



ADVANCING TOWARDS LITTER - FREE
ATLANTIC COASTAL COMMUNITIES
BY PREVENTING AND REDUCING
MACRO AND MICRO LITTER

Workshop 'How to Improve the Management of End-of-Life Fishing Gear and Passively Fished Waste (PFW) / Fishing for Litter'

(6 May 2026)

WP1: Prevention through Improved Waste Management and Recycling
Activity 1.1.4 - Harmonisation of practices related to the provision and use of port
reception facilities for ship-generated waste collection, through the analysis of the
main outcomes and the transfer of the results of the Work Package (WP) to key
stakeholders in the participating regions

Interreg
Atlantic Area



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1. INTRODUCTION

On 6 May 2026, a regional workshop was held at CETMAR facilities as part of Work Package 1 (WP1) of the Free LitterAT project (Interreg Atlantic Area), entitled “How to Improve the Management of End-of-Life Fishing Gear and Passively Fished Waste (PFW) / Fishing for Litter”

The event was conceived as a platform for dialogue and collaborative work among the key stakeholders involved in the management of passively collected marine litter and end-of-life fishing gear. Its main objective was to facilitate the exchange of experiences, identify common challenges, and explore potential solutions aimed at improving the sustainability and efficiency of these management processes.

The workshop took place in a context marked by growing institutional and sectoral interest in waste reduction, the promotion of the circular economy, and the development of more sustainable management models within the fisheries and port sectors. In this regard, the Free LitterAT project seeks to contribute to improving the management of inorganic waste generated by fishing activities and the passive collection of marine litter, fostering cooperation among stakeholders and the exchange of good practices across the Atlantic Area.

The event brought together representatives from a wide range of sectors and professional backgrounds, encouraging a multidisciplinary perspective on the issue and highlighting the need to continue strengthening coordination and collaboration mechanisms among all stakeholders involved.

2. OBJECTIVES OF THE WORKSHOP

The main objective of the workshop was to provide a participatory platform for dialogue and exchange among the various stakeholders involved in the management of waste generated by fishing activities, with particular focus on waste passively collected through Fishing-for-Litter initiatives and end-of-life fishing gear.

More specifically, the workshop aimed to identify the main operational, logistical, technical, and economic challenges associated with the collection, storage, management, and valorisation of these waste streams, while also facilitating the sharing of experiences and approaches developed in different territorial contexts. The event further sought to promote knowledge exchange among the fishing sector, port authorities, waste management operators, technology providers, manufacturers, and other relevant stakeholders, with the objective of identifying opportunities for improvement and potential future lines of action.

The workshop also provided an opportunity to gather input and identify the needs of the various stakeholders involved, reinforcing the collaborative approach promoted by the Free LitterAT project and contributing to the development of future actions aimed at fostering more sustainable and efficient waste management models across the Atlantic Area.



3. WORKSHOP OVERVIEW

3.1. Date and venue

Event name	'How to Improve the Management of End-of-Life Fishing Gear and Passively Fished Waste (PFW) / Fishing for Litter'
Event type	Workshop
Organiser	CETMAR
Location	Vigo (Spain)
Date	06/May/2026
Free LitterAT presentation	
Speakers	María Luisa Fernández Cañamero M ^a Eugenia Villaverde de Súa
Free LitterAT attendees	Luis Gómez Gesteira

3.2. Organising Entities

The workshop was organised by CETMAR within the framework of the Free LitterAT project, an initiative funded through the Interreg Atlantic Area Programme and focused on improving the management of inorganic waste and end-of-life fishing gear through collaborative approaches and circular economy-oriented solutions.

3.3. Participants and Stakeholders

The workshop brought together representatives from port authorities, waste management and recycling companies, net makers and repairers, NGOs, technology centres and platforms (CTAG, PROTECMA, MATERPLAT and PTEPA), social inclusion organisations, representatives of other projects related to the topic, fishing gear manufacturers and suppliers, fishing gear repairers, and representatives of the fishing fleet.

The diversity of participant profiles enabled the issue to be addressed from multiple perspectives, enriching the discussions and facilitating the exchange of experiences, knowledge, and needs among stakeholders with different roles across the waste management and valorisation chain.

A detailed list of participants and attending organisations is provided in Annex 2 of this report.



4. WORKSHOP SESSIONS AND MAIN DISCUSSION TOPICS

4.1. Introduction to the Free LitterAT Project

The event opened with an overview of the Free LitterAT project presented by CETMAR, outlining the project's main objectives, activities, and work streams. Particular emphasis was placed on the actions developed under Work Package 1 (WP1), which focuses on improving waste management and recycling practices and supporting the implementation of the Port Reception Facilities (PRF) Directive on port reception facilities for the delivery of waste from ships, as well as the Single-Use Plastics (SUP) Directive on the reduction of the impact of certain plastic products on the environment.

An introduction to the workshop methodology and the specific objectives of the participatory session was also provided, highlighting the importance of fostering dialogue and cooperation among the various stakeholders involved in the management of waste generated by fishing activities.

4.2. International Perspectives: Ireland and France

Representatives from the University of South Brittany (France) and the Irish NGO An Taisce, both partners in the Free LitterAT project, also took part in the event. They provided an overview of the current situation in their respective countries regarding the management of end-of-life fishing gear and passively fished waste.

The presentations highlighted the main challenges and constraints faced in each national context, as well as the approaches and experiences developed to improve the collection and management of these waste streams. The contributions underscored the existence of common issues across different territories and emphasised the importance of continuing to promote the international exchange of experiences, knowledge, and good practices.

4.3. Discussion Session: Passively Fished Waste (Fishing for Litter)

Following the introductory presentations, a participatory discussion session was held focusing on the collection and management of passively fished waste recovered through Fishing for Litter activities. Discussions addressed issues related to the collection and storage of waste on board fishing vessels, the logistical requirements at port level, and container management, as well as the challenges associated with the quantification and characterisation of collected waste and its potential treatment or valorisation.

Participants exchanged experiences regarding existing management systems and discussed the practical opportunities for valorising waste collected through Fishing for Litter initiatives. Particular emphasis was placed on the need to facilitate and simplify collection and unloading procedures in order to minimise the additional workload placed on fishers. The importance of maintaining stakeholder engagement through



continuous awareness-raising and training activities, recognition schemes, and non-financial incentives was also highlighted.

The discussion further underlined the need to extend these initiatives to all users and stakeholders operating within the port environment, promoting good waste management practices and encouraging greater shared responsibility in the use of dedicated waste reception facilities and containers.

Participants also stressed the importance of ensuring proportionality and efficiency in relation to waste collection and segregation requirements and the resources available. In this regard, several contributors noted that the primary objective should be to ensure the effective removal of waste from the marine environment. The sorting of conventional waste could then be undertaken at port level, while the specific segregation of unintentionally collected waste should be considered at a later stage and only where operationally feasible.

4.4. Discussion Session: Management of End-of-Life Fishing Gear

The second part of the discussion focused on the management of end-of-life fishing nets and fishing gear. Topics addressed during the session included collection and storage practices in ports, opportunities for repair and reuse, pre-treatment requirements to facilitate subsequent management processes, and the current recycling and valorisation options available for these materials.

Participants highlighted the challenges associated with recycling fishing gear due to the presence of embedded organic matter and the combination of different materials and polymers within a single product. These factors significantly increase both the technical complexity and the operational costs involved in their treatment. The discussion also addressed the current economic constraints affecting the establishment of viable and sustainable value chains for this type of waste stream.

Particular attention was given to the need for continued innovation in the design, collection, treatment, and recycling of fishing gear, as well as to the importance of strengthening cooperation among manufacturers, the fishing sector, waste managers, technology providers, and public authorities to improve circularity and maximise resource recovery opportunities.

5. MAIN CONCLUSIONS

5.1. Onboard Collection and Waste Management

The importance of simplifying procedures associated with the collection and management of waste derived from Fishing-for-Litter activities was highlighted, with the aim of minimising the operational and administrative burden that these activities place on crews, and of providing appropriate collection systems (big bags, bags, etc.) adapted to the size and activity of each vessel.

It was noted that adequate segregation of these wastes is not always achieved, as they are sometimes mixed with waste generated on board. This can introduce inaccuracies



in subsequent quantification and characterisation processes, as well as in the data reported as originating from Fishing-for-Litter activities. However, some participants questioned the relevance of strict segregation, assuming that in practice both waste streams are ultimately mixed during subsequent stages of management.

The need for continuous training and awareness-raising activities aimed at fishing crews and professionals in the sector was also emphasised, as well as for all users connected to the port environment. These actions should promote greater awareness of proper waste management practices and the correct use of available port reception facilities.

Particular emphasis was placed on the challenges associated with maintaining and strengthening fishers’ engagement. Preference was given to mechanisms and incentives based on public recognition of their environmental contribution and their role in protecting the marine environment, rather than economic incentives. This preference was justified by, among other factors, the complexity of managing and monitoring financial incentive schemes and the difficulties involved in establishing robust measurement and control systems at port level.

Finally, the importance of having agile and efficient port waste management systems was underlined, in order to facilitate the delivery and proper handling of waste collected during fishing activities.

5.2. Port Logistics and Waste Management

Port representatives agreed that logistics, available resources, and the equipment required for the management of these waste streams vary significantly between ports depending on their size and main activity. Infrastructure and operational capacity in large ports facilitate the efficient implementation of these processes. However, they represent a major challenge in small ports, where waste segregation and data collection can entail considerable logistical difficulties and an additional workload.

In this regard, it was highlighted that implementing a single, standardised management model is not feasible, and that solutions need to be adapted to the specific characteristics of each port facility, prioritising those actions that deliver meaningful environmental or operational improvements.

While the importance and necessity of waste characterisation were acknowledged (at least at the minimum level required by legislation), participants pointed out the difficulties in achieving accurate quantification, whether at port facilities or at treatment plants. Some also stressed the practical limitations associated with waste quantification and characterisation processes, noting that although certain reporting and data collection requirements may be theoretically feasible, operational realities at port level make it extremely difficult to obtain precise and reliable data due to the constant mixing of waste in containers and existing limitations in monitoring and control systems.

In this context, it was noted that the implementation of more comprehensive segregation and control systems would require dedicated facilities, enclosed spaces, and additional resources, the feasibility of which is limited in many ports, particularly smaller ones.



Ultimately, it was emphasised that the key priority is to ensure the removal of waste from the marine environment, prevent its return to the sea, and understand overall trends. The importance of having a coordinating role within ports was also highlighted, in order to facilitate and oversee the proper management of both waste streams and support segregation and characterisation processes. While this is commonly ensured within project-based activities, its integration into routine operational management remains challenging and would require additional funding and consolidated management structures.

5.3. Management and Valorisation of Passively Fished Waste

With regard to the potential valorisation of waste derived from Fishing-for-Litter activities, participants highlighted the value and interest of initiatives implemented within the framework of various collaborative projects, which have used plastic fractions extracted from collected waste to develop a range of products. However, it was emphasised that these initiatives were based on idealised waste streams, which differ significantly from the characteristics of real-world waste typically collected. In this context, it was noted that, under current conditions, establishing a viable value chain does not appear feasible from an economic perspective, which largely limits treatment options to energy recovery.

It was also highlighted that the feasibility of recycling and valorising certain plastic fractions is strongly influenced by market dynamics, particularly the fluctuation in prices of virgin raw materials derived from oil. These fluctuations directly affect the competitiveness of recycled materials, thereby constraining the development of stable and sustainable recycling markets for these waste streams.

5.4. Management and Valorisation of End-of-Life Fishing Gear and Net Waste

Regarding the collection of end-of-life fishing nets, it was noted that a significant proportion of fishing gear with economic value is directly managed by vessel owners, associations, or other private stakeholders. As a result, the materials ultimately abandoned or stored in ports represent only a small fraction of the total volume of discarded nets.

With respect to recovery and recycling, participants highlighted the challenges associated with these processes, particularly due to the presence of embedded organic matter and the combination of different materials and polymers within their composition. These factors significantly hinder separation and recycling processes and substantially increase operational costs. Potential areas for improvement were identified, such as the removal of PET combined with polyamide in gillnets and, more broadly, the promotion of fishing gear eco-design, taking into account the entire life cycle of the products.

Manufacturers and other industry stakeholders also noted ongoing efforts to increase the share of recycled materials in new products in order to comply with current regulations related to the circular economy and the use of sustainable materials. However, they stressed that, depending on fluctuations in fossil fuel markets, the cost



of recycled materials and their processing can often exceed that of virgin raw materials, representing a significant economic challenge for the sector. It was also pointed out that certain recycling and treatment processes may involve high energy consumption and environmental impacts, highlighting the need to assess each solution from a holistic sustainability perspective and through life cycle analysis.

The CTAG technology centre presented various initiatives related to the incorporation of recycled materials in industrial applications, highlighting the role of innovation as a key driver in the transition towards circular economy models.

Representatives from the net makers (*redeiras*) sector highlighted changes in the materials used in fishing gear over recent years, noting an increased presence of plastic components and reduced durability of certain materials. They also pointed out that this evolution limits opportunities for reuse and repair and complicates the proper management of waste materials, particularly in cases where collection by waste managers or recyclers depends on market conditions. In addition, they emphasised their role within port dynamics and highlighted the need to improve certain practices related to waste disposal and management in port environments.

5.5. General Conclusions

Participating organisations highlighted the positive progress observed in recent years regarding marine waste management practices, largely as a result of the numerous collaborative projects developed around Fishing-for-Litter initiatives and waste valorisation.

It was also emphasised that continued efforts are needed to promote spaces for dialogue, cooperation, and exchange of experiences among stakeholders from different sectors and territories, reinforcing the role of initiatives such as Free LitterAT in facilitating the development of shared solutions and coordinated approaches.

Across all contributions, participants agreed on the need to further advance towards more coordinated, sustainable management models adapted to the specific characteristics of each territory and port. The availability of stable funding was identified as a key element to ensure the continuity and sustainability of these processes beyond isolated initiatives or pilot projects.

Furthermore, the importance of strengthening collaboration among all stakeholders was underlined, along with the need to promote awareness-raising and training activities aimed at the fishing sector, and to continue exploring innovative solutions that foster the circular economy and improve the management of marine litter and end-of-life fishing gear.

Participants also agreed on the need to adopt integrated approaches that consider not only the technical and economic feasibility of proposed solutions, but also their overall environmental impact and long-term sustainability.



ANNEX 1: WORKSHOP AGENDA





ANNEX 2: LIST OF PARTICIPANTES

SURNAME	NAME	ORGANISATION
Calviño Campelo	Benito H.	AP Marín
Del Río Abal	Jose Manuel	Galicimplas
España Vidal	Xoan	AMICOS
Fajardo Piñeiro	Juan J.	JJ Chicolino
Fernández González	Cristina	FUNDAMAR
Fernández Cañamero	M ^a Luisa	CETMAR
Gómez Gesteira	Luís	CETMAR
González González	M ^a Jesús	Galician Federation of Net Makers (Redeiras)
Jaraiz Gulias	Alberto	AP Vigo
Ledo Bañobre	Raquel	CTAG
Mena Rodríguez	Anxo	CETMAR
Miranda Germade	David	Galicimplas
Pérez Gómez	Juan Pablo	ARVI
Rodríguez	Juan	Couceiro
Rodríguez Alonso	Rubén	Vertidos Cero
Rodríguez Pardo	Juan Antonio	Portos de Galicia
Romera Gutiérrez	Martín	Port cleaning services consultancy
Santomé Piñeiro	Rosalía	AP Marín
Ulloa Meijide	María	CTAG
Villaverde de Saa	M ^a Eugenia	CETMAR



ANNEX 3: PHOTOGRAPHS OF THE WORKSHOP

