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# POLLUTION CAUSED BY HUMAN, LAND, AND SEA PRESSURE

From the land to the sea, and from the sea to our table?



## **MARINA Project**

15<sup>th</sup> December 2016 - Local Mobilisation and Mutual Learning Workshop Phase 1 CNR-IRPPS, Via Palestro, 32 Rome

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#### Marine litter

Marine litter is a cross-cutting theme. It affects the fishing and seafood economies, as well recreation and tourism on coastal areas. Solutions rely on the creation of alliances between citizens, fishermen and aquaculture farms, scientists and institutions/administrations.

The purpose of the workshop was to discuss how to prevent and reduce litter production at sea, but also how to improve the overall waste management system inland.

Participants suggested actions to prevent and reduce the increasing amount of debris in our seas and coastline, and what commitments should be made by each stakeholder group. 18 participants from different stakeholder groups attended the workshop:



#### Responsible Research and Innovation

Responsible Research and Innovation (RRI) engages and brings together all stakeholders, creates dialogue and facilitates knowledge-sharing. It ensures the sustainable use of natural resources and makes sure that the needs of citizens and society are integrated into research and innovation. Participants put forth proposals of collective solutions based on the six RRI dimensions:

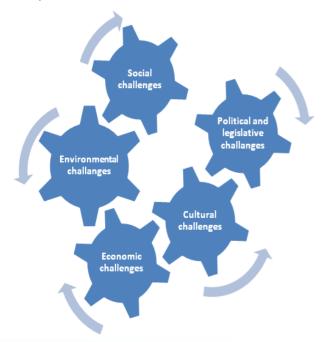


Pictograms courtesy of RRI Tools - <a href="https://www.rri-tools.eu">https://www.rri-tools.eu</a>

#### **Workshop Outcomes**

Participants put forth ideas and actions to put in place to face social, environmental, economic, cultural and political and legislative challenges.

The **social challenge** could be addressed through prevention campaigns which would improve collective awareness.



The **environmental challenge** can be faced by:

- studying, improving and promoting research on biotechnology (e.g. to replace plastics), on microoganisms that eat plastics, and on biodegradable or compostable materials;
- developing research on the purification plants to improve the efficiency of the filtration;
- and harbour cleaning, also engaging people to improve collective awareness.

The economic challenge has to be addressed by implementing actions concerning fishing for litter, as well as improving the marine litter collection process. In addition, the problem can be faced by reducing plastic and micro-plastics, and creating incentives to encourage fishermen and ship owners to collect, transfer and unload waste.

The **cultural challenge** at all levels can be tackled through actions devoted to educate, involve and raise awareness among fishermen and people employed in the marine sectors, as well as actions promoting environmental and consumption education. A key factor for a cultural change is environmental education in schools at all levels.

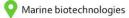
The main **political and legislative challenge** identified during the workshop is represented by the need to revise marine litter legislation in order to have a specific regulation for urban solid waste, and also to make laws clearer. In addition, legislation on floating and underwater marine litter needs to be improved.

For more information:

The MARINA Project is funded by the EU Programme Horizon 2020. 14 partners across Europe are joining forces for a period of 36 months to bring together stakeholders around marine issues and societal challenges and propose RRI driven roadmaps of actions to respond to them.

### 45 workshops on marine issues in the European Union









Tourism and coastal cities







Pollution caused by human, land and sea pressures

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