



CleanAtlantic Regional Policy Toolkit

How to address marine litter in your Region?





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GLOBAL CHALLENGES, LOCAL ACTIONS: A TOOLKIT TO SUPPORT REGIONAL AUTHORITIES IN THE FIGHT AGAINST MARINE LITTER

Marine litter is a global threat for its impact on marine biodiversity, ocean, and human health, that is affecting both marine and terrestrial environment. From phytoplankton to humans, plastic is now part of our food chain. In order to understand the scale of the problem, the issue of plastic pollution requires a global and concerted approach: according to the report [UNEP Marine Litter: a global challenge](#), about 80% of the waste found at sea is generated on land whilst 20% at sea. For an effective fight against marine litter, legislative levers and cooperation between stakeholders will therefore be essential in order to implement actions to protect our coasts and seas.

Throughout this toolkit, you will discover the [CleanAtlantic project](#)'s key achievements and how they can contribute to regional policies and initiatives against marine litter. It is intended to provide guidance and facilitate access to information and resources to regional policymakers to implement relevant and cost-efficient policies and measures. This toolkit should especially support the work of the [CPMR Atlantic Arc Commission](#) Ocean Pollution Working Group, which 14 Atlantic regional authorities joined forces to put regions at the forefront of prevention and reduction of ocean pollution in a series of messages framed in the [pledge in favour of a Clean Atlantic Ocean](#).

ABOUT THE CLEANATLANTIC PROJECT

[CleanAtlantic](#) is a project co-funded by the Interreg Atlantic Area programme that brings together specialists on the monitoring, prevention, and disposal of marine litter from the Atlantic area, to share and built-up knowledge on the best ways to fight marine litter ending in the Atlantic Ocean.

Promoting a holistic approach, the work programme of CleanAtlantic contributes to:

- ▶ Collection and assessment of data, knowledge and resources concerning marine litter in the Atlantic Area.
- ▶ Strengthening and supporting a harmonised data management and monitoring of marine litter under the Marine Strategy Framework Directive (MSFD).
- ▶ Development of sub-regional or regional maps of floating litter hotspots, based on the circulation of floating masses of marine litter.
- ▶ Collaboration with marine stakeholders through the cooperation in a variety of actions to improve the collection of litter at sea with fishermen or coastguards.
- ▶ Leading raising awareness campaign towards local and regional stakeholders on the sources, impacts and solutions of marine litter.



MEET THE CLEANATLANTIC PARTNERS

Fundación CETMAR, the Centro Tecnológico del Mar, is CleanAtlantic project coordinator. It is a public foundation established by the Ministry of Science and Technology and the Galician Regional Government. It promotes the sustainable development of marine environment and resources to boost cooperation between stakeholders involved in the marine sector.

ARDITI, Agência Regional para o Desenvolvimento da Investigação, Tecnologia e Inovação, is the regional agency for the Development of Research Technology and Innovation from the Madeira Autonomous Region. It supports research and innovation, promotes scientific and technological training and contributes to the modernisation and development of the Madeira Autonomous Region.

Cedre, Centre de documentation, de recherche et d'expérimentations sur les pollutions accidentelles des eaux, is an association with a public service mission for advising the French authorities in case of oil, HNS or plastic spill in marine waters. It also supports the French government in the EU-MSFD implementation and the OSPAR commitments with regards to marine litter.

Cefas is the Centre for the Environment, Fisheries and Aquaculture Science based in the UK. It is in charge of collecting, managing, and interpreting data on the sea, oceans, and rivers.

CPMR, the Conférence des Régions Périphériques Maritimes d'Europe, is an association acting as a think tank, a lobby, and a forum for around 150 European regional authorities located in Europe and beyond. Representing about 200 million people, the CPMR campaigns in favour of a more balanced development of the European territory.

DGRM, the Direção-Geral de Recursos Naturais, Segurança e Serviços Marítimos, is the Portuguese General Directorate for Natural Resources, Security and Maritime Services. Under the sphere of action of the Ministry of the Sea, DGRM's mission is developed in three areas: Maritime Administration, Fishing and Planning and Sustainability of the Sea. DGRM represents Portugal at the OSPAR commission.

DRAAC is the Direção Regional do Ambiente e Alterações Climáticas of the Regional Government of Madeira. Its missions are to execute the regional policy of the quality management of the environment, circular economy, water, waste, sanitation, coastal and climate change, contributing for a sustainable development, articulating all sectorial policies.

IEO, the Instituto Español de Oceanografía, is a public research organization for marine science research. It acts for the assessment and management of the marine resources, particularly in the areas of scientific knowledge of the oceans, sustainability of fisheries resources and the marine environment.

Ifremer, the Institut français de recherche pour l'exploitation de la mer, the French Research Institute for the Exploitation of the Sea is a public industrial and commercial establishment under the supervision of the French Ministry of Ecological Transition and the Ministry of Higher Education, Research and Innovation. It notably conducts research on marine litter and is the French reference for MSFD sampling, monitoring and data management.

Intecmar is the Instituto tecnolóxico para o control do medio mariño de Galicia. Its objective is to monitor the quality of the marine environment in the Galicia Region and the management of data and the development of web services, in order to provide responses to emergency situations at sea.

IST is the Instituto Superior Tecnico in the University of Lisbon. The research centre of IST, MARETEC, works notably on numerical models in coastal and oceanic areas, monitoring, and data management.

KIMO is a network of local municipalities aiming to promote healthy seas, clean beaches and thriving coastal communities. KIMO has created the Fishing for litter project, which cooperates with fishermen on marine litter issues.

Marine Institute is the Irish national institute for marine research, technology, development, and innovation. It provides scientific and technical advice to Government to help inform policy and to support the sustainable development of Ireland's marine resource.

USC is the Universidade de Santiago de Compostela. It is public institutions for higher education and research located in Galicia. It includes 50 departments related to Arts and Humanities, Science, Health, Social Science, Law, Engineering and Architecture. USC contributes to CleanAtlantic via its research groups on oceanographic and meteorological modelling, fluid dynamics, and environmental evaluation as well as damage assessment.



OVERVIEW OF THE GOVERNANCE ON MARINE LITTER FIGHT AND THE ROLE OF REGIONS

At international level, the main frameworks are the Convention on the Prevention of Marine Pollution by Dumping of Wastes and Other Matters in 1972, the Convention for the Prevention of Pollution from Ships (MARPOL 73/78) and the OSPAR Convention, concluded in 1992, to define cooperation on environmental protection in the North-East Atlantic area¹. At EU level, the main legislations are the EU Water Framework Directive² to restore the “good status” of European waters, the EU Marine Strategy Framework Directive (MSFD) which requires states to undergo monitoring programmes to measure the trends on level of pollution of European waters, the Port Reception Facility Directive (2019) for the delivery of waste from ships, including waste accidentally fished, the Single Used Plastic Bag Directive (July 2021) which forbids the presence of single-use plastic plates, cutlery, straws, balloon sticks, cotton buds and items made of expanded polystyrene and oxo-degradable plastic³ on the markets of the EU Member States, which and the EU Circular Economy Action Plan which includes target on landfill, reuse and recycle by 2030 and 2035.

In these international agreements and frameworks, regional authorities find themselves being a strategic governance level to address the challenge of marine litter although differences can be noted in terms of

1 See the latest Marine Litter Action plan conducted by the OSPAR Commission: <https://www.ospar.org/documents?v=48461>

2 Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for community action in the field of water policy.

3 <https://eur-lex.europa.eu/eli/dir/2019/904/oj>

share of competences with the Atlantic States. The following section highlights the extent Atlantic regional authorities have the capacities to legislate and develop actions on these issues.

► Ireland

In Ireland, the Department of Housing, Local Government and Heritage is responsible for the national marine environment policy and the implementation of the MSFD. Other departments and agencies are involved in marine related issues as well. The Department of Transport, for example, is responsible for the implementation and enforcement of legislation relating to MARPOL. It is involved in the Marine Environment Protection Committee (MEPC) at the International Maritime Organization, along other working groups, to improve and develop policies at an international level in relation to ship source pollution.

The Irish Regional Assemblies coordinate the implementation of legislation at regional and local levels, notably the Regional Spatial and Economic Strategy (RSES), with the technical support of the Environment Protection Agency (EPA) and the Local Waters Programme.

Local authorities such as county and city councils possess environmental protection competences related to pollution control. It includes monitoring signs of pollution in the environment and issuing licenses for waste disposal and are in charge of the collection and arrangement of waste.

► France

In France, regions are in charge of implementing national and European legislations in their respective jurisdiction. To this effect, they are responsible for drawing up action plans that develop territories in a sustainable manner, as well as coordinating local authorities and collectivities to enhance spatial development and biodiversity protection.

To this end, the Regions have developed since the 2015 National decentralization Law, the regional plan for “planning, sustainable development and equality of territories” (SRADDET) to plan waste prevention and management.

► Spain

In Spain, following the Spanish Constitution, the State has the responsibility for the basic legislation on the protection of the environment and the Autonomous Communities (Regions), the power to establish additional regulations on protection of the environment and the landscape, under their exclusive competence.

The Autonomous Regions (Communities) collaborate with the Ministry of Ecological Transition and Demographic Challenge (MITERD) responsible for the implementation of the MSFD providing information from monitoring programmes and measures.

► Portugal

In Portugal, the Regional Coordination and Development Commissions (CCDRs) are responsible for the execution, assessment, and inspection of environmental and planning policies, along with the other regulatory bodies of the Ministry of Environment and Climate Action.

They are responsible for the coordination and management of the Strategic Environmental Assessment, which results in an electronic overall Unique Environmental Title (TUA, Título Único Ambiental).

CCDRs conduct analyses to develop regional agendas, in collaboration with the Fundo Ambiental, with the aim of identifying opportunities to accelerate the transition to a more efficient and sustainable use of resources and to reconcile strategies with regional actors.

Açores and Madeira make an exception. As two autonomous Regions, they have a wider range of competences. They have legislative powers, government, and administration. The Regional Directorate for the Environment (DRAAC) is entitled to contribute to the definition of regional policies in the areas of the environment, waste, circular economy, and water resources as well as to guide, coordinate and control their implementation, as well as coordinate and develop actions leading to the implementation of regional policies.



► The United Kingdom

In the UK, although the Prime Minister is responsible for policy direction, devolved governments and agencies are responsible for the practical implementation of marine litter policy.

Since 2018, England passed the 'Our Waste, our resources: A strategy for England' that aims to eliminate avoidable waste by 2050 and concerns: Single Use Carrier Bag Charge Order (2015), Environment Protection (Microbeads) Regulations (2017), Environment Protection (Plastic Straws, Cotton Buds and Stirrers) Regulations (2020), waste prevention programmes and the Fishing for Litter (FFL) scheme.


The Welsh Government has its own Marine Litter Action Plan. The scope of measures encompasses preventative action to reduce litter, the support to communities and volunteers, the promotion of behaviour changes, communication and impact measurement.




HOW CAN REGIONS BENEFIT FROM CLEANATLANTIC ACHIEVEMENTS?

CleanAtlantic Marine Litter viewer

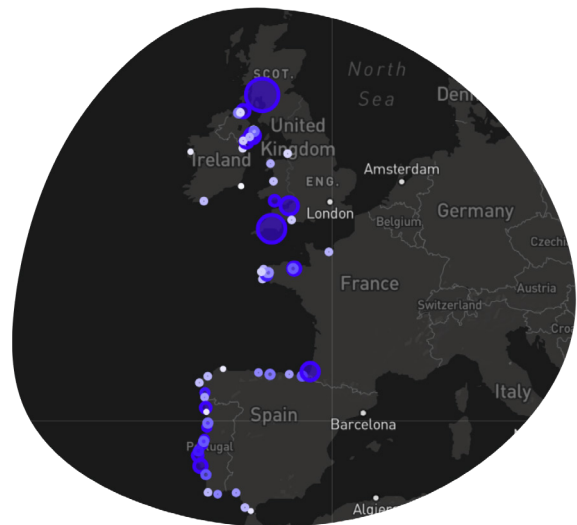
The [Marine Litter viewer](#) is an interactive map which shows the results obtained in the assessment of the marine litter status in the Atlantic Area. Categories such as “Beach”, “Floating”, or “Seabed” enables to see the results associated to each individual compartment. The Marine Litter viewer is in open access, and supported the production of [reports](#) on the state of Marine Litter in the Atlantic area.

 The **Welsh Government** is working on a bill which will make an offence for a person to supply or offer to supply certain commonly littered and unnecessary single-used plastic products and will enable Welsh minister to add or remove a product from the list of cited wastes.

 In the **Nouvelle-Aquitaine Region**, the Trait Bleu programme enables the installation of tidal bins on the coastlines used to increase litter monitoring and optimize collect of marine litter.

Interest for regional actions:

- ▶ Help Regions identify types of marine litter threatening their coasts
- ▶ Improve waste collection by identifying hotspots of accumulation
- ▶ Manage the stream of waste and impose sanctions on the generation of waste
- ▶ Support bans on certain items
- ▶ Guide the elaboration of strategies with regional stakeholders
- ▶ Guide elaboration of awareness raising campaign



Assessment of new technologies for the monitoring of macro-litter

The CleanAtlantic project has carried out several exercises to test the effectiveness of different technologies on the monitoring and evaluation of accumulation of marine litter on Atlantic coasts.

- ▶ A CleanAtlantic [study](#) assessed traditional direct sampling and the use of modern technologies (drones and high-frequency radars) on Galicia coastline, welcoming a mix used between direct and indirect sampling for the most complete and successful results.
- ▶ In addition, CleanAtlantic project also tested [the use of Remote Operated Vehicles \(ROVs\)](#) in Vigo area to detect marine litter, assessing the constraints and improvements and providing recommendations to reach full capacity of this technology.

 In its [Regional Spatial and Economy Strategy 2020-2032](#), **Northern and Western Regional Assembly (NWRA)** identified a set of priorities to boost a smart transition for the region. NWRA notably underlined best practice of the **Highland Council** in Scotland which deployed several projects on the use of data and technology to enhance the Region’s environmental sustainability, its economic development, and the well-being of its citizens. The Region has a specific regional policy to encourage policies that promote effective resource management through the application of new technologies, data and environmental management. Potential for synergies with other regional policy objectives related to water conservation and protection of resources may be explored.

Interests for Regions:

- ▶ Improve waste monitoring and data collection
- ▶ Support funding of adequate technologies depending on the specificities of the coasts
- ▶ Elaborate marine litter policies according to the data collected



Collaboration with coastguards and the fishing sector on Marine Litter Retrieval

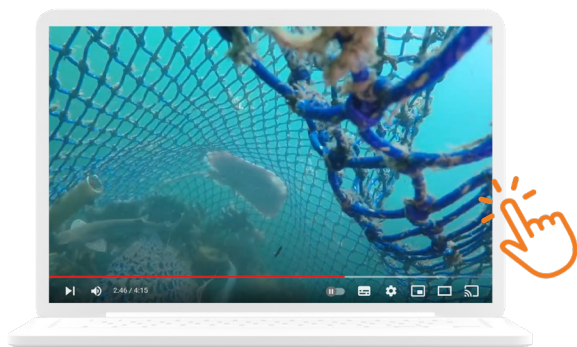
In 2019, the project implemented a [pilot action](#) to investigate the presence of seafloor litter in the Ria de Vigo by using a modified trawling fishing gear specifically developed to retrieve seafloor litter while avoiding the capture of marine organisms. A selective demersal trawl fishing gear was specifically designed and developed by a Galician fishing net manufacturer company. This system was also supported by a low-cost filming system coupled to the gear to record the entrance of residues and the escape of fish species.

In order to test the pilot, CleanAtlantic performed a collaboration with the Galicia's Coast Guard Service, dependent of the Galician Ministry of the Sea, which is in charge of maritime surveillance, search, rescue and protection operations in Galician waters. The adapted trawling fishing gear was installed in the vessel with the technical support of staff members of the net manufacturer company.

This technology has proven to be very useful in onboard trials to monitor fishing gear performance and study the net selectivity and behaviour of the target species. This pilot action demonstrated a satisfactory performance and enabled to provide significant information about litter amount and main typologies. The most abundant type of litter was plastics (predominance of plastic bags).

Interests for Regions:

- ▶ Mobilise regional actors for a trans-sectorial cooperation and dialogues
- ▶ Test and develop low-cost and environmental-friendly retrieval solutions
- ▶ Collect more data on the regional state of marine litter
- ▶ Promote adapted legislations to the most abundant items identified



 The **Xunta de Galicia** developed the “Plan Marlimpo” to protect biodiversity and marine ecosystems. The plan is implemented since 2020 by launching annual calls for EMFF funded projects to be developed by fishing guilds and fishermen organizations that carry out “Fishing for Litter” and awareness raising actions in the frame of those projects.

 Created by the **Norte Region (CCDR-NORTE)** early 2022 following the creation of the CPMR Atlantic Arc Commission Working Group on Ocean Pollution, the Regional Group of Experts is an informal network of entities, both public and private, carrying out different activities on issues related to the marine environment such as the prevention and control of ocean pollution,

the management of marine litter and the fight against microplastic contaminants, among others. There are eight entities that are currently part of this group, namely: CiiMAR – Interdisciplinary Centre for Marine and Environmental Research; CEiiA – Engineering and Development Centre; CeNTI – Centre for Nanotechnology and Technical, Functional and Intelligent Materials; CITEVE – Technological Centre for Textile and Clothing Industries of Portugal; Faculty of Engineering of the University of Porto; INL – International Iberian Nanotechnology Laboratory; LIPOR - Association of Municipalities for the Waste Sustainable Management of Greater Porto; and PIEP – Pole of Innovation in Polymer Engineering. The representative of the **Norte Region** in the “Portuguese Pact for Plastics” also provides technical assistance. This group favours a participatory methodology involving all stakeholders, whether from the public, private or social sector, as well as an interdisciplinary perspective to achieve concrete results. The group notably contributed to the draft of the CleanAtlantic pledge and reflections on the future of the CleanAtlantic project. The example of CleanAtlantic collaboration with coast guards and fishermen could inspire future actions of the group.




Monitoring floating micro-litter in offshore waters by manta-trawl

In collaboration with [iFADO project](#), CleanAtlantic has performed a [sampling campaign](#) in the Galician offshore waters by means of a manta-trawl net for micro-litter categorisation. This process was aimed to contribute to a better characterization of surface micro-litter and microplastics distribution in the Atlantic area and to the identification of gaps and needs on sampling protocols and procedures for detection and identification. Conclusions called for stricter control of environmental contamination and improved detection methods for synthetic and natural item discrimination for better monitoring effectiveness. Manta-trawl was proved to be a feasible tool for surface and subsurface meso and micro-litter collection.

Interests for Regions:

- ▶ Support research to better prevent and remove micro-plastic
- ▶ Facilitate interregional cooperation of research centres towards harmonisation of protocols and methods

 In **Galicia**, the Technological Institute for the Control of the Marine Environment ([INTECMAR](#)), also tackles microplastic challenges and is a full partner of CleanAtlantic project. INTECMAR is a public agency of the Region connected to the Regional Councilor of the Sea.

 In **Norte Region**, the Interdisciplinary Centre for Marine and Environmental Research ([CiiMAR](#)) also has dedicated activities on microplastic research with regards to ecotoxicology, stress ecology and environmental and emerging pollutants researcher groups.





MOHID Lagrangian tool: Water modelling system

The [MOHID Lagrangian tool](#) is a tracer model tracking the movement of macroplastics, providing notably sources, sinks or particle types. The tracer model has been [successfully tested](#) on a regional scale in the Ría de Arousa in the North-West of Spain. An environmental policy support study is being developed to identify the most appropriate public policies for the economic sectors affected by marine litter.

Interest for regional actions:

- ▶ Set an ambitious landfill waste reduction as a planning target for the region
- ▶ Fight against illegal dumping
- ▶ Build up strategies with regional stakeholders

 **Bretagne Region** has set in its regional waste prevention and management plan (PRPGD) a regional scheme for the circular economy with the objective to reduce landfill to zero by 2030 and recover all Breton waste by 2040.


 **Nouvelle-Aquitaine Region** implements a roadmap on energy and ecological transition, [Néo Terra](#), which lays 11 ambitions accompanied by quantified commitments and concrete actions, one of which on the preservation of water resources. In this context, one challenge is to combat chemical pollution and industrial discharges, present in 2/3 of the region's waterways. The objective is to restore the good status of the shores by 2027.

Analysis of impact of cigarette butts as vectors of metals in the marine environment

Contributing to the action 48 of the [OSPAR Regional Action Plan 2014-2020](#), CleanAtlantic streamlined a particular focus on cigarette butts impact on marine environment along the project. In [this study](#), effects on marine ecosystems have been analysed, including toxicological risks, in particular via the release of metals into the ecosystem.

Interest for regional actions:

- ▶ Support bans on certain items
- ▶ Partner with regional initiatives on circular economy
- ▶ Guide elaboration of awareness raising campaign

 As cigarette butts are the most found items on the beach, **Spanish Autonomous Regions** such as the **País Vasco, Galicia, Asturias** or **Andalucía** have banned smoking on their beaches as part of the [Playas Sin Humo](#) campaign.

 **Bretagne Region** is a partner of [MÉGO!](#), a circular economy company based in the region which provides innovative solutions from the collection to recycling of cigarette butts. The initiative was born from the association "[Terres Océanes](#)" that organises beach clean-up actions in the region.



Review of Economic impacts of macro marine litter and policy recommendations

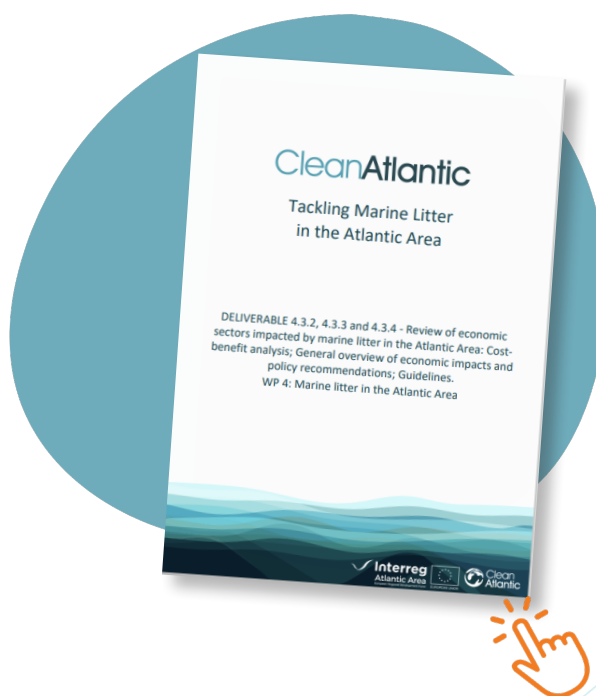
This [review](#) reports on the different impacts of marine litter on different economic sectors, especially tourism, fisheries, aquaculture, and shipping. The notion of “Willingness to Pay” for litter washed on land is developed to identify whether a tax policy on plastic is efficient and accepted by citizens. It is complemented by a [report on cost-benefit analyses](#) building on the results of the case study area investigations in the Atlantic area, providing some recommendations on how to design the needed marine litter policies for tourism, fisheries and Aquaculture sectors. In **Madeira**, a [case study](#) has been conducted on marine litter and aquaculture activities, revealing a lack of data and knowledge on the amount of litter produced and possible leaks of waste management practices.

Interests for Regions:

- ▶ Helps assessing the impact of regional policies on economic sectors
- ▶ Guide the elaboration of strategies with regional stakeholders
- ▶ Design tax on plastic
- ▶ Help the design of calls to encourage actions in the related sectors

 Some Regions have fiscal power over environmental protection and may decide to apply taxes at their own level. The **Region of Andalucía** has implemented a tax on single-used plastic bags since 2011. In **Spain’s Autonomous Regions**, retailers are required to charge consumers for plastic cups and fast-food containers since 2023.

 **Bretagne Region** launched a regional call to support Seafood and fresh fish marketing and processing companies in Brittany and Managers of Breton fish markets sector to limit waste production and support them in their green transition. The call is open until August 2025.



Analysis on the impacts of micro-litter on ecosystems

CleanAtlantic produced different studies on the impact of microplastics pollution on ecosystem health, specifically in the North-East Atlantic Ocean. Recommendations are made to develop a harmonisation of methods and increase microplastics studies.

- ▶ [Microplastics Pollution and Regulation | SpringerLink](#)
- ▶ [Microplastics in the Bay of Biscay: An overview - ScienceDirect](#)
- ▶ [You Are What You Eat, Microplastics in Porbeagle Sharks From the North East Atlantic: Method Development and Analysis in Spiral Valve Content and Tissue](#)
- ▶ [Towards a protocol for the observation of microplastics in Biota](#)


Interest for regional actions:

- ▶ Engage political actions to ban microplastic use
- ▶ Raise awareness and support change of consumptions
- ▶ Support research on the impact of microplastics



 The UK have banned microbeads from cosmetics (microplastics used for their scrubbing or exfoliating) [since the beginning of 2018](#) and from all products (except for cosmetics such as lipsticks or sun-creams) [by mid-2018](#) in England, Wales, Northern-Ireland and Scotland.

 In the face of growing microbeads pollution on the beaches, **Bretagne** and **Pays de la Loire Regions** announced filing a legal complaint in the name of the region early 2023. **Bretagne** proposed technical support to fight against this type of pollution.

 Considering that many microplastics end up in the ocean through synthetic textiles during washing, public authorities can encourage inhabitants to use washing machines equipped with microplastic recovery filters. France, for example, plans to require manufacturers to install these filters in washing machines by 2025.

 Chairing the CPMR Atlantic Arc Commission Ocean Pollution Working Group, **Norte Region** expressed firm ambition to promote Atlantic interregional cooperation on the challenge of textile fibers with the support of CiiMAR and the INL - International Iberian Nanotechnology Laboratory, and CITEVE, a technological institute acting in the textile and clothing business. The Region actively supported the creation of the [RegioGreenTex](#) project (i3 instrument), a quadruple-helix partnership initiative aiming at mapping and reducing the difficulties which currently exist in the implementation of a circular economy model within the textile ecosystem across the EU.

The CleanAtlantic Knowledge Tool and the Initiatives Database


The [CleanAtlantic Knowledge Tool](#) compiles past and ongoing R&D projects, resources, and public/private organizations dealing with marine litter at the national, European, and international levels, with a special focus on the Atlantic area. This tool is a participatory process with full open access and the possibility to include new resources opened to any visitor of the platform.

The Knowledge Tool is complemented by [the Initiatives Database](#), an inventory of initiatives, measures, and actions to reduce the presence of marine litter in the Atlantic Area.

Interests for Regions:

- ▶ Transfer best practices to fight against marine litter
- ▶ Facilitate Atlantic cooperation
- ▶ Promote existing regional operations

 The [CAPonLITTER](#) project aimed at improving regional policies and practices that can help in preventing marine litter that results from coastal tourism and recreational activities. Among the partners, the **Portuguese** Environment Agency (APA), ECOAQUA University Institute from the University of Las Palmas (**Canary Islands**) participated in an interregional process of exchange of experiences and mutual learning.

 The [LIFE LEMA](#) project, led by the Diputacion de Gipzkuoa (**Euskadi**), defines a management service for local authorities to select sustainable approaches for tackling the problem of floating marine litter (FML) before it arrives at shore areas with difficult access. The pilots were set in the Bay of Biscay in France and Spain, and replicability was assessed in Marseille and Bilbao areas.

 The [OceanWise](#) project, led by the DGRM in Portugal, developed a set of longterm measures to reduce the impact of expanded polystyrene products (EPS) in the North-East Atlantic Ocean. 13 partners including national governmental agencies responsible for marine environment, waste management and recycling partners to respond to this challenge within circular economy principles.

 **Euroregions** may also facilitate cooperation on marine litter challenges. In the case of the Euroregion bringing together **Nouvelle-Aquitaine, País Vasco** and **Navarra**, call for proposals are launched annually, with previous projects contributing to Marine and Littoral Resources. The **Galicia-Norte** Euroregion developed a joint [cross-border observatory](#), gathering data on several shared challenges including Environment and Waste information.




Web and mobile Applications: The Floating Litter Reporter, Marine litter LOC-app, & Seafloor litter app

The [Floating Litter Reporter](#) was specifically designed to encourage citizen communities to make available relevant data while generating more consciousness at the local level on marine litter. Floating Litter Reporter was designed to support data collection events on boating and sailing trips at sea. During these trips, groups and individuals establish clean-up or monitoring events and take surveys with the mobile app to report on litter items found.

The [Marine Litter LOC-app](#) facilitates and homogenises data collection of marine litter piled-up areas along the coast. The application allows users to geolocalise zones of accumulations adding characteristics and dimensions. It has particularly been designed to support monitoring sessions, with a system of assignment of sectors by administrators.

The [Seafloor Litter App](#) has been designed to support the work of scientists to facilitate and streamline data entries thanks to digitisation.

 **Nouvelle-Aquitaine** is a partner of the “I Clean My Sea” application, which also supports plastics data collection. The Region granted a financial aid for the creation of new activities which enabled the deployment of a pilot site (detection and collection) on the Adour in 2020. Previously in 2018, the initiative received an incubator grant from the Basque Country agglomeration community.



Interest for regional actions:

- ▶ Compile more up-to-date data on the state of marine litter
- ▶ Boost citizens and maritime stakeholders' engagement on marine litter
- ▶ Develop tailor-made policy and initiatives to respond to marine litter accumulation




Actions towards Abandoned, Lost and Discarded Fishing Gear (ALDFG)


The abandoned, lost or otherwise discarded fishing gear (ALDFG) represent any fishing gear that remains at sea, either deliberately, or beyond control of the owner/operator and may constitute a hazard to marine environment. In order to contribute to the fight against ALDFG, CleanAtlantic developed:

- ▶ [Reducing ALDFG case study](#), which has been conducted to show a best practice example of how ALDFG can be removed by a volunteer organization (Fathoms Frees) while raising awareness. Recommendations for operational protocols, equipment, and data management as well as costs and results for the implementation of removal ALDFG activities have been produced.
- ▶ A pilot action developed in collaboration with the Atlantic Islands of Galicia National Park and with a professional team of scientific diving, to retrieve ALDFG in the Cíes Islands. The process was documented with the production of [a video](#) that is being used as awareness raising material.
- ▶ [A Pilot Study in Madeira](#), which assessed the flow of materials from fishing gear to frame and guide policies of the **Autonomous Region of Madeira**. The pilot supported quantification, typology, origins and destinations of fishing gears.
- ▶ [The Booklet on ALDFG](#), which compiles more than 60 initiatives, resources and organisations which tackled ALDFG challenges.

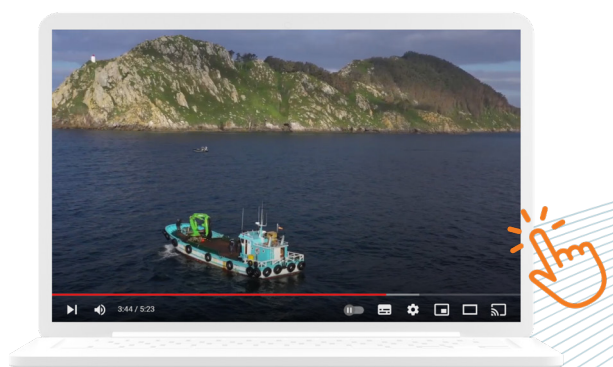
Interests for Regions:

- ▶ Design legislations for ALDFG prevention, registration and measurement, and recovery
- ▶ Perform regional pilot studies
- ▶ Foster cooperation and international projects on fishing-gear challenges
- ▶ Support fishing gear revalorisation initiatives

 Early 2023, **Açores** approved [a legislation](#) to guarantee the implementation of a mechanism for the delivery and recovery of end-of-life fishing gear and marine litter collection. Creation of incentives on fishing gear and locators on fishing nets will be facilitated to support further tracking.

 **Bretagne Region** is a partner of [Fil&Fab](#), a regional start-up which recycles old fishing gear into multi-use polyamide. The Region provided financial and technical support.

 **Normandie Region** co-funded the [FIRENOR](#) project aiming to set up local recycling initiatives for used fishing gear in Normandy. The project receives support from Fil&Fab, working on expansion in the region.



Guidance for beach clean-ups

The CleanAtlantic project encourages the development of beach clean-ups, and provided assistance via the production of:

- ▶ An [operational guide](#) covering routing beach macro-litter collection in order to provide knowledge and step-by-step guidance to organise effective beach clean-up operations.
- ▶ [Survey and report on the identification of litter accumulation sites and clean-up techniques on the French Coastline](#), which presents a mapping and characterization of main litter accumulation areas and a revision of clean-up operations and good practices.

Interest for Regions:

- ▶ Develop beach clean-up operations
- ▶ Boost citizens' engagement and awareness
- ▶ Extract data from clean-up operations and identify most appropriate policy measures
- ▶ Mobilise regional stakeholders with joint strategies and eco-Charter

 The « Zéro Déchets – Zéro Gaspillage – Territoire économe en ressources » charter in **Bretagne Region** aims at reducing coastal litter. In France, an [eco-exemplary charter](#) for beach without waste has been signed between coastal authorities.

 In **Nouvelle-Aquitaine**, the regional strategy “Gestion intégrée de la bande côtière” (integrated management of the coastal strip) aims to develop integrated coastal zone management at regional level. It is the result of a shared reflection between the French state and the coastal Aquitaine communities. In 2023, the Region also launched its “[Zero Plastic Pollution Plan](#)” aiming for: zero single-use plastic with the development of alternative materials or solutions to plastics; zero plastic in landfills by developing recycling; zero plastic in the environment in order to prevent leaks into nature. The plan has been co-design with around sixty regional stakeholders from various sectors.

▶ In the regional strategy “[Ambition Maritime](#)” 2020-2022, **Pays de la Loire Region** shared its ambition to create a partnership with the non-governmental organisation Surfrider Foundation in order to support beach clean ups on the region's coasts.



Educational tools


In order to contribute to prevention efforts, CleanAtlantic performed awareness activities and produced several educational tools:

- ▶ The [Cluedo Butt Game](#), a printable awareness raising game on cigarette butts pollution. Participants learn from different types of cigarettes butts and on their impact on the environment throughout a fictional investigation.
- ▶ The [Marine Litter Interactive Educational Stand](#), with a game to guess time of decomposition for certain single-used plastics in the marine environment. The game is initially addressed to primary school children but is also relevant to the general public.
- ▶ The [CleanAtlantic Factsheets package](#), among them one showing the top-ten single-use plastics items found on European beaches. They are available in the four Atlantic languages and Galician.
- ▶ Educational resources on proposals to raise awareness of the problem of marine litter ([level I](#) and [level II](#)). It includes information on the origin of litter, degradation time, possible solutions and also several links to other interesting resources on the subject. In addition, activities are proposed that require few facilities, including a trip to the beach to categorise marine litter. The document is aimed at primary and secondary school students but can be adapted to a wide range of ages and circumstances. Although this one is only available in Spanish for now, Another Education Pack has been performed in English (level I, level II)
- ▶ In addition, teachers and students carried out marine litter removal actions in the framework of a [Pilot action](#) aiming to implement a fishing for litter scheme with the engagement of artisanal fleets and shellfish gatherers operating in the Ría de Arousa (Galicia).

Interest for regions:

- ▶ Provide additional material to schools on marine litter awareness
- ▶ Support the organisation of awareness activities
- ▶ Participate in the development of youth environmental engagement

 **Bretagne Region** is a partner of the initiative Classes de Mer Bretagne, a network of professionals of the sea from Brittany who provides series of educational activities to raise awareness on the protection of the Atlantic Ocean and biodiversity to children. In the context of the “Education to Sustainable Development” initiative of the French Government, Brittany also made a strong focus on marine education, with the creation of a “Regional marine education area”.

 As part of regional educational pact on “actors in the ecological and energy transition”, **Pays de la Loire** proposed a special focus on the sea and coastline with the discovery of marine energy, coastal biodiversity, and waste at sea starting in 2018-9 school year.

 **Asturias Region** developed COGERSA, a network of around 200 schools for recycling. It offers a space for training, environmental awareness, and exchange of educational experiences on good waste management.

 Portugal has been the first country to develop and implement Blue Schools, the Escola Azul, to improve the level of Ocean Literacy in schools. The Portuguese Agency for Environment also developed the Blue Flag Programme (Programa Bandeira Azul), an education programme aiming to increase the awareness on users of coastal, lake and river environment, promote training for professionals and tourism service providers; encourage the participation of local agents in the management of coastal, lake or river areas and promotes the sustainable use of the area for recreation and tourism.

Is your Region interested?

More information on the CleanAtlantic website

www.cleanatlantic.eu 

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Associated Partners



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