



EUROPEAN UNION



EU MISSIONS

RESTORE OUR OCEAN & WATERS

Concrete solutions for our greatest challenges

One Ocean Summit side event, 8 Feb 2022

Towards a Mission lighthouses charter:

A joint commitment to Restoring our Ocean and Waters

#EUmissions #HorizonEU #MissionOcean



What are EU Missions?

The European Commission launched **five new EU Missions** – including the Mission “Restore our Ocean and Waters by 2030”.

European Missions are **new broad mobilisation initiatives** to face the greatest challenges of our time.

Rooted in the Horizon Europe research and innovation programme, Missions go beyond the existing instruments, cutting across policies, programmes and different levels of governance



How will the Mission work?

- The Mission will develop and demonstrate **innovative** technological, social, business and governance **solutions**.
- It will promote **new forms of cooperation**, allowing everyone to play an active role.
- The scope of the Mission goes **far beyond** research and innovation.

***“Every problem is an opportunity for innovation.
But we need a clear and ambitious objective.***

We need a mission, like the European Green Deal.

***That is why we have launched the ‘Mission to
Restore our Ocean and Waters by 2030’.***

***With EUR 0.5 billion in funding from the world's
largest research and development programme,
Horizon Europe, and other instruments.”***

President von der Leyen, 11 Feb 2022

https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_22_962





Tweet



Ursula von der Leyen 

@vonderleyen



Europe is building 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.

Available to all. [#OneOceanSummit](#)



What opportunities we have if we take care of the ocean and water?

A restored ocean and healthy waters can play a key role in improving our lives and achieving:

- **Climate neutrality**
- **Biodiversity**
- **Economic prosperity**





EUROPEAN UNION

EU
MISSIONS

Mission Restore our Ocean and Waters by 2030 a system approach

Mission Board Report (2020)

Proposed Mission:
**Mission Starfish 2030:
Restore our Ocean
and Waters**
Report of the Mission Board
Healthy Oceans, Seas, Coastal and Inland Waters

Independent Expert Report

RESTORE OUR OCEAN AND WATERS

- FILLING THE KNOWLEDGE AND EMOTIONAL GAP
- REGENERATING MARINE AND FRESHWATER ECOSYSTEMS
- RECARBONISING OUR OCEAN, SEAS AND WATERS
- ZERO POLLUTION
- REVAMPING GOVERNANCE

EC Communication 2021



Brussels, 29.9.2021
COM(2021) 609 final

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS

on European Missions

IMPLEMENTATION PLAN

European Missions

Restore our Ocean and Waters by 2030

Implementation Plan

This is an internal working document of the European Commission. Therefore the budget figures mentioned are approximate and the document will be updated. It is made public for information only and does not bind the European Commission. The European Commission is not liable for any consequence stemming from the reuse of this document.

Research and Innovation



A joint commitment to Restoring our Ocean and Waters

Delivering together on the Mission Implementation Plan

[Implementation Plans for the EU Missions | European Commission \(europa.eu\)](https://european-council.europa.eu/media/en/press-operations/infographic-117366.attachments)





Mission objectives and targets

Restore our Ocean and Waters by 2030

PROTECT AND RESTORE MARINE AND FRESHWATERS ECOSYSTEMS AND BIODIVERSITY

- Protect at least 30% and strictly protect 10% EU's sea areas
- Restore 25.000 km free flowing rivers
- Marine nature restoration targets (incl. degraded seabeds, coastal ecosystems)

PREVENT AND ELIMINATE POLLUTION OF OUR OCEANS, SEAS AND WATERS

- Reduce by at least 50% plastic litter
- Reduce by at least 30% microplastics
- Reduce by at least 50% nutrient losses, chemical pesticides

MAKE THE BLUE ECONOMY CARBON- NEUTRAL AND CIRCULAR

- Net zero maritime emissions
- Zero carbon aquaculture,
- Low carbon multipurpose use of marine space

ENABLERS

Digital Ocean and Waters Knowledge system

Public mobilization and engagement



EUROPEAN UNION

Mission LIGHTHOUSES



EUROPEAN UNION

What are the **lighthouses**
and **how do they work?**

- **Lighthouses are the Mission SITES to pilot, demonstrate, develop and deploy the Mission activities across EU sea and river basins**
- Cover all EU seas, oceans and river basins
- Build on **existing initiatives**, networks and different sources of funding, starting with Horizon Europe, but not limited to this
- Connect and structure, mobilise stakeholder
- Each lighthouse **will pilot and lead on one of the Mission objectives** (phase 1)
- **Replicability and scalability** (phase 2)
- Provide access to the solutions, services and advice to all basins



EUROPEAN UNION

Mission lighthouses

Baltic & North sea basin

Mediterranean sea basin

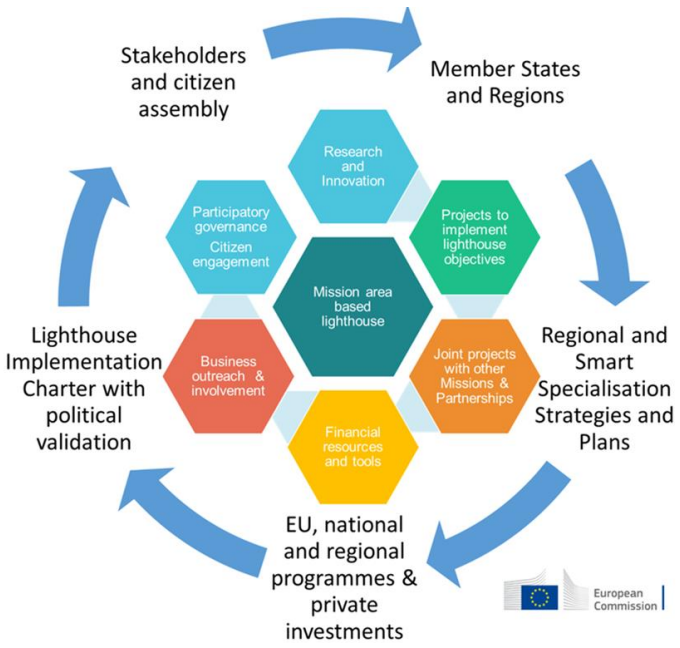
MAKE THE BLUE ECONOMY CARBON-NEUTRAL AND CIRCULAR

PREVENT AND ELIMINATE POLLUTION OF OUR OCEANS, SEAS AND WATERS

Danube river basin

Atlantic & Arctic coast

PROTECT AND RESTORE MARINE AND FRESHWATERS ECOSYSTEMS AND BIODIVERSITY





Mission implementation phases



2021-2024 | Development and piloting phase

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



2023 | Mid-term review



2025-2030 | Deployment and upscaling phase

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



Next steps in the Mission implementation

**Implementation of
Mission lighthouses
& Blue Parks
technical support**

**Lighthouse
Implementation
Charters**

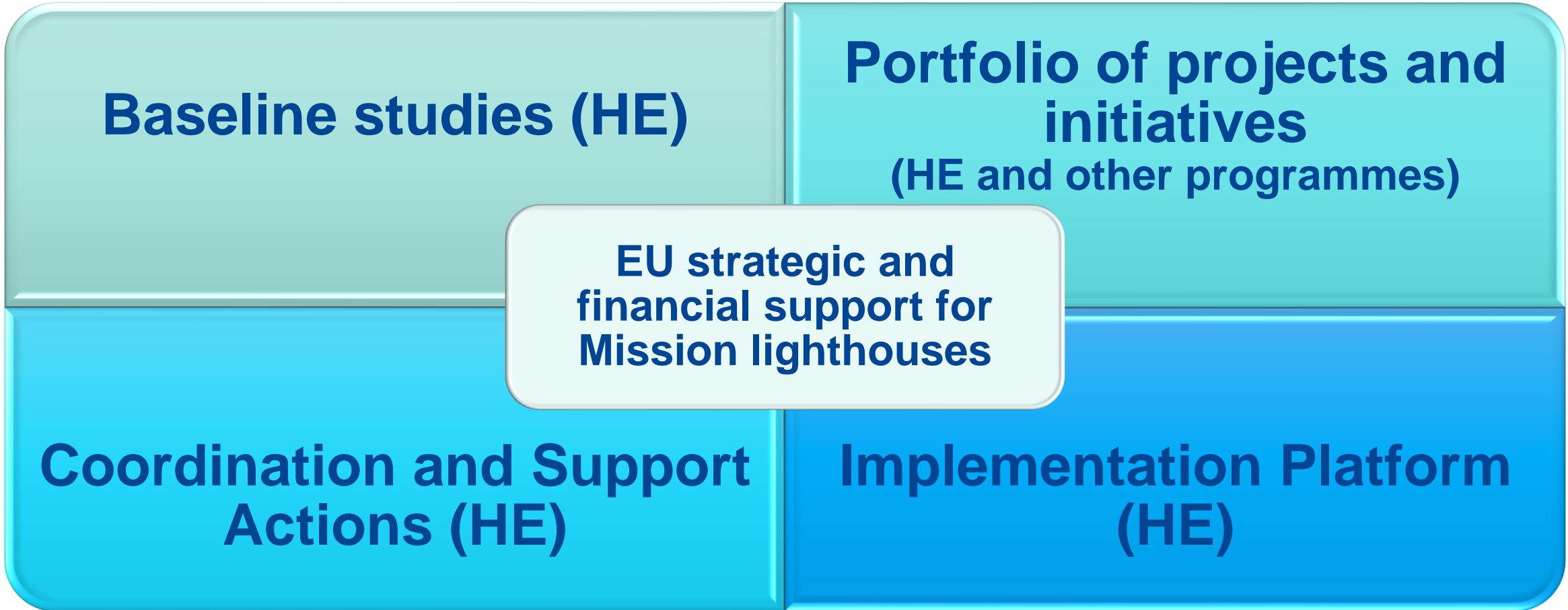
**1st Horizon Europe
Work programme
for Mission
Calls 2021-22**

**Communication,
outreach, literacy &
citizen engagement**

**Actions to support
digital ocean and
water knowledge
system**



EU Support for Lighthouses



Implementation Charter



Why join the Mission?

The Commission is committed to working with you – regions and communities – for the next decade **to deliver on your policy priorities towards climate resilience**. We want you to adhere to the Mission Charter and become part of the Mission.

Access to **knowledge on risk assessment methods**

Be part of a **community of practice, network and share**

Get **support from the Mission Platform**

Access to **tools to engage with your citizens** and empower them

Access to **advisory services** on public and private funding

Gain visibility for your efforts.

What happens now?

In early 2022, the first calls for proposals under Horizon Europe will make available **€114 million** to support the rolling out of the Mission. Projects will develop and demonstrate breakthrough innovation to **protect and restore ecosystems, eliminate pollution** and **make the blue economy** carbon-neutral and circular.

Alongside Horizon Europe the Mission also mobilises the European Maritime Fisheries and Aquaculture Fund (EMFAF), InvestEU and other EU programmes. Together, they will provide around **€500 million** in seed funding during 2021-23. Along with Member State contributions and private funding, this will create a big and lasting impact.

Throughout its lifetime, the Mission will move from piloting to demonstration, deployment and market entry of innovative solutions to restore our ocean and waters.





SYNERGIES – teaming up beyond EC / HE level

Across different EU Programmes

Horizon Europe, EMFAF, Life, Inter-Reg, InvestEU...

With Member States and Regions

national and regional programmes / initiatives,
Partnerships

With International partners / initiatives

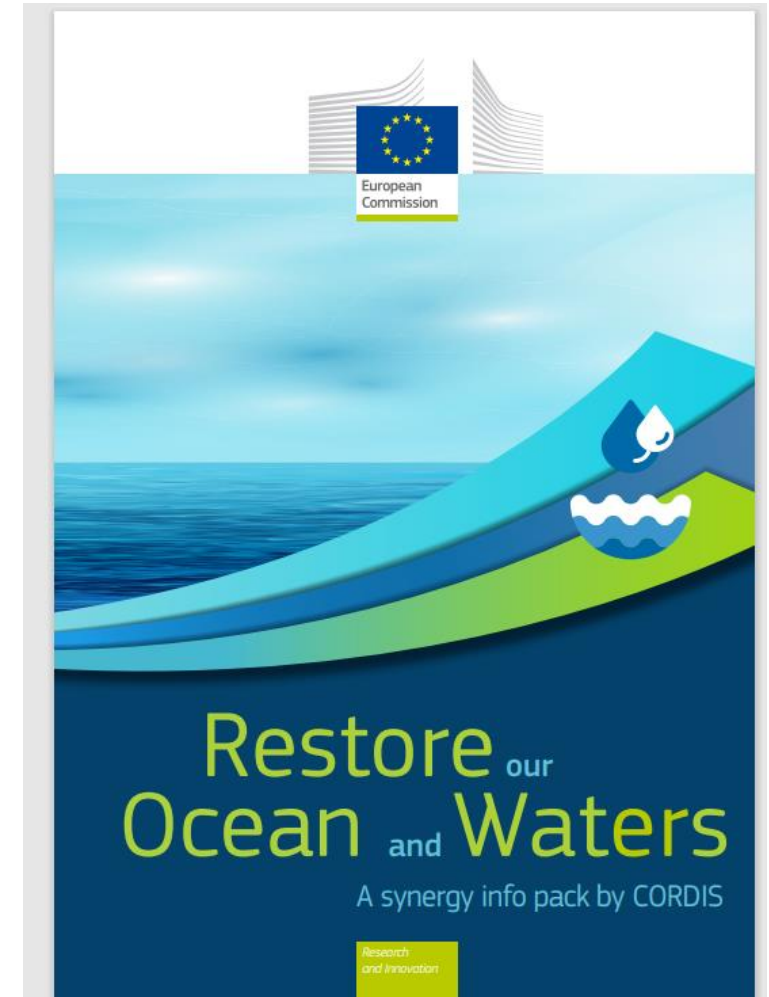
UN Decade Ocean Sciences, UfM, Alliances
(AAORA...)

With public & private sectors, and investors

Universities, Joint Undertakings, EIB, EBRD,
philanthropy

With citizens and youth,

Citizens initiatives, EU4Ocean, Youth ocean
Ambassadors





EUROPEAN UNION

Example of EU projects portfolio

Horizon 2020

European Maritime and Fisheries Funds



OBJECTIVE #1

Protect and restore marine and freshwater ecosystems and biodiversity

#1

ODYSSEA

An observation system for the entire Mediterranean

#1

FutureMARES

Nature-based solutions for marine conservation

#1

AFRIMED

Protecting and restoring Mediterranean algal forests

#1

ROC-POP-LIFE
Replanting Europe's algae forests

#1

INTEMARES
A nationwide network of marine reserves

LIFE

Our ability to restore and protect our marine biodiversity and ecosystems depends on solid data. The ODYSSEA project has developed a platform that integrates a range of observation and forecasting systems from across the Mediterranean basin, providing primary data and on-demand data services including weather forecasts, and reports on fish stocks, seagrass cover and fishing activity through a single public portal. The platform combines information from public databases with data provided by Earth observation facilities to develop coastal observatories and deploy novel in situ sensors such as microplastic detectors, increasing the temporal and geographic coverage of observational data.

Marine environments and coastal ecosystems such as estuaries and fjords support a huge portion of the world's biodiversity. They also provide essential climate-regulating processes and make key contributions to global food security, as well as sustaining tourism and cultural activities. Ultimately, the project aims to develop these solutions to protect future biodiversity and ecosystem services in a future climate.

Macroalgal forest ecosystems play a key role in supporting complex food webs, and are integral to the delivery of a multitude of goods and services. However, massive losses of macroalgal forests all over the Mediterranean basin are cause for great concern. The AFRIMED project seeks to bring about a step change in this situation, by developing, implementing and promoting a protocol to effectively restore macroalgal forests in the Mediterranean Sea in order to maximise the delivery of conservation, societal and economic benefits. A combination of spatial analysis, laboratory and field studies, stakeholders' awareness-raising activities and pilot restoration projects will ensure the project's objectives are achieved.

Cystoseira brown algae are key reef species protected by the Habitats Directive. But in past decades, these species have declined in the Mediterranean due to human activity. In some places, those pressures have been relieved, but limited dispersal capabilities hamper species' natural restoration. The ROC-POP-LIFE project aimed to accelerate the restoration of the reefs' habitat in the Cinque Terre and Maremare protected areas. To achieve this aim, Cystoseira specimens taken from Italy and Slovenia have been reproduced in the laboratory and carefully planted in the target areas, encouraging recolonisation without damaging donor sites, speeding up the habitat restoration.

INTEMARES is one of the largest projects for the conservation of the marine environment in Europe. It is the first initiative at a national level that integrates various funds, policies and actors for the management of a whole network of protected spaces. INTEMARES seeks to implement the Priority Action Framework for Natura 2000 across the marine network, bringing together various stakeholders to bolster critical knowledge of management practices, improve the monitoring of habitat types and species, and guarantee the conservation of Spain's marine species and habitats with a sustainable socio-economic development.

ODYSSEA
OPERATING A NETWORK OF INTEGRATED OBSERVATORY SYSTEMS IN THE MEDITERRANEAN SEA
Horizon 2020

FutureMARES
CLIMATE CHANGE AND FUTURE MARINE ECOSYSTEM SERVICES AND BIODIVERSITY

AFRIMED
ALGAL FOREST RESTORATION IN THE MEDITERRANEAN SEA
European Maritime and Fisheries Fund
UNIVERSITA' POLITECNICA DELLE MARCHE - Italy
1 January 2019 to 31 December 2022
afrimedproject.eu

ROC-POP-LIFE
PROMOTING BIODIVERSITY ENHANCEMENT BY RESTORATION OF CYSTOSEIRA POPULATIONS
LIFE programme
UNIVERSITA' DEGLI STUDI DI TRIESTE - Italy
1 October 2017 to 31 December 2021
rocpoplife.eu

INTEMARES
INTEGRATED, INNOVATIVE AND PARTICIPATORY MANAGEMENT FOR N2000 NETWORK IN THE MARINE ENVIRONMENT
LIFE programme
FUNDACIÓN BIODIVERSIDAD - Spain
1 January 2017 to 31 December 2024
intemares.es

#1

iAtlantic

Measuring the impact of climate change on the Atlantic

#1

PROTECT

A closer look at the interactions between atmosphere, ocean and ice sheets

PROTECT
PROJECTING SEA-LEVEL RISE FROM ICE SHEETS TO LOCAL IMPLICATIONS
Horizon 2020
CENTRE NATIONAL DE LA RECHERCHE SCIENTIFIQUE - CNRS - France
1 September 2020 to 31 August 2024
protect-slr.eu

iAtlantic assesses the health of deep and open-ocean Atlantic habitats and species. It scales and standardises measurements so that ecosystem status can be assessed. It will help design ecologically coherent networks of marine protected areas to conserve habitats and ecosystems threatened by human activities. It will predict where and when synergistic effects of global change and multiple stressors occur, and what implications these will have for society, the economy and ocean health. Over 30 expeditions by partners from 17 nations spanning the EU, Argentina, Brazil, South Africa, Canada, the United States and the United Kingdom will study those ecosystems most at risk of change. The close cooperation between these nations is integral to iAtlantic's work plan and vision to implement the Belém Statement on Atlantic Ocean Research and Innovation Cooperation. The iAtlantic fellowship programme will build human and technical capacities through hands-on work at sea, technology transfer, analytical techniques and data interpretation training, and a mentoring programme.

the United Kingdom will study those ecosystems most at risk of change. The close cooperation between these nations is integral to iAtlantic's work plan and vision to implement the Belém Statement on Atlantic Ocean Research and Innovation Cooperation. The iAtlantic fellowship programme will build human and technical capacities through hands-on work at sea, technology transfer, analytical techniques and data interpretation training, and a mentoring programme.

Rising sea levels are a serious global threat with potentially catastrophic consequences for coastal regions. Policymakers are increasingly concerned about the contribution of thawing land ice. The PROTECT project will offer a new approach in modelling the interactions between atmosphere, ocean and ice sheets, significantly improving our understanding of ice sheet processes. PROTECT will also improve the strength of the resulting sea level rise projections, envision the future social impact of this phenomenon, and train the next generation of sea level scientists.

iAtlantic
INTEGRATED ASSESSMENT OF ATLANTIC MARINE ECOSYSTEMS IN SPACE AND TIME
Horizon 2020
UNIVERSITY OF EDINBURGH - United Kingdom
1 June 2019 to 31 May 2023
iatlantic.eu

© Oceanic PhotoBank

© Oceanic PhotoBank

© Oceanic PhotoBank

© Oceanic PhotoBank



What have EU-funded projects achieved so far? (1)

Objective: **Protect and restore marine and freshwater biodiversity and ecosystems**

Example from Horizon 2020 programme:

MERCES project

Due to global warming, overfishing, pollution, species invasion and habitat loss, the ecosystems of our seas and ocean are feeling the pressure. To understand the impact of these actions more research is needed to understand these drivers and improve the state of the EU's degraded coastal and marine habitats.

Researchers from the project's 28 partners worked to advance the knowledge base and demonstrate practical approaches to implement marine ecosystem restoration in Europe.

Example from EMFF programme:

AFRIMED project

The AFRIMED project builds on the MERCES project, applying its findings in Europe and beyond. AFRIMED implements innovative restoration and formulates guidelines to effectively restore damaged macroalgal forests and degraded habitats in the Mediterranean Sea.



EUROPEAN UNION

Example of EU projects portfolio

Horizon 2020

#2

CLAIM

Innovative technologies to clean marine plastics litter

The CLAIM project developed five innovative technologies to prevent plastic litter entering the seas at two main source points, wastewater treatment plants and river mouths, and to monitor the presence of plastic debris. The proposed solutions include an automated pre-filtering system and a photocatalytic nanocoating device for removing microplastics in wastewater treatment plants, a small-scale waste-to-energy apparatus (pyrolyser) for ships and ports, and

a floating boom system (CLEAN TRASH) for collecting visible floating debris at river mouths. Additionally, CLAIM developed innovative modelling tools to assess the marine plastic pollution, including a filtering system that collects microplastics that can be installed on ships of opportunity or FerryBoxes.

CLAIM

CLEANING LITTER BY DEVELOPING AND APPLYING INNOVATIVE METHODS IN EUROPEAN SEAS

Horizon 2020



#2

GoJelly
Jellyfish mucus to mop up microplastics

Coastal environments are under growing pressure from two distinct problems: microplastic pollution and swarms of jellyfish. The GoJelly project aimed to address both by developing a novel microplastics filter based on the particle-binding properties of jellyfish mucus, plus new uses for jellyfish biomass. Tests demonstrated an operational filter that can remove micro- and nanoplastics from the wastewater treatment

plants and support a market for harvesting jellyfish slime. The by-products of jellyfish biomass also offer a novel, valuable resource for application to a variety of products across the food and feed, cosmetics and nutraceutical industries, as well as agrobiological fertiliser for organic farming.

GoJelly

A GELATINOUS SOLUTION TO PLASTIC POLLUTION

Horizon 2020

SYDGANSK UNIVERSITET - Denmark

1 January 2018 to 31 December 2021

gojelly.eu



#2

MÆLSTROM

New solutions for the recovery of marine plastics and litter

The recovery of plastic materials from the ocean is an arduous and costly task. The MÆLSTROM project brings two innovative and complementary technologies for the sustainable removal of marine litter in European riverine and coastal ecosystems: an underwater cable robot and a bubble barrier. The project brings together key stakeholders to set out a reliable and sound approach for the assessment of marine debris distribution and evaluates the effectiveness of marine litter removal devices along with their

impact on local ecosystems. The action strives to provide sustainable recycling treatment solutions for the recovered litter and to enhance social awareness and involvement in the fight against marine litter pollution.

MÆLSTROM

SMART TECHNOLOGY FOR MARINE LITTER SUSTAINABLE REMOVAL AND MANAGEMENT

Horizon 2020

CONSIGLIO NAZIONALE DELLE RICERCHE - Italy

1 January 2021 to 31 December 2024

maelstrom-h2020.eu



OBJECTIVE #2 - RESTORE OUR OCEAN AND WATERS - SYNERGY INFO PACK

European Maritime and Fisheries Funds

#2

AQUA-LIT

A toolbox for reducing litter from the aquaculture industry

Aquaculture is the fastest growing food-production sector worldwide, with an expansion rate of 8%. It is crucial to better understand how these activities are littering the ocean. The AQUA-LIT project is providing the aquaculture sector with a toolbox that can showcase actions, case studies and, best practices to prevent ocean

littering and recycle marine waste. Further AQUA-LIT assessed the current policies and recommendations on EU policies for better making in the aquaculture sector.

AQUA-LIT

PREVENTIVE MEASURES FOR AVOIDING DISCARDING OF LITTER IN THE MARINE FROM THE AQUACULTURE INDUSTRY

European Maritime and Fisheries Fund

GEONARDO ENVIRONMENTAL TECHNOLOGIES - Hungary

1 January 2019 to 31 December 2020

aqua-lit.eu



OBJECTIVE #2 - RESTORE OUR OCEAN AND WATERS - SYNERGY INFO PACK

OBJECTIVE #2



Prevent and eliminate pollution

LIFE

#2

BLUENET
Creating new life for discarded fishing gear

BLUENET's objective was to recycle abandoned, lost or discarded fishing and aquaculture (F&A) gear from the sea and use these as raw materials to manufacture new gear, with the ambition to set up a self-sustainable recycling programme for end-of-life gear in the region. BLUENET brought to shore over 4 tons of marine litter which contributed to reduced marine litter of about 10% in the region. It provided alternative and sustainable designs for F&A gear, producing prototypes which were tested at sea with a technical performance

comparable to those available on the market. BLUENET established a first 'fishing for litter' initiative in the Basque Country. It involved 24 vessels, 150 fishers and three ports. As a result of the project, a regional management plan for marine litter will be produced in cooperation with the regional government authorities.

BLUENET

CREATING NEW LIFE FOR DISCARDED FISHING AND AQUACULTURE GEARS TO PREVENT MARINE LITTER GENERATION

European Maritime and Fisheries Fund

FUNDACIÓN AZTI - AZTI FUNDAZIOA - Spain

1 January 2019 to 30 June 2021



OBJECTIVE #2 - RESTORE OUR OCEAN AND WATERS - SYNERGY INFO PACK

LIFE SouPless
Sustainable systems to catch plastics in rivers across Europe

The LIFE SouPless project aims to demonstrate novel systems for removing microplastic pollution from rivers, the chief source of marine plastic. LIFE SouPless will develop an innovative software tool that will analyse flow characteristics, river morphology, weather conditions and more to calculate the optimal location for recovering plastic. Removal techniques include Catchy, a system that uses wind and water currents to guide

floating litter and waste down to 1 m below the surface into a collection cage. Catchy has already collected more than 460 kg of floating waste from the Nieuwe Maas River in the Netherlands during an 11-month pilot.

LIFE SouPless

SUSTAINABLE RIVERINE PLASTIC REMOVAL AND MANAGEMENT

LIFE programme

ALLSEAS ENGINEERING B.V. - Netherlands

1 July 2018 to 31 December 2022

allseas.com/life-soupless



© Allseas Engineering B.V.



What have EU-funded projects achieved so far? (2)

Objective: **Eliminate pollution**

Example from Horizon 2020 programme:

CLAIM Project

By deploying and demonstrating a range of innovative technologies to collect and treat plastics waste, CLAIM aims to prove the feasibility of pollution-prevention approaches, set to make a big impact on protecting the marine environment. The solutions will prevent litter from entering the sea at two main source points: waste-water treatment plants and river mouths.

Example from EMFF programme:

OCEANETS project

Lost or discarded fishing gears can cause great harm at sea, as they are a source of pollution for marine waters and a waste of resources. OCEANETS project aims at preventing, recovering and recycling abandoned fishing gears, and demonstrating the feasibility of a circular economy model for managing these complex waste materials.



EUROPEAN UNION

Example of EU projects portfolio



OBJECTIVE #3

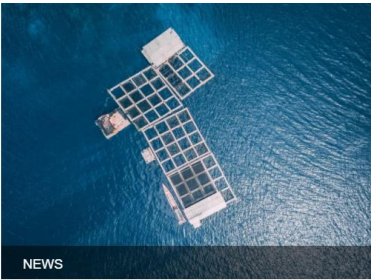
Make the sustainable blue economy carbon-neutral and circular

Horizon 2020

AQUAculture infrastructures for EXCELlence in EUropean fish research 3.0

HORIZON 2020

European Maritime and Fisheries Funds



NEWS

HORIZON 2020

Multi-Use offshore platforms demoNstrators for boosting cost-effective and Eco-friendly production in sustainable marine activities

#3

Blue-Cloud

Ocean sustainability research goes to the Blue Cloud

As the Future of Seas and Oceans Flagship initiative of the EU Horizon 2020 programme, Blue-Cloud is a European Open Science Cloud for the marine domain, serving the blue economy, marine environment and marine knowledge agendas. Blue-Cloud is deploying a digital platform with an unprecedented wealth of multidisciplinary data repositories, analytical tools, and computing facilities to explore and demonstrate the potential of cloud-based Open Science, and address ocean sustainability and the objectives of the UN Ocean Decade and G7 Future of the Oceans. A Blue-Cloud data discovery and access service is being developed as an overarching service to facilitate the sharing of multidisciplinary data sets with human and machine users. A Virtual Research Environment will orchestrate the computing and analytical services using the Federated Blue-Cloud data resources in addition to external data resources. Five virtual labs co-designed with top-level marine researchers will unlock the potential of Blue-Cloud innovation.

Blue-Cloud

- ENLIGHTENING INNOVATIVE SERVICES FOR MARINE RESEARCH & THE BLUE ECONOMY
- Horizon 2020
- TRUST-IT SRL - Italy
- 1 October 2019 to 30 September 2022
- blue-cloud.org



Restoring and maintaining the resilience and health of the unique Black Sea ecosystem, while enabling the development of a sustainable blue economy, is vital. The Black Sea CONNECT project will support the development of the blue economy in the region towards the implementation of the Burgas Vision Paper. Its overall objective is to coordinate the development of the strategic research and innovation agenda

Black Sea CONNECT

- COORDINATION OF MARINE AND MARITIME RESEARCH AND INNOVATION IN THE BLACK SEA
- Horizon 2020
- MIDDLE EAST TECHNICAL UNIVERSITY - Turkey
- 1 October 2019 to 30 September 2022
- connect@blackseas.org



GREENing the BLUE

Fuel savings take off with wingsails

#3

SATHScale

A competitive floating solution for offshore wind turbines

Fuel represents up to 60 % of the operational costs of maritime vessels, and this is accentuated by the introduction of mandates for new, cleaner fuels, such as marine gasoil, which can be double the price of traditional fuels like heavy fuel oil. The dramatic rise in fuel-related operational costs presents an acute need for new technologies. Alternative propulsion technologies for vessels can offer greater fuel efficiency and reduce the associated pollution from maritime transport supporting EU goals for emission reduction. GREENing the BLUE presents the full demonstration of a patented tilting mechanism which reduces fuel use and pollutant emissions in maritime transport through wind co-propulsion.

associated pollution from maritime transport supporting EU goals for emission reduction. GREENing the BLUE presents the full demonstration of a patented tilting mechanism which reduces fuel use and pollutant emissions in maritime transport through wind co-propulsion.



GREENing the BLUE

- ROUNDOFFSHORE WINGSAIL DEMONSTRATOR
- European Maritime and Fisheries Fund
- ROUNDOFFSHORE - Spain
- 1 January 2019 to 31 December 2022
- greeningtheblue.eu/project

Wind energy is the renewable energy technology expected to provide the largest contribution to the renewable energy targets for 2020 and beyond, by reducing greenhouse gas emissions from maritime economic activities. SATH is a unique platform concept for floating offshore wind power generation with reduced levelised cost of energy. The SATHScale project aims to address the challenge of bringing to market

SATH technology through scaling up the prototype to industrial readiness, exploiting real-world data generated by an open-sea 2 MW demonstrator deployed at the Biscaya Marine Energy Platform in Spain.



SATHScale

- ENGINEERING AND UPSCALING OF NEW FLOATING RENEWABLE WIND ENERGY PLATFORMS
- European Maritime and Fisheries Fund
- SAITEC - Spain
- 1 November 2020 to 31 October 2023
- sathscale.eu

LIFE

#3

LIFE NOVIOCEAN

Launching a novel wave power technology

Close-to-shore wave energy has a huge potential to produce renewable electricity and thus drastically cut Europe's emissions linked to power production. This project will demonstrate NovioOcean, a new, highly innovative concept for wave energy that is much more cost-efficient

than existing wave energy converters. The overall objective of LIFE NOVIOCEAN is to construct a pilot unit to validate the wave energy converters and systems on an industrially relevant scale, and monitor its performance during a demonstration phase.

NOVIOCEAN

- ENGINEERING AND DEMONSTRATION OF NOVIOCEAN, WITHDRAWAL WAVE ENERGY CONVERTER, YDRO POWER PLANT AT SEA
- European Maritime and Fisheries Fund
- Noviocean AB - Sweden
- 2021 to 30 June 2025
- noviocean.eu



#3

SEA FOREST LIFE

Subsea meadows as carbon sinks of the Mediterranean

The aquatic Posidonia meadows habitat is disappearing four times faster than terrestrial forests. Inventories show the prairies around Italy store up to 830 tonnes of carbon per hectare, a total of some 236 million tonnes of carbon per year. The main objective of the SEA FOREST LIFE project is to quantify the carbon deposits of Posidonia oceanica meadows and to increase their capacity by reducing erosion and subsequently consolidating habitats. This will be done through a better understanding of the meadows and the practices needed for their defence and local

SEA FOREST LIFE

- POSIDONIA MEADOWS AS CARBON SINKS OF THE MEDITERRANEAN
- LIFE programme
- DREAM ITALIA SOC. COOPERATIVA AGRICOLA FORESTALE - Italy
- 1 September 2018 to 31 December 2023
- seaforestlife.eu/en





What have EU-funded projects achieved so far? (3)

Objective: **Make the blue economy carbon-neutral and circular**

Example from Horizon 2020 programme:

SUCCESS project

The project helped make European fisheries and aquaculture industries more competitive by researching the full value chain, i.e. from the fishing net (producers) to the plate (consumers).

The project has consolidated cooperation among scallop producers in Galicia, Spain, bringing producer organisations closer to processors to create a fresher, more premium product. The fishers sell to the company at a negotiated price, which beats selling by auction, yielding a high-quality product.

Example from EMFF programme:

GREENING the BLUE project

GREENING the BLUE presents the full-scale demonstration of a foldable wingsail solution based on aeronautical design, which reduces fuel use and pollutant emissions in maritime transport through wind energy co-propulsion.



Synergies with other programmes

- **Within an action**: One project consisting of different tasks promoted by different programmes (e.g. ‘research’ by Horizon Europe; ‘demonstration’ by Life+)
- **Between actions**: Two or more related projects driven in parallel by different programmes (e.g. ‘research’ by Horizon Europe; ‘demonstration and testing’ CEF; ‘local infrastructures’ by ERDF)
- **Sequencing actions**: Different actions that build on each other as a sort of “value chain” (e.g. ‘research’ by Horizon Europe -> ‘demonstration platform’ by DEP -> ‘business model development’ by InvestEU -> re-skilling by ESF+ -> Public Procurement for Innovations (PPI) supported by ERDF)



EUROPEAN UNION

EU MISSIONS
RESTORE OUR OCEAN & WATERS



https://ec.europa.eu/info/research-and-innovation/funding/funding-opportunities/funding-programmes-and-open-calls/horizon-europe/eu-missions-horizon-europe/healthy-oceans-seas-coastal-and-inland-waters_en#documents

Home > ... > Funding programmes and open calls > Horizon Europe > EU Missions in Horizon Europe > Healthy oceans, seas, coastal and inland waters

EU Mission: Restore our Ocean and Waters

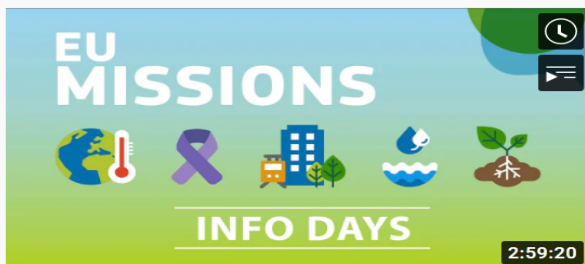
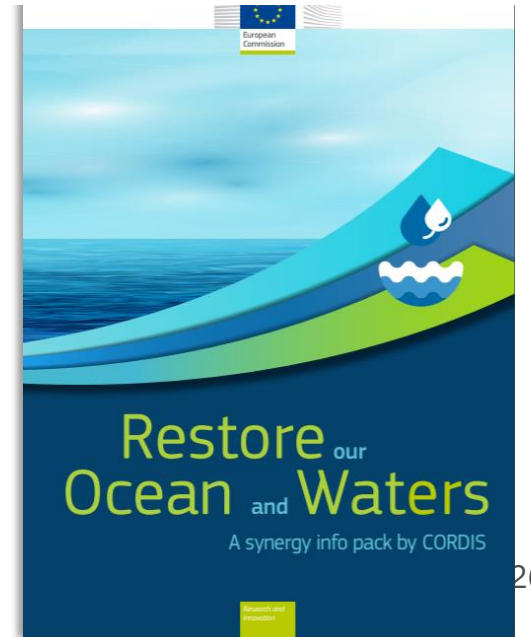
What this mission is, how it will work, how it was chosen, meetings, news, events.



EUROPEAN UNION

WHAT'S
IN IT FOR ME?

What are EU Missions?



EU Missions info days - Restore our Ocean and Waters by 2030 Mission

41K views • Streamed 1 month ago

EU Science & Innovation

Welcome and Restore our Ocean and Waters by 2030 Mission. The event aims to inform potential applicants about the new topics ...

<https://www.youtube.com/watch?v=kETGb6tNWFw>



EUROPEAN UNION



Thank you!

#MissionOcean

#EUmissions

#HorizonEU

© European Union, 2021

Reuse is authorised provided the source is acknowledged and the original meaning or message of the document are not distorted. The European Commission shall not be liable for any consequence stemming from the reuse. The reuse policy of the European Commission documents is implemented by Commission Decision 2011/833/EU of 12 December 2011 on the reuse of Commission documents (OJ L 330, 14.12.2011, p. 39).

All images © European Union, unless otherwise stated. Icons © Flaticon – all rights reserved.