



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



Information on waste sorting for cruise ships

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





Information on waste sorting for cruise ships

What is the measure about?

Description and scope of the measure

Cruise ships are arriving to ports around the world, delivering the waste generated on board. Because of lack of space on the ships a lot of effort is put into sorting and compressing the waste on board. When in port the waste is unloaded - and if the waste is sorted in fractions fitting the waste management system of the receiving city - the waste can easily be recycled.

Clear communication about the waste handling can increase the amount of waste being recycled from the ships. If the waste is not sorted, but delivered as mixed compressed waste it is most likely that it will be incinerated or landfilled.

Communication from the port authority to the ships, about which fractions can be received, is therefore crucial for the waste handling before docking at port.

Integration in a waste management plan

Different integration is needed in the waste management planning depending on the responsibility of the waste management from the ships.

How to implement this measure?

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

Costs

- The waste fee in ports are included in the fee to dock. Thereby the ships have no incentives to dump the waste at sea, both because it is illegal but also because there is no direct cost related to delivering waste at the port. If a ship wish to deliver waste going to special treatment or if it is waste in larger amounts than normal, eg. construction waste, a special fee is charged for the ship. Fees for collection and treatment depends on the containers and the type of waste fraction. In mediterranean ports, 55% of them charge fees between 50 and 100€/m³, 9% more than 100€/m³ and less than 50€/m³ for the other 36% of ports¹.

Cost savings

- The more informed cruise tourists are in relation to waste sorting, the less waste will end up as mixed fraction. Therefore, the amount of this fraction to be incinerated or landfilled will be reduced along with the costs associated to theses treatment options. In this sense, the average costs that would be saved of incineration and landfilling in EU are²:
 - Incineration of residual waste: 64€/ton
 - Landfilling residual waste: 56€/ton

Type of stakeholders to involve

- Municipal government
- The port authority
- Waste management structure/company/local authority in charge of waste collection in the marina area
- Sailors associations
- Consortiums for the collection, recycling and recovery of plastic, glass, and other packaging waste

Description of the operational steps to follow for the implementation of the measure

This measure can be initiated by a municipality with the support of the above described stakeholders. The preliminary steps to implement information on waste sorting for cruise ship are:

¹ SPOUDAI Journal of Economics and Business, Vol.67 (2017), Issue 1, pp. 54-70

² Source : IPCC (https://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch10s10-4-7.html)

- 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
- elaboration of the communication material if possible in the main foreign languages
- launch of a communication campaign and distribution of waste instructions leaflets during the touristic season in the marina

Gender aspects to consider

Ensure provided information is gender sensitive and avoid favouring one sex or another in the wording, pictures disseminated, etc.

Example 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.³

³ 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)

Guidance for setting up monitoring indicators

Data to be collected:

Monitoring of actions, items, stakeholders and people involved etc.		total
communication initiative organized	[number]	
brochures distributed	[number]	
Evaluation of people potentially reached by communication initiatives	[number]	
Other: please, specify.....		

A second group of data aims at monitoring waste collected from cruise ships and the performance of the measure:

- Quantity of plastic waste collected **[kg]**
- Quantity of paper waste collected **[kg]**
- Quantity of glass waste collected **[kg]**
- Quantity of mixt waste collected **[kg]**
- Cruise ships docking at the port **[number]**

Time frame

It is recommended to start the monitoring at least one week before implementation phase to assess the effect of the measure on waste production.

Quantity of waste produced can be registered **continuously** (every day every week) or **randomly** (one day per week or every day one week per month).

Gender considerations:

- Who collects the waste? **[%female]**
- Gender sensitivity of publicity / communication? **[yes-no]**

Lessons learnt from the implementation phase and fine tuning



Pilots implementing information on waste sorting for cruise ships measure within URBAN-WASTE

Copenhagen-Malmö Port (CMP) has distributed by e-mail to all 343 cruise ships docking information on waste sorting. Cruise ships had to fill in a form on waste they need to handle, up to 24 different waste fractions when docking at the port. Cruise ships docking have managed sorting waste from app. 868,000 passengers and 290,000 staff members.

In **Dubrovnik- Neretva county** in Konavle Municipality, a total of 8,000 flyers were distributed to 783 ships encompassing in average 10 people on board (boat crew and the owners). About 7,830 people have been reached by this measure.

Keypoints

- As cruise ships are docking many different harbours in the EU, it is important that each harbour have similar requirements for waste sorting and handling.