Sea Basin Checkpoints

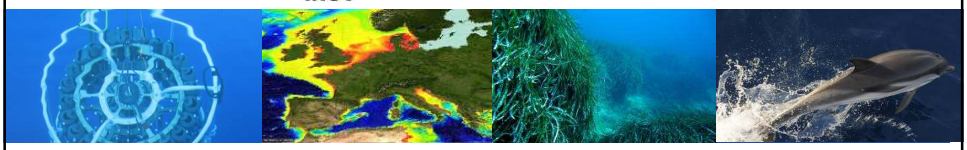
Growth and innovation in ocean economy

Gaps and priorities in sea basin observation and data

North Sea → HR Wallingford (Marie Pendle)
http://www.emodnet.eu/northsea

Mediterranean Sea → INGV (Nadia Pinardi)
http://www.emodnet-mediterranean.eu

INGV N. Pinardi E. Clementi



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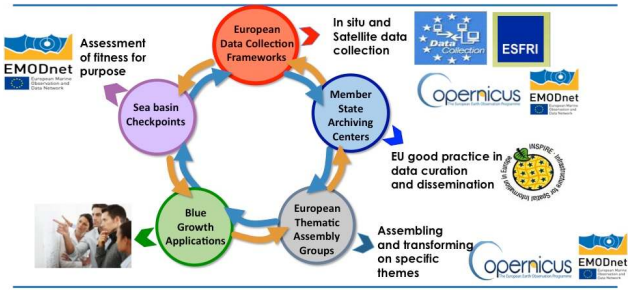
Sea basin checkpoints – high level scheme

The basin checkpoints are at the end of a long value-adding chain and they feed back to the European Data Collection Framework by assessing the quality of the monitoring systems



What Checkpoints do:
Assessments on monitoring systems.
Development and release of specific products is a means.

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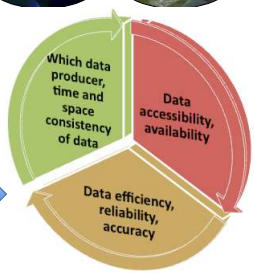
Checkpoint aims

The EMODnet Checkpoints will serve to quality assess, extract the synergies between and identify the gaps of, the present monitoring data sets in view of 7 applications or 'challenges':

The practical outputs of the project are:

1) A **literature survey** on the existing sea basins monitoring systems
2) Develop an **EMODnet Checkpoint Portal** that will publish outputs for the 7 Challenges
3) Two **Data Adequacy Reports** (DARs) on the fitness for purpose of the monitoring with respect to the 7 Challenges
4) Two expert **panel reports**
5) Specific products from available primary and assembled datasets for each challenge in synthesis:



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MedSea Challenges Outputs

Windfarm siting	Determine the suitability of wind farm development in the Northwestern Mediterranean Sea
Marine Protected Areas	Analyze the existing Mediterranean network of marine protected areas (national and international sites)
Oil Platform leak	Issue a Bulletin within 24 hours to determine the fate and transport of oil from a platform leakage
Climate and coastal protection	Document in several ways sea level changes, water column annual mean temperature changes and sediment mass changes.
Fishery management	Collect mass and number of fish landings, discards and bycatch (of fish, mammals, reptiles and seabirds) by species and year
Marine Environment	Seasonal averages and changes of eutrophication in the basin for the past ten years
River Inputs	Time series of all river water discharges, sediment loading, total nitrogen and phosphates loads, eels abundance

The data will be extracted from:
-existing EMODnet thematic portals
-Global Monitoring for Environment and Security Marine Service (Copernicus)
-JRC Data Collection Framework for Fisheries
-other initiatives existing at the national and European basin-wide scale

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MedSea Literature Survey

The Literature survey tried to answer these questions:

- •Is there an overview of data appropriateness and availability?
- •Are there any statements made as to fitness for purpose?

The Literature Survey analyzed 18 'Use Cases' and concluded that 'fitness for purpose' is:

1) **Medium to low for Air Matrix Characteristics** since space-time resolution is medium to low and availability could be low.
2) **High for Marine and Fresh Waters Characteristics** because data space-time resolution is adequate and availability is high, with discovery and downloading is easy.
3) **Medium to low for Biology/Biota Characteristics** since space-time resolution is still inadequate and visibility is medium to low.
4) **Low to high for Seabed Characteristics** because resolution is insufficient, coverage poor and access restricted and not visible

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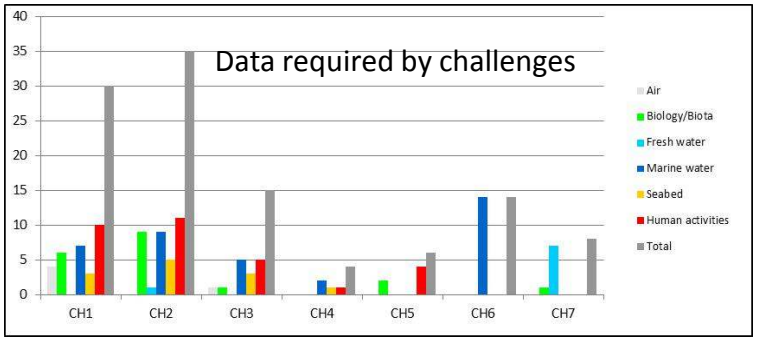
MedSea Literature Survey



Challenges require 73 distinct characteristic categories

More than 100 data providers have been described capable in principle to provide the necessary input data

MORE INFO: https://webgate.ec.europa.eu/maritimeforum/node/3646

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MedSea Next Steps

- Start to collect data and prepare the Databases for the Challenges
- Prepare the Web-GIS system for the monitoring assessment
- Implement the ‘fitness for purpose’ criteria and further refine them
- Produce the first Adequacy Report (May 2015)

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