



LandSeaLot

Land-Sea interface:

Let's observe together!

Powered by



International Centre
for Advanced Studies
on River-Sea Systems



ICOS

Integrated
Carbon
Observation
System

Peter Thijsse (MARIS)
Co-lead WP6 Data management



Co-funded by
the European Union



UK Research
and Innovation

LandSeaLot has received funding from the European Union's Horizon Europe Framework Programme for Research and Innovation under grant agreement No 101134575.

Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Research Executive Agency.

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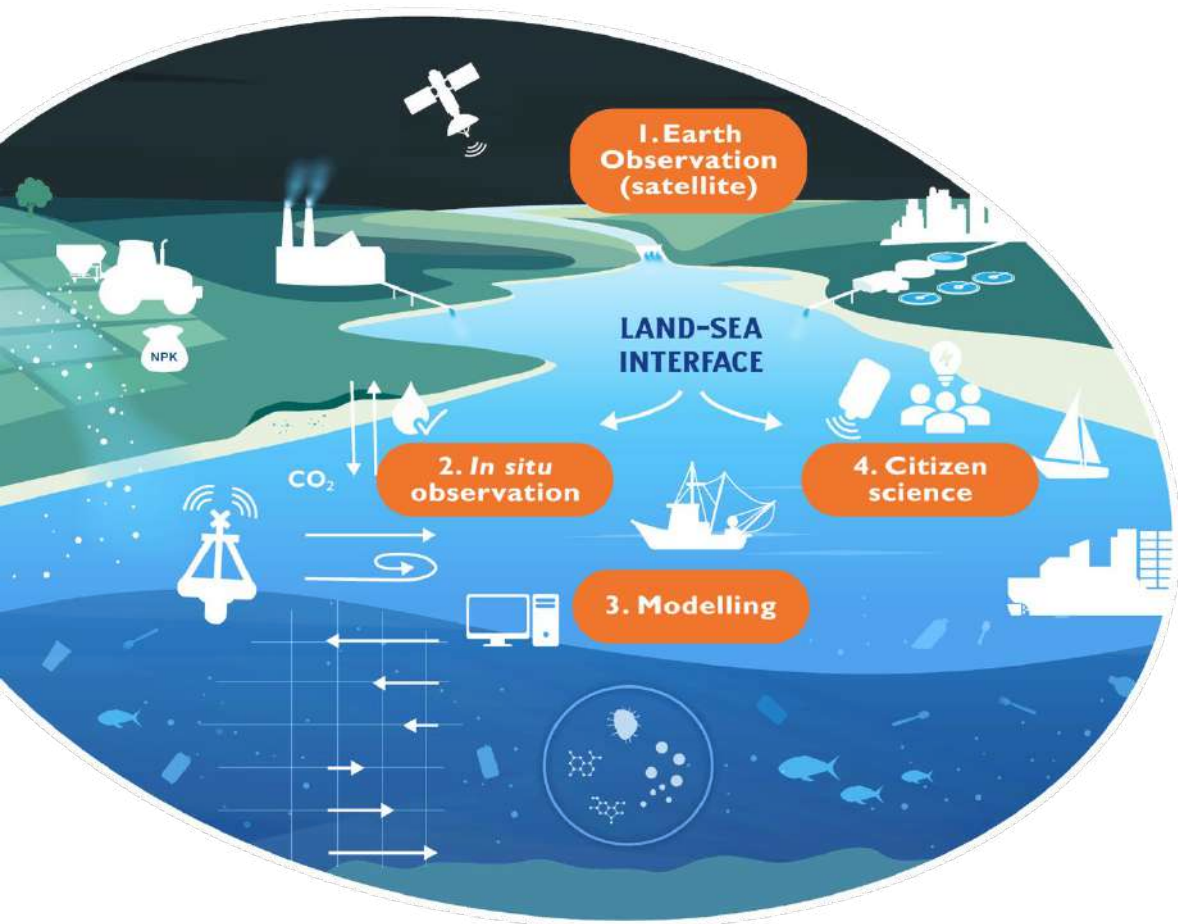


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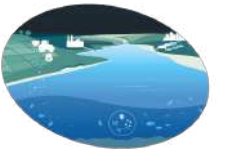


Join the LandSeaLot Fora & Communities!
Co-Design Forum · Scientific Forum · Citizen Forum

About LandSeaLot Project Objective



LandSeaLot seeks to **integrate, scale-up and enhance existing observation efforts**, conducted by satellites or *in-situ*, including by citizen scientists, **together with numerical simulations**, to better study the **land-sea interface**, where terrestrial and marine habitats meet.





About LandSeaLot

A European project co-funded by Horizon Europe



- 20 partners (12 nations)
- 4 years, starting February 2024

- Funding: € 9,199,778.5
- EU & UKRI funding



NO

FI



NL

SE



UK

DE



BE

RO



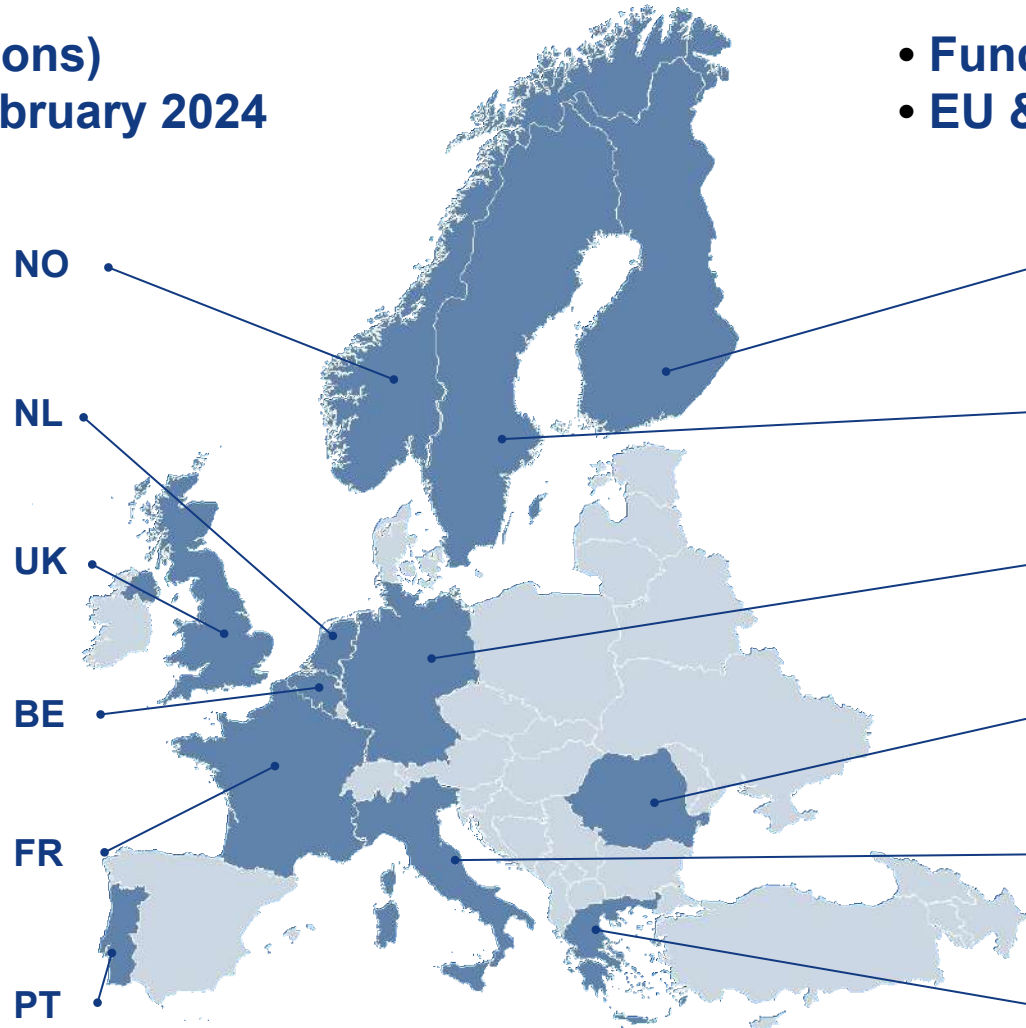
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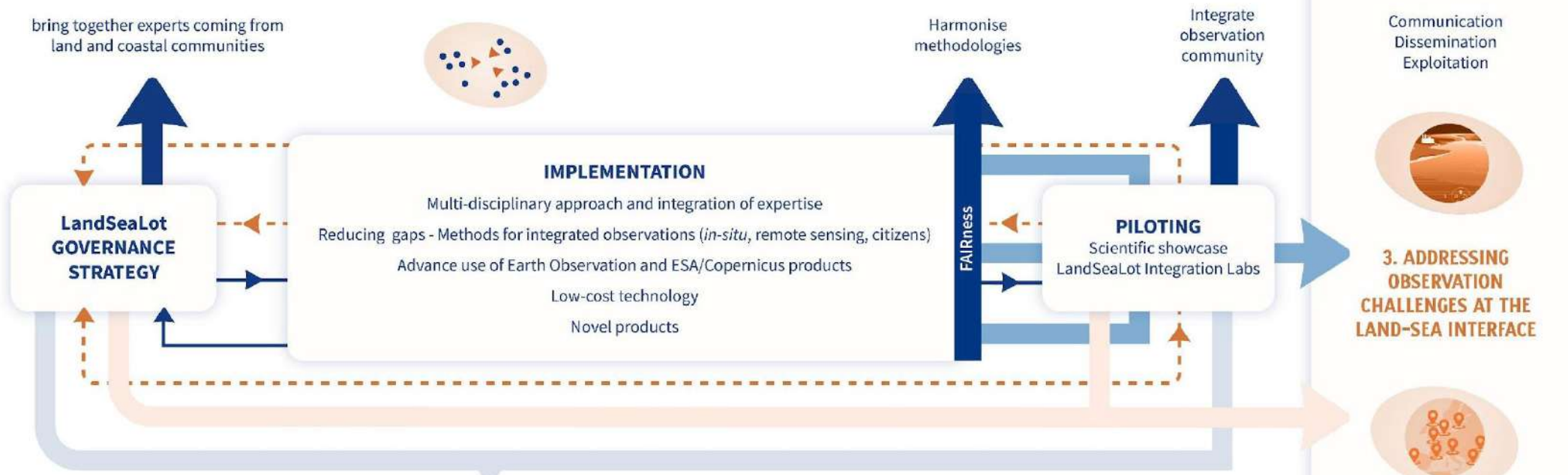


Co-designing a common observation strategy

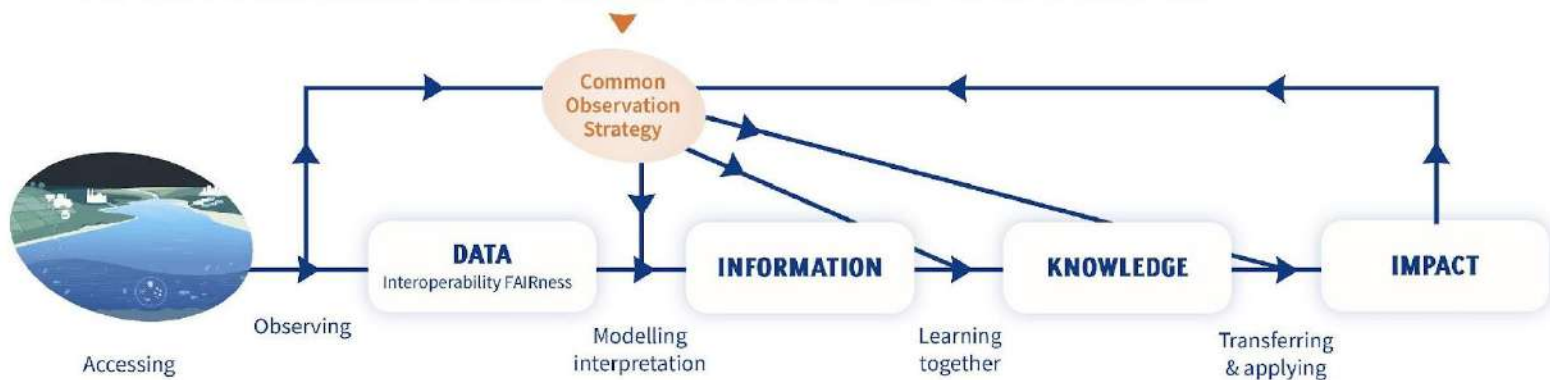
Project Concept



I. DEFRAGMENTATION ACROSS COMMUNITIES AND DOMAINS



2. CO-DESIGNING A COMMON OBSERVATION STRATEGY WITH KEY ACTORS IN THE LAND-SEA INTERFACE



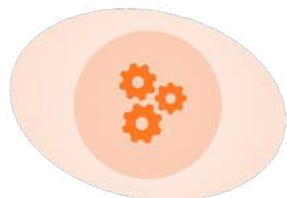
--- Direct implementation

- - - Feedback/lessons learnt

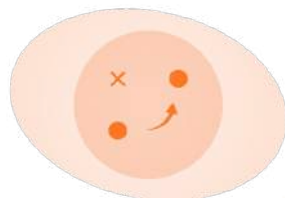


Co-designing a common observation strategy

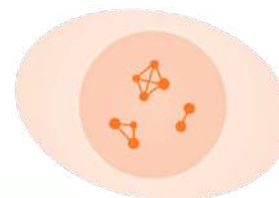
Project Workplan



Deltares WP1
Coordination & Management



WP2
Common Observation Strategy for the Land-Sea Interface



WP3
Integrated Observation & Model Frameworks



SMHI WP4
Increasing the Observation Capacity



WP5
LandSeaLot Integration Labs (LIL)



Deltares WP6
Data Management & Services



WP7
Communication, Dissemination & Exploitation

"We look forward to the output of LandSeaLot in terms of **improved process understanding, monitoring and prediction capabilities** for a wide range of phenomena impacting coastal populations"

European Space Agency

"Observations within LandSeaLot would certainly **enable us to concentrate on assessments rather than handling information**"

OSPAR & HELCOM

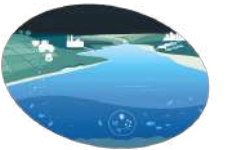
"LandSeaLot will help define how the land-sea interface can be better observed and **how the new observations will be easily integrated as new inputs into our suite of models**"

EDITO ModelLab



Engaging key actors & communities

Target Stakeholder Groups



LandSeaLot Co-design Forum

- **Long-term EU marine data services & relevant EU initiatives**
Copernicus, EMODnet, European Digital Twin Ocean, EuroGOOS, etc
- **Water quality reporting organisations:**
EEA, Regional Sea Conventions (i.e., OSPAR, HELCOM, Black Sea Commission, Barcelona Convention), national Member States reporting to MSFD & WFD
- **European Space Agency (ESA)**
- **Local and regional stakeholders in LandSeaLot Integration Labs (via Citizen Forum)**
- **EU & international policy and governance bodies**
European Commission (DG ENV, DG MARE, DG DEFIS), International Ocean Commission
- **International ocean observing efforts & UN Agenda 2030 initiatives**
GEOSS, UN Decade of Ocean Science and UN Decade of Ecosystem Restoration
- **Research Infrastructures**
JERICO, DANUBIUS, ICOS-ERIC and other relevant environmental RIs

LandSeaLot Scientific Forum

- **Researchers & data scientists and managers**
Scientists (*in situ*/satellite observation, modelling, research) bridging Land-Sea Interface communities, including data scientists
Data managers working in marine and freshwater domains

LandSeaLot Citizen Forum

- **Users & managers of the land-sea environment**
Delta & estuaries management organisations, Protected Area managers, Port Authorities, fishermen & aquaculture professionals, agricultural communities in delta areas affected by saltwater intrusion and reduction of freshwater availability (e.g., farmers), communities affected by the loss of land (e.g., coastal tourism destination management organisations and operators, inhabitants of urban areas exposed to extreme events), local NGOs
- **Citizen science leaders & multipliers**
Citizen scientists, citizen science networks and organisations, TEM associated marinas and educational organisations
- **Innovators (SMEs)**
Producers and/or distributors of low-cost remote sensors and technologies
- **Mission Lighthouses & Blue Parks initiatives:**
CSA supporting Mission Lighthouses and Blue Parks initiatives

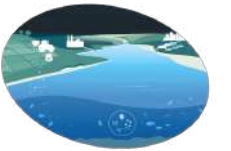
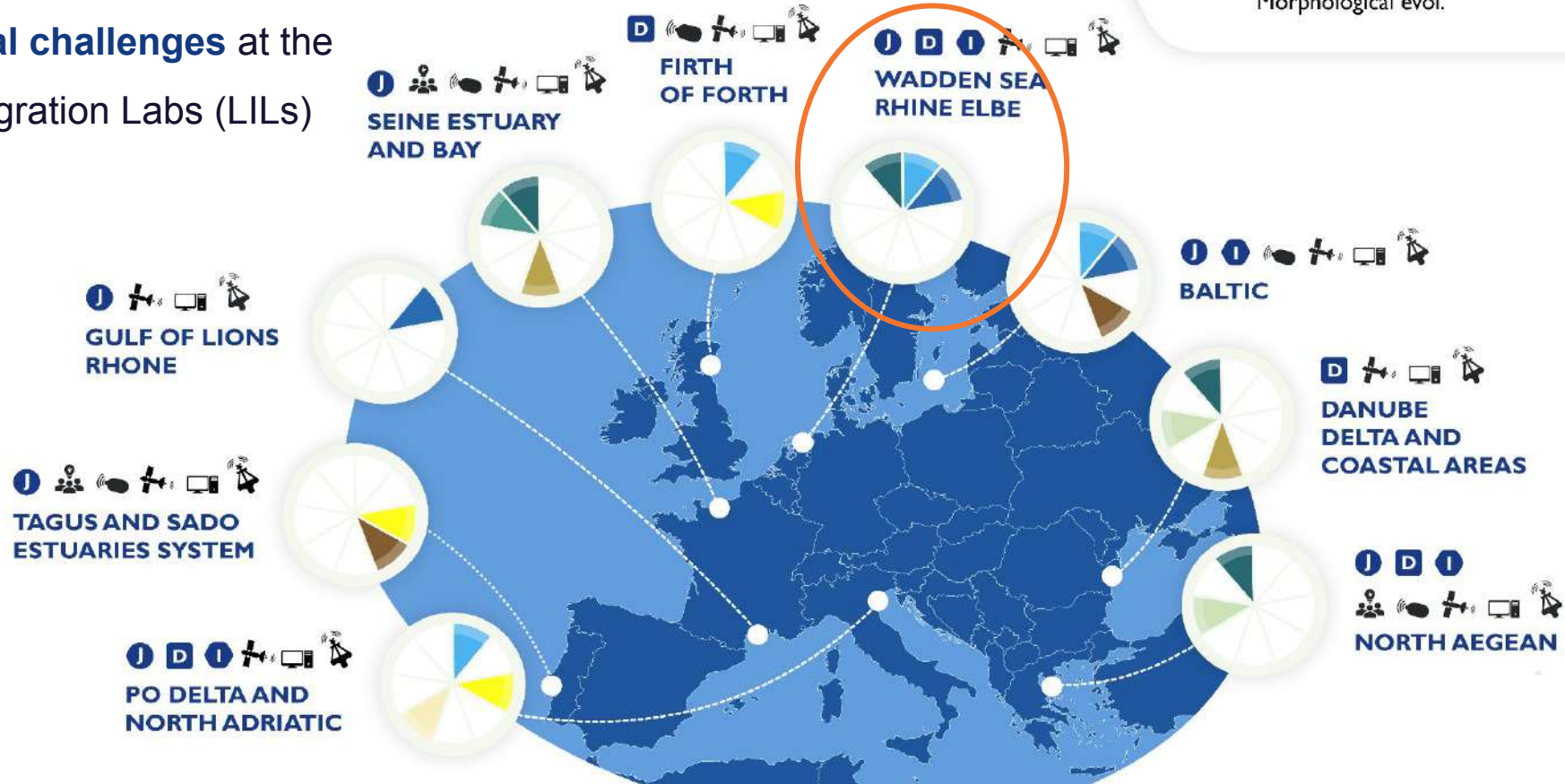
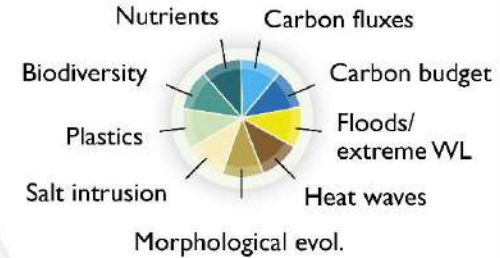
Piloting & Testing LandSeaLot Integration Labs

Demonstrate how increased observation capabilities and innovative integrative methodologies provide essential knowledge to **address nine key societal challenges** at the LandSeaLot Integration Labs (LILs)

LEGEND

- J JERICO-RI
- D DANUBIUS-RI
- I ICOS-ERIC
- Citizen science
- Low-cost sensors
- Earth observation
- Numerical modelling
- In situ observation

Key societal challenges



Data focused actions

Potentially related to Delta Enigma



Data acquisition to fill gaps

- New data via cost-efficient sensors => more by **Patrick Gorringe**
 - Involving the developers
 - Test/validation and deployment
- Citizen scientists involvement
 - CS initiatives
 - Marina's
 - Divers/sailors/fisherman/..
- Actual acquisition in the regional Pilots (one in Rhine/Elbe, led by Anouk Blauw - Deltares)

Data management

- Combining data from various sources (CS, cost-efficient sensors, traditional in situ (marine and rivers), remote sensing)
- Streamlining data into EU aggregators to improve FAIRness
- Challenges:
 - metadata standards (to be created and/or to be mapped)
 - Vocabularies (to be created and/or to be mapped)
 - Creating in the end a datalake that can be used by researchers/modelers (regional pilots LIL)

Join the LandSeaLot Fora & Communities!



Are you a key member of the Earth and/or Ocean observing and data management landscape in Europe?

Are you engaged in land-sea observation (salt and/or freshwater ecosystems) or in managing environmental challenges within the vicinity of one of the LandSeaLot Integration Labs?

Are you associated with a citizen science group interested in using low-cost sensors and technologies to advance the scope of scientific research that will help address societal challenges?

If yes is the answer, we want to hear from you!

Visit landsealot.eu and fill out the stakeholder contact form



LET'S OBSERVE TOGETHER!



Let's observe together!



Visit landsealot.eu

Follow us and be part of the conversation

LinkedIn ([landsealot](https://www.linkedin.com/company/landsealot))



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