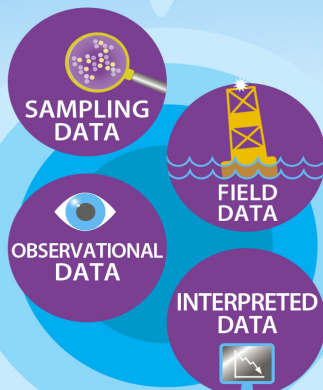


# OSPAR COMMISSION

WORKING TOGETHER IN 15 DIFFERENT COUNTRIES AND THE EU



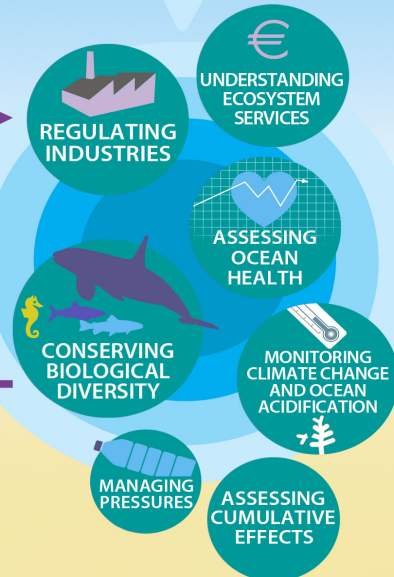
## DATA INPUTS



## OSPAR'S WORK



## POLICY OUTCOMES





*OSPAR recognises that to achieve its commitment to an ecosystem approach, it needs to cooperate with other organisations;*

*Bilateral arrangements, MoUs, other formal frameworks;*

*The collective arrangement, first step has been agreement between OSPAR and NEAFC*

## Cooperation with international organisations

Arctic Council

NEAFC – Fisheries

NASCO - Salmon

IMO- Shipping

London Convention – dumping, marine litter & decommissioning

ISA - Seabed

Abidjan Convention – West Africa

HELCOM – Baltic Sea

Barcelona Convention - Mediterranean

Black Sea Convention

ICES

EEA - European Environment Agency

EMSA - European Maritime Safety Agency





Thank you

[www.ospar.org](http://www.ospar.org)