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# ACTION PLAN FOR GIJÓN





## Content

1	GENERAL INFORMATION .....	1
2	POLITICAL CONTEXT .....	1
3	DETAIL OF PLANNED ACTIONS.....	2
3.1	ACTION 1: PAY-AS-YOU-GENERATE PILOT PROJECT .....	3
3.1.1	BACKGROUND .....	3
3.1.2	ACTION .....	4
3.1.3	PARTICIPANTS.....	6
3.1.4	PLANNING AND SCHEDULING .....	7
3.1.5	BUDGET .....	7
3.1.6	FUNDING.....	7
3.2	ACTION 2: IMPLEMENTATION OF SEPARATE COLLECTION OF PLANT WASTE .....	8
3.2.1	BACKGROUND .....	8
3.2.2	ACTION .....	8
3.2.3	PARTICIPANTS.....	10
3.2.4	PLANNING AND SCHEDULING .....	11
3.2.5	BUDGET .....	11
3.2.6	FUNDING.....	11
3.3	ACTION 3: IMPLEMENTATION AND DEVELOPMENT OF THE USE OF A COMPACTOR ROLLER FOR CIVIC AMENITY SITES (CAS).....	12
3.3.1	BACKGROUND .....	12
3.3.2	ACTION .....	12
3.3.3	PARTICIPANS .....	13
3.3.5	BUDGET .....	13
3.3.6	FUNDING.....	13



## 1 GENERAL INFORMATION

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## 2 POLITICAL CONTEXT

The policy instrument linked to WINPOL project in the municipality of Gijón is the Municipal Integral Waste Plan of Gijón (Spanish acronym: PIMR), approved by the Governing Board in June 2018, and which is valid from 2018-2022.

One of the main objectives of this Plan is none other than to increase the percentage of waste destined for reuse and recycling in accordance with the objectives established at European level.

For that purpose, the PIMR establishes 30 specific action points in order to reach 50% by 2020. Among these points and measures the study of experiences and actions in other European regions is highlighted so good practices can be obtained and implemented to the reality of the municipality of Gijón.

The leadership proposition of EMULSA for the InterregEurope project, WINPOL came up from this policy framework, which seeks the use of innovative tools and policies in municipal waste management.

Part of the measures adopted in this learning and knowledge exchange process can be carried out within the budget of the PIMR itself, although other more complex and comprehensive actions will

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serve to modify and update the revision of the PIMR, which is expected to begin its drafting phase in 2022, before the end of the current one.

The actions proposed in this Action Plan are directly aligned with the PIMR itself:

- Action 1: Pilot project for the implementation of pay-as-you-throw (PAYT). The PIMR includes within its action measures, the study of already existing experiences in other regions of Europe for a subsequent implementation of a pay-as-you-throw system in the municipality of Gijón.
- Action 2: Specific collection of pruning and mowing waste. The PIMR includes as an improvement of waste separation, the implementation of a new system for the separate collection of vegetable waste. Although this system was planned to be carried out by means of construction site containers, following the experiences studied during the first phase of WINPOL, such as the study visit to Imola, it was considered advisable to modify this first idea and implement a collection system using side-loading containers.
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- Action 3: Implementation and development of the use of a compactor roll for the four civic amenity sites in Gijón. The PIMR includes as an action the improvement and extension of one of the civic amenity sites in the city.

On the other hand, in addition to these actions, of all the good practices and experiences exchanged during the first phase of WINPOL project, it is foreseeable that some will be implemented in addition to those contemplated in this Action Plan, such as the creation of pop up civic amenity sites, as seen in Antwerp, which would fit in with one of the action measures contemplated in the Municipal Integrated Waste Plan, or the use of boxes for the reuse of objects, as we learned from the experience shared in the city of Graz, Austria.

### **3 DETAIL OF PLANNED ACTIONS**

Each of the actions included in this Action Plan is detailed below.

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## 3.1 ACTION 1: PAY-AS-YOU-GENERATE PILOT PROJECT

### 3.1.1 BACKGROUND

The increasing shortage of space and growing environmental awareness have forced many local governments to study different measures to reduce the amount of unsorted waste and to promote recycling.

Currently, in Gijón, as in almost all of Spain, the tax that citizens pay to the municipalities for waste management is homogeneous and the same for all households, regardless of the surface area, number of family members, etc. It is a system of charges that is simple to manage, linked to the existence of an active water contract, but which nevertheless does not consider such important aspects as the amount of waste generated by each household or the type of waste.

It is therefore a question of seeking a fairer system of charges, which encourages source separation and recycling, rewards those families that generate less waste, as well as those that separate waste correctly.

In contrast, it should be noted that, unlike water consumption, where it is very easy to know what each user consumes, in the case of waste, knowing the quantities and types generated is quite complex, even more so in those municipalities where collection is carried out by containers located citywide on public roads, as is the case of Gijón.

WINPOL project led by EMULSA included a specific thematic seminar, which took place online in June 2020, to exchange and study experiences related to innovative waste generation pricing models. In this thematic seminar, different good practices were studied, such as systems involving the use of electronic locks, as in Imola or Ghent, as well as systems based on the use of prepaid bags, as is the case of Argentona in Catalonia or Seveso in Italy. For example, a good practice carried out in Seveso (Italy) that is intended to be implemented in Gijón is the use of vending machines for the purchase of the standardised waste disposal bags by citizens. In Gijón, this solution is planned to be tested as part of a Know-As-You-Throw (KAYT) system that could give more information on the habits of users in terms of waste generation.

The most relevant aspect of the good practices analysed in the case of Seveso has been the way in which the prepaid bags are delivered. In this case, it is done through vending machines, which makes it easier for citizens and more readily available, as they can be placed in shopping centres, supermarkets, municipal buildings, etc., and can therefore be extended easily and without requiring specific and permanent staff to do so, or complex agreements with shops or supermarkets that make

it difficult or increase costs. In addition, the vending machines themselves are equipped with screens so that when new bags are purchased, the system identifies the user and displays messages about his or her accumulated consumption. In this way, the user has more information related to their consumption and waste generation. In addition, the system can provide information on tips to improve their habits or reduce waste generation.

Additionally, at the PAYT specific thematic seminar held in June 2020, one of the blocks of the seminar was the specific experiences of KAYT, which included:

- KAYT and vending machines: the case of Seveso
- E-closure and use of information: the case of Gijón

### 3.1.2 ACTION

The proposed action consists of carrying out a pilot project, approved by Interreg in February 2021, with the intention of defining a pay-per-generation system in accordance with the specific characteristics of the municipality of Gijón, so that, through a relevant number of volunteer families, this system can be tested and monitored, in order to make the necessary adjustments to optimise the viability of a future generalised implementation of the PAYT system throughout the municipality of Gijón.

In this way, during the first phase of the pilot project, the aim is to concretely define the payment per generation system, analysing and defining the unit prices of each waste bag, the specific value of the fixed part of the fee, the variables dependent on the number of individuals in the household unit, the number of bags of each waste included in the fixed part, as well as the rest of the variables to be concretely defined in the PAYT system.





On the other hand, two vending machines will be purchased, which should include a display screen, so that citizens receive information related to their waste generation habits, as well as advice or other informative content that EMULSA or Gijón City Council considers relevant in relation to the city's sustainability and environment.

The project, therefore, will be based on the search for 750 volunteer families who wish to take part in the experience and who commit themselves to monitoring the amount and type of waste they generate, as well as sending it for subsequent analysis. In this way, the amount that would correspond to each family will be calculated and compared with the current rubbish tax. The aim is that a family that separates waste correctly will obtain a reduction on the current cost, while those users who refuse to separate waste, or who generate an excessive amount of waste, will see an increase in the amount compared to what they currently pay.

The project will be divided into different phases:

- Phase 1: Definition of the waste management service fees, defining the fixed and variable parts. For the definition of these values, the specific characteristics, and realities of Gijón will be considered. For this work, the services of an external consultancy will be contracted to analyse the typology and specific quantities of waste generated by different user profiles in the city.
- Phase 2: Information campaign, search for volunteers for the development of the Pilot Action. These volunteers will belong to different groups in terms of age, educational level, social level, etc. and above all in terms of environmental awareness.
- Phase 3: The quantities and types of waste generated by voluntary users will be monitored by contrasting and comparing them with the current system, and statistics of the results will be analysed to determine the variability between the different groups. In this way, the aim is to validate or correct the theoretical estimates made initially, to achieve a fairer tariff and a higher degree of acceptance in a future global implementation of the pay-as-you-throw system throughout the municipality.

- Phase 4: Once the system has been tested and assessed through the pilot action, it will be implemented in a generalised manner in the rest of the municipality. Given that the current Municipal Waste Management Plan is valid until 2022, it is intended to include the global implementation of the PAYT throughout the city of Gijón in the New Municipal Waste Plan, scheduled for the second half of 2022. This means that the PAYT model defined, tested, and adjusted through the Pilot Action will be included in the new Waste Management Plan 2022 and the widespread implementation of the PAYT system throughout Gijón can take place in 2023.

This pilot project has been approved by the Interreg Europe Committee last February 2021.

The external consultancy bidding specifications for the public tender have been prepared and they are going to be published in the near future.

### 3.1.3 PARTICIPANTS

The following stakeholders will need to be directly or indirectly involved in the pilot project:

- EMA. Empresa Municipal de Agua (EMA. Municipal Water Company). It is currently responsible for the invoicing of waste management services and the subsequent remittance of these amounts to EMULSA. Therefore, a change in the charging system will inevitably affect this municipal company, so it is intended that they should be directly involved in this project, at least in the more economic and administrative aspects of it.
- Federación de Vecinos de Gijón. (Federation of Neighbours' Associations of Gijón) Given that the change in the charging system will affect the citizens and residents of Gijón, it is intended that the Federación de Vecinos de Gijón will be aware of and involved in the project, with the double aim of, on the one hand, helping to find volunteers, and on the other, helping to reduce the foreseeable blockages that may occur once the system is implemented throughout the municipality.
- Gijón City Council. Although the proposal to change the charging system has a technical and environmental purpose, the final decision will be taken by the political power of the municipality. Therefore, it is necessary that both the current government group and the rest of the parties that make up Gijón City Council are aware of the project.
- Unión de comerciantes y hosteleros. (Traders and hoteliers association) Although in a first phase it is only intended to implement the system in the public sphere, it will be necessary to

extrapolate it to charging for shops and hotels, a sector that is more likely to be driven by economic interests than by environmental commitments.

### 3.1.4 PLANNING AND SCHEDULING

The following is the schedule for the planning of Action 1.

	2021												2022											
	S1						S2						S3											
	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec		
Bilateral meetings (Argentona, Seveso)		X	X																					
Elaboration of the external consultancy specifications	X	X																						
Market study of vending machines and citizen Information system in vending machines.		X	X																					
Search for voluntary families			X	X																				
Analysis of the situation and proposal of unitary prices			X	X																				
Procurement of two vending machines				X	X																			
Information campaign to voluntary families				X	X																			
Monitoring of generated typologies and qualities							X	X	X	X	X	X	X	X	X	X								
Statistical analysis of fees for each family/ Comparison with current situation											X	X				X	X							
Report elaboration and proposal of adjustments											X						X	X						

### 3.1.5 BUDGET

The total budget for the implementation of this action amounts to €80,225.00. This budget is detailed below:

Staff costs	11,500.00 €
Administrative costs	1,725.00 €
External consultancy	5,750.00 €
Diagnostics, preparatory actions, and system design	15,650.00 €
Customized development of software system for vending machines (KAYT)	16,475.00 €
Search for volunteers, information, and communication campaign	11,325.00 €
Data supervision and monitoring	5,800.00 €
Consultancy and reports	12,000.00 €
Procurement of vending machines	12,000.00 €
<b>TOTAL</b>	<b>80,225.00 €</b>

### 3.1.6 FUNDING

For the financing of this action, we have received approval from Winpol Interreg for the Pilot Project, which is already in the implementation phase.



In phase 1, the containers were also purchased. It should be noted that at this point, given the peculiarities of the interurban area, it was necessary to review the location to find out whether the container should be a counter-wall container (user lid on the same side as the unloading lid) or whether it could be a normal container (user deposits on the opposite side to the collection side of the lorry).

Finally, given the peculiarities of the waste type and its subsequent treatment into certified compost, it is essential that the quality of the waste is optimal, so the percentage of unwanted waste must be very low. For this reason, the need or convenience of installing locks with access control on the containers was initially considered. On the other hand, the existence of locks, due to EMULSA's experience with the organic fraction containers, entails less use and less citizen participation. For this reason, it was decided to divide the implementation area into



two zones. In one zone, containers with locks were installed, and in the other zone, containers without locks for use without the need for a card.

Together with the set-up of containers, an information campaign is being carried out.

- Phase 2: Collection and monitoring.

In the second phase, the collection of the containers is carried out over a period of a few months. The existence of improper waste is analysed visually, as well as the percentage of use and participation of citizens in each area.

-Phase 3: Analysis of results.

A few months after implementation, a characterisation of each of the areas (with and without locks) is carried out to determine the percentages of improper waste. The data on the quantities collected in each area are also analysed.





With this data, a decision will be made as to whether containers with or without locks will be installed in future extensions.

Finally, after the months of collection, the frequency required to avoid overflows will also be analysed, as well as the foreseeable seasonality of the system, in which there will probably be months or periods of the year requiring greater frequency and others with one-off collections.

- Phase 4: Expansion of the collection system.

If the results obtained in the pilot project are satisfactory, the side-loading collection system will be extended to other areas of the municipality.

Currently, in May 2021, the action is in its phase number 3. From May 10th to 14th, the container characterization study is being carried out, so we can have objective data to make a final decision.

### 3.2.3 PARTICIPANTS

The participation of the following is important for this action:

- Neighbourhood Associations: In particular, it is necessary to previously inform the neighbourhood associations of the areas where the containers will be installed of the action, so that they are aware of what type of waste is admissible in the containers and what is not. Likewise, given their interest in the implementation of containers, it is expected to receive requests from more associations, so it is necessary to inform them of the phases of the project and the criteria for implementation.
- Gijón City Council: Particularly, the Rural Areas Councillor.

### 3.2.4 PLANNING AND SCHEDULING

The following is the schedule for the planning of Action 2.

	2020						2021											
	S1						S2			S3								
	Jul	Aug	Sept	Oct	Nov	Die	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Area study	X	X																
Times study		X	X															
Procurement of containers				X														
Initial characterization					X													
Container's set up					X													
Information campaign					X													
Container collection and monitoring					X	X	X	X	X	X								
Data analysis											X							
Area characterization											X							
Container extension												X	X	X	X			

### 3.2.5 BUDGET

The estimated budget for the development of this action amounts to 117.000,00 €, according to the following items:

Procurement of containers	60,000.00 €
Waste characterization	6,000.00 €
Collection costs	51,000.00 €
<b>TOTAL</b>	<b>117,000.00 €</b>

Regarding the collection costs, the costs of the technical and human resources required to collect the containers during the months of the pilot project were considered.

### 3.2.6 FUNDING

The cost of setting up this specific collection will be covered by EMULSA's budget, although the InterregEurope program has been asked to finance waste characterisation studies.

### 3.3 ACTION 3: IMPLEMENTATION AND DEVELOPMENT OF THE USE OF A COMPACTOR ROLLER FOR CIVIC AMENITY SITES (CAS)

#### 3.3.1 BACKGROUND

One of the measures contemplated in the PIMR focuses on improving the service provided at the different civic amenity sites (CAS) in the municipality. Specifically, EMULSA has 4 civic amenity sites (CAS) distributed throughout the city, and there has been a gradual increase in their use.

#### 3.3.2 ACTION

Following the study trips, specifically the one carried out in Antwerp in November 2019 to the De Collectie reuse centre, the existence of a mobile compacting machine equipped with a roller with teeth was observed. After consulting and analysing this machine, which allowed to compact considerably the volume of waste in the boxes of the civic amenity sites (CAS), a market study was carried out, concluding that given the characteristics of the CAS of Gijón, it was advisable



to modify our current procedure in CAS of the city by implementing a machine that allows its use in all the civic amenity sites, and therefore that can be transferred.

It is expected that thanks to the start-up and implementation of this technological innovation, which

involves the use of a machine capable of compacting wood by almost 40%, plant waste by 50%, paper/cardboard by 40%, plastic waste by 30%, etc., the number of trips from the CAS to the treatment centre will be reduced, as well as an improvement in the



availability and capacity of the civic amenity sites for users.

### 3.3.3 PARTICIPANS

In this particular case, it is an innovative measure at a technological level but mainly at the internal organisational level of EMULSA, in which, although the user of the civic amenity sites (CAS) will experience an improvement in the service provided by having greater availability, it is expected that the action does not require greater participation than the approval of the political representative of the City Council in EMULSA, and of the labour representatives, as it involves a modification of work procedures and new occupational risks.

### 3.3.4 PLANNING AND SCHEDULING

The following is the schedule for the planning of Action 3.

	2020						2021											
	S1						S2						S3					
	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	Mayo	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Market study			X	X	X													
Elaboration of tender specifications								X	X									
Public bidding										X								
Reception of compactor roller														X				
Training of workers														X				
Commissioning															X			

### 3.3.5 BUDGET

The budget for the purchase of a waste compactor roller for civic amenity sites (CAS) amounts to about 100,000 €.

### 3.3.6 FUNDING

This action will be carried out with the general budget of EMULSA.

EMULSA STAMP	SIGNUATURE, EMULSA REPRESENTATIVE	DATE
	<p>ALFONSO BARAGAÑO ÁLVAREZ EMULSA MANAGING DIRECTOR</p>	<p>23rd June 2021</p>