

# WP6 - Data management and services

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### Content

# **Introducing WP6**

- Partners involved
- Objectives
- Tasks, deliverables & milestones
- Links with other initiatives
- WP6 actions/priorities for M1-M12

# Discussion





# **WP6** introduction

# Partners involved



### Introducing the partners (ordered by effort):

- Deltares (16 PM)
- MARIS (13.6 PM) •
  - subcontractor NOC-BODC (approx 6 • PM)
- ETT (13 PM) ullet
- +Atlantic (6 PM) •
- SMHI (6 PM) lacksquare
- GeoEcoMAR (5 PM)  ${}^{\bullet}$
- **IFREMER (3 PM)** lacksquare
- HCMR (3 PM) ullet
- Covartec (1 PM)
- PML (1 PM)

REDUCING GAPS IN ENVIRONMENTAL OBSERVATIONS AT THE LAND-SEA INTERFACE TO PREDICT SYSTEM BEHAVIOR AND INFORM SCIENCE-BASED MANAGEMENT AND POLICY RESPONSE



Testing the benefits of integrated land-sea observations: Understanding lateral carbon fluxes and marine carbon stocks Predicting and adapting to climate change threats



**1. EARTH OBSERVATION (SATELLITE)** 

Observing change in e.g., coastal erosion, sea level rise, turbidity and chlorophyll and land use patterns

#### 2. IN SITU OBSERVATION

Observing change through fixed and mobile platforms in e.g., water quality, coastal erosion and morphological changes, carbon fluxes and nutrients

#### 3.MODELLING

Predicting change in e.g., water temperature, sea level, wave patterns, carbon fluxes, plastic pathways, morphological changes, salt intrusion, water quality, habitats for biodiversity

#### **4.CITIZEN SCIENCE**

Gathering data from a wider range of locations and perspectives on e.g., temperature, water level, and plastics





### Following requirements of the LILs we aim to:

a) support closing observation gaps by **developing interoperability solutions for river data**, **low-cost sensors and citizen science concepts**;

b) create a data flow for the involved **river**, **low-cost sensor and citizen science data into EU aggregators**;

c) **support semantic data interoperability** in the coastal area from in situ, remote sensing and modelling;

d) develop data access and visualisation services and interfaces to support the work in the Integration Labs.





#### Tasks

Task 6.1: Analyse data flows metadata, data models (M3-M9), lead SMHI

=> D6.1 Data landscape report M6

Task 6.2: Develop interoperability solutions to international data (EU aggregators) (M9-M42) Lead DLT => FAIR!

Sub-Task 6.2.1 Enabling interoperability and uptake of low-cost sensor data, lead ETT

=> D6.3 Recommended interoperability solutions low-cost sensors M30

Sub-Task 6.2.2 Enabling interoperability and uptake of elevated CS concepts, lead ETT

=> D6.4 Recommended interoperability solutions citizen science M30

Sub-Task 6.2.3 Develop data management solutions to river data, lead DLT

=> D6.5 Overview of data management solutions river data M42

Sub-Task 6.2.4: Develop semantic solutions to support interoperability for integration of existing dataflows (lead MARIS (+subcontract BODC)

=> D6.2 Recommended semantic solutions to support data integration M24

#### Task 6.3: LandSeaLot data and data product publishing and visualisation (M9-M48). Lead: MARIS

- => Dashboard in Marinas, interfaces on LandSeaLOT portal
- = > D6.6 Developed generic data and visualisation services and apps M48





# Links exist with all WP's, but the most direct ones:

## - WP3 - Integrated observation and model frameworks

- provide the use cases
- requirements for data management

# - WP4 - increasing observation capacity

- alignment of the low-cost sensors in scope
- status of dataflows
- involvement in deployments/pilots in LILs

# WP5 - LILs

- requirements for data and visualisation services/interfaces
- demonstrate solutions (e.g. FAIRness, new data models, data flows) in practice.

# Links to other initiatives

#### The most direct ones:



- **JERICO** -

  - Coastal observation gaps Integration of data sources -
- Danubius
  - FAIR river data
  - Additional semantics

#### **EMODNet**

- Data products, data aggregation strong interest in Low-cost sensors and citizen science -

#### SeaDataNet

- Metadata formats, directories Vocabularies, NVS
- -

#### **Blue-Cloud** -

- marine data infrastructure integration, service alignment Virtual research, virtual labs -
- -
- Integration of low-cost sensors -







**DANUBIUS-RI** 



## Actions and priorities year 1



### **Organise ourselves in the WP:**

- WP6 contact persons and mailing list
  Peter to organise monthly virtual meetings + shared folder

### **Priority actions (to be discussed):**

- Task 6.1: Analyse data flows metadata, data models (M3-M9) Lead: SMHI, Participants: ETT, MARIS, IFR, HCMR.
  Analyse the data flow landscape as relevant in the LandSeaLot Integration Labs (LIL).
  river discharge and load data
  low-cost technologies
  - - citizen science concepts
    - remote sensing.

For each data type two LILs are selected and the data flow for the particular entity, relevant for the specific LIL, will be analysed resulting in a good understanding of what is needed on the data management side to defragment and reduce gaps in environmental observations at the LSI to support data products/knowledge as targeted in the LILs.



# Discussion

Let's observe together!

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