EMODnet
European Marine Observation and Data Network

Your gateway to marine data in Europe

Updates from Chemistry lot

8th EMODnet Steering Committee Meeting, Rome

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Collects data on:

In 3 matrices:
- water column;
- biota;
- sediment.

	Group	Examples
Eutrophication	nutrients, dissolved gasses …	N, P, Si, Oxy, Chl-a
Ocean acidification	acidity	pH, pCO2
Pollution	hydrocarbons, heavy metals, pesticides, …	anthracene, fluroanthene, Me, Cd, Pb, TBT, DDTs
Marine Litter	beach litter, seabed litter, microlitter	

Covers **all European waters**

Involves **45 institutes** from **27 countries** and 3 international organisations (ICES, Black Sea Commission, UNEP/MAP)

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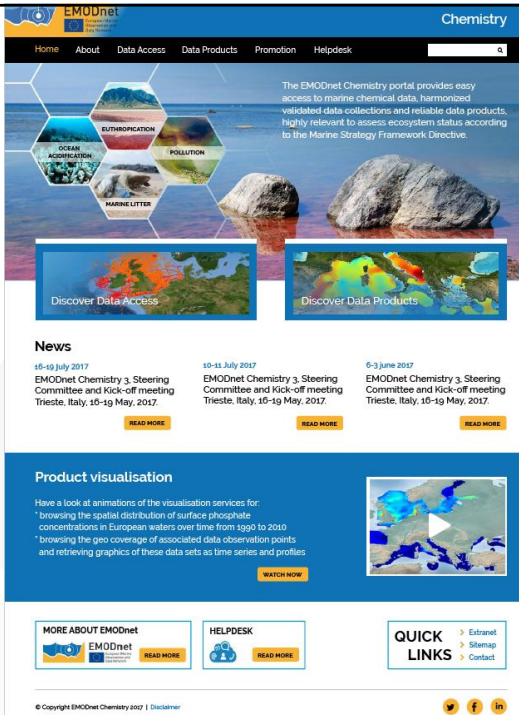
Use-cases for Chemistry data

- Collaboration with **UNEP/MAP** – case study on EO5 in the North Adriatic (Partnership agreement under evaluation)
- Meeting with Info-RAC for synergy between information systems
- EMODnet Chemistry validated buffer with contaminants and nutrients in the **Black sea** for the BSCS SOE (February 2017)
- EMODnet Chemistry contaminants data requested for **EEA** thematic report
- Possible collaboration with **CMEMS-Med-MFC**

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New design

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Link with MSFD Art19(3)

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- Technical Group on Marine Data (TG DATA) works on the development of recommendations related to:
  - **Accessing data and information** according to MSFD Art. 19(3), in the context of WISE-Marine and associated to INSPIRE, **EMODnet**, and other relevant processes and projects
  - Geographic handling and visualisation of reported information
  - Technical development of WISE-Marine, including linkages to other reporting requirements …

- Meeting on 7-8 June 2017 on **what standards and vocabularies** best to use for the MSFD data, as well as clarifying processes regarding data flows and actors

- EMODnet Chemistry and Biology could play an important role, together with EEA and ICES and should have a seat on the table of TG DATA

- The **participation** to the group with consistent, scientific and technical representation is **crucial**

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Marine Litter

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- Focus on gathering data, generating data products on a European scale, and publishing data and data products on:
  - **Beach** litter (nets, bottles etc.)
  - **Seafloor** litter (i.e. litter collected by fish trawl surveys)
  - **Micro** litter (microplastics)
- Not on litter in biota
- It is stipulated that digital layers of plastic or litter must be available after the first year
- Approach discussed at TG ML

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Proposed approach

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- Opt for developing two central EMODnet internet databases:
  - one for **beach litter**, modelled after the OSPAR-MCS approach
  - one for **seafloor litter**, modelled after the ICES-DATRAS approach
- Arrange data exchange mechanisms and cooperation with the **relevant regional systems**, their responsible managers and related networks
- Encourage **further population** of the existing systems by organisations in the relevant regions
- Set up and operate **central submission facilities** for covering submissions by organisations in regions that fall outside existing systems
- Extra population by EMODnet Chemistry partners and through **EMODnet Ingestion** project
- Develop **search and display services** (including maps) on the central EMODnet validated databases

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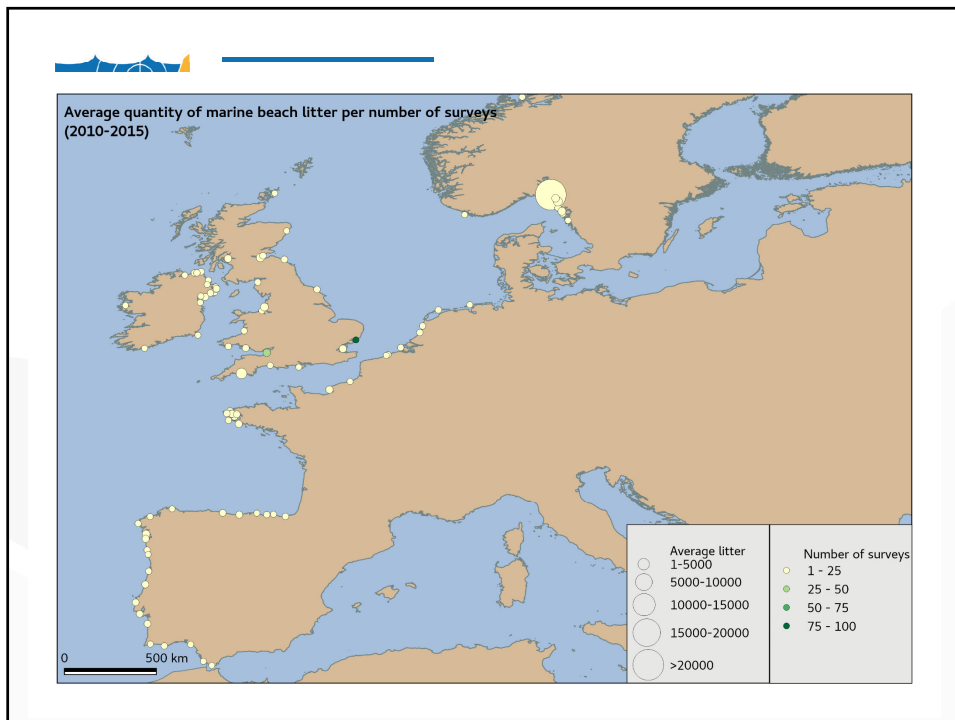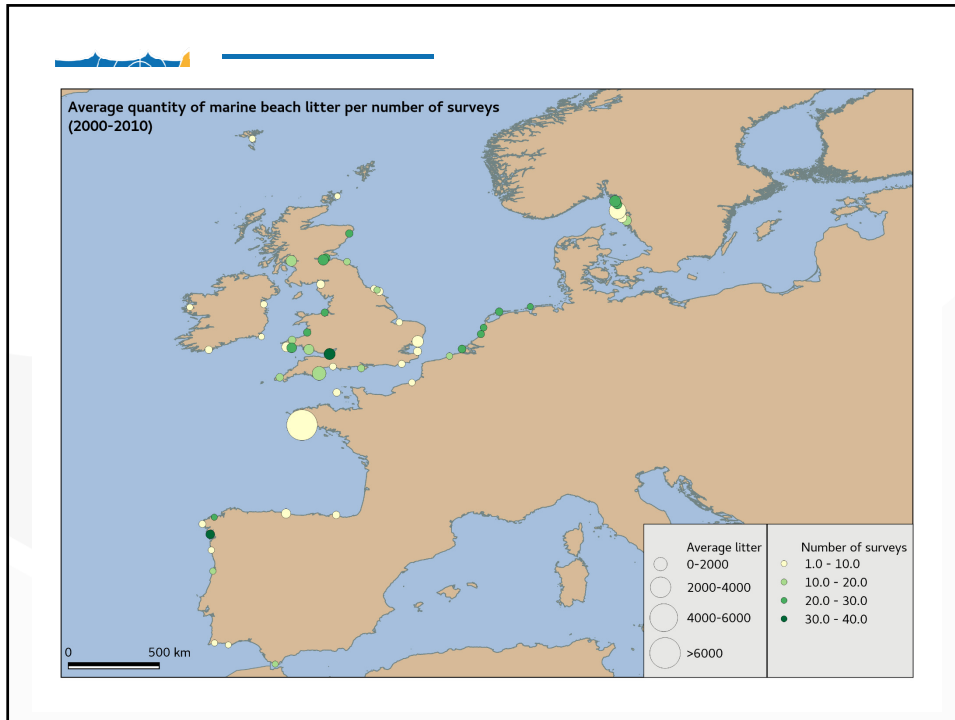
Present situation – beach litter

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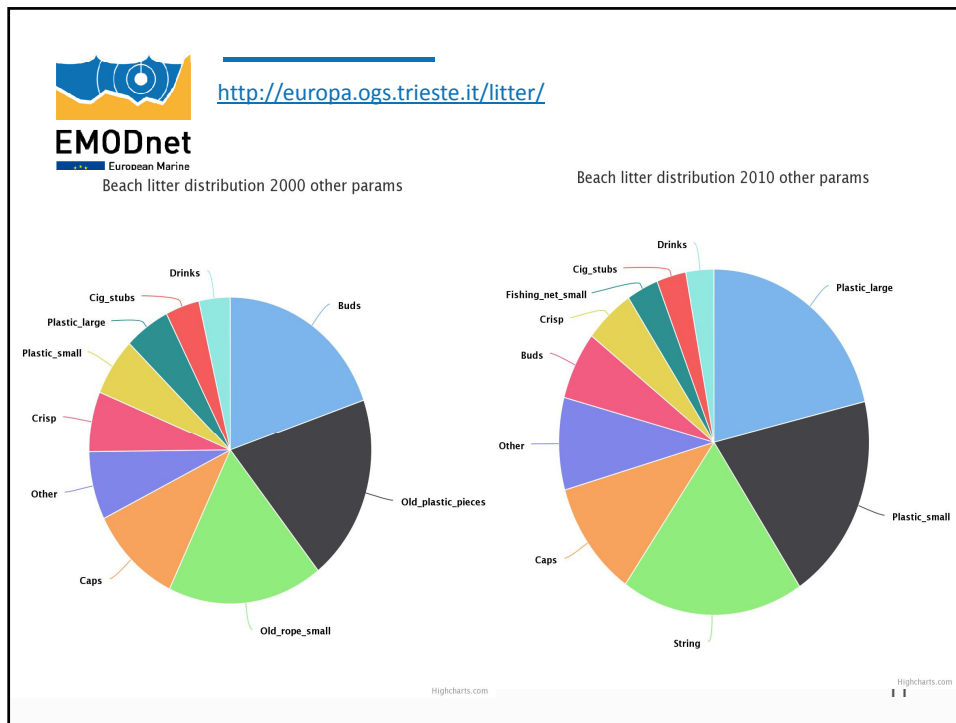Observation and
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- Regular harvesting from **OSPAR-MCS**
- Started agreement with OSPAR about the set up of a web service
- Central submission facility covers **additional** data providers
- The reference list of beach litter categories is the **Master List** published in 'Guidance on Monitoring of Marine Litter in European Seas' (Galgani et al., 2013)
- Next steps **DeFishGear** (Adriatic-Ionian region)
- Cooperation planned with HELCOM – SPICE (under way), UNEP/MAP – INFO/RAC (planning), EEA, Black Sea Commission, JRC 'Project on ML **baselines**' (all these parties joined the kick-off)

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Average quantity of marine beach litter per number of surveys (2000-2010)

Average quantity of marine beach litter per number of surveys (2010-2015)

Beach litter distribution 2000 other params

Beach litter distribution 2010 other params

http://europa.ogs.trieste.it/litter/

Present situation – seafloor litter

- Regular harvesting from **ICES-DATRAS**, including **BITS**
- Contacts with **MEDITS**
- Central submission facility covers **additional** data providers
- The reference list of seafloor litter categories from **ICES vocabs**
- Taking on board DeFishGear and PERSEUS as next steps

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Micro litter – proposed approach

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For **micro litter** there are not yet coordinated efforts at regional or European scale. EMODnet Chemistry proposes to adopt the data management approach as generally applied for marine data in Europe, adopting and adapting the **SeaDataNet infrastructure and standards**:

- **CDIs** → include micro litter metadata information, for discovery and access
- **ODVs** → include data, extending ODV **mandatory** fields with **additional selected fields** necessary to describe marine micro litter (category, count,… and size, color,…)

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Micro litter – proposed approach II

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- A document with the proposed approach for marine micro litter was submitted and presented as proposal to the **Technical Group on Marine Litter (TG ML)** with the ultimate aim to establish official support.
  - So far positive feedback from Germany and HELCOM
- The reviewed version was also positively discussed at JPI Oceans **BASEMAN** recently

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International dimension –interoperability

- JCOMM Marine Technical Conference, Bali, October 17
- 33rd BSC Regular Meeting, Istanbul, October 17
- UNEP Global Conference on Land-Ocean Connections

- 3 layers of interoperability:
  - formats and vocabs on a technical level (ODIP)
  - QC, flag on a content wise layer (IOC/IODE, including NOAA and ICES)
  - Collection and processing, using international instruments and lab tests

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Use of Digital Object Identifiers (DOIs)

- DOIs from DataCite

- All DIVA maps have a DOI
- All scientific reports have DOI
- We plan to give a DOI to all data collections at regional level, and introducing also versioning

- All DOIs landing pages are linked to Sextant metadata products descriptions

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Reference coastline

- Reasonable to have common layer across all portals

- The coastline (for products and maps) is based on Gebco

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