EU MISSIONS

RESTORE OUR OCEAN & WATERS

Concrete solutions for our greatest challenges

#EUmissions #HorizonEU #MissionOcean
Mission Restore our Ocean and Waters by 2030
a system approach

Mission Board Report (2020)

EC Communication

Implementation Plan
Mission Starfish 2030: Restore our Ocean and Waters

- Filling the knowledge and emotional gap
- Zero pollution
- Revamping governance
- Regenerating marine and freshwater ecosystems
- Decarbonising our ocean, seas and waters
- Restore our ocean and waters
We need to take a holistic approach to address the water system
Mission objective 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.
Main elements of the Mission Starfish intervention logic

Phase I (2022-2024)
- Large scale area based lighthouses covering all Mission objectives
- Boosting protection of blue ecosystems

ENABLERS:
- Actions to increase knowledge and understanding of ecosystems, innovation, digitalisation and governance
- Launch of programme to boost blue education and skills
- Launch of citizen and stakeholder engagement activities throughout the EU

Phase II (2025-2030)
- Scale up of large area based lighthouses
- Replication of lighthouses for all Mission objectives throughout the EU through a bottom-up selection process
- Implementation and scale up of the Blue programmes
- Actions to further boost knowledge, innovation, digitalisation, training and education, and governance
- Citizen and stakeholder engagement activities throughout the EU
What are the lighthouses and how do they work?

In the Mission Ocean and Waters we will set up four Mission lighthouses at basin scale in:
- the Mediterranean Sea
- the Baltic and North Sea
- the Danube river basin
- the Atlantic-Arctic basin

For centuries, lighthouses have been guiding sailors through storms to safety. The four Mission Ocean and Waters lighthouses will act as hubs that will develop, demonstrate and deploy new solutions far and wide across the world. Building on existing governance structures, the lighthouses will bring together relevant Member States, the European Commission and other partners, through a political implementation charter. In the charters, the partners commit to cooperating and aligning resources to achieve the Mission objectives.
Mission lighthouses: sites to pilot, demonstrate, develop and deploy the Mission activities across EU seas and river basins

- **Baltic & North sea basin**: Make the blue economy carbon-neutral and circular
- **Mediterranean sea basin**: Prevent and eliminate pollution of our ocean, seas and waters
- **Danube river basin**: Protect and restore marine and freshwaters ecosystems and biodiversity
- **Atlantic & Arctic coast**
The Mediterranean lighthouse

Objective: preventing and eliminating pollution of our ocean, seas and waters.

Targets:
- 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.
CALL - EUR 114 million for calls for proposals
20 projects on-going
EUR 116 million EU funding (EUR 123 M€ total project cost)

CALL - EUR 116 million for calls for proposals
20 projects ongoing
EUR 118,4 million funding (EUR 130,6 M€ total project cost)

CALL – EUR 110 million for calls for proposals
26 projects under grant preparation
EUR 119 million funding

Horizon Europe: Mission Ocean Calls and PROJECTS
Mediterranean lighthouse

Portfolio of projects

**Actions to prevent, minimise and remediate litter and plastic pollution**  
IA – 16M€

- **SeaClear2.0** - Scalable Full-cycle Marine Litter Remediation in the Mediterranean: Robotic and Participatory Solutions
- **REMEDIES** - Co-creating strong uptake of REMEDIES for the future of our oceans through deploying plastic litter valorisation and prevention pathways

**Lighthouse CSA - 3M€**

- **BlueMissionMed** - Lighthouse coordinating and supporting the innovation ecosystem for a Healthy Pollution free Mediterranean Sea

**Actions to prevent, minimise and remediate chemical pollution**  
IA - 17M€

- **RHE-MEDiation** - Responsive hub for long term governance to destress the Mediterranean Sea from chemical pollution
- **iMERMAID** - Innovative solutions for Mediterranean Ecosystem Remediation via Monitoring and decontamination from Chemical Pollution

**Missions Ocean & Soil – Joint demonstration of approaches and solutions to address nutrient pollution in the landscape-river-sea system in the Mediterranean sea basin, IA - 8M€**

2 projects under selection
From MOBILISATION to SUPPORT and DELIVERY by the Mission COMMUNITIES

MOBILISING
- Lighthouses, CSAs (structuring, hubs, etc.)
- Charter (500+ actions)
- Fora, awards (‘22-23)
- Mission projects (‘21-23)
- Mission label (‘24)

SUPPORTING
- Services, feasibility studies, (PP 4MEUR, WP 22)
- Cascading grants, Coalitions (50m, Calls 24)
- Mission Implementation Platform (MIP) – service portal
  - Association of 100 Regions to Mission projects
  - Blue Parks community (MIP)

DEPLOYING
- Financing the transition: Blue Champions (EIB)
- Synergies with structural funds (Regions), RRF, EMFAF, philanthropies
- European Solidarity Corps
- Matchmaking (Mission Forum ‘24, MIP)
- Scaling-up and replicating (2024-25 WP)
Mission Focus groups

• The focus groups gave reports on their activities,
• DTO,
• Baltic and North Sea
• Danube,
• Atlantic and Arctic,
• Mediterranean
• Citizen engagement
Cross cutting enablers for the Mission

Digital Ocean and Water knowledge system

Public Mobilisation and Engagement

Participation and Deliberative Democracy

Volunteering and Stewardship

Citizen science and Literacy
Here the ambition is to anticipate the outcome of an intervention.

U. Von Der Leyen in the Brest conference 2022:

“Europe wants to build a Digital Twin of the ocean, as a platform for global cooperation. We are connecting our satellites, drones, high performance computing. For real-time knowledge and long-term predictions on the impact of climate change.”

......Here the ambition is to anticipate the outcome of an intervention.

you want to answer ‘what if’ question. I.e. how will the ocean change if I stop fishing. Or what is the most cost effective way to protect a coastal town from sea level rise (damming, sand bars, mangoves, corals etc. So you start from the outcome and optimise interventions.
PERCHE’ UN GEMELLO DIGITALE ?

DT and the WHAT IF Scenarios
EU DTO: the EC Vision

A core infrastructure, conceived as a public good, to facilitate the development of DT applications

Core DTO (EDITO-Infra)

Models
- Physics, Fisheries, biodiversity (NEMO, ECOPATH & ECOSIM,...)

Research to operations

Other sources of data
- Research, citizen, private and other networks data

Harmonised data
- Copernicus Marine Service, Marine Ris

Models outputs

Interactivity Co-working environment
- Local Twins Marketplace

Lighthouses
- Ocean Climate
- Biodiversity
- Pollution
- Med Sea
- Maritime Spatial Planning
- Blue economy
- Coastal zone management
- Baltic
- Danube

EU DTO: the EC Vision
12 June 2024 - 13 June 2024

Palace of the Academies in Brussels
Future priorities for DTO

- Focus on bringing in "unconventional data" - Blue Economy and society (social-ecological data & consequent development of models)
- Development of integrated models with focus on the land-sea interface
- Coastal models with emphasis on local & sectoral applications and citizens engagement
- Development of what-if-scenarios, to serve key political priorities in the local, regional and international level
- Participate and when appropriate lead of the international discussions for the development of a coherent framework for the development of Digital Twins of the Ocean – pursue strategic partnerships and common demonstrators
- Build a community of practice (Europe and beyond)
Enabler 2 - Public mobilisation and engagement

The relation of young generations with the sea and water: values, expectations, and engagement
RIA - 1M€

Piloting citizen science in marine and freshwater domains, CSA - 1M€

Europeanisation of Plastic Pirates Citizen Science Initiative, IBA - 2M€

Student and school activities for the promotion of education on ‘blue’ sustainability and the protection of marine and freshwater ecosystems, CSA - 3M€

Towards local community-driven business models: regenerative ocean farming, CSA - 3M€

Choose your fish: a campaign for responsible consumption of products from the sea, CSA - 2M€

Ocean & water and arts: the contribution of creative sectors to Mission Ocean, CSA - 2M€

FLOW - Future Lives with Oceans and Waters

OTTERS - Social Transformation for Water Stewardship through Scaling Up Citizen Science

PlasticPiratesEU

SHORE - SHORE: EmpOweR Students as the agents of cHange

ProBlau - Promoting ocean and water literacy in school communities

BlueLightS - EnLIGHTening future Schools to deliver BLUE Sustainability in Europe

C-FAARER - Community-driven Farming for the Atlantic and Arctic sea basins through REgeneRative aquaculture

COOL BLUE - COmmunity Ocean farms and Local Business cLUstErs

2 projects under selection

2 projects under selection
Il coinvolgimento dei cittadini e soprattutto dei giovani

“Martina Stella di Mare"
By Nicoletta Costa
EUROPEAN OCEAN DAYS

EU MISSION RESTORE OUR OCEAN AND WATERS
WHERE NEXT FOR EUROPE'S SEAS?
BLUEINVEST DAY
OCEAN LITERACY IN ACTION

4-8 MARCH 2024
The Mission Charter is meant to mobilize all stakeholders to achieve the goals of the Mission, strengthening cooperation, aligning efforts and achieving critical mass for the transformational change needed to restore our oceans and waters by 2030.


In total, there are currently 550 accepted Mission Charter actions with a total budget of EUR 4.792 billion.
Almost 600 actions pledged with 464 actions visible to the Mission Atlas
Budget: €4,29 billion
Please note that each Mission Charter action may list multiple countries so a single Mission Charter action may be counted multiple times in this graph. For this reason, the budget is not included to avoid doublecounting.
Figure 13: Budget and number of Mission Charter actions by type of action, Mediterranean Sea (accepted actions as of March 2024)
Figure 14: Budget and number of Mission Charter actions by type of organisation, Mediterranean Sea (accepted actions as of March 2024)

Table 11: Budget and number of Mission Charter actions by type of organisation, Mediterranean Sea