The European Marine Observation and Data Network (EMODnet)

Jan-Bart Calewaert (janbart.calewaert@emodnet.eu)
Patrick Gorringe (patrick.gorringe@eurogoos.eu)
Presentation Outline

• What is EMODnet?
• Where are we now?
• What’s new?
• What’s next?
What is EMODnet?
EMODnet

• Network of +120 organizations assembling marine data, data products and metadata from diverse sources within Europe in a uniform way

• Aim = to unlock fragmented/hidden marine data

• Initiated by the **European Commission** in response to the EU GP on Future Maritime Policy, launched in **June 2006** – **now core part of Marine Knowledge 2020 initiative**
What does EMODnet deliver?

• **access to data**
  - maintained on Member States' databases
  - interoperable, common standards
  - metadata describing time, date of measurement, quality, etc.

• **data products**
  - maintained by consortium
  - map layers
  - quality indicators
Why EMODnet?

An effective pan-European marine data infrastructure will:

• Enable effective and efficient marine **planning and legislation** for environment, fisheries, transport, border control, customs and defense;

• **Reduce uncertainty** in our knowledge and ability to forecast the behavior of the sea;

• **Improve offshore operators’ efficiency and costs** in gathering and processing marine data for operational and planning purposes;

• **Stimulate competition and innovation** in established and emerging maritime sectors.
Uses of EMODnet data innovation – new cage design

Irish deep sea farm project will generate 350 direct and 150 indirect jobs

- bathymetric data – water depth
- geological data – sediments for foundations
- chemical data – water quality
- physical data – tides, waves, currents
- biological data – not endanger local wildlife
Uses of EMODnet data
innovation – protection of cables

- 48 cable failures occur in Europe each year
- €6.9 billion losses

- sediment properties for burial techniques
- local human activity (fishing etc)
- temperature, salinity
Uses of EMODnet data
uncertainty reduction – better routing

- improved charts will allow faster transit for deeper draughts
- NOAA estimate that one additional foot of draught may account for between $36,000 and $288,000 additional profit per transit
Where are we now?
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<td>Phase 1 – limited sea basins</td>
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<td>Phase 3 - multi-resolution</td>
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allows users to assess and improve product by trying it out
<table>
<thead>
<tr>
<th>Category</th>
<th>Phase 1</th>
<th>Phase 2</th>
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<tr>
<td>bathymetry</td>
<td>€ 2,175,000</td>
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<td>geology</td>
<td>€ 925,000</td>
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<td>chemistry</td>
<td>€ 700,000</td>
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<td>biology</td>
<td>€ 750,000</td>
<td>€ 1,700,000</td>
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<td>physical habitats</td>
<td>€ 800,000</td>
<td>€ 1,390,000</td>
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<td>human activity</td>
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<td>€ 2,060,000</td>
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<td><strong>Total</strong></td>
<td><strong>€ 6,350,000</strong></td>
<td><strong>€ 16,350,000</strong></td>
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EMODnet thematic portals and coordinators

www.emodnet-bathymetry.eu
www.emodnet-geology.eu
www.emodnet-seabedhabitats.eu
www.emodnet-chemistry.eu
www.emodnet-biology.eu
www.emodnet-physics.eu
www.emodnet-humanactivities.eu
Preparatory Actions 2008-2010

- €6,450,000 spent
- seven portals now operational
EMODnet phase 2
+ 120 organisations - Some participate in more than one project
What’s new in this phase?

- EMODnet Central Portal
- EMODnet Human Activities Portal
- EMODnet Sea-basin checkpoints
- EMODnet Secretariat
The Central Portal

**WWW.EMODNET.EU**

- Acts as a gateway to the other thematic and regional EMODnet portals
- Also develops own data products combining data from at least 2 thematic data portals
EMODnet Central Portal

Data Portals

- Hydrography
- Geology
- Seabed Habitats
- Chemistry
- Biology
- Physical Parameters
- Human Activities

EMODnet, the European Marine Observation and Data Network (EMODnet), is a consortium of organisations within Europe that assembles marine data from diverse sources in a uniform way. The main purpose of EMODnet is to unlock fragmented and often inaccessible marine and coastal data and to make these available to individuals and organisations (public and private), and to facilitate coastal and offshore activities through improved access to quality-assured, standardised and harmonised data. The initiative is funded by DG MARE, the European Commission Directorate-General for Maritime Affairs and Fisheries (DG MARE) 2020 strategy.

One further portal covering human activities is currently under development.
Human activities Portal – now online!

EMODnet Human Activities is a FREE marine data resource for all.
How can observation infrastructure be optimised?

North Sea

Mediterranean
The EMODnet Secretariat

Overarching goal to develop a more efficient, effective, fit for purpose EMODnet which is better known and more widely used

1. Coordination & internal communication
   - Steering Committee / internal updates / guide entry portal / support MODEG

2. Monitoring
   - Test functionality / implement progress indicators / collect user-feedback / progress reports / report lessons learned / guide portals to improve them

3. Dissemination and Outreach
   - Prepare/give on-line demonstrations / videos / brochure/ posters etc.
Who is the Secretariat?

• Administered by Seascape Consultants UK (www.seascapeconsultants.co.uk)

• Jan-Bart Calewaert (overall coordination and communication)
• Liesbeth Renders (technical support)
• Vikki Gunn (management support)
• Phil Weaver (chair Steering Committee)
Hosting of the Secretariat

Hosted by the Flemish Government at the InnovOcean site in Oostende, (Belgium)

- European Marine Board
- EMODnet Secretariat
- UNESCO IOC -IODE
- Flanders Marine Institute (VLIZ)
What’s next?
Outcome of Public Consultation to gather ideas for third phase

- Endorsed basic principles
  - need for open access to marine data, in both raw and aggregated forms

- Confirmed that we are on the right track
  - the architecture of the current EMODnet is sound

- Identified new needs
Identified new needs

- more involvement of **private sector**
  - Ensuring that the private sector is represented in the new Expert Group

- mechanism to **advise Member States and the EU** on the most cost-effective sampling, surveying and observation programme for each sea-basin – sea-basin checkpoints

- convergence of EMODnet, data collection in fisheries and Copernicus marine service

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Horizon 2020

operational objectives for phase 3 of "marine knowledge 2020"
What else?

- Launch of **tenders for new EMODnet sea-basin checkpoints** for the Arctic, Atlantic, Baltic and Black sea → before summer 2014!

- JOINT EuroGOOS/EMB/JRC/EMODnet Workshop on EOOS at EMD 2014 (19-20 May 2014, Bremen)

- Developing brochures, videos, demonstrations and trainings at events (e.g. JERICO training)

- Upgrade of thematic portals after 1 year → end of 2014
Conclusion

• EMODnet is a long term marine data initiative developed in a stepwise approach

• We are in the middle of development – the service is already useful but much has to be done in the coming years to make it
  – Fully operational
  – Provide the best available data
  – Become more user friendly

• Can only be done together: we need your help!
Thank you for your attention
EMODnet Secretariat Contact Details

• Jan-Bart Calewaert (Head of the EMODnet Secretariat)
  Email: janbart.calewaert@emodnet.eu
  Office phone: +32 (0) 59 341428
  Mobile: +32 (0) 497433371
  Address: EMODnet Secretariat, Wandelaarkaai 7 pakhuis 68, 8400 Oostende

• Liesbeth Renders (EMODnet Secretariat Marine Data Analyst)
  E-mail: liesbeth.renders@emodnet.eu
  Office phone: +32 (0) 59 341429
  Address: EMODnet Secretariat, Wandelaarkaai 7 pakhuis 68, 8400 Oostende

• Vikki Gunn (Management Support)
  E-mail: vikki.gunn@seascapeconsultants.co.uk

• Phil Weaver (Chair of the Steering Committee)
  E-mail: phil.weaver@seascapeconsultants.co.uk