



**OSPAR
COMMISSION**

*Protecting and conserving the
North-East Atlantic and its resources*

EMEP and OSPAR collaboration

Adaptation of EMEP data products for OSPAR's needs

3rd Joint Session of the Steering Body to EMEP and the
Working Group on Effects

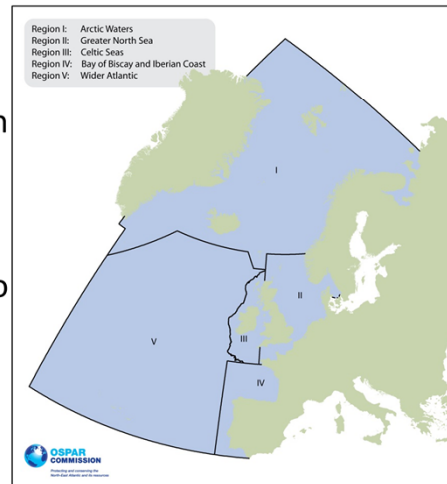
Outreach efforts, information sharing and cooperation with
other organisations & programmes

Geneva, 11–15 September

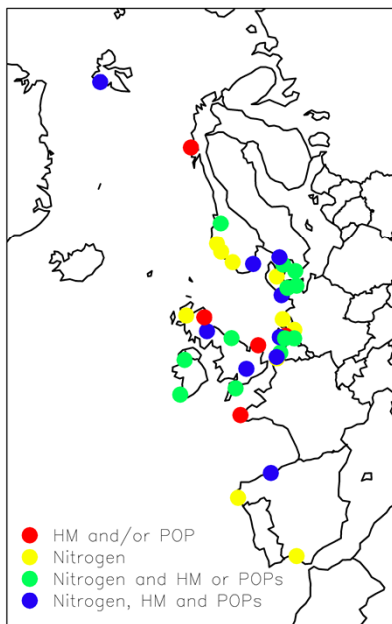
Dr Jo Foden

Activities

- Monitoring
- Assessment
- Programmes of measures
- EU MSFD regional implementation
- Collaboration between Regional Seas Conventions
- OSPAR Contracting Parties are also members of EMEP



OSPAR's Comprehensive Atmospheric Monitoring Programme (CAMP)

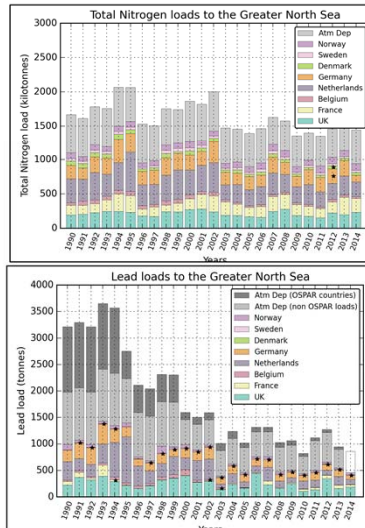


Monitoring locations (map) and components measured (table)

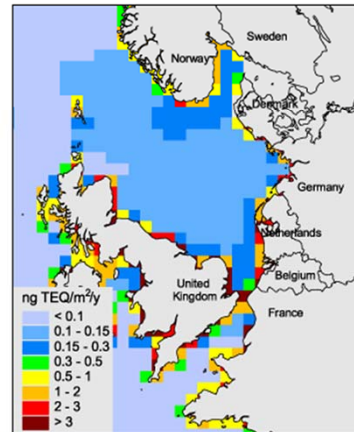
	Mandatory	Voluntary
Precipitation	Cd, Pb, Hg, Ni NH_4^+ , NO_3^-	As, Cr, Cu, Zn, PAHs For quality control: pH , Na^+ , K^+ , Ca^{2+} , Mg^{2+} , SO_4^{2-} , Cl^- , NH_4^+ , NO_3^-
Airborne	NO_2 , HNO_3 , NH_3 , NH_4^+ , NO_3^{-1} , Cd, Pb, Ni	$\text{Hg}_{(\text{g})}$, PCBs

EMEP monitoring & products

- OSPAR uses EMEP products in load calculations
- EMEP routine products don't match OSPAR boundaries
- Tailored products can inform mitigation measures



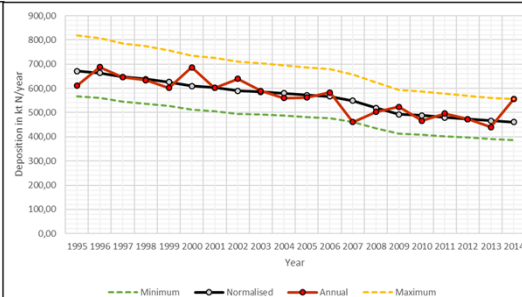
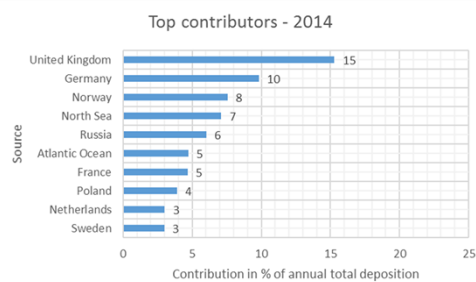
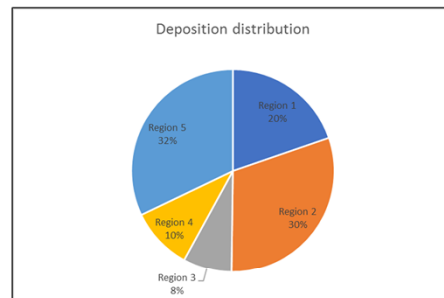
Grey =
atmospheric
loads
Colours =
waterborne



PCDD/Fs deposition to the North Sea in 2014, ng TEQ/m²/y

EMEP products for OSPAR

- Greater North Sea area to include the Kattegat and The Sound
- Annual atmospheric deposition to:
 - each OSPAR Region
 - national EEZs in each OSPAR Region
- Source-receptor matrices
- Routine weather-normalised deposition estimates
- Effects of the Gothenburg Protocol





EMEP and OSPAR collaboration summary

- OSPAR coordinates marine management in the North-East Atlantic
- Atmospheric nitrogen and heavy metals loads are ~25-50% of the total to the North Sea
- EMEP atmospheric deposition products are an essential part of science-based management of European Seas
- OSPAR marine-focused products:
 - Deposition to all European Seas (including all OSPAR Regions)
 - Source-receptor matrices and deposition to regional seas and national marine EEZs



EMEP and OSPAR collaboration

THANK YOU

OSPAR Secretariat

Jo.foden@ospar.org

Chair of OSPAR HASEC*

Stephen.malcolm@cefas.co.uk

Chair of OSPAR INPUT

Lars.sonesten@slu.se

*HASEC: Hazardous Substances and Eutrophication Committee, one of OSPAR's principle working groups