



## **INTHERWASTE**

*Interregional Environmental Integration of Waste Management  
in European Heritage Cities*

## **ACTION PLAN**

**MUNICIPALITY OF PORTO ENVIRONMENT COMPANY**

IN COLLABORATION WITH FACULTY OF ENGINEERING OF THE UNIVERSITY OF PORTO

30<sup>th</sup> April, 2019

## **PART I – GENERAL INFORMATION**

### **Project**

INHERWASTE - Interregional Environmental Integration of Waste Management in European Heritage Cities

### **Partner organisation(s) concerned**

Municipality of Porto Environment Company

### **Country**

Portugal

### **NUTS2 region**

Norte

### **Contact person**

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## **PART II – POLICY CONTEXT**

In Portugal, an evolution occurred in the framework of Portugal 2020 (P 2020), influencing the waste management sector. For this sector, although there were some financing lines predicted in North 2020, they are now essentially directed for POSEUR - Operational Programme for Sustainability and Efficient Use of Resources. Considering this, the impact promoted by INTHERWASTE will be focused on POSEUR. However, because these operational programmes have common goals (priority axis 5 from Norte 2020 and axis 3 from POSEUR), INTHERWASTE will impact both POSEUR and Norte 2020.

POSEUR is the financial instrument that supports sustainable growth, addressing the transitional challenges to a low carbon economy based on a more efficient use of resources and on the promotion of greater resilience to climate risks and catastrophes. It is organised into 3 Priority Axes:

1. Support the transition to a low carbon economy in all sectors;
2. Promote climate change adaptation and risk prevention and management;
3. Protect the environment and promote resource use efficiency.

INTHERWASTE addresses the priority axis 3 “Protect the environment and promote resource use efficiency”, specially investment priority - investment in the waste sector to meet the requirements in matters of environment and to meet the investment needs that exceed these requirements, identified by the Member States.

The Municipality of Porto has a local regulation that establishes the waste management service. The implementation of the Action Plan will imply the review of the regulation in order to be in agreement with the existing rules. Furthermore, the Action Plan will also affect the Municipal Action Plan for the Waste Management (PAPERSU), impacting the local policy.

## **PART III – DETAILS OF THE ACTIONS ENVISAGED**

### **ACTION 1 – WASTE ROOMS**

#### **1. Relevance to the project**

In the heritage city centre of Porto, there are some residential areas with no access or with limited access to selective waste deposit systems.

Regarding the commercial sector, although the door-to-door collection is made twice a day at *Ribeira* area (riverside), the commercial establishments have very little space for waste storage in their vicinities, making difficult to store all the waste until the collection time, which might result on the improper use of the street bins for mixed waste with selective waste. Furthermore, in other areas of the heritage city centre, the commercial door-to-door collection is made only once a day, which might also contribute for this problem, even if the space restrictions are not so evident.

The main goal of this action is to make the selective separation of waste accessible to, approximately, 300 residences in the heritage city centre as well as to promote proper waste management practices for different waste streams, in an easier, friendly and attractive manner. For the commercial establishments, these infrastructures could be used as an alternative solution to dispose of their waste (door-to door collection) in case of storage difficulties.

This action is inspired by the good practice from Córdoba *Ecopoints - Waste Rooms in Cordoba*.

#### **2. Nature of the action**

This action consists on the creation of a dedicated infrastructure specially adapted for the deposit of selective waste (organic, paper, packaging, glass and mixed waste). This infrastructure could be integrated in an existing building at the centre (not in use) or could be built from scratch in an open space, and would have two different components:

- The background system, not accessible to the general public, where the five bins for the selective waste are located, with compaction, acclimatization and cleaning systems;
- The interface with the users, where five inlets for the selective waste deposit will be included in a space with video surveillance. These inlets will possibly have an access control system, which will enable the link between the users and the waste produced as well as establish time restrictions for the waste deposit.

The implementation of this action will imply the following steps:

- Meeting with the stakeholders to discuss the project and define the details of the implementation;
- Development of the project:
  - Study of the possible spaces to implement the action;
  - Definition of the space;
  - Determination of the population covered by the Waste Room;
  - Selection of the waste deposit equipment's typology and capacity;

- Definition of the complementary systems (acclimatization, cleaning, surveillance and access control).
  - Licensing for the urbanistic operation;
  - Construction works;
  - Communication and awareness campaigns;
  - Monitoring.

### 3. Stakeholders Involved

Municipality of Porto – identification and provision of spaces to be converted in waste rooms.

Society for rehabilitation of Porto downtown (Porto Vivo SRU) – body responsible for the Heritage Centre Management Plan.

Parish Council – facilitate the link with the residents, promoting the communication and awareness.

Faculty of Engineering of the University of Porto – project development.

Neighbourhood Association – facilitate the link with the residents, promoting the communication and awareness.

POSEUR – Operational Programme for Sustainability and Efficient Use of Resources.

### 4. Timeframe

Task/Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Meeting with the stakeholders																								
Development of the project																								
Licensing																								
Construction works																								
Communication campaigns																								
Monitoring of the action																								

### 5. Indicative Costs

The estimated cost of this action is around 65,000 euros and will include the equipment's acquisition, construction works, compaction, acclimatization and cleaning systems, video surveillance, access control system and communication campaigns. The estimated costs take into consideration the good practice from Córdoba *Ecopoints - Waste Rooms in Cordoba*.

### 6. Indicative Funding Sources

POSEUR – Axis III – Protect the environment and promote resource use efficiency.

## **ACTION 2 – RESIDENTIAL DOOR-TO-DOOR SELECTIVE COLLECTION**

### **1. Relevance to the project**

In the heritage city centre, there are some residential areas which have no access to street bins for waste disposal, due to the characteristics of the streets (narrow streets and stairs) that difficult vehicle access and installing street bins. Therefore, in these locations, the inhabitants place their mixed waste in plastic bags on the door steps which is manually picked up by the collection workers. In these locations, no selective collection system is in place.

This action consists on the development of a selective door-to-door collection system for such cases, and will include, approximately, 400 residences. Due to the scarce space and circulation restrictions, the door-to-door collection could be complemented with disposal sites created in strategic locations and inside dedicated structures aesthetically integrated into the urban décor.

Concerning the residential door-to-door collection, the possibility to develop this kind of system was in part influenced by the learnings from the door-to-door waste collection system in place in the heritage area of Krakow, during the study visits in this partner city. On other hand, the possibility of complement the system with disposal sites is based in the good practice shared by Tallinn about the waste houses *Waste Storehouses in Tallinn Old Town*.

### **2. Nature of the action**

The door-to-door selective collection system will provide the most suitable deposit equipment, according to the characteristics of the urban structure and the reduced space inside the residences. Furthermore, in line with the municipal strategy for decarbonization, this action will consider the use of small size electrical vehicles to overcome the access limitations due to the local characteristics.

The implementation of this action will imply the following steps:

- Meeting with the stakeholders to discuss the project and define the details of the implementation;
- Development of the project:
  - Study and definition of the implementation areas;
  - Determination of the population covered by the system;
  - Evaluation of the residential area typology and definition of the most suitable door-to-door collection system, according to the characteristics of the buildings and the area.
- Implementation of the residential door-to-door selective collection of the five waste fractions;
- Communication and awareness campaigns;
- Monitoring.

### **3. Stakeholders Involved**

Municipality of Porto – articulation of the urbanistic issues regarding the installation of the waste storehouses

Society for rehabilitation of Porto downtown (Porto Vivo SRU) – body responsible for the Heritage Centre Management Plan

Parish Council – facilitate the link with the residents, promoting the communication and awareness.

Faculty of Engineering of the University of Porto – project development

Neighbourhood Association – facilitate the link with the residents, promoting the communication and awareness.

POSEUR – Operational Programme for Sustainability and Efficient Use of Resources.

#### 4. Timeframe

Task/Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Meeting with the stakeholders																									
Development of the project																									
Implementation of the system																									
Communication campaigns																									
Monitoring of the action																									

#### 5. Indicative Costs

The estimated cost of the action is around 50,000 euros and will include the waste deposit equipment and vehicle's acquisition, as well as the investment in communication campaigns. These costs were estimated taking into account the implemented solutions at the city center.

#### 6. Indicative Funding Sources

POSEUR – Axis III – Protect the environment and promote resource use efficiency.

## **ACTION 3 – LOCAL POLICY REVIEW**

### **1. Relevance to the project**

Waste management systems in heritage areas need to have a special approach, as demonstrated in the present project. The learning acquired by evaluating the good practices shared by the cities and the knowledge gained during the interregional work made it clear that specific design systems are essential in these areas. The implementation of dedicated systems can be supported by the regulatory framework, like it is in Krakow and Tallinn with the regulation that establishes the hour limit for waste collection in the heritage area (*Deposit and recovery of waste in Krakow from 6 a.m. to 10 a.m.* and *Restrictions on waste collection in Tallinn Old Town*). In this alignment, the municipal regulations on the waste management and the urban cleaning was already reviewed at Porto and now includes specific rules for the installation of waste collection bins in the historic center as well as the ground to support the implementation of different collection systems in the heritage city center.

The main goal of this action is therefore to define in an additional specific regulation, the different collection systems co-existing in the heritage city centre, the way they are integrated and how they interact with each other. The regulation will also define the users that will use each system and the rules which apply to their adequate functioning.

### **2. Nature of the action**

Although the municipal regulation establishes the ground for the definition of a dedicated regulation for the heritage city centre, the specific rules envisaged are very limited. Therefore, the establishment of this regulation with the waste management system structure and rules is of great importance.

The implementation of this action will imply the following step:

- Creation of a specific regulation for the heritage city centre, that defines the waste management system structure and rules for its appropriate functioning.

### **3. Stakeholders Involved**

Municipality of Porto – to approve the regulation proposal

Society for rehabilitation of Porto downtown (Porto Vivo SRU) – body responsible for the Heritage Centre Management Plan

Parish Council – facilitate the link with the residents, promoting the communication and awareness.

### **4. Timeframe**

Task/Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Elaboration of a specific regulation																									

## **5. Indicative Costs**

Not applicable

## **6. Indicative Funding Sources**

Not applicable

## **ACTION 4 – COMMUNICATION, AWARENESS AND CONTROLLING**

### **1. Relevance to the project**

The development and implementation of the Actions 1, 2 and 3 of this plan imply a support work of communication and awareness in order to promote a higher participate rate, through environmental education and a better understanding of the innovation introduced by the new systems and regulations.

On other hand, the learning about the controlling system existing in Krakow, obtained during the bilateral meeting that resulted of the good practice about aesthetic solutions (*Aesthetic solutions in the Municipality of Krakow*), showed that having a structured and dedicated controlling strategy is very important to ensure the well-functioning of the waste management system. Therefore, the specific regulation for the heritage city centre will also support this strategy.

### **2. Nature of the action**

The implementation of this action will imply the following steps:

- Communication and awareness plan;
- Development of a communication and awareness plan as well as a controlling strategy to support the implementation of the actions 1, 2 and 3.

### **3. Stakeholders Involved**

Neighbourhood Association – facilitate the link with the residents, promoting the communication and awareness.

Parish Council – facilitate the link with the residents, promoting the communication and awareness.

### **4. Timeframe**

Task/Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Communication and awareness plan																								
Development of the communication and awareness plan																								

### **5. Indicative Costs**

The costs are included in the estimated costs from actions 1 and 2.

### **6. Indicative Funding Sources**

Not applicable

## **ACTION 5 – MUNICIPAL ACTION PLAN REVIEW**

### **1. Relevance to the project**

The integration of the actions defined in this Action Plan into the municipal strategy is important to reinforce and boost their development and implementation. Also, the heritage city centre strategy must be aligned with such plan and be considered in the global municipal planning.

### **2. Nature of the action**

In the PAPERSU, it is referred the implementation of residential door-to-door selective collection covering the entire heritage city centre. However, due to the diversity of characteristics in the historic centre, this type of system isn't suitable for all the locations. Therefore, it will be necessary to review this PAPERSU's action and integrate this Action Plan into the municipal strategy.

The implementation of this action will imply the following step:

- Revision of the PAPERSU for the integration of the actions defined in this Action Plan.

### **3. Stakeholders Involved**

Municipality of Porto – approval of the new municipal action plan.

Portuguese Authority for Waste Management– approval of the new municipal action plan.

### **4. Timeframe**

Task/Month	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	
Revision of the Municipal Action Plan																									

### **5. Indicative Costs**

Not applicable

### **6. Indicative Funding Sources**

Not applicable

## **PART IV – SIGNATURES**

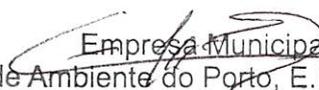
### **PORTO AMBIENTE**

Date:

Name: Luís de Bragança Assunção

Position: Legal Representative of the Company

Signature and institution stamp:

  
Empresa Municipal  
de Ambiente do Porto, E.M., S.A.  
Praça General Humberto Delgado  
4049-001 Porto  
NIPC: 514 280 956



## Letter of support from the relevant organisation responsible for policy

For Structural Funds programmes (i.e. Investment for Growth and Jobs and European Territorial Cooperation programmes), the relevant organisation responsible for policy may differ from country to country. Detailed references are provided on the 'In my country' pages on the programme website [www.interregeurope.eu](http://www.interregeurope.eu)

Project acronym	<i>INTHERWASTE</i>
Project title	<i>Interregional Environmental Integration of Waste Management in European Heritage Cities</i>
Name of the organisation (original) including department (if relevant)	<i>PO SEUR - Programa Operacional Sustentabilidade e Eficiência no Uso de Recursos</i>
Name of the organisation (English) including department (if relevant)	<i>PO SEUR - Operational Programme for Sustainability and Efficient Use of Resources</i>
Name of the policy instrument addressed (original)	<i>Eixo III - Proteger o ambiente e promover a eficiência dos recursos.</i>
Name of the policy instrument addressed (English)	<i>Axis III - Protect the environment and promote resource use efficiency.</i>
Name of partner(s) concerned in the application form (English)	<i>Empresa Municipal de Ambiente do Porto (P8)</i>

We hereby confirm:

- that we were informed about the Action Plan,
- that the actions envisaged are in line with our organisation's policy,
- that the following actions could benefit from funding in the scope of our policy instrument:
  - action 1: construction of waste compartment/room, for public use, in heritage centre to promote municipal waste separation;
  - action 2: implementation of residential door to door selective collection of municipal waste in heritage centre.

Name of signatory	<i>Helena Pinheiro de Azevedo</i>
Position of signatory	<i>President of the Executive Committee</i>
Date	<i>29/04/2019</i>

Signature and institution stamp (if exists)	<div style="text-align: right;"> <p>PORTUGAL 2020 PROGRAMA OPERACIONAL DA SUSTENTABILIDADE E EFICIÊNCIA NO USO DE RECURSOS R. Rodrigo da Fonseca, 57, Pisos 2, 3, 4 e 5 1250-096 LISBOA</p> </div>
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