



**URBAN  
WASTE**  
URBAN STRATEGIES FOR  
WASTE MANAGEMENT  
IN TOURIST CITIES



# Waste sorting in marinas

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 690452-2





# Waste sorting in marinas

## What is the measure about?

### Description and scope of the measure

In marinas, the recreational sailors often do not know the waste management system in place and do not have the facilities to sort their waste. To better inform them and give them the possibility to sort their waste, some actions can be implemented. Providing the sailing tourists with reusable big bags for waste sorting (one bag per waste fraction separately collected) and information on waste management would help recreational sailors sorting and disposing their waste on land. Nevertheless, there must be facilities in the marina to throw the sorted waste in adequate bins.

Besides, additional actions can be developed at the same time such as distributors of disposable bags for residual waste in order to avoid marine litter for the unsortable fractions.

### Integration in a waste management plan

This action can be directly integrated in the waste management plan, with the aim of improving waste sorting and reducing marine litter.

## How to implement this measure?

### Economic aspects to consider and potential solutions for the financing of the measure

#### Costs

- Many factors have to be considered when implementing a system for sorting bins, in relation to the costs. For instance, the municipality or authority in charge will have to consider the cost of collection, number of bins/containers/bags, cost of each bin/container/bag, the amount of waste produced by person, among others, to calculate the total cost of the system.

#### Costs savings

- The cost of not recycling must also be considered in order to evaluate whether implementing the system is economically viable. In this sense, landfilling or incineration would be assumed to be the alternative, where the average costs in EU are<sup>1</sup>:
  - Incineration of residual waste: 64€/ton
  - Landfilling residual waste: 56€/ton
- By reusing or recycling materials, there are cost savings in relation to the raw materials that are no longer needed to be extracted/processed for the production of new goods. For example, in September 2017, the cost of virgin plastic ranged between 1.125 € and 2.070 €/ton in EU, depending on the type of polymer.<sup>2</sup>

#### Revenues

- Waste sorting in marinas will allow to give value to the different fractions of waste, since these could be sold as resources. In this sense, the market value of the different fractions to be recycled must be considered as well. As illustrative examples, the market price for recycled plastics in EU as of 2016, was 301 €/ton, where for glass the market value reached levels of 49-53 €/ton in 2014<sup>3</sup>.

#### Financing options

- Through the collaboration with consortiums of authorised waste collectors and recyclers that are interested in promoting this measure.
- Moreover, associations of plastic producers could contribute funding the initiative through an extended producer responsibility (EPR) scheme.

---

<sup>1</sup> Source : IPCC ([https://www.ipcc.ch/publications\\_and\\_data/ar4/wg3/en/ch10s10-4-7.html](https://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch10s10-4-7.html))

<sup>2</sup> Source : <http://www.plasticsnewseurope.com/article/20171211/PNE/171219995/european-petrochemical-feedstock-contract-prices>

<sup>3</sup> Source : EUROSTAT : *Recycling – secondary material price indicator*. ([http://ec.europa.eu/eurostat/statistics-explained/index.php/Recycling\\_%E2%80%93\\_secondary\\_material\\_price\\_indicator#Plastic](http://ec.europa.eu/eurostat/statistics-explained/index.php/Recycling_%E2%80%93_secondary_material_price_indicator#Plastic))

## Type of stakeholders to involve

- Municipal government
- Waste management structure/company/local authority in charge of waste collection in the marina area
- Managers of the marinas
- Sailors associations
- Consortiums for the collection, recycling and recovery of plastic, glass, and other packaging waste
- Associations and professional organisations of plastic producers

## Description of the operational steps to follow

This measure can be initiated by a municipality with the support of the above described stakeholders. The preliminary steps to implement this waste sorting measure in marinas are:

- contacting the responsible of the marina and the entity in charge of the waste collection in the marina
- diagnostic of the current situation (type of waste bins in the marinas, surveys among the recreational sailors regarding their behaviour and their willingness to sort waste, etc.)
- contacting possible partners to cofinance the measure
- purchasing and installing in the marina the facilities to throw the sorted waste in adequate bins
- elaboration of the communication material and purchase of the material
- launch of a communication campaign and distribution of the bags and waste instructions leaflets during the touristic season in the marina
- Sailors associations could create a map with all the marinas participating in such initiative and provide the recreational sailors with it.

## Gender aspects to consider

Attention has to be paid to whether size of sorting materials put in place suit men, women and children, and the bags they use.

Any instructions provided for sorting waste needs to be gender sensitive to avoid favouring one sex or another in the wording or the pictures used.

## Examples of good practices

- In France, the operation “I Sail, I sort” aims at encouraging recreational sailors to sort their waste on board and dispose it on land, rather than dumping their waste in the sea. The operation is based on a communication campaign (using flyers and posters distributed to the sailors and displayed in the marinas) to provide the sailors with guidelines for a proper management of their waste. The communication campaign is completed with the provision of the sailing community with reusable sorting bags for the recycling waste and the installation of bags distributors for residual waste at marinas. PlasticsEurope (European association of plastics producers) and ELIPSO (professional organization representing French plastics and flexible packaging) also took part in this initiative. Thanks to this partnership, the number of marinas involved in the operation could have been doubled. In 2016, 41 marinas participated, thus raising awareness of 191,000 recreational sailors.<sup>4</sup>

---

<sup>4</sup> How to involve business in keeping our shared spaces clean - Clean Europe Network  
([http://www.cleaneuropenetwork.eu/pdf/best\\_practice-involving\\_businesses\\_in\\_litter\\_prevention-EN.pdf](http://www.cleaneuropenetwork.eu/pdf/best_practice-involving_businesses_in_litter_prevention-EN.pdf))

## Guidance for setting up monitoring indicators

---

The following indicators can be used to monitor the measure:

- Number of sorting bags distributed per waste fraction per week/month/year **[Number]**
- Number of distributed bags for residual waste per week/month/year **[Number]**
- Quantity of waste separately collected per sorted waste fraction per month/year in the marina BEFORE/AFTER the implementation of the measure **[Kg or ton]**
- Composition of residual waste per type of fraction in the marina BEFORE/AFTER the implementation of the measure **[%]**

### Time frame

It is recommended to start the monitoring at least one week before the starting phase to assess the effect of the measure.

Gender considerations:

- Are bins accessible for women and men equally? **[yes-no]**
- Gender sensitivity of publicity / communication? **[yes-no]**

## Lessons learnt from the implementation phase and fine tuning

Waste sorting in marinas has not been implemented in any URBAN-WASTE pilot cases.