

For you to better know us you will find attached some brief explanations of CETMAR functions and also information about the marine litter-related projects we have implemented or we are presently developing.

### **1. ABOUT CETMAR**

**CETMAR: Centro Tecnológico del Mar = *Technologic Centre of the Sea*** is a Foundation promoted by the Galician Government (Department of Fisheries and Maritime Affairs and General Directorate of Research and Development) and the Spanish Ministry of Education and Science. It aims to contribute to improve the conditions for the sustainable development of marine resources, and in this context, the efficiency of the sectors of fishing, aquaculture, fish processing industry and all those activities directly or indirectly related to the use and exploitation of the sea and its resources. It is a key link to achieve a greater degree of inter-institutional cooperation and interdisciplinary integration of the R+D+i available resources among the fishing sector, research and public authorities.



## **2. MARINE LITTER PROJECTS:**

**OMAR** (Observatorio Medioambiental sobre os residuos solidos das actividades pesqueiras, acuícolas e portuarias de Galicia= Environmental Observatory on solid waste from fishing, aquaculture and port activities). 2007-2008. <http://www.observatoriomar.org/>

The main objectives of the project are:

- To make those stakeholders understand and aware of environmental effects of the diverse activities taking place in sea and coastal areas.
- To make those stakeholders understand environment –based legislation and duties related to those activities
- To develop and release a best practices brochure according to the different type of activities
- To analyze recycling possibilities of different kind of materials and waste (plastic packages, EPS, fishing nets, steel wires, wood ...) produced by the “sea industry”.
- To establish collaboration channels with stakeholders, companies, authorities, etc, regarding a Sustainable Development Strategy for Port and fishing activities
- To develop an effective and integrated platform for users providing data, information and management options of port waste
- To organize seminars, workshops and conferences about the items
- Etc.



⇒ **3R FISH** (Integral Management Model of recovery and recycling of the proper solid wastes from the fishing and port activities).

<http://www.3rfish.org/index.html>.

It is a project launched within the framework of the European programme LIFE+ (Component 2: Environment Policy and Governance, 2007) to be implemented over the period 2009-2011. The main objective is to improve the quality of

marine waters and seabed through the correct use of the devices and equipment that are handling in the fishing sector, together with the proper solid waste management and recycling from those activities. It represents a key component in a strategy of fisheries and ports'



sustainable development, according to the European Union (EU) policy guidelines, as the Common Fisheries Policy, the Integrated Maritime Policy, the Integrated Coastal Zone Management and the Thematic Strategy on the prevention and recycling of waste.

The specific objectives of the project are as follows:

- To develop an integrated management and recycling system for the main three types of solid waste from fishing and port activities: fishing nets, packaging polystyrene and lighting devices.

- To promote and implement good practices on waste management, both on board and in ports areas: as principles from the Galician Consellería do Mar (Fishing and maritime affairs of the regional government) nothing overboard and Zero waste in ports.

- To establish innovative systems for management and recovery of the mentioned waste, from the beginning of its life cycle until the last treatment.

- To promote practical cooperation among the key sector stakeholders in order to define a set of potential uses or market opportunities for recovered waste, both economically and environmentally sustainable.

- To technically and economically evaluate the potential implementation of a management plan for port & fisheries waste in Galicia and Portugal ports (potentially applicable in some other European ports).

In order to achieve those objectives, the following Actions will be implemented:

- Sector Diagnosis: study about the present waste generation in the Galician fishing ports and fleet. Also complementary, a technological diagnosis on management, recycling and modern waste treatments innovations will take place.

- Development of 3 pilot actions (P.A.) in Galician and Portuguese fishing ports (in Portugal just packaging polystyrene): setting of management plan, logistics, treatments and recycling technologies, reporting and monitoring, focused on the 3 target waste types: P.A. fishing nets, P.A. packaging polystyrene + P.A. lighting devices.

- Awareness and dissemination of good practices (GP) on waste management on fishing sector and port activities.

- Technical and economic assessment of the performance of these recycling actions in the entire Galician and Portugal networking.

- Project spreading: website, publicity in several sector events; information and merchandising material (graphic and digital); Technical Workshops; articles in technical magazines and websites; awareness actions lead to workers and companies; visits and experiences' exchange in other ports.

The expected results are reducing the disposal waste from the fishing activities into the marine environment, establishing a proper waste management in ports and also its innovation and sustainable recovery (as a new raw material), both economically and environmentally.



⇒ **Nada pola Borda (NPB) 2009-2010** (which could be translated as “*Nothing thrown over board*”).

Pilot actions designed to remove litter from the sea bottom in fishing grounds off Galician coast (off and in shore). It aims “to clean” the sea of litter, such as that rubbish and waste that is usually trawled up as part of normal fishing activities. It counts of the



participation and support from the sector (fishermen organizations), the Galician Fisheries Department and the Spanish Fisheries Ministry, together with port authorities. The scheme's main objective to monitor that waste coming ashore in order to establish its typology, origin and establish likely trends along our coast. At the same time, a secondary aim is the physical removal of marine waste from the seabed, and the raising of awareness among the fishing industry. The participating vessels collect the marine waste and bring it to their base harbours, where it is managed by land-based staff and placed in a specific port green point according to legal disposal standards. A detailed description of all sampled waste will be produced.

The participation and collaboration of all fishermen (ship-owners, skippers, and crew) is essential to ensure the right management and success of the pilot scheme.

Total waste-litter collectec in 2010 (10 Galician ports)		Type of litter or waste								
		Fishing gear “waste”-disposals (nets, ropes, buoys,etc.)			Plastic	Metal	Textil	Ruber like	Wood	Other
		Gill nets-type	Trwalling-typeastre	Potts						
<b>Total</b>	<b>26.639</b>	<b>5.278</b>	<b>3.202</b>	<b>3.612</b>	<b>2.362</b>	<b>2.679</b>	<b>1.304</b>	<b>1.007</b>	<b>565</b>	<b>6.632</b>
<b>Percentage</b>		20	12	14	9	10	5	4	2	25
		46								

