



supporting the mediterranean sea basin
lighthouse for the implementation of the EU
Mission restore our ocean and waters

1st BlueMissionMed Stakeholder Forum

Shaping the future of the Mediterranean
Basin to respond to EU Mission Ocean and
Waters Objectives



Palermo, Italy, 30 May 2023
09.00 - 13.00 CEST - Hybrid format

A harbor scene with numerous fishing boats docked. In the foreground, a blue and white boat is moored at a concrete pier. The boat has a white cabin, a large fan on the deck, and various fishing equipment. The water is calm, reflecting the boats and the sky. In the background, a long concrete wall runs along the harbor, and more boats are visible in the distance. The sky is clear and blue.

Fisheries, Aquaculture, and conservation

BIOGEARS: Developing biobased ropes for use in mussel and seaweed and creation of biobased value chains and circular economy

Presenter: Leire Arantzamendi

Link: EU BIOGEARS project (www.biogears.eu)

larantzamendi@azti.es

BIOGEARS: biobased ropes for sustainable and circular mussel and seaweed aquaculture



- **Sector:** Fisheries and Aquaculture
- **Country and level:** BAY OF BISCAY (SPAIN) (ATLANTIC BASIN)
- **Type of Inspirational Case Study:** Research and Innovation
- **Main objective:** minimize marine litter and microplastics generation and climate change impact from aquaculture by using biobased, biodegradable and compostable mussel and seaweed ropes as more sustainable and eco-friendlier alternatives to conventional fossil-fuel ropes (replicable in other sea basins or blue labs)
- **Brief description:** *BIOGEARS aims to provide the European aquaculture sector with biobased, biodegradable ropes that are durable, marketable and fit-for-purpose, and hence have a highly reduced carbon footprint along the whole value chain. The project aims to develop (1) new innovative and eco-friendly products such as bioplastic compounds with potential to produce textile yarns, biobased biodegradable ropes, aquaculture prototypes for mussel and algae aquaculture at pre-industrial scale. Although focusing on the Atlantic area, aims to scale up the use of biobased ropes in all European aquaculture sectors through an innovative Blue Lab concept, (2) new business models for new biomaterials and ropes generated within the project on a circular economy approach and study new market opportunities for these products, (3) foster an eco-friendly aquaculture industry in Europe, developing Good Practices for end-of-life biobased ropes, and to contribute to European policies on plastics and microplastics, such as the Marine Litter Strategy, and the European Strategy for Plastics in a Circular Economy.*



CIRCULAR ECONOMY SOLUTIONS IN AQUACULTURE

Presenter: George Mantas, AquaBioTech Group

Link: <https://aquabt.com/rdi/projects/ongoing-projects/>

Main contact: gdm@aquabt.com

CIRCULAR ECONOMY SOLUTIONS IN AQUACULTURE

- **Sector:** Aquaculture and Conservation; Research and Education;
- **Country and level:** Malta, East and WesMediterranean
- **Type of Inspirational Case Study:** Research and innovation; Evidence-based knowledge and data and access provision to knowledge and data; Upscaling, deployment and replication of solutions;
- **Main objective:** Develop low-impact aquaculture, and promote circular, low-carbon multi-purpose use of marine and water space through reuse of aquaculture wastes from production and processing
- **Brief description:** *AquaBioTech Group has been implementing research and innovation projects in aquaculture to make the sustainable blue economy carbon-neutral and circular (SO3)*
- **TAPAS H2020:** *Investigating the possibilities of sea cucumber production under aquaculture cages (Mediterranean IMTA)*
- **BYTHOS Interreg Italy-Malta:** *Pilot production of fish meal from the processing wastes of Bluefin tuna, testing the final product in aquaculture*
- **PROFIUS BlueBio Cofund:** *Solution for logistic challenges of tuna processing wastes, upscaled fish-meal production and testing on various aquaculture species*
- **iFishIENCi H2020:** *Using aquaculture effluents for algae and yeast production, developing fish feeds with low fish meal content*



A NATIONAL NETWORK FOR THE MARINE ENVIRONMENT

George Sarelakos, Aegean Rebreath

<https://www.aegeanrebreath.org>

A national network for the marine environment



- **Sector:** Fisheries, Aquaculture and Conservation
- **Country and level:** Greece, national level
- **Type of Inspirational Case Study:** Environmental democracy, Capacity building, Research and innovation; Evidence-based policies and data, access provision to knowledge and data; Up scaling, deployment and replication of solutions; Citizen engagement, Volunteerism, youth-led initiatives, communities of practice, ocean and water literacy, outreach, awareness raising and participatory approaches; Education and training
- **Main objective:** Prevent, minimise, raise awareness, train and educate, engage, develop practices



- **Brief description:** *The case study focuses on practices aiming to reduce marine litter and microplastics at the sea. In this context, Aegean Rebreath has developed a model that involves central government, local authorities, the civil society and private firms to enhance the efforts for changing culture concerning the marine environment. The model foresees concrete activities at operational and institutional level. In this context, Aegean Rebreath has developed and coordinates the Blue Municipalities Network (18 member municipalities), the Marine Litter Collection Stations (19 stations) across Greece, while implementing more than 80 widespread initiatives (underwater and coastal clean ups), research and educational activities all over the country, implementing innovative pilot projects in cooperation with international firms and building a unique database that classifies 350 tones of marine litter in 218 codes.*



Educating the Blue Economy

Presenter: Dimitris Alexopoulos

d.alexopoulos@enaleia.com

Link: www.enaleia.com

ENALEIA - Together with the Fishermen



- **Sector:** Fisheries, Aquaculture and Conservation
- **Country and level:** Mediterranean Sea (European & North African Countries)
- **Type of Inspirational Case Study:** (Innovation; Evidence-based knowledge and data; Replication of solutions; Youth-led initiatives; Ocean and water literacy; Education and training)
- **Main objective:** To make the marine ecosystem sustainable through circular and social economy solutions.
- **Brief description:** We educate, We mitigate, We prevent, We create

IMPACT: 500.000 kgs collected

VISION: A sustainable ecosystem, including humans

Mission: To solve two problems that correlate to a great extent: Reduction of fish stocks & Marine plastic pollution.



A Blue Doughnut to reduce marine litter & other human impacts towards marine sustainability

Presenter: Frédérique Mongodin, SEAS AT RISK, fmongodin@seas-at-risk.org

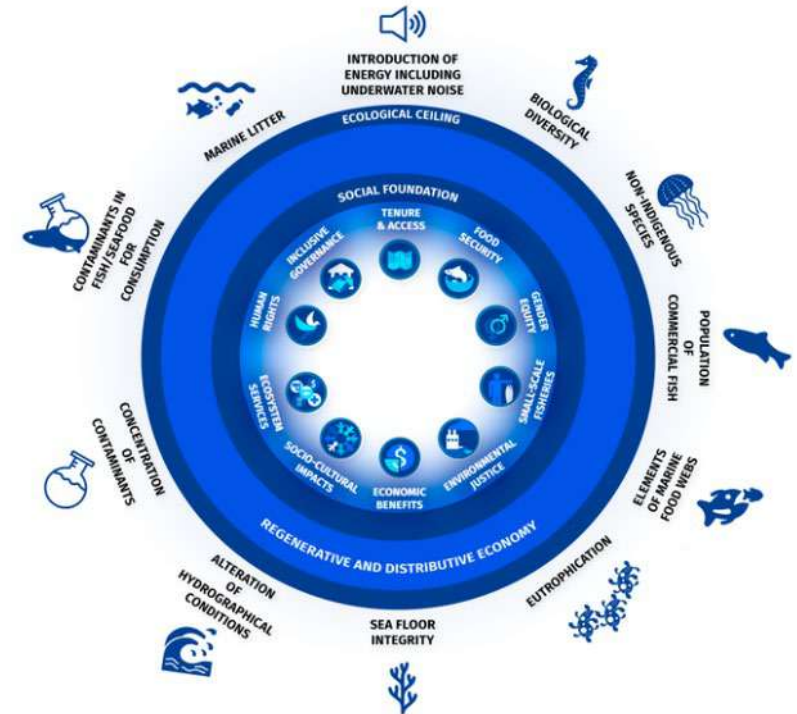
Link: <https://www.beyond-growth-2023.eu/lecture/focus-panel-12/>

Main contact: Monica Verbeek, SEAS AT RISK Director

A Blue Doughnut to reduce marine litter & other human impacts towards marine sustainability



- **Sector:** Fisheries, Aquaculture and Conservation
- **Country and level:** All countries and EU level
- **Type of Inspirational Case Study:** ocean and water literacy, education and training, awareness raising and governance tools
- **Double objective:** prevent, minimise plastic and other marine pollutions across the Mediterranean Sea basin as well as other ocean and seas, by providing governance tools for ocean policy to remain within planetary boundaries and respect both the ecological ceiling and the social foundation of our economy.



- **Brief description:** *The Blue doughnut initiative is applying the doughnut economics principles to European ocean and seas, which represent 70% of our planet, to raise awareness on the necessary changes and to foster a coherent governance response at both local and national levels. As far as marine litter is concerned, it will contribute to 2 targets of the Mission (reduce plastic litter at sea, and microplastic release into the environment) by addressing their main drivers such as overconsumption and single-use, based on a common narrative and description of which and how human activities should be changed or halted in order to reduce marine litter at the source.*

DUWO srl

Presenter: Alfonso Raiola, marketing director DuWo

The intelligent packaging to make to give environmental sustainability
and economy

Main contact: Dante Mele CEO DuWo srl

THE DUWO SYSTEM WAS CREATED TO MAKE A CONCRETE CONTRIBUTION TO THE GREEN DEAL AND REDUCE MARINE AND LAND POLLUTION

- **Sector:** Fisheries, Aquaculture and Conservation. The DuWo system contributes concretely to the objective of tracing the packaging in the aquaculture and logistics sector to give certification of washing and sanitation to the cities, ports and islands of the Mediterranean.
- **Country and level:** The DuWo system is applicable in all regions and countries of the Mediterranean and replicable in other nations.
- **Type of Inspirational Case Study:** The DuWo system, after many researches and collaborations with the Federico II University of Naples and with the CNR of Ancona, has developed a fourth generation packaging with the first prototype created 12 years ago, today DuWo packaging is in use in Italian marine and fish markets.
- **Main objective:** The DuWo system was created to eliminate polystyrene in the fisheries and aquaculture sector and give sustainability to logistics and traceability along the fish supply chain preventing, minimising, remedying or monitoring pollution in the Mediterranean basin, giving dignity and cultural and economic change to the fisheries sector, to give the opportunity to all the actors of the fish supply chain to use a good practice and to reach the objective of the reduction of the marine and terrestrial pollution within 2030.
- **Brief description:** *The goal of the DuWo system is the reduction of microplastics and polystyrene, ensuring the traceability of DuWo packaging.*



BLUE SEA LAND - INTERNATIONAL BLUE ECONOMY EXPO

KNOWLEDGE EXCHANGE AND COOPERATION TO EXPLOIT THE SEA AND ITS RESOURCES

Presenter: Lorenzo Castelli, Distretto della Pesca e Crescita Blu - COSVAP,
esteridistrettopesca@gmail.com

Link: www.distrettopesca.com
www.bluesealand.net

BLUE SEA LAND - INTERNATIONAL BLUE ECONOMY EXPO



KNOWLEDGE EXCHANGE AND COOPERATION TO EXPLOIT THE SEA AND ITS RESOURCES SUSTAINABLY

- **Sector:** Fisheries, Aquaculture and Conservation
- **Country and level:** med-basin level
- **Type of Inspirational Case Study:** evidence-based knowledge and data and/or access provision to knowledge and data
- **Main objective:** promote cooperation among Mediterranean Countries and share knowledge on fisheries to produce alignment of action towards applying the principles of the Blue Economy in a sustainable manner.
- **Brief description:** *Fair aside, the Blue Sea Land Expo includes a rich programme of conferences mainly on fisheries and how to introduce innovation compatible with the Blue Economy so as to exploit the sea and its resources in a sustainable way. By involving foreign Ministers for Fisheries, foreign Ambassadors as well as other prominent figures in the fisheries sector, Blue Sea Land allows for dialogue and knowledge exchange to foster a common approach towards a sea shared between two shores.*



THE STRAIT OF SICILY HOTSPOT: FROM KNOWLEDGE TO MANAGEMENT ACTIONS TO MAINTAIN ITS FISHERY PRODUCTIVITY AND BIODIVERSITY SUSTAINABLY

Presenter: Sergio Vitale

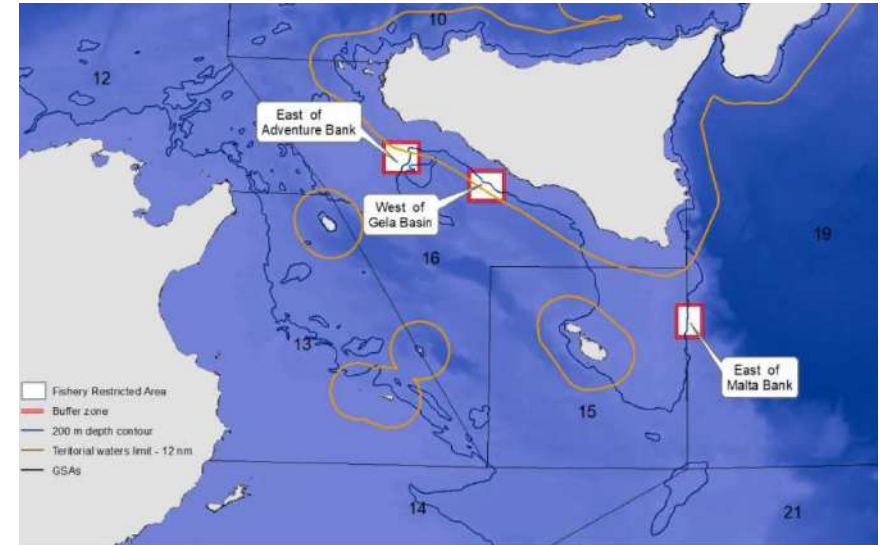
Institute for Marine Biological Resources and Biotechnology (IRBIM), National Research Council (CNR), Mazara del Vallo, TP, Italy – sergio.vitale@cnr.it

Link: <https://www.fao.org/gfcm/managementplan-hake-roseshrimp/en/>

THE STRAIT OF SICILY HOTSPOT: FROM KNOWLEDGE TO MANAGEMENT

ACTIONS TO MAINTAIN ITS FISHERY PRODUCTIVITY AND BIODIVERSITY

- **Sector:** Fisheries, Aquaculture and Conservation
- **Country and level:** Italy, local, national, regional
- **Type of Inspirational Case Study:** Research and innovation; Upscaling, deployment and replication of solutions; Citizen engagement, awareness raising and participatory approaches.
- **Main objective:** stock assessment, essential fish habitats, vulnerable marine ecosystems, fishing selectivity, assessment of macro and micro-litter, seafood quality, consumers' perception and eco-labeled seafood, fisheries socioeconomic outcomes, international multiannual management plans for fisheries in the Strait of Sicily.
- **Brief description:** *For more than 40 years the Strait of Sicily (GSAs 12 to 16) represents our case study, characterised by high biodiversity, the occurrence of extremely vulnerable habitats, peculiar circulation patterns and ecotonal nature, a unique and challenging laboratory for monitoring and predicting the dynamics of future Mediterranean marine ecosystems and their sustainable uses. The results of our long series of scientific studies, often conducted involving stakeholders, deals with different topics of marine science, being a main scientific support for setting the management measures of the the General Fisheries Commission for the Mediterranean (GFCM) multiannual plans for managing fisheries in the Strait of Sicily with the goals of improving fisheries sustainability and conservation of sensitive fish habitats and biodiversity of demersal communities.*



Regulation EU 2019/282 which implements the management measures of the multiannual management plans including the Fisheries Restricted Areas (FRAs)

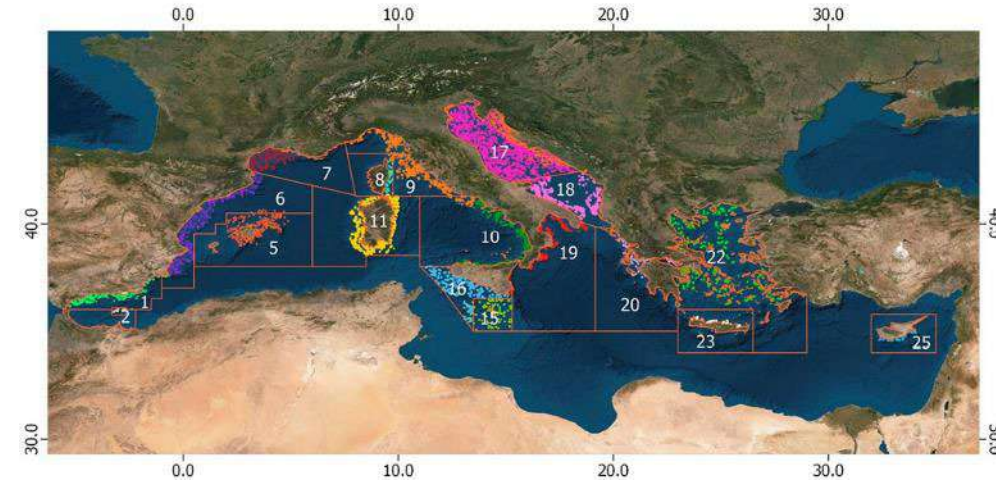
FISHERIES SCIENCE AS A PILLAR FOR THE ROLE OF THE FISHERIES AND AQUACULTURE SECTOR IN ACHIEVING A POLLUTION-FREE MEDITERRANEAN SEA

- **Sector:** Fisheries, Aquaculture and Conservation
- **Country and level:** Spain. Regional and up scaling to Med-basin level
- **Type of Inspirational Case Study:** This case relates to several aspects: Research and innovation, evidence based knowledge and data, upscaling and communities of practice.
- **Main objective:** Monitor pollution across the Mediterranean Sea Basin (Research). Remediate and minimise marine litter including plastics and microplastics (Fisheries, Aquaculture and Research sectors)

UP--MEDITS research surveys. From Spedicato et al., 2019. *Sci. Mar*
DOWN – Marine litter in a fishing haul

- **Brief description:**

The investigation of the components of marine litter and its monitoring on the coast and at sea, following the requirements of MSF Directive and taking advantage of the research surveys from the Data Collection Framework (MEDITS and MEDIAS), allows to design an effective work in the fishing fleets to help in the collection of litter and therefore in the reduction of plastic litter at sea. On the other hand, there is the research of new materials and fishing and aquaculture practices that reduce the sources of plastic pollution and/or the risk of fishing gear losses.



EATIP MIRROR PLATFORMS AS AQUACULTURE COMMUNITIES OF PRACTICE

Alexandra Neyts, EATiP (alexandra@eatip.eu)

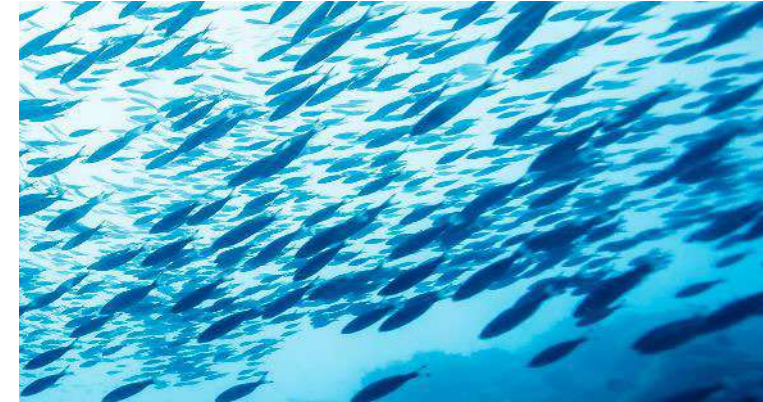
Mirror Platforms – EATIP – European Aquaculture Technology and Innovation
Platform

Main contact: David Bassett, EATiP (david@eatip.eu; secretariat@eatip.eu)

EATIP MIRROR PLATFORMS AS AQUACULTURE COMMUNITIES OF PRACTICE



- **Sector:** Aquaculture
- **Country and level:** Europe (interregional)
- **Type of Inspirational Case Study:** Research and innovation; communities of practice and participatory approaches; Education and training
- **Main objective:** research-based low-impact aquaculture production within the ecosystem boundaries, incl. prevention, minimizing and remediating pollution
- **Brief description:** *EATiP Mirror Platforms are industry-driven multi-stakeholder aquaculture clusters, supporting the implementation of strategic research and innovation activities at a regional/national level. They are important facilitators to gather knowledge on consensus opinions and priorities of the stakeholder communities in their own regions/countries. Through EATiP, they exchange best practices, innovative transformative solutions and methodologies of common interest, acting as communities of practice at a European interregional level. Low trophic aquaculture for feed and food, smart and circular precision farming, nature-based solutions for aquaculture and capacity building are areas of shared concern. The technical guide as tool to allocate best possible zones to aquaculture (developed by ISPRA) was used as a concrete experience sharing case across clusters and stakeholders in the Mediterranean, in collaboration with Marine Data services as Copernicus Marine and EMODnet.*
- *EATiP pledged the following actions to support the Mission Charter: A Strategic Research & Innovation Agenda for EU aquaculture, and EATiP Aquaculture Communication & Dissemination Services*



PROPOSAL OF ACTIONS FOR SUSTAINABLE AQUACULTURE

Presenter: Giulia Maricchiolo

Institute for Marine Biological Resources and Biotechnology (IRBIM),
National Research Council (CNR), Messina, Italy –

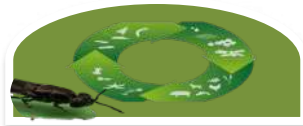
giulia.maricchiolo@cnr.it

PROPOSAL OF ACTIONS FOR SUSTAINABLE AQUACULTURE



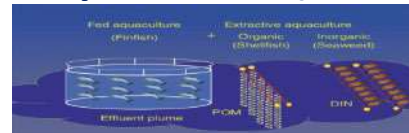
- **Sector:** Fisheries, Aquaculture and Conservation
- **Country and level:** Italy, local, national, regional
- **Type of Inspirational Case Study:** Research and innovation; Upscaling, deployment and replication of solutions; Evidence-based knowledge and data and/or access provision to knowledge and data
- **Main objective:** contribute to low carbon economy; contribute to circular economy; make a sustainable food system
- **Brief description:** *Actions that can contribute to achieve objective "Make the sustainable Blue Economy carbon-neutral and circular" by developing solutions for zero-carbon and low impact aquaculture and, at the same time, able to promoting circular economy.*

Feed with innovative ingredients



- Reduce carbon footprint
- Promote Circular economy;

Integrated Multi-Trophic Aquaculture (IMTA)



- Develop low impact aquaculture;
- Promote circular economy;

New Species



Forage Fish Dependency Ratio – FFDR16

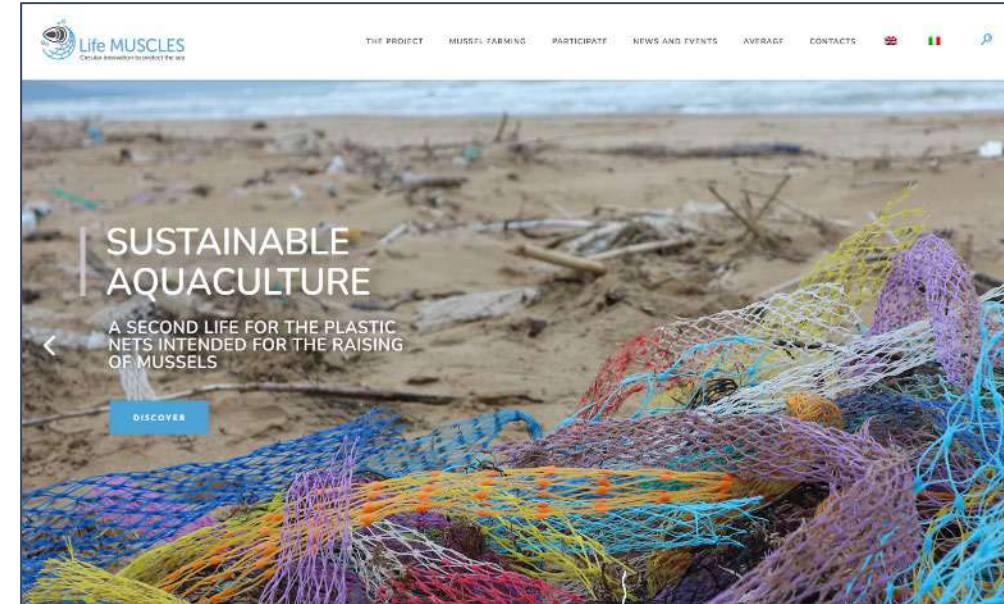
- Develop low impact aquaculture;
- Preserve biodiversity;

LIFE MUSCLES

Presenter: Elisa Scocchera, Legambiente, e.scocchera@legambiente.it

Link: <https://lifemuscles.eu/>

- **Sector:** Fisheries, Aquaculture and Conservation
- **Country and level:** Italy, national
- **Type of Inspirational Case Study:** Research and innovation
- **Main objective:** Prevent and minimise and monitor pollution across the Mediterranean Sea basin
- **Brief description:** *The general objective of the LIFE MUSCLES project is to contribute to the reduction of the impact caused by the dispersion in the marine environment of the nets used in mussel farms. The project aim at promoting a more sustainable production that minimizes the dispersion of nets in the marine environment, therefore, recovering and recycling used nets in polypropylene through a Mobile Recycling Plant on a pre-industrial scale of a circular management system (collection, storage, treatment, recycling and reuse) of polypropylene socks and testing the use of alternative nets in biopolymer.*



GLAUKOS: CIRCULAR SOLUTIONS FOR FISHING AND CLOTHING INDUSTRY

Presenter: Zsofia Kadar, Tanja Meyer – Bio Base Europe Pilot Plant
Susanna Albertini, Selenia Marinelli – FVA - New Media Research

Link: GLAUKOS project (<https://glaukos-project.eu/>)

zsofia.kadar@bbeu.org

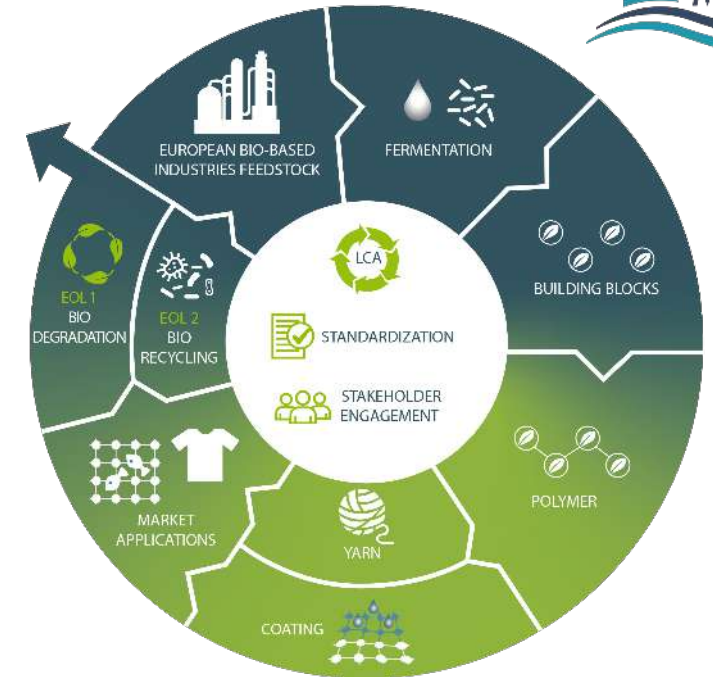
communication@fvaweb.it

GLAUKOS: CIRCULAR SOLUTIONS FOR FISHING AND CLOTHING INDUSTRY



- **Sector:** Fisheries and Aquaculture; Research and Education
- **Country and level:** European
- **Type of Inspirational Case Study:** Research and Innovation
- **Main objective:** Glaukos develops biobased textile fibres and textile coatings that are adapted to the needs of the 21st century. The complete life cycle of fishing gear and clothing will be redesigned, their sustainability performance will be enhanced significantly, while their technical performance will be matched to end-user requirements. The ambition is to significantly reduce the carbon and plastic footprint of clothing and fishing gear in the ocean and waters.
- **Brief description:** *Glaukos has the overall objectives to 1) mitigate microplastic pollution by increasing the biodegradation rate of materials compared to conventional (micro) plastics; 2) Reconcile the biodegradation characteristics with technical performance and durability to ensure the effective and long-term use of textile products such as fishing gear and clothing. Boost the bio-recycling potential of the Glaukos biobased textile products by developing compatible recycling biocatalysts; 3) Develop eco-friendly fishing gear coatings with increased biobased content; 4) Increase the biobased content of textile products; 5) Engage stakeholders and promote dialogue among projects and policy with regards to marine-friendly textiles and coatings.*

Glaukos was selected as EU Mission Ocean Charter endorser.



THINKINAZUL

Presenter: Jesús E. Argente García
University of Murcia (Spain)

jesus.argente@um.es

Link: www.thinkinazul.es

ThinkInAzul

- **Sector:** Research and Education
- **Country and level:** Spain
- **Type of Inspirational Case Study:** The project works jointly on three lines of action (LA): LA-1: Observation and monitoring of the marine and coastal environment; LA-2: Sustainable, intelligent and precision aquaculture; LA-3: Blue Economy: Innovation and opportunities. Where research, development and innovation in digitalization and new technologies are carried out horizontally.
- **Main objective:** to create a network of centres of excellence in Spain to cooperatively address challenges in marine research, marine-maritime monitoring and observation, climate change, aquaculture, new technologies, impacts on the marine environment and other sectors of the blue economy.
- **Brief description:** *ThinkInAzul is the Complementary Plan for Marine Science R&D&I in Spain and is a joint research and innovation strategy in Spain. Its overall objective is to create a network of centres of excellence to cooperatively address challenges in marine research, marine-maritime monitoring and observation, climate change, aquaculture, new technologies, impacts on the marine environment and other sectors of the blue economy. The project has been co-funded by the Ministry of Science and Innovation (Next Generation EU) and by the regions of Andalusia, Cantabria, Valencia, Galicia, the Canary Islands, the Balearic Islands and the Region of Murcia, the latter being the national coordinator. Scientific coordinators: Senena Corbalán García (Vice-Rector for Research, University of Murcia) and Fernando de la Gándara (Director of the Murcia Oceanographic Centre, Spanish Institute of Oceanography, IEO-CSIC).*



NO MORE GHOSTS IN THE MEDITERRANEAN

Presenter: Stefania Campogianni

scampogianni@wwfmedpo.org

Link: www.wwfmmi.org

NO MORE GHOSTS



- **Sector:** Fisheries and Aquaculture
- **Country and level:** Italy, Croatia, France and Mediterranean
- **Type of Inspirational Case Study:** Scientific work, seabed mapping, awareness raising, technological development, waste management
- **Main objective:** Developing and testing new technological solutions to map and effectively collect ghost gear and prevent future losses at sea.

- **Brief description:** *Ghost gear - abandoned and lost fishing nets - threatens all marine wildlife and our sea. WWF is testing new technologies in various marine sites to increase the identification of lost gear, incl. side scan sonar for seabed mapping and net tagging; identify ghost gear with the use of a dedicated app; and collaborate with fishers, port authorities, MPA managers and local stakeholders to guarantee the effective and safe retrieval of ghost gear and their effective disposal and promote preventive measures. Watch the [video](#).*

A photograph of a busy garment factory. In the foreground, a woman with her hair in a ponytail is working at a sewing machine, focused on a piece of dark blue fabric. The machine is a modern industrial model with a light-colored top. To her right, there are large, neat stacks of blue fabric. In the background, several other workers are visible at their stations, some operating sewing machines. The room is filled with various fabrics, including large piles of bright pink material on the right side. The overall atmosphere is one of active industrial production.

Industries

UPCYCLING THE OCEANS

Presenter: Andrea Ruzo, ECOALF Foundation

aruzo@fundacionecoalf.org

www.fundacionecoalf.org

Upcycling the Oceans

- **Sector:** Ports, Shipping and Industries
- **Country and level:** Spain, France, Italy and Greece (Med Basin level)
- **Type of Inspirational Case Study:** Upscaling, deployment and replication of solutions.
- **Main objective:** Prevent, minimise, remediate or monitor pollution across the Mediterranean Sea basin.
- **Brief description:** *Upcycling the Oceans is an unprecedented worldwide adventure that fights against marine litter and plastic pollution, with the help of the fishing sector. An initiative of international scope that was born in **Spain** in 2015 with only 3 fishermen and since then has also been implemented in **Thailand, Greece, Italy and France**. Thanks to the help of **+4200 fishermen** around **71 ports** in 4 Mediterranean countries, the Foundation has removed over **1,400 tons** of waste from the bottom of the Sea.*



The objectives of *Upcycling the Oceans* are three: to collaborate in **cleaning up the oceans**, to **give a second life to recovered garbage** and to **raise awareness** of the problem in order to prevent it. The fishermen are the real heroes of this project, as every day they collect the garbage accidentally caught in their nets, take it to port and deposit it in specific containers to prevent it from being mixed with other waste streams. Periodically, this waste is transported to treatment plants where it is sorted to facilitate its subsequent recycling and conversion into new products. In particular, the **plastic waste is transformed** into flakes and pellets, ready for a new life. Recycled marine debris has different applications. One example is the conversion of PET plastic into **polyester yarn for use in the textile industry** as in the case of ECOALF, the Spanish sustainable fashion brand that has created its Ocean Yarn, made of plastic bottles from the bottom of the sea, and introduced in **first class quality garments, sneakers and accessories**.

Upcycling the Oceans seeks as well to offer scientific information that will allow to raise awareness about marine pollution, in order to establish preventative measures. Thanks to the voluntary participation of part of the Spanish fleet, the project is carrying out **scientific characterizations of the waste that is found at the bottom of the ocean** through the platform MARNOPA, supported by the Spanish Ministry of Ecological Transition and looking to **identify and prevent** the main sources of marine waste.

The Switchers Support Programme

Presenter: Giorgio Mosangini, ARC-MedWaves, gmosangini@gencat.cat

Link: theswitchers.org

The Switchers Support Programme: promoting sustainable business development in the Mediterranean

- **Sector:** *Industries*
- **Country and level:** *Regional Initiative (Mediterranean)*
- **Type of Inspirational Case Study:** *Education and Training*
- **Main objective:** *Support green and circular business models in the Mediterranean that reduce ecological impacts and respond to environmental challenges (among which the prevention and reduction of marine pollution, the protection of marine ecosystems and the adoption of circular economy approaches in the blue economy sectors).*
- **Brief description:**

The Switchers Support Programme promotes enabling ecosystems for sustainable enterprises in the Mediterranean by:

- *Providing sustainable business development's capacities, methodologies and tools to Business Support Organizations (BSOs)*
 - *100+ BSOs engaged for sustainable business development*
 - *600+ experts trained in sustainable business development*
- *Supporting Sustainable entrepreneurs and start-ups*
 - *3,500+ green entrepreneurs trained for sustainable business model development*
 - *100+ circular start-ups incubated*
- *Promoting matchmaking between sustainable start-ups and investors.*



The path to the circularity of plastics

Presenter: Noemi Sutera, Federchimica-PlasticsEurope Italia,
n.sutera@federchimica.it

Link: [The circularity of plastics: industrial opportunities, innovation and economic-occupational benefits for Italy](#)

The path to the circularity of plastics



THE CIRCULARITY OF PLASTICS: INDUSTRIAL OPPORTUNITIES, INNOVATION AND ECONOMIC-OCCUPATIONAL BENEFITS FOR ITALY

Executive summary of the Strategic Report



- **Sector:** Industry
- **Country and level:** Italy – Federchimica PlasticsEurope Italia/Plastic Value Chain – National Institutions
- **Type of Inspirational Case Study:** Strategical report defining a strategic vision outlining the role that plastics can play within the Circular Economic Paradigm
- **Main objective:** provide tools for preventing and minimising plastic pollution across the Mediterranean Sea basin through a better waste management
- **Brief description:** *The report aims to enhancing the contribution of a circular approach to the use of plastics for the development of industry and for the protection of the environment. The report identifies 7 lines of action, one of those: adopt an integrated value chain approach to increase the sharing of regulatory choices. For reaching the circularity of plastics is necessary the collaboration between Italian and European Institutions and Associations in the definition of the "End-of-Waste" criteria for plastic waste to achieve regulatory clarity as soon as possible on the requirements and criteria useful for defining the outputs of recycling processes as "products" and not "waste".*

CBE JU FUNDED PROJECTS AND FUNDING OPPORTUNITIES

Presenter: Monica PADELLA, Circular Bio-Based Europe Joint
Undertaking, monica.padella@cbe.europa.eu

Link: <https://www.cbe.europa.eu/>

CBE JU FUNDED PROJECTS AND FUNDING OPPORTUNITIES TO ACHIEVE MISSION OBJECTIVES



- **Sector:** Industries; Research and Education
- **Country and level:** Potential contribution to all levels: regional, national, med-basin level
- **Type of Inspirational Case Study:** Research and innovation; Upscaling, deployment and replication of solutions.
- **Main objective:** Some of CBE JU funded projects contribute to the three specific objectives of the mission (prevent, minimise, remediate or monitor pollution across the Mediterranean Sea basin; protect and restore marine and freshwater ecosystems and biodiversity; make sustainable Blue Economy carbon neutral and circular).
- **Brief description:** *Since 2014, the public-private partnership Circular Bio-based Europe Joint Undertaking (CBE JU) has invested €3.7 billion in 140+ projects developing highly innovative, resource-efficient and competitive bio-based industries in Europe. Some of the funded projects (in total 13) use aquatic biomass (such as microalgae, macroalgae, fish by-products, seafood side-streams) as their main feedstock for various applications (including food/feed ingredients, proteins, food supplements, cosmetics and packaging). In addition, currently, a call for project proposals for a value of €215.5 million is open and one of the topics is a flagship on valorization of aquatic biomass waste and residues. All stakeholders of the bio-based industries ecosystem are invited to apply for CBE JU funding by 20 September 2023. More info available at CBE JU website: <https://www.cbe.europa.eu/open-calls-proposals>*



**Circular
Bio-based
Europe**
Joint Undertaking



PAGEV

OPERATION CLEAN SWEEP (OCS)

Presenter: PAGEV - Turkish Plastics Industry Foundation

Link: www.pagev.net

<https://www.opcleansweep.eu/>

Main contact: (Nagihan KUL – Technical Specialist nagihan.kul@pagev.org.tr)

OPERATION CLEAN SWEEP® (OCS)

- **Sector:** Petrochemical and Plastics Industries
- **Country and level:** Turkiye - National
- **Type of Inspirational Case Study:** Upscaling, deployment and replication of solutions
- **Main objective:** Pollution in oceans and seas is increasing day by day. As a result of the researches, it is proved that the size of pollution in the waters is increasing and it affects the marine life negatively. Marine pollution is a global problem. As the plastics industry, Operation Clean Sweep initiative on a global scale has been launched in order to prevent land-based plastic raw materials from being mixed into the seas. Whilst high environmental, safety and quality management controls are applied throughout the plastics industry, unintentional loss of pellets can occur at different stages along the value chain. Operation Clean Sweep initiative, which is based on an international voluntary basis, carried out by the plastics industry in order to reduce the loss of plastic granules spreading to the environment, continues its activities as İyi Süpürme Hareketi in Turkiye, which ranks second in EU countries after Germany and sixth in the world with 11 million tons of plastic production. The only representative of this initiative in Turkiye is PAGEV. With OCS, PAGEV is both a guide and a follower to the companies. PAGEV also undertakes a consultancy role by explaining to companies why they should join this movement in general and what can be done. With this project, product converters, petrochemical companies, masterbatch and additives producers, are certified.
- **Brief description:** *Loss of plastic pellets and granules occurs throughout the entire value chain, such as production, processing, transportation. Our primary goal is to strengthen water and waste management and contribute to the global interest for sustainable development, by preventing these losses from entering the seas or waters through the canal.*



AN INCIDENT TURNED INTO AN OPPORTUNITY

Presenter: *JEANNETTE AXISA,*
FOUNDATION FOR TRANSPORT
[*jeannette.axisa@transport.gov.mt*](mailto:jeannette.axisa@transport.gov.mt)
[*www.fft.mt*](http://www.fft.mt)

An Incident turned into an Opportunity

- **Sector:** mainly Industries but bridging with Education & Youth
- **Country and level:** National
- **Type of Inspirational Case Study:** *Professionals go back to Schools* initiative enhancing ocean literacy, raising awareness of STEM skills in maritime & marine industry, instigating the interest in the younger generations to pursue a career in maritime
- **Main objective:** To explain the STEM skills put into practice during sea pollution incidents, marine safety investigations, sea currents map & geography, bathymetrics, safe navigation
- **Brief description:** Besides being a test case for our preparedness as a nation in case of pollution, it turned out to be a tangible example of how having the right skills reduce the risks of pollution at sea



Reducing Marine Litter: Port Waste Reception Facilities

Paul HOLTHUS, CEO, World Ocean Council

www.oceancouncil.org

Eliminating Maritime Sources of Plastic Litter in the Med via Port Reception Facilities



- **Sector:** Industries
- **Country and level:** Med-basin level
- **Type of Inspirational Case Study:** Upscaling, deployment and replication of solutions;
- **Main objective:** Prevent, minimise, remediate or monitor pollution across the Mediterranean Sea basin



- *Reduce plastic litter at sea by ensuring there is a network of adequate Port Reception Facilities (PRF) in the Mediterranean*
- *Create PRF Working Group of ship owners, shippers, charterers, ports for common understanding PRF adequacy, gaps and actions needed*
- *Develop PRF Business Case, Roadmap, Action Plan*
- *Ensure coordination/collaboration with existing PRF organizations/programs, e.g. IMO, shipping/port organizations, industries generating cargo residue, government organizations*
- *Assemble background information on PRF status, needs and priorities in the Med*
- *Synthesize information on waste or residue streams, status of PRF availability and adequacy in relation to ship type need*
- *Identify information gaps and industry priorities and possible regional solutions*
- *Develop PRF database and mapping of the current PRF capacity and adequacy*
- *Identify incentives for PRF providers and port users to keep information up to date*
- *Develop modeling tools to identify gaps for range of industry sectors, vessel types, and waste/residue streams by region*
- *Focus on predominate vessel traffic all prioritized by their associated risk to the environment.*
- *Identify standards, guidelines, best practices, codes of good practice to address the PRF priorities*
- *Engage ports and terminal operators that are leading efforts on PRF*
- *Engage key companies in waste management and associated technology development and provision*

BIO-INSPIRED MICROFLUIDIC SOLUTIONS FOR A NEW ERA OF ENVIRONMENTAL APPLICATIONS

Presenter: Abhilash Venkateshaiah

Link: <https://eden-microfluidics.com/ascandra/>

ASCANDRA FOR MICROPLASTICS

INSPIRED BY NATURE FOR NATURE, ADDRESSING MICROPLASTIC POLLUTION AT THE GLOBAL SCALE



- **Sector:** Islands and Cities; Ports and shipping; Industries; Fisheries, Aquaculture and Conservation
- **Country and level:** France and Serbia, med-basin level
- **Type of Inspirational Case Study:** Upscaling, deployment and replication of solutions
- **Main objective:** Prevent and eliminate litter, plastics and microplastics for waste-free European rivers

- **Brief description:** *Eden Tech will demonstrate and showcase their ASCANDRA microfluidic microplastic removal technology. The system is unique in that it can process thousands of liters of water to isolate microplastics using a passive mode that requires minimal electronic components and no chemicals. Its compact design allows for its use in both existing wastewater treatment facilities and depollution vessels. The demonstration of ASCANDRA technology will take place in Novi Sad, which is located on the river Danube between two protected wetland nature reserves "Begačka jama" and "Koviljsko-petrovaradinski rit," approximately 15 km upstream and downstream of Novi Sad. The demonstration will cover both upstream and downstream locations along the riverbanks and in the river itself, as wastewater is directly discharged into the Danube in the Novi Sad area. The demonstration area measures approximately 42 x 16 km. Eden Tech's efforts will contribute to the EU's mission of reducing microplastic pollution by 30%.*



RAVENNA CCS HUB FOR DECARBONISATION

Presenter: Annagiulia Randi, Municipality of Ravenna,
upe@comune.ra.it

Link: https://ccushub.ogci.com/focus_hubs/ravenna/

RAVENNA CCS HUB TO CAPTURE CARBON DIOXIDE IN THE MEDITERRANEAN, TOWARDS A CARBON NEUTRAL AND CIRCULAR ECONOMY



- **Sector:** Regions & Islands; Cities; **Industries**
- **Country and level:** Italy – Regional level
- **Type of Inspirational Case Study:** Cost-effective solutions for setting up fully circular, zero pollution offshore clean energy facilities
- **Main objective:** Sequester emissions that cannot be avoided by covering the capture of 25,000 tonnes of carbon dioxide per year emitted from natural gas treatment plant near Ravenna and its injection into a depleted offshore gas field.
- **Brief description:** *Ravenna will host the pioneer Mediterranean hub for Carbon Capture. Operated by Eni, in a joint venture with Italian utility Snam, phase was launched in 2022, paving the way for the first application of the full capture, transport and storage chain in Italy. It will cover the capture of 25,000 tonnes of carbon dioxide per year emitted from Eni's natural gas treatment plant near Ravenna and its injection into a depleted offshore gas field. As of today, Phase 1 of the project has obtained a CO₂ storage licence from the Italian authorities. Phase 2, scheduled to start in 2027, aims to allow storage of 4 million tonnes of carbon dioxide per year: 1 million tonnes will come from plants owned by Eni and the remaining 3 million tonnes will be reserved for third party industrial emitters. Eni and Snam are already in talks with hard-to-abate industries in the region (cement, steel, fertilizer, chemicals among others), and have signed a letter of intent with five emitters located in the Ravenna industrial area. Interest from emitters in Italy and beyond has grown with the increase in ETS carbon prices, and the European Commission's 'Fit-for-55' package of climate legislation. Storage will be in offshore depleted gas reservoirs in the Adriatic off the coast of Ravenna. Total storage resource in the Adriatic is estimated at 500 million tonnes, giving the possibility in subsequent development phases to increase storage capacity to more than 10 million tonnes per year, covering the decarbonization needs of additional clusters.*

A photograph of two scientists, a man and a woman, wearing white lab coats, safety glasses, and blue gloves. They are crouching on a rocky, outdoor surface. The man is holding a black plastic container and looking at several test tubes inside. The woman is looking down at something in her hands. A dark blue horizontal bar is overlaid across the middle of the image, containing the text "Research and Education" in white, bold, sans-serif font.

Research and Education



MAELSTROM

SMART TECHNOLOGY FOR MARINE LITTER SUSTAINABLE REMOVAL AND MANAGEMENT

Presenters: Isabel Sousa-Pinto, Luis R. Vieira

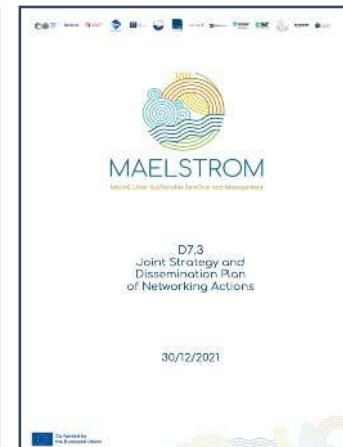
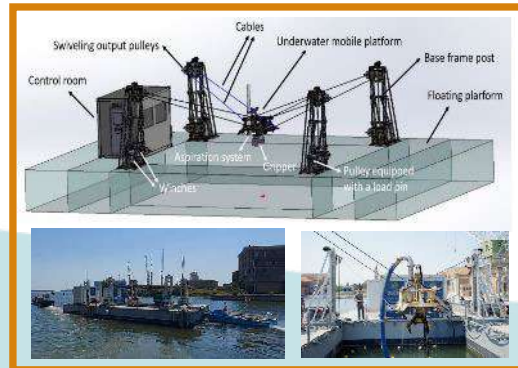
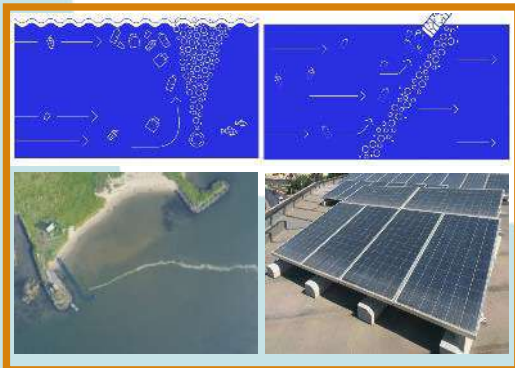
Interdisciplinary Centre of Marine and Environmental Research from the
University of Porto (CIIMAR-UP)

Terminal de Cruzeiros do Porto de Leixões, Av. General Norton de Matos s/n, 4450-208
Matosinhos, Portugal

Link: <https://www.maelstrom-h2020.eu/>

MAELSTROM- SMART TECHNOLOGY FOR MARINE LITTER SUSTAINABLE REMOVAL AND MANAGEMENT

- **Sector:** Research and Education
- **Country and level:** International Consortium (14 international partners from 8 different countries)
- **Type of Inspirational Case Study:** Research and innovation; Evidence-based knowledge and data and/or access provision to knowledge and data; Upscaling, deployment and replication of solutions; Citizen engagement, citizens-science ocean and water literacy, outreach, awareness raising and participatory approaches; Education and training.
- **Main objective:** MAELSTROM's main goal is to develop and test new strategies and technologies to reduce the impacts of marine litter in marine and coastal ecosystems and human health.
- **Brief description:** MAELSTROM is a project that integrates the EU Mission "Restore our Ocean and Waters". The project already identified litter accumulation hotspots in Europe and is implementing innovative removal technologies that are being tested in Portugal and Italy: (1) a **Bubble Barrier** and a **Robotic Seabed Cleaning Platform**. The marine litter removed is undergoing advanced recycling processes, which will allow the regenerated materials to re-enter the industrial supply chain. MAELSTROM is also committed to contributing to awareness-raising efforts through Strategic Networking at National, European and Global levels, Science-Policy-Society interface activities, tools for citizen science and events targeting civil society.





Deep Reef restoration And litter removal in the Mediterranean Sea

Presenter: *Federica Foglini, CNR-ISMAR,*



federica.foglini@bo.ismar.cnr.it or lifedream@ismar.cnr.it

Link: <https://www.life-dream.eu/>



UNIVERSITÀ
POLITECNICA
DELLE MARCHE

NetEC

Net
EUROPEAN
CONSULTING



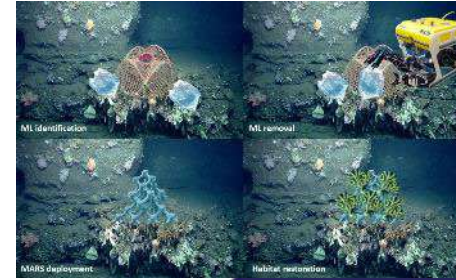
FEDERPESCA
FEDERAZIONE NAZIONALE DELLE IMPRESE DI PESCA

ENALEIA



Deep reef restoration and litter removal in the Mediterranean Sea

- **Sector:** Research and Education
- **Country and level:** Italy, Spain and Greece: regional, national level
- **Type of Inspirational Case Study:** Research and innovation or Upscaling, deployment and replication of solutions
- **Main objective:** Restore, preserve and monitor deep reefs from marine litter; Circular economy experiment
- **Brief description:** The LIFE DREAM project aims at restoring deep reefs (i.e. cold-water corals, coralligenous and oyster reefs) i) removing marine litter by means of Remotely Operated Vehicle (ROV) and Fishing for Litter (F4L) campaigns and ii) deploying Artificial Reefs structures (ARS) acting as new substrate suitable for the settlement of new colonies. The GES of the habitats will be preserved and guaranteed through the designation of 2 new N2K sites and the enlargement on 1 existing N2K sites. Furthermore, the plastic fraction of the marine litter collected will be recycled by means of a low-temperature pyrolysis prototype that convert the plastics into marine fuel that will be used by fishers engaged for F4L activities.
- Target of the Blue Mission Med: **reduce plastic litter at sea** by removing marine litter from the deep reefs by means of Remotely Operated Vehicle (ROV) and Fishing for Litter campaigns



PLASTIC BUSTERS INITIATIVE AT MEDITERRANEAN LEVEL

Presenter: Prof. Maria Cristina Fossi – University of Siena Italy

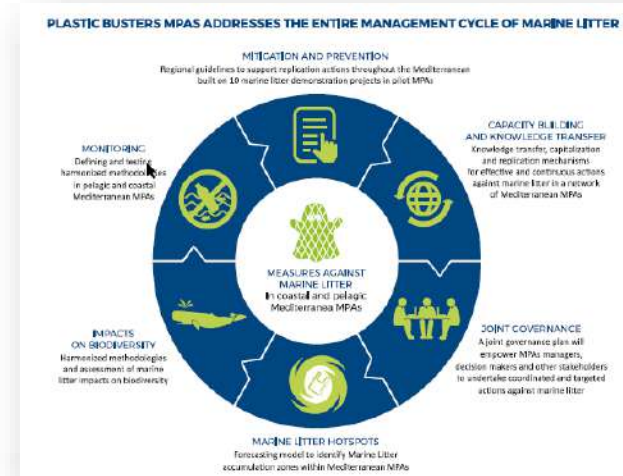
Link: <https://plasticbusters.unisi.it/> <https://plasticbustersmpas.interreg-med.eu/> <https://www.enicbcmed.eu/projects/plastic-busters-cap>

Main contact: fossi@unisi.it

Plastic Busters Initiative at Mediterranean Level



Project coordinator
Maria Cristina Fossi
 Biomarker Laboratory, University of Siena, Italy



- **Sector:** (Fisheries, Aquaculture and Conservation; Research and Education)
- **Country and level:** (med-basin level)
- **Type of Inspirational Case Study:** Research and innovation, Upscaling, deployment and replication of solutions; citizens-science, youth-led initiatives, Education and training)
- **Main objective:** prevent, minimise, remediate or monitor pollution across the Mediterranean Sea basin; other objectives.
- **Brief description:** monitor and reduce plastic litter at sea

SDSN-MED
 Flagship project



2013

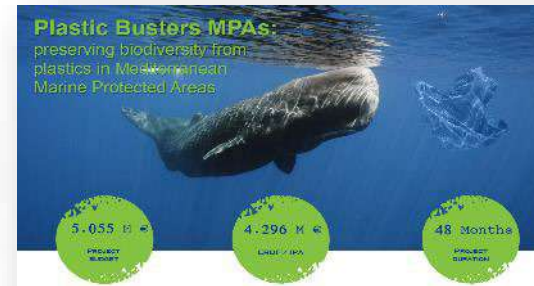
UfM Labelling



Union for the Mediterranean
 Union pour la Méditerranée
 الإتحاد من أجل المتوسط

2016

MED-Interreg



2018

ENI -CBC



Plastic Busters CAP

2019 - 22

#EOREA A MULTI-DISCIPLINARY BRIDGE BETWEEN EUROPEAN R&I AND EDUCATION PLAYERS TO ADDRESS THE MISSION'S CHALLENGES

Presenter: Karl Stoeckel, EOREA Secretariat (Aix-Marseille Université)

Karl.stoeckel@univ-amu.fr

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

ENHANCING CROSS-BORDER, CROSS-DISCIPLINARY, AND CROSS-SECTORAL R&I AND EDUCATION IN EUROPE



- **Sector:** Research, Innovation & Education
- **Country and level:** Mediterranean (Greece, Italy, Spain, France, Slovenia) & other European basins and regions (Norway, Finland, Denmark, Belgium, Sweden, Portugal, The Netherlands, Romania, United Kingdom).
- **Type of Inspirational Case Study:** Research and innovation; Evidence-based knowledge and data and/or access provision to knowledge and data; citizens-science, communities of practice, ocean and water literacy, outreach, awareness raising and participatory approaches; Education and training
- **Main objective:** EOREA will allow R&I and Higher Education institutions to set up bottom-up, cross-disciplinary, cross-sectoral and cross-border Joint-Programmes (JPs). The thematic JPs are designed to help reach the goals of the Mission 'Restore our Ocean and Waters', including to monitor and reduce pollution in the Mediterranean.
- **Brief description:** After a launch event on 8 December 2022 at the European Parliament (Brussels), EOREA is now setting up the first three bottom-up JPs dedicated to (1) Aquaculture - coordinated by NTNU, Norway (2) Maritime Transport, coordinated by Chalmers University, Sweden, and (3) Climate impact on marine ecosystems, coordinated by Aix-Marseille Université, France).

E O R E A

European Ocean Research
and Education Alliance

Objectives of EOREA: To strengthen, expand and optimise EU ocean research capabilities through the sharing of world-class national facilities in Europe and the joint realisation of pan-European programmes.

Joint-Programmes will reflect the openness of EOREA: they are designed to become the main collaborative tools within the alliance and with all voluntary R&I and Education stakeholders at the European level:

- ✓ Promoting interdisciplinarity in the field of marine and maritime science, while engaging with society at large
- ✓ Allowing research to fuel innovative education programmes across Europe to provide society and companies with the needed expertise and competencies
- ✓ Bringing together cutting-edge research and key technologies by overcoming barriers between the various fields of science and technology

DANUBIUS-RI INTERNATIONAL CENTRE FOR ADVANCED STUDIES ON RIVER-SEA SYSTEMS

Presenter:

Viorel Gh. Ungureanu

Romanian National Institute of Marine Geology and Geoecology –
GeoEcoMar

danubius.research@geoecomar.ro

Link: www.danubius-ri.eu

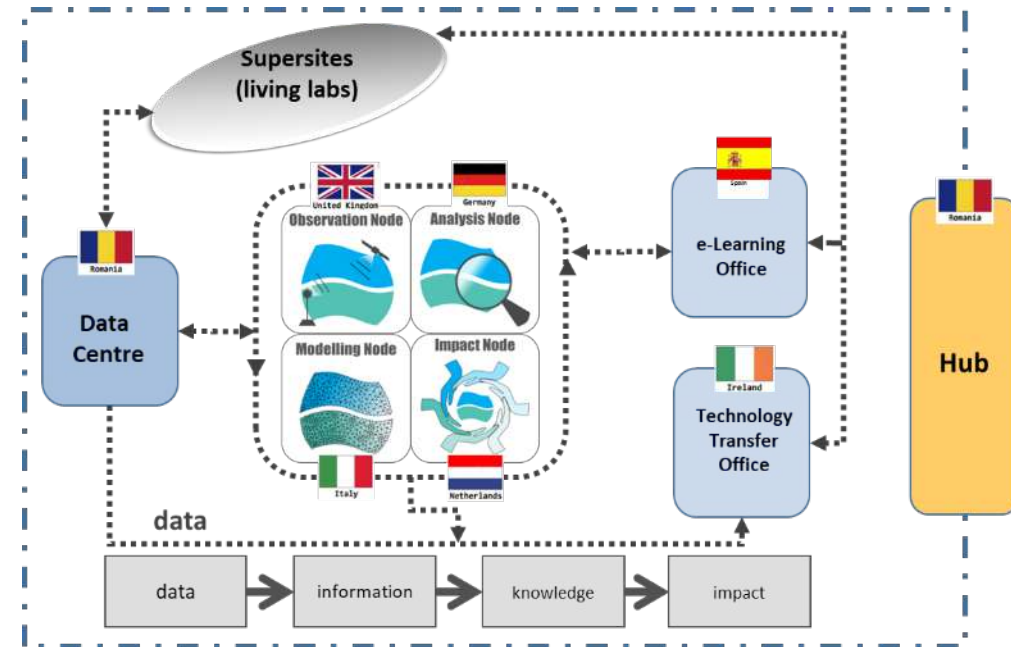
Main contact: Adrian Stanica

astanica@geoecomar.ro

DANUBIUS-RI INTERNATIONAL CENTRE FOR ADVANCED STUDIES ON RIVER-SEA SYSTEMS



- **Sector:** Research and Education
- **Country and level:** European level
- **Type of Inspirational Case Study:** Research and innovation; Evidence-based knowledge and data and/or access provision to knowledge and data .
- **Main objective:** DANUBIUS-RI will fill the gap of fragmented research on European research on river-sea systems, drawing on existing research excellence across Europe, enhancing the impact of European research while maximizing the return on investment. It will provide access to a range of European river-sea systems, facilities and expertise; a 'one-stop shop' for knowledge exchange in managing river-sea systems; access to harmonized data; and a platform for interdisciplinary research, inspiration, education and training.
- **Brief description:** *DANUBIUS-RI is a ESFRI pan-European distributed research infrastructure supporting interdisciplinary research on River-Sea Systems. It will provide access to a range of European river-sea systems, facilities, harmonised data and expertise. It is a 'one-stop shop' for knowledge exchange in managing river-sea systems and a platform for interdisciplinary research, inspiration, education and training. DANUBIUS-RI is supporting research addressing the conflicts between society's demands, environmental change and environmental protection in River-Sea Systems worldwide, facilitates knowledge exchange and maximises the impact of investments in environmental research, driving innovation.*



SEACLEAR2.0 TO RESTORE OUR OCEAN AND WATERS

Presenter: Davide Poletto, VLPF
d.poletto@plasticfreevenice.org

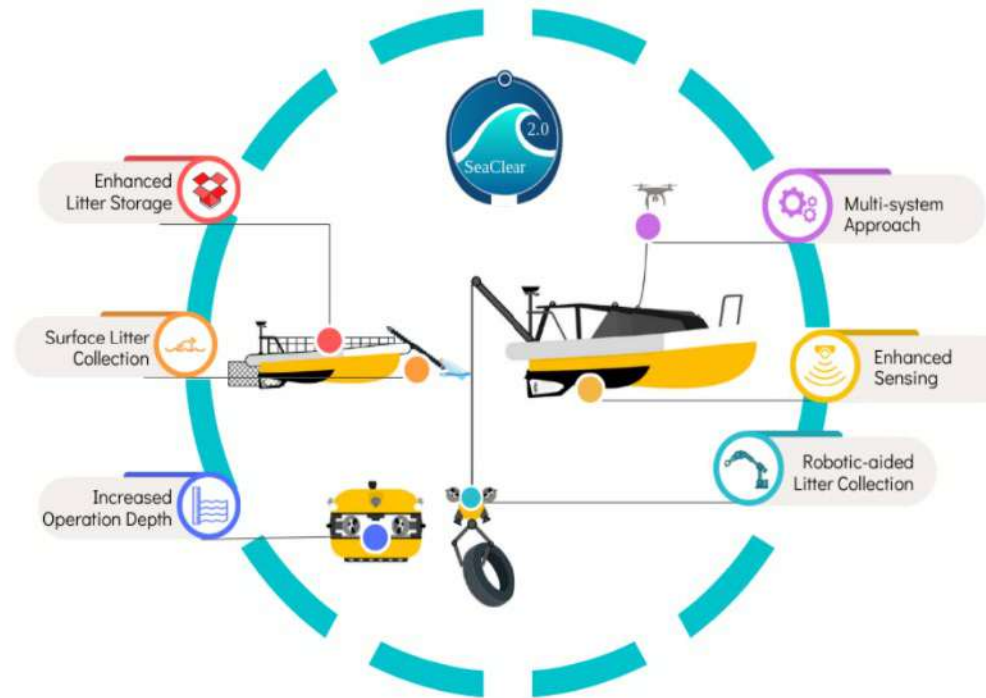
Link: [Home - SEACLEAR \(seaclear-project.eu\)](https://seaclear-project.eu)

Main contact: Dr. Bart De Schutter, University of Delft

SEACLEAR2.0 TO RESTORE OUR OCEAN AND WATERS



- **Sector:** Research And Education
- **Country and level:** Sea and River trials in the Mediterranean Sea and Northern Europe. More precisely, Spain (Tarragona), Croatia (Dubrovnik), France (Marseille), Israel (Ashdod), Italy (Venice), Germany (Hamburg)
- **Type of Inspirational Case Study:** SeaClear2.0 proposes an holistic response to marine and riverine litter challenge, devising a captivating and efficient prototype from an upgraded robotic vessel (SeaClear) devoted to in situ identification, classification and collection of marine waste from the seafloor and surface, the SeaCat. The vessel will be equipped with UUV and UAV methodology for collaborative control system for autonomous navigation and smart grasping of submerged and floating, deep-learning underwater marine litter classification, mapping and collection system along with an advanced social app for clean-up campaigns
- **Main objective:** Mapping, Monitoring and cleaning up marine litter and plastics pollution in Ocean and Waters, feedstocking blue circular economy value chains with marine and riverine litter and plastics also with citizens activation and novel policy recommendations
- **Brief description:** *SeaClear2.0 will help meeting the objectives of Mission “Restore our Ocean and waters by 2030” to reduce plastic litter at sea by 50% and microplastics released in the environment by 30% by 2030, in accordance with the EU’s Zero Pollution Action Plan. In particular, SeaClear2.0 will focus on the 94% “hidden plastic” and litter on the seafloor, while also collecting surface litter and will do this with full autonomy in all the demo and pilot sites of the project*



BECOME THE REMEDIES FOR OCEAN MOVEMENT

Presenter: Uroš Novak, National Institute of Chemistry, Slovenia,
uros.novak@ki.si

Link: <https://remedies-for-ocean.eu/>

Become the REMEDIES for ocean movement



- **Sector:** Research and Education; Citizen and Youth
- **Country and level:** Slovenia, Greece and Mediterranean
- **Type of Inspirational Case Study:** Citizen engagement, citizens-science, youth-led initiatives, communities of practice, awareness raising and participatory approaches; Education and training.
- **Main objective:** Build a plastic conscious society that will prevent marine plastic litter across the Mediterranean Sea basin and beyond.
- **Brief description:** *REMEDIES movement for ocean is build to create a trend on the prevention of plastic through the exploitation of traditional and modern channels and through citizens science and participatory co-creation processes building a more plastic-conscious society. Merging the research with citizen science through Hackathon Plastic Fantastic in combination with REMEDIES open calls (double the active partners in REMEDIES to 40+) enabling solutions for collection and valorising or preventing marine plastic litter. The experts on board will work in mixed groups trying to “hack” (find solutions) to the challenges that emerge out of the tons of plastic litter in the Mediterranean region. The Plastic Fantastic Hackaton will run for 6 months and will mobilise a group of experts, stakeholders, environmental activists, social entrepreneurs that will work collective for prevent marine litter solutions. The best ideas and solutions connencted with 12 REMEDIES innovations will be incubated at the Impact Hub to get their solutions into action. The top 3 solutions will be presented at the Future Plastic Digital Festival with additional engagement of the creative sector (artists) and researchers from the respective regions (8 demo-sites) will present part of their work on site-specific projects around the REMEDIES theme.*



BLUE LUNG

OCEANUS

<https://www.oceanus.it/mare-nostrum/>

Fabio Siniscalchi

BLUE LUNG

Oceanus seeks to breathe new life into our seas and safeguard the future of our marine ecosystems.



- **Sector:** Research and Education
- **Country and level:** national and international European waters
- **Type of Inspirational Case Study:** the project aimed at restoring and revitalizing marine ecosystems and promoting biodiversity in our oceans. Recognizing the crucial role that oceans play in maintaining a healthy planet, this project focuses on creating sustainable solutions to mitigate the effects of human activities, such as overfishing, pollution, and habitat destruction. By implementing a comprehensive set of conservation and regeneration strategies;
- **Main objective:** Increased biodiversity and abundance of marine species in target areas. Restoration of degraded habitats; enhanced resilience of marine ecosystems to climate change and other environmental stressors. Sustainable fisheries management practices leading to the recovery of fish stocks and the well-being of coastal communities.



- **Brief description:** *Oceanus project represents a significant step forward in the restoration and protection of our oceans. By combining science, community engagement and sustainable practices, this project aspires to create a healthier and more resilient marine environment for future generations. Through collaboration and collective action, we can ensure the long-term sustainability of our blue planet.*

#CleanMed

PREVENT, MINIMISE AND REMEDiate LITTER AND PLASTIC POLLUTION IN THE MEDITERRANEAN SEA BASIN

Presenter: Karl Stoeckel (karl.stoeckel@univ-amu.fr)

Link: <https://www.univ-amu.fr/en/public/ocean-sciences-institute-ocean>

Main contact: Dr. Richard Sempéré (richard.sempere@univ-amu.fr)

Prevent, minimise, and remediate litter and plastic pollution in the Mediterranean sea basin (CleanMed)



- **Sector:** Islands and Cities; Ports and shipping; Industries; Fisheries, Aquaculture and Conservation; Research and Education; Citizens and Youth
- **Country and level:** Med-basin level (France, Greece, Cyprus, Italy, Croatia) & Other countries (Bulgaria, Norway)
- **Type of Inspirational Case Study:** Research and innovation; Evidence-based knowledge and data and/or access provision to knowledge and data; Upscaling, deployment and replication of solutions; Citizen engagement, citizens-science, youth-led initiatives, communities of practice, ocean and water literacy, outreach, awareness raising and participatory approaches; Education and training
- **Main objective:** developing and deploying scalable, transformative and innovative solutions in all forms - technological, business, social and governance - for the prevention and minimization of marine and freshwater plastic and litter pollution in the Mediterranean Sea basin
- **Brief description:** CleanMed aims at reducing plastic litter in the Mediterranean by developing methods for micro- and macro-plastic, and litter recovery and recycling which can be marketed and transferred to other geographical areas. Additionally, novel methods will be implemented to raise awareness of litter and commitment to sustainable consumption, contributing to recycling, strengthening monitoring and clean-up practices. The proposed actions are designed in synergy with the regional authorities' priorities in order to combine funding and efforts. Overall, CleanMed will increase efficiency, help avoid methodological errors, increase the chances of reaching the zero plastic target in 2030, relying on science-based solutions. In collaboration with other projects of the Mission, CleanMed will develop an integrated approach at the Mediterranean level, covering a large number of sectors and various sources of plastic leakage while promoting sustainable and replicable waste management models.



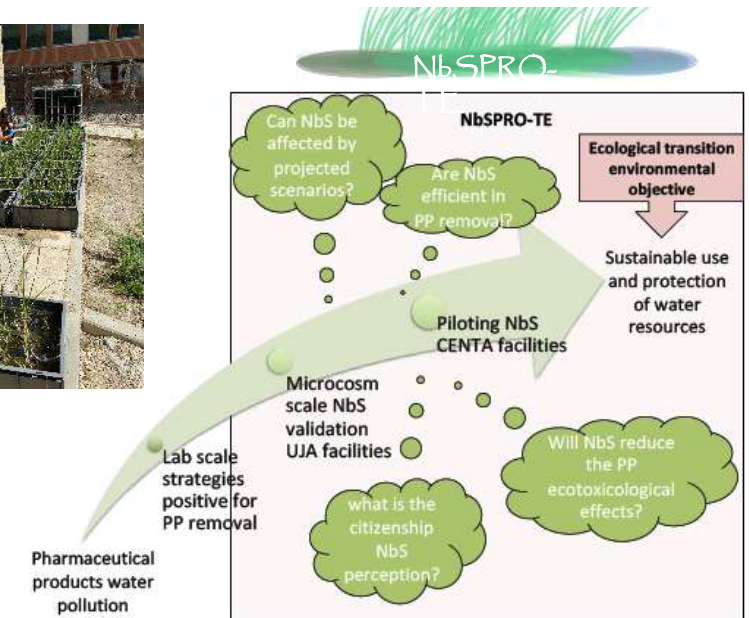
NATURE-BASED SOLUTIONS AGAINST EMERGING POLLUTANTS: PROTECTING WATERS FOR THE ECOLOGICAL TRANSITION

Presenter: *Gema Parra, University of Jaén (Spain)*

Link: [/web.ujaen.es/investiga/nbsprote](https://web.ujaen.es/investiga/nbsprote)

Nature-Based Solutions Against Emerging Pollutants: Protecting Waters for the Ecological Transition

- **Sector:** Cities, small livestock industries
- **Country and level:** Spain, regional level (Andalucia)
- **Type of Inspirational Case Study:** Research and innovation
- **Main objective:** Prevent, minimise, remediate pollution across watersheds.
 - This project aims to evaluate innovative solutions of NbS to increase pharmaceutical products (PP) removal capacity of Floating Treatment Wetlands to be implemented in small and medium cities WWTP
 - Thereby obtaining a better quality resource that can be used in a sustainable way for different purposes (chemical and ecotoxicological approaches).
 - Analysing the NbS Cost-benefit (economically, socially and environmentally)
 - Identifying the barriers and opportunities in the NbS implementation through a participatory approach
- **Brief description:** Our target is to Reduce nutrient losses and reduce the risk of novel entities (emerging pollutants). The innovative NbSs based on biochar from the food industries byproducts and the bio-augmentation in PP removal, using not only small scale, but medium size piloting actions.



Expected impacts:

- ✓ Moving towards achieving clean, unpolluted surface water and groundwater bodies in the EU by advancing the understanding of diffuse and point sources of water pollution, enabling novel solutions and further enhancing water quality and its management for safe human and ecological use.
- ✓ Enhancing circular bio-based systems to operate according to planetary boundaries.

DOORS - 'Developing Optimal and Open Research Support' for the Black Sea

Presenter: Viorel Gh. Ungureanu

Romanian National Institute of Marine Geology and Geoecology – GeoEcoMar

gigi.ungureanu@geoecomar.ro

Link: www.doorsblacksea.eu

Main contact: Adrian Stanica

astanica@geoecomar.ro

DOORS - 'Developing Optimal and Open Research Support' for the Black Sea



- **Sector:** Research and Education
- **Country and level:** European level
- **Type of Inspirational Case Study:** Research and innovation; Evidence-based knowledge and data and/or access provision to knowledge and data; Citizen engagement, ocean and water literacy, outreach, awareness raising and participatory approaches; Education and training.
- **Main objective:** DOORS aims to make operational the Black Sea SRIA, support the successful Blue Growth implementation and contribute to a healthy, productive and resilient Black Sea. 4 key objectives: Harmonisation of scientific methods, Integrate interdisciplinary scientific knowledge, Realise blue growth potential, Bring the Black Sea environment closer to society
- **Brief description:** H2020 project with 3 Key Work Programmes: **1. System of Systems (SoS)** It is a platform for evidence-based knowledge development that will be co-designed with policy makers and cover relevant aspects of the physical, chemical, and biological parameters of the Black Sea; **2. Blue Growth Accelerator (BGA)** will enable identification of sectors and entrepreneurs for innovation, provide professional support to unlock their potential, enhance the exploitation of knowledge, and facilitate access to investors and constructive exchange between scientists, entrepreneurs and policy makers; **3. Knowledge Transfer and Training (KTT)** will build upon on existing, and develop new collaborations, between the different actors on science and policy to promote a culture of openness, share best practice and knowledge.



Toward a risk-based assessment of microplastic pollution in marine ecosystems: RESPONSE

Advanced approach to Microplastic Monitoring at Sea

Francesca Garaventa, Francesco Regoli, Polytechnic University of Marche;
f.regoli@univpm .it - <https://www.response-jpioceans.eu/>



JPI Ocean Response Project – Advanced approach to Microplastic Monitoring at Sea

- **Sector:** Research and Education
- **Country and level:** EU-level/national
- **Type of Inspirational Case Study:** Research and innovation; Evidence-based knowledge and data and/or access provision to knowledge and data
- **Main objective:** monitor pollution across the Mediterranean Sea basin

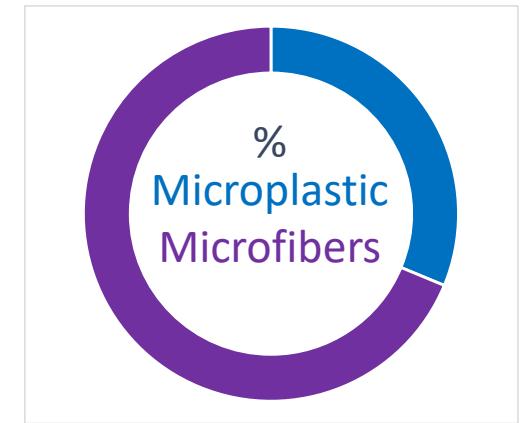
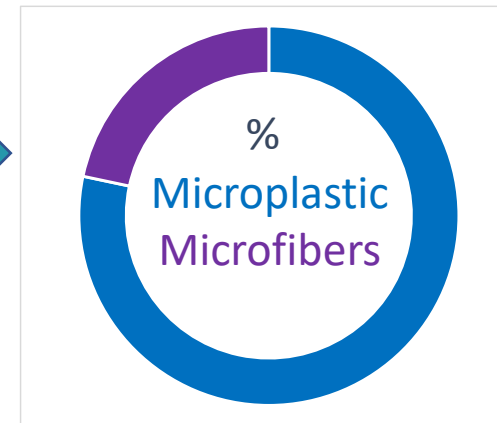
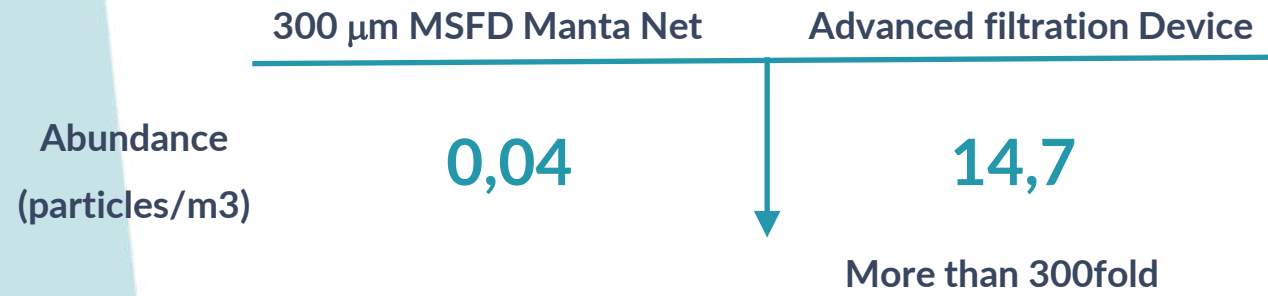
300 µm MSFD Manta Net



Advanced filtration Device



Vs.*



- **Brief description:** *Prevent and eliminate pollution of our ocean, seas and waters - a proper assessment of the current level of contamination and the typology of plastic in the marine environment by microplastics is mandatory to achieve the target of Reduce microplastics released into the environment by at least 30%*

* 2021 Data from Adriatic Sea (Ancona)

TOWARD A RISK-BASED ASSESSMENT OF MICROPLASTIC POLLUTION IN MARINE ECOSYSTEMS: RESPONSE

Software development for MPs ecological risk assessment

Stefania Gorbi, Francesco Regoli, Polytechnic University of Marche;
f.regoli@univpm.it

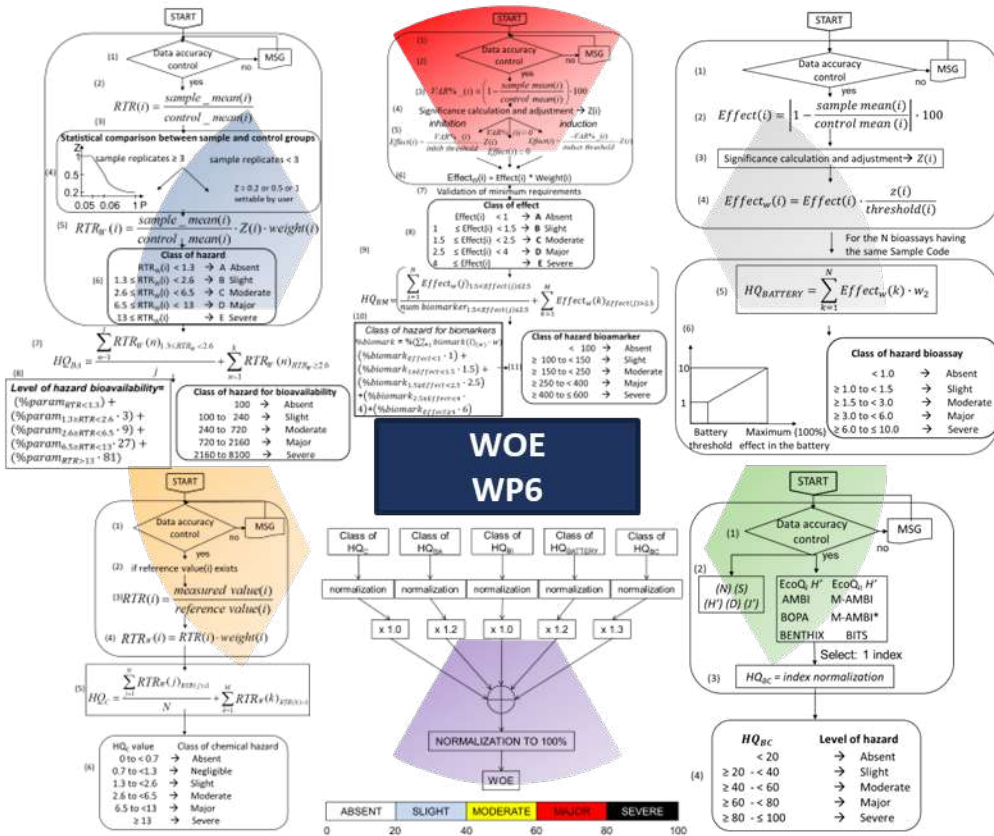
<https://www.response-jpioceans.eu/>



JPI Ocean Response Project – Software development for MPs ecological risk assessment



- **Sector:** Research and Education
- **Country and level:** med-basin level
- **Type of Inspirational Case Study:** Research and Innovation; Evidence-based knowledge
- **Main objective:** ecological risk assessment for microplastic contamination in aquatic environment
- **Brief description:** The quantitative Weight Of Evidence (WOE) model was designed to integrate and differentially weight data from a suite of lines of evidence, including (1) the presence of MPs in water column and sediments, (2) their bioavailability and bioaccumulation in key indicator species from benthic and planktonic communities; (3) sublethal effects measured via biomarkers, (4) the onset of chronic adverse effects at the organism level, and (4) ecological functioning. The results will provide support for development of MSFD monitoring strategies.



RADMED: OBSERVING SPANISH MEDITERRANEAN WATERS SINCE 1992

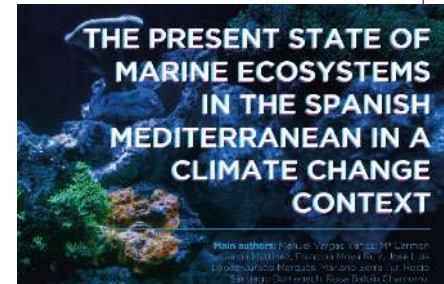
M. Carmen García, Spanish Institute of Oceanography (IEO-CSIC)

mcarmen.garcia@ieo.csic.es

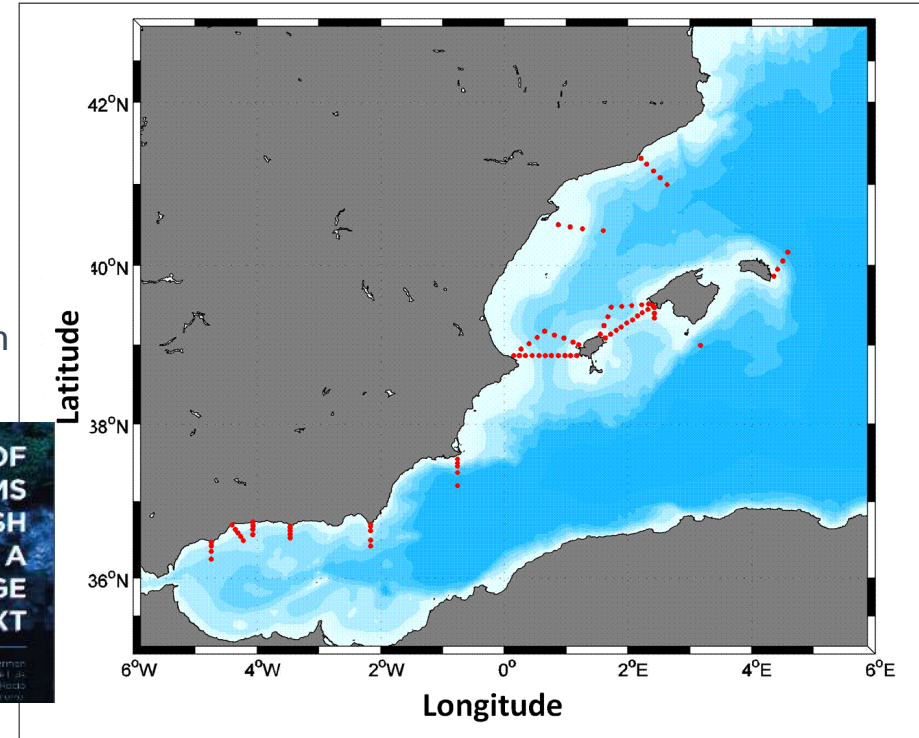
RADMED: Observing Spanish Mediterranean Waters since 1992



- **Sector:** Research
- **Country and level:** Spain, national level
- **Type of Inspirational Case Study:** Research and Innovation
- **Main objective:** Monitor the environmental status of Spanish Mediterranean Waters detecting changes and trends



<https://digital.csic.es/handle/10261/189580>



Brief description: *The main objective of this project focuses on the determination of a “reference environmental status of the sea” that will help to study the variability of physical, chemical and biological parameters, their oscillations and long-term trends. Another of the goals of the RADMED programme is to provide reliable information on the marine environment to managers and politicians as a tool to contribute to the marine system planning. RADMED oceanographic stations are approximately distributed along transects normal to the coast. All the stations are visited on a quarterly basis, once per season, sampling from 20 to 2500 m depth, different variables as: temperature, salinity, dissolved oxygen, inorganic nutrients, chlorophyll a, phytoplankton (from pico to micro), zooplankton, dissolved CO₂, bacteria, etc.*



Ports and Shipping

SUSTAINABLE CRUISE ALLIANCE INITIATIVE - SCALE

Presenter: Dr Ioannis Pappas, Global Sustainable Tourism Council - GSTC

CREATION OF A SUSTAINABLE CRUISE ALLIANCE INITIATIVE (SCALE) BY MEDCRUISE & GSTC



- **Sector:** Ports & Shipping
- **Country and level:** 22 Countries & Med-basin Level
- **Type of Inspirational Case Study:** Upscaling, deployment and replication of solutions; awareness raising and participatory approaches, Education and training
- **Main objective:** Make the sustainable blue economy carbon-neutral and circular via Sustainable Ports Development across the Mediterranean Sea basin and creation of certification
- **Brief description:** Create the pathway and actions for a net-zero planning of the cruise industry, including
 - awareness programs and training,
 - 360 degrees design on sustainability roadmap and implementation activities for ports,
 - collaboration on environmental impact analysis in cruise ports operations,
 - introduction of sustainability assessment and certification tools for Sustainable Ports, and many more.

This agreement outcomes will contribute on sustainable blue economy carbon-neutral and circular, in line with the European Climate Law emissions reduction target for 2030 and climate-neutrality by 2050.

Pursuing Net Zero Carbon Cruising by 2050

Presenter: Sascha Gill, Cruise Lines International Association (CLIA)

Link: <https://www.cruiseinfohub.com/>

sgill@cruising.org

Pursuing Net Zero Carbon Cruising by 2050

- **Sector:** Cruise Sector
- **Country and level:** Global
- **Type of Inspirational Case Study:** Net Zero Cruising by 2050
- **Main objective:**
 - 1.) Sustainability through Organized Tourism
 - 2.) Sustainability through Decarbonization
 - 3.) Sustainability through Foresight

A Sustainable Timeline – Environmental, Governance, Social Sustainability – ESG



Brief description: Following some of the principles of the ESG framework (Social, Environmental, Governance), the industry has worked through various strategies to pursue net zero cruising by 2050. These do not solely look at general decarbonisation but also include sustainability through organised tourism, fostering biodiversity, ensuring resources are used responsibly (water, recycling...) and making certain that living organisms in the MED are as least disturbed as possible. Please visit our info page on sustainable cruising www.cruiseinfohub.com

[For more info pls refer to Mission Implementation Plan](#)

ENERGY TRANSITION STRATEGIES AND CIRCULAR ECONOMY OF THE PORT AREAS OF THE SICILIAN REGION

Presenter: Ing. Giancarlo Teresi

Dirigente Servizio 6 – Infrastrutture Marittime e Portuali

Dipartimento Infrastrutture, Mobilità e Trasporti della Regione Siciliana

Assessorato Regionale delle Infrastrutture e della Mobilità

Main contact: giancarlo.teresi@regione.sicilia.it



ENERGY TRANSITION STRATEGIES AND CIRCULAR ECONOMY OF THE PORT AREAS OF THE SICILIAN REGION



- **Sector:** Energy transition and circular economy interventions in the Port Infrastructures of the Sicilian Region
- **Country and level:** Sicilian Region with a marine territorial context overlooking the Mediterranean in the Tyrrhenian and Ionian Seas, including the municipalities that have joined the Mission.
- **Type of Inspirational Case Study:** the Energy Transition is implemented through the use of Energy produced from Renewable Sources with a consequent reduction in energy consumption and Circular Economy proposing an integrated and circular approach in the management of resources that tends to the configuration of a closed system, with the maximum enhancement of waste and waste with a view to creating new products, business and skills for the maintenance of the value chain on the territory - Energy recovery from waste Installation of plants for the production of biogas from organic waste Restoration of the Posidonia meadows following impacts from maritime works on degraded seabeds
- **Objectives :** Optimization of waste collection, reuse of waste on site and transformation of the same into energy. Quarry waste - reforestation of Posidonia oceanica - Production of energy from biogas produced by composting organic waste in port areas - Photovoltaic panels - Cold Ironing, Wind, Hydrogen, Offshore Wind etc ... Involving the Energy Communities, Municipalities and others who in various capacities have already joined the Charter in the Sicilian Region.



“Service is not a job or a job to be conquered or resigned, but it is an attitude that fills life with meaning, which allows us to work for better social, economic and environmental sustainability, consequential to the common good not only for man, but for all living beings” BY G.T.

A SHIPPING COMMITMENT AGAINST PLASTICS POLLUTION IN THE MEDITERRANEAN

Presenter: Demetra Orthodoxou, ISOTECH Ltd, project@isotech.com.cy

Link: <http://www.isotech.com.cy/portfolio-item/bemed-a-shipping-commitment-against-plastic-pollution-in-the-mediterranean/>

A SHIPPING COMMITMENT AGAINST PLASTICS POLLUTION IN THE MEDITERRANEAN



- **Sector:** Ports and Shipping
- **Country and level:** Cyprus
- **Type of Inspirational Case Study:** Participatory approaches
- **Main objective:** Prevent and minimize pollution across the Mediterranean basin
- **Brief description:** This initiative engages shipping industry stakeholders in Cyprus, including policymakers and port reception



facilities, in an annual participatory process that guides the industry towards plastic waste minimization and waste management optimization. Through a specially designed decision support participatory process, the shipping stakeholders of Cyprus identify the problems they face in relation to waste management, record the waste management optimization practices that are implemented by the industry, and provide suggestions and solutions for improving the situation. The process results in the development of a solution-oriented annual Action Plan for Waste Minimization and Waste Management Optimization.

A scenic view of a coastal town with a large island in the background. The foreground shows a dense cluster of buildings with terracotta roofs. In the middle ground, a large island with a fortification is visible in the blue sea. The background features a large, rocky island with a tall antenna on top, and another smaller island to the right. The sky is clear and blue.

Regions, Islands and Cities

PLASTIC SMART CITIES INITIATIVE

Božo Benić

Head of the Department of Urbanism, Spatial Planning and
Environment, City of Dubrovnik

bbenic@dubrovnik.hr

<https://www.dubrovnik.hr/plastic-smart-cities>



PLASTIC SMART CITIES – DUBROVNIK

PLASTIC SMARTCITIES

- **Sector:** Islands and Cities
- **Country and level:** Croatia: local level / part of global initiative called Plastic Smart Cities
- **Type of Inspirational Case Study:** Citizen engagement, awareness raising and participatory approaches
- **Main objective:** Prevent and minimise pollution across the Mediterranean Sea basin



- **Brief description:** *The City of Dubrovnik is part of the WWF global initiative called Plastic Smart Cities which aims to prevent the flow of plastic into nature by 2030. Over a period of 2 years, the city was working together with the Association Sunce and WWF to develop a series of activities starting with a diagnosis and including the identification and implementation of measures for reducing or stopping the use of single-use plastics in the various segments of the city's social life as well as a better management of plastic waste. The City has committed to take measures and actions to reduce the amount of plastic waste deposited by 30% in the Pilot area by 2022 and 55% in the City by 2025.*

THE SHARED TRANSITION AGENDA OF MAYORS FOR MISSION OCEAN

Presenter: Mario Dogliani / Stefania Manca
(Secretariat of the Coalition of Mayors for Mission Ocean)
On behalf of all the Mayors of the Coalition

THE SHARED TRANSITION AGENDA OF MAYORS FOR MISSION OCEAN



- **Sector:** Cities
- **Country and level:** Italy, Spain, Egypt; Mediterranean Basin
- **Type of Inspirational Case Study:**
 - Protect and restore marine and freshwater ecosystems and biodiversity
 - Prevent and eliminate pollution of our ocean, seas and waters
 - Make the sustainable blue economy carbon-neutral and circular
 - Ocean and waters knowledge system
 - Public mobilisation and engagement
- **Main objective:** Develop and deploy the Shared Transition Agenda of Mayors across the Mediterranean.
- **Brief description:** *Each city's development plan is aligned with the Mission Implementation Plan resulting in the City Mission Deployment Agenda called "Mission City" (e.g. Mission Mazara). Synergies among these "local Missions" are identified via workshops/operational meetings.*
- **From a practical viewpoint, each Municipality that adhered the Coalition:**
 1. mapped territorial needs & opportunities and submitted related Charters (22 submitted as of 25/5/2023)
 2. co-designed, together with citizens and stakeholders, its local action plan
 3. is contributing to the Shared Transition Agenda of Mayors (to be released in Genova on 26/6/2023)
 4. will start (1.9.2023) common deployment actions based on the Agenda



Coalition of Mayors for Mission Ocean

Promoted by Genova & Mazara del Vallo, the **Coalition encourages a common Strategic Deployment Agenda tuned with the Mission Implementation Plan.**

Accordingly, **the involved Municipalities will, jointly:**

- a) **deploy solutions** to protect, restore and depollute marine and freshwater ecosystems
- b) **share knowledge** and good practices on sustainable and carbon-neutral blue economy
- c) **co-design with citizens**, students & local stakeholders

THE SHARED TRANSITION AGENDA OF MAYORS FOR MISSION OCEAN

As of 23/5/2023 : **ITALY** - 14 municipalities;
970.000 citizens Sicilian Association (200 municipalities; 3.000.000 citizens)
SPAIN - 24 municipalities 101.000 inhabitants

Interested to join?

s.manca@comune.genova.it

mario.dogliani@gmail.com

“SMART BINS” AS PART OF THE INTERREG MED CONSUMELESS PROJECT

Presenter: Joseph Piscopo – Ministry for Gozo –
joseph.d.piscopo@gov.mt

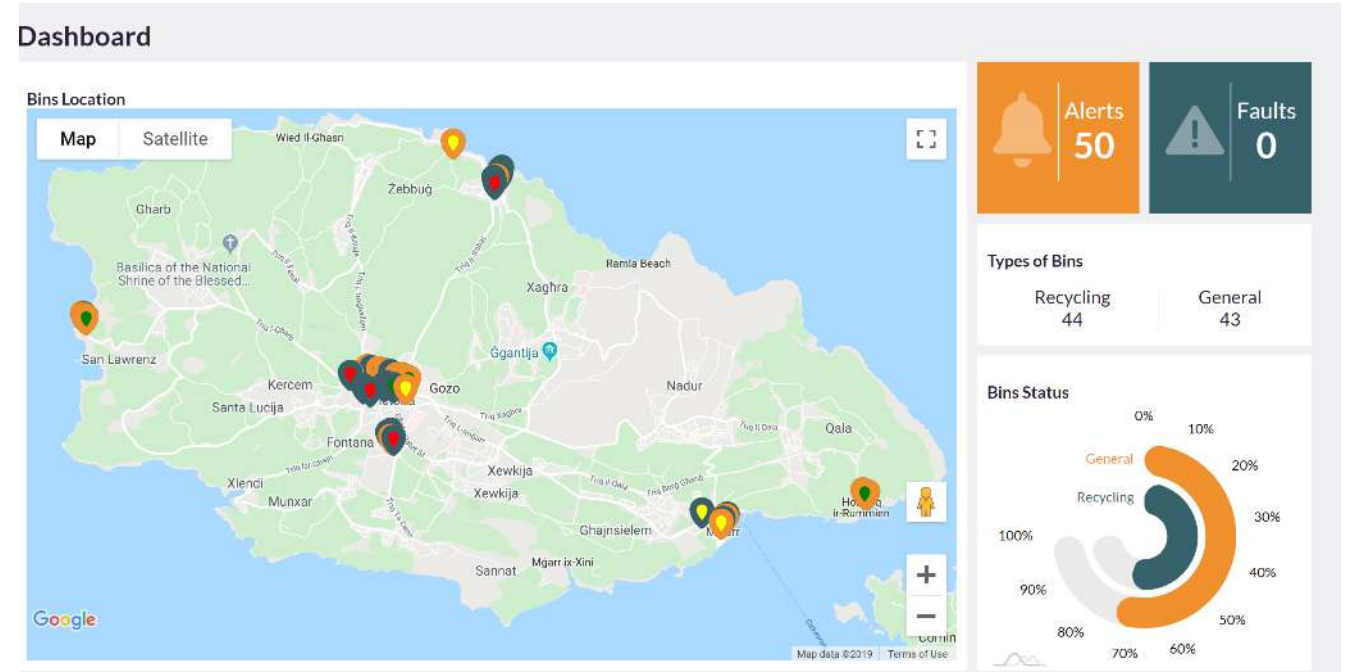
Link: [Consumeless – EcoGozo Directorate \(http://www.eco-gozo.com\)](http://www.eco-gozo.com)

“SMART BINS” AS PART OF THE INTERREG MED CONSUMELESS PROJECT



- **Sector:** Islands and Cities
- **Country and level:** Malta (Gozo), Regional level
- **Type of Inspirational Case Study:** Research and innovation/Deployment of solutions
- **Main objective:** Prevent and minimise pollution across the Mediterranean Sea basin
- **Brief description:** *Through the Interreg MED Consumeless project, a number of smart waste bins were procured and installed in prominent touristic areas around the island of Gozo with the aim to promote the project. These smart waste bins are connected to a platform and through GPRS are able to send notifications when: bin is emptied; bin is filled above a certain level; an internal fire occurs; waste container is overturned; and when there is an obstruction.*

This case study significantly contributes to the mission's objective of reducing plastic litter at sea. It accomplishes this by enabling timely interventions on waste bins, particularly when they become overfilled or encounter issues. As a result, the risk of trash being carried towards the sea is minimized, effectively tackling the problem at its source.



COLLECTION, CHARACTERIZATION AND QUANTIFICATION OF MARINE LITTER IN CATALONIAN WATERS

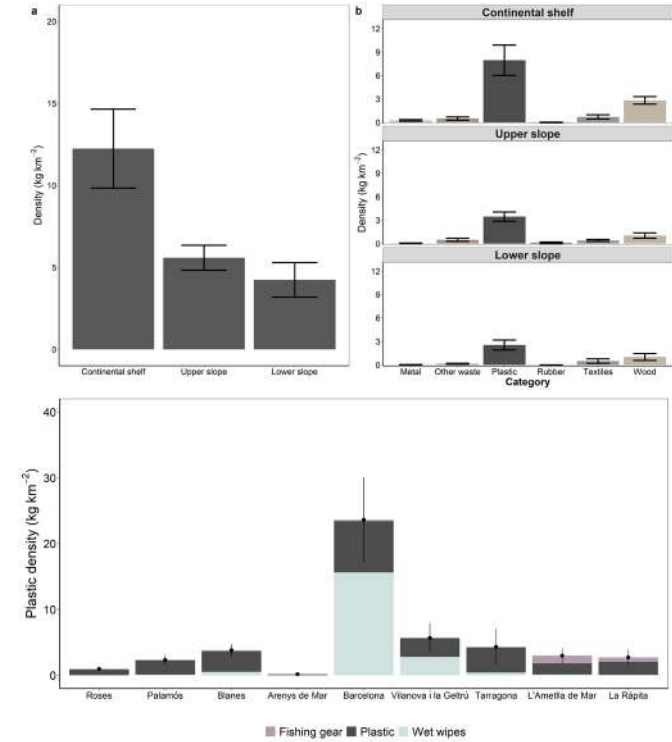
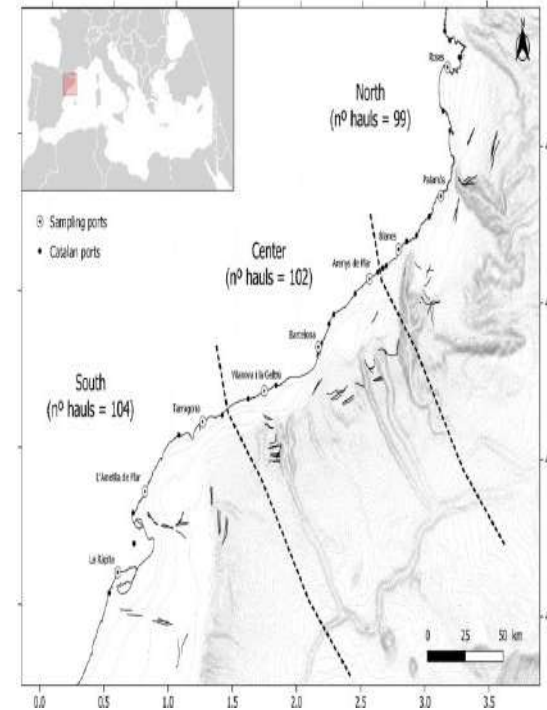
Susana Sainz-Trápaga, DG Maritime Policy and Sustainable Fisheries-
Government of Catalonia, ssainztrapaga@gencat.cat

Link:

https://www.sciencedirect.com/science/article/pii/S0956053X23003628?ref=cra_js_challenge&fr=RR-1

COLLECTION, CHARACTERIZATION AND QUANTIFICATION OF MARINE LITTER IN CATALONIAN WATERS

- **Sector:** Fisheries, Aquaculture and Conservation; Research and Education
- **Country and level:** Catalonia, Spain
- **Type of Inspirational Case Study:** Research and innovation; Evidence-based knowledge and data and/or access provision to knowledge and data; Upscaling, deployment and replication of solutions; Citizen engagement, citizens-science, outreach, awareness raising and participatory approaches
- **Main objective:** prevent, minimise, remediate or monitor pollution across the Mediterranean Sea basin
- **Brief description:** *Accidentally caught marine litter (ML) was collected from commercial trawlers and classified as metal, plastic, rubber, textile, wood, and other waste and weighed (kg) from 305 hauls performed during three years (2019–2021) from 9 different ports at 3 different depths. ML was present in 97 % of the hauls, with plastic being the most abundant material. The highest densities were found in highly urbanized areas which mainly contained plastics (74.3 %). The area nearby the port of Barcelona had the highest presence of plastics, mainly wet wipes. Regarding depth, the continental shelf had the highest density of ML. Fisheries sampling of ML should be part of a multidisciplinary approach to tackle marine litter, which must include prevention, monitoring, and cleaning actions.*



Global blue economy governance: a methodological approach to investigating blue economy implementation

Presenter: (*Grazia Maria Iadarola, Regione Lazio, giadarola@regione.lazio.it; Grazia Gulluni, Lazio Innova, g.gulluni@lazioinnova.it*)

Global blue economy governance: a methodological approach to investigating blue economy implementation



Sector: Islands and Cities

Country and level: Lazio Region

Type of Inspirational Case Study: Lazio is the first Italian Region to have established by law a “Cabina di Regia” for the Blue Economy. REGIONAL LAW n. 2 del 24 febbraio 2022: “Disposizioni per la promozione della formazione, occupazione e sviluppo nei settori della Blue Economy”. “Cabina di Regia” has taken steps to promote and coordinate the fragmented landscape of blue economy in a sustainable and armonised manner.

Main objective.

“Cabina di Regia” is established by decree of the President of the Region, upon the proposal of the competent Assessor for economic development, and its duration is equal to that of the legislature. In order to ensure adequate participation of all stakeholders, the sessions of the “Cabina di Regia” are involved presidents of the provinces and the mayors and can participate the most representative industry associations as well as other relevant entities and organizations, depending on the topics being addressed; meets periodically, at least twice a year, based on the agenda established by the President. The operational procedures for the functioning of the “Cabina di Regia” are established upon the proposal of the competent Direction for economic development and productive activities.

Brief description

- Developing and proposing strategies and plans for the maritime economy in the Region, in line with regional, performs coordination, consultation, and simplification functions of procedures, as well as integration of various sectoral, territorial, and coastal Blue economy policies, including Maritime Spatial planning;
- Facilitating collaboration between maritime sector businesses and academic and research institutions to stimulate knowledge transfer and promote innovation.



REGIONE
LAZIO



LAZIO
INNOVA



enterprise
europe
network

Tag @BlueMissionMed on social media

Hashtags: #bluemissionmed; #bmmstakeholderforum; #missionocean

BLACK SEA CONNECT MARINE LITTER JOINT ACTION

Presenter: (Baris Salihoglu, METU Institute of Marine Sciences,
baris@ims.metu.edu.tr)

Link: (<http://connect2blacksea.org/press-release-on-the-marine-litter-action-forum/>)

Main contact: (Ezgi Sahin Yucel, ezgisahin@ims.metu.edu.tr)

BLACK SEA CONNECT MARINE LITTER JOINT ACTION



- **Sector:** Regions and Islands, Research and Education, Citizens and Youth
- **Country and level:** Turkey – Black Sea basin level (in connection with the Med Sea)
- **Type of Inspirational Case Study:** Research and innovation; Evidence-based knowledge and data and/or access provision to knowledge and data; Upscaling, deployment and replication of solutions; youth-led initiatives, ocean and water literacy, awareness raising
- **Main objective:** map and assess ground-breaking actions, activities and initiatives that have been done/planned on marine plastic pollution and enhance new transnational activities
- **Brief description:** *Contributes to «reduce plastic litter at sea», «reduce microplastic release into the environment» targets of the Mission. The objectives are to identify beyond-state-of-the-art solutions, and activities and create the information needed to address a growing problem, serious threat to the environment, economy and health. To achieve these goals, the following steps were considered:*
 - A. Compile detailed analysis of the existing projects and initiatives in the Black Sea and Europe on marine litter, as desk research to map different projects and especially those with a strong focus on the innovative ideas that can be replicated or have potential in the Black Sea which will serve as the groundwork.*
 - B. Organize a Black Sea CONNECT event on SRIA implementation towards innovative litter solutions which will bring together all relevant actors for solutions in order to present the actions already in place, for existing and new initiatives and projects and, therefore, best coordinate all actions towards a common approach at the transboundary level and pave the way for the future cutting-edge actions on marine litter pollution in the Black Sea.*
 - C. Create further dissemination actions in countries, in order to inform and engage, if possible, all the countries on the serious threat of plastics to natural ecosystems, food safety and quality, human health and coastal tourism, on the country's level and at Black Sea's level and involve the Black Sea Young Ambassadors. The Young Ambassadors have had a distinct role in the Event to distribute and enhance the information potential of all these actions to different age groups via the activities they normally organize.*



PROTECTING OUR SEAS AND BLUE RESOURCES FOR FUTURE GENERATIONS IN ÇUKUROVA REGION, TURKEY

Presenter: Mr. Ertan Zibel

Çukurova Development Agency, Turkey

ertan.zibel@cka.org.tr

PROTECTING OUR SEAS AND BLUE RESOURCES FOR FUTURE GENERATIONS IN ÇUKUROVA REGION, TURKEY



- **Sector:** Regions and Islands
- **Country and Level:** Turkey - Çukurova Region
- **Type of Inspirational Case Study:** Evidence-based knowledge and data, blue growth strategy development
- **Main Objective:** Minimise pollution across the Mediterranean Sea Basin, protect our seas and blue resources for future generations, and benefit from the seas in a way that will strengthen economic and social development by supporting “aquatic life”.



- **Brief Description:** *Çukurova region is located in the Eastern Mediterranean, with a coastline of 480 km. We aim to increase the contribution of blue sectors to the region’s economy. Fishing and marine life, coastal tourism, blue startups, blue investments and maritime protection form the blue economy pattern in the region. We would like to adopt an understanding that reduces environmental risks and ecological shortages, develops sustainable options to utilize coastal potential, and ensures the participation of affected social groups and sectors in these processes. Thus, we aim to create a development story that increases positive externalities on the basis of blue growth in Çukurova. (The Target of the Mission: Reducing Pollution at Sea)*

PLASTIC SMART CITIES

Presenter: Stefania Campogianni

scampogianni@wwfmedpo.org Link: plasticsmartcities.org

PLASTIC SMART CITIES

- **Sector:** Cities, Regions
- **Country and level:** Italy, Croatia, Turkey, Morocco, Global
- **Type of Inspirational Case Study:** Waste management, policy change, citizens awareness, business innovation
- **Main objective:** Engaging cities in taking bold actions for no plastic in nature



- **Brief description:** *Summer tourism contributes to 40% increase in marine litter. WWF is therefore engaging with tourist coastal cities in the Mediterranean to tackle single-use plastic, reduce plastic consumption, increase recycling and engage with businesses and citizens in more responsible practices. So far Venice, Dubrovnik, Trogir, Izmir and Tangier are part of WWF's global initiative. We need more cities to join the fight!*

CLEAN MEDITERRANEAN

Presenter: (Baris Salihoglu, METU Institute of Marine Sciences,
baris@ims.metu.edu.tr)

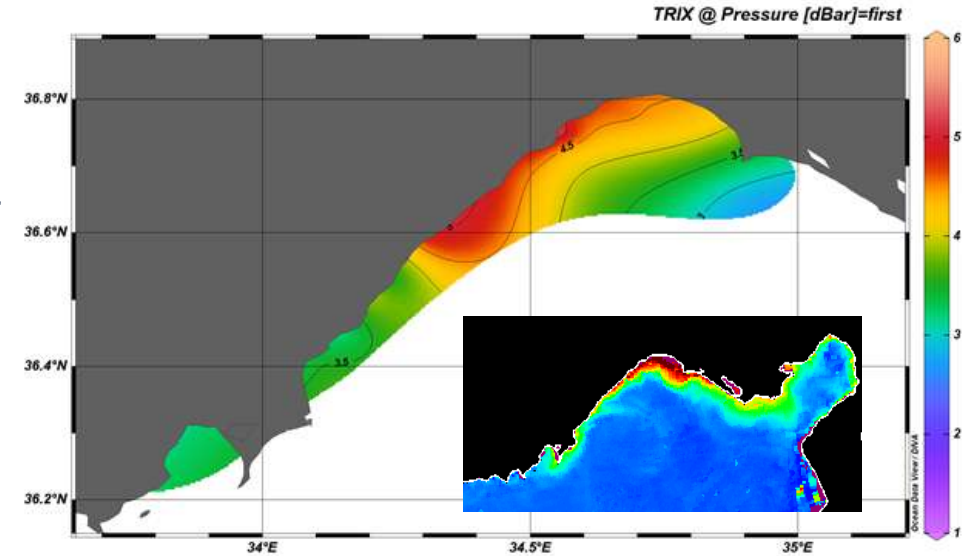
Link: <http://ims.metu.edu.tr/>

Main contact: (Ezgi Sahin Yucel, ezgisahin@ims.metu.edu.tr)

CLEAN MEDITERRANEAN PROJECT IN MERSIN



- **Sector:** Cities
- **Country and level:** Turkey – Regional
- **Type of Inspirational Case Study:** Evidence-based knowledge and data and/or access provision to knowledge and data
- **Main objective:** monitor and prevent pollution in Mersin Bay, North Eastern Mediterranean
- **Brief description:** *Clean Mediterranean is a monitoring project based on the protocol signed between METU and the four metropolitan municipalities (Mersin, Adana, Hatay and Antalya) along the southern coast of Turkey. According to the protocol, the coastal municipalities have been monitoring the riverine nutrient inputs and their impact on marine pollution to identify the sources of pollution in line with the target of the Mission; “reduce nutrient losses”. In the Project, the municipality has been monitoring the rivers by taking fresh-water samples very close to the mouths of the eight rivers and measuring the physical parameters. Simultaneously METU has monitored the coastal seawater. In the second part of the project, several low-cost in situ monitoring systems will be deployed on the rivers and in coastal water for real-time monitoring of the water quality.*



AERIAL DRONE FOR BEACH LITTER MONITORING

Presenter: (Baris Salihoglu, METU Institute of Marine Sciences,
baris@ims.metu.edu.tr)

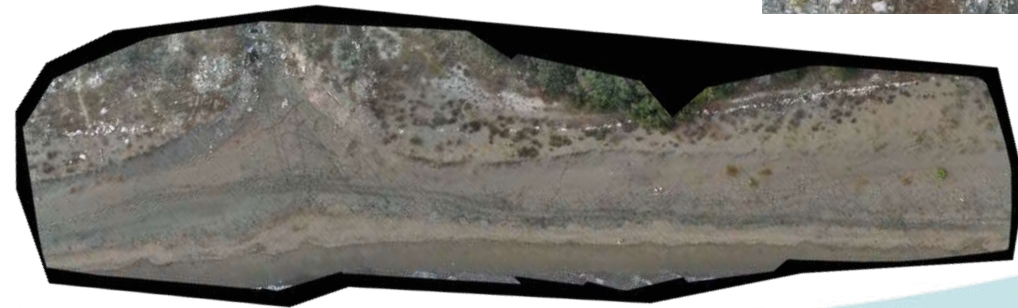
Link: <http://ims.metu.edu.tr/>

Main contact: (Ezgi Sahin Yucel, ezgisahin@ims.metu.edu.tr)

AERIAL DRONE FOR BEACH LITTER MONITORING



- **Sector:** Cities, Research and Education
- **Country and level:** Turkey - Regional
- **Type of Inspirational Case Study:** Research and Education; Citizen engagement
- **Main objective:** High spatial and temporal resolution beach litter monitoring
- **Brief description:** *The capability of taking high-resolution georeferenced pictures makes aerial drones an effective way to monitor beach litter. A very high-resolution (< 3 cm) orthomosaic image of the beach is produced by drone photogrammetry. Then, machine learning methods are used to classify the litter on the beach using the orthomosaic image. As drones with high-quality cameras are widely used, a citizen science project has been developed to include local people at different places to take pictures regularly and send them to METU for analysis. The local authorities will be informed about the beaches with high litter accumulation to take necessary measures. This project will support the Mission targets, reducing plastic litter at sea and microplastic release into the environment by preventing pollution at the source.*



WASTEWATER TREATMENT AND WATER RECLAMATION

Presenter: Municipality of Borghetto Santo Spirito – Servizi Ambientali Spa,
Borghetto Santo Spirito (SV – Italy)

Main contact: Ing. Emilio Brovelli – Servizi Ambientali Spa consultant



MUNICIPALITY OF
BORGHETTO SANTO SPIRITO



WATER RECLAMATION

"DON'T MISS A DROP OF WATER!!!"

- **Sector:** Italy, Borghetto Santo Spirito (SV) – Integrated urban water management. Research and Education
- **Country and level:** Italy, regional level
- **Type of Inspirational Case Study:** Research and innovation
- **Main objective:** prevent and minimise pollution across the Mediterranean Sea basin by urban and agricultural water reusing



- **Brief description:** *The modern MBR wastewater treatment can produce effluent of high enough quality for discharge into the sea, oceans, surfaces, brackish bodies, or waterways for usage in urban and agricultural irrigation. The territory of Borghetto Santo Spirito municipality allows to lay a dedicated reusing pipeline, divided in several sections. Reusing wastewater as part of circular water management allows water to remain as an alternative water source for human activities, reducing the waste of precious resources.*

OCEAN CITIES NETWORK

AN INTERNATIONAL NETWORK OF CITIES IN HARMONY WITH THE MARINE ENVIRONMENT

Presenter: Vanessa Sarah Salvo

Link: [Ocean Cities Network](#)

Main contact: ocean-cities@icm.csic.es



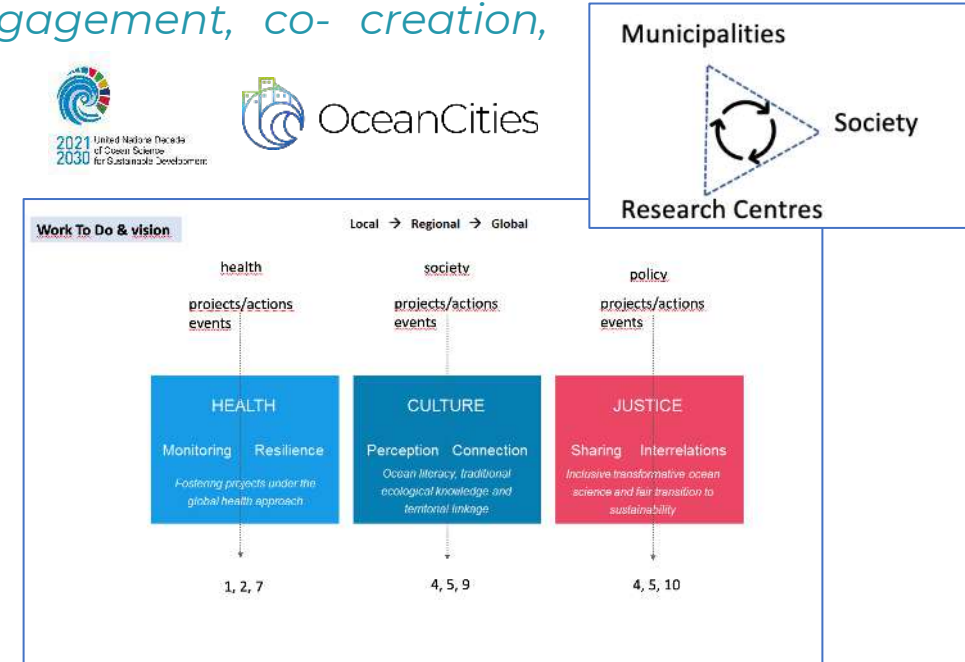
2021
2030 United Nations Decade
of Ocean Science
for Sustainable Development

OUTCOMES OF THE WGS CULTURE IN JUSTICE-POLICY



1. *Protect and restore marine ecosystems and biodiversity 2030*
2. *Public mobilisation and engagement: Citizen participation, engagement, co- creation, activation, training and education*

- **Sector:** Cities
- **Country and level:**
 1. Regional Med area
 2. Global
- **Type of Inspirational Case Study:**
 1. Upscaling, deployment and replication of solutions. Evidence-based knowledge in to policies..
 2. Citizen engagement. Ocean and water literacy.
- **Main objective:**
 1. Recommendations about the rban coastal ecosystems restoration in Mediterranean
 2. October Month of the Ocean Cities
- **Brief description:**
 1. *Dialogues across the whole science - policy - society interface to the urban coastal ecosystems restoration in different cities of Mediterranean. Several workshops are planned to build up a **common guideline to the urban coastal ecosystems restoration** based on science-based recommendations responding to the public demand. The outcomes intend to promote science-based policies for the coastal cities of the future supporting coastal areas in the decision-making process*
 2. *Definition of **October Month of Ocean Cities**. In 2022 a pilot has been set up in Barcelona City with a month dedicated to ocean literacy with activities targeted for general public or experts. In 2023 the Month of Ocean Cities is planned in three different countries: Colombia, Argentina and Spain.*



ENSERES: ENGAGING TUNISIAN LOCAL AUTHORITIES AND CIVIL SOCIETY IN PREVENTING MARINE POLLUTION

Presenter: Carolina Pérez Valverde, MedCities

Link: <https://maritime-forum.ec.europa.eu/en/node/10089>

<https://www.enicbcmed.eu/projects/ensesres>

Main contact: cperezv@amb.cat

ENSERES: ENGAGING TUNISIAN LOCAL AUTHORITIES AND CIVIL SOCIETY IN PREVENTING MARINE POLLUTION



- **Sector:** Cities; Ports and shipping; Citizens and Youth
- **Country and level:** Tunisia, local level.
- **Type of Inspirational Case Study:** Upscaling, deployment and replication of solutions; Citizen engagement, youth-led initiatives, outreach, awareness raising and participatory approaches;
- **Main objective:** Prevent, minimise, remediate or monitor pollution across the Mediterranean Sea basin;
- **Brief description:** *The objective ENSERES (ENI CBC MED Project) is to mainstream available Ecosystem Based Management tools in Integrated Coastal Zone Management processes for preserving coastal and marine ecosystems as sustainable livelihoods for coastal urban communities through integrated management of human activities.. Marine Litter and land based sources of pollution is one of the key challenges addressed. MedCities is specially supporting one of its members, the Municipality of Sfax, Tunisia, on addressing pollution/marine litter. This is done through a sub-granting scheme for two local CSOs.*



One is innovating in the monitoring of marine litter in the port of Sfax and the other addressing this issue, especially with children, tourist and fishermen at the marine protected area of Kerkennah Islands. On the other hand, a capacity building and mentoring process to public institutions – municipality, port authority and others- is under implementation for the longterm transfer of tools to monitor and prevent plastic litter pollution already tested in ENI CBC MED projects as COMMON and PlasticBustersCAP. The starting point is the fishing harbour of the Port of Sfax. The result will be a monitoring plan and a selection of 5 to 10 priority actions to address marine litter in the fishing port of Sfax, including their implementation plan.

MED4WASTE MENTORING SCHEME: OPPORTUNITIES FOR CITIES

Presenter: Carolina Pérez Valverde, MedCities

Link: <https://maritime-forum.ec.europa.eu/en/node/10089>

<https://www.enicbcmed.eu/projects/enses>

Main contact: Noé Viedma nviedma@amb.cat

MED4WASTE MENTORING SCHEME: OPPORTUNITIES FOR CITIES

- **Sector:** Cities
- **Country and level:** Lebanon, Jordan & Tunisia. Local level
- **Type of Inspirational Case Study:** Upscaling, deployment and replication of solutions
- **Main objective:** The project aims to facilitate new governance models for integrated and efficient urban waste management policies across the Mediterranean.
- **Brief description:** *The mentoring scheme provides guidance and technical support to six municipalities from Lebanon (2), Jordan (2) and Tunisia (2) in charge of planning, collecting and/or managing waste in the Mediterranean.*
 - Main activities:
 - *Improve or develop their **Integrated Municipal Waste Management (IMWM)** plan*
 - *Implement a **tailor-made supporting action** aligned with their IMWM plan.*
 - ***Twinning and exchange program** with a city from another ENI project that has implemented a solution to enhance their waste management system.*
 - ***Social entrepreneurship programme for 2 local SMEs and Start-ups:** Development of a solution for waste management tackling local challenges.*



A'SIMA TUNIS

Presenter: Carolina Pérez Valverde, MedCities

Link: <https://medcities.org/project/asima-tunis-strategic-plan-of-tunis-7/>

Main contact: Konstantia Nikopoulou, MedCities, knikopoulou@amb.cat

- **Sector:** Cities
- **Country and level:** Tunisia, metropolitan level
- **Type of Inspirational Case Study:** Upscaling, deployment and replication of solutions
- **Main objective:** Implementing a metropolitan governance of waste management and an inter-municipal waste valorisation infrastructure
- **Brief description:**

Within the framework of its component 2, the A'SIMA Tunis project will be identifying a intermunicipal waste management strategy and action plan for Greater Tunis. The project will also test intermunicipal cooperation through the implementation of a pilot project at the metropolitan scale consisting of an eco-center with 4 different functions : recyclables waste disposal center, sorting center, waste transfer unit and bulky waste treatment center. The pilot project involves 7 cities of the Greater Tunis that will cooperate to implement and make this eco-center run smoothly. In addition, the project foresees technical trainings on waste management for the Greater Tunis municipalities in order to reinforce their technical capacities. This project is therefore contributing to Objective 2 of the Mission, namely: prevent and eliminate pollution.



COASTAL CITIES NETWORK

Presenter: Stefania Di Vito, Legambiente, s.divito@legambiente.it

Link: [Coastal cities network Common project](#)

COASTAL CITIES NETWORK



- **Sector:** Islands and Cities
- **Country and level:** Italy, Lebanon, Tunisia. Med-basin level
- **Type of Inspirational Case Study:** Evidence-based knowledge and data and/or access provision to knowledge and data; deployment and replication of solutions; Citizen engagement, citizens-science, ocean and water literacy, awareness raising and participatory approaches; Education and training
- **Main objective:** Prevent and reduce plastic litter and improve the local waste management sharing Best Practices
- **Brief description:** *Sharing virtuous projects, addressing the problems linked to marine litter management by developing innovative and participatory strategies and solutions, can be an opportunity to develop interventions in areas that are facing the same critical issues. Through the **Coastal Cities Network**, COMMON project - COastal Management and MOnitoring Network for tackling marine litter in Mediterranean sea, funded by ENI CBC MED, created a space for discussion, to **reduce plastic litter** and improve the mitigation of the marine litter impacts, as well as being an opportunity to set up common paths of collaboration between all parties involved.*
- *40 municipalities have been involved up to now: in Maremma and Salento in Italy, in Monastir and Kuriat Island in Tunisia, and in Tyre Cost Nature Reserve in Lebanon. Common initiatives have been planned from some local administration as smoke free beaches.*
- *This action has been capitalized through Plastic Busters CAP project funded by ENI CBC MED.*



CLEAN BOATING

Presenter: Luca Jendrek, Clean Boating, luca.jendrek@clean-boating.com

Link: www.clean-boating.com

CLEAN BOATING

- **Sector:** Islands and Cities; Ports and shipping; Citizens and Youth
 - **Country and level:** Mallorca, Spain. Level: local and regional
 - **Type of Inspirational Case Study:** Citizen engagement, citizens-science, youth-led initiatives, ocean and water literacy, awareness raising and participatory approaches; Education and training)
 - **Main objective:** prevent, minimise, reduce pollution across the Mediterranean Sea basin
-
- **Brief description:** *Clean Boating aims to reduce the marine plastic pollution in the Balearic waters by principally engaging the pleasure boating industry. It provides them special bags, nets and buckets to fish out plastic waste and dedicated bins in the local port to safely deposit the waste. It also addresses the land sources where plastic waste comes from, therefore it collaborates with local schools, water sport centres and hotels and organizes clean-up events, educational talks and workshops. Additionally, it is an external collaborator in the European Blue School project and helps to certify 100 schools in Mallorca as blue schools.*



JUST GO ZERO: TILOS THE 1ST ZERO WASTE ISLAND IN GREECE

Presenter: Athanasios Polychronopoulos, Chairman & CEO
Polygreen Group of Companies (athanpolys@polygreen.eco)

Link: justgozero.com/tilos/

Main contact: Giorgos Panopoulos (g.panopoulos@polygreen.eco)

JUST GO ZERO: THE CASE STUDY OF TILOS



- **Sector:** Islands and Cities
- **Country and level:** Tilos Island-Greece, Dodecanese group of islands, Southeastern Aegean Sea
- **Type of Inspirational Case Study:** (Research and innovation; Evidence-based knowledge and data and/or access provision to knowledge and data; Upscaling, deployment and replication of solutions; Citizen engagement, youth-led initiatives, communities of practice, ocean and water literacy, outreach, awareness raising and participatory approaches; Education and training)
- **Main objective:** Creation of a business model, applicable to local, island and non-island communities worldwide by implementing an integrated system of Circular Waste Management and efficient utilization of resources.
- **Brief description:** *Based on the ancient Greek saying “Meden Agan” (Nothing in Excess) JGZ Tilos is a Zero Waste Circular Economy solution and pioneering behavioural change program applicable to community level, based on four pillars: Education, Digitization, Reverse Logistics and Resource Management. Adopting the waste management hierarchy – waste prevention, reuse, recycling and energy recovery – the project eliminated the landfill option. Sorting at source, door to door waste collection and innovative facilities with high standard technologies have resulted in the municipal waste be sorted into 27 streams before being shipped to recycling facilities. Organic waste is turned into compost while non recyclable waste is either upcycled or driven to the mainland to be utilized as an alternative energy source. Environmental benefits: Closure of landfills, Prevention of sea pollution and biodiversity degradation, Enrichment of island soil, Ensuring a high-rate of material recovery (average 87% and exceeding 90% at times) and aligning with EU and ECHR policies.*



CAPRAIA SMART ISLAND

Presenter: Sofia Mannelli Chimica Verde Bionet

Link: <https://www.chimicaverde.it/capraia-smart-island/>

<https://www.chimicaverde.it/capraia-smart-island-filiera-ittica/>

info@chimicaverde.it



CAPRAIA SMART ISLAND: A LABORATORY OF GOOD PRACTICES



- **Sector:** Islands;
- **Country and level:** Italy- national
- **Type of Inspirational Case Study:** Upscaling, deployment and replication of solutions; Citizen engagement, citizens-science, communities of practice; Education and training
- **Main objective:** prevent, minimise, remediate or monitor pollution across the Mediterranean Sea basin; transforming the island of Capraia into a **permanent laboratory of good practices**.
- **Brief description:** *Capraia Smart Island is a circular economy project, based on the participation of the local population, that is transforming the island of Capraia into a permanent laboratory of good practices aimed at strengthening the sustainability of the production chains, protecting the island's biodiversity, preventing and eliminating pollution from the sea, making the blue economy sustainable and protecting the island's natural resources. Capraia is a small island at the center of the Pelagos International Marine Mammal Sanctuary , it's the pearl of the Archipelago National Park Tuscan, included in the GREEN LIST of the IUCN. Working on the smaller islands makes possible to test models of sustainability given that geographical and social isolation makes these territorial contexts similar to real open-air laboratories. The project, starting from local traditions, redesigns the process of transition and ecological restoration of biodiversity by bridging cultural and material gaps, with the inhabitants.*



THE VALORIZATION OF NON- ORGANIC WASTE AT SAINT- HONORAT ISLAND

Presenter: Iva Zunjic, project manager, CCIC Abbaye de Lérins,
patrimoine@abbayedelerins.com

Link: <https://smilo-program.org/wp-content/uploads/2021/10/fiche642e92efb79421734881b53e1e1b18b6.pdf>

THE VALORIZATION OF NON-ORGANIC WASTE AT SAINT-HONORAT ISLAND



- **Sector:** Islands and Cities
- **Country and level:** France, national level
- **Type of Inspirational Case Study:** (Evidence-based knowledge and data; Citizen engagement)
- **Main objective:** minimise pollution directly and indirectly across the Mediterranean Sea basin.
- **Brief description:** *The island of Saint-Honorat (Cannes, France), which is a private island, carries out several activities to clean the island and reduce the plastic waste. In 2019, we removed 50 waste bins for visitors, encouraging them to bring back their own waste from site. We have also organized different activities, such as waste collection actions aiming especially the collection of marine litter, with schools and volunteers from our region in order to raise awareness among local population about the sea pollution and the importance of maintaining its marine ecosystem. Currently we are at about 40 tons of waste evacuated without sorting over a year (comparing to 60t before the removal of waste bins). Our actual project is to improve the management of the non-organic waste. In order to recycle a large part of the non-organic waste of the island of Saint-Honorat, our objective is to set up a selective sorting of plastic and cardboard on the island, to purchase a press that would allow to compact these cardboard and plastic into ballots. This would decrease the number of barges and the tonnage of waste evacuated on the continent, which proves the importance of this project as it has an indirect impact on sea pollution. We will also be able to evaluate the reduction of the carbon footprint (less transport by barge, and less incinerated waste), as we will precisely know the tonnage of waste now recycled. Finally, our shipping company, the only one that provide the transport to Saint-Honorat Island, has switched completely (for its 3 boats) to biofuel, derived from the hydrogenation of used cooking oil. The use of this new fuel will allow us to reduce CO2 emissions up to 90% and also polluting emissions up to 80% compared to diesel.*

PLASTIC FREE IS THE WAY TO BE

Presenter: Ahmed SOUKI, vice-president of the association Notre Grand Bleu, ahmed.soukingb@gmail.com

PLASTIC FREE IS THE WAY TO BE

- **Sector:** Environment and Social
- **Country and level:** Tunisia (Mediterranean)
- **Type of Inspirational Case Study:** Marine preservation, circular economy and waste recovery
- **Main objective:** Support the environment and promote social inclusion by collaborating with a center for handicapped individuals to recycle and responsibly dispose of plastic traps and nets that we collect from Kuriat MCPA and repurpose them into various products.



- **Brief description:**

“Plastic free is the way to be” will ensure a circular economy in Monastir bay and kuriat MPA by:

- *Reducing the pressure and the impact of plastic pollution by ghost fishing nets and plastic traps in the Kuriat MCPA*
- *Raising awareness about the importance of responsible disposal and encourage local fishing communities and administrations to participate in sustainable practices.*
- *Creating a sustainable income source for the center of handicapped individuals by selling the the products recovered from the plastic traps at fairs.*
- *Involving disabled people in socio-economic aspects of society.*

RETURN AND REFUND OF BEVERAGE CONTAINERS (SDDR) ON THE ISLAND OF FORMENTERA

Presenter: Marcial Bardolet, Department of Environment and Territory -
Government of the Balearic Islands mabardolet@ibanat.caib.es)

<https://atlasposidonia.com>
<https://medposidonianetwork.com/>)

RETURN AND REFUND OF BEVERAGE CONTAINERS (SDDR) ON THE ISLAND OF FORMENTERA.



- **Sector:** Islands and Cities

Country and level: Regional

- **Type of Inspirational Case Study:** Upscaling, deployment, and replication of solutions

Main objective: Prevent, minimize, remediate, or monitor pollution across the Mediterranean Sea basin. By implementing the SDDR system on Formentera, we aim to contribute to the reduction of plastic litter at sea within the Mediterranean Sea basin. .



- **Brief description:** *By implementing a pilot project for a deposit, refund, and return system (SDDR) for beverage containers on Formentera Island, we contribute to the Mission Ocean and Waters of the European Commission. This initiative directly addresses the target of reducing plastic litter at sea and promotes circular economy practices. The SDDR system encourages the return and proper disposal of beverage containers, preventing them from ending up in the marine environment, thus protecting the Mediterranean Sea basin from pollution.*

MARINE BIODIVERSITY AWARENESS PROJECT

Presenter: *Bülent Halisdemir, PhD, Mersin Metropolitan Municipality,
Head of Environmental Protection and Control*

Marine Biodiversity Awareness Project

- **Sector:** Cities;
- **Country and level:** Turkey, local level.
- **Type of Inspirational Case Study:** awareness raising and participatory approaches;
- **Main objective:** Other objectives
- **Brief description:** The Metropolitan City of Mersin works together with the Midel East Technical University (METU) Marine Sciences Insitute in activities to raise awareness of the importance of marine Biodiversity and the need to combat marine invasive species.

Between 2016-2021, the project has raised awareness among secondary school children, reaching out:

- ✓ from 89 secondary schools
- ✓ 1831 students and
- ✓ 101 teachers were trained.

<https://www.istilacilar.org/denizel-istilaci-yabanci-turler/>



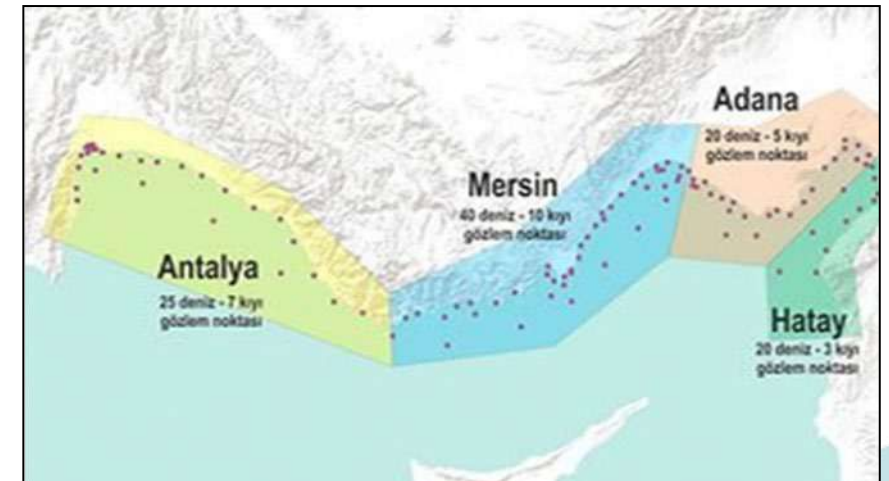
Clean Mediterranean

Presenter: *Bülent Halisdemir, PhD, Mersin Metropolitan Municipality,
Head of Environmental Protection and Control*

The Clean Mediterranean Project

- **Sector:** Cities;
- **Country and level:** Turkey, local level.
- **Type of Inspirational Case Study:** Evidence-based knowledge and data and/or access provision to knowledge and data
- **Main objective:** prevent, minimise, remediate or monitor pollution across the Mediterranean Sea basin
- **Brief description:**

Mersin Metropolitan Municipality, along with Adana, Hatay, and Antalya Metropolitan Municipalities, as well as the Middle East Technical University Marine Sciences, collaboratively conduct studies to identify and address the causes of pollution in our seas. Additionally, a Clean Mediterranean project is being undertaken to assess the pollution sources that negatively impact marine tourism.



Ecosystem-Based Monitoring and Management Plan Project for Clean Mediterranean

Presenter: *Bülent Halisdemir, PhD, Mersin Metropolitan Municipality,
Head of Environmental Protection and Control*

Ecosystem-Based Monitoring and Management Plan Project for Clean Mediterranean

- **Sector:** Cities; Research and Education;
- **Country and level:** Turkey, local level.
- **Type of Inspirational Case Study:** Evidence-based knowledge and data and/or access provision to knowledge and data
- **Main objective:** prevent, minimise, remediate or monitor pollution across the Mediterranean Sea basin
- **Brief description:**



Marine Field Studies with R/V Bilim-2 Research Ship

The Metropolitan municipality is implementing with METU sampling, analysis (Basic Physical Measurements, Chemical Measurements, and Biological Measurements), and evaluation methods as part of the project's **Marine Field Surveys** (18 Stations) and **Terrestrial Input Studies** (9 Stations) along our province's coasts.



Terrestrial Input Studies



Locations of offshore field workstations with terrestrial input stream sampling

We are Leaving Artificial Reefs to the Sea, and Our Sea to the Future

Presenter: *Bülent Halisdemir, PhD, Mersin Metropolitan Municipality,
Head of Environmental Protection and Control*

“We are Leaving Artificial Reefs to the Sea, and Our Sea to the Future”

- **Sector:** Cities; Research and Education; Ports and Shipping.
- **Country and level:** Turkey, local level.
- **Type of Inspirational Case Study:** Upscaling, deployment and replication of solutions
- **Main objective:** Other objectives
- **Brief description:**

A total of **14 artificial reefs were deployed** in the area between Mersin Marina and Mezitli, with each reef placed at a distance of 2 meters from each other. This initiative marks the first testing of such artificial reefs in Türkiye. Artificial reefs frequently serve as breeding habitats for invertebrates such as algae and mussels, allowing fish communities to feed, shelter, and reproduce. Artificial reefs restore the marine ecosystem, and increased fishing opportunities benefit the urban economy.



Representative Image



Citizens and Youth



THE CORALLO PROJECT OCEAN LITERACY DIGITAL TOOLKIT

Presenter: Prof. Alan Deidun, University of Malta,
alan.deidun@um.edu.mt Link: www.corallo-italiamalta.eu

- **Sector:** Citizens and Youth
- **Country and level:** Malta, Italy, Regional
- **Type of Inspirational Case Study:** Citizen engagement, citizens-science, youth-led initiatives, communities of practice, ocean and water literacy, outreach, awareness raising and participatory approaches; Education and training
- **Main objective:** Protect and Restore Marine and Freshwater Ecosystem Biodiversity; Public Engagement and Mobilisation



- **Brief description:** *This case study is actively contributing to Target 1 of the Mission for Healthy Oceans and Waters (Mission Starfish) – i.e. that each European is a citizen of the ocean and of our waters. The project is achieving this by promoting a greater penetration of ocean literacy through innovative digital tools, thus helping to bridge the current emotional gap vis-à-vis Europeans and ocean-related matters in general.*



“SAVE YOUR HOOD”

Presenter: Vasilis Sfakianopoulos, “Save Your Hood” Movement,
Vassilis@saveyourhood.gr

Link: www.saveyourhood.gr

SAVE YOUR HOOD



- **Sector:** Citizens and Youth
- **Country and level:** Greece, Med. Basin
- **Type of Inspirational Case Study:** Citizen Engagement, Youth-Led Initiatives, Communities of practice, Awareness Raising and Participatory Approaches, Education and Training
- **Main objective:** Minimize pollution across our neighborhoods, reduce the litter that reach Mediterranean Sea basin, Monitor Pollution and positively affect its sources, Change citizens' mindset towards better environmental practices.



- **Brief description:** *Save Your Hood (SYH) is a rapidly growing grassroots movement that started in November 2020 in Greece and Cyprus. It has expanded to other countries, operating through small autonomous groups that coordinate initiatives to clean up neighborhoods. SYH has gathered over 40,000 volunteers who independently or in groups carry out more than 5,500 cleanups, collecting over 10 million liters of waste. The movement aims for holistic sanitation in various areas, including urban, peri-urban, forest, and coastal regions. SYH also focuses on creating awareness programs for children, providing consulting services and influencing companies and public bodies, and developing national and local projects for sustainable change . Additionally, SYH is working on comprehensive approaches to address waste issues, including cleanups, landfill restoration, wetland and protected areas protection and waste reduction programs.*

AMWEJ LES FÊTES DE LA MER AWARNNESS CAMPAIGNS

Presenter: Rym Benzina

rym.benzina@lasaisonbleue.com

Link: www.lasaisonbleue.com

AMWEJ /FÊTES DE LA MER



- **Sector:** Citizens and Youth
- **Country and level:** Tunisia
- **Type of Inspirational Case Study:** (Citizen engagement, citizens-science, youth-led initiatives, communities of practice, ocean and water literacy, outreach, awareness raising and participatory approaches.
- **Main objective:** raise awareness, prevent, educate and mobilise citizens to save our coastline and fight pollution.
- **Brief description:**

AMWEJ: Tunisia's first call for projects for a sustainable blue economy.

AMWEJ is aimed at municipalities along the Tunisian coast, as well as associations and NGOs working in the maritime sector, and start-ups.

We have supported 4 projects 1 start-up, 2 municipalities and 1 NGO:

- *rehabilitation of the Kélibia lagoon,*
- *Rehabilitation of the Punic port of Carthage*
- *Planting paulownia trees to use the wood to build light boats (canoes, windsurfing boards)*
- *Countering beach erosion and desertification*

Fêtes de la Mer: An all summer program of events : *La Saison Bleue, in partnership with other associations, runs awareness campaigns through workshops and films aimed at children and the general public in several towns: Tunis, La Marsa, Sousse, Djerba, Bizerte and Sfax.*

On the edge of the World Sea Forum-Bizerte, sea festivals were organised in several locations in the city of Bizerte:

- *A village dedicated to the associations of Bizerte was set up to raise awareness among citizens of the importance of preserving their coastline and the seas..*
- *Organisation of a concert dedicated to young people*



GREEN SCHOONER AND LAKE SCHOONER CAMPAIGNS BY LEGAMBIENTE

Presenter: Stefania Di Vito, Legambiente, s.divito@legambiente.it

Link: <https://golettaverde.legambiente.it/>

Stefania Di Vito, s.divito@legambiente.it

Elisa Scocchera, e.scocchera@legambiente.it

GREEN SCHOONER AND LAKE SCHOONER CAMPAIGNS BY LEGAMBIENTE



- **Sector:** Citizens and Youth
- **Country and level:** Italy, national
- **Type of Inspirational Case Study:** Citizen engagement, citizens-science, youth-led initiatives, outreach, awareness raising and participatory approaches; Education and training
- **Main objective:** prevent, minimise, remediate or monitor pollution across the Mediterranean Sea basin



- **Brief description:** Every year Legambiente involves over 300 volunteers from all over Italy in collecting water samples of seawater, transitional waters and lakes, in order to analyze the water quality. Specialized labs perform microbiological analysis to identify *Escherichia coli* and Intestinal Enterococci bacteria that are considered to be indicators for fecal contaminations. Results are then spread by the communication teams of the two awareness campaigns, held every year in summer period all over Italy.
- Thanks to this activity Legambiente keeps attention high on the important problem of absent or inadequate purification of wastewater. Italy being charged with four infringement procedures for failure to implement Directive 91/271/EEC on wastewater treatment.

RETHINK CHALLENGES THROUGH GAMES AND INTERACTIVE AWARENESS-BUILDING ACTIONS

Presenter: Mariam Avakova, Youth4Ocean, MSc Natural Resources;
mariamavakova@gmail.com

Link: <https://www.doorsblacksea.eu/post/690469316876959744/engaging-young-people-in-georgia-on-european>

RETHINK CHALLENGES THROUGH STRONG YOUTH-ADULT PARTNERSHIPS



- **Sector:** Education; Citizens and Youth
- **Country and level:** Georgia + international experience
- **Type of Inspirational Case Study:** Participants in youth-adult partnerships make collaborative, shared decisions in areas such as governance, program development, execution, and advocacy. As a result, Youth4Ocean advocates program give an overview of the current example in order to build a common ground for understanding and engaging in such partnerships. Young people have the insight, creativity, and potential for true cooperation, which benefits both youth and adults. When youth work closely with adults toward common goals, they gain skills and confidence for lifelong learning and civic participation.
- **Main objective:** Youth participation is an essential component of youth-adult partnership development, as it involves participating in responsible behaviors that result in positive societal change. This includes including youth in planning and decision-making, taking initiative, engaging with community people and institutions, high-level decision makers and offering their resources and ideas. It also occurs through organized youth-adult collaborations, which combine youth abilities and interests with diverse possibilities.
- **Brief description:** *Instead of treating youth like consumers, think of young people as partners and important stakeholders in the youth-adult collaboration. Put them in situations where their contributions matter. There is clear evidence that youth as an agents of their own development benefit from actively participating in programs and communities. Increased youth engagement must be not just a goal but also a crucial strategy of the initiative. Youth participation and voice are essential for long-term social and economic development through positive youth-adult partnerships.*



WWF ADOPT A BEACH: A CITIZEN ENGAGEMENT & MOBILIZATION PLATFORM FOR THE REDUCTION OF MARINE LITTER IN THE MEDITERRANEAN

Presenter: Konstantinos Tsoukalas, WWF Greece, k.tsoukalas@wwf.gr

Link: adoptabeach.wwf.org

Main contact: Konstantinos Tsoukalas, k.tsoukalas@wwf.gr

WWF “ADOPT A BEACH”, : A CITIZEN ENGAGEMENT & MOBILIZATION PLATFORM FOR THE REDUCTION OF MARINE LITTER



- **Sector:** Citizens and Youth
- **Country and level:** The program has been implemented in Greece since 2021 and in Tunisia and Türkiye since 2023.
- **Type of Inspirational Case Study:** Citizen engagement, Citizen science, awareness raising and participatory approaches, upscaling
- **Main objective:** Monitoring marine litter- plastic pollution in numerous beaches in Greece, Tunisia and Türkiye through a citizens science procedure. Open access to the gathered data for the general public, national competent authorities, academics, and policy makers.
- **Brief description:** *In order to increase public awareness on plastic pollution in coastal regions and foster a sense of responsibility and ownership among individuals, WWF has created the "Adopt a Beach" marine litter monitoring initiative, which is based on the eponymous UNEP/MAP protocol. Youth and volunteer organizations from all across the Mediterranean may actively help to decreasing plastic waste and safeguarding our planet's natural resources by taking part in this initiative. Two to four times a year, marine litter are recorded in numerous beaches, producing useful datasets that are publicly available to everyone. The findings of the program are used to provide policy recommendations and guidance. So on in Greece, 145 teams (approximately 2.500 volunteers) have adopted 160 beaches, and have recorded 210.700 items.*



THE ANDROMEDA PROJECT MICROPLASTIC SMART PHONE APP

Presenter: Prof. Alan Deidun, University of Malta,
alan.deidun@um.edu.mt

Link: <https://ocean.mt/2023/03/02/andromeda/>

THE ANDROMEDA PROJECT MICROPLASTIC SMART PHONE APP



- **Sector:** Citizens and Youth
- **Country and level:** Malta, Belgium, Germany, Norway, Ireland, Spain, European-wide
- **Type of Inspirational Case Study:** Citizen engagement, citizens-science, youth-led initiatives, communities of practice, ocean and water literacy, outreach, awareness raising and participatory approaches; Education and training
- **Main objective:** Prevent, minimise, remediate or monitor pollution across the Mediterranean Sea Basin; Public Engagement and Mobilisation



- **Brief description:** *This case study is actively contributing to Targets 7 (Zero plastic litter generation) and 2 (Marine and freshwater observation is streamlined and is available to all) of the Mission for Healthy Oceans and Waters (Mission Starfish) by integrating citizen science, Artificial Intelligence and the recovery of microplastics from beaches through an innovative smart phone app. In so doing, this case study is promoting citizen engagement and mobilization. The app allows users to record microplastics extracted from ANY European beach on a map, to obtain through an AI algorithm information about the same particles and to recover them.*

EUROPEAN BLUE SCHOOLS AS AGENTS OF CHANGE AND SUSTAINABILITY

Presenter: Evy Copejans, European Marine Science Educators
Association, evy.Copejans@emsea.eu

Link: <https://ec.europa.eu/ocean-literacy/blue-schools>

EUROPEAN BLUE SCHOOLS AS AGENTS OF CHANGE AND SUSTAINABILITY

- **Sector:** Citizens and Youth
- **Country and level:** European European, med-basin, national, regional and municipality level
- **Type of Inspirational Case Study:** ocean and water literacy
- **Main objective:** Empower youth in schools all accross Europe for transformative societal change by working on ocean sustanability projects together with ocean professionals.
- **Brief description:** *In a European Blue School, teachers help students to increase their understanding of the ocean, the issues it is facing and the economic opportunities it offers. Through project-based learning, teachers actively engage to bring marine topics into the classroom, making marine (science) education an essential part of the school curricula and allowing students to explore actively new learning contexts such as 'Ocean Health', 'Food from the Ocean' and 'Climate and Ocean' in a meaningful way. The program challenges schools to Find the Blue and explore their connections to the ocean. On the journey to becoming a European Blue School, teachers and pupils will improve their understanding of the ocean and develop a sense of responsibility towards our blue planet. Being ocean literate encourages students to become more aware and engaged European citizens. Teaching about the ocean is an integral part of environmental education and education for sustainability. Student action and ownership, collaborations between schools and ocean professionals/organizations, and creating a schools' community oriented towards the ocean or sea are key values of this project.*
- *The Network of European Blue Schools is an initiative of the European Commission, funded by DG MARE and was developed in 2020 by the EU4Ocean Coalition partners EMSEA, Ciencia Viva and Acteon with the aim to increase ocean literacy on a European scale via formal education.*



BLUE SEA LAND - INTERNATIONAL BLUE ECONOMY EXPO

Involving local people and youth to
learn about Sustainable Blue
Economy

Presenter: Lorenzo Castelli, Distretto della Pesca e Crescita Blu - COSVAP,
esteridistrettopesca@gmail.com

Link: www.distrettopesca.com
www.bluesealand.net

BLUE SEA LAND - INTERNATIONAL BLUE ECONOMY EXPO



INVOLVING LOCAL PEOPLE AND YOUTH TO LEARN ABOUT SUSTAINABLE BLUE ECONOMY

- **Sector:** Citizens and Youth
- **Country and level:** Italy, local level
- **Type of Inspirational Case Study:** citizen engagement
- **Main objective:** raise awareness of Blue Economy-related topics among citizens and youth through their involvement in informal learning activities during Blue Sea Land - International Blue Economy Expo
- **Brief description:** The Blue Sea Land Expo attracts hundreds of visitors whom have a chance to get informed about current issues in the fields of fisheries and aquaculture through their participation in activities organised within institutional stands in the fair or by attending one of the high-level conferences. Young people - especially from high schools - are given the opportunity of working with us to accompany foreign delegations, become hostess or steward in a stand or provide assistance in conference rooms.



INCREASING MARINE ENVIRONMENTAL AWARENESS VIA THE CREATIVE ARTS

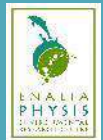
Presenter: Rebecca Katsaris, Educational Associate-Freelancer

Enalia Physis Environmental Research Centre

r.katsaris@enaliaphysis.org.cy

Link: <https://cyprusenvironment.org/grants/increasing-marine-environmental-awareness-through-the-creative-arts/>

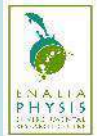
Main contact: Rebecca Katsaris, r.katsaris@enaliaphysis.org.cy



INCREASING MARINE ENVIRONMENTAL AWARENESS VIA THE CREATIVE ARTS

- **Sector:** Citizens and Youth
- **Country and level:** Cyprus, national
- **Type of Inspirational Case Study:** Citizen engagement, citizens-science, youth-led initiatives, communities of practice, ocean and water literacy, outreach, awareness raising and participatory approaches.
- **Main objectives:** Our action plays a central role in delivering against and contributing to one or more of the following Mission Ocean and Waters objectives:
 - I. Protect and restore marine and freshwater ecosystems and biodiversity, in line with the EU Biodiversity Strategy 2030
 - II. Prevent and eliminate pollution of our ocean, seas and waters, in line with the EU Action Plan Towards Zero Pollution for Air, Water and Soil
 - III. Make the sustainable blue economy carbon-neutral and circular, in line with the proposed European Climate Law and the holistic vision enshrined in the Sustainable Blue Economy Strategy.

• **Brief description:** *This project aims to deliver educational, creative workshops both in private and public schools as well as environmental centers, and raise awareness to as many schools and young children as possible regarding some crucial matters which concern our island such as the bycatch of marine vulnerable species, plastic pollution, the poor management of Posidonia oceanica seagrass and the threats and conservation of the Mediterranean monk seal Monachus monachus, to mention a few. The proposed activities seek to actively engage young children (between ages of 3 to 12) and captivate their imagination through music, the visual arts, movement, dance, drama and storytelling. Essentially by increasing the contact of our children with Cyprus' current marine challenges, leads them to a deeper understanding of how the marine life is essential, how to better comprehend the importance of protecting this planet on which we live and finally, how the ocean and humans are, essentially, inextricably interconnected.*



GenB: INFORMING AND EDUCATING YOUNG PEOPLE ON MORE SUSTAINABLE BEHAVIOURS AND CHOICES

Presenter: Chiara Pocaterra

Link: GenB project (<https://www.genb-project.eu/>)

pocaterra@apre.it

GenB: INFORMING AND EDUCATING YOUNG PEOPLE ON MORE SUSTAINABLE BEHAVIOURS AND CHOICES

- **Sector:** Citizens and Youth
- **Country and level:** European
- **Type of Inspirational Case Study:** awareness raising and participatory approaches; Education and training
- **Main objective:** GenB is a EU funded project aiming at educating and empowering the young generations aware, sensitive and interested on environmental issues, sustainability and circularity. It aims to raise awareness on green and blue Bioeconomy, building on communication and education that encourage and reward “Young Biovoices” to take a role in the transition towards sustainable lifestyles.



- **Brief description:** GenB has the overall objectives to: 1) Co-create innovative approaches, by facilitating cooperation with young people, parents, teachers and other formal and non-formal education professionals, to provide formats, materials and toolkits on bioeconomy and bio-based sectors; 2) Inspire, Influence and inform young people, by raising their awareness of sustainable and circular bioeconomy and bio-based sectors, including the promotion of bioeconomy careers; 3) Educate young people to accelerate the transition towards a more sustainable and circular behaviours and lifestyles; 4) Training teachers in teaching environmental issues and engage multipliers to promote the bioeconomy to their target audiences; 5) Engage and Empower GenB Bioeconomy Ambassadors as the frontrunners in driving the change by attracting and influencing other young people; 6) Support them to take a role, by creating opportunities to make their ‘voices’ heard and assume their role in the transition.

MED ODYSSEY 2025

Presenter: Rym Benzina,

La Saison Bleue

rym.benzina@lasaisonbleue.com

Link: www.lasaisonbleue.com

MED ODYSSEY 2025



- **Sector:** Research and Education; Citizens and Youth
- **Country and level:** Tunisia and all countries in the Mediterranean Sea basin
- **Type of Inspirational Case Study:** Evidence-based knowledge and data and/or access provision to knowledge and data; Citizen engagement, citizens-science, youth-led initiatives, communities of practice, ocean and water literacy, outreach, awareness raising and participatory approaches; Education and training, Economic impact.
- **Main objective:** collect data and raise awareness of the various issues that the Mediterranean basin regions are facing.



- **Brief description:** *La Saison Bleue is launching a program called MED ODYSSEY 2025 (April 2024-June 2025), which aims to portray the Mediterranean as a maritime space and a hub for exchange between the coastal regions and civil societies of the Mediterranean basin.*

This "modern odyssey" will commence during the 9th edition of Our Ocean (Athens, April 2024) and conclude at the United Nations Ocean Conference (Nice, June 2025).

Over a period of fourteen months, MED ODYSSEY 2025 will undertake numerous sailings and stopovers, facilitated by maritime, scientific, associative, educational, and economic stakeholders, as well as public partners and local authorities. The program intends to map the pressing issues, demands, commitments, and accomplishments of a historically and contemporarily significant Mediterranean region.

Operating under the flag of MED ODYSSEY 2025, the Mediterranean will have the opportunity to amplify its distinctive and influential voice before world leaders gathered in June 2025 in Nice to ensure a sustainable and peaceful future for the ocean.

#potavristou CITIZEN SCIENCE CAMPAIGN

Presenter: Demetra Orthodoxou, AKTI Project and Research Centre,
akti@akti.org.cy

Link: <http://www.akti.org.cy/portfolio/potavristou/>

Main contact: Dr. Xenia I. Loizidou, akti@akti.org.cy

#potavristou CITIZEN SCIENCE CAMPAIGN

- **Sector:** Citizens and Youth
- **Country and level:** initially in Cyprus, but now at Med-basin level and beyond
- **Type of Inspirational Case Study:** Citizen engagement and citizen science
- **Main objective:** Remediate and monitor pollution across the Mediterranean basin, and prevent marine pollution through awareness-raising

- **Brief description:** *#potavristou* is citizen science campaign that uses a social-media challenge format to engage people to reduce plastic litter and thus the release of microplastics. 'Potavristou' is a word used in the Cypriot dialect. Literally it translates to "reach out" but can also be interpreted as "giving a helping hand". The concept is that every year, during the month of September, citizens are encouraged to reach out, and collect the marine litter that they see around them, while sunbathing, walking, swimming or diving. They then take a picture and post in on their social media accounts with the hashtag #potavristou, their location, and the count of litter they collected. AKTI develops engaging social media visuals to disseminate the campaign every year. The connecting element of these visuals is that they use phrases from the Cypriot dialect, to connect with our target audience, in a fun and casual manner. 2022 results: 2620 volunteers collected 16 tonnes of litter, 86% of which was plastic.



UPCYCLED ART FROM MARINE LITTER

Presenter: Demetra Orthodoxou, AKTI Project and Research Centre,
akti@akti.org.cy

Link: www.marlitcy.eu

UPCYCLED ART FROM MARINE LITTER

- **Sector:** Citizens and Youth
- **Country and level:** Cyprus
- **Type of Inspirational Case Study:** Citizen engagement, awareness raising, education
- **Main objective:** Prevent pollution in the Mediterranean
- **Brief description:** *This initiative involved engaging children in youth in understanding about marine litter, and expressing and sharing their views about this very important issue with others through the creation of upcycled art projects. The initiative began with an educational activity, where our team's experts informed youth about the marine litter issue (causes, impacts, solutions)*

*and then led a beach cleanup activity with the youth. The youth then worked with artist-mentors to **upcycle the litter they collected and create art pieces on the topic of marine litter.** Once the art works were completed, they were displayed in an exhibition in this way raising awareness to the wider public about the need to reduce plastic litter at sea.*



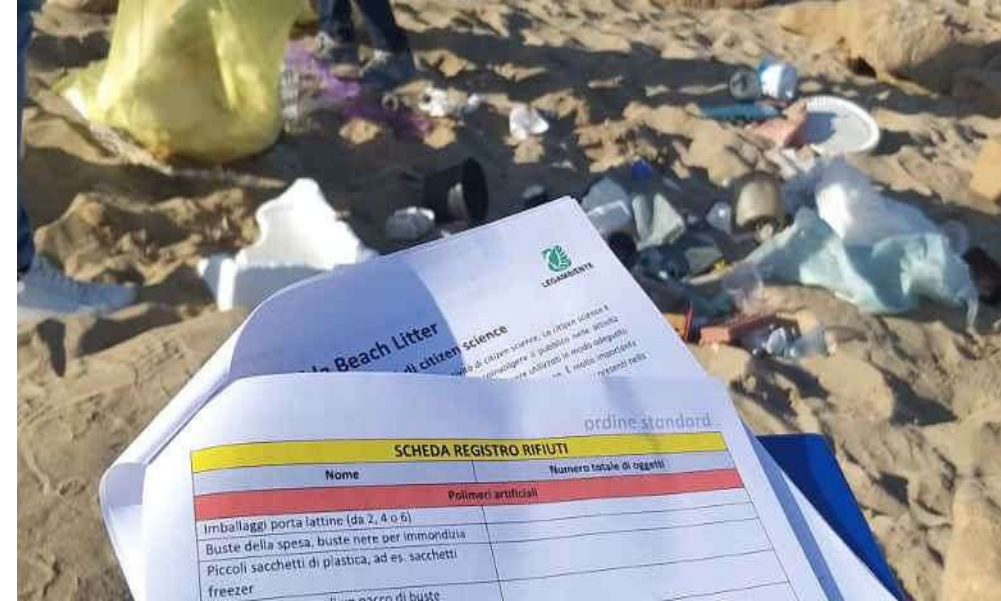
LEGAMBIENTE'S CITIZEN SCIENCE PROJECTS RELATED TO MARINE LITTER

Presenter: Stefania Di Vito, Legambiente, s.divito@legambiente.it

LEGAMBIENTE'S CITIZEN SCIENCE PROJECTS RELATED TO MARINE LITTER



- **Sector:** Citizens and Youth
- **Country and level:** Italy, national
- **Type of Inspirational Case Study:** Citizen engagement, citizens-science, youth-led initiatives, awareness raising and participatory approaches; Education and training
- **Main objective:** Prevent, minimise, remediate or monitor pollution across the Mediterranean Sea basin



- **Brief description:** *Legambiente involves its volunteers of all ages and school students in participatory science activities related to the monitoring of beached litter on both marine shores and riverbanks, paired with clean up initiatives, that contribute at raising awareness and reducing the dispersion of waste in the environment. Beach litter monitoring, from 2014, involves every year over 50 local groups in monitoring beached waste following a common protocol based on the one developed by the TGML for the Marine Strategy Directive. Data are transmitted to the Marine LitterWatch and EMODnet initiatives databases.*

Since 2020 same monitoring activities on riverbanks are performed, from 2022 within the [Plastic Pirates – Go Europe! project](#) framework.

FROM ILLEGAL AGGREGATING DEVICES TO RESQUE CRATES FOR TURTLES

Presenter: (Andrea Morello, www.seashepherd.it)

Link: (www.seashepherd.it)

Main contact: (andrea.m@seashepherd.it)

UPCYCLING ILLEGAL AGGREGATING DEVICES IN THE MED TO CRATES FOR TRANSPORT SEA TURTLES

- **Sector:** Citizens and Youth
- **Country and level:** Med based
- **Type of Inspirational Case Study:** Illegal, unreported, and unregulated (IUU) fishing constitutes one of the most relevant threats to marine ecosystems. IUU is a wide definition that entails a significant amount of fishing activities which concerns all types, aspects and stages of the catch and utilization of fishes. Fish Aggregating Devices (FAD) are man-made fishing devices that exploit the behavior of pelagic fish in order to attract them and catch by surrounding nets.
- Since the majority to all these plastic materials (mostly polypropylene) are not retrieved by fishermen throughout the year, they turn into ALDFG categorization becoming an issue for the International Convention for the Prevention of Pollution from Ships (MARPOL). Moreover, since they are not correctly labelled, they also fall into the IUU category. Only the 4% of the 343 aFAD analyzed were partly made of biodegradable materials. We had more than 500 KM of Fads pulled from the Sea to ship and transported to Imilani Company in Vicenza and now recycled in new crates made 100% in Fads polypro dedicated to Turtles rescue, packable and studied to be useful in ships ready to be donated to rescue centers.
- **Main objective: Prevent pollution in the Mediterranean Sea**
- **Brief description** One the most relevant part of marine litter known as Abandoned, Lost and Discarded Fishing Gear (ALDFG) is generated by FADs (2), and these derelict gears may represent a direct threat for marine megafauna due to entanglement in the FAD mooring line (3). The southern Tyrrhenian Sea (STS, Mediterranean Sea) represents an important area for marine mammals, being a corridor for latitudinal movements of different marine mammal populations (4). Nevertheless, no studies investigated the magnitude of anchored-to-the-seabed FADs (aFADs) presence in the STS ecosystem and the threat it represents for the marine mammals species. To address this gap we present a preliminary study about the distribution and composition of aFADs in a STS subarea.



ENVIRONMENTAL DEMOCRACY: THE PATH FOR SUSTAINABLE MANAGEMENT OF MARINE RESOURCES

Presenter: George Sarelakos, Aegean Rebreath

Link: <https://www.aegeanrebreath.org>

ENVIRONMENTAL DEMOCRACY: THE PATH FOR SUSTAINABLE MANAGEMENT OF MARINE RESOURCES



- **Sector:** Citizens and Youth
- **Country and level:** Greece, national level
- **Type of Inspirational Case Study:** Environmental democracy, access provision to knowledge and data; Up scaling, deployment and replication of solutions; Citizen engagement, Volunteerism, youth-led initiatives, communities of practice, outreach, awareness raising and participatory approaches; Education and training
- **Main objective:** Raise awareness, train and educate, engage, develop practices
- **Brief description:** *The case study focuses on practices aiming to enhance volunteerism, civic engagement and participative democracy. Aegean Rebreath has developed a model that involves the civil society and the individuals to monitor, participate and ensure the proper implementation of practices aiming at the restoration of marine environment. By training and actively involving local volunteers to the initiatives we organize in islands and coastal communities, our organization identifies “key champions” that provide to Aegean Rebreath information on challenges raised at local level. Such active citizens (individuals, fishermen, municipal employees) participate in the Technical Committee of the Blue Municipalities Network (18 member municipalities, established & coordinated by Aegean Rebreath) and exchange practices and orientations on marine environment issues. As a result, the Blue Municipalities Network can be perceived as a vehicle that brings together citizens and local communities with local and central authorities while turning local practices into national models.*

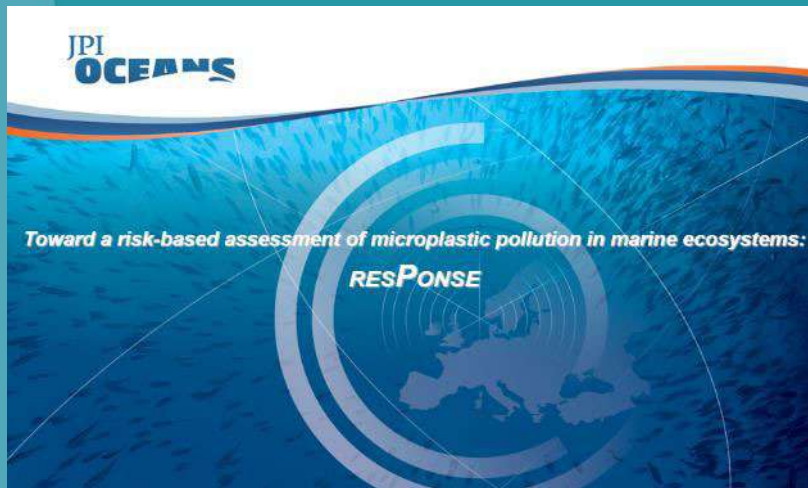


TOWARD A RISK-BASED ASSESSMENT OF MICROPLASTIC POLLUTION IN MARINE ECOSYSTEMS: RESPONSE MICRO PLASTIC HUNTERS PROJECT

Francesca Garaventa, Francesco Regoli, Polytechnic University of
Marche;

f.regoli@univpm .it

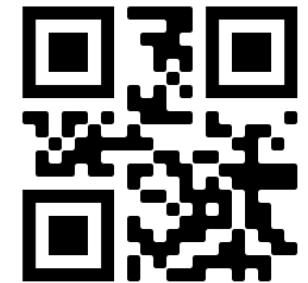
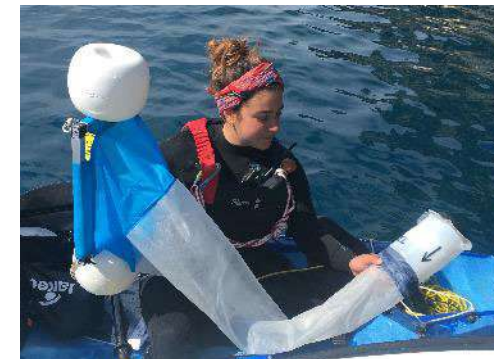
<https://www.response-jpioceans.eu/>



JPI Ocean Response Project – Micro Plastic Hunters Project



- **Sector:** Research and Education; Citizens and Youth)
- **Country and level:** Regional
- **Type of Inspirational Case Study:** Citizen engagement, citizens-science, ocean and water literacy, outreach, awareness raising and participatory approaches;)
- **Main objective:** monitor pollution across the Mediterranean Sea basin



- **Brief description:** *Prevent and eliminate pollution of our ocean, seas and waters - Micro Plastic Hunters Project, Paddling to monitor microplastics, involve citizens in the decision-making process*

BLUE BIOBASED ENGAGEMENT ACTIVITIES: CO-CREATION ON LOCAL BIOECONOMY, VISION, STRATEGY AND TRAINING APPROACH

Presenter: Concetta Messina, Università degli Studi di Palermo

Link: <https://www.engage4bio.eu/italy/>

Main contact: concetta.messina@unipa.it





“EUROPEAN MARITIME DAY IN MY COUNTRY” ENGAGE4BIO PROJECT JOINED EVENT

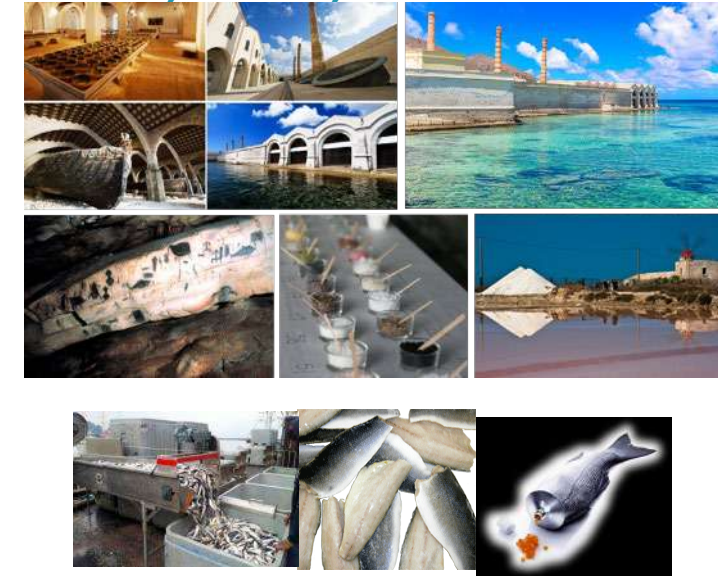


TRAPANI, 22- 23 OF JUNE 2023

BLUE BIOBASED ENGAGEMENT ACTIVITIES: CO-CREATION ON LOCAL BIOECONOMY, VISION, STRATEGY AND TRAINING APPROACH

- **Sector:** Fisheries, Aquaculture and Conservation; Research and Education; Citizens and Youth
- **Country and level:** South Italy, Regional level
- **Type of Inspirational Case Study:** EMD, Citizen engagement, citizens-science, awareness raising and participatory approaches; Education and training
- **Main objective:** prevent, minimise, reduce marine nutrient loss by adopting pilot plants and procedures at high TRL, aimed to valorize fishery resources, recycling of fish wastes across the Mediterranean Sea basin

- **Brief description:** *a co-creation event, followed by sensorial and lab experience, involving representatives of the quadruple helix, with the aim to enhance awareness on the blue bioeconomy principles, highlighting the role of marine resources as contribution to the promotion of circular economy and zero-waste goal.*
- **Target of the Mission:** reduce nutrient losses



GHOST BOATS: CITIZENS ENGAGEMENT FOR BLUE DECARBONISED ECONOMY

Presenter: Dr. Davide Poletto – Venice lagoon Plastic Free

d.poletto@plasticfreevenice.org

Link: www.plasticfreevenice.org

GHOST BOATS: CITIZENS ENGAGEMENT FOR BLUE DECARBONISED ECONOMY



- **Sector:** Citizens and Youth
- **Country and level:** Venice and its lagoon (Italy)
- **Type of Inspirational Case Study:** Many Thousands of abandoned/wretched (ghost) boats have been piling up for decades in the Mediterranean basin and its fresh waters > Ghost boats discharge an unceasing wide array of micro and macro-pollutants derived from fibreglass, paints, wood and metals; they obstruct safe navigation and cause loss of the aesthetic value and integrity of our landscape and natural heritage.
The ghost boats issue is unsolved and escalating since proper disposal of small old boats and vessels unfit for navigation is an unaddressed financial and regulatory burden that owners do not wish to bear. VLPPF has set in place a circular value chain working at the local governance level and with the support of a beta version digital app that helps identify and geolocalise the ghost boats, along with possible hazardous material. Then we proceed with the removal and segregation of valuable materials – inox , aluminium, etc., and the final treatment of fibreglass, varnished woods, etc, through advanced mechanical recycling processes.



- **Brief description:** This initiative is independently conducted by VLPPF with private donations and crowdfunding and it meets the Mission Ocean and Waters goal 3 “Make the sustainable blue economy carbon-neutral and circular”. It also contributed to the Recommendations of mission Starfish report - Climate-neutral waterborne transport 2030 : 50 percent of vessels older than 20 years are dismantled and recycled in Europe
- **Main objective:** identify, remove and recycle fibreglass vessels abandoned in nature across the world heritage site of Venice and its lagoon as an extensible and scalable case study