CoastPredict
with The Global Ocean Observing System

CoastPredict: Revolutionising Global Coastal Ocean observing & forecasting

coastpredict.org

GA 2024, Barcelona April 9, 2024

2021 2030 United Nations Decade of Ocean Science for Sustainable Development

This programme is endorsed by the **UN Decade of Ocean Science**

GlobalCoast - framework for implementation

Demonstrate, at Pilot Sites, an integrated observing and predicting system for the global coastal ocean

Create globally replicable solutions, standards, applications that enhance coastal resilience

Accelerate data collection and advance modelling and analysis tools to be aligned with best practices and open and free data sharing

Pilot Site locations

30 Regions

> 120 Pilot Sites

225 institutions in 65 countries

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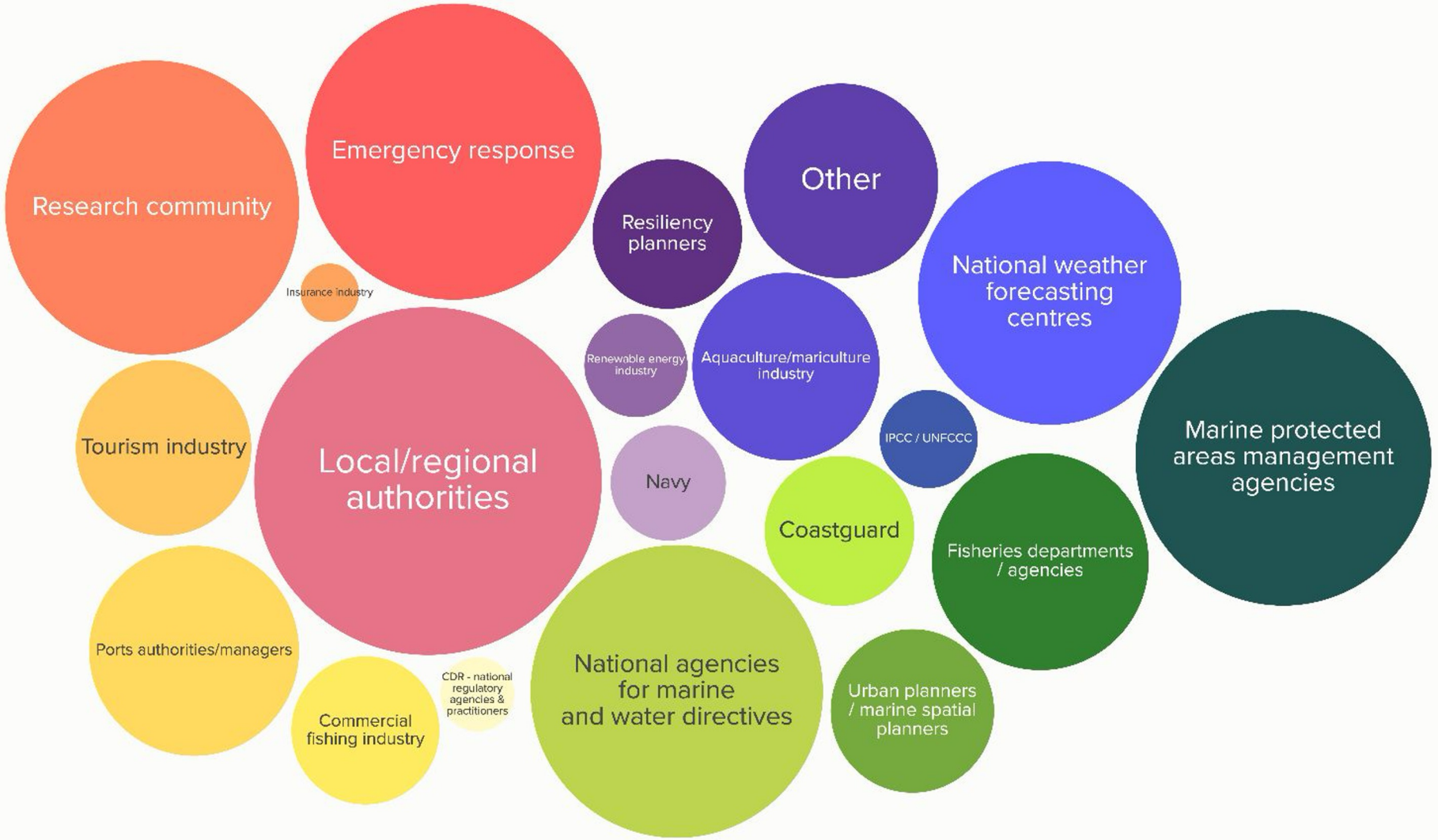
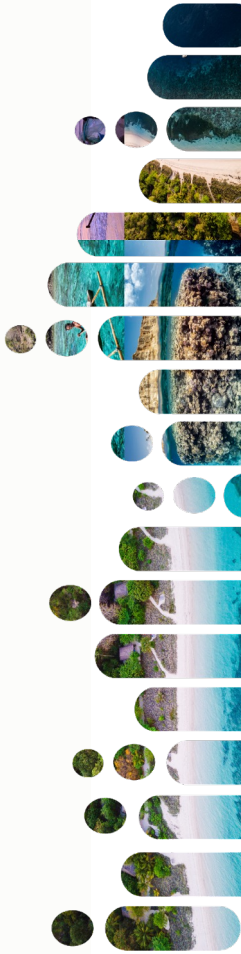
STAKEHOLDER GROUPS

Q: Who are key intermediate and end-users for the integrated observing & predicting system in your Pilot Site?





Implementation at Pilot Sites

Each Pilot Site will deliver the following products:

- Open and free global products from the available data repositories in the target area: **satellite, in-situ, analyses, re-analyses, forecasts (ocean, coastal ocean and atmosphere);**
- New coastal in-situ, **especially with low-cost sensors, and new remote-sensing observations & predictions in the target areas**;
- Transformative predictive models, both numerical and AI-based, of the coastal marine ecosystem
- Coastal Vulnerability/ exposure data
- Different levels of user interfaces and services
- Best Practices material and documentation
- Training and education modules.

Open, free GlobalCoast digital infrastructure

Coastal Resilience requires a vast data and computing infrastructure to make science-based information accessible and usable

- increase the amount of coastal data open and freely available requiring the collection of cost-efficient and community observations with standard protocols
- improve information quality, making analysis tools accessible and demonstrating services built on cloud data

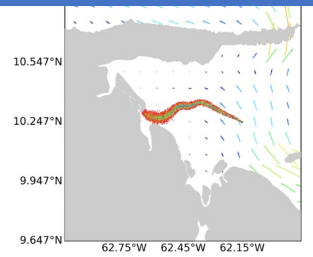
Services

What-if scenarios, ocean indicators, Digital Twins, early warnings

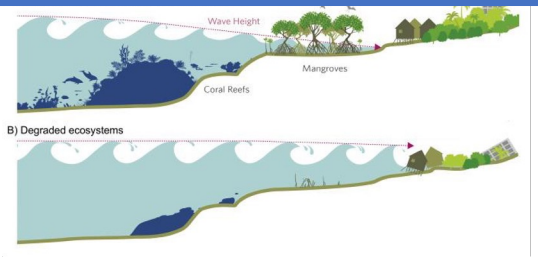
Extreme events early warning

Support coastal management

Marine pollution monitoring / forecasting



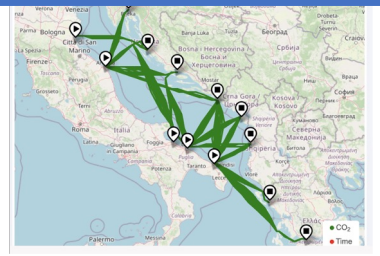
Nature Based Solutions planning & monitoring



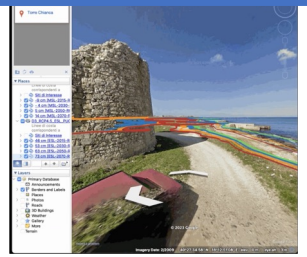
Aquaculture planning & management

Coastal sea situational awareness

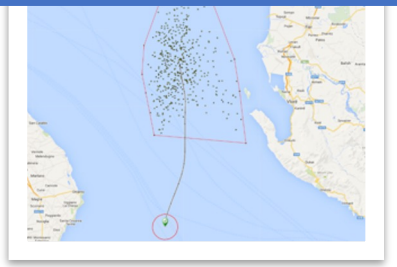
Ship routing



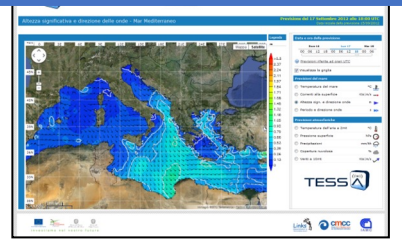
Climate indicators



Search & rescue



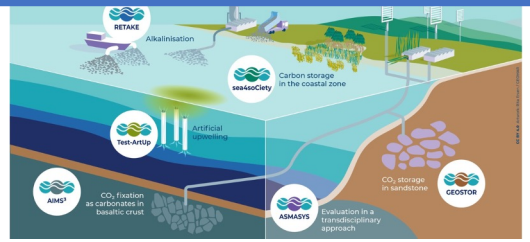
Data visualisation



Planning/management of marine renewable energy

Marine Protected Areas planning & management

CDR planning / monitoring & reporting



Ocean city & ports management