



D5.4 NETTAG+ Impact

Publication of Key Achievements and report on the Management and Execution of the KERs and KTPs. Development of Business cases, preliminary market plans and business models for the solutions assessed as high potential KERs and ready or near to commercialisation. Involvement of direct end users of several of the technologies within the consortium to facilitate direct uptake and exploitation.



Document Information

Grant Agreement no. 101112812

Call ID	HORIZON-MISS-2022-OCEAN-01
Project Name	Preventing, Avoiding and Mitigating Environmental Impacts of Fishing Gears and Associated Marine Litter
Project Acronym	NETTAG+
Project Website	https://nettagplus.eu/
Deliverable ID	D5.4
Work Package Reference	WP5
Due Date of Deliverable	30/04/2026
Submission Date	30/04/2026
Dissemination Level	Public
Lead Partner	ERINN
Participating Partner	All partners

Quality information and Revision History

Version	Authors	Date
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Summary NETTAG+ Project

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+ will be 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.

NETTAG+ will PREVENT marine litter derived from fisheries activities, AVOID loss of fishing gears, and MITIGATE harmful impact by removing existing ALDFG. These three solutions will jointly contribute to reduce ALDFG and marine pollution, namely by: reducing the introduction of hazardous chemicals and microplastics originating from ALDFG; reducing ghost fishing, bycatch and entanglements of sensitive or endangered species on ALDFG; and improving mapping, tracking and recovery technologies to retrieve ALDFG.

NETTAG+ aims to upgrade and upscale the integrative preventive approach that started in the previous NetTag project, and aims to replicate it in Mediterranean regions, providing the fisheries industry with three smart and environmentally-friendly solutions to reduce ALDFG and prevent the environmental impacts of fishing gears. The three solutions will be developed to maturity (TRL 7-8) by the end of the project, and will be tested, validated and demonstrated in real conditions in Atlantic and Mediterranean countries, namely Portugal (PT), United Kingdom (UK), Spain (SP), Italy (IT), Croatia (HR) and Malta (MT). NETTAG+'s ambition is to change the paradigm of the fisheries industry, aspiring to transform the societal perspectives about the role of fishers as Guardians and Cleaners of the Ocean. NETTAG+ will empower the sector to take effective actions to address marine pollution, promoting their role as key actors to tackle marine pollution.

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List of Acronyms

IPR	Intellectual Property Rights
KER	Key Exploitable Result
KM	Knowledge Management
KMKT	Knowledge Management and Knowledge Transfer
KO	Knowledge Outputs
KT	Knowledge Transfer
KTPs	Knowledge Transfer Plans

Executive Summary

This report provides an overview of the management of Key Exploitable Results (KERs) generated in the NETTAG+ project and the execution of Knowledge Transfer Plans (KTPs) designed to support their uptake and exploitation by end users.

Pathways to Impact were mapped for seven KERs. Specific routes were prioritised by the consortium, and dedicated KTPs were developed outlining the suggested actions to achieve transfer to end users, together with associated impact measures. Each KTP details activities implemented by the consortium during the project's lifetime, as well as the actions to be pursued after the project's completion. Business cases, preliminary market assessments, and initial business models have been developed for KERs identified as having high potential and being ready, or near ready, for commercialisation. Confidential details relating to these aspects will be reported in the final technical report submitted to the European Commission (expected June 2026). The KERs, their Pathways to Impact and accompanying KTPs have been made publicly available to facilitate further development and exploitation.

NETTAG+ has already made meaningful contributions to the European Commission Mission "Restore our Ocean and Waters by 2030", as demonstrated by the impacts achieved during the project lifetime. These results have been reinforced through active engagement and showcasing of NETTAG+ solutions, as well as the continued involvement of end users, supporting early uptake and practical exploitation of key technologies. In parallel, targeted dissemination of results and integration of stakeholder feedback have strengthened the relevance and applicability of project outcomes. Together, the KTPs and the publication of Key Achievements provide a solid foundation for ensuring that measurable and sustained impact continues to be generated across all NETTAG+ outputs.

1 Introduction

NETTAG+ has implemented a Knowledge Management (KM) and Knowledge Transfer (KT) strategy to support exploitation and ensure impact. The strategy ensures that Knowledge Outputs (KOs) and Key Exploitable Results (KERs) arising from the project are appropriately managed.

A full description of all NETTAG+ KOs and KERs can be found in D5.2 Knowledge Management (M33). This report focuses on the seven KERs identified as having potentially high-impact, and on the management and execution of the Pathways to Impact and accompanying KTPs aimed at achieving the impact:

- KER1: Acoustic tag technology and location/recovery system (MyGearTag)
- KER2: Cetacean detection system
- KER3: Extended feature of the acoustic tag: mechanical release system
- KER4: Algorithm for the detection and localisation of gears
- KER5: Policy recommendations for litter management plans and facilities at ports
- KER6: Visualising the Impact of Marine Litter on Fishers: A VR Experience
- KER7: Educational materials for Awareness workshops with fishers on sustainable fishing practices, including marine litter

The objectives of D5.4 are to:

- Publish and disseminate key achievements and selected KERs through appropriate channels, including the Horizon Results Platform.
- Develop business cases, preliminary market plans, and business models for KERs with high commercial potential.
- Engage end users both within and outside the consortium to support validation, uptake, and real-world application of selected technologies.

This deliverable compliments D5.3 Cost Benefit Analysis and also contribute to the final roadmap development in D5.5 NETTAG+ Roadmap. Together, these deliverables form a comprehensive portfolio of work, starting with the systematic identification of KERs through to their targeted exploitation and long-term impact.

2 Key Achievements Summary

Figures 1a and b provide an overview of the Key Exploitable Results (KERs) and their relationship to the three core NETTAG+ solutions aimed to PREVENT, AVOID and MITIGATE the harmful impacts of abandoned, lost or otherwise discarded fishing gear (ALDFG). The figures show the Pathways to Impact for each KER, the associated KTP that was executed and a summary of the measured impact of as of April 2026 (M36).



Figure 1a. NETTAG+ KERs, Impact Pathways, KTPs and Impact summary (Part 1: PREVENT and AVOID solutions)

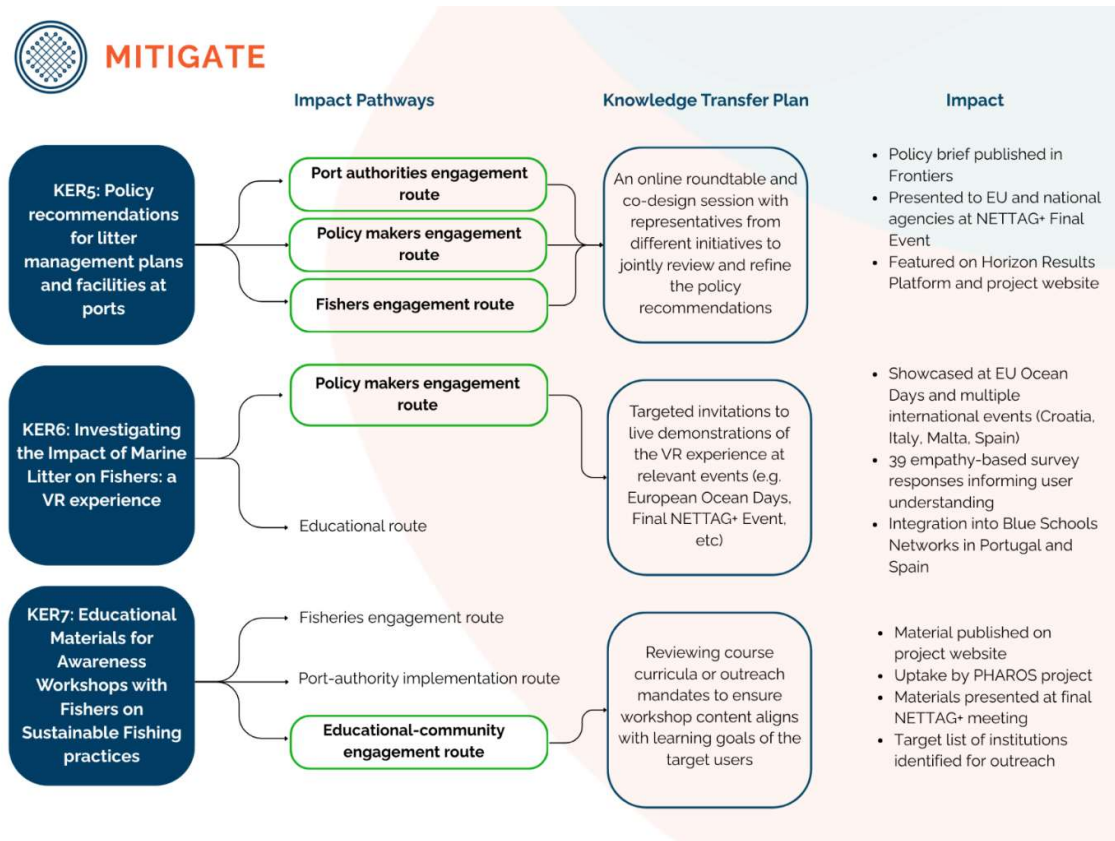


Figure 1b. NETTAG+ KERs, Impact Pathways, KTPs and Impact summary (Part 2: MITIGATE solutions)

3 Methodologies

3.1 Knowledge Management (KM) and Knowledge Transfer (KT)

Below is a brief description of the three structured, sequential and interlinked phases of the Knowledge Management (KM) and Knowledge Transfer (KT) methodology applied in the NETTAG+ project. A full description of the methodology is detailed in D5.2 (M33).

- **Collect and Understand (via Knowledge Collection rounds):** The first phase focused on identifying and describing each project result, referred to as a KO. This step aimed to assess the relevance and potential value of each KO by analysing its possible applications, as well as identifying target audiences and end users.
- **Validate and Analyse (including Impact Pathway development):** In the second phase, KOs underwent a structured validation process through a Due Diligence review conducted by the Innovation Board members. This evaluation examined the maturity, applicability, and transfer readiness of each output, while also identifying any limitations that may affect its uptake, such as confidentiality, intellectual property rights (IPR), or competitive factors. Based on this assessment, outputs are prioritised according to their impact potential and transfer readiness. Those demonstrating strong potential are further developed and reclassified as KERs with defined Pathways to Impact. These pathways identify different strategies for transferring results to relevant stakeholders, including the identification of responsible partners best positioned to lead the transfer activities in each pathway.
- **Transfer and Exploit (including Knowledge Transfer Plans and Impact indicators):** The final phase focused on the operationalisation of impact through the development of KTPs for each KER. KTPs focus on identifying a concrete step towards uptake of the KERs by the end-user, by clearly defining an activity and a message to transmit to the target user. This phase also establishes clear indicators and metrics to monitor and evaluate the impact of each KER. By addressing potential barriers identified during Due Diligence and outlining concrete exploitation routes, this phase ensures that project results are effectively translated into measurable outcomes. As part of the methodology, intellectual property rights (IPR) are addressed to ensure appropriate protection and support effective exploitation pathways.

This deliverable (D5.4) primarily focuses on the final step of the methodology, namely the **transfer and exploitation** of project results. Within this phase, specific activities defined in the Pathways to Impact were identified as initial, concrete steps to support the progression of each result towards uptake. These actions were selected based on their feasibility within the project's scope, timeframe, and available resources, while simultaneously laying a strong foundation for continued uptake and longer-term impact beyond the project's duration.

3.2 Exploitation Strategies

The seven identified KERs differ in nature, maturity level, and exploitation potential. Each KER was described in terms of:

- Technical content
- Ownership
- Target users
- Maturity level (e.g., prototype, validated solution, ready for deployment)
- Exploitation pathways

KERs were further classified into two categories to ensure effective management and strategic exploitation:

- Market-oriented KERs (commercial exploitation potential and readiness levels)
- Non-commercial KERs (scientific, policy, societal, or educational impact)

Market-oriented KERs

For KERs demonstrating **clear market potential** (i.e. KER2: Cetacean Detection System and KER3: Mechanical Release functionality), pathways towards commercialisation have been identified. A formal **business plan** was developed only for those KERs that met all required criteria, namely clear commercial viability, sufficient maturity, and the absence of an existing business plan developed by the KER owner. These business plans include a market analysis and a value proposition canvas. The KER1: MyGearTag is already on the market; therefore, its commercial viability and market potential have been previously assessed. In contrast, the KER4: Algorithm for the detection and localisation of gears is still under development and has not yet reached a sufficient level of maturity to justify the development of a business plan at this stage.

Non-commercial KERs

Several KERs that have been developed to generate **scientific advancement, policy impact, capacity building and societal benefit** (KER5: Policy recommendations for litter management plans and facilities at ports, KER6: Visualising the Impact of Marine Litter on Fishers: A VR Experience and KER7: Educational materials for Awareness workshops with fishers on sustainable fishing practices, including marine litter).

For these results, exploitation focuses on:

- Integration into policy frameworks
- Adoption by public institutions
- Inclusion in professional standards
- Open-access publication
- Integration into educational curricula

3.3 Commercial Exploitation

The commercial exploitation strategy focused on assessing and enhancing the potential for prioritised KERs to be translated into viable market opportunities. Commercially exploitable KERs are identified based on their technical maturity, relevance to industry needs, and scalability potential. To support structured exploitation planning, business plans were developed with the support of the **Horizon Booster services**, which provided targeted guidance on market analysis, value proposition development, and commercialisation pathways.

For KER2 Cetacean Detection System and KER3 Extended features of acoustic tag: mechanical release system, ERINN, UNEW and Succorfish have actively engaged with the services, via 5 online meetings, to carry out Modules A (Kick-Off), B (Key Exploitable Results), C (Exploitation Strategy) and D (Business Plans), together with the expert allocated by the services. Templates were shared (Annex 1) by the expert to complete each module and provide guidance to develop the final business plans. Due to the confidential nature of this work, the results have not been included here and will be reported the Final Technical Report to be submitted to the EC (June 2026).

3.3.1 Development of Business Cases

A business case is a document that outlines the justification for pursuing a project or business decision. It typically includes an analysis of the potential benefits, costs and risks associated with

the project, aiming to convince stakeholders of its value. KERs were prioritised based on their alignment with market needs, technical readiness, and potential for scalability across different application domains.

The Horizon Booster services were used to strengthen this process by providing structured frameworks and expert input for shaping the business cases. This included support in refining market positioning, refining the identified exploitation pathways, and improving the clarity of commercial narratives for both KERs.

The development process included:

- Characterisation of each of the KERs
- Market Definition Canvas
- Articulation of the value proposition and key benefits
- Definition of exploitation roadmaps
- Definition of use options
- Initial consideration of pricing and revenue potential
- Identification of key risks and priorities
- Completion of Lean Canvas
- Completion of a business opportunity self-assessment tool developed within BOSS and co-funded by the ERASMUS+ Programme of the European Union: [BOSS Platform: self-assessment tool for research result readiness](#)

3.3.2 Preliminary Market Plans

Preliminary market plans were developed to outline how KERs could be introduced and positioned within relevant markets.

The plans included:

- Definition of target markets and user groups for each KER
- Identification of potential market size and opportunity areas
- Initial go-to-market strategies, including potential channels such as partnerships, licensing, or direct deployment
- Consideration of adoption pathways, including pilot implementations and early adopter engagement
- Identification of barriers to market entry, including technical, regulatory, and organisational challenges

- Early-stage pricing and positioning considerations

These market plans remain preliminary but provide a structured foundation for future commercialisation activities and further validation with stakeholders.

3.3.3 *Business Models*

Preliminary business models were developed to outline how value could be generated and sustained over time.

Key elements included:

- Identification of suitable business model types (e.g. subscription-based, licensing, service-based, or hybrid models)
- Definition of potential revenue streams associated with each KER
- Estimation of key cost drivers, including development, deployment, and maintenance
- Identification of key partners required for successful exploitation
- Description of value creation mechanisms for end-users and stakeholders

The analysis suggests that both KERs could support scalable and adaptable business models depending on the chosen deployment context and level of market maturity.

4 Implementation and Monitoring: Pathways to Impact and Knowledge Transfer Plans

Below, a brief description of each KER is provided, together with a detailed overview of the corresponding Pathways to Impact identified during the project's Analysis Meetings. For each KER, one pathway was selected as the focus for the development of KTPs, based on criteria including strategic relevance, feasibility and potential impact (highlighted in green in tables). The following sections present the established KTPs, outlining the structured approach to the transfer and exploitation of each result, and provides a summary of the main activities implemented to date, highlighting key achievements and progress in impact generation, as well as next steps.

4.1 KER1: Acoustic tag tech (MyGearTag)

Short description: Crafted from 100% recycled fishing gear, the [MyGearTag](#) tracks and locates ghost fishing gear with a range exceeding 3km with cutting-edge underwater acoustic positioning technology. Regarding depth, the locator can go down to below 650 m certified depth. It has low power needs with a battery life of over 6 months and offers general simplicity and robustness, enabling its use in daily fishing operations. The solution is threefold and includes the tag itself, the surface locator unit (SLU) and the software/app interface.

Pathways to impact:

Table 1. Pathways to Impact KER1: Acoustic tag tech (MyGearTag)

User	Transfer Activity	Application / uptake action by	Impact / result	End Users
POLICY-TO-PRACTICE ROUTE				
Route 1 Target User 1: - Europeche - DG MARE	ERINN to provide DG MARE with success stories and promotional material UNEW/Succorfish to provide Europeche with fisheries training material to test the tag	DGMARE to disseminate/share success stories and promotional material through their channels. Europeche to facilitate training events enabling fishers to test the technology. Could assign “fishery champions” to install the acoustic tag tech in their operations and disseminate benefits to other fishers	Increased levels of awareness of the acoustic tag tech as an effective tool in the EU fishing sector.	Fishing cooperatives and fishers (EU)
Route 1 Target User 2: European Maritime Fisheries and Aquaculture Fund (EMFAF)	Succorfish/UNEW/ERINN to reach out to EMFAF national authority(s) to apply for potential funding opportunities.	Provide funding for: - Further training events organised by Europeche - Establishment/setup of the tag in gear tech libraries. The library could be run by a group of stakeholders who purchase the tech	More fishers will gain free access to the acoustic tag, increasing fishery trails of the tag in the EU fishing sector	Fishing cooperatives and fishers (shellfish/trap fisherman in Canada, USA and the EU)

User	Transfer Activity	Application / uptake action by	Impact / result	End Users
Route 1 Target User 3: - NOAA Gear Tech Lending Library - Fisheries & Oceans Canada (DFO) Gear Tech Landing Library	Succorfish/UNEW will supply NOAA and DFO gear tech libraries with units of the acoustic tag tech free of charge, investment support through EMFAF	NOAA and DFO provide the acoustic tag tech for free to local fisheries in the US and Canada through their respective gear tech libraries, acting as early adopters of the tech before it hits scale	Once fishers have been able to establish that this technology works for them on their terms, they will be much more open to adopting it, leading to uptake of the tech in Canada and US markets	Fishing cooperatives and fishers (shellfish/trap fisherman in Canada, USA and the EU)
OFFSHORE WIND-FISHERIES COEXISTENCE ROUTE				
Route 2 Target User 4a: Offshore wind farm Innovation Board member	Succorfish/UNEW to supply Innovation Board member with units of the acoustic tag tech.	Innovation Board member and Succorfish/UNEW to facilitate free trials with the acoustic tag tech with fishers who are affected by construction of a windfarm project	Increased levels of awareness of the acoustic tag tech as an effective tool for fishers in ORE areas.	Fishing cooperatives and fishers (shellfish/trap fisherman in Canada, US and the EU) Government bodies for monitoring and enforcing responsible gear use (e.g. EPA)
Route 2 Target User 4b: Other Offshore renewable energy (ORE) companies	Succorfish/UNEW to set up contracts with initial windfarm company and reach out to other ORE companies following successful first trials	ORE companies will supply fisherman in proximity of ORE areas with acoustic tags (free of charge for fishers) increasing uptake of the acoustic tag	Increased uptake of the tech by fisherman in proximity of ORE areas	Fishing cooperatives and fishers (shellfish/trap fisherman in Canada, US and the EU) Government bodies for monitoring and enforcing responsible gear use (e.g. EPA)



User	Transfer Activity	Application / uptake action by	Impact / result	End Users
NGO-MEDIATED FISHERIES ENGAGEMENT ROUTE				
Route 3 Target User 5a: Innovation Board members from Global Ghost Gear Initiative and Whale Dolphin Conservation	Succorfish/UNEW to showcase the function of the tag to Innovation Board members, highlighting functionalities that could be used for the initiatives.	Trial tag for more efficient ghost gear monitoring/removal programs at GGGI and WDC.	More insights on effectiveness of the technology for ghost gear monitoring and removal programs.	Fishing cooperatives and fishers (shellfish/trap fisherman in Canada, US and the EU). Government bodies for monitoring and enforcing responsible gear use (e.g. EPA).
Route 3 Target User 5b: NGOs for ghost gear removal programs (Global Ghost gear Initiative (GI) and Whale and Dolphin Conservation (WDC))	Succorfish/UNEW to set up contracts with GGGI, WDC and other NGOs offering ghost gear monitoring and removal programs following successful first trials.	Ghost gear monitoring/removal programs to supply fishers participating in different ghost gear monitoring and removal programs with free units of the tag.	The acoustic tag tech will be made available for fishers participating in different ghost gear monitoring and removal programs by GGGI and WDC, further increasing uptake of the methodology.	Fishing cooperatives and fishers (shellfish/trap fisherman in Canada, US and the EU). Government bodies for monitoring and enforcing responsible gear use (e.g. EPA).

Table 2. Knowledge Transfer Plan for NGO-Mediated Fisheries Engagement Route (MyGearTag).

Marine and Biodiversity Conservation Initiatives Engagement
Target User: Innovation Board members (Professor of the University of Hull, Honorary Research Associate of the Whale and Dolphin Conservation, Marine Conservation and Fisheries department from WWF Portugal)
Activity: Organise a demonstration of tagged fishing gear in controlled or field conditions relevant to the Target Users. The demonstration will provide first-hand evidence on how the technology works and its key features. The demonstration will also allow NETTAG+ members to outline how the KO/KER may offer a sustainable option for the Target Users to champion and explore options for pursuing full trials of the gear with the Target User.

Marine and Biodiversity Conservation Initiatives Engagement

Message: This tagged fishing gear allows for real-time tracking and monitoring of fishing gear during operations, enabling identification of areas where gear is at risk of being lost and its potential interactions with marine wildlife. Collaboration with global stakeholders helps improve ghost gear management and marine mammal protection.

Impact Indicators: Meeting(s) held, collaboration secured/number of collaborations, number of demonstrations/trainings/trials, number of complementary resources shared, number of attendants to demonstration events

Activities and Measured Impacts Summary

The MyGearTag product was launched in May 2024, demonstrating the successful translation of NETTAG+ project outcomes into a market-ready solution. Further information and enquiries can be made via the official website: [MyGearTag: The No.1 Tracking Solution for Ghost Fishing Gear](#).

Within the project, MyGearTag was selected in T5.3 as a solution ready for the implementation of a cost–benefit analysis (CBA). The analysis aimed to assess the extent to which this solution can contribute to the prevention and mitigation of marine litter, while remaining economically viable for fishing fleets operating under diverse technical and socio-economic conditions. The CBA evaluated the direct economic impacts associated with the introduction of the solution. These include changes in energy and raw material consumption, adjustments to fishing effort and operational practices, effects on catch levels and overall profitability, and the potential generation of additional revenues or cost savings. These impacts were assessed across a range of fishing gear types, namely traps, gillnets and trammel nets, trawls, and purse seines, in order to reflect the diversity of fishing practices and operational contexts relevant to marine litter generation, prevention, and mitigation. The results from the CBA are especially relevant for the developers and owners of MyGearTag, to ensure broader understanding of potential customer segments, adoption incentives, and the economic conditions under which the solution is most viable and scalable. Further information can be found on D5.3 Cost effectiveness of Innovative Solutions.

Throughout the project, MyGearTag was successfully showcased at **3 demonstration events**, actively engaging key stakeholders including industry representatives, policymakers, researchers and most importantly, professional fishers (the main end-users of the KER).

The **first demonstration event** was carried out at the 2nd NETTAG+ Annual Meeting, held in Patti, Sicily (May 2025) (see link to news article with more information of the event: <https://nettagplus.eu/sicilian-fishers-test-nettag-technological-solutions-to-prevent-ghost-gear/>). It consisted in a trammel net equipped with an acoustic tag deployed from a fishing vessel. Observers, including consortium members and external stakeholders (e.g. researchers from [Strong Sea Life project](#)), were able to follow the operation from a nearby licensed vessel without disrupting activities. The event facilitated direct stakeholder engagement and provided practical validation of the technology under real operational conditions. The event was attended by NETTAG+ consortium members and representatives from aligned projects and initiatives, supporting knowledge exchange and potential future collaboration. https://www.youtube.com/watch?v=IAIq_cdEggs

In line with the KTP developed within the project, Innovation Board members were invited to attend the NETTAG+ Final Event, held from April 14th to April 15th, 2026, in Vila do Conde and Póvoa de Varzim. The event combined scientific presentations (Day 1) with live demonstrations (Day 2). MyGearTag was featured during the scientific session as a key exploitable result of the project, presented to an audience of **56 participants**, including **26 external stakeholders**. These stakeholders represented a diverse range of relevant institutions, including Docapesca (Portos e Lotas S.A), the Capitania do Porto and Comando Local da Polícia Marítima da Póvoa de Varzim, the European Maritime Safety Agency (EMSA), the Portuguese Environment Agency (APA), the Italian National Institute for Environmental Research (ISPRA), Whale and Dolphin Conservation, and the University of Hull. The presentation enabled direct engagement with regulatory authorities, industry actors, and research organisations, strengthening awareness of MyGearTag's operational capabilities and its potential application in monitoring and mitigating ghost fishing gear. This interaction contributed to knowledge transfer, fostered cross-sector dialogue, and supported the positioning of MyGearTag as a viable solution for broader adoption beyond the project. A professional media team and reporters from Euronews were also present to capture the full experience and communicate the demonstration to a broader audience. A video of the demonstration event is available here:



[The NETTAG+ project: new tech solutions to tackle ghost gear](#). The **Euronews story** was published in English, Italian, Portuguese, French, German, Turkish and Greek: [Acoustic tags and underwater robots help recover ghost fishing gear in Portugal](#).

On Day 2 of the Final Event, the **second demonstration** took place with live demonstrations of MyGearTag to **67 attendees**, including Innovation Board members from the University of Hull and Whale and Dolphin Conservation, the Ocean Patrol Association, ISPRA, the Portuguese Environment Agency (APA), European Maritime Safety Agency (EMSA), Capitania do Porto e Comando Local da Polícia Marítima da Póvoa de Varzim, Mútua Pescadores, Directorate-General for Natural Resources, Safety and Maritime Services (DGRM) and Norte Portugal Regional Coordination and Development Commission (CCDR NORTE). The live demonstration consisted of a string of octopus traps and pots equipped with an acoustic tag at each end that was deployed in the harbour. Due to unfavourable weather conditions, it was not possible to carry out a similar demonstration as in Sicily and the activity consisted of showcasing how MyGearTag works to the attendants and providing a detailed explanation of its functionality, deployment process, and potential applications in operational settings.

The **third demonstration event** was organised by WWF-Adria and MyGearTag was showcased, with the contribution of Komiža fishers and the B-24 Diving Centre. This event included trials and marked an important step in validating the project's technologies in a different marine environment and with different types of gear. In this trial, fishers scanned the acoustic tags to register their unique ID, attached them to their fishing gear and used the MyGearTag app to successfully locate the equipment (see full information of the demonstration event here: [Field Trials of NETTAG+ Technologies Continue in Croatia - NETTAG PLUS](#)).

Lastly, the MyGearTag solution also generated notable engagement on social media platforms, where stakeholders and end users shared both reflections and practical feedback. Discussions included questions regarding post-project implementation pathways, such as the availability of frameworks for financing and deployment beyond the EU project lifecycle.



In addition, users reported positive field experiences with the technology. For example, one stakeholder described a real-world test involving a drifting cage in the Atlantic, noting that despite a displacement of approximately one mile on the day, the equipment was successfully relocated with high accuracy using MyGearTag. This type of testimonial highlights both the practical applicability of the solution and its potential value for real-world fishing operations.

Next Steps

Building on the bilateral meetings conducted throughout the project, several opportunities for further development were identified. These include the exploration of additional possibilities and functionalities, such as integration with fishing vessels and the extension of the tagging system to other types of equipment and assets, such as subsea instruments, divers or even smaller animals.

Looking beyond the project's duration, efforts will focus on advancing the commercialisation pathway for this KER (developed by NETTAG+ partner SUCCORFISH). This includes plans to transition towards volume production and to pursue investment opportunities aimed at scaling up manufacturing capacity and supporting broader market deployment. Steps for the further development of these pathways are outlined in D5.5 Roadmap.

Horizon Results Platform: [MyGearTag: Acoustic location device to track and locate ghost fishing gear | EU Funding & Tenders Portal](#)

4.2 KER2: Cetacean Detection System

Short description: This KER involves a real-time cetacean detection system designed to provide real-time alerts of animal presence and potentially reduce bycatch. The system identifies marine mammals that use echolocation or distinctive whistle-like calls to communicate (e.g. dolphins, porpoises, whales). The range of the cetacean detection can be > 2km depending on the cetacean species/behaviour.

Pathways to impact:

Table 3. Pathways to Impact for KER2: Cetacean Detection System.

User:	Transfer Activity	Application / uptake action by user	Impact / result	End Users
POLICY ENGAGEMENT ROUTE				
Route 1 Target User 1: Fishing cooperatives (ARVI, etc), industrial fishing fleets in areas with strict bycatch regulations	UNEW/Succorfish will integrate pilot tests into ongoing field trials with fishing cooperatives	Trials to provide real-time data and refine the capacity and effectiveness for cetacean detection	Raised awareness of capabilities of this tech among fishers who participated in pilot testing. Proof of concept and development of success stories	Fishers
Route 1 Target User 2: DG MARE	ERINN will provide DGMARE with success stories highlighting the cetacean detection tech capabilities for reduction of bycatch	Dissemination of success stories on bycatch reduction through DGMARE channels	Increased levels of awareness of capabilities of this tech among EU fishing sector/policy makers/public	Fishers



User:	Transfer Activity	Application / uptake action by user	Impact / result	End Users
Route 1 Target User 3: Government bodies, policy makers in marine law	ERINN/UNEW/Succorfish to conduct a workshop/demonstration event with government bodies to explore how this technology could be incorporated into fisheries management plans and offshore industry regulations	Collaboration with fishers on gathering cetacean movement data for integration into fisheries management plans, including financial incentives and development of policies	New/adapted policy regulations on bycatch and reduction of bycatch from fisheries/ORE operations	Fishers
OFFSHORE ENERGY ROUTE (INDUSTRY)				
Route 2 Target User 4a: Ørsted	UNEW/Succorfish to supply Innovation Board member from Ørsted with the cetacean detection tech	Ørsted to trial its use in environmental impact mitigation	Increased levels of awareness of the cetacean detection tech as an effective tool for environmental impact mitigation in ORE operations	Offshore energy/construction companies
Route 2 Target User 4b: Ørsted and other offshore construction companies	UNEW/Succorfish to set up a contract with Ørsted following successful first trials. Reach out to other ORE and offshore construction companies following successful trials	Ørsted to employ the cetacean detection tech in daily operations for environmental impact mitigation	Increased uptake of the cetacean tech device by ORE sector and marine offshore construction companies, enabling economies of scale	Offshore energy/construction companies



User:	Transfer Activity	Application / uptake action by user	Impact / result	End Users
CONSERVATION RESEARCH INSTITUTION ENGAGEMENT ROUTE				
Route 3 Target User 5: NGOs and Research institutes (Whale and Dolphin Conservation, WWF Portugal, Bottlenose Dolphin Research Center)	UNEW/Succorfish to provide cetacean tech to WDC/WWF for trials	Trials using cetacean detection in know corridors (attached to buoys) to provide lifetime reporting of the animals in the area. Establish connections to cetacean monitoring NGOs.	Increased knowledge of the cetacean detection tech as an effective tool for cetacean monitoring, following successful trials.	Cetacean monitoring bodies (including scientific community and government bodies (e.g. DEFRA and ICES) and NGOs)
Route 3 Target User 6: Data portals, e.g. ICES, JCDP	UNEW/Succorfish to reach out to existing data portals for cetacean monitoring (ICES, JCDP) to discuss suitable options for data integration routes. Integration of cetacean detection data into existing data ecosystems	Integration of cetacean detection data into existing data ecosystems after successful trials to scale up potential impacts. This will prove the use of passive data provision from this tech (rather than actionable data) to different monitoring bodies for improving tracking of whale, dolphins and porpoise populations. It will also better inform marine protected area (MPA) designations. Link with End User 1 (fishers): Facilitation of financial incentives for fishers to utilise the cetacean detection technology in their daily fishing operations, by being able to contribute this data to portals and receiving a monetary reward from government monitoring bodies.	Increased data/knowledge on cetacean movements thanks to the integration of new data into existing data ecosystems. Increased use of the cetacean tech by fishers in their daily operations thanks to new financial incentives.	Cetacean monitoring bodies (including scientific community and government bodies (e.g. DEFRA and ICES) and NGOs)



Table 4. Knowledge Transfer Plan for Offshore Energy (Industry) Route (KER2: Cetacean detection system).

Industry Engagement
Target User: Offshore wind farm company (e.g. Ørsted)
Activity: Pilot scoping and feasibility meeting, organised by UNEW, for the cetacean detection tool trial in facilities: This activity can be broken down in three sub-actions: • Presentation of the cetacean detection feature: deliver a clear and tailored (online or live) presentation of the functionality to the target user. This would provide a technical overview, an operational briefing and a focus on how the feature works, its maturity level and its limitations. • Definition of a potential pilot trial concept: Present an initial, high-level pilot trial concept as a starting point. The pilot's objectives, scope, timeframes, operational requirements and responsibilities would be aligned and agreed. • Next steps and decision pathway: Identify and agree on the concrete next steps following the previous steps, including technical, operational and contractual requisites.
Message: This functionality helps protect marine mammals in real time, supports compliance with environmental regulations, and can reduce operational risk without slowing construction
Impact Indicators: Meeting held with contact person from offshore wind farm, pilot concept agreed

Table 5. Knowledge Transfer Plan for Conservation Research Institution Engagement route (KER2: Cetacean detection system)

Conservation Research Institution Engagement*
<i>*A second KTP was developed for this impact pathway to address an additional target audience, taking advantage of the opportunity presented by the feasibility of extending knowledge transfer to this user.</i>
Target User: Bottlenose Dolphin Research Institute



Conservation Research Institution Engagement*

**A second KTP was developed for this impact pathway to address an additional target audience, taking advantage of the opportunity presented by the feasibility of extending knowledge transfer to this user.*

Activity: The meeting, organised by ERINN and attended by UNEW, will demonstrate how the cetacean monitoring tool operates and how its detection and analysis capabilities can enhance the accuracy and efficiency of cetacean observations within ongoing research programmes. The session will also provide an opportunity for scientific experts to offer feedback that supports further refinement and ensures the tool aligns with established monitoring practices.

Message: The cetacean-detection functionality has been developed to enhance fieldwork efficiency by automating the initial detection process, thereby reducing manual observation time and improving consistency and spatial coverage. It is intended not as a replacement for expert knowledge, but as a complementary instrument that supports the acquisition of high-quality data, particularly in contexts where continuous or wide-area monitoring is challenging. By simplifying early-stage detection efforts and extending observational capacity, the tool can strengthen existing research methodologies and provide a reliable aid for scientific work.

Impact Indicators: Extent of potential application identified by BDRI experts, agreement on next steps or a pilot plan following the meeting.

Activities and Measured Impacts Summary

Developed by UNEW, together with Succorfish, the Cetacean Detection System was deployed in June 2025 3km off the coast in Blyth, UK for trials and testing at an offshore windfarm (see Figure 2). Sensors have been listening for either clicks or whistles to determine the presence of dolphins up until January 2026, where a storm caused technical difficulties to the gear and was ultimately disconnected. Re-connection of the system is expected to be carried out between April and May 2026.

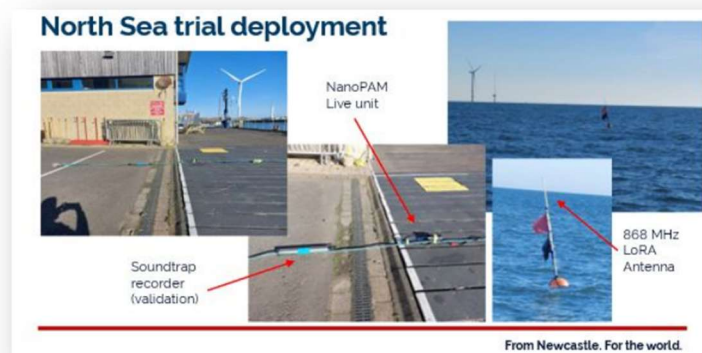


Figure 2. North Sea Trial deployment

The detections recorded during this period showed strong temporal alignment with visual sightings of bottlenose dolphins reported via social media. Notably, the tool generated substantial engagement on the “Newbiggin-by-the-Sea Dolphin Watch” Facebook account (approximately 40,000 followers), where users actively interacted with the platform and subsequently validated detections through in-person sightings. This correlation between acoustic detections and independent public observations provided additional confidence in the reliability of the monitoring approach, while also demonstrating its effectiveness in supporting community engagement and citizen-based validation.

For the execution of the KTP focused on Conservation Research Institution Engagement, ERINN Innovation organised a meeting together with the Bottlenose Dolphin Research Institute and KER owner, Jeff Neasham (UNEW) on 29 October 2025 (Figure 3). The meeting focused on the KER owner presenting the output to BDRI’s director, including how the cetacean monitoring tool operates and how its detection and analysis capabilities can enhance the accuracy and efficiency of cetacean observations within ongoing research programmes. The session also provided an opportunity for the expert to ask specific questions regarding

the applicability of the tool and its current capabilities. The meeting concluded with a follow-up action scheduled from February 2026 forward from the KER's owner side to provide an update on the status of the tool and potentially carry out trials in BDRI's location in the Ria of Arousa (Galicia, Spain).

Active collaboration with **Orsted**, a leading developer of windfarms, has been ongoing since April 2025 with MyGearTag units supplied for evaluation by fishers operating in areas potentially impacted by the Hornsea offshore wind array. Tests are ongoing to see if the technology can help to mitigate gear loss in these fisheries.

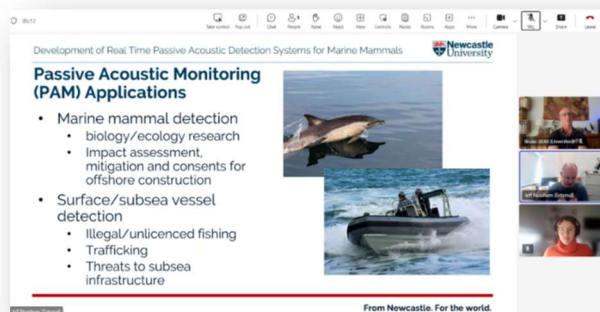


Figure 3. Scoping meeting between ERINN, UNEW and BDRI

Additionally, at the NETTAG+ Final Meeting, the cetacean detection mechanism was presented during the scientific workshop to **56 participants**, including **26 external stakeholders**, including representatives from research institutions, public authorities, and industry stakeholders. The session provided a valuable platform to demonstrate the functionality and potential applications of the tool across different operational contexts.

Particularly relevant discussions emerged with Whale and Dolphin Conservation and ARVI, where the system's capabilities were explored in relation to existing challenges and operational needs. Several informal bilateral meetings were held to further assess how the tool could be adapted to specific stakeholder

requirements, supporting its potential uptake and transferability. For example, strong interest was expressed by ARVI's ECOCERCO 2 project ([Utilización de dispositivos disuasorios acústicos multifrecuencia para minimizar interacciones con cetáceos](#)), where the cetacean detection mechanism was identified as a complementary solution. In this context, the tool could contribute to addressing a key issue faced by fishers in the region, namely, predatory interactions by cetaceans on fishing catches, by enabling improved monitoring and potentially informing mitigation strategies. Opportunities for further collaboration will be explored.

Next Steps

Testing of the cetacean detection technology is ongoing and is being extended through a long-term field trial initiated in April 2025. Additional funding from the United Kingdom was granted to proceed with the development and commercialisation of this result. In parallel, new pre-production cetacean detection boards are being manufactured and will be deployed in the North Sea upon completion, supporting further validation under operational conditions.

Building on these technical developments and stakeholder engagements, a **business plan** has been developed for this KER, through the Horizon Booster Services, outlining pathways for deployment, long-term sustainability, and future uptake. Further information and details of this work can be found in the Final Technical Report submitted to the EC (June 2026).

Horizon Results Platform: [Cetacean Detection System](#) | [EU Funding & Tenders Portal](#).

4.3 KER3: Extended features of acoustic tag: mechanical release system

Short description: This KER involves the ability of the [MyGearTag](#) to integrate a mechanical release feature, together with the app and a surface locator unit (SLU). The feature sends a command acoustically to the seabed unit to activate the release once the lost gear has been located, which then automatically releases either the tag itself or something floatable to the surface to help with the recovery. The ideal scenario would be to send a signal that would release the tag itself up to the surface on a thin line. The thin line is then used to pull up a thicker line for gear retrieval. It is most applicable to shellfish (trap) fisheries. If the gear is “stuck” and can’t be recovered by the line, then a feature of the design allows the electronic units to float to the surface, so the valuable bit of the kit is not lost and doesn’t become pollution itself.

Pathways to impact:

Table 6. Pathway to Impact for KER3: Extended features of acoustic tag: mechanical release system

User:	Transfer Activity	Application / uptake action by user	Impact / result	End Users
FISHERIES COMMUNITY ENGAGEMENT ROUTE				
Target User 1: Fishing cooperatives	UNEW/Succorfish to integrate pilot tests into ongoing field trials with fishing cooperatives.	Pilot testing to prove reliability and cost-effectiveness. Clarify how to make ropeless gear visible for other fishers/trawlers.	Optimised version of mechanical release system available with proven reliability/cost-effectiveness.	Fishers (trap/pot fisheries)
Target User 2a: Whale Dolphin Conservation, WWF, DG MARE	ERINN/WWF Med to provide success stories/promo material to WDC and WWF.	WDC/WWF to facilitate advocacy work around entanglement problematic/adoption of ropeless fishing to protect marine mammals.	Increased level of awareness of the benefits related to the mechanical release system by fishers.	Fishers (trap/pot fisheries)
Target User 2b: Europeche	UNEW/Succorfish to provide Europeche with training material.	Facilitation of fisher training events through Europeche.	Increased level of knowledge on how to operate the system.	Fishers (trap/pot fisheries)

User:	Transfer Activity	Application / uptake action by user	Impact / result	End Users
Target User 3: Government/NGO funding (e.g. EMFAF)	UNEW/Succorfish/ERINN to reach out to EMFAF national authorities for funding mechanisms.	Provision of funding by EMFAF for fisher training, manufacturing and maritime insurance costs.	Manufacturing and early adoption of the mechanical release system enabled through additional funding.	Fishers (trap/pot fisheries)
Target User 4: Maritime Insurance Companies	UNEW/Succorfish to connect with maritime insurance companies to seek options for providing lower insurance rates using government funding.	Insurance companies to incentivise adoption of ropeless gear by offering lower premiums/reducing insurance rates for fishers.	Increased uptake of the ropeless fishing solution by fishers.	Fishers (trap/pot fisheries)
Target User 5: Gear tech manufacturers	UNEW/Succorfish to connect with manufacturers to discuss partnership options.	Partner with fishing gear manufacturers to scale up production and distribution and ensure accessibility and affordability. Use of government/NGO funding to manufacture and sell ropeless gear to fishers at affordable prices to support early adoption.	Increased manufacturing levels and economies of scale leading to lower prices of the solution, increasing ropeless gear uptake by fishers further.	Fishers (trap/pot fisheries)
Target User 6: Policymakers	ERINN/UNEW/Succorfish to conduct a workshop with government bodies to explore ropeless fishing integration for policy as a bycatch mitigation tool.	Development of new policies on bycatch reduction, particularly in areas with whale migration routes & areas with marine mammal protection concerns (e.g., Scotland, Ireland, France, Spain).	Reduction of bycatch levels from fishing operations in EU waters due to increased regulation and use of ropeless gear as a bycatch mitigation tool.	Fishers (trap/pot fisheries)



Table 7. Knowledge Transfer Plan for Fisheries Community Engagement route (KER3: Extended features of acoustic tag: mechanical release system)

Fisheries Community Engagement
Target User: Fishing cooperatives (within NETTAG+) and individual fishers who operate high-value gear, such as trap or pot fishers, but also operating in areas where lost gear is common
Activity: Pilot and training with fishing cooperatives including carrying out workshops to introduce the tool, demonstrating how the technology works and how to integrate into daily fishing operations. The goal of these activities will be to work with cooperatives to co-develop a pilot deployment plan, using their expertise and experience with the training to decide which gear or fishing activities should be prioritised, while also collecting data to track the usage and recovery of gear to further build a base of evidence for further users, guidance and operations.
Message: This functionality improves daily fishing practices by enabling fishers to locate and retrieve their gear without relying on surface buoys. By providing precise, on-demand gear location, it reduces the time spent searching for traps and minimises fuel use and operational costs. Ropeless retrieval also helps prevent gear loss and ghost fishing, protecting marine habitats and wildlife. By removing surface lines, it reduces entanglement risks and makes fishing activities safer during deployment and recovery. Additionally, by removing surface lines, this approach aligns with emerging government mandates and guidelines aimed at reducing entanglement risks and protecting vulnerable species. Altogether, it supports a more efficient, safer, and environmentally responsible way of fishing.
Impact Indicators: % of cooperative members trained/engaged; number of pilot workshops/training events, feedback from workshop participants

Activities and Measured Impacts Summary

Within NETTAG+, Succorfish engaged with fishers operating high-value gear in North America (US and Canada) and the UK, particularly within trap and pot fisheries. These stakeholders highlighted the fact that they face ongoing challenges related to marine mammal entanglement in fishing ropes and associated regulatory pressures. In this context, the mechanical release system was identified as a promising solution, with the stakeholders recognising its potential to reduce entanglement risks and support compliance with existing and emerging regulatory requirements. Engagement with end users also provided valuable insights into priority use cases, particularly in fisheries operating in areas with high risks of gear loss and marine mammal interactions.



Building on these findings, the KTP included above was identified as a potential pathway to support future uptake. The KTP proposes targeted engagement with fishing cooperatives and individual fishers through pilot activities and training workshops. These actions would aim to demonstrate the technology, support its integration into daily fishing operations, and enable co-development of pilot deployment plans based on user needs and operational experience. If implemented, these activities would facilitate the collection of operational data on gear usage and recovery, contributing to the development of an evidence base to support wider adoption, best practices, and replication across different fisheries.

The mechanical release system functionality was presented at the NETTAG+ Final Event during the Scientific Workshop (Day 1, April 14, 2026) to **56 participants**, including **26 external stakeholders** from research institutions, public authorities, and industry. This further reinforced the relevance of the solution and confirmed stakeholder interest across multiple operational contexts.

Next steps

Succorfish has secured UK funding to continue the pathway towards validation and commercialisation, and a production design is currently underway.

Building on the identified market need and stakeholder interest, a **business plan** is also being developed through the Horizon Booster Services, outlining pathways for deployment, commercialisation, scalability, and long-term uptake. Further information and details of this work can be found in the Final Technical Report submitted to the EC (June 2026).

Horizon Results Platform: [Ropeless Fishing with MyGearTag | EU Funding & Tenders Portal](#)

4.4 KER4: Algorithm for the detection and localisation of gears

Short description: The KER relates to a novel algorithm for processing acoustic data. It aims to process the raw data that is gathered from acoustic sensors to understand what is in the water column. The knowledge generated here lies in the algorithm processing part rather than in the hardware/acoustics. The input will be in form of raw data, and the output will be ability to identify an object in the water column (i.e. input = raw data and output = image of an object in the water column).

The concept of this novel sonar system is to enable signal processing of acoustic images from the surface to detect and distinguish items or animals such as fishing gear or fishing herds in the whole water column. This algorithm could improve the detection range from 5-10 meters to potentially 100m or more. The sonar processing package developed will potentially be available in two options:

1. Data retrieval and subsequent processing at the lab.
2. Implementation of the algorithm in the CPU of a vessel to allow for real-time processing. As processing acoustics images requires a significant amount of computational effort, it might not be possible in real-time. Additionally, as there are set of acoustics signals for each time unit, another type of algorithm to reduce the computational efforts may be required.

Pathways to impact:

Table 8. Pathways to Impact for KER4: Algorithm for the detection and localisation of gears

User	Transfer Activity	Application / uptake action by user	Impact / result	End Users
Route 1, 2, 3 and 4 Target User 1: INESC TEC	Further trials demonstrating the feasibility of implementation of the algorithm in real-life conditions.	Validation, refinement and stabilisation of the algorithm so it can be reliably demonstrated and scaled	Algorithm in demo-ready condition.	Port authorities, Policy Makers, NGOs, EU MPA Managers



User	Transfer Activity	Application / uptake action by user	Impact / result	End Users
PORT AUTHORITIES' ENGAGEMENT ROUTE				
Route 1 Target User 2: Port operations managers/ environmental officers	Demonstration event.	Improved understanding of interface needed for port staff to interact with the information.	Integration with existing port surveillance systems (e.g. cameras, sonar).	Port authorities
Route 1 Target User 3: Head of environment/sustainability/Port Director/Head of Infrastructure	Strategic workshop involving port director, operations managers, environmental officers, fishers' association, INESC TEC.	Transform operational experience into a formal management decision to adopt through a formal decision support mechanism for investment and adoption of the system.	Formal decision package that includes information on the problem, the action, the expected impact, and the decision requested.	Port authorities
POLICY MAKERS ENGAGEMENT ROUTE				
Route 2 Target User 4: Fishing cooperatives	Pilot demonstration: deploy system as real-world pilots showing how the algorithm works.	Showcase how the algorithm can help fishing cooperatives coordinate recovery missions, predict likely location of lost nets/traps and map "ghost gear hotspots".	Reduce risk of gear entanglement and improve fishing grounds.	Policy makers: DG MARE
Route 2 Target User 5: Port Authorities with ESPO membership, Association Ports of Portugal, Puertos del Estado, National Port Entity, Associazione Porti Italiani	Port-scale deployment and integration pilot: transferring the solution and feedback from the fishing cooperatives to the port authorities by installing a software that includes the algorithm in selected ports.	Port authorities would identify the software as a solution to detect and map marine hazards, to optimise retrieval and cleanup operations, support environmental compliance and improve safety overall.	Understand patterns of litter, source identification, compliance and reporting, improved safety.	Policy makers: DG MARE



User	Transfer Activity	Application / uptake action by user	Impact / result	End Users
Route 2 Target User 6a: EMSA (European Maritime Safety Agency)	Maritime safety data integration and validation loops.	Large-scale surveillance, pollution response support, research, technology assessment.	Improved maritime safety situational awareness, enhanced maritime incident prevention capability, stronger support to EU maritime policy execution.	Policy makers: DG MARE
Route 2 Target User 6b: ESPO (European Sea Ports Organisation)	Consolidate results from multiple port pilot into a standard EU marine risk dataset and embed the system into ESPO working groups.	Advocacy for innovation, standardisation and data sharing, supporting EU green port strategy.	Ports could compare levels of ghost gear incidents, navigation hazard exposure, marine debris accumulation rates and move towards a harmonised EU standard.	Policy makers: DG MARE
TECHNOLOGY-ENABLED GEAR RECOVERY ROUTE FOR NGOS				
Route 3 Target User 7: WWF, Whale and Dolphin Conservation, Global Gear Initiative Innovation Board members	Field pilot deployment.	To test real-world relevance of ghost gear detection, entanglement risk mapping, marine debris tracking and validate the algorithm for further refinement. Software development.	Showcase previously invisible marine conflict zones, becoming measurable and mapped. Scientific validation of the model in live marine ecosystems.	NGOs
Route 3 Target User 8: program managers, advocacy officers or communications staff within identified NGOs	Internal institutional demonstration and adoption workshop: first users present results internally.	Demonstration of the software, tailored to specific needs and the environment they work in.	Software embedded within the NGO's core conservation infrastructure, full internal adoption across NGO departments.	NGOs



User	Transfer Activity	Application / uptake action by user	Impact / result	End Users
Route 3 Target User 9: NGO Senior management staff, executive leaders	Strategic impact demonstration and executive decision briefing: present consolidated results from pilots and internal adoption.	Provide evidence of the NGOs work, reporting and showcasing effectiveness of the software within their programs.	Executive-level adoption and organisation-wide scaling.	NGOs
GHOST GEAR DETECTION ROUTE FOR EU MPA MANAGERS ROUTE				
Route 4 Target User 10a: Regional NGOs e.g. Oceana, Ocean Conservancy, Public Institution Brijuni National Park, WWF, Marevivo, Nature Trust Malta, MCS, etc.	Regional replication workshops and pilot expansion: extend the validated NGO tool to other NGOS within the same region	Adaptation of the algorithm to regional ecosystems	Wider NGO adoption at regional scale, potentially creating a shared regional dataset	EU MPA Managers
Route 4 Target User 10b: Regional Port Authorities: Autoridade Maritima Nacional, Portos de Portugal, Port Authority of Vigo, etc.	Multi-port regional integration pilot	Regional maritime risk and hazard coordination	Consistent risk management across ports in a region	EU MPA Managers
Route 4 Target User 11: Management authorities for regional MPAs e.g. ERA	Joint regional marine risk coordination platform: uniting port authorities, NGOs and MPA authorities	Shared data and coordination mechanism will provide a combined dataset that will be transferred to MPA authorities	End of fragmented decision-making. MPAs are aware of biodiversity data and operational data	EU MPA Managers
Route 4 Target User 12: Regional MPA managers from Spain, Portugal, UK, Malta and Croatia, MPA Community Network, MPA Life Ireland	National MPA integration and standardisation programme: focused on aggregating outputs from all regional MPAs within a country	Combine all regional MPA data into a single national marine protection overview.	Unified national marine protected area governance system	EU MPA Managers



Table 9. Knowledge Transfer Plan Recovery Route for NGOs (KER4: Algorithm for the detection and localisation of gears)

NGO Engagement
Target User: NGO Innovation Board members
Activity: Workshop with NGOs introducing the algorithm, carrying out a live demo or simulation of how it works and how it could be implemented. The session can be structured as a co-design and validation step, where NGO feedback is captured, prioritised and converted into specific deployment decisions. Feedback would be requested on priority features and outputs, operational deployment scenarios, data requirements and interoperability, ethical and environmental safeguards.
Message: This functionality helps protect marine mammals, supports compliance with environmental regulations, and can reduce operational risk without slowing construction, but making it effective for NGOs requires their input. By participating in the workshop, NGOs would directly define the priority features, deployment models and safeguards needed to ensure the tool genuinely supports their conservation work.
Impact Indicators: % of NGOs attended, number of participants, priority features for NGOs identified

Activities and Measured Impacts Summary

As an initial step within the identified pathway towards uptake, further trials and testing were anticipated to be conducted during the project to support the validation and future deployment of the software algorithm. In this context, several key developments were successfully achieved. The trials and testing exercises were performed at mainly at Leixões Harbour and Vigo, but also, on a minor scale in Sicily and Croatia. The acoustic data retrieved during the trials was used for training and testing the algorithms.

A simulation environment was developed to enable controlled testing of detection algorithms using both acoustic and visual data inputs. In parallel, machine learning algorithms were trained for the detection of Abandoned, Lost or Discarded Fishing Gear (ALDFG) in camera imagery. This included the integration of state-of-the-art object detection models, such as Single Shot Detector (SSD) and YOLO architectures. Furthermore, the Deep SORT multi-frame target tracking algorithm was incorporated into a 2D sonar image processing pipeline, enhancing the system's capability to track and monitor objects across sequential



frames. These developments represent a significant step towards improving detection accuracy, robustness, and operational applicability, thereby strengthening the technical readiness of the solution for future deployment and uptake.

Additionally, the software algorithm was presented at the NETTAG+ Final Event during the Scientific Workshop (Day 1, April 14, 2026) to an audience of 56 participants, including 26 external stakeholders from research institutions, public authorities, and industry. This provided a valuable opportunity to showcase the system's capabilities and relevance across multiple application domains.

Notably, the presentation was attended by partners from the [SeaClear2.0](#) project, enabling direct exchange between initiatives addressing similar challenges. This interaction facilitated the identification of potential collaboration opportunities, particularly in relation to shared objectives around marine litter detection and monitoring and supports the potential for knowledge transfer and alignment of future activities.

Next steps

Building on these technical advancements, engagement with NGO Innovation Board members has been identified as a key next step within the KTP. A targeted workshop has been proposed to introduce the software, including live demonstrations or simulated use cases, and to facilitate a co-design and validation process. This would enable NGOs to provide structured feedback on priority features, deployment scenarios, data requirements, interoperability, and ethical and environmental considerations.

To maximise the effectiveness and impact of this engagement, it is recommended that the software algorithm is presented using a use-case-led and visually driven approach, rather than a technically detailed exposition. The presentation should begin with real-world challenges faced by NGOs, clearly linking the tool to operational needs such as monitoring, detection, and mitigation of marine impacts. Complex technical components should be communicated in simplified terms, focusing on functionality and outcomes rather than technical detail.

Furthermore, the use of live demonstrations, interactive simulations, or pre-recorded scenario-based visualisations is strongly recommended to support



comprehension and engagement. Where possible, outputs should be presented in formats familiar to end users (e.g. maps, alerts, or annotated imagery) to facilitate interpretation and relevance.

Finally, the session should be structured to actively encourage dialogue and prioritisation, allowing NGO stakeholders to directly influence feature development and deployment pathways. This co-design element is essential to ensure that the tool is aligned with conservation needs and maximises its potential for real-world uptake and impact.

If implemented, this engagement would support the alignment of the tool with conservation needs, ensuring its relevance and usability for end users. Proposed impact indicators include the level of NGO participation, the number of organisations engaged, and the identification and prioritisation of features required to support effective deployment in conservation contexts.

Horizon Results Platform: [Algorithm for the detection and localisation of gears](#) | [EU Funding & Tenders Portal](#)

4.5 KER5: Policy recommendations for litter management plans and facilities at ports

Short description: The research identified several common challenges faced by port authorities in managing litter, many of which were common in the different locations (Portugal, Spain, Croatia, Italy and Malta). They highlighted the lack of clear regulation and harmonisation, lack of ownership and responsibility, financial constraints, inadequate capacity in ports, inadequate waste separation, handling and recycling, limited monitoring, fisher's resistance to change and limited awareness and participation of fishers as the main obstacles. There is a need to streamline policies and processes, especially those related to circular economy, modernise PRF infrastructure, and invest in end-user education. These insights informed policy recommendations, with specific actions to:

- Support the development of adequate infrastructure, by improving infrastructure and facilities, developing dedicated facilities for fishing waste and optimise space utilisation
- Enhance economic viability by establishing sustainable funding mechanisms, promoting circular economy principles, scaling-up waste management operations and improving tender processes for waste management companies
- Streamline regulatory frameworks, by harmonising and clarifying regulations and establishing clearer guidelines on roles and responsibilities.
- Promote partnerships and knowledge sharing by involving multiple stakeholders and promoting collaborations between ports.
- Improve monitoring and data collection services/capabilities by establishing effective monitoring systems, strengthening monitoring and enforcement and improving waste traceability.
- Provide incentives and support for fishers by ensuring free disposal for special waste, investing in education and awareness for fishers and carrying out reward waste management.

Table 10. Pathways to Impact for KERS: Policy recommendations for litter management plans and facilities at ports

User	Transfer Activity	Application / uptake action by user	Impact / result	End Users
Route 1,2,3 Target User 1: The Net Generation Scheme, Enaleia, Gravity Wave, etc...	An online roundtable and co design session bringing together representatives from different initiatives to jointly review and refine the proposed policy recommendations	Validate proposed management plans against real operational models already working with ports and advocate for inclusion of recommendations in port litter management plans and regulations	Improved feasibility and uptake of policy recommendations through co-design with operational actors, increasing likelihood of integration into port management plans and EU-level marine litter policy frameworks	Port authorities, EU/EC policy makers, fishers and fishing associations
PORT AUTHORITIES' ENGAGEMENT ROUTE				
Route 1 Target User 2: Policy makers	Focused policy uptake session where the policy brief (validated by stakeholders) is presented to policy makers, discussed with them, and aligned with existing regulations	Convert validated plans and policy alignment into buildable port infrastructure	Increased understanding by policy makers and engagement with the recommendations, increasing the likelihood of adoption	Port authorities
POLICY MAKERS ENGAGEMENT ROUTE				
Route 2 Target User 3: Urban planners, engineering companies, waste management and recycling companies	Technical implementation workshop where the validated policy recommendations are translated into practical design requirements and operational procedures	Translate recommendations into operational infrastructure and/or ensure policies are practical, cost-effective and implementable	Organisations responsible for planning, building, and operating waste systems gain clear, feasible and affordable guidance, and are also able to provide insights into barriers and obstacles	EU/EC policy makers



User	Transfer Activity	Application / uptake action by user	Impact / result	End Users
FISHERS ENGAGEMENT ROUTE				
Route 3 Target user 4: insurance companies	Risk-alignment briefing where the implemented practices are presented as evidence for reduced operational, environmental and reputational risk	Reinforces behaviour through insurance conditions, reputational benefits and consumer demand	Insurance providers integrate the recommended practices into their underwriting criteria and incentives, encouraging ports and service providers to maintain high standards because it lowers premiums, improves reputation, and meets customer expectations	Fishers and fishing associations

Table 11. Knowledge Transfer Plan for Fisheries Community Engagement route (KER5: Policy recommendations for litter management plans and facilities at ports)

Maritime Circular Economy Engagement
Target User: Circular economy initiatives (e.g. The Net Generation Scheme, Enaleia, Gravity Wave, etc...)
Activity: An online roundtable and co-design session bringing together representatives from different initiatives to jointly review and refine the proposed policy recommendations. During the workshop, participants would assess the relevance and practicality of each recommendation, discuss how these policies align with their operational realities, and provide targeted feedback on where adjustments are needed. This step is essential to ensure the policies are not only well-designed but genuinely supportive of the challenges faced across initiatives.
Message: The proposed policy recommendations have been reviewed across different regions. However, we are interested in identifying which aspects of current policies may be hindering effective implementation. How do these challenges affect their operations? We would like to compare and validate the proposed management plans against existing operational models that have been successfully implemented in other ports.
Impact Indicators: Number of participants from each stakeholder group, number of actionable recommendations (collected via post-event surveys)

Activities and Measured Impacts Summary

The proposed policy recommendations were delivered as a peer-reviewed policy brief published in the journal *Frontiers* ([Frontiers | Challenges and recommendations for marine waste management in European fishing ports](#), Impact Factor = 3, Citescore: 5.8). This report synthesises evidence-based findings into actionable guidance aimed at policymakers, port authorities, and marine governance stakeholders, supporting informed decision-making and contributing to European policy discussions on marine waste and circular economy practices.

At the NETTAG+ Final Event (April 14-15, 2026), the policy brief was also disseminated in physical format to all attendees (Figure 4), ensuring direct access to the findings and further supporting awareness and uptake among stakeholders from research, industry, and public authorities. Stakeholders engaged that were particularly relevant for the policy brief included a mix of EU and national technical agencies, regional authorities, and local government representatives involved in environmental management, maritime governance, and tourism development. These comprised the Italian National Institute for Environmental Protection and Research (ISPRA), the Portuguese Environment Agency (APA), Docapesca (Portos e Lotas S.A), Capitania do Porto e Comando Local da Polícia Marítima da Póvoa de Varzim, Directorate-General for Natural Resources, Safety and Maritime Services (DGRM), and the European Maritime Safety Agency (EMSA), all of which act primarily as scientific, regulatory, or implementation-support bodies that inform and enforce policy rather than formally set it. Engagement included the Vereadora do Turismo of the Municipality of Vila do Conde, representing local government decision-making in tourism and coastal management, and the Norte Portugal Regional Coordination and Development Commission, a regional public administration body involved in strategic planning, coordination, and the implementation of regional development policies.



Figure 4. Cristina Pita (UAveiro) presenting the policy brief in NETTAG+ Final Meeting (Scientific workshop, April 14, 2026)

Next Steps

Building on this dissemination output, a targeted activity is proposed within the KTP to engage ocean plastic recovery and circular economy social enterprises (e.g. Enaleia, Gravity Wave, and Net Generation Scheme). This activity aims to further validate and refine the project's recommendations through direct interaction with key stakeholders.

This would take the form of an online/in-person roundtable and structured co-design workshop involving ocean plastic recovery organisations, circular economy social enterprises, port-based initiatives, and relevant institutional stakeholders. The session would be designed around three core ideas:

- Policy relevance: participants would review each recommendation and assess its applicability to real operational contexts, identifying which measures are already feasible, partially feasible, or currently unworkable under existing port governance systems.
- Barrier and enabler mapping: structured discussion would capture operational constraints (e.g. regulatory gaps, logistics limitations, funding barriers) and identify practical enablers that could improve implementation success across different port environments.

- Comparative validation of best practices: initiatives operating successfully in different regions would present existing operational models, enabling comparison with the proposed policy framework and identification of transferable approaches.

Feedback would be collected through structured surveys and facilitated discussion, with outputs consolidated into a prioritised set of actionable recommendations. These may include proposed policy amendments, implementation guidance for port authorities, and suggested adjustments to improve alignment with operational realities.

Impact indicators for the activity would include the number and diversity of participating organisations across stakeholder groups, the number of actionable recommendations generated, and the level of agreement or prioritisation of specific policy measures identified through post-event evaluation. Additional qualitative indicators would capture perceived relevance, feasibility, and anticipated policy influence. In terms of expected impact, this engagement would strengthen the practical validity of the policy recommendations, increase their credibility among implementation stakeholders, and improve their likelihood of adoption within port waste management strategies and broader circular economy policy frameworks at regional and EU level.

In addition, Innovation Board members identified further potential end-users for this KER particularly within the United Kingdom. As a follow-up to the Analysis Meetings conducted throughout the project, members also compiled a list of UK-based companies involved in fishing gear recycling. This list is provided below:

- [Milspeed](#)
- [MyGroup](#)
- [Dekmar Ltd](#)
- [Waterhaul](#)
- [Ocean Plastic Pots/Ocean Kitchen Scotland](#)

Horizon Results Platform: [Policy recommendations for litter management plans and facilities at ports](#) | [EU Funding & Tenders Portal](#)

4.6 KER6: Visualising the Impact of Marine Litter on Fishers: A VR experience

Short Description: This output delivers three virtual reality scenarios depicting (i) the current reality of litter trapped in fishing gear, (ii) a future scenario showing the marine litter problem under a ‘business as usual approach’ and a future scenario of the litter problem based on two KERs developed by the NETTAG+ project (fishers’ rewards program and the MyGearTag). The three virtual reality scenarios will be used to explore social acceptance of different levels of marine litter within five study countries (Portugal, Spain, Croatia, Italy, and Malta) and associated existing and potential future policy and management strategies.

Pathways to impact:

Table 12. Pathway to Impact for KER6: Visualising the Impact of Marine Litter on Fishers: a VR experience

User	Transfer Activity	Application / uptake action by user	Impact / result	End Users
POLICYMAKERS ENGAGEMENT ROUTE				
Route 1 Target User 1: Policy advisors, NGO advocacy teams, consortium exploitation partners	Targeted invitations to live demonstrations of VR experience at relevant events e.g. European Ocean Days (March 2-6, 2026), demonstration activity in final NETTAG+ Meeting.	VR provided an immersive, data-driven representation of environmental degradation, helping policymakers understand the scale, urgency and interconnectedness of marine litter impacts.	The consequences of marine litter become tangible, strengthening evidence-based decision-making and increasing political will to act.	Policy makers/decision makers
Route 1 Target User 2: Event organisers, EU/EC network facilitators, partner organisations	Offering the VR experience as an attraction or educational component at events such as EU workshops, policy dialogues, capacity-building sessions.	The tool is used as an awareness-raising activity	Accelerated collaboration between policymakers, researchers and practitioners.	Policy makers/decision makers

EDUCATIONAL ROUTE				
Route 2 Target User 3: VR technology providers, audiovisual producers, solution-developing companies	Co-development of educational VR experience.	Research-validated scenarios are translated into low-cost formats and solutions shown are updated.	Accessible and affordable VR tool ready for implementation. This would strengthen environmental literacy, supporting curriculum delivery and empowering teachers to communicate effectively.	Environmental science, marine ecology and marine biology teachers
Route 2 Target User 3: Museums, aquariums, NGOs involved in education and public engagement, teacher networks	Demonstration and orientations sessions for the target users to experience the VR scenarios, understand the scientific basis and see how it fits into their curricula.	Integration into existing teaching practices via a deployment package.	Expand its reach and societal impact. It inspires behavioural change, supports community action and strengthen public support for marine protection policies.	Environmental science, marine ecology and marine biology teachers

Table 13. Knowledge Transfer Plan for Policymakers Engagement route (KER6: Visualising the Impact of Marine Litter on Fishers: A VR experience)

Policymakers Engagement
Target User: Policy advisors, NGO advocacy teams, consortium exploitation partners
Activity: Targeted invitations to live demonstrations of VR experience at relevant events e.g. European Ocean Days (March 2-6, 2026), demonstration activity in final NETTAG+ Final Meeting (April 14-17, 2026)
Message: Marine litter is often presented as an abstract problem, with millions of tonnes described in static reports. By situating policymakers, industry representatives, and the public within the scenario, the limitations of text and spreadsheets are overcome. This approach allows participants to perceive the physical scale of the ghost gear problem and to observe the tangible solutions provided by NETTAG+.



Polymakers Engagement

Impact Indicators: Number of participants of the demonstration, surveys of the experience, empathy score (a short questionnaire that measures how strongly the VR experience increased users' emotional connection to marine wildlife and the impacts of marine litter).

Activities and Measured Impacts Summary:

A series of VR demonstration events were delivered across key European locations, targeting a broad audience including fishers, fisheries sector stakeholders, policymakers, and members of the general public. These activities functioned both as dissemination actions and participatory engagement opportunities, enabling direct interaction with the VR experience while also supporting qualitative and quantitative data collection on user responses.

In line with the VR experience's KTP, which identified live demonstrations as a key mechanism for enhancing uptake and stakeholder engagement, the experience was showcased at major international and project events, including **European Ocean Days** (EU Mission Ocean & Waters Forum, March 2026) and the NETTAG+ Final Event (Demonstration Event, April 2026), in addition to targeted demonstration events held in Croatia (Fishers' Association meeting, October 2025), Italy (Ecomondo Italy, November 2025), Malta (Fishers' Association Meeting, February 2026 – Figure 5), and Spain (Fishers' Association Meeting, March 2026).

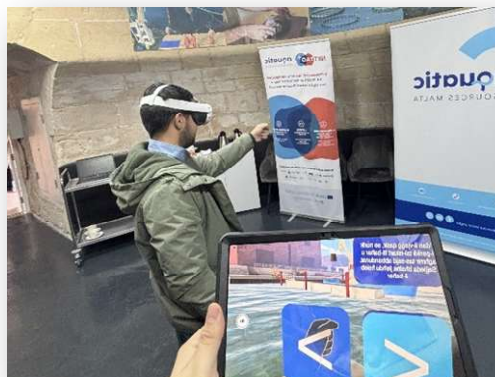


Figure 5. VR experience demonstration event (Malta, February 2026)

Empathy-based evaluation surveys were conducted during the country-specific demonstration events and European Ocean Days to assess the extent to which the immersive scenarios influenced participants' emotional engagement, cognitive understanding, and attitudes towards marine litter and mitigation strategies.

A total of **17 stakeholders** fishers and representatives of fishing associations participated in the surveys. Responses indicate that the VR experience was positively received, with participants reporting that it contributed meaningfully to shaping attitudes and motivations related to marine litter. Given their direct and daily interaction with the marine environment, this group provides particularly valuable insights into the potential of immersive technologies to support behavioural change and sector-specific communication strategies within fisheries communities.



In addition, **four policymakers** interacted directly with the VR experience. Their engagement highlighted the value of immersive tools for complementing existing policy knowledge by providing contextualised, first-person perspectives on environmental impacts, even among stakeholders already highly familiar with the issue.

Further **18 members** of the general public completed VR-based empathy questionnaires. While baseline awareness of marine litter was generally high among this group, the VR experience still demonstrated measurable added value in terms of knowledge reinforcement and contextualisation. Specifically, 20% of respondents reported gaining “quite a lot” of new information, 60% reported learning “a little,” and 20% indicated no new knowledge gain.

Further details about the findings of the empathy questionnaires can be found on D2.5: Reward programs for fishers’ voluntary collection and management of marine litter (M36). The results suggest that while immersive media may not always introduce entirely new information to all audiences, it plays an important role in deepening understanding, reinforcing existing knowledge, and translating abstract environmental data into tangible, lived experience perspectives that are not easily conveyed through traditional policy or scientific communication formats.

Next Steps

At the event in Italy, a Project Expert from Climat Action (Içel, Turkey) offered to promote the VR experience in their municipality in the near future. Aquatic Resources Malta (ARM) also expressed their interest to implement the NETTAG+ VR experience as a permanent activity in their facilities.

Additionally, the VR experience has been disseminated and gained strong interest from the Portuguese and Spanish Blue Schools Networks, demonstrating its potential as an educational tool for advancing ocean literacy in school settings. Efforts are underway to support its implementation within these networks through pilot testing, teacher engagement, and integration into ocean literacy activities.

Horizon Results Platform: [Visualising the Impact of Marine Litter on Fishers: A VR Experience](#) | [EU Funding & Tenders Portal](#)

4.7 KER7: Educational Materials for Awareness Workshops with Fishers on Sustainable Fishing Practices, including Marine Litter

Short Description: This KO encompasses the development of comprehensive educational and awareness materials designed for participatory workshops with fishers. These materials consist of a package of six workshops designed to raise awareness on the adverse environmental and socio-economic effects of marine litter and ALDFG, and to identify, promote and implement best practices regarding litter management derived from fisheries, use of alternative materials, emissions reduction objectives and reduction of environmental harmful impacts of fishing gear. The materials include workshop briefs, presentations, exercises, support material, and templates.

Pathways to impact:

Table 14. Pathways to Impact for KER7: Educational Materials for Awareness Workshops with Fishers on Sustainable Fishing Practices, including Marine Litter

User	Transfer Activity	Application / uptake action by user	Impact / result	End Users
FISHERIES ENGAGEMENT ROUTE				
Route 1 Target User 1: Port authorities, fishing associations	Co-designed, hands-on demonstration sessions of the educational materials	Hands-on engagement increases understanding of sustainable practices and marine litter impact	Port authorities become multipliers of the content. Repeatable training model is established at port level.	Small-scale and large-scale fisheries
Route 1 Target User 2a: NGOs, insurance of industry partners (buyers with sustainability programs)	Presenting materials and port-level results to the stakeholder. Creation of joint campaigns or certification schemes.	Support providing awards, certificates, financial or market incentives, recognition programs for sustainable practices	Integration of sustainability into risk assessments or premium incentives	Small-scale and large-scale fisheries



User	Transfer Activity	Application / uptake action by user	Impact / result	End Users
Route 1 Target User 2b: Fishing cooperatives/unions/technical advisors	Workshops to embed materials into cooperative code of conduct or unions training programs	Provide ongoing technical support, guidance on sustainable practices, troubleshooting refresher materials	Cooperative sand unions become trusted channels for training. Fishers receive consistent information about sustainable practices	Small-scale and large-scale fisheries
PORT AUTHORITY IMPLEMENTATION ROUTE				
Route 2 Target User 3: NGOs, technical partners, exploitation partners	Workshop to develop campaigns, technical guidelines or sustainability toolkits	Provides tools, templates and support for adoption of sustainable practices at ports	Unified messaging, materials gain credibility, technical validation and market relevance	Port authorities
Route 2 Target User 4: EFCA/FOR-MAR, national and/or regional ministries	Presentation of consolidated evidence and support from previous target users, through policy briefs, training modules and regulatory-aligned materials	Raising awareness about marine litter and sustainable fishing, guiding towards a clear pathway that encourages or requires port authorities to adopt materials	Materials gain institutional and regulatory legitimacy	Port authorities
EDUCATIONAL-COMMUNITY ENGAGEMENT ROUTE				
Route 3 Target User 5: University departments, educational area of NGOs, science outreach centres	Workshops will be adapted to fit academic and NGO educational objectives by first researching and mapping which student groups or audience would be most appropriate, for example, environmental science students, marine conservation trainees, or NGO volunteers.	Train staff and researchers to use workshop material effectively	Materials gain academic credibility and educational legitimacy	NGOs/ Universities



User	Transfer Activity	Application / uptake action by user	Impact / result	End Users
Route 3 Target User 6: Student groups, NGO project teams, professional associations	Provide toolkits for student-led campaigns, community events or citizen-science activities	Application of materials in campaigns, projects and peer-education activities	Empowering stakeholders to become active multipliers of the materials, expanding awareness, and strengthening organisational capacity	NGOS/Universities

Table 15. Knowledge Transfer Plan for Educational Community Engagement route (KER7: Educational Materials for Awareness Workshops with Fishers on Sustainable Fishing Practices, including Marine Litter)

Educational Community Engagement
Target User: University departments, educational area of NGOs, science outreach centres
Activity: The workshops will be adapted to fit academic and NGO educational objectives by first researching and mapping which student groups or audience would be most appropriate, for example, environmental science students, marine conservation trainees, or NGO volunteers. This includes reviewing course curricula or outreach mandates to ensure the workshop content aligns with their learning goals, skill requirements, and thematic focus on marine litter or ocean stewardship. Once suitable matches are identified, tailored micro-proposals will be sent to program coordinators or NGO education leads, outlining how the workshop complements their objectives, what learners will gain, and how it can be integrated into existing teaching or outreach activities.
Message: Educational materials on sustainable fishing and marine conservation increase understanding of marine litter and highlight the critical role of fishers as Guardians and Cleaners of the Ocean. Implementation of these resources supports engagement with students, staff, and communities, promoting recognition of fishers' contributions to ocean stewardship and fostering a shift in societal perspectives on the fisheries industry.
Impact Indicators: Number of universities, NGOs or outreach centres identified as target users, number of these institutions contacted, Number of institutions agreeing to participate in follow-on training or further capacity-building activities



Activities and Measured Impacts Summary:

The workshop materials on sustainable fishing practices and marine litter are designed for wide dissemination and reuse across fishing associations, port authorities, academic, NGO, and science outreach settings. Within the project, **six awareness raising actions** delivered by fisher's representatives and NGOs to professional fishers were carried out in eight distinct locations across Portugal, Spain, Italy, Croatia, and Malta. The project engaged 259 participants, 238 of whom were fishers, both small and large-scale. In general, fishers voiced strong environmental awareness and a clear willingness to act. They shared frustrations and interest in solutions. Technological innovations developed through NETTAG+ sparked curiosity but also concern. Still, many fishers expressed openness to testing the solutions, provided that they are supported by public institutions and adapted to real-life conditions. For full information on the results of the awareness actions, see D2.3 Report on awareness actions.

To maximise accessibility and long-term impact, all materials are hosted on the project website and NETTAG+ Zenodo community in **six languages** (English, Croatian, Maltese, Italian, Portuguese and Spanish), enabling open access for educators, trainers, and outreach coordinators. Their practical relevance and transferability are already demonstrated through uptake in the EU [PHAROS](#) project, where they will be used to support awareness activities with fishers.

In addition, the best practice handbook on waste management on board and at ports (see Figure 6), developed from the discussions with fishers during the workshops, together with infographics summarising the workshop results (see Figure 7) were presented at the NETTAG+ Final Event (April 15th, 2026), further increasing visibility among key stakeholders, including researchers, policymakers, and industry representatives. This dissemination has helped position the workshops as a replicable tool for capacity building and awareness-raising across different contexts.

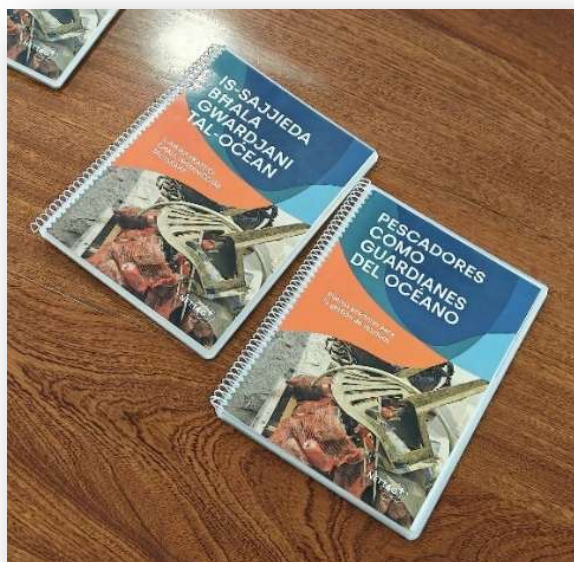


Figure 6. Handbook 'Fishers as Guardians of the Ocean: Best Practices for Waste Management' displayed at NETTAG+ Final Event (April 2026)



Figure 7. Infographics developed by WWF showcasing the results from the workshops

The impact of these materials extends beyond immediate workshop delivery by supporting the integration of sustainable fishing and marine litter topics into education programmes. By engaging students, NGO staff, and community groups, the workshops contribute to increased awareness of marine litter challenges and promote recognition of fishers as active stewards of the marine environment. Over time, this is expected to foster more informed attitudes toward fisheries and encourage stronger collaboration between the fishing sector and wider society.



Regarding potential pathways for further uptake, NGOs and universities were identified as key target users of the materials. In line with the KTP identified, a dedicated effort was undertaken to identify and profile institutions for which the materials would be most relevant, following a need to adapt the content to suit their specific educational and outreach needs.

Next Steps:

As part of the project, ERINN carried out a targeted scoping exercise to identify institutions in the project countries with strong alignment to marine conservation, sustainable fisheries, and environmental education, and that are well positioned to reuse and integrate the materials. The following institutions have been highlighted as potential candidates for engagement:

- **Portugal:**
 - University of Algarve
 - MARE: Marine and Environmental Sciences Centre
 - Oceanário de Lisboa
 - Associação Portuguesa do Lixo Marinho ([INÍCIO - APLM](#))
- **Ireland:**
 - University College Dublin
 - Galway Atlantaquaria
 - Clean Coasts
 - Centre for Marine and Renewable Energy
 - Atlantic Technological University

- **Spain**

- University of Cádiz
- Centro Tecnológico del Mar (CETMAR)
- Surfrider Foundation Europe
- Oceanogràfic València
- Asociación Española de Basuras Marinas (AEBAM) ([Protección del océano | Asociación Española de Basuras Marinas](#))
- INTEMARES ([Intemares](#))
- Vigilantes Marinos ([Vigilantesmarinos](#))
- Fundación Biodiversidad ([Inicio - Fundación Biodiversidad](#))
- LIBERA ([Proyecto LIBERA - Unidos contra la basuraleza](#))
- Clúster Azul - [Clúster Marítimo Español](#)
- [Instituto Español de Oceanografía](#)

- **Malta**

- University of Malta
- Nature Trust Malta
- Malta National Aquarium
- Explora Interactive Science Centre

- **Croatia:**

- University of Split
- Institute of Oceanography and Fisheries

- Sunce Association
- **Italy:**
 - University of Bologna
 - ISPRA
 - Stazione Zoologica Anton Dohrn
 - Acquario di Genova
 - Legambiente ([Legambiente | Insieme per un mondo migliore - Legambiente](#))
- **United Kingdom**
 - University of Plymouth
 - Marine Conservation Society
 - National Marine Aquarium

Building on this initial scoping, efforts in the future should focus on establishing direct collaborations with selected institutions, supporting the adaptation of materials to local contexts, and facilitating knowledge exchange between stakeholders. This will help ensure that the materials achieve sustained impact, contributing to long-term awareness-raising and strengthened connections between the fishing sector, educational bodies, and wider society.

Horizon Results Platform: [Educational Materials for Awareness Workshops with Fishers on Sustainable Fishing Practices, including Marine Litter | EU Funding & Tenders Portal](#)



5 Engagement and Showcasing

5.1 End-user engagement

End-users were identified based on the application and expected use cases of all the KOs that were identified (see D5.2), even those that were not considered KERs.

Key activities to support uptake included:

- Stakeholder identification and mapping, defining primary users, secondary users, and influencers within relevant sectors for the different solutions NETTAG+ developed. This was done within the three Analysis Meetings of the project, explained in further detail in D5.2 Knowledge Management.
- User needs analysis, focusing on operational challenges, pain points, and expectations from similar existing solutions, also analysed within the Analysis Meetings together with the Innovation Board members. Further analysis was conducted to identify the problems, barriers, and challenges faced by end users; alongside an assessment of the benefits, outcomes, and value they seek. This work was carried out during the development of the Value Proposition Canvas for two Key Exploitable Results (KERs) of the project: the Cetacean Detection System and the Mechanical Release System.
- Engagement activities, including consultations, workshops, and structured discussions with relevant stakeholders were carried out within the project, through bilateral meetings, Analysis Meetings and via in-person interactions at external meetings.
- Demonstration and validation activities, providing end-users with opportunities to interact with early versions or concepts of the solutions (e.g presentation of NETTAG+ solutions “MyGearTag” and “IRIS robot” at Annual Meeting (May 2025, Patti, Sicily) and Final Event (Demonstration Day, April 2026, Vila do Conde, Portugal))
- Awareness and uptake support, including communication and dissemination of project results through presentations, reports, and stakeholder communication channels (e.g. presentation of NETTAG+ results at Final Event (Scientific Day, April 2026, Vila do Conde, Portugal), through NETTAG+ social media (LinkedIn and Instagram), REMORA Symposium (October 2025), etc.).

- Early adoption considerations, such as identifying potential pilot users or organisations willing to test the solutions in realistic environments (e.g. BDRI, Ørsted, ARVI, Blue Schools Network, etc.)

These activities supported initial validation of the KERs and helped ensure alignment with real-world operational contexts and user requirements.

5.1.1 *Feedback integration*

A structured and iterative feedback process was embedded within the full KM and KT methodology (see D5.2) to ensure continuous improvement of the KERs, Pathways to Impact and KTPs throughout the project lifecycle. Feedback was gathered from Innovation Board members and consortium partners, who engaged directly with all materials developed by the project as they were produced.

Rather than being a one-off exercise, feedback was integrated as an ongoing collaborative process, with partners reviewing and refining the materials collectively across multiple stages of development. This approach enabled continuous validation of both content and format, ensuring alignment with project objectives and end-user needs.

Inputs from consortium discussions and Innovation Board reviews were systematically considered and incorporated into iterative revisions of the KERs, supporting improvements in clarity, relevance, and usability. This continuous engagement ensured that the final outputs benefited from diverse expertise across the partnership and were strengthened through collective refinement.

5.2 Dissemination of NETTAG+ Results

Within the framework of NETTAG+, Work Package 6 (WP6) focused on the development of engaging and targeted communication content across social media platforms, newsletters, events and relevant professional networks. The objective was to ensure effective dissemination of project results across the entire consortium while also creating high-quality, reusable communication assets to support wide outreach and long-term visibility of project outcomes.

Throughout the project duration, the NETTAG+ website served as a central dissemination hub for all project-related outputs, updates, and news. The website was continuously updated with research findings, events, and stakeholder engagement activities, ensuring accessibility and transparency of results.

Key project results, products, and activities were also disseminated through the NETTAG+ social media channels, reaching over **300 followers on LinkedIn**, **396 followers on Instagram**, **544 followers on Facebook**, 436 on X, and 57 on the recently created Bluesky account, representing a diverse range of stakeholders, including scientists, institutional organisations, media and general public. A strong emphasis was placed on media outreach and public engagement. In total, at least **10 original press** releases and promotional articles were published and distributed through consortium channels and external media platforms. This effort led to the publication of over **25 additional articles** in websites, press outlets, and specialised publications. Overall, dissemination activities resulted in significant media coverage, including **48 media articles**, **16 media stories**, **5 newsletters**, **2 interviews**, and **1 mention in an EU-level newsletter** (see Figure 8).

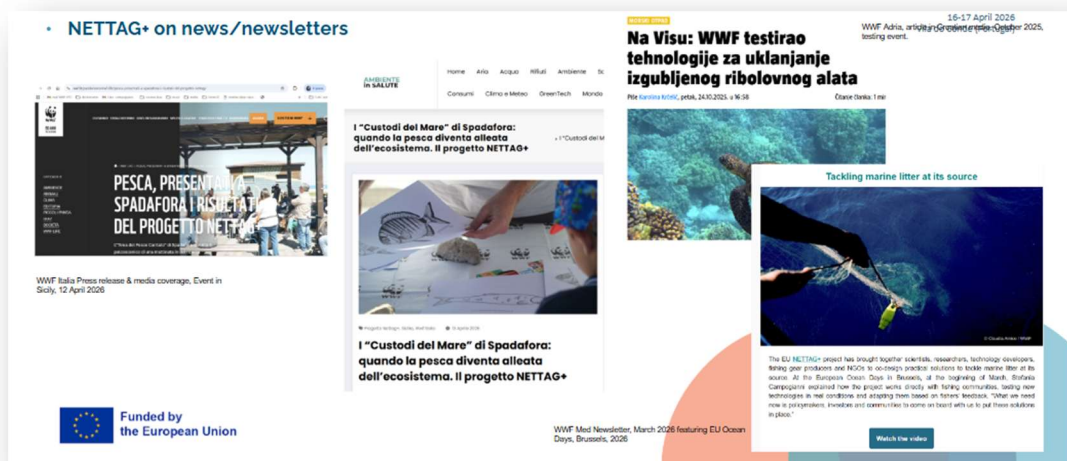


Figure 8. NETTAG+ on news and digital articles

To support visual dissemination and increase audience engagement, **6 professional videos** were produced, along with **4 webinar recordings** and **9 reels**, **8 short video clips** designed for social media outreach. These multimedia outputs contributed to enhancing the accessibility and visibility of project results.

5.2.1 Publication of KERs

All KERs generated within the project were published on the EC's [Horizon Results Platform](#), ensuring high visibility, accessibility, and alignment with the European Commission's dissemination and exploitation expectations. Details from the KERs were collected using an internal template (Annex 2). They have also been made available on the project website. This

publication process supports the broader objective of promoting transparency, encouraging further uptake by external stakeholders, and strengthening the long-term sustainability of the project's outputs. Links to each individual KER are provided above.



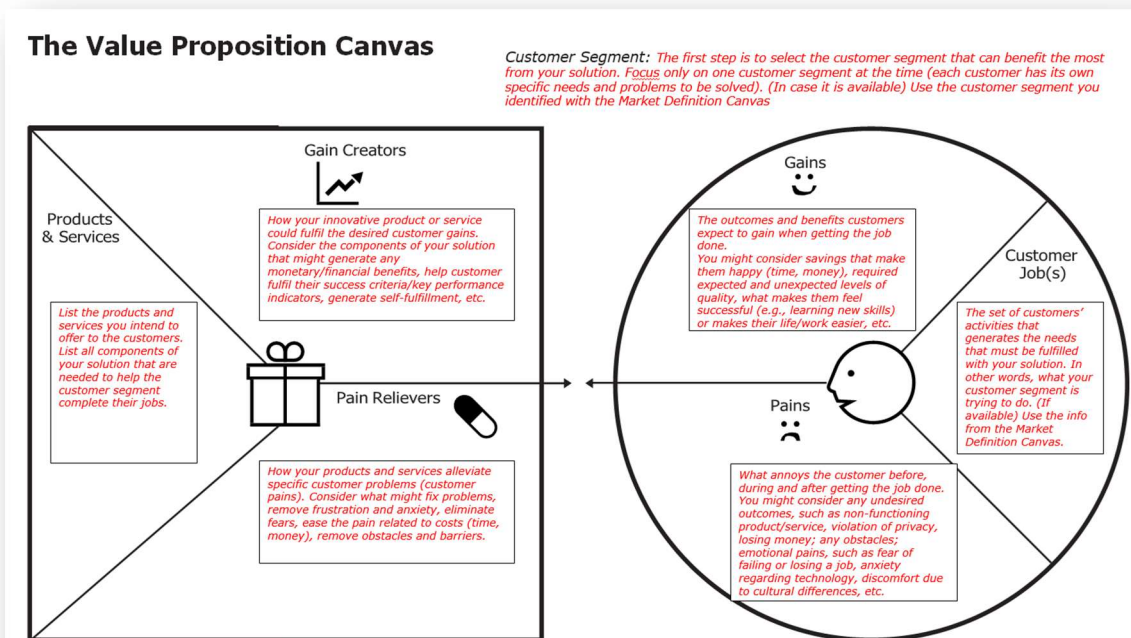
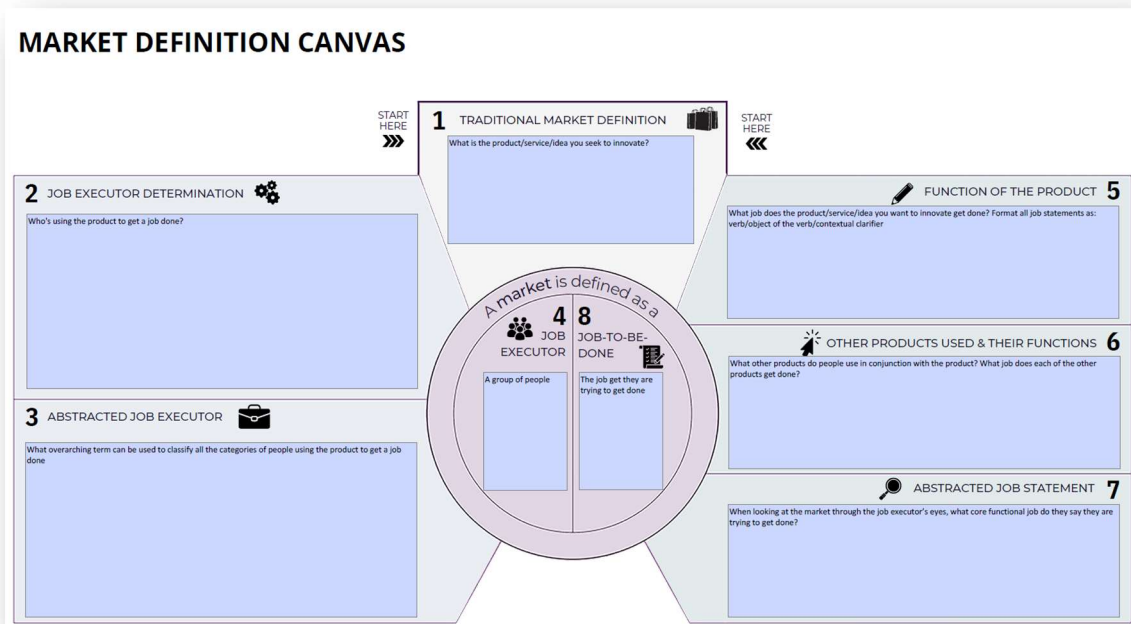
6 Conclusion

NETTAG+ has established a clear and strategic framework to maximise the impact, uptake, and long-term exploitation of its KERs. By mapping concrete Pathways to Impact for high potential results, implementing the most feasible routes through associated KTPs, the project has moved beyond planning into actionable deployment.

Strong collaboration between project partners, the Innovation and Advisory Board including stakeholders and end users, has ensured that solutions are not only technically robust but also aligned with real-world needs, accelerating their readiness for uptake and potential commercialisation. The development of business cases, market insights, and early-stage models has further reinforced this transition from innovation to application.

NETTAG+ has already delivered measurable impact, contributing to broader environmental, policy, and societal priorities. Combined with active dissemination and engagement efforts, this provides a solid foundation for sustained knowledge transfer beyond the project's lifetime. NETTAG+ partners will continue to implement the KTPs and progress the Pathways to Impact, which have been published to further facilitate adoption, scaling, and evolution of NETTAG+ results. By keeping these results accessible, relevant, and user-driven, NETTAG+ is well positioned to deliver lasting environmental, economic, and societal value.

Annex 1: Templates used for business cases / market plans



Annex 2: Horizon Results Platform Template



Horizon Results Platform (HRP) Template
Key Exploitable Results (KERs)
Collection for Horizon Results Platform

SECTION 1: Result title, target audiences and needs:

Title of result (120 characters)*
Message/ Teaser to potential user (1000 characters)*
Video/Image section*
Result Type*
Choose an item.
EU Missions *You can select more than 1

Please select, if applicable, the main EU Missions that your project result significantly contributes to. To find out more about the EU Missions please consult the dedicated website. Please be aware that your declared contribution to the EU Mission(s) will be validated by the European Commission before publication on the official platform website. It is the result of this validation by the EC that will be the final, published version.

e) Oceans, seas and waters

Choose an item.

Choose an item.

Target audiences * You can select more than 1.

The fields "Target Audiences", "Our needs" should be used together to denote who you are targeting and what specific needs you have from a fixed drop-down list. You will also have the optional field "Specifically looking for..." where you can be more specific in what you are looking for.

Choose an item.

Choose an item.

Choose an item.

Our needs are * You can select more than 1.

Choose an item.

Choose an item.

Choose an item.

We specially need/are looking for *

Please enter more specific details in terms of which audience you are targeting and what your precise needs are.



SECTION 2: About us

Main project*
NETTAG+

Result Contributors*

Owners for exploitation* In this section, the platform only allows us to include official partners of the project, so we have included the TNA facility here. Please let us know if you are uncomfortable with this affirmation.
Which entity(ies) (among the "Result contributors") will have rights to exploitation of the Intellectual Property?

Start-up created for further exploitation? Optional

Testimonials/References? Optional
a) Title Here, you could provide the links to references from you peers, customers or partners, your certifications, honorary memberships, awards, related newspaper or journal articles, or any references and credentials to make your profile more credible and attractive.
b) Link

Find us on Optional
a) Description
b) Link

SECTION 3: result description and influence

Result description (1200-character limit)*

--

Business Sector(s)/ Policy Area(s)*

Please select **up to three** most relevant European Commission Policy areas (see related link [here](#)).

aa) Maritime affairs and fisheries

Choose an item.

Choose an item.

Tags/Keywords*

Contribution to UN Sustainable Development Goals* Please list up to three most relevant UN Sustainable Development Goals your result contributes to.

You may consult the relevant [United Nations Webpage](#) for more detail on these.

n) Goal 14: life below-water

Choose an item.

Choose an item.

Radical Innovation Breakthrough? **Optional**

A comprehensive foresight analysis funded by the EC has led to the categorisation of 100 so called Radical Innovation Breakthroughs (RIBs) categories. If applicable, please select those RIB's most relevant to your result (up to 3). These RIB's will be included in your list of tags. For more information, please consult [Horizon scanning study](#).

--

Has your result had or you expect it to have significant influence on policy-making?*

Options:

Choose an item.

Other information/data to share: **Optional**

a) Text

Here you may provide links to datasets, databases, documents, analyses or any other types of results that you would like to openly share and that can be used by any user of this Platform.

--

SECTION 4: results and business maturity and exploitation outlook

Result Maturity*

Choose an item.

Current Stage and Next Steps*

Elaborate more on the stage of R&D and the specific funding you seek. Also make sure to select the relevant values for your Target Audiences: 'Private Investors' and or/ 'Public or private funding Institutions' and/or 'Other actors who can help us fulfil our market potential'.

Do you already have customers for this result?*

Choose an item.

Unique value proposition*

What is the unique value proposition of your result? You are again addressing potential partners and/or investors, so make sure you have a consistent message throughout your profile. Pay particular attention to the consistency with your 'Message/Teaser to the potential user', as well as your selected 'Target Audiences' and selection of 'Tags / Keywords

Do you have a scalable business model?*

Choose an item.

Please elaborate on the Scalability **

Is your result replicable?*

Replicability refers to the ability of your product, service or business to be replicated and sold and delivered consistently and reliably, to serve (theoretically) infinite customers (multiple markets) the exact same service or product, to the exact same standard, every time.

Choose an item.



Please elaborate on the Replicability**
The workshop can be replicated and adapted to different stakeholders and circumstances.

Is your result and your business model sustainable in the long-term?*
According to the latest definition found in https://sustainablebusinessmodel.org/ , "A business model for sustainability helps describing, analyzing, managing, and communicating (i) a company's sustainable value proposition to its customers, and all other stakeholders, (ii) how it creates and delivers this value, (iii) and how it captures economic value while maintaining or regenerating natural, social, and economic capital beyond its organizational boundaries." In simple terms, a sustainable business model focuses on adding value to stakeholders, the environment and society. Choose an item.

Please elaborate on Sustainability**
N/a

Are you targeting geographical markets?*
b) No

What are the main geographical markets you are targeting?** Please include the countries you are targeting

SECTION 5: investors corner

What level of investment (EUR) are you currently looking for?*

h) No investment sought

I can provide the following upon request by an interested party.*

Please provide the necessary information where relevant.

a) Short presentation(s): Short version for 10-15 mins; detailing information from the elevator pitch and providing factual information in a manner understandable to non-specialists

*** Compulsory response in Horizon Results Platform**

****Only compulsory if the answer to the previous question is "yes"**