



WHITE PAPER: Fishers’ Reward Programs for Marine Litter Collection

Evidence, Best Practices and Policy
Recommendations from the fisheries
sector



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1 • INTRODUCTION: Why Reward Programs Matter

Marine litter remains a persistent environmental and socio-economic challenge across European seas. It contributes to ecological degradation, ghost fishing, navigation hazards and increased costs for port management, while also placing additional operational burdens on fishers. During routine fishing activities, fishers frequently retrieve marine litter passively, incurring costs related to fuel consumption, lost fishing time, on-board storage, and waste delivery at ports—costs that are rarely compensated and that often originate from pollution sources outside the fishing sector itself.

In recent years, there has been growing interest in **reward-based** or **incentive-based approaches** as a potential policy instrument to support the **voluntary collection and proper management of marine litter by fishers**. Such approaches are increasingly framed not only as environmental measures, but also as mechanisms to promote fairness, recognize fishers' positive environmental contributions, and encourage collaboration between ports, authorities and the fishing sector. However, the design of effective reward programs raises important questions regarding feasibility, sustainability, governance arrangements, and alignment with existing fisheries and waste management policies.

Within this context, the EU-funded NETTAG+ project ("Preventing, Avoiding and Mitigating Environmental Impacts of Fishing Gears and Associated Marine Litter") seeks to contribute to emerging policy debates by strengthening the evidence base on socially acceptable and institutionally viable pathways to reduce fisheries-related marine litter. As part of this effort, Deliverable D2.5 explores **fishers' reward programs as a potential policy option**, focusing on how different stakeholders perceive various **incentive mechanisms**.

This white paper synthesizes the key findings of that work. It is important to stress that the study presented here is **exploratory in nature**. The NETTAG+ project gathered qualitative evidence by engaging actors across the fisheries governance system to understand:

- Which types of incentives are perceived as most attractive or fair
- What challenges and risks stakeholders anticipate
- Which institutional arrangements are considered necessary for future reward programs
- How receptive fisheries regulators and policymakers might be to such approaches

The analysis draws on workshops, interviews and policy dialogue conducted in **Croatia, Italy, Malta, Portugal and Spain**, involving fishers, port authorities, managers of fishing associations, fisheries regulators and national and EU-level policymakers. By comparing perspectives across countries and stakeholder groups, the study identifies both context-specific differences and converging views relevant for future policy development.

This white paper therefore does not advocate for a specific incentives. Rather, it provides an evidence-based foundation to **inform future research, policy design and pilot initiatives**, by clarifying stakeholder preferences, identifying common constraints, and outlining key principles that should guide any future experimentation or scaling of reward-based schemes for marine litter collection within European fisheries. In doing so, the white paper aims to support policymakers, fisheries authorities and port managers in moving from exploratory insights toward **carefully**

designed, context-sensitive pilots that can be evaluated and adapted before any broader implementation is considered.

2. Approach and Evidence Base

The evidence presented in this white paper is based on a **qualitative study** carried out between September 2024 and March 2026 in five European countries (Croatia, Italy, Malta, Portugal and Spain).

Data collection involved:

- Workshops with **174 fishers**³ (33 in Croatia, 28 in Italy, 34 in Malta, 63 in Portugal and 21 in Spain), representing different fleet segments
- Semi-structured interviews with **15 port authorities, 11 managers of fishing associations, 4 national fisheries regulators, 1 national policymaker, and 2 EU-level policymakers**

Stakeholders were invited to assess and discuss **potential reward mechanisms identified through a global literature review on rewards-based litter management programs**, focusing on perceived preference, feasibility, challenges, solutions, implementations, and governance implications.

3. Perceived Best Practices and Challenges for Reward Programs

3.1 Overview of Incentives

Stakeholders assessed a range of potential incentives, including:

- Fuel subsidies or discounts
- Reductions in port fees or fish auction costs
- Payments proportional to the quantity of litter delivered
- Discounts on fishing gear
- Recognition and awareness-raising measures
- Payments facilitated through waste management companies

Preferences varied by country and stakeholder group, but recurring patterns emerged.

³ A workshop with industrial large-scale fisheries (LSF) were excluded from this study because storing collected waste onboard large vessels for extended periods is impractical, particularly for long-distance fleets operating from or landing catches in non-EU ports. In addition, marine litter is mainly concentrated in coastal areas where LSF do not typically operate, with lower concentrations in open seas except for specific hotspots. This was confirmed by interviews conducted with LSF fishers within [NetTag project](#).

3.2 Country Perspective: Stakeholder Preferences on Potential Incentives and Associated Challenges

This section summarizes, by country, the **main incentives identified as preferable by stakeholders** and indicates **which stakeholder groups selected them and in what numbers**. These findings reflect stakeholder perceptions gathered through workshops and interviews, rather than evaluations of implemented reward programs.

Croatia

The most popular incentive converged strongly around **fuel-related incentives**, reflecting the high operational costs faced by fishing vessels.

- **Fuel subsidies or fuel-related discounts** were selected as the preferred incentive by **29 fishers, 2 port authorities, 1 manager of a fishing association**

Stakeholders highlighted fuel as the dominant operating expense and therefore the most immediately meaningful form of compensation for passively collected marine litter.

Additional incentives received more limited support:

- **Discounts on sustainable fishing gear**, selected by **4 fishers**, seeing clear benefits for both their work and the environment.
- **Payments based on the amount of litter delivered**, preferred by **2 fishing association managers**, who emphasized proportionality and fairness.
- **Reductions in port fees** were selected by **1 fisheries regulator**, who pointed to their relevance in offsetting fixed operational costs but also underlined national regulatory constraints.

Across all stakeholder groups, commonly anticipated challenges included securing stable funding, limited port-side infrastructure, unclear institutional responsibilities and the need for robust monitoring to prevent misuse or risks of fraud/abuse. Specific to fuels subsidies, it was also mentioned that fuel subsidies face coordination difficulties across ministries and financial dependence.



In Italy, fishers consistently described fuel costs as their primary economic concern and viewed fuel-related incentives as the most tangible and motivating option:

- **Fuel subsidies or discounts** were overwhelmingly preferred by **28 fishers**

Other stakeholder groups expressed different preferences:

- **Reductions in port fees** were selected by **2 port authorities and 1 fisheries regulator**

These actors considered port-managed incentives realistic and motivating, provided they are supported by clear regulatory frameworks.

- **Reductions in fish auction costs or preferential access to first sale** were selected by **1 manager of a fishing association**, who emphasized compensation for lost fishing time and logistical burdens associated with waste delivery.

Specific to fuels subsidies, fishers recognized that there might be technical challenges in ensuring fair allocation due to differences in vessel engines and consumption.



Across Malta, diverse stakeholders revealed strong support for fuel-related incentives, alongside interest in effort-based payments and private-sector involvement.

- **Fuel subsidies or discounts** were selected by **25 fishers and 1 port authority**

Fishers highlighted rising fuel prices and limited existing compensation mechanisms as key reasons for this preference.

- **Subsidies based on the amount of litter delivered** were selected by **10 fishers and 1 manager of a fishing association**, who valued the simplicity and direct link between effort and reward.
- **Payments by waste management companies** were selected by **2 managers of fishing associations**, who stated that with this option they would most probably have more flexibility to choose how to spend the support.

Key challenges identified across Maltese stakeholders included limited space on vessels and in ports, lack of designated disposal points, administrative complexity and the need for strong monitoring systems (e.g. CCTV) to ensure trust and compliance.



Portugal showed the **most diverse distribution of preferences**, reflecting variation across fleet segments, ports and institutional roles.

Among fishers:

- **Fuel subsidies or discounts** were selected by **31 fishers**, who described fuel as the most significant operational cost affecting profitability.
- **Subsidies proportional to the amount of litter delivered** were selected by **20 fishers**, perceived as fairer and easier to understand.
- **Discounts on fishing gear** were selected by **6 fishers**, primarily as a complementary rather than primary incentive.

Among institutional actors:

- **Recognition and awareness campaigns** were selected by **3 port authorities**, who saw reputational incentives as low-cost, complementary tools.
- **Reductions in port fees** were selected by **1 port authority** and **1 manager of a fishing association**, who viewed these incentives as feasible within existing administrative structures.
- **Reductions in auction costs or right to first sale** were also selected by **1 port authority** and **1 manager of a fishing association**.
- **Payments by waste management companies** were selected by **2 fisheries regulators**, who argued that compensation should be embedded within waste valorization and recycling system.

Across all groups, stakeholders identified logistical and organizational complexity, verification and



Spanish stakeholder preferences reflected a mix of economic and administrative considerations, with strong support for effort-based payments.

- **Subsidies based on the amount of litter delivered** were selected by **9 fishers, 2 managers of fishing associations**, who emphasized clarity, immediacy and proportionality between effort and reward.
- **Reductions in port fees** were selected by **1 port authority, 5 fishers, 1 national policymaker**, who viewed port-managed incentives as comparatively stable and institutionally robust.
- **Fuel subsidies or discounts** were selected by **1 port authority, 5 fishers**, though concerns were raised regarding budgetary feasibility.
- **Reductions in fish auction costs or preferential access to first sale** were selected by **1 port authority and 4 fishers**, mainly as indirect compensation.
- **Recognition and awareness campaigns** were selected by **2 port authorities**, who stressed the importance of avoiding excessive commercialization of litter collection.

Main challenges were financial sustainability and economic burden, administrative complexity and limited port capacity/infrastructure to manage controls, fraud, monitoring and measurement of collected waste. Specific to payments by waste companies, it was mentioned that small waste contractors might have limited capacity to absorb additional systems or waste volumes, warning that a surge in passively collected marine litter could trigger extra disposal costs, as contractors may require additional payments beyond standard MARPOL waste services.

SHARED CHALLENGES AMONG PARTICIPANTS

Across port authorities, fishers, fishing association managers, fisheries regulators, and policymakers there is broad consensus on the following challenges:

- Lack of Stable and Long-Term Funding
- Insufficient Port Infrastructure and Logistical Capacity
- Administrative Complexity and Bureaucratic Burden
- Monitoring, Verification and Risk of Misuse
- Unclear Institutional Roles and Responsibilities
- Ensuring Equity Across Fleet Segments and Ports

4. Recommendations for Future Fishers' Reward Programs

This section presents key recommendations derived from evidence gathered through stakeholder consultations in NETTAG+, also providing insights into how to mitigate the identified challenges. The recommendations combine **country-specific considerations, insights from EU-level policymakers, and key points of agreement across stakeholder groups**. Together, they provide structured guidance for policymakers, fisheries authorities and port managers considering future pilot initiatives and subsequent scaling efforts.

4.1 Country-specific considerations

Usage of closed-circuit television camera (CCTV), staff verification, specialized inspectorates, smart containers and clearer role allocation.

The **Environmental Protection and Energy Efficiency Fund** is seen as a potential funding source. They recommend involving municipalities, waste-management companies, home-port fishers and national ministries (Agriculture, Environment, Economy).

Stakeholders recommend **national-level planning and financing**, with implementation and monitoring at municipal level, supported by clear legislation, adequate infrastructure and secure waste-collection logistics.



Consolidating waste management under a central entity such as **Docapesca**, supported by inspections, awareness-raising and institutional continuity.

They highlight weaknesses in waste tracking and express trust in fishing associations and port authorities for program oversight.

They recommend funding through **Docapesca, MAR2030**, or similar schemes, with Docapesca leading design, implementation and monitoring.

Croatia

Italy

Portugal

Need for strong monitoring (including CCTV), clear responsibility for waste-facility financing and improved port infrastructure. Proposed mitigation measures include dedicated disposal spaces, staff verification, logbooks and streamlined procedures.

Broad participation involving cooperatives, councils, the **Environment and Resources Authority (ERA)**, **WasteServ Malta Ltd**, Transport Malta and the Fisheries Department. EU funding is generally preferred, complemented by national support.

Secure, monitored infrastructure and mixed models combining subsidies with payments by waste companies. Funding should primarily come from public sources, notably **European Maritime, Fisheries and Aquaculture Fund (EMFAF)**, complemented by private companies motivated by Corporate Social Responsibility (CSR).

The national policymaker recommends small-scale, adaptive pilots, strong scientific support for calibration, and broad stakeholder involvement, with ports and public administrations leading design and implementation.

4.2 EU Policymakers

Two representatives from EU institutions emphasize that any future Fishers' Reward Program must be **carefully designed to ensure fairness, simplicity and policy coherence**. A central concern is the need to **clearly distinguish passively collected marine litter from fisher-generated waste**, ensuring that incentives apply exclusively to the former. Robust verification mechanisms are therefore considered essential to maintain legitimacy and avoid unintended effects.

Both policymakers highlight **bureaucratic complexity and slow payment systems** as major risks to participation. They stress that incentives will only be credible if administrative procedures are **agile, low-burden and timely**, avoiding lengthy legal processes or delays that would shift costs back onto fishers. Challenges related to verifying litter origin, calibrating fair compensation—especially when fishers are not actively fishing—and aligning incentives with existing regulatory frameworks are also noted.

To address these issues, EU policymakers recommend building on **existing EU policy frameworks**, particularly the **Port Reception Facilities Directive** and the **Single-Use Plastics Directive**, to reduce regulatory fragmentation and avoid creating parallel systems. **Pilot testing and business-model experimentation** are strongly encouraged before any scaling-up, allowing feasibility, costs and unintended effects to be assessed in practice.

In terms of governance, EU policymakers should retain **strategic oversight and policy alignment**, while implementation and monitoring must ensure transparency, verification and demonstrable environmental impact. Relevant stakeholders should include environmental agencies at Member State level, fisheries ministries and organizations representing small-scale fisheries, with a potential role for private entities in early stages.

Regarding funding, a **phased approach** is recommended. It was suggested to start with **private funding mechanisms** to avoid initial bureaucratic constraints, followed by gradual integration of public funding once schemes demonstrate effectiveness, while the other supports public involvement through established EU and national funding frameworks. Linking reward schemes to complementary initiatives (e.g. Blue Carbon or similar mechanisms) is also suggested.

SHARED RECOMMENDATIONS AMONG PARTICIPANTS

Across port authorities, fishers, fishing association managers, fisheries regulators, and policymakers there is broad consensus on several key principles:

- Adequate port infrastructure for waste reception, weighing, storage, and transport are needed
- Incentives should provide **real economic value**, not symbolic rewards alone
- **Simplicity, fairness, and transparency** are critical to participation
- **Stable, long-term funding** is essential; short-term pilots are insufficient
- **Monitoring and verification** are necessary to prevent misuse
- Reward schemes must be **complementary** to prevention, education, and better land-based waste management

5. Receptiveness

Despite differences in roles and national contexts, several **clear points of agreement** emerge across fisheries regulators, national policymakers and EU-level actors. However, overall receptiveness can be characterized as **positive**, with strong support for moving forward through carefully designed pilots rather than immediate large-scale implementation.

5.1 Fisheries Regulators and national policymakers

Fisheries regulators across countries show a **generally high level of openness** to reward programs, viewing them as a potentially useful complement to existing marine litter and waste-management policies.

However, their receptiveness is consistently framed by:

- The need for legal clarity and alignment with national and EU regulations
- Concerns about waste traceability, quantification and verification
- The requirement for adequate infrastructure and institutional capacity, particularly in ports with limited resources
- A strong preference for long-term, structured programs rather than isolated or project-based initiatives

Many regulators emphasize that reward programs can support awareness and behavior change but **cannot function as stand-alone solutions** and must be embedded within broader waste-management and fisheries governance frameworks.

5.2 EU-Level Policymakers

EU-level policymakers express **conditional but clear receptiveness** to Fishers' Reward Programs as a legitimate response to the external costs borne by fishers when passively collecting marine litter.

Their support is contingent on several factors:

- A **clear distinction** between passively collected marine litter and fisher-generated waste

- **Low-burden, fast and simple administrative procedures**, avoiding delays that could discourage participation
- Alignment with **existing EU frameworks**, particularly the *Port Reception Facilities Directive*, the *Single-Use Plastics Directive*, and *Marine Strategy Framework Directive*, to avoid regulatory fragmentation.
- Incentives must be carefully designed **considering environmental implications**, to avoid becoming unintended subsidies (e.g., contribute to fishing overcapacity and, ultimately, to the overexploitation of fish stocks).

EU policymakers strongly encourage **pilot testing and phased experimentation** before scaling up, including testing different funding and business models. They support a governance model where EU institutions retain strategic oversight, while implementation and monitoring demonstrate measurable environmental outcomes.

6. From Exploratory Evidence to Future Pilots

The findings offer exploratory, context-specific insights to inform future pilot initiatives, policy development, and scaling-up efforts at local, national, and EU levels. Future work should increase the number of interviews with fisheries sector stakeholders in each country. Expanding participation—particularly across targeted fleet segments and port types—would enable a more detailed and representative understanding. This would support the subsequent piloting and scaling of context-adapted reward schemes, underpinned by stable funding, simplified administrative processes, and strong institutional coordination, to ensure long-term effectiveness and policy uptake.

7. Conclusions

7.1 Policy Messages

This white paper demonstrates that reward programs are perceived as a promising tool to support fishers' voluntary collection of marine litter, but only under clearly defined conditions. Stakeholders call for cautious, evidence-based progression from exploratory research to pilot implementation, anchored in robust governance structures and policy coherence.

Reward programs should not be seen as standalone solutions, but as one component of integrated marine litter strategies that combine prevention, waste management, economic incentives and stakeholder engagement.

7.2 Key Policy Recommendations

- 1) **Use exploratory evidence to design targeted pilot programs, not one-size-fits-all schemes:**

Preferences, constraints and institutional capacities vary across countries, ports and fleet segments. Future action should therefore prioritize **context-specific pilot programs**, informed by exploratory evidence, rather than one-size-fits-all incentive models.

2) Ensure stable, long-term funding before scaling

Funding stability is a critical condition for credibility and sustained participation. Reward programs should rely on predictable, long-term funding mechanisms before moving beyond pilot phases, as continuity is widely seen as more important than incentive size.

3) Embed incentives within existing fisheries and waste frameworks

Reward schemes should be integrated into existing national and EU policy structures, reducing administrative duplication, strengthening legal certainty and improving coherence with fisheries and waste-management objectives.

4) Prioritize low-burden administration, transparency and monitoring

Simple procedures, timely payments and transparent rules are essential to participation. Verification systems should be **robust but proportionate**, ensuring credibility without imposing excessive administrative burdens on fishers or ports.

5) Maintain continuous dialogue with fishers and port actors

Ongoing engagement with fishers, port authorities and fishing organizations is essential throughout design, piloting and scaling phases. Continuous dialogue supports trust, improves program design and facilitates long-term policy uptake.



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