



URBAN WASTE

URBAN STRATEGIES FOR
WASTE MANAGEMENT
IN TOURIST CITIES



WasteApp

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WasteApp

Description and scope of the measure

The aim of the WasteApp is to make tourists' behaviour more sustainable in terms of waste prevention, production, and management. Information on waste facilities (i.e location of the bins), waste management, tips for waste prevention, and location of public fountains for drinking tap water are provided to the tourists through the App.

The tourists are invited to participate in a gamification format where they are rewarded for their good behaviour. The good behaviour of the users refers to the action they perform in the pilot during their stay. They are rewarded for their good action in terms of waste management (introduce the waste in the appropriate recycling bins, don't leave trash in public space) and waste prevention (use of their own water bottle, instead of buying plastic bottle, using of reusable shopping bag, etc.).

Users are asked to prove their good behaviour through the usage of the WasteApp by scanning of QR code: at least 20 QR will be distributed and attached in the recycling bins within each pilot area. The tourist then have to scan the QR code to demonstrate that he/she was allocating the waste in the appropriate bin.

Each of those actions will allow the user to gain points. In particular, each action will give a number of 100 points to the user, with a maximum of two scans per day. Through the points accumulated during their stay users are then able to ask for rewards.

Rewards can be of different kind:

- Discount for services (i.e. 10% discount on dinner, breakfast, beverage, grocery; 10% discount for clothes, etc.)
- Promotional gadget (magnet of the city, postcards)
- Customized Eco-gadget (water bottle, reusable-shopping bag, etc.)
- Discount/Free ticket (i.e. provide discount on museum, cinemas, or transport tickets)

Each reward is related to a certain amount of points (i.e. 50 points for one free bus ticket). The nature of the reward and the number of items made available will be agreed between the interested entities and the managing authority.

Integration in a waste management plan

This measure can be part of an action plan on waste sorting and integrated to the municipal or local waste management plan.

How to implement this measure?

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

Costs

- Costs of developing and maintaining the App are financed within the URBAN-WASTE project.

Costs savings

- Since the app shows where to find fountains/places to fill up tap water and sorting bins within a given area to encourage citizens to use tap water and to sort better the waste generated, this initiative will help to reduce the amount of waste that would need to be incinerated or landfilled and its costs. The average costs of these treatment alternatives in EU are¹:
 - Incineration of residual waste: 64€/ton
 - Landfilling residual waste: 56€/ton

Funding options

- After the URBAN-WASTE project has ended, funding to maintain and update the app could be provided by municipalities.

Type of stakeholders to involve to implement the measure

- Municipal government
- Waste management department of local authorities
- Waste management company/public authority in charge of municipal waste collection and street sweeping
- Private or public sponsors for rewarding tourists

In collaboration with the following stakeholders:

- Environment protection associations
- Beaches managers
- Restaurants, bars, etc. managers
- Airport and train stations managers
- Tourist offices
- City sighting companies

¹ Source : IPCC (https://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch10s10-4-7.html)

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

This measure can be initiated by a municipality or the local authority or waste management company in charge of waste collection and street sweeping if not the municipality. The different steps for launching the WasteApp are:

- organisation of preliminary meetings quantification of the number of boxes to distribute
- public sponsors search
- design and purchase the prize for rewarding good practices through WasteApp
- Include in WasteApp the georeferenced information of the fountains and the selected bins in the city
- deployments of the QR stickers in the city
- workshop for testing the WasteApp
- Promotion of WasteApp on the Web site of partners and through a communication campaign (local TV, newspaper, municipal web portal, video in municipal buses...)
- Regular communication campaign especially during the high season of tourism or during specific events (festival, concert,...) for promoting WasteApp through distribution of leaflets

Example of good practices

- Eco Island released on the island of São Miguel, in the Azores, was launched by the island's recycling and waste management company MUSAMI, is part of the "Commitment to the Environment – We Recycle" campaign. The aim is to advertise the area of restoration through recycling commitment and promoting good practices. Restaurants are encouraged to subscribe to a separation and recycling program for which they will receive a quality seal and the opportunity to have their location in GPS coordinates on the MUSAMI App, making easier to identify and present themselves as an eco-friendly establishments to any citizen or tourist who visits the island of São Miguel.

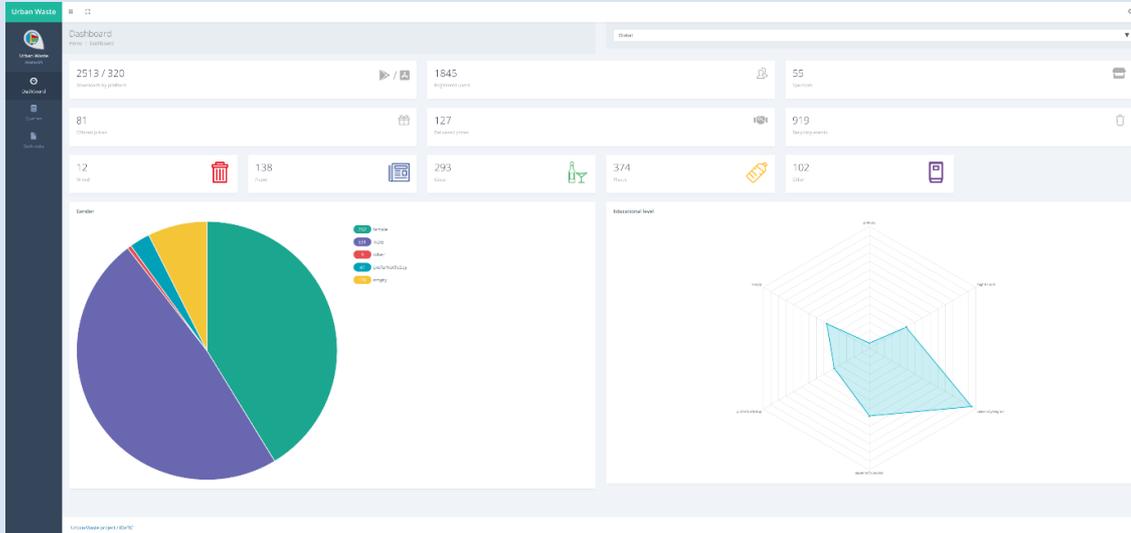
For the conservation of this award the restaurants are subject to periodic surveys in order to safeguard the continuity of the good practice towards waste. It's expected that Eco Island will see the participation of all restaurants on the island and soon try to engage more tourism industry entities, contributing to the awareness of tourism economic activity to the importance of waste separation, while at the same time contributing to an increase in the recycling rate.

- Cliiink² is a smartphone application that can be used in France in the cities of Aix-en-Provence, Avignon, Cannes, Grasse and Grenoble for recycling glass while giving the chance to win prizes at the same time. The points earned by users for recycling waste are converted into gift-tokens to be used in numerous distribution retail outlets. The application works in combination with containers equipped with sensors able to recognize if the object thrown is indeed glass. Each container has a Bluetooth connection that transmits to the user points on his smartphone in case of correct sorting. In Grasse 115 retailers are partners of the operation for rewarding users.

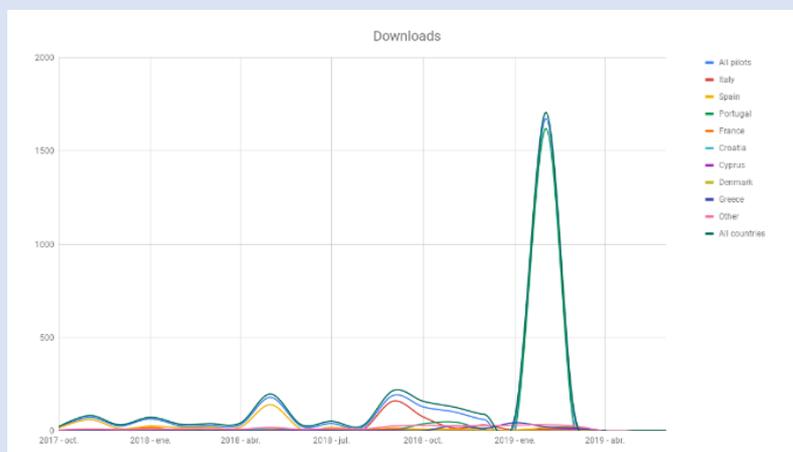
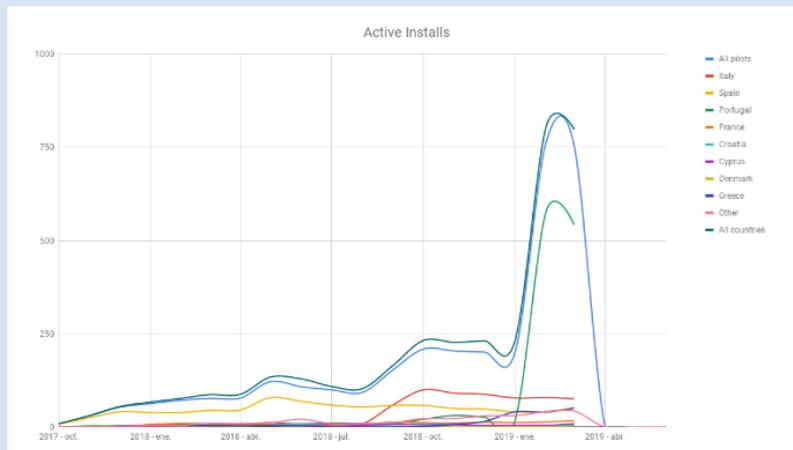
² <http://terradona.com/en/cms/46/cliink>

Monitoring indicators

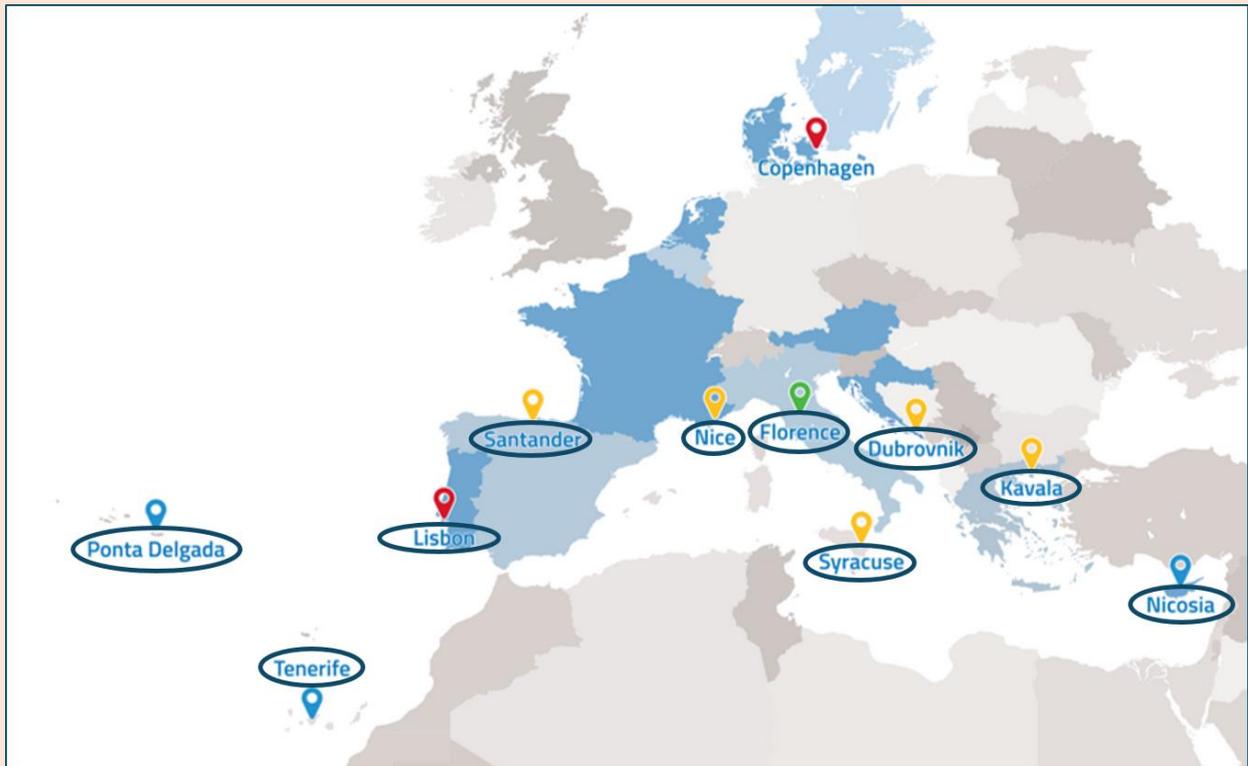
WasteApp back office enable different kind of reporting data broken down by gender, educational level on the different sorted waste.



The use of the application can also be evaluated through the number of downloads and active installation.



Lessons learnt from the implementation phase



Pilots promoting WasteApp within URBAN-WASTE

WasteApp have been promoted in Dubrovnik, Florence, Kavala, Lisbon, Nice metropole, Nicosia, Ponta Delgada, Santander, Syracuse and Tenerife from March 2018 to December 2018 in the framework of URBAN-WASTE through different communication campaigns.

In Copenhagen, due to technical problems that were resolved after the high season of tourism, WasteApp was not promoted.

The promotion of the WasteApp consisted in sticking QR code on a number of bins that varies from 9 (Dubrovnik) to 2,872 (Nice) depending on the pilot.

All the pilots have developed thorough communication campaign based, first, on the dissemination of leaflets for using WasteApp at different events, at touristic locations or tourist establishments, and second, on press releases, articles in local newspaper or TV reports in the different local media.

Despite efforts provided by pilot cities, the registered users of the WasteApp remained low. For all countries: 2,833 downloads and 733 active Installs.

Keypoints:

- use WasteApp as an official municipality tool for betting on using this innovative gambling experience to increase the awareness of visitors and citizens regarding waste

- **launch WasteApp including municipal sponsors in order to ensure awards from the beginning**
- **QR stickers have to be adequate for outdoor use**
- **a self-explanatory sticker should be stuck near the QR codes on the containers to facilitate visitors participation**
- **organize specific events to promote the application and/or maintain a constant communication campaign, putting special emphasis on the days of tourists affluence.**