

LITTER MANAGEMENT PLANS AND FACILITIES AT PORTS

An assessment of challenges and recommendations for marine waste management in European fishing ports.

CONTEXT

“NETTAG⁺ aims to empower the fisheries sector to take effective actions to address marine pollution, promoting their role as key actors to tackle marine pollution”

Fishing port reception facilities (PRFs) are central to preventing marine litter pollution and supporting both sustainable fisheries and circular economy transitions. However, in many European regions PRF infrastructure to manage fishing-related waste is deficient, incentivising illegal disposal and further complicating efforts to monitor and manage marine waste.

NETTAG⁺ aims to provide a portfolio of three innovative smart and sustainable solutions to address the negative impacts of abandoned, lost or otherwise discarded fishing gear (ALDFG) on marine life and habitats. NETTAG⁺ is based on synergistic activities between the fisheries industry, scientists and NGOs to develop three solutions to PREVENT, AVOID and MITIGATE the harmful impacts of ALDFG.

Pertaining to the PREVENT solution, this research aimed to:

1. understand the legal framework governing port reception facilities (PRFs) and waste management in European ports and
2. gather the perceptions, experiences and practices of those responsible for the reception and treatment of waste delivered to ports by fishers.

Our assessment examined fishing litter management in ports across Croatia, Italy, Malta, Portugal and Spain, focusing on fisheries waste management policies, practices, infrastructure, and the economic and social implications of these systems. We also investigated key obstacles and the capacity and willingness of port authorities to enhance management, including recycling and circular economy activities.

In this policy brief, we identify key challenges, and policy recommendations for waste management in European fishing ports.

Challenges

Our analysis identified several key categories of challenges encountered by port authorities when managing the collection of fisheries-related marine litter and fishing gear, many of which were common in different locations. This highlights the complexity of marine litter management in ports and the need for comprehensive, tailored solutions that address both logistical and economic concerns.



Lack of clear regulation and harmonization

- Unclear division of responsibilities between ministries and stakeholders
- Policies not targeted to fishing vessels or aligned with MARPOL
- Inconsistent implementation of EU regulations across ports



Financial constraints

- Long-term funding mechanisms required to manage marine waste, especially end-of-life fishing gear;
- Costs outweigh the economic value of recovered materials



Lack of ownership and responsibility

- Uncertainty about who bears the costs of managing PRFs



Inadequate capacity in ports

- Ports lack infrastructure, facilities and human resources to effectively collect, sort and manage waste



Inadequate waste separation, handling and recycling

- Ports struggle to manage different types of waste



Limited monitoring and enforcement

- Lack of effective supervision at sea and in ports



Fishers' resistance to change

- Attempts to impose practices without engagements risks pushbacks



Limited awareness and participation of fishers

- Low participation in proper waste management practices

Recommendations

Although ports are attempting to comply with the EU and national regulations on fisheries waste management and have many successful strategies in place, there is significant room for improvement in terms of streamlining policies and processes - especially those relating to the circular economy, modernising PRF infrastructure and investing in end-user education.



Streamline regulatory framework

- Harmonize and clarify regulations
- Establish clearer guidelines on roles and responsibilities
- Implement the indirect fee system
- Recognize the unique need of fishing vessels
- Adapt regulations to local realities



Enhance economic viability

- Establish sustainable funding mechanisms
- Promote circular economy principles
- Scale up waste management operations
- Improve tender processes for waste management companies



Promote partnerships and knowledge sharing

- Involve multiple stakeholders
- Promote partnerships and networks
- Promote collaborations between ports



Support adequate infrastructure development

- Improve infrastructure and facilities
- Develop dedicated facilities for fishing waste
- Optimize space utilization



Improve monitoring and data collection

- Establish effective monitoring systems
- Strengthen monitoring and enforcement
- Improve waste traceability

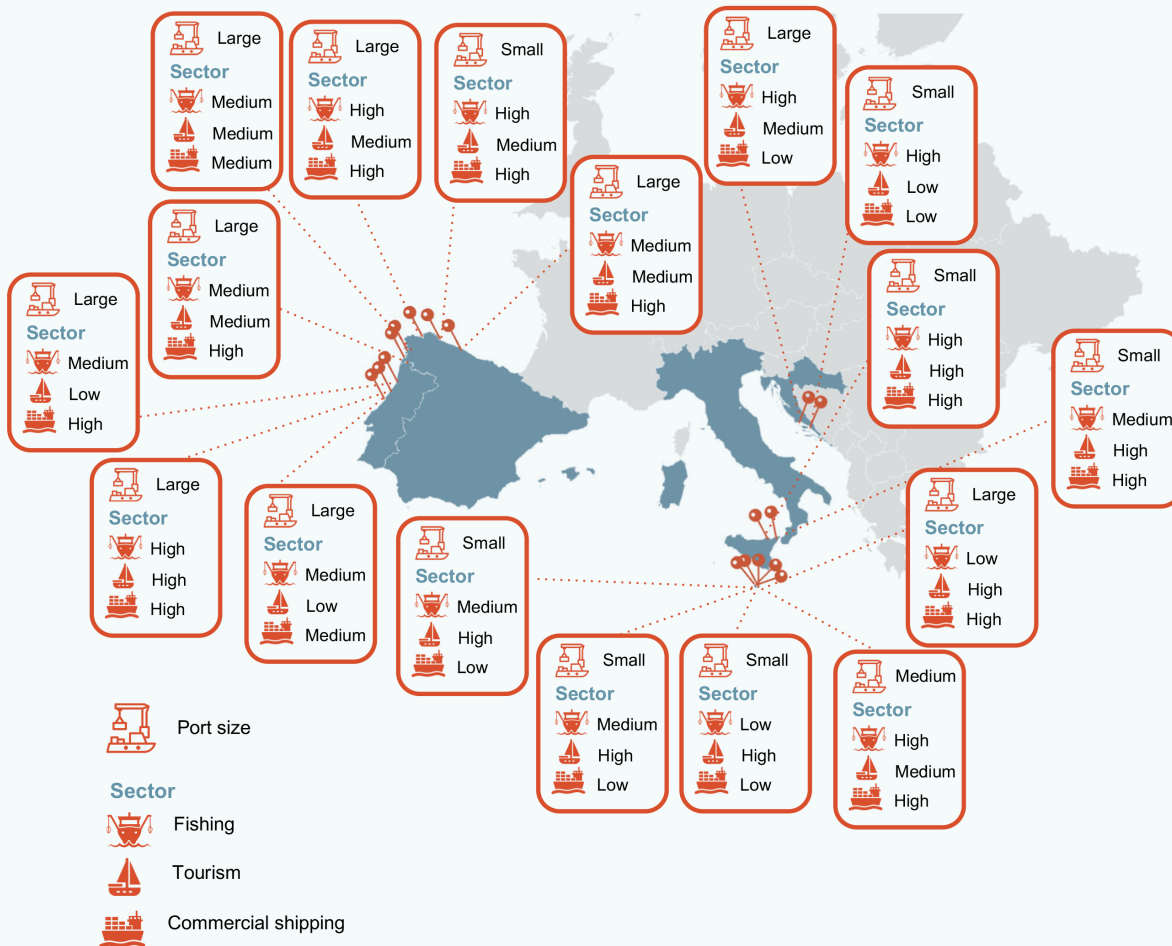


Provide incentives and support for fishers

- Ensure free disposal for special waste
- Invest in education and awareness for fishers
- Reward waste management

Methodological Approach

In-person, semi-structured interviews with 15 port authorities and managers from selected fishing ports in Croatia, Italy, Malta, Portugal and Spain were conducted between November 2024 and April 2025. Interviewees were selected based on their active involvement in environmental or overall port management, and to represent a diversity of port sizes and infrastructures ensuring a grounded perspective on the handling and reception of fishing-related waste under different practical and institutional circumstances.



Locations and characteristics of ports studied

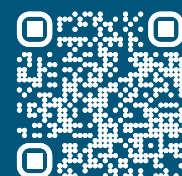
Authored by Gillian B. Ainsworth¹, Marina Astudillo-Pascual¹, Sebastian Villasante¹, Priscila Silva², Cristina Pita²

¹ EqualSea Lab, CRETUS, University of Santiago de Compostela, A Coruna, Spain ² University of Aveiro, Portugal

Contact: nettag@ciimar.up.pt



Funded by the European Union under the Horizon Europe Program, Grant Agreement No. 101112812 (NETTAG+). Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Climate, Infrastructure and Environment Executive Agency (CINEA). Neither the European Union nor the granting authority can be held responsible for them.



Scan to read the full report (D2.2)