



HORIZON EUROPE

Cluster 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment

Mission restore our Ocean and waters by 2030

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Horizon Europe: structure



5 MISSIONS

- 1) Adaptation to climate change
- 2) Mission cancer
- 3) Restore our Ocean and waters

- 4) 100 climate-neutral and smart cities
- 5) A soil deal for Europe

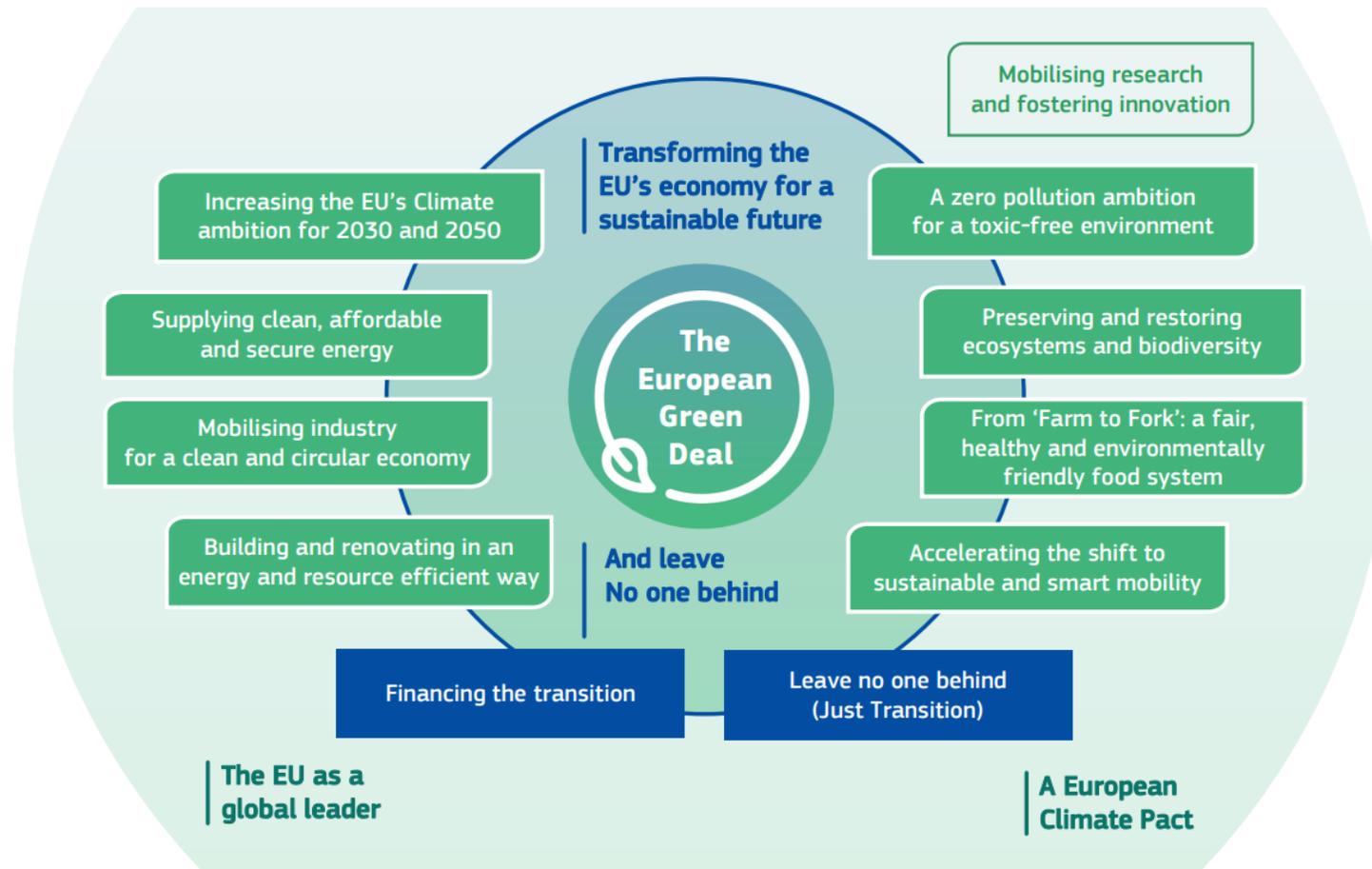
Mission main features

- Be bold and inspirational, with wide societal relevance;
- Indicate a clear direction: targeted, measurable and time-bound;
- Be ambitious but realistic research and innovation actions;
- Spark innovation across disciplines, sectors and actors;
- Be based on a bottom-up approach of multiple solutions



Mission Restore our Ocean and Waters

- The European Union can only fulfil its European Green Deal objectives with a healthy ocean
- Healthy ocean is only possible with a healthy water system.



Mission Restore our Ocean and waters

- **Challenges:** Man-made changes are putting our ocean and waters at a serious risk, leading to:
 - Pollution;
 - Biodiversity loss;
 - Extreme weather events such as floods, droughts and heatwaves.
- **Opportunities:**
 - **Climate neutrality:** the ocean and waters are major carbon sinks and are essential for adaptation to climate change
 - **Biodiversity:** the ocean and waters are home to a rich diversity of species.
 - **Economic prosperity:** the ocean is estimated to generate €2.5 trillion per year by 2030

Specific objectives and targets

Protect and restore marine and freshwater ecosystems and biodiversity in line with EU Biodiversity Strategy

Protect a minimum of 30% of the EU's sea area and integrate ecological corridors, as part of a true Trans-European Nature Network.

Strictly protect at least 10% of the EU's sea area

At least 25,000 km of free-flowing rivers are restored

Contribute to relevant upcoming marine nature restoration targets incl. degraded seabed habitats and coastal ecosystems

Prevent and eliminate pollution of our ocean, seas and waters in line with EU Action Plan towards Zero Pollution

Reduce by at least 50% plastic litter at sea

Reduce by at least 30% microplastics released into the environment

Reduce by at least 50% nutrient losses, the use and risk of chemical pesticides

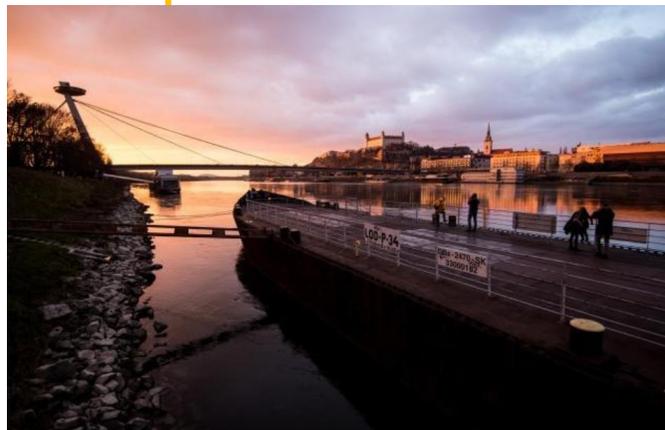
Make the Blue Economy carbon neutral and circular in line with the European Climate Law

Eliminate greenhouse gas emissions from maritime economic activities in the EU and sequester those emissions that cannot be avoided (net zero maritime emissions)

Develop zero-carbon and low-impact aquaculture, and promote circular, low-carbon multi-purpose use of marine and water space.

Mission lighthouses

Danube river basin



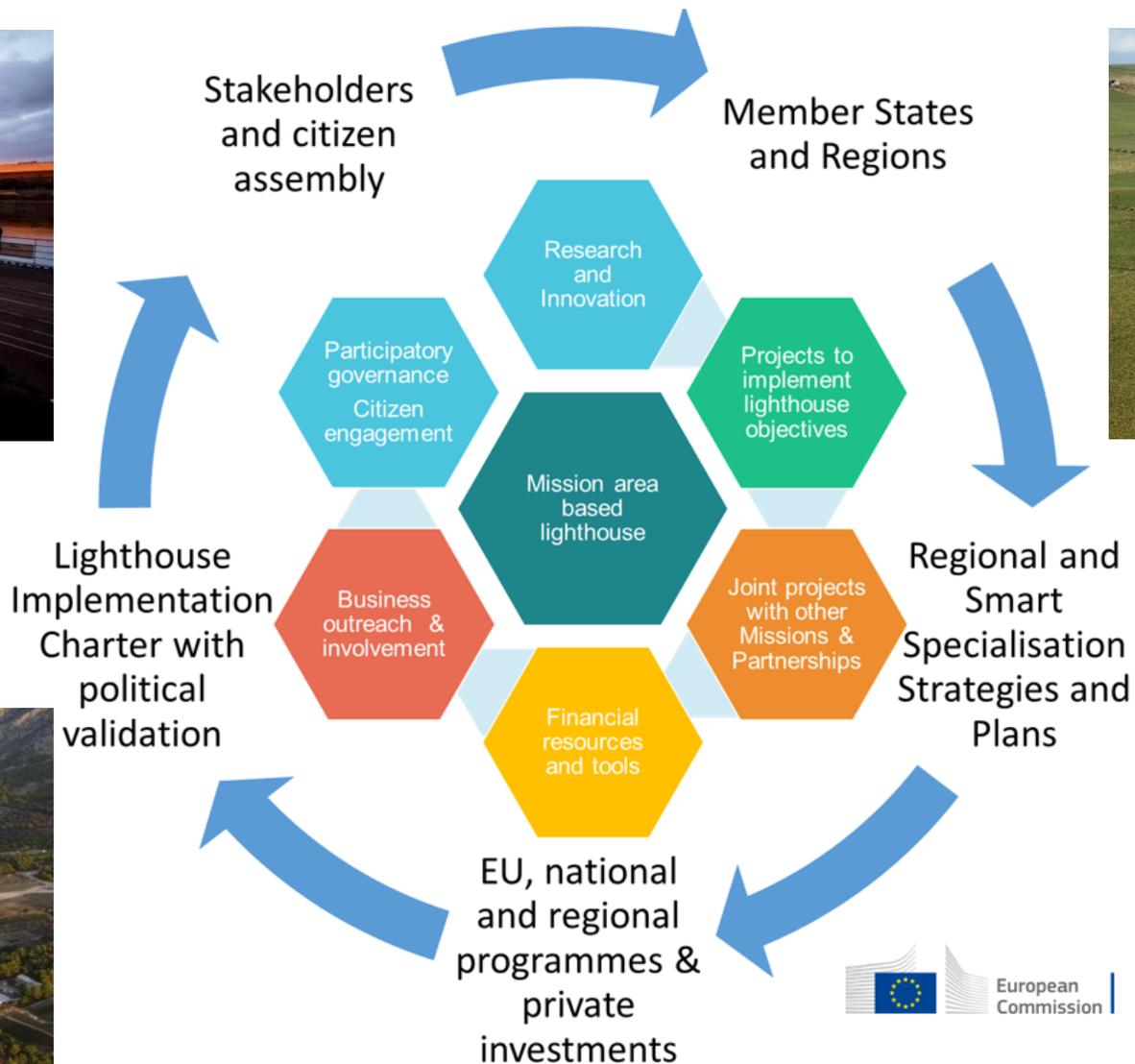
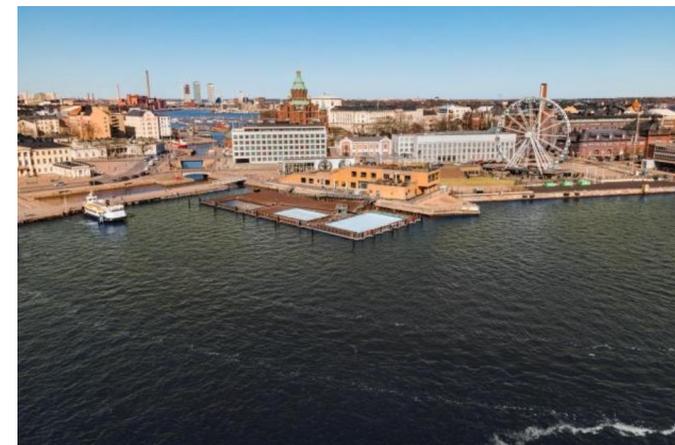
Atlantic & Arctic basin



Mediterranean sea basin

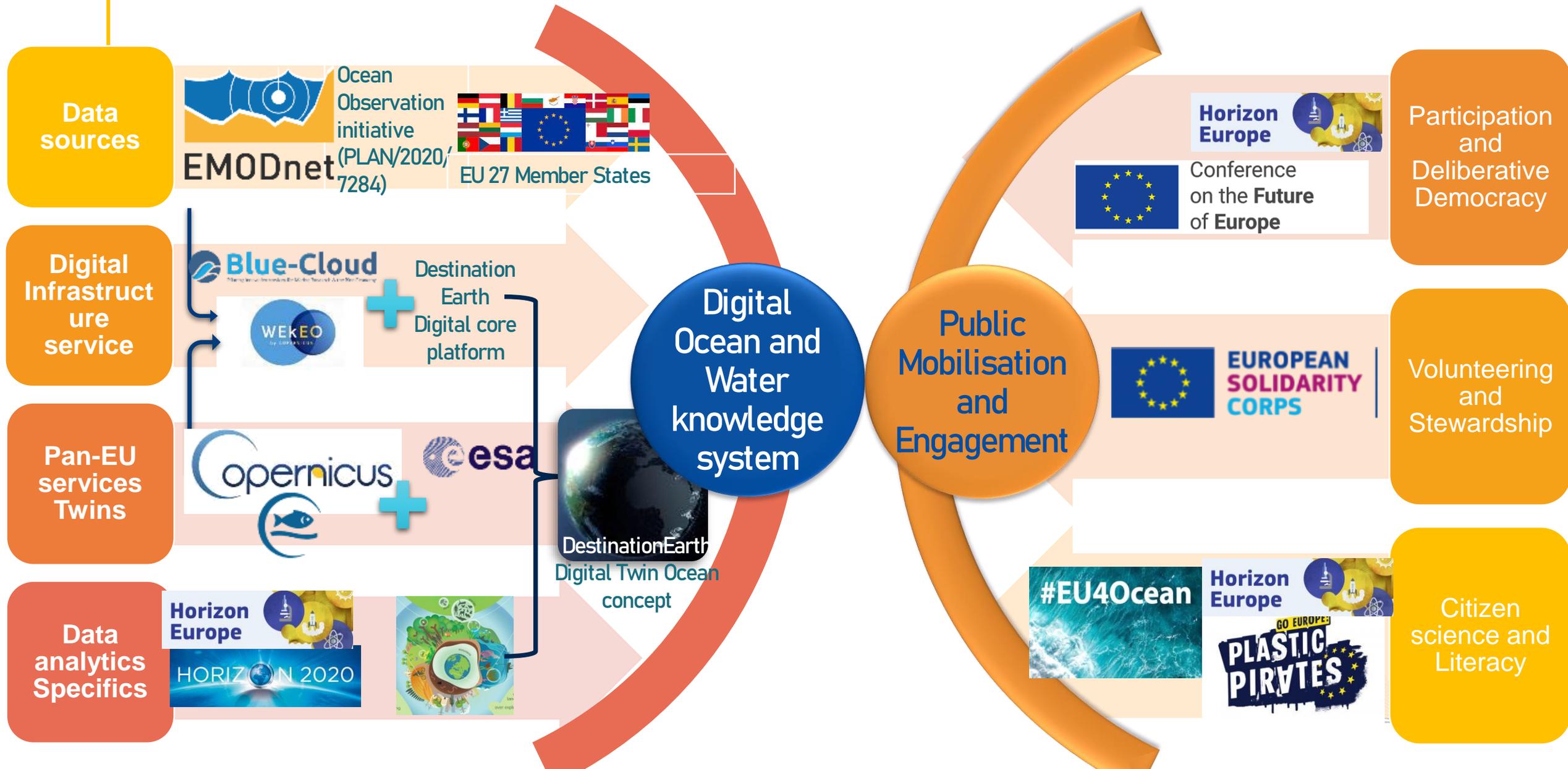


North and Baltic sea basin



Lighthouse Implementation Charter with political validation

Cross cutting enablers



Mission implementation phases



Development and Piloting phase 2021-2024

- Mission lighthouses
- Blue Parks Platform
- Piloting and testing of innovative R&I solutions
- Precursor of digital ocean and water knowledge system
- Citizen science, literacy and engagement



2025 Mid-term review



Deployment and upscaling phase 2025-2030

- Scale up projects
- Blue parks conservation projects
- Dynamic investment ecosystem
- Digital Ocean and water knowledge system
- Digital Twin Ocean
- Citizen science, literacy and engagement

EU Mission Ocean, seas and waters – work programme 2021

WP 2021 - Mission Ocean, seas and waters

... is taking shape...

WP 2021 Main features

- ✓ Follows the **impact-driven logic** of Horizon Europe
- ✓ Support major **EU policy objectives**, e.g.: the EU Biodiversity Strategy 2030, the Action Plan toward Zero pollution, the COM on a Sustainable Blue Economy
- ✓ Special focus on «**lighthouses**»: hubs and platforms for the development and deployment of transformative innovations (technological, social, business, governance) in **4 main basins**:
 - **Atlantic and Arctic**
 - **Baltic and North Sea**
 - **Mediterranean Sea**
 - **Danube River**
- ✓ Based on the **Mission Board *Starfish 2030* Report** and the **Mission Implementation Plan**
- ✓ Support the Mission first phase: «***development and piloting***» for 2021-2025
- ✓ **Topics for 2021 only** – further WP amendmend for 2022 topics

WP 2021 - Mission Ocean, seas and waters

... is taking shape...

WP 2021 Structure

- ✓ **3 calls** addressing 3 policy objectives and specific expected impacts
 - **Protect and restore marine and freshwater ecosystems and biodiversity**
 - **Prevent and eliminate pollution of our oceans, seas and waters**
 - **Sustainable, carbon-neutral and circular Blue economy**
- ✓ **1 call** supporting enabling activities: digital knowledge system, public engagement, foresights and other studies
- ✓ **Other actions:** Digital twin Ocean Infrastructure; Coordination activities - «lighthouses» implementation/coordination; technical assistance
- ✓ **Indicative budget 2021:** EUR 114 mio
- ✓ **Call deadline:** 31 March 2022

WP 2021 - Mission Ocean, seas and waters

... is taking shape...

WP 2021 Type of Actions

✓ **Innovation Actions:**

- Demonstrate the technical, economic and/or societal viability of innovative solutions in a (near to) operational environment (validation, testing, demonstration, prototyping, piloting, and market replication activities) - TRL 5 to 7
- At least 5 associated regions to showcase the feasibility, replicability and scale up of innovative solutions
- Citizens' engagement and users' involvement
- Ideally building on previous successful RIAs

✓ **Research and Innovation Actions:** foresight study on young generations and their relation with the sea;

✓ **Coordination and Support Actions:** Lighthouses coordination and networking; citizen science activities;

✓ **Public procurements:** EU digital twin infrastructure; monitoring; technical assistance; communication

Thank you



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