



An Roinn Tithíochta,  
Pleanála agus Rialtais Áitiúil  
Department of Housing,  
Planning and Local Government

# Effect of Plastic Pollution on the Marine Environment

Richard Cronin – Principal Adviser– Marine Environment

Chairman OSPAR Commission

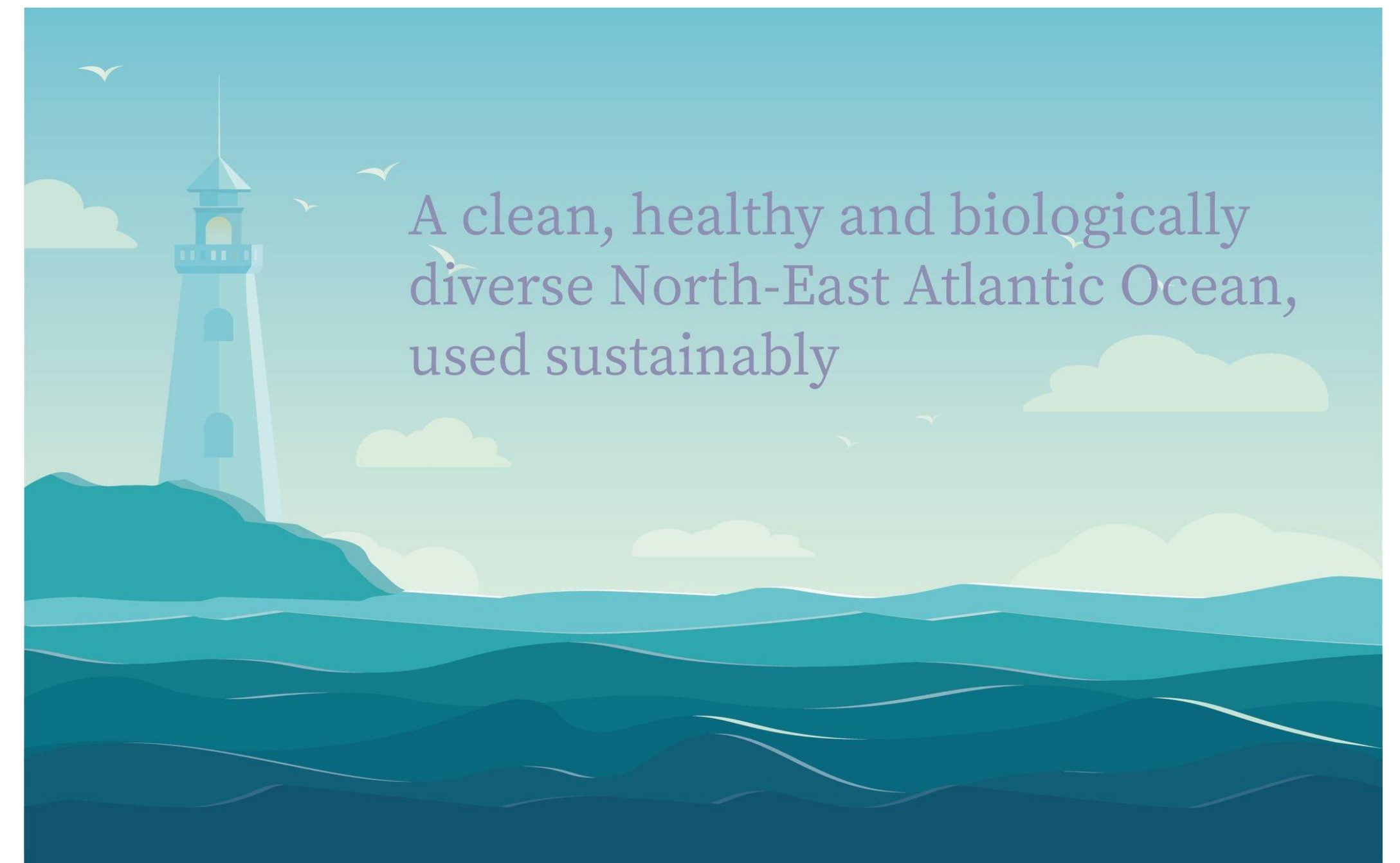
7<sup>th</sup> November 2019

# OSPAR - Oslo Paris Convention for the protection of the environment of the Northeast Atlantic (1992)



## OSPAR:

- **15 Countries + EU** cooperating and working together
- Working through the OSPAR Commission with the OSPAR Secretariat
- 5 thematic committees with subordinate expert groups
  - *Off-shore Industry (OIC)*
  - *Radioactive Substances (RSC)*
  - *Hazardous Substances and Eutrophication (HASEC)*
  - *Environmental Impact of Human Activities (EIHA)*
  - *Biological Diversity (BDC)*
- ca. **13.5 million** km<sup>2</sup> in surface area
- Guided by the ecosystem based approach to managing human activities

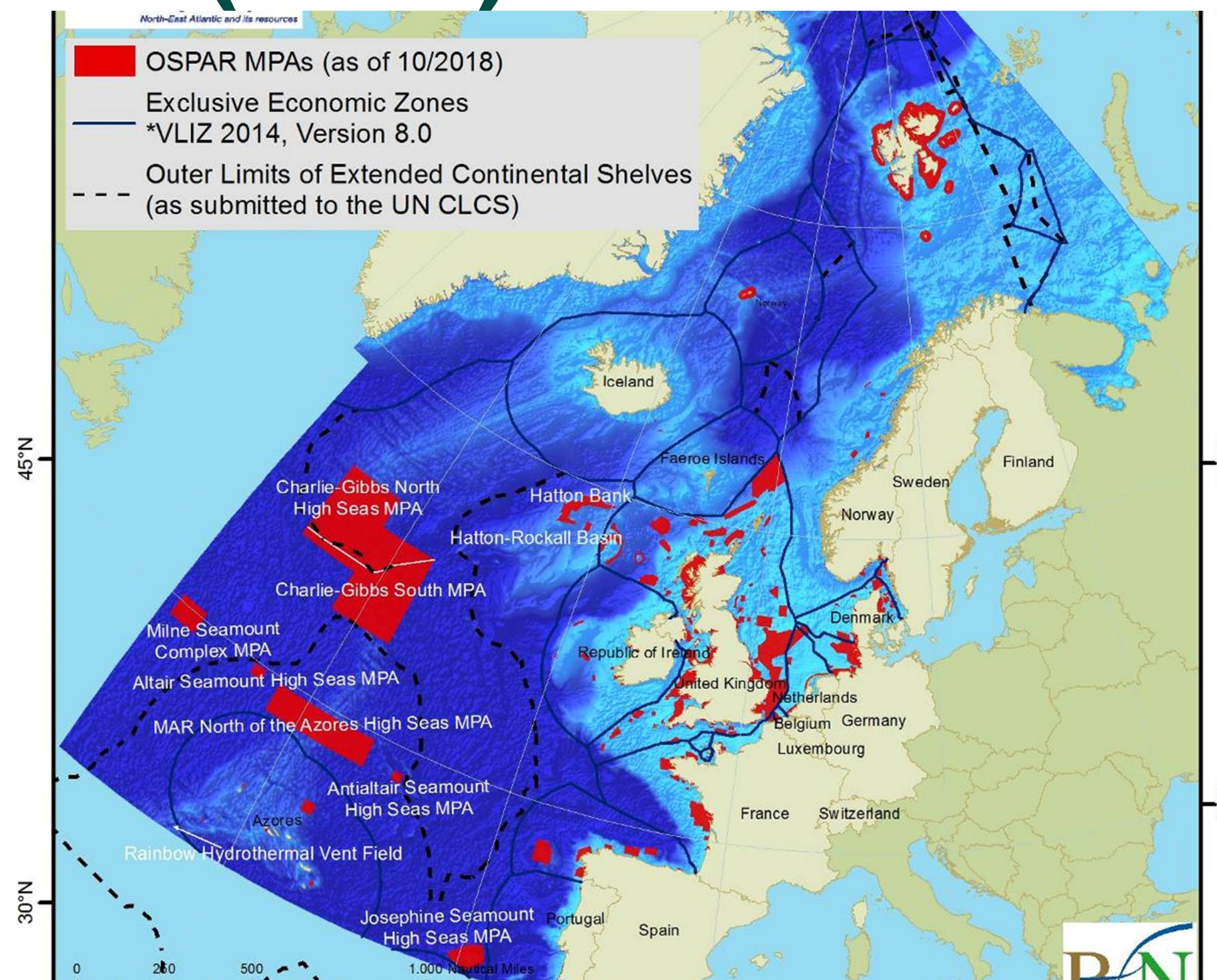




# OSPAR - Oslo Paris Convention for the protection of the environment of the Northeast Atlantic (1992)



- OSPAR Commission established by the Convention
  - *Monitoring and Assessment*
  - *Decisions and Recommendations*
- North East Atlantic Environment Strategy 2010-2020
- New strategy in development 2020 - 2030
- Ministerial meeting July 2020 - Portugal







## Environmental Impact of Human Activities Committee

1. Noise

2. Ballast Water Management

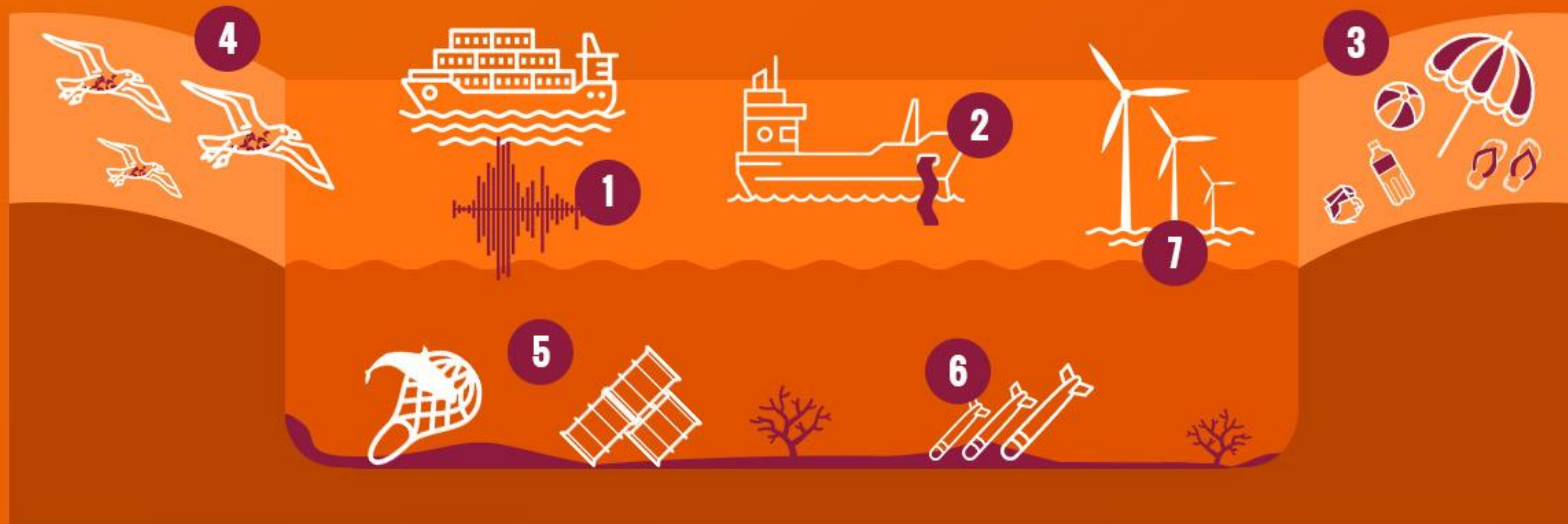
3. Beach Litter Monitoring

4. Plastic in Fulmar Stomachs

5. Seabed Litter Monitoring

6. Munitions Encounters

7. Offshore Renewable Developments



# OSPAR and marine litter



- Monitoring and assessment - state of the marine environment
- Measures – Regional Action Plan on Marine Litter 2014
  - *holistic approach - land and sea sources*
- There is a strong overlap between work at a regional, EU, macro-regional, sectoral and global scale.
- Sea conventions → EU → G7 → G20 → UNEP
- The same modes of action
  - *Education* (training, behavioural and awareness raising)
  - *Engineering* (minimisation of the problem by product and process design)
  - *Enforcement* (penalties for pollution, bans)
- Rapidly shifting societal values (scientific evidence versus beliefs/feelings)

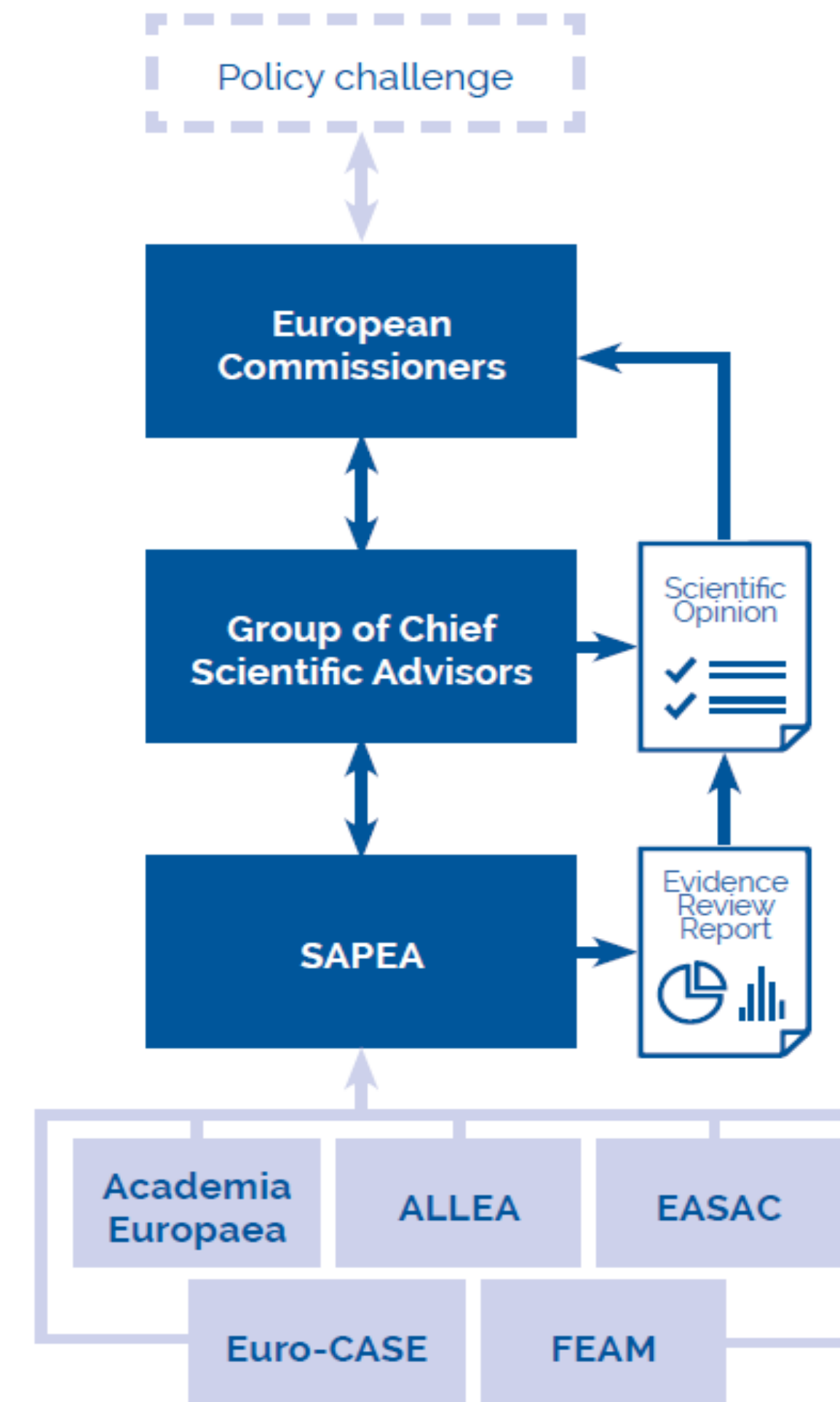


# SAPEA – Microplastics in nature and society January 2019



- Science Advice for Policy by European Academies
- Part of European Commission's Science Advice Mechanism
- Provide independent scientific advice to European Commissioners to support their decision making
- Scientific Opinion 6/2019 Environmental and Health Risks of Microplastic pollution
- [www.sapea.info](http://www.sapea.info)

## The Scientific Advice Mechanism





- At present ecological risks from microplastics are rare but constant or increasing emissions will lead to ecological risks with a century
- Human decision and behaviour are the cause of microplastics in our environment. Influencing behaviour, values and norms are a way to reduce pollution but experts and society must agree on risk and response
- No confirmed risk to human health at present but more work is required to draw robust conclusions
- Very little is known about nanoplastics
- Clear communication about uncertainty and risk is required

# Effects of plastic pollution on the marine environment?



- Harm
  - *Ecological*
    - Entanglement, ingestion and smothering of ecosystem components (species and habitats)
  - *Socioeconomic*
    - Human activities
    - Transaction costs
- Policy responses (new laws)
- Precautionary Principle
- Changing values (behavioural responses)



# Key challenges for the sector



- How is the sector dealing with the challenge of marine litter?
- Moving goalposts
  - *Transaction costs – coping with an evolving regulatory framework*
  - *Potential market shocks - sudden behavioural or value changes*
- Is the business as usual model fit for purpose?