MARITIME AFFAIRS

Ocean Observations: the European landscape

MARINE BOARD

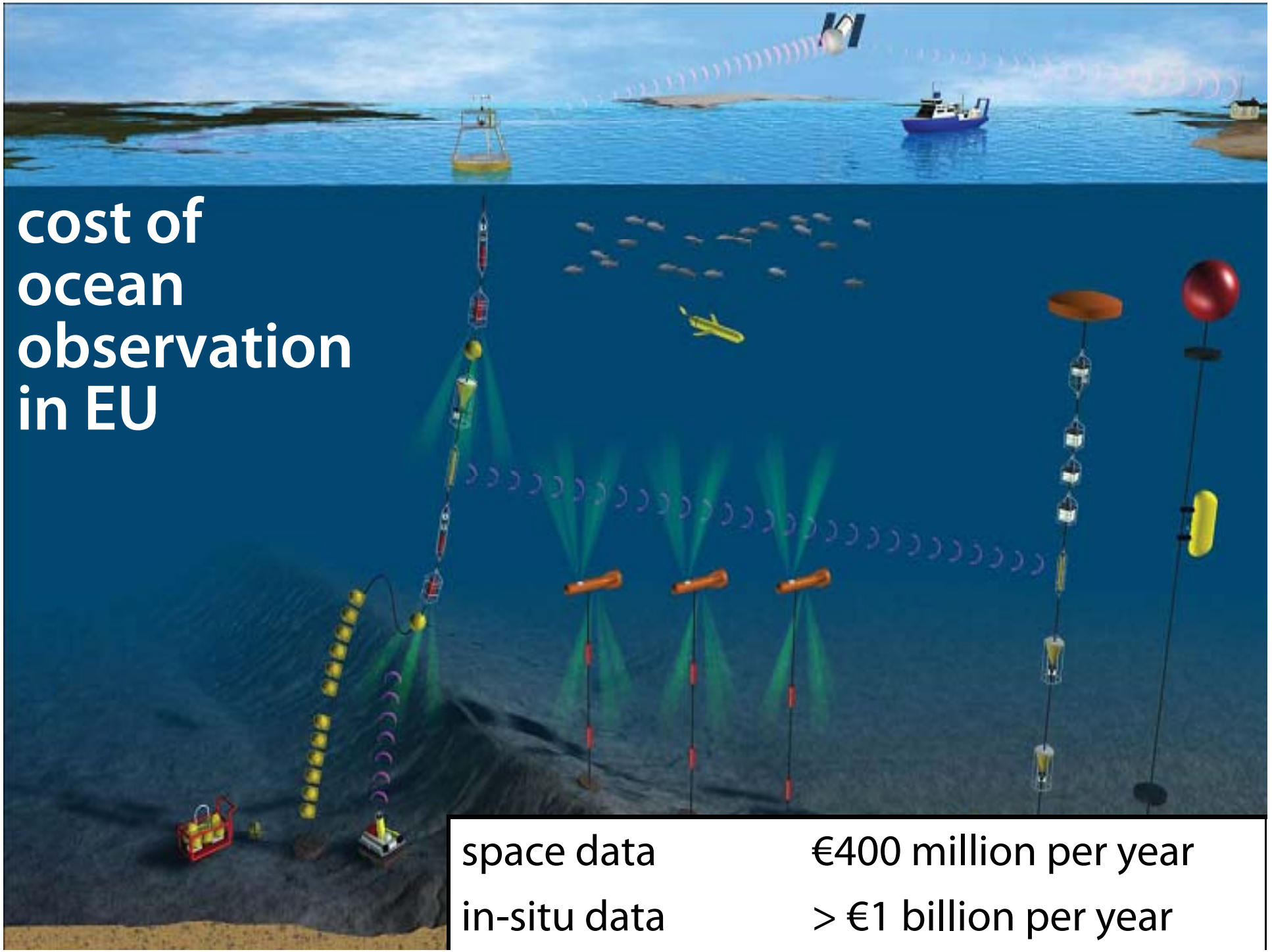
European Commission
Maritime Affairs and Fisheries

DG MARE

Iain Shepherd

16 September 2010

cost of ocean observation in EU



space data	€400 million per year
in-situ data	> €1 billion per year

Maria Damanaki, Commissioner for Maritime Affairs and Fisheries

(..) the data collected through these observations can only generate knowledge and innovation if Europe's engineers and scientists are able to find, access, assemble and apply them efficiently and rapidly. At present this is often not the case.

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2008-2010 preparatory actions

- set up prototype European Marine Observation and Data Network (ur-ENODnet) to provide access to observations and highlight gaps
  - hydrography (water depth, coastlines ..
  - physics (temperature, currents waves ..
  - **chemistry (concentrations in water, sediments, sea-life ..**
  - **biology (abundance and diversity** ..,
  - geology (sediments, hazards, erosion ..
  - habitats (common classification for European waters ..

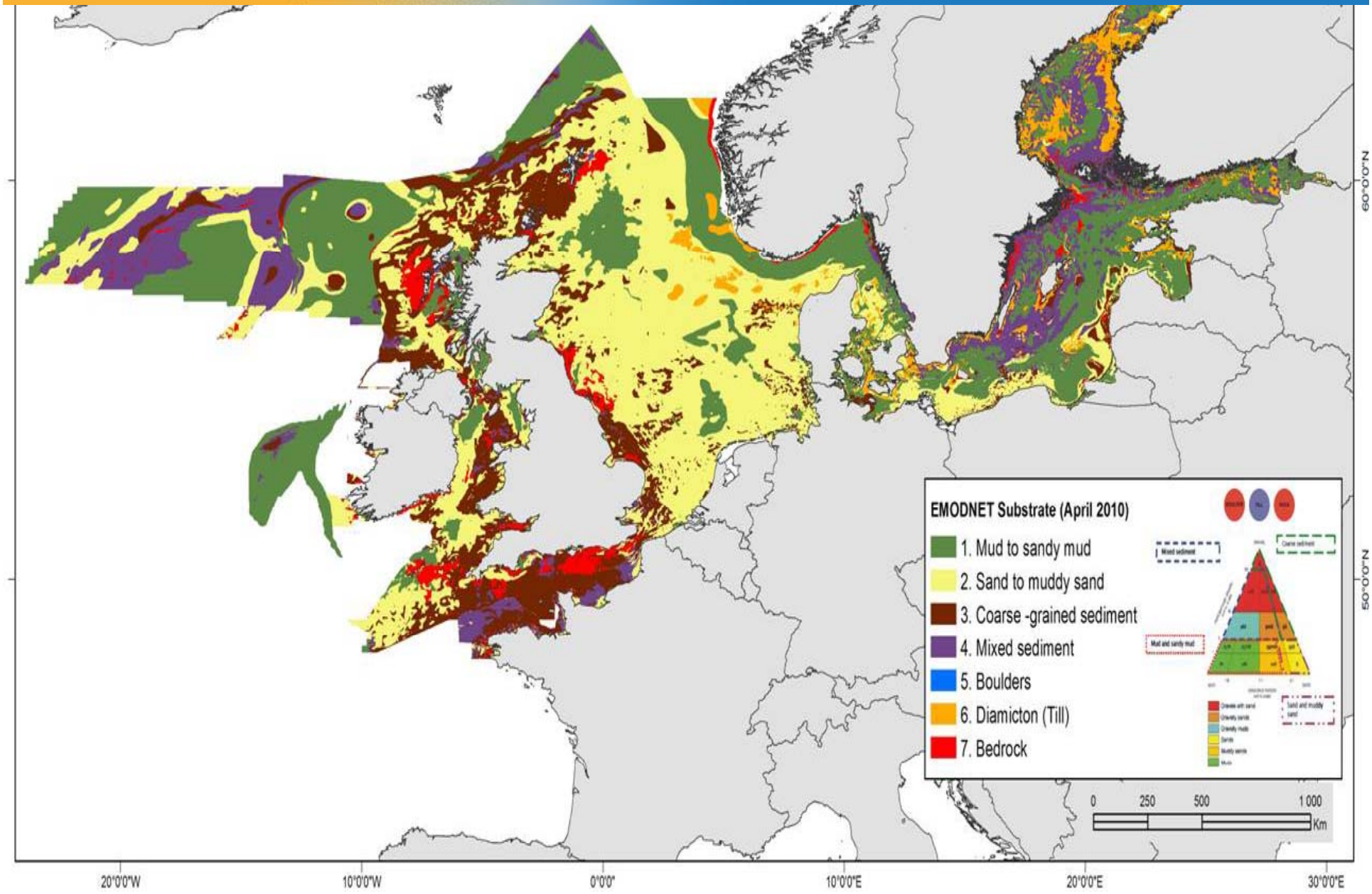
geared to requirements of marine Framework strategy Directive

- 52 organisations from 24 countries
  - Flanders Marine Institute/Vlaams Instituut voor de Zee(VLIZ), Royal Belgian Institute of Natural Sciences, University of Liege - GeoHydrodynamics and Environment Research (ULG) Belgium;, Institute of Oceanology Bulgarian Academy of Science (IO-BAS), University of Cyprus-Oceanography Centre (OC) , Danish Environmental and Planning Agency (BLST), Danish Hydraulic Institute (DHI), Geological Survey of Denmark and Greenland, National Environmental Research Institute (NERI-MAR), Geological Survey of Estonia, Geological Survey of Finland,, Bureau de recherches géologiques et minières, Collecte Localisation Satellites (CLS), Institut Français de Recherche pour l'Exploitation de la Mer (Ifremer), Service Hydrographique et Oceanographique de la Marine (SHOM)., Iv. Javakhishvili Tbilisi State University (TSU-DNA), Alfred Wegener Institute for Polar and Marine Research (AWI), Bundesamt für Seeschiffahrt und Hydrographie (BSH-DOD),, Federal Institute for Geosciences and Natural Resources, University of Bremen (UniHB), Hellenic Centre for Marine Research (HCMR), Geological Survey of Ireland, Marine Institute (MI), Istituto Nazionale di Oceanografia e di Geofísica Sperimentale (OGS), Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA), Latvian Environment, Geology and Meteorology Agency, Lithuania institute of Geology and Geography, ATLIS, Deltares, Mariene Informatie Service 'MARIS' BV, NIOZ Royal Netherlands Institute for Sea Research (NIOZ), etherlands Institute of Ecology; Centre for Estuarine and Marine Ecology (NIOO-CEME), Geological Survey of Norway, Norwegian Marine Data Centre - Institute of Marine Research (IMR),, Polish Geological Institute, National Institute for Marine Research and Development "Grigore Antipa" (NIMRD), All Russian Research Institute of Hydro-meteorological Information -(RIHMI-WDC), P.P. Shirshov Institute of Oceanology Russian Academy of Science (SIO-RAS), Instituto Español de Oceanografía (IEO), Geological Survey of Sweden, Sveriges Meteorologiska Och Hydrologiska Institut (SMHI), Swedish Environmental Protection Agency, Institute of Biology of the Southern Seas, National Academy of Sciences of Ukraine (IBSS NASU, Marine Hydro-physical Institute (MHI), Joint Nature Conservation Committee Support Co, NERC, National Oceanography Centre Southampton (NOC), NERC, British Geological Survey, Edinburgh (BGS), NERC British Océanographie Data Centre, Liverpool (BODC), Rutgers University; Institute for Marine and Coastal Sciences (IMCS), International Council for the Exploration of the Sea (ICES), The Global Biodiversity Information Facility (GBIF), UNEP/GRID-Arendal,

EMODnet

European Marine Observation and Data Network

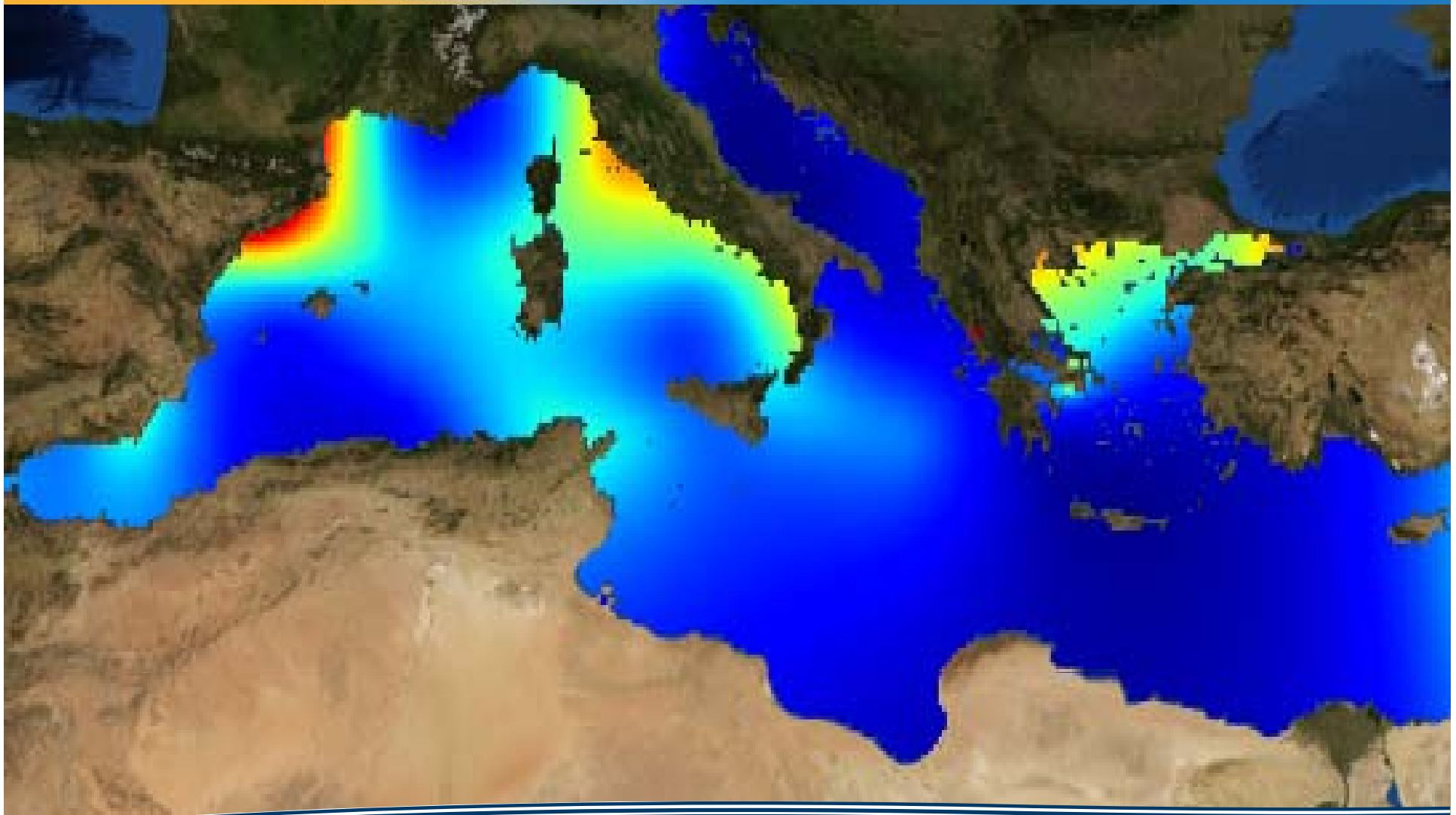
preparatory actions geology



EMODnet

European Marine Observation and Data Network

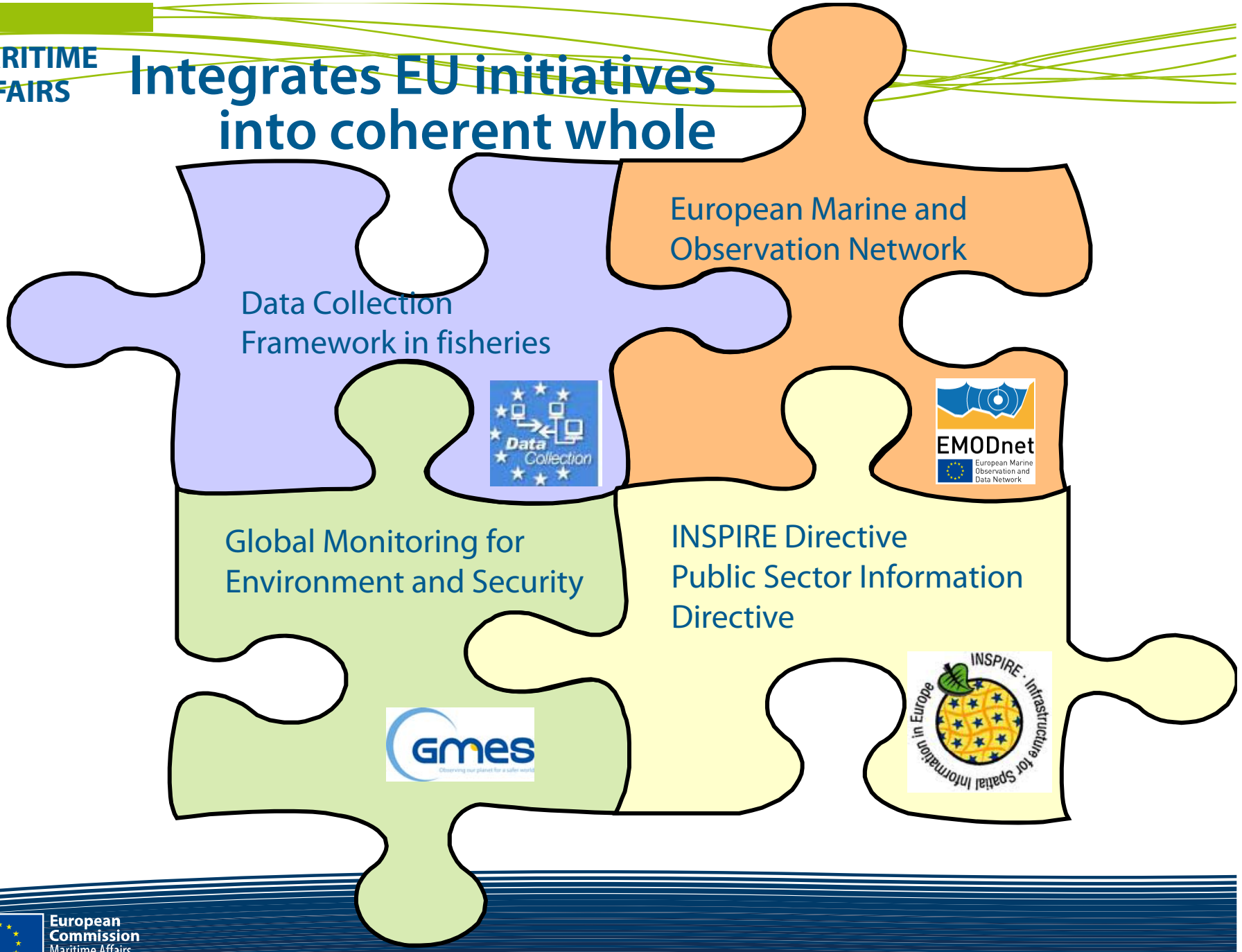
preparatory actions chemistry



European Commission
Maritime Affairs and Fisheries


Marine knowledge 2020
MARINE DATA AND OBSERVATION FOR SMART AND SUSTAINABLE GROWTH
European Commission
Maritime Affairs and Fisheries
adopted 8 September 2010

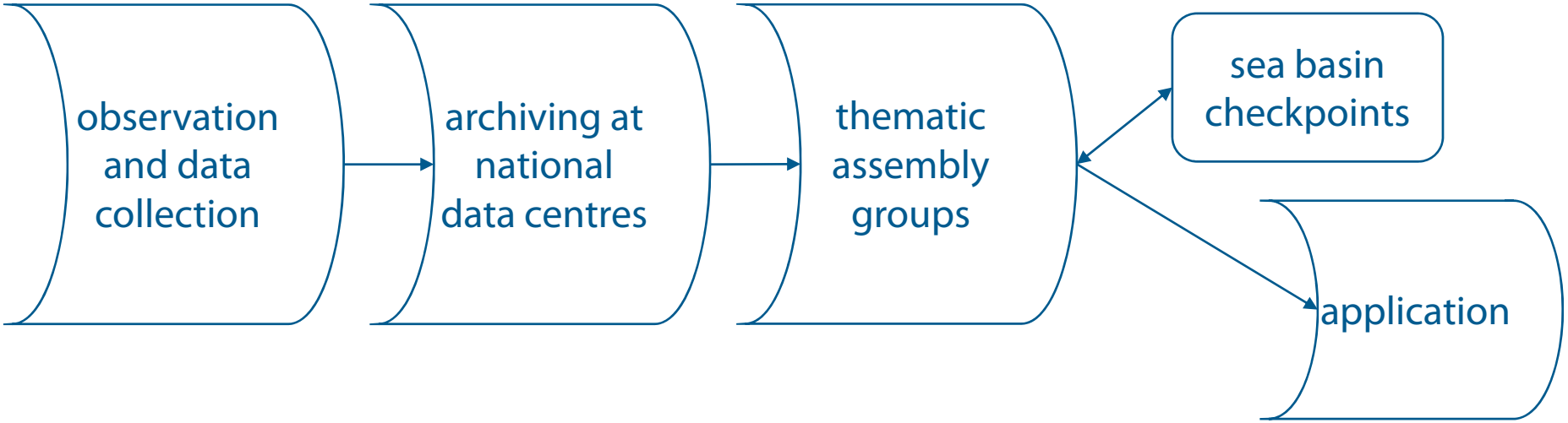
Integrates EU initiatives into coherent whole



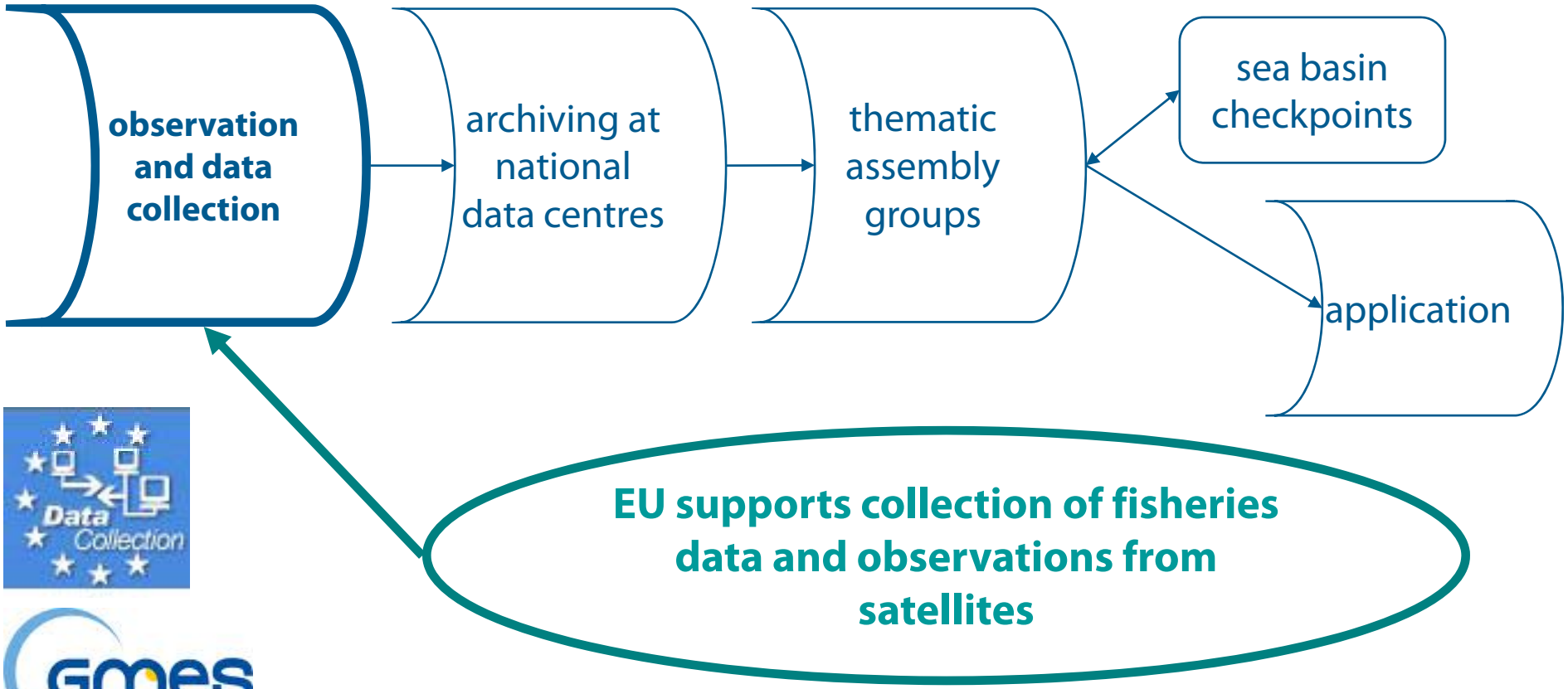
objectives

1. **reduce operational costs and delays for those who use marine data and therefore:**
   - help private industry compete
   - improve the quality of public decision-making at all levels;
   - strengthen marine scientific research
2. **increase competition and innovation amongst users;**
3. **reduce uncertainty in knowledge of the oceans**

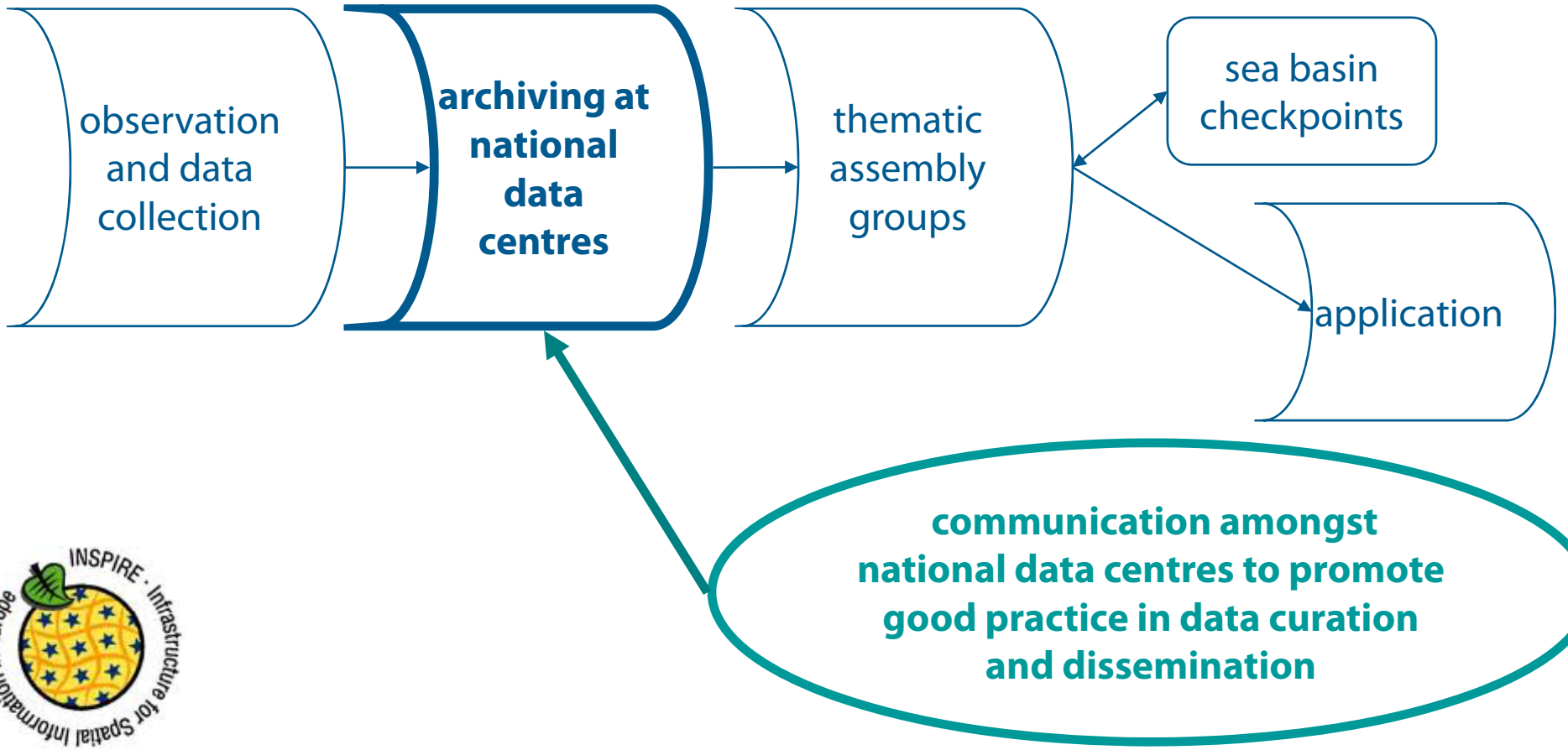
a common target architecture



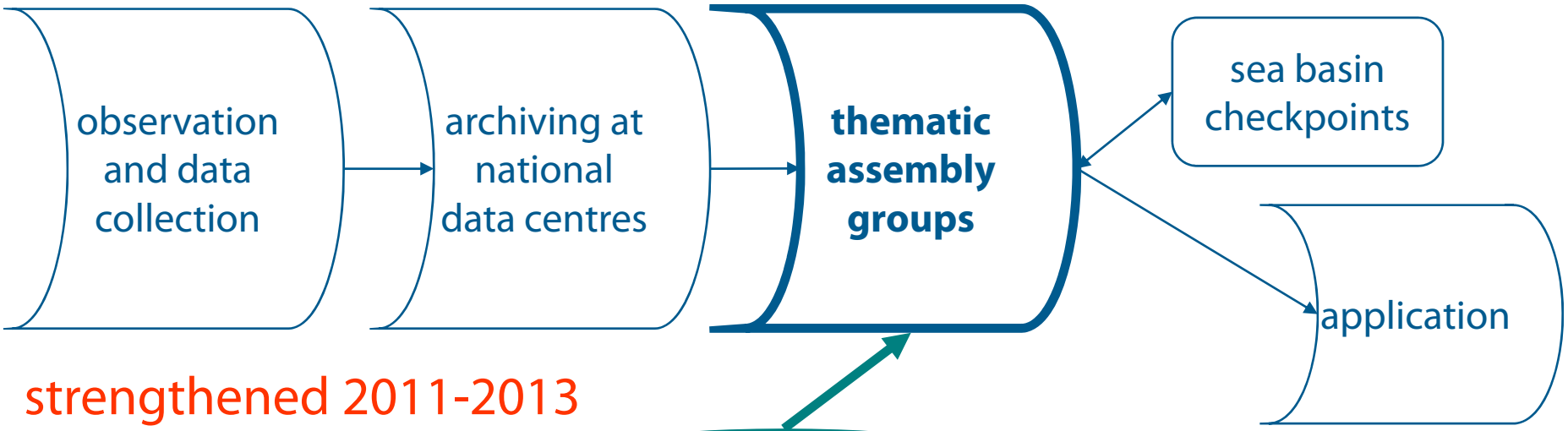
a common target architecture



a common target architecture



a common target architecture



strengthened 2011-2013

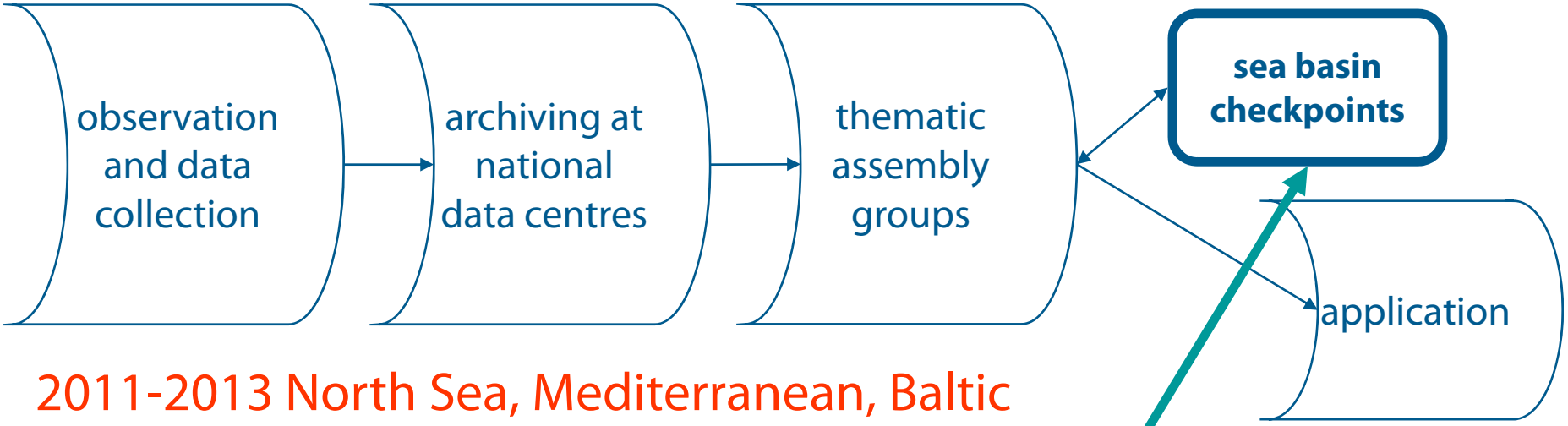
consortia of organizations that assembles data from all data centres on specific themes - marine sediments, or chemical contaminants for instance

EMODnet
European Marine Observation and Data Network

GMES
Observing our planet for a safer world

European Commission
Maritime Affairs and Fisheries

a common target architecture



2011-2013 North Sea, Mediterranean, Baltic

check data layers, ensure that the data from different groups are mutually compatible and define priorities for further observations

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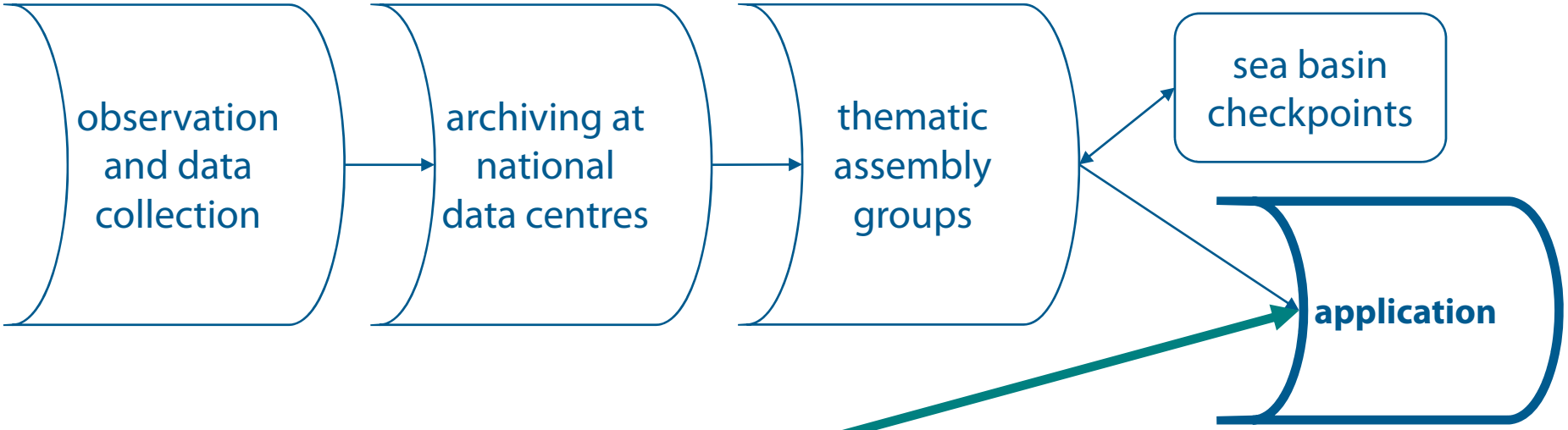
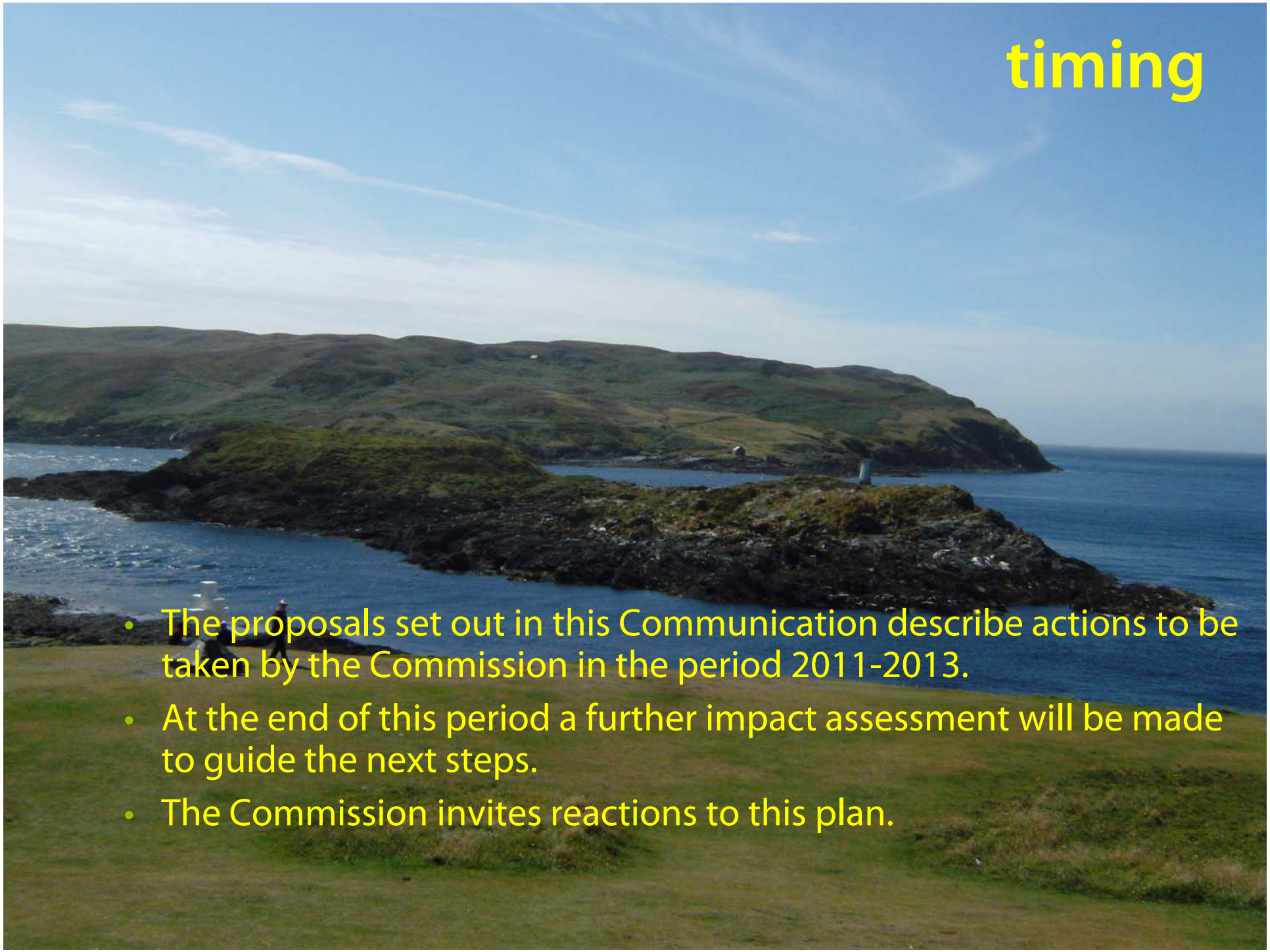
a common target architecture



help private industry compete
improve the quality of public decision-making at all levels;
strengthen marine scientific research

Governance 2011-2013

- Priorities
  - Commission advised by
    - Marine Observation and Data Expert Group (independent, already met 10 times, renewed membership 2010)
    - Member States Expert Group (to be set-up)
- Technical support
  - Prototype secretariat
    - *prepare meetings,*
    - *assess the output of thematic assembly groups and sea-basin checkpoints,*
    - *prepare an annual report of activity*
    - *launch portal providing access to data from the thematic assembly groups*



timing

- The proposals set out in this Communication describe actions to be taken by the Commission in the period 2011-2013.
- At the end of this period a further impact assessment will be made to guide the next steps.
- The Commission invites reactions to this plan.