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EU MISSIONS

RESTORE OUR OCEAN & WATERS

Concrete solutions for our greatest challenges

Elisabetta Balzi
Biennale della sostenibilità
Il ruolo di ricerca e innovazione
nella crescita blu sostenibile

#EUmissions #HorizonEU #MissionOcean

B4. Healthy Oceans and Seas. Policy drives The EU Green Deal, examples of major B4 activities



B4. Healthy Oceans and seas, major activities



Restore our Ocean and Waters by 2030

Well beyond research
Engaging with citizens
Strong regional dimension
EU Sea/River basins
3 calls launched 38 projects on-going, 2 projects under GAP
EU funding so far: 342,3M€



Seas and Oceans

Research and innovation from long to short term
Broad scope on protect, restore and sustainably use marine biological resources
2 biannual WPs launched 34 projects on-going
EU funding so far: 445,5 M€



Sustainable blue economy partnership

Structuring and co-funding R&I with MS
60 Partner institutions from 25 countries
First call published 13 Feb
EU funding so far: 83M€
Total expected EU funding: 150 M€

International Cooperation along sea basins
All-Atlantic Research Alliance, Black Sea, Mediterranean, Arctic

Intervention Area 4: Seas, Oceans (and Inland Waters)



IA4: Seas and Oceans. Work Programmes and projects

**WP
2021-2022**

EUR 255 million funding

34 projects launched

2 projects under Grant Agreement Preparation

**WP
2023-2024**

EUR 190,5 M€ funding, 16 topics

9 topics, 16 projects expected to start in 2024

7 topics, 10 projects expected to start in 2025 and 2026

IA4: Seas and Oceans. Sub-areas

WP2021-2022 & WP2023-2024

EU cont.: 445,5 M€



Marine Biodiversity & Ecosystems



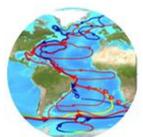
Food from the ocean and freshwater



Blue Bioeconomy & Biotechnology



Zero pollution on seas and ocean



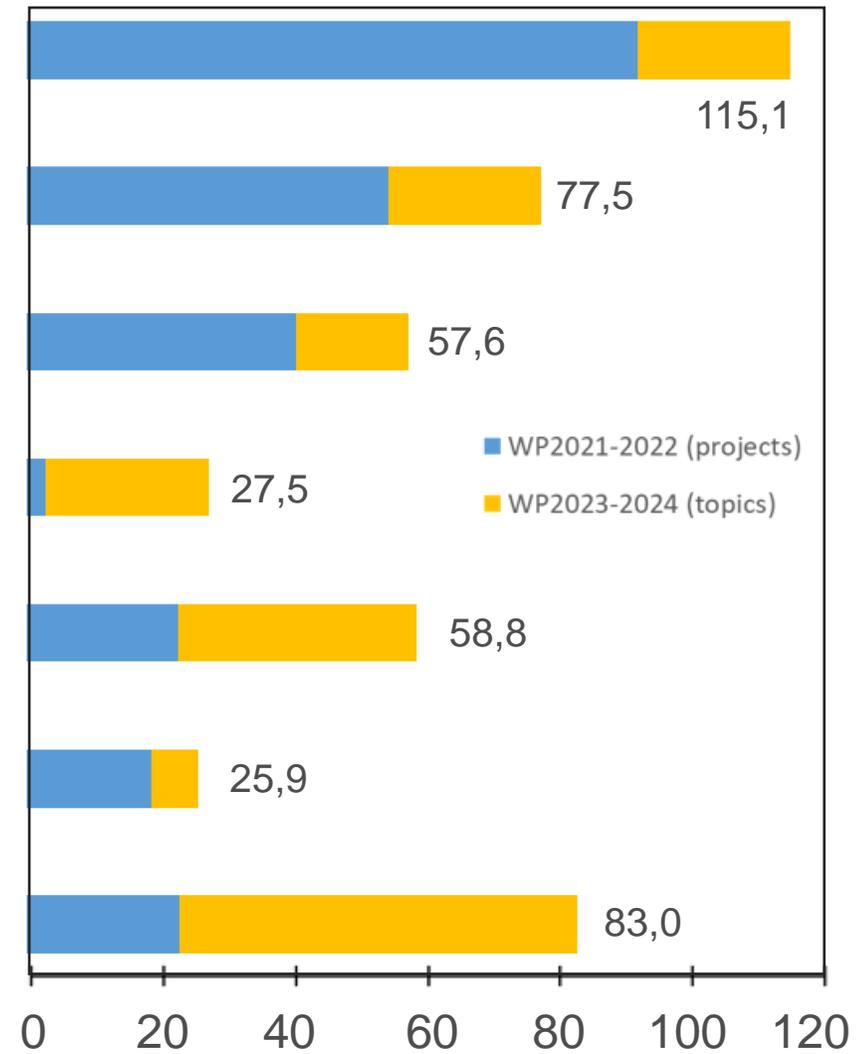
Ocean climate nexus



Governance & social transition



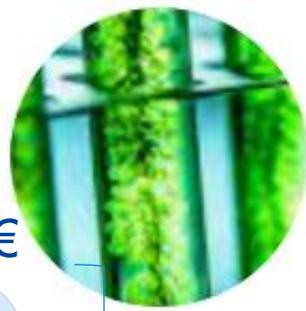
Sustainable Blue Economy Partnership



Cluster 6 - IA4: Seas and Oceans

Blue bioeconomy & biotechnology portfolio: 5 projects launched

57,6 M€



WP2021-2022

Algae for the EU blue bioeconomy
IA – 25,3M€

- **SeaMark:** Seaweed based market applications
- **REALM:** Reusing effluents from agriculture to unlock the potential of microalgae
- **CIRCALGAE:** Circular valorisation of industrial algae waste streams into high-value products to foster future sustainable blue biorefineries in Europe.

40,6 M€

Marine microbiome for healthy ocean and the blue bioeconomy
RIA – 15,3 M€

- **BLUETOOLS:** Innovative tools for sustainable exploration of marine microbiomes: towards a circular blue economy and healthier marine ecosystems
- **BlueRemediomics:** Harnessing the marine microbiome for novel sustainable biogenics and ecosystem services

WP2023-2024

Novel culture of marine organisms for blue biotechnology applications

RIA, 8M€

Deadline: 28-03-2023

2 projects under Grant Agreement Preparation (GAP)

Targeting marine extremophiles for sourcing novel enzymes, drugs and chemicals

RIA, 9M€

Deadline: 22-02-2024

17 M€



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“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 U. von der Leyen, 11 Feb 2022
https://ec.europa.eu/commission/presscorner/detail/en/SPEECH_22_962





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

Lighthouses are the Mission SITES to pilot, demonstrate, develop and deploy the Mission activities across EU seas 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



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





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Mission lighthouses: spaces of transformation to pilot, demonstrate, develop and deploy the Mission activities across the EU

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





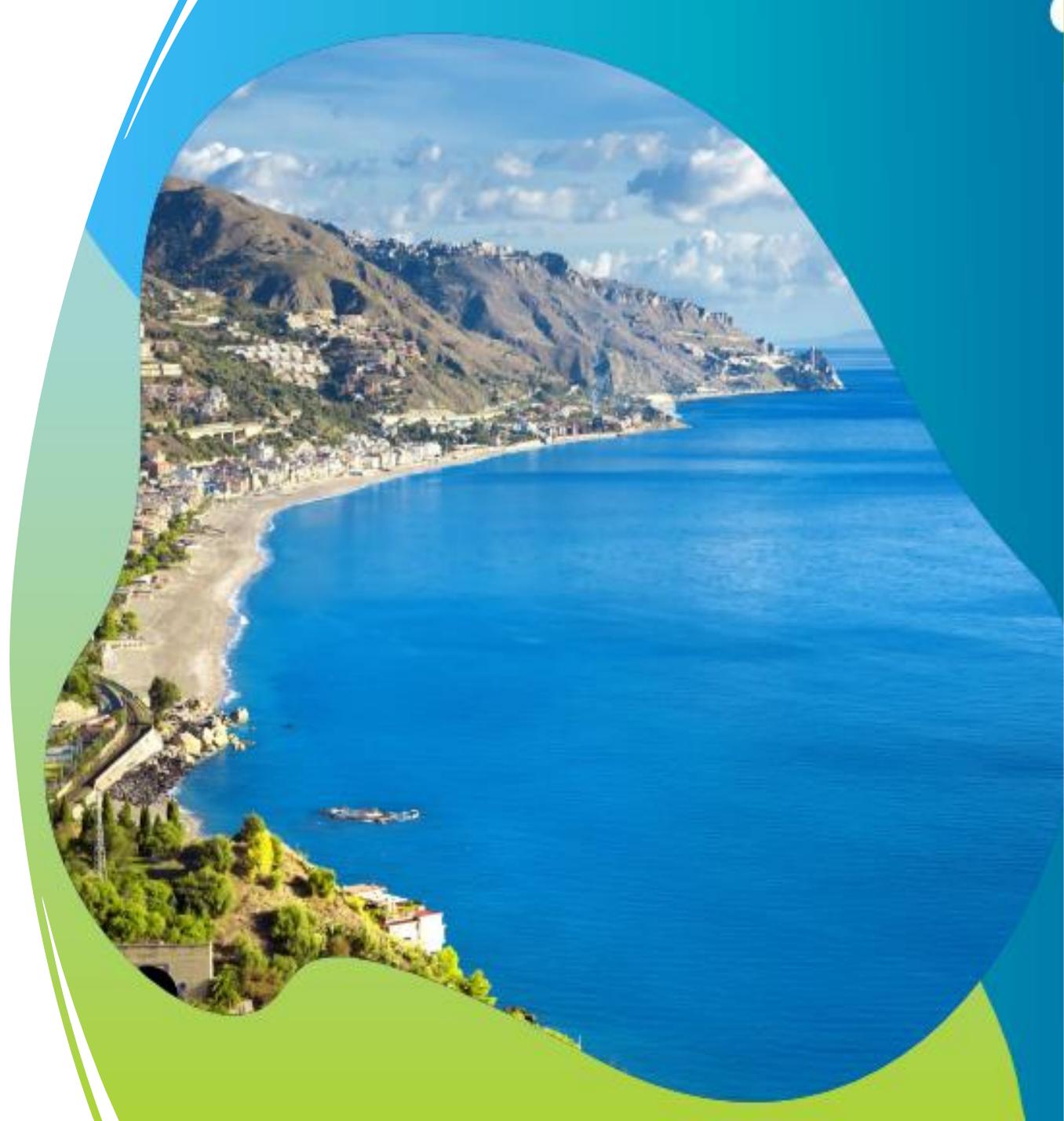
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The Mediterranean lighthouse

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





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BlueMissionMed: Co-ordination and Support Action for Med lighthouse

co-ordinated by CNR - Italy



[THE PROJECT](#)

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**SUPPORTING THE MEDITERRANEAN SEA BASIN
FOR THE IMPLEMENTATION OF THE EU MISSION
RESTORE OUR OCEAN AND WATERS**

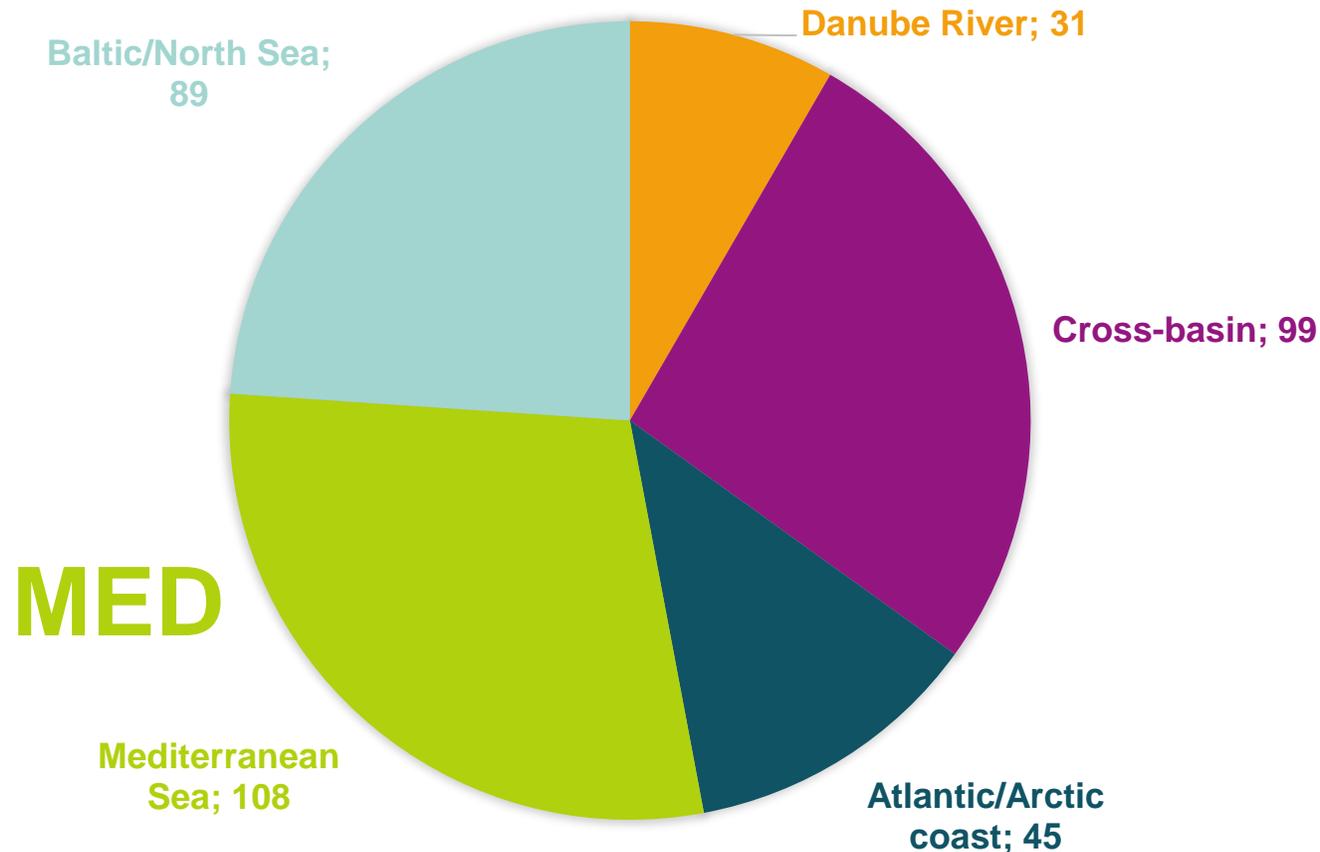


The Mission Charter is meant to **mobilize** all stakeholders to achieve the goals of the Mission, strengthening **cooperation**, aligning **efforts** and achieving **critical mass** for the transformational **change** needed to restore our oceans and waters. by 2030.



Mission Charter actions

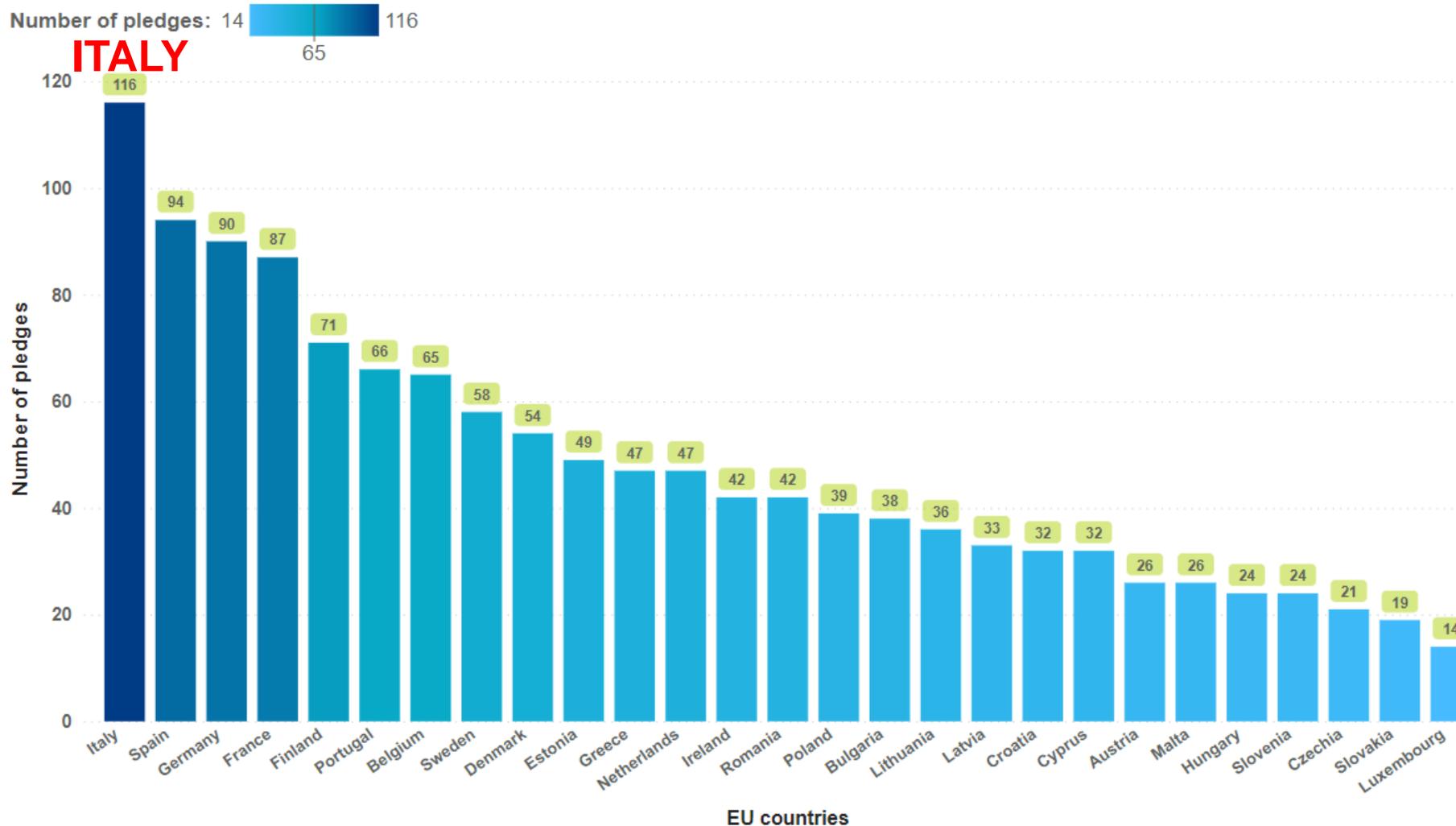
BASIN COVERAGE



**Over 500 actions submitted with
372 actions visible to the Mission
Atlas
Budget: €3,9 billion**



Mission Charter actions : Countries





Mission Actions - EU Mission Restore our Ocean and Waters (2 of 2)



Title of the action: **Plastic Smart Cities Initiative**

Short description: **Engage with cities to tackle plastic pollution... [see more info](#)**

Name of organisation: **WWF Mediterranean**

Budget: **0.8 Million Euro**

End date of action: **31/12/2030**

[Website](#)

Mission Actions - EU Mission Restore our Ocean and Waters



Title of the action: **Project MSP-GREEN**

Short description: **The MSP-GREEN project contributes to align maritime spatial plans to the ambition of the EGD by creating a framework for plans as marine enablers of t... [see more info](#)**

Name of organisation: **CORILA - CONSORZIO PER IL COORDINAMENTO DELLE RICERCHE INERENTI AL SISTEMA LAGUNARE DI VENEZIA**

Budget: **1.933 Million Euro**





HORIZON EUROPE: Mission Ocean Calls

2021

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

2022

CALL - EUR 116 million for calls for proposals
18 projects ongoing, 2 under Grant Agreement Preparation
EUR 118,4 funding (EUR 130,6 M€ total project cost)

2023

CALL for proposals open (17 Jan 2023, DL 20 Sept 2023)
Budget: 100,7 M€



Danube lighthouse Portfolio of projects

2021

Restoration of fresh & transitional waters ecosystems
IA - 17M€

DANUBE4all - Restoration of the Danube river basin waters for ecosystems and people from mountains to coast

DALIA - Danube Region Water Lighthouse Action

Lighthouse CSA - 3M€

EcoDaLLi - ECOsystem-based governance with DANube lighthouse Living Lab for sustainable Innovation processes

2022

Protection & restoration of wetlands, flood plains, coastal wetlands & salt marshes and their biodiversity
IA - 17M€

DaWetRest- Danube Wetlands and flood plains Restoration through systemic, community engaged and sustainable innovative actions

Restore4Life- Restoration of wetland complexes as life supporting systems in the Danube Basin

2023

Demonstration of effective and sustainable management of sediments
IA - 17M€

Call deadline for WP2023 topics: 20/09/2023



Atlantic and Arctic lighthouse

Portfolio of projects

2021

Restoration of marine and coastal ecosystems and increased climate resilience
IA - 17M€

CLIMAREST - Coastal Climate Resilience and Marine Restoration Tools for the Arctic Atlantic basin

A-Agora - Blueprint for Atlantic-Arctic Agora on cross-sectoral cooperation for restoration of marine and coastal ecosystems and increased climate resilience through transformative innovation

Lighthouse CSA - 3M€

BlueMissionAA - Building a coordination hub to support the mission implementation in the Atlantic and Arctic basin

2023

Addressing climate change and human activities threats to marine biodiversity
IA - 16M€

Call deadline for WP2023 topics: 20/09/2023

Objective 2



Mediterranean lighthouse

Portfolio of projects

2021

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

2022

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

2023

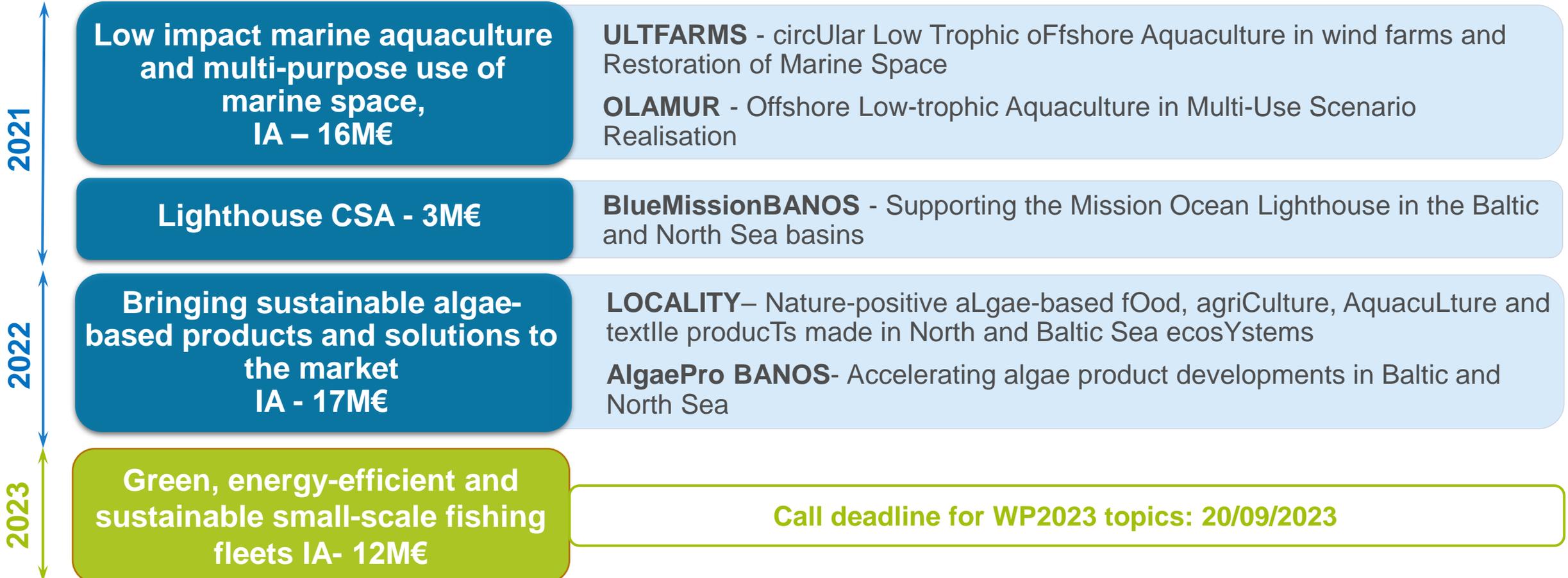
Missions Ocean & Soil – Joint demonstration of approaches and solutions to address nutrient pollution in the landscape-river-sea system in the Mediterranean sea basin, IA - 8M€

Call deadline for WP2023 topics: 20/09/2023

Objective 3



Baltic and North Sea lighthouse Portfolio of projects





CONSIGLIO NAZIONALE DELLE RICERCHE
🇮🇹 Italy

VENICE LAGOON PLASTIC FREE
🇮🇹 Italy

EU contribution
€ 7 999 644,75

EXAMPLES: REMEDIES PROJECT

Co-creating strong uptake of REMEDIES for the future of our oceans through deploying plastic litter valorisation and prevention pathways





EXAMPLES: SeaClear2.0 PROJECT

EU contribution
€ 7 971 863,50

HORIZON
EUROPE

Scalable Full-cycle Marine Litter Remediation in the Mediterranean:
Robotic and Participatory Solutions



CONSIGLIO NAZIONALE DELLE RICERCHE
🇮🇹 Italy

EXAMPLES: DANUBE4all PROJECT



DANUBE4all RESTORATION OF THE DANUBE RIVER BASIN WATERS FOR ECOSYSTEMS AND PEOPLE FROM MOUNTAINS TO COAST

ID: 101093985

EU contribution
€ 7 968 216,13



Other EU programmes / instruments

- Cross portfolio analyses
- EMFAF : all MS operational programmes refer to the Mission
- BlueInvest, InvestEU, EIB
- Recovery and Resilience Funds: references to the Mission



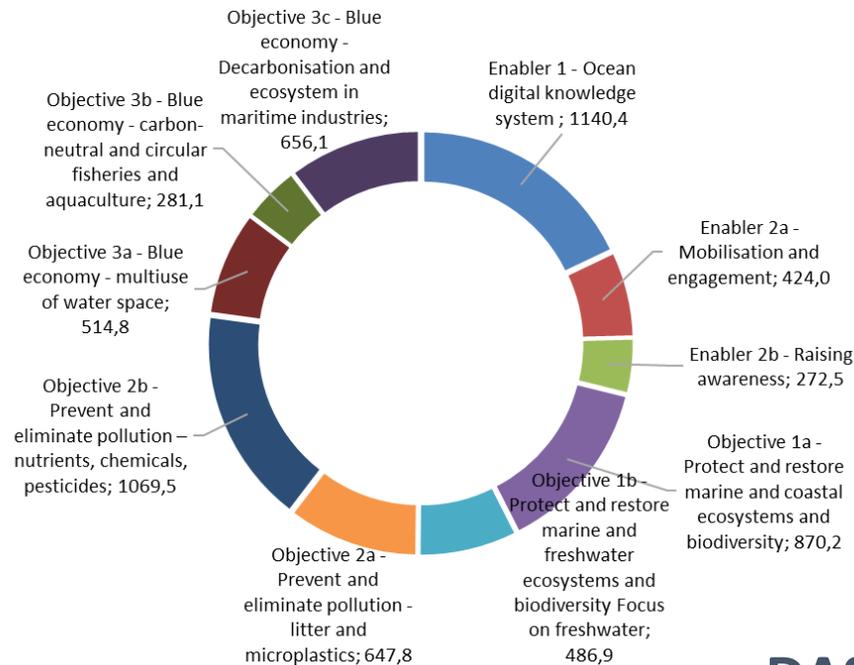
Projects portfolio from different EU programmes

Projects accros FPs

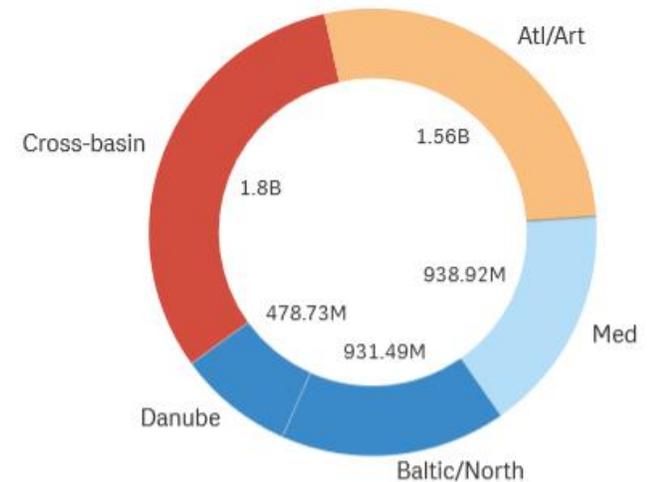
More than 800 projects in 16 EU programmes

| FP | No projects | EU funding M€ |
|--------------|-------------|----------------|
| H2020 | 389 | 2249,9 |
| HORIZON | 181 | 1174,8 |
| Interreg | 119 | 768,1 |
| LIFE2027 | 74 | 226,4 |
| CEF | 10 | 40,5 |
| EMFF | 28 | 40,0 |
| ERASMUS2027 | 11 | 38,0 |
| LIFE | 7 | 32,3 |
| CEF2027 | 2 | 27,7 |
| EMFAF | 9 | 9,3 |
| I3 | 1 | 5,1 |
| EPLUS2020 | 1 | 5,0 |
| COSME | 6 | 3,8 |
| DIGITAL | 2 | 2,8 |
| SMP | 1 | 1,4 |
| ESTAT | 1 | 0,2 |
| TOTAL | 841 | 4,63 B€ |

objectives



sea/river basin





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

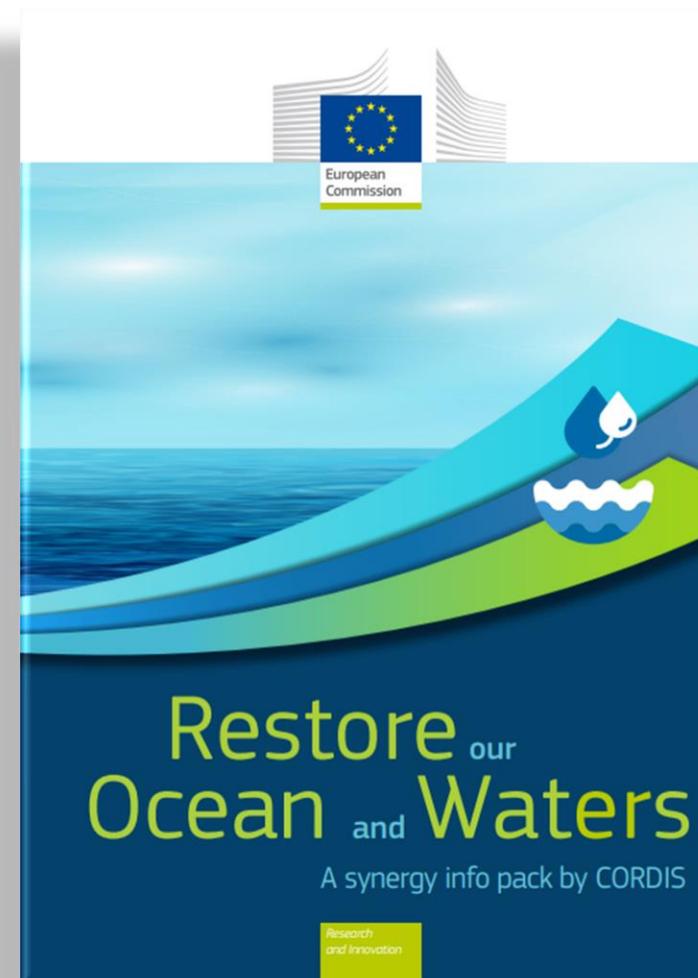
UN Decade Ocean Sciences, UfM, Alliances (e.g. AAORA)

With public & private sectors, and investors

Universities, Joint Undertakings, EIB, EBRD, philanthropy

With citizens and youth

Citizens initiatives, EU4Ocean, Youth ocean Ambassadors





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Thank you!

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