

Healthy Mediterranean Sea - Unlocking the potential of
Ports and Harbours in preventing and reducing the effects
of Marine Litter

BlueMed Pilot Workshop
Sep. 14, 2021

PORT OF **VIGO**, MARINE LITTER STRATEGY



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Origin of Marine litter

Port of Vigo

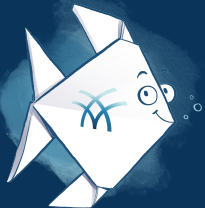
Port Authority of Vigo

blueMed

The origin of marine litter is diverse. It is estimated that 80% of marine litter comes from land, mainly from coastal tourism, storm drains, rivers, illegal landfills and industrial areas. The remaining 20% comes from marine activities such as fishing and aquaculture, pleasure boats and maritime transport.



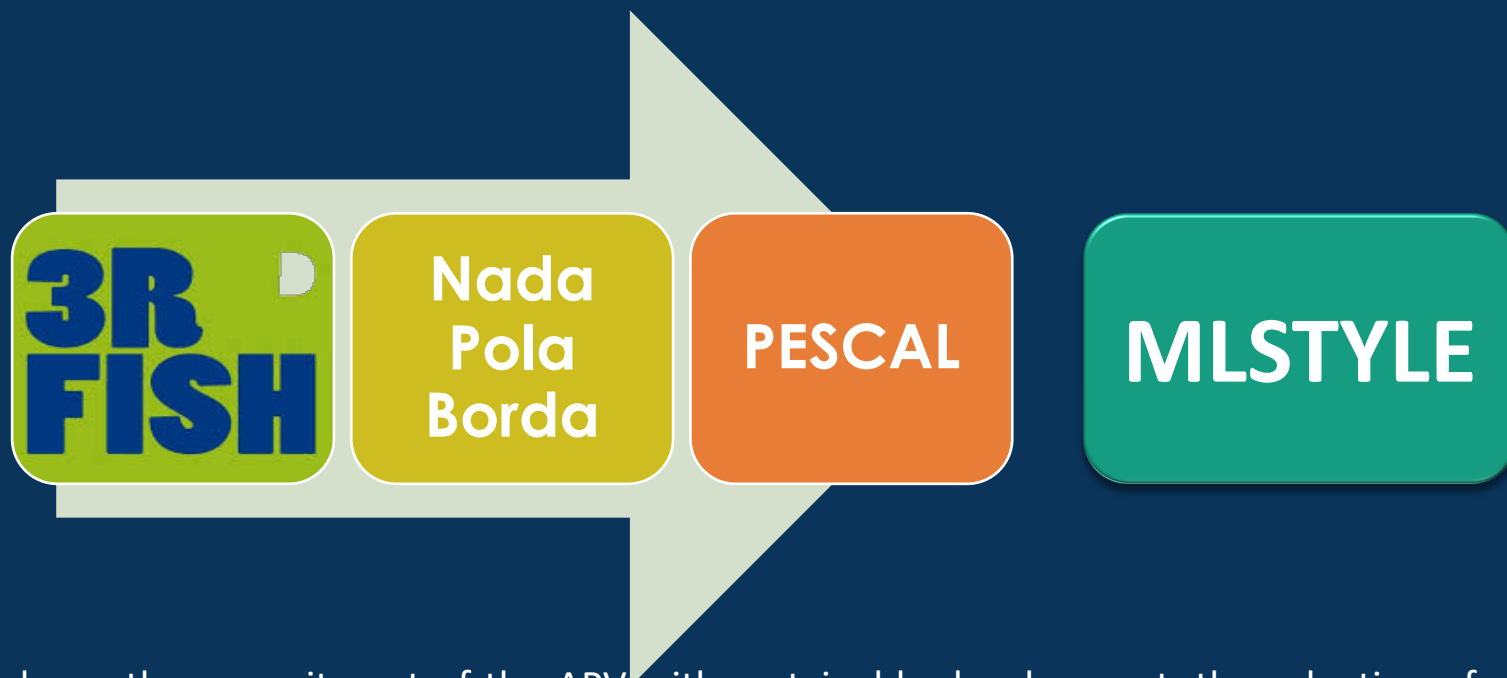
The responsibility to solve the problem is not only of the fishing sector, the joint work of states, administrations and companies is indispensable



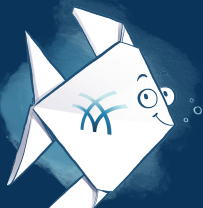
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Port of Vigo Marine Litter Strategy: Background

The Port Authority of Vigo has participated in many waste recovery projects since 2010:



This shows the commitment of the APV with sustainable development, the valuation of residues, the cleaning and conservation of our seas and the support for the new strategies of circular economy

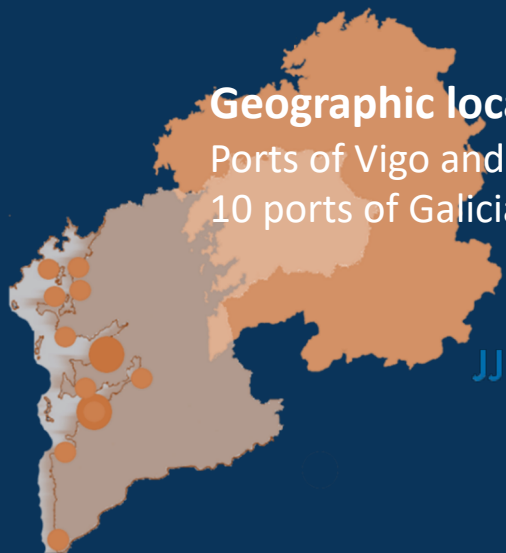


Main Goal

The protection of the sea and its resources by reducing marine litter and applying circular economy processes on wastes from the fisheries and port activities.

Geographic location

Ports of Vigo and Marín
10 ports of Galicia



Partners & collaborators:



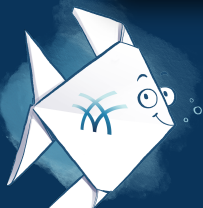
Specific Goals

- Reduction of marine litter with the collaboration of the fisheries sector.
- Design of an integrated system to manage waste from fisheries and port activities.
- Assessment of the recycling/valorisation potential of certain types of waste as a raw material to develop products for the textile industry.



Implementation of different models of marine waste collection by the fishing fleet (trawlers and artisanal) working in the ports of Vigo and Marín and in other ports of Pontevedra:

- Long working periods devoted to collecting marine litter during the fishing activity of the fleet.
- Campaigns of marine litter collection focused on areas of accumulation or restoration of nets/fishing gears.
- Collection of objects and wastes from the seabed of ports that may represent any danger for shipping, the environment and the marine life.



Stage 1: Coastal trawler fleet

• Port of Vigo



• Port of Marín



oproamar

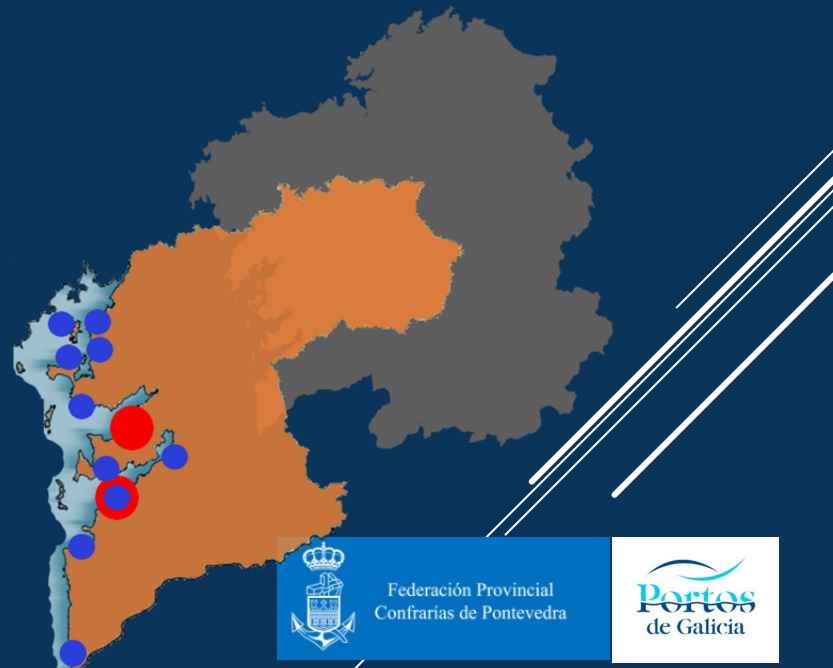
oproamar



Stage 2: Artisanal fleet

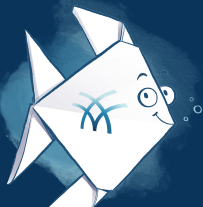
10 Fishermen and shellfish gatherers' associations from the province of Pontevedra (Ports of Galicia Authority)

- A Guarda
- Baiona
- Vigo
- Cangas
- Portonovo
- O Grove
- Cambados
- Vilanova
- A Illa de Arousa
- Redondela



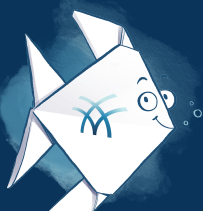
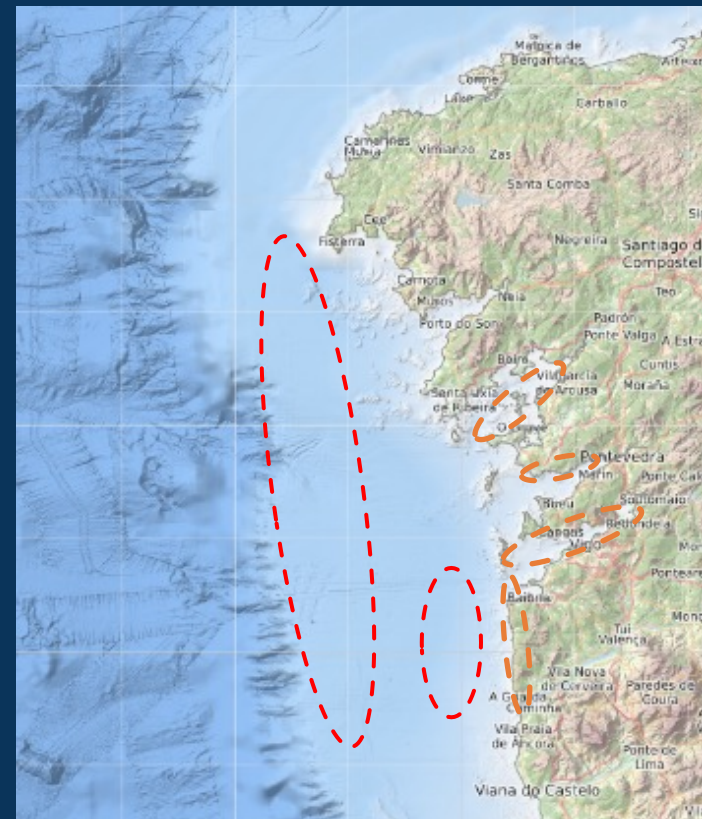
Federación Provincial
Confrarías de Pontevedra

Portos
de Galicia



Operative areas for collection:

- Trawling fleet: operating off Galician coast (in the continental shelf) in front of Rías Baixas, from A Guarda to Fisterra in depths from 100 m. (8 vessels)
- Artisanal fleet: operating at inshore waters of the Galician coast (inside the rías of Vigo, Pontevedra and Arousa as well as in the near external coastal areas (potentially 268 vessels of the small scale fisheries fleet).
- Shellfish gatherers: operating at different beaches and rocky shore areas in those three rías (potentially 770) and the coast of Baiona and A Guarda.



CONTAINERS

Fishermen - Shellfish gatherers



Project: Nets and PET bottles



Port of Baiona



Support and relationship
with the fleet
Vessels: Collect marine
litter and unload in port




Coordination and
technical supervision.
Port cleaning service:
transfer to MLS-
management area




Classification-
quantification-
separation of marine
litter MLS



Gathering PE & PA nets +
PET bottles



Waste manager: Collect
and transport the waste
of interest to your plant



Recycling-recovery test
in assigned companies



Other waste: a port
cleaning waste manager



Waste manager:
Transportation to
treatment plant



Management in waste
treatment plant

A. PLÁSTICO.

- A1. Botellas (PET)
- A2. Bolsa, Lámina, film, bandejas
- A3. Tapas e Tapóns
- A4. Liña palangre monofilamento
- A5. Liña palangre multifilamento
- A6. Corda, cabo, cordeis
- A7. Rede enmalle nylon
- A8. Rede arrastre PE
- A9. "Rede" plástica nasa
- A10. Cacharros polio PVC
- A11. Boias e flotadores
- A12. "Outros" de mestura de artes
- A13. Roupa de augas
- A14. Bidas, abrazadeiras, cordel atadeiras
- A15. Flexes
- A16. Caixas, caixóns, cestas, bidóns...
- A17. Caixas, fragmentos EPS
- A18. Cueros ("pañais") e similares
- A19. Sanitarios: toallilla, tampón, etc
- A20. Saqueta mexillón
- A21. Pausillos das bateas
- A22. Corda batea
- A23. Outros

B. METAL

- B1. Latas de comida (conservas, etc)
- B2. Latas de bebidas
- B3. Obxectos pesca_malletas, cabo (11 m)
- B4. Obxectos pesca_chumbos, relinga
- B5. Obxectos pesca_boia
- B6. Obxectos pesca_anzol
- B7. Bidón, caldeiro, caixón...
- B8. Electrodomésticos
- B9. Partes de coches, baterías/Pilas
- B10. Cabos outro tipo
- B11. Outros obxectos

C. GOMA

- C1. Botas
- C2. Globos
- C3. Obxectos da pesca_Bobinas, rolos, diábolo, etc
- C4. Pneumáticos
- C5. Lubas
- C6. Outras pezas de goma

D. VIDRO/CERÁMICA

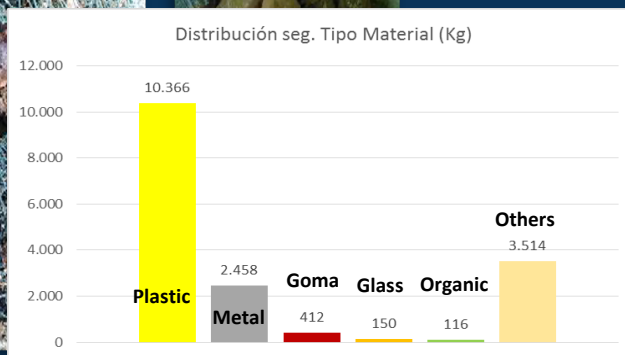
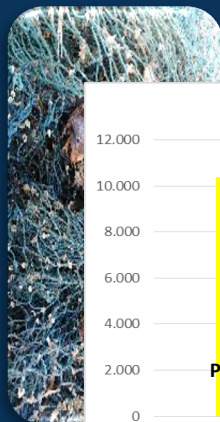
- D1. Frascos, botes
- D2. Botella
- D3. Peza
- D4. Outros

E. PRODUCTOS "NATURAIS"

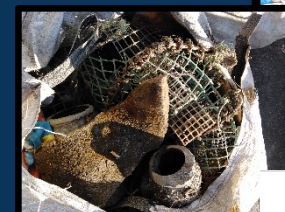
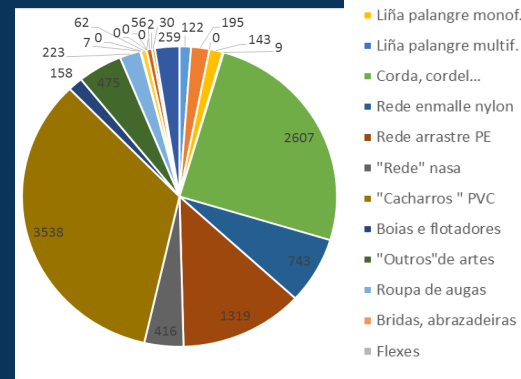
- E1. Madeira procesada
- E2. Corda, cabo (de fibra vegetal)
- E3. Papel e cartón
- E4. Palets
- E5. Outros obxectos

F. VARIADO, "MESTURA"

- F1. Roupa-Tropeos
- F2. Calzado
- F3. Bricks (leite, zumes...)
- F4. Outros (mestura, alfombra, espuma coxión, rolo pintar, hule)



Plastic Subcategories



6 main categories (53 subcategories):
 Plastic, Metal, Rubber, Glass/Ceramic,
 Natural Products (paper) and Mixed.

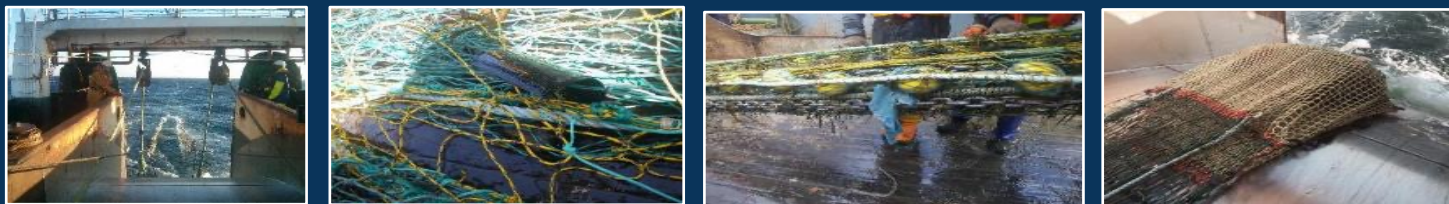


Collection of litter from the sea bed with specifically designed extractive devices

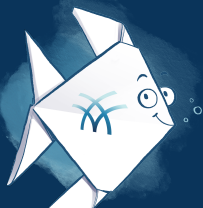
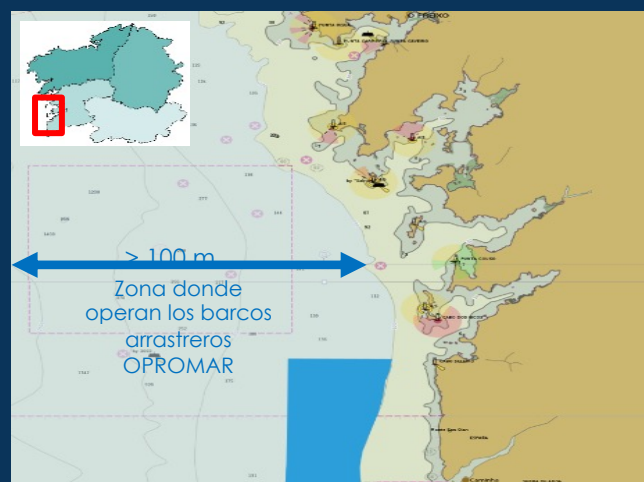
“Creeper “ (based on a professional artefact named “garampin” to retrieve lost fishing nets and ropes)



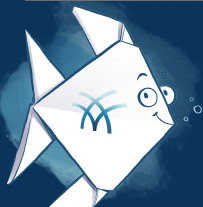
“Trawling gear” (based on professional fishing gears but specifically adapted to collect marine litter)



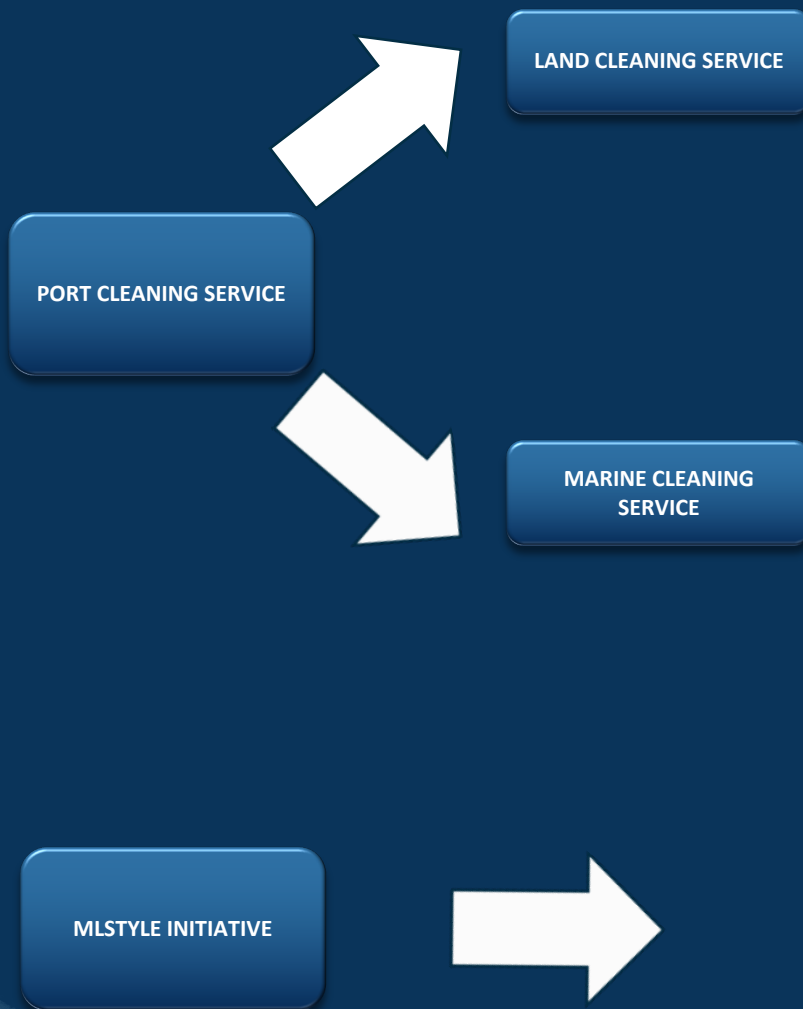
Features of the Tows: geo-reference, duration, type of seabed, etc.



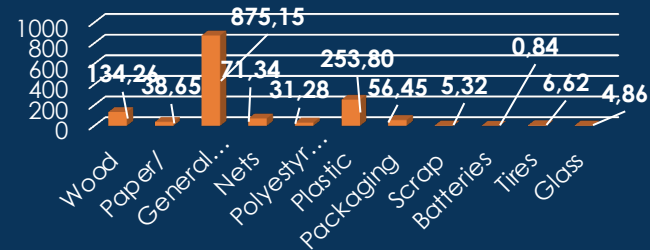
- Design of an efficient location to collect and manage wastes
- Supply the location with the required equipment



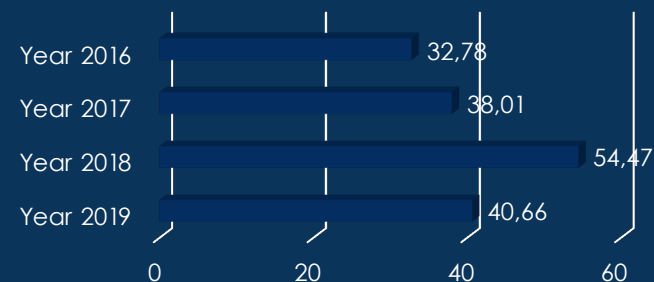
10 Study of valorisation options



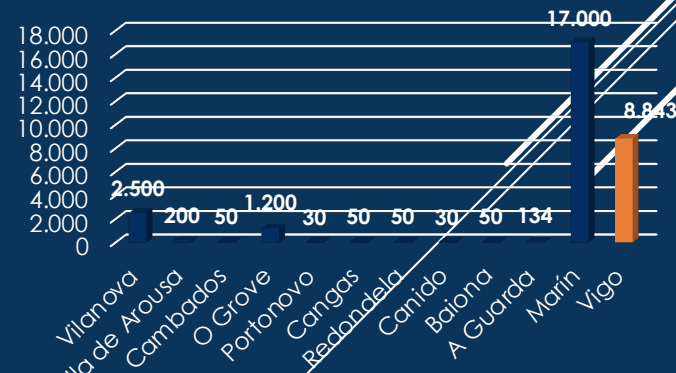
Land cleaning Service: Waste in Tons 2019

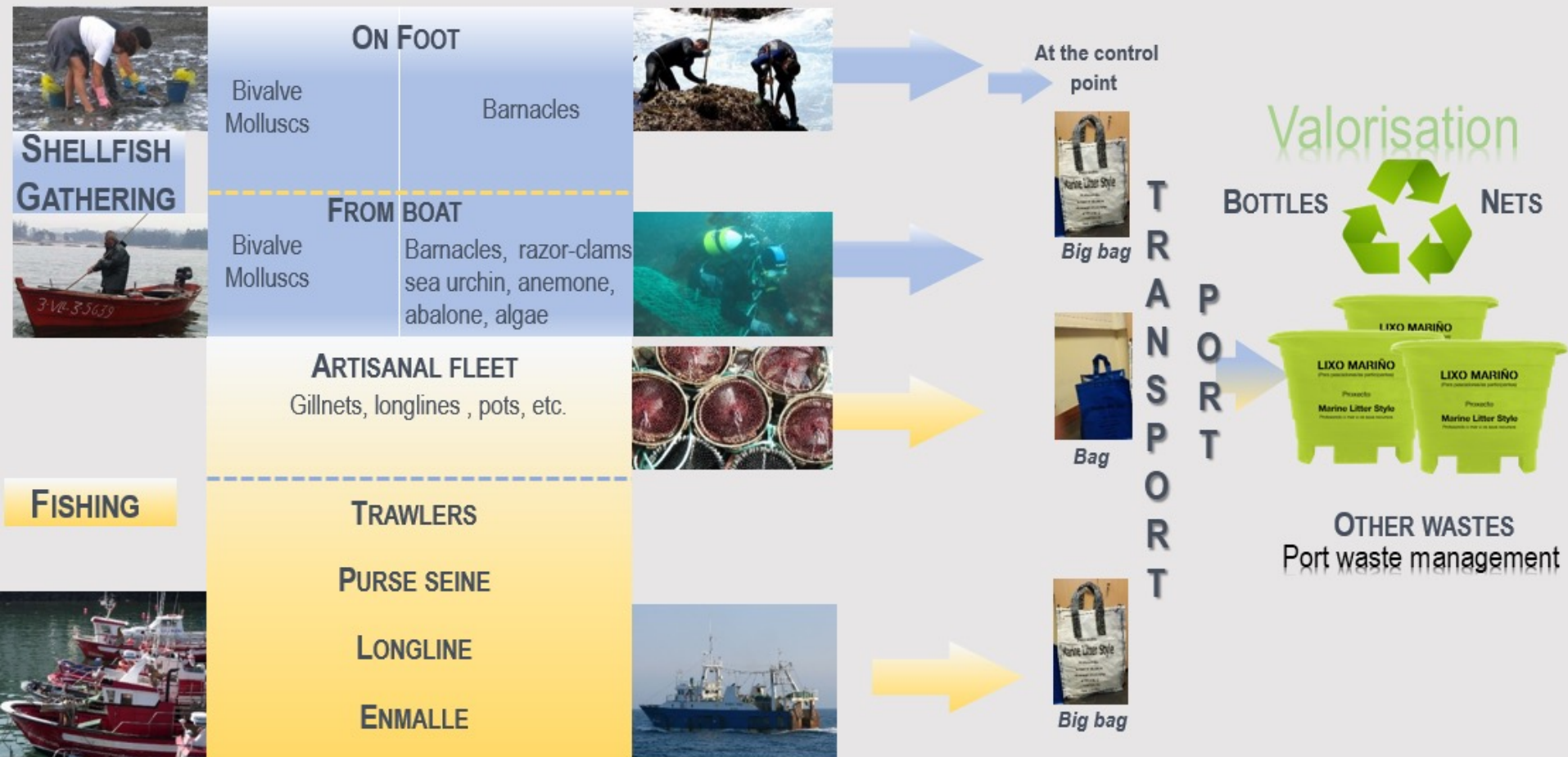


Marine Cleaning Service: Waste in Tons



MLSTYLE Initiative: Marine Litter in Tons, 2019





Wastes collected by fishermen and shellfish gatherers



Plastic wastes from companies of the fisheries sector



Nets out of service





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Research and Innovation
for blue jobs and growth
in the Mediterranean Area