

ECOWASTE 4 FOOD

Interreg Europe



European Union
European Regional
Development Fund

ACTION PLAN FOR THE PREVENTION OF FOOD WASTE IN CATALONIA (2019-2020)



Generalitat de Catalunya
**Departament de Territori
i Sostenibilitat**



**Agència de
Residus de
Catalunya**



BACKGROUND

Food waste prevention is one of the main challenges included in international, national and local agendas because it is closely linked to the supply of safe and healthy food for the entire population and to food production and consumption systems as well as their social, environmental and economic impact.

The Food and Agriculture Organization of the United Nations (FAO) reports that one third of the world's annual food production is not consumed by anyone or recovered in any way. This reality sparks interest and a sense of urgency among many stakeholders in the food chain to find solutions.

Avoidable food waste refers to food that, although safe and nutritious for human consumption, is, for various reasons, discarded or applied to uses other than human or animal consumption throughout the food chain. Even though this food is applied to agricultural uses and is reintegrated into the soil or made into compost in situ, it is still considered to be food loss.

Many different proposals have emerged aimed at reducing food loss and food waste and making better use of food. They are promoted by the primary sector, the food industry, distribution and commercialisation, the restaurant sector, social entities, government authorities and even consumers themselves.

All of them are driven, in some way or another, by the will to regain the value of food and slow down waste. Their objectives range from creating more sustainable food production and consumption systems, and achieving universal access to safe, nutritious and healthy food to generating employment opportunities, reducing inequalities, and creating new business opportunities through innovation.

Interreg Europe Ecowaste4food

The project **Interreg Europe Ecowaste4food** was created within this context, to help local authorities better manage the reduction of food waste throughout the entire food chain by implementing eco-innovative strategies into their local, regional, and national policies.

Eco-innovations are experiments that are developed and implemented in different stages of the chain by various organisations (private companies, stakeholders from the tertiary sector, public bodies, universities and research centres) and that in one way or another strive to reduce food waste. During the initial phase (2017-2018) of the project, the stakeholders exchanged, learned about and identified eco-innovations and came away having elaborated regional action plans for food waste prevention. The second phase (2019-2020) focuses on implementing these action plans.

Ecowaste4food is funded by the interregional cooperation programme, Interreg Europe, and brings together local and regional authorities from seven European countries: the Regional Development Fund of the Region of Western Macedonia in Greece, the Regional Council of South Ostrobothnia in Finland, the Regional Council of Provence-Alpes-Côte-d'Azur in France, the town hall of the city of Ferrara in Italy, Devon County Council in the United Kingdom, Marshal Office of the Wielkopolska Region in Poland, and the Waste Agency of Catalonia. The project is headed by the Centre for Advanced Mediterranean Agronomic Studies- Mediterranean Agronomic Institute of Montpellier (CIHEAM-IAMM).



Figure 1: Members of the Interreg Europe Ecowaste4food project

Catalonia is one of the seven member regions of the Ecowaste4food project. The Waste Agency of Catalonia has coordinated the European project within its territory with the aim of initiating a participative action plan in conjunction with all the different regional and local stakeholders of the food chain.

The Catalan strategic committee was created to develop and push the project and the action plan forward. This committee, composed of 47 organisations, participated in the learning and identification process of eco-innovations in Catalonia, and more importantly, in the creation of this action plan. The committee is composed of organisations from all sectors and links of the food chain. All of them have extensive experience in food waste prevention and provide different perspectives on how to approach this issue. Their joint work and contributions have made it possible to create this action plan and to define the actions needed to prevent food waste in Catalonia over the next two years.

Lessons learned within the Ecowaste4food project

One of the keystones of the project is the learning and exchange process set up among members. The aim is to identify eco-innovations designed to address food waste in each of the regions and generate new knowledge, lessons learned and training on the whole. To achieve this, various meetings were organised to present and exchange information. To take things one step further within the framework of the project, seven cross-regional visits were set up. Through these cross-visits, the members of regional committees were able to learn in situ about 6 to 8 initiatives in each region, and exchange impressions and lessons learned.

The Catalan strategic committee actively participated in this phase of the project and was able to share 13 eco-innovations implemented by companies, public authorities and social entities in Catalonia. As such, 15 members of the strategic committee attended the visits to other regions.

Learning firsthand about the eco-innovations and the organisations that implement them in different areas of Europe is one of the main sources for learning that has contributed to writing and revising the projects included in this action plan.



Public policies of reference

The development of Ecowaste4food in Catalonia is backed by two public policy instruments: ERDF Operational Programme and PRECAT20. At the same time, this project is implemented in the hopes that it will provide valuable information for the debate on the future priorities of these instruments and for the mobilisation of economic funds for the prevention of food waste.

- **ERDF Operational Programme of Catalonia 2014-2020.** The Operational Programme for the Investment in Growth and Employment 2014-2020 was created within the framework of the Catalonia 2020 Strategy (ECAT2020) and the Catalan Research and Innovation Strategy for Smart Specialisation (RIS3CAT). These strategies identify the priority fields of action for public policies to promote smart, sustainable and conciliatory growth and to attain the Europe 2020 targets. The objective of Investment in Growth and Employment is to generate growth and employment, address climate change and energy dependency, and reduce poverty and social marginalisation. The priority fields of action are employment and training, social cohesion, green economy, innovation and knowledge, entrepreneurship, and internationalisation. During the 2019-2020 period, work will be carried out to include food waste as one of the priority actions of the ERDF Operational Programme of Catalonia 2021-2027. This work will be based on lessons learned from the Ecowaste4food project, results obtained, and the evaluation of the project carried out in conjunction with the strategic committee.
- **General Programme for the Prevention and Management of Waste and Resources of Catalonia 2013-2020 PRECAT20.** The Generalitat of Catalonia is implementing this instrument until 2020 to tackle the strategic challenges and objectives of waste prevention and management. Strategic objective 4 “Reduce waste generation by promoting prevention and reuse” particularly stands out as it establishes a target for 2020 to reduce by 50% the weight of food waste produced in retail distribution, restaurants, the catering industry and private households as compared with 2010.

The Action Plan for Food Waste Prevention in Catalonia (2019-2020) is aligned with four objectives of PRECAT20.

PRECAT20 OBJECTIVES

- Objective 1. Boost the ‘waste to resources’ approach
- Objective 2. Keeping in mind lifecycles, contribute to the fight against climate change and other impacts associated with managing waste and the use of resources
- Objective 4. Reduce the generation of waste by promoting prevention and most importantly reuse
- Objective 6. Increase the recovery of all waste, especially by recovering raw materials to support a circular economy and lower carbon footprint



The connection between the actions established in PRECAT20 and the action plan are specified in the table below.

ACTION PLAN FOR THE PREVENTION OF FOOD WASTE IN CATALONIA	PRECAT20 ACTIONS
Action 1. Knowledge	ACT-007 Increasing knowledge of waste and aspects directly related to it. ACT-012 Setting up a collaboration to carry out regular diagnoses on food waste in the primary and agri-food sector.
Action 2. Awareness for action	ACT-044 Implementing waste prevention communication actions. ACT-056 Designing a communication strategy for food waste prevention.
Action 3. Early prevention	ACT-055 Implementing local support actions for the prevention of biodegradable waste. ACT-053 Developing a line of financial aid to fund ecodesign in companies. ACT-068 Promoting the purchase of recycled and resource-efficient products in public and private procurement.
Action 4. Use of surpluses	ACT-055 Implementing local support actions for the prevention of biodegradable waste. ACT-053 Developing a line of financial aid to fund ecodesign in companies.
Action 5. Governance	ACT-057 Promoting collaboration in the actions of the Catalan Food Surplus Committee. ACT-058 Supporting measures to reduce food waste applied by private organisations and cooperation with organisations in the distribution of food.
Action 6. Policy framework	ACT-055 Implementing local support actions for the prevention of biodegradable waste. ACT-053 Developing a line of financial aid to fund ecodesign in companies.

The General Programme for the Prevention and Management of Waste and Resources of Catalonia 2013-2020 PRECAT20 will be implemented until late 2020. At that time, work will start to draft a new plan that will be implemented starting in 2021. The lessons learned from the Ecowaste4food project, and particularly from implementing the action plan, will be one of the fundamental elements for creating a new plan. The results obtained will also be taken into account by examining indicators. Furthermore, the conclusions from the yearly assessments (2019 and 2020) on the degree of implementation of the action plan will be analysed as well as the weaknesses and strengths identified during this process.



OBJECTIVE

The overall objective of the **Action Plan for Food Waste Prevention in Catalonia (2019-2020)** is:

Reduce avoidable food waste in Catalonia by emphasising the value of food, promoting prevention at the source and a better use of food, and creating a common framework based on network governance for all actions taken in the sectors of the food chain.

As such, this action plan is designed as a practical tool to guide current and future stakeholders involved in the development and implementation of actions to prevent food waste and to give visibility to their actions.

Scope

- **Time period:** The action plan will run from 2019 to 2020.
- **Territory:** The geographic range given priority is Catalonia, while also considering the complexity of the food system and its interconnection with other territories.
- **Sector:** The scope of the action plan in terms of the companies driving actions and the beneficiaries of these actions encompasses the entire food chain: primary production, agri-food industry, distribution, retail, restaurants, catering and canteens, homes and daycares, public authorities, universities, and research centres.
- **Competence:** The action plan is the sum of the contributions of all members of the Catalan Strategic Committee for the Ecowaste4food project that is now in charge of implementing the projects defined within its scope of competence.

Principles of the Action Plan

The general principles used to draft this action plan are based on the strategies, plans and regulations applied in Catalonia.

- **Recover the value of food** at a nutritional, social, productive, and territorial level, and understand the economic, social, and environmental importance that goes into obtaining it.
- **An integral approach to the food system.** The food chain has expanded and diversified, and has become a complex system. Effective solutions are based on an overall view that considers the multiple relationships intertwining sectors and agents.
- **Waste hierarchy**, as established in article 4 of Directive 2008/98/EC, sets priorities in legislation and politics for the prevention and management of waste: a) prevention, b) preparing for reuse, c) recycling, d) other recovery, and e) disposal. These priorities applied to food and food waste are compiled in Figure 3.

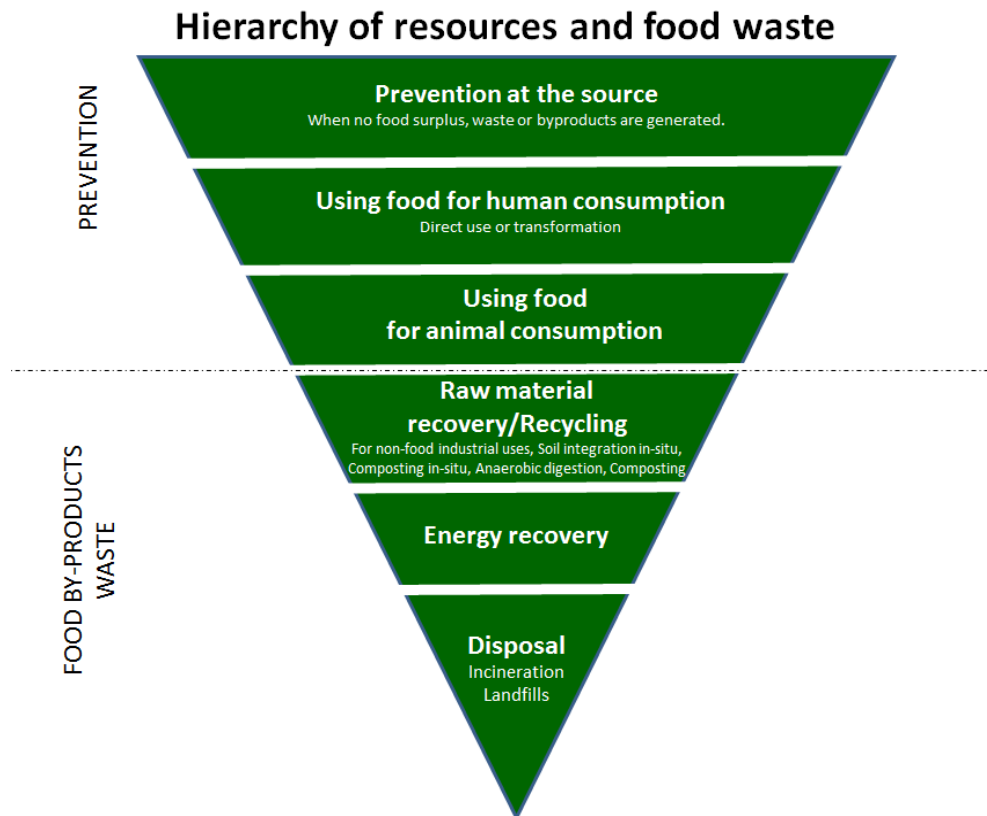


Figure 2: Hierarchy of resource and food waste management Source: created internally based on WRAP.

- Base actions on **economic, environmental and social sustainability** in order to guarantee feasibility while fulfilling social and environmental objectives.
- **Transparency and access to information.** Generating information about food waste and free access is one of the keys to building trust and strengthening relationships between stakeholders.
- **Innovation.** Apply technological, social, and environmental innovation as well as innovation in governance to implement initiatives that emphasise the value of food and lead to the effective reduction of food waste.
- **Shared responsibility.** All stakeholders assume their part of responsibility in waste prevention and management and work together to find a solution.
- **Circular economy.** Acknowledge the need to use resources as efficiently as possible and to change production, consumption and waste management patterns to shift towards a strategic 'waste to resources' approach.



ACTIONS ENVISAGED

ACTION 1. GENERATE KNOWLEDGE TO UNDERSTAND THE VALUE OF FOOD AND THE FOOD WASTE PHENOMENON AND ITS EVOLUTION IN THE FOOD SYSTEM CONTEXT

Background

The main background regarding this field of work in Catalonia is:

- In 2012, the Waste Agency of Catalonia carried out the Diagnosis of food waste in homes, restaurants and hotels, and retail distribution in Catalonia.
- In 2017, the Waste Agency of Catalonia carried out the Diagnosis of food waste and losses in primary production, agribusiness and wholesale distribution of peaches and nectarines with the participation of the Ministry of Agriculture, Livestock, Fisheries and Food and businesses within the sector.
- The Waste Agency of Catalonia quantifies food waste in the organic fraction of municipal waste systematically since 2012.
- There are quantification initiatives promoted by private organisations such as AECOC for the business sector and Weigh and Think aimed at school canteens.

The main learning sources related to data generation and analysis within the Ecowaste4food project are:

- **Winnov** (Devon County region). Software that connects commercial restaurant and catering kitchens to the cloud and allows them to register and analyse exactly what is being thrown away.
- **Food4good** (Wielkopolska region). Its main goal is to transfer knowledge from scientific centres to businesses, support scientific units, carry out private investigations and use R+D at an industrial scale.
- **MFCA Methodology** (Région Sud. Provence-Alpes-Côte d'Azur). Material flow cost compatibility is a diagnosis method that allows us to calculate the real cost of waste, including not only the external management cost, but also the internal management costs and production costs.

In short, Catalonia currently has access to studies that quantify and analyse the causes that generate waste within part of the food chain. It is clear that there is also a need to extend these studies to the entire chain and evolve towards systemising data collection to establish prevention goals and assess the effect of actions performed and monitor them in time.

Action: Perform studies regarding food waste

The action goal is to collect and produce quantitative and qualitative information on food waste through studies at different levels within the food chain, as well as analysing the causes and effect of the suggested solutions. This data will provide more clarity on the issue and updated information on the quantification of food waste both in specific studies and periodic measures.

The action includes:

- Performing a diagnosis of food waste in the primary and food sectors.
- Characterising food waste in the organic fraction of municipal waste and the waste fraction of municipal waste.
- Assessing the viability of obtaining systematic data on food waste generated by the food industry from the Annual Industrial Waste Declaration (DARI) and the Annual Industrial Waste Declaration for Managers (DARIG).
- Identifying indicators to obtain periodic and systematic information on food waste.



- Adopting the food waste quantification methodology approved by the EU and with the requirements transposed by the State.
- Promoting data collection at the sectoral level (businesses, school canteens).
- Encouraging the research and production of knowledge in this field.

Ecowaste4food area that the action has an impact on: Provision of services that can help to reduce food waste.

Players involved

The following agents will be involved in implementing the action:

- Waste Agency of Catalonia, partner organisation that promotes the action plan, with jurisdiction over the waste generated in Catalonia and waste managed in this region.
- Ministry of Agriculture, Livestock, Fisheries and Food, member of the strategic committee, with jurisdiction over food policies.
- Food chain businesses participating in the studies.
- Organisations with food waste quantification initiatives members of the strategic committee: AECOC, Campos Estela.
- Universities that promote food waste prevention research.

Timeframe

Detailed design and implementation of actions: 01/01/2019-31/12/2020

Costs

The planned budget for this action is €265,000.

Funding sources

Waste Agency of Catalonia annual budget.



ACTION 2. RAISE AWARENESS, EDUCATE AND PREPARE FOR THE FOOD WASTE PREVENTION ACTION

Background

The main background regarding this field of work in Catalonia is:

- In 2014, the Waste Agency of Catalonia together with the Barcelona Metropolitan Area and Barcelona City Council launched the campaign SOM GENT DE PROFIT, to increase citizens' knowledge of food waste and how to act to reduce it and prevent it. The campaign has been extended with different actions that are recurrent since they respond to the continuity of the actions that have been developed since November 2014 and throughout 2015, 2016, 2017 and 2018.
- Other public administrations, businesses from the food sector and social and environmental entities, committed to preventing waste, carry out awareness-raising and learning actions related to the value of food and the importance of a healthy diet, responsible consumption and preventing waste aimed both at children and young people as well as the general population. Many of these organisations are part of the Catalan strategic committee because of their experience in this field.
- The project 'Weigh and Think', an educational project that aims to raise awareness regarding food waste in school canteens promoted by Campos Estela, is a noteworthy initiative. They are members of the Catalan strategic committee and the initiative has been selected as one of the eco-innovations of the Ecowaste4food project.
- In this context, the celebration of regular meetings where the Waste Agency of Catalonia has actively participated as an organiser or collaborator, providing its knowledge on waste prevention, is also notable.

The main learning sources related to data generation and analysis within the Ecowaste4food project are:

- **'Circular economy in the food chain' project at the School of Food and Agriculture at Seinäjoki University of Applied Sciences (South Ostrobothnia region)** with the aim to make the circular economy part of the permanent contents of different study programmes related to food and the restaurant and hotel industry, agriculture and biological and food technology. They have created new circular economy study modules that are implemented in several ways: practical co-working and operation with private businesses; courses related to waste in restaurants, lateral flow management in the food industry, knowledge on containers, etc.
- **Collective technical support for 12 communities for sustainable canteens (Région Sud. Provence-Alpes-Côte d'Azur)**. Support for sustainable canteens (nursery and primary schools) during the 8-day training modules organised with experts. Subjects: provisions, local supply, health and commercial regulations, ecological and local cooking methods, education and communication.
- **Avoid waste at home project (South Ostrobothnia region)**. Regional government action implemented through an NGO and aimed at consumers in order to raise awareness about preventing waste and changing the way we act at home: planning food shopping, purchasing food, cooking, storing food, using up scraps.
- **Waste reduction campaign among public food services in the municipality of Ilmajoki (South Ostrobothnia region)**. A campaign to improve waste prevention actions in kitchens and advise clients to prevent food waste. After weighing weeks and the information provided, food services have been planning improvements that will be applied the following year.



- **Eco dal Frigo (Municipality of Ferrara).** Interactive web platform that suggests how to cook good meals using food scraps found in the fridge as ingredients. The website and application provide recipes for different products organised by category (dairy products and eggs, vegetables, fruit, fish, meat, grains, other), which are normally forgotten because of their expiry date.

During the debate and participation sessions of the Catalan strategic committee, the awareness, education and capacitation for the action have been identified as one of the main challenges for food waste prevention in Catalonia. In recent years, many initiatives have been carried out in this field, promoted both by the public administration and businesses and social and environmental entities. Nevertheless, the challenge is to consolidate the current education programmes and extend them to be included in university programmes linked to food production, circular economy, nutrition, etc. Moreover, it will be important to include waste prevention in the training of employees of food businesses, to incorporate it as another element of the food value chain.

Action: Disseminate information and carry out educational programmes, campaigns, trainings on food waste prevention aimed at children, young people and adults

The goal of the action is to raise awareness, educate and prepare for the food waste prevention action. It consists of organising activities aimed both at school age students and the general public and professional sectors linked to the food industry regarding the value of food, food production, food habits, responsible consumption and waste and its environmental, social and financial consequences to raise awareness of the issue, communicate key messages and promote the participation of the population as active players to prevent food waste.

The action includes:

- Performing responsible consumption, healthy diet and food waste prevention activities at schools.
- Organising meals where food scraps are used and other activities to raise awareness among the general public.
- Promoting employee training in the food sector to reduce waste.
- Continuing the communication campaign *We are food wise* for food waste prevention.
- Creating a webpage about the Ecowaste4Food Action Plan on the Waste Agency of Catalonia website.
- Disseminating waste prevention through existing communication tools: Ministry of Agriculture, Livestock, Fisheries and Food monthly #AprofitaelsAliments newsletter and website, Catalunya Circular: *l'Observatory of Circular Economy* portal, Sostenible.cat portal, Network of Sustainable Cities and Towns magazine.
- Organising and collaborating in the organisation of workshops and debates.
- Promoting recognition awards for noteworthy initiatives.

Ecowaste4food area that the action has an impact on: Provision of services that can help to reduce food waste and Limitation of waste generation at the source in the food processing industry.



Players involved

The following agents will be involved in implementing the action:

- Waste Agency of Catalonia, partner organisation that promotes the action plan, with jurisdiction over the waste generated in Catalonia and waste managed in this region. Promoter of the *Som gent de profit* campaign.
- Catalan Consumer Agency, member of the strategic committee promoting the Consumer School of Catalonia and Ministry of Agriculture, Livestock, Fisheries and Food, member of the strategic committee, with jurisdiction over food policies and streamlining the food sector.
- City councils promoting activities to raise awareness.
- Social entities promoting activities to raise awareness.
- Food chain businesses that receive training sessions and promote healthy food programmes.

Timeframe

Detailed design and implementation of actions: 01/01/2019-31/12/2020

Costs

The planned budget for this action is €450,000.

Funding sources

Waste Agency of Catalonia annual budget.



ACTION 3. PROMOTE ACTIONS TO PREVENT WASTE AT THE SOURCE, PREVENTING THE GENERATION OF DISCARDED FOOD THROUGHOUT THE ENTIRE FOOD CHAIN

Background

The main background regarding this field of work in Catalonia is:

- The Ministry of Territory and Sustainability, including the Waste Agency of Catalonia, have been promoting sustainable production and business policies for many years. These policies are expressed in support instruments for businesses within the framework of environmental management systems, the emblems of environmental quality guarantee, the promotion of green procurement and contracting and the encouragement of the circular economy.
- The Ministry of Agriculture, Livestock, Fisheries and Food is putting together a guide that aims to give food businesses guidelines to prevent and reduce food waste and losses.

The main learning sources related to data generation and analysis within the Ecowaste4food project are:

- **Riverford Field Kitchen** (Devon County region). Good practices to reduce waste in the production and distribution of organic products in baskets and in the restaurant.
- **Avignon public hospital** (Région Sud. Provence-Alpes-Côte d'Azur). In three years, Avignon public hospital has reduced food waste from 90,000 to 9,000 individual trays. This has been achieved through a combination of social and technological innovations. Tasty homemade recipes, slow cooking, cold meals and smart portions have contributed to reducing food waste, saving money and making the patients feel satisfied.

During the research for eco-innovations and good practices carried out within the framework of the Ecowaste4food project both in Catalonia and other partner regions, many initiatives aimed at recovering food have been identified. However, experiences aimed at preventing at the source are even more rare. Meanwhile, there is an opportunity to incorporate food waste prevention as a specific vector in existing business management improvement instruments.

Action: Carry out prevention activities at the source of food waste

The goal of this action is to try to prevent the generation of discarded food at all stages of the food chain, to prevent at the source by providing players with tools, guidelines and information on good practices for prevention at the source and editing guides and codes that can become models to quantify, diagnose and act when faced with waste and as dissemination tools. Meanwhile, applied actions will be promoted to prevent food waste at the source of all stages of the food chain.

The action includes:

- Promoting the Collective canteen greening guide, applied to public procurement.
- Promoting the food waste prevention guide and environmental management systems.
- Participating in the creation of the Emblem of Environmental Quality Guarantee for restaurants.
- Promoting the implementation of food waste and loss reduction and prevention plans in food businesses.
- Ensuring the interaction between the Interreg Europe CircE (European regions toward Circular Economy) project and the Interreg Europe Ecowaste4food project.



- Introducing food waste prevention as an assessment criterion in ARC's catering contracting processes.
- Replicating the food waste reduction project in hospitals. Food Bridge.
- Encouraging the implementation of nudging techniques in the collective restaurant sector to prevent food waste.

Ecowaste4food area that the action has an impact on: Provision of services that can help to reduce food waste and use of products that are currently considered unusable or useless.

Players involved

The following agents will be involved in implementing the action:

- Waste Agency of Catalonia, partner organisation that promotes the action plan, with jurisdiction over the waste generated in Catalonia and waste managed in this region.
- Ministry of Territory and Sustainability. Directorate-General for Environmental Quality and Climate Change (DGQACC), member of the strategic committee, with jurisdiction over sustainable production and business policies.
- Ministry of Agriculture, Livestock, Fisheries and Food, member of the strategic committee, with jurisdiction over food policies and streamlining the food sector.
- Food chain businesses involved in implementing prevention practices at the source of food waste.
- Social entities promoting prevention projects at the source.

Timeframe

Detailed design and implementation of actions: 01/01/2019-31/12/2020

Costs

The planned budget for this action is €85,000.

Funding sources

Waste Agency of Catalonia annual budget.



ACTION 4. PROMOTE ACTIONS FOR THE RECOVERY OF DISCARDED FOOD PRIORITISING HUMAN CONSUMPTION

Background

The main background regarding this field of work in Catalonia is:

- Catalonia has a long-standing tradition recovering discarded food. Firstly, business initiatives such as *Indulleida* stand out, which, since 1980 and with the participation of agricultural cooperatives at the forefront, promotes the creation of new products from fresh products that cannot be sold. Secondly, initiatives promoted by different social entities to structure the redistribution of food fit for consumption but that cannot be sold towards entities that distribute them as part of the fight against poverty are also remarkable.
- The harshness of the economic crisis since 2008 and the evidence of surplus and discarded food generated have promoted the emergence of new actors and distribution models that contribute to those already in place in fields such as harvesting, restaurant surplus redistribution, etc.
- Currently, the food recovery experience accumulated by different players and the need to broaden the responses to the waste phenomenon are promoting initiatives based on business symbiosis and aim to find business opportunities linked to food recovery. The innovative approach of these proposals is particularly noteworthy, with new proposals for commercialisation, food waste prevention and the fight against social and financial inequality.
- The Waste Agency of Catalonia works towards promoting different food waste initiatives through grants for prevention and preparation projects for municipal waste reuse and projects promoting the circular economy.

The main learning sources related to data generation and analysis within the Ecowaste4food project are:

- **Last Minute Market** (Municipality of Ferrara). Collaboration protocol between retail trade and social entities to recover food surplus and distribute it among people in need. The City Council coordinates the process, signs the collaboration protocol and applies municipal waste tax deductions to businesses based on the self-declaration of donations made.
- **Ecofestival-Ferrar Buskers** (Municipality of Ferrara). Every year, Ferrara celebrates a festival with a big environmental impact. The organising association decided to implement several measures to reduce food waste, by collecting unsold food from restaurants and redistributing it in collaboration with Last Minute Market, among others.
- **Fondalim Paca** (Région Sud. Provence-Alpes-Côte d'Azur). Promotion of food donations by regional food businesses to the regional food product bank at FONDALIM PACA, a regional donation fund created by FRIA, COOP de France Alpes Méditerranée and regional food banks, with communication support (graphic design elements and web platform).
- **New Lion Brewery** (Devon County region). Beer production with surplus bread.
- **Food in Community** (Devon County region). Charitable delivery diagram for the distribution of unwanted fresh fruit and vegetables and surplus food. Harvesting unwanted crops from fields after the harvesting season. A monthly 'Pay as you feel' menu, prepared with surplus food. Creation of artisan stocks for business development.
- **FPH Paula Sp. z o.o. Co I MicroFood Co. Puffins** (Wielkopolska region). Snacks made from dehydrated fruit as a method to extend the useful life of fresh fruit and vegetables.



This field is the one that collects most eco-innovations and ongoing projects in all the regions participating in the project, as well as in Catalonia. New proposals have been added to consolidated food transformation and redistribution initiatives, in order to go beyond promoting business innovation in product transformation and commercialisation proposals, social innovation in the fight against inequality and environmental innovation in food waste prevention. The knowledge acquired during the project together with the ongoing initiatives in Catalonia adds to the progress in this field.

Action: Promote actions for food recovery through innovation, generating business opportunities and business symbiosis

The objectives are to increase the recovery of food that is fit for consumption but is currently being discarded; advance and promote the investigation, technological development and innovate with projects that promote food recovery and new business lines; and create and establish synergies and business collaborations between the different agents in the food chain (primary sector, transformation, distribution and trade, collective canteens and restaurants and homes) providing the economic recovery of new ideas and promoting the creation of new businesses.

The action includes:

- Supporting food recovery programmes and actions for food discarded by the primary sector, the food industry, distribution and trade, restaurants and homes and its redistribution for human consumption.
- Promoting harvesting and recovering the value of food.
- Supporting innovative projects in the transformation and recovery of discarded food.
- Supporting business symbiosis in the transformation and recovery of discarded food.

Ecowaste4food area that the action has an impact on: Provision of services that can help to reduce food waste, conception and design of products that help to reduce food waste by the end users and use of products that are currently considered unusable or useless.

Players involved

The following agents will be involved in implementing the action:

- Waste Agency of Catalonia, partner organisation that promotes the action plan, with jurisdiction over the waste generated in Catalonia and waste managed in this region. From its jurisdiction, it promotes grants to encourage initiatives within the field of this action.
- Ministry of Agriculture, Livestock, Fisheries and Food, member of the strategic committee, with jurisdiction over food policies and streamlining the food sector.
- Food chain businesses involved in donating food discarded from commercialisation, in research and development projects or innovative recovery initiatives.
- Businesses that provide services that contribute to food recovery.
- Social entities that promote recovery projects or projects involved in food redistribution.
- Research and development centres.
- City Councils and Regional Councils that promote recovery and redistribution activities.

Timeframe

Detailed design and implementation of actions: 01/01/2019-31/12/2020

Costs

The planned budget for this action is €300,000.

Funding sources

Waste Agency of Catalonia annual budget.



ACTION 5. DEPLOY A GOVERNING MODEL BASED ON THE COORDINATION BETWEEN FOOD CHAIN AGENTS TO ACT AT THE FOOD SYSTEM LEVEL

Background

The main background regarding this field of work in Catalonia is:

- In 2012, the Charity Food Distribution Board of Catalonia was created in order to increase the collection of discarded food for its distribution, establish a direct food distribution service model and analyse the situation and evolution of European grants in this area. Agents from all stages of the food chain were part of this board, the Waste Agency of Catalonia among them.
- In 2017, within the framework of the Interreg Europe Ecowaste4food project coordinated by the Waste Agency of Catalonia, the Catalan strategic committee was created bringing together 47 organisations with the purpose of designing and starting this action plan.
- In 2017, by Decree 126/2017, of July 25, of the Catalan Food Council this body was created in order to analyse and discuss business, technology, social, environmental and sustainability challenges, by encouraging business competitiveness, food quality and the circular economy, which the Catalan food industry must face, so they are treated in an active, foresighted, efficient, balanced and sustainable way. This body includes a Sustainability and waste commission which will deal with topics related to waste prevention policies in the future.
- There are several sectoral committees promoted both by the public administration and the private sector that also bring together agents related to the food chain.

The main learning sources related to data generation and analysis within the Ecowaste4food project are:

- **Network to combat food waste and losses** (South Provence-Alpes-Côte d'Azur region). The creation of this network is being driven by the Environment and Energy Management Agency, the Regional Directorate of Food, Agriculture and Silviculture and the regional government in order to reduce food waste by 50% by 2025.

The complexity of the food waste phenomenon and its systemic dimension with implications and interrelations throughout the food chain create the need for work spaces where different agents can exchange information and points of view, where challenges are shared and joint solutions are created.

Action: Promote cross-sector and sectoral work groups to encourage alliances and agreements that increase waste prevention

The aim is to create spaces for dialogue and exchanging information between different food chain agents as a tool to improve food waste prevention policies and as a mechanism to promote synergies and collaborations between agents with this purpose in mind. Tasks will include monitoring the implementation of the Plan, which includes: assessing, taking stock, adjusting or modifying the work plan, writing down future directions and maintaining and broadening the contact network with European partners and agents.

The action includes:

- Giving continuity to the Ecowaste4food Catalan strategic committee during the implementation of the Action Plan.
- Participating in the launch of the Sustainability and Waste Commission within the Catalan Food Council.



- Promoting waste prevention and participating in sectoral platforms: interdepartmental commission of the Government of Catalonia, coordinating commission between the Government of Catalonia and the local community, AECOC Committee against food waste, other work groups.

Ecowaste4food area that the action has an impact on: Provision of services that can help to reduce food waste.

Players involved

The following agents will be involved in implementing the action:

- Waste Agency of Catalonia, partner organisation that promotes the action plan, with jurisdiction over the waste generated in Catalonia and waste managed in this region.
- Ministry of Agriculture, Livestock, Fisheries and Food, member of the strategic committee, with jurisdiction over food policies, promoter of the Catalan Food Council and coordinator of the interdepartmental commission.
- City Councils and municipal entities.
- AECOC business organisation.

Timeframe

Detailed design and implementation of actions: 01/01/2019-31/12/2020

Costs

The planned budget for this action is €8,000.

Funding sources

Waste Agency of Catalonia annual budget.



ACTION 6. PROMOTE A POLICY FRAMEWORK THAT INCREASES AND ACCELERATES THE IMPACT OF THE ACTIONS

Background

The main background regarding this field of work in Catalonia is:

- In February 2018, the law proposal for the reduction of food waste that is being processed was registered in the Catalan Parliament.
- In March 2018, the Parliament approved the Declaration of Castellar del Vallès. For a cycle of sustainable food. From Waste to Recovery, aimed at the local community.
- Currently, the Government of Catalonia is designing the 2030 Agenda Implementation Plan to achieve the Sustainable Development Goals defined by the United Nations in Catalonia. SDG 12.3 aims to reduce food waste by half per capita globally in retail trade and at consumption level, as well as reducing food losses in production and distribution chains, including losses after harvesting.
- Different Catalan Government bodies promote financial and technical support that must allow the acceleration of the waste prevention action and increase the results obtained. These grants encourage the promotion of the circular economy, municipal waste prevention, the rural development plan, research and development and innovation in small and micro-sized businesses.

The main learning sources related to data generation and analysis within the Ecowaste4food project are:

- **Local action plan for waste prevention** (Provence-Alpes-Côte d'Azur region). Different cities develop an action plan to reduce food waste in canteens, retail and consumers.

Action: Develop public policies, legal, financial and fiscal instruments

The goal is to promote the food waste prevention action in the entire food chain and increase the positive results and effects of this action through different tools implemented by the public administration such as the design of public policies, legal instruments, fiscal incentives and financial support.

The action includes:

- Participating in the debate for the Food waste reduction law proposal.
- Supporting the deployment of the *Declaration of Castellar del Vallès. For a cycle of sustainable food. From Waste to Recovery* promoted by the Network of Sustainable Cities and Towns.
- Providing financial support to food waste prevention projects through grants by the Waste Agency of Catalonia.
- Assessing the possibility of establishing financial incentives for the promotion of food waste prevention.
- Including food waste reduction as an indicator in the assessment criteria of the Innovative Public Procurement of the municipal waste selective collection and prevention that are considered for funding from the FEDER fund.
- NUCLIS, R+D business grants for Circular Economy, waste sector.



Players involved

The following agents will be involved in implementing the action:

- Waste Agency of Catalonia, partner organisation that promotes the action plan, with jurisdiction over the waste generated in Catalonia and waste managed in this region.
- Ministry of Agriculture, Livestock, Fisheries and Food, member of the strategic committee, with jurisdiction over food policies and streamlining the food sector.
- Advisory Council for Sustainable Development (CADS), coordinator of the deployment of the 2030 Agenda in Catalonia.
- ACCIÓ - Catalonia Trade & Investment, promoter of grants for business competitiveness.
- Network of Sustainable Cities and Towns, promoter of the Declaration of Castellar.

Timeframe

Detailed design and implementation of actions: 01/01/2019-31/12/2020

Costs

The planned budget for this action is €50,000.

The planned budgets for the grants are not included to avoid them also being compatible with other actions of the action plan financed by these funds.

Funding sources

Waste Agency of Catalonia annual budget.

Project: ECOWASTE4FOOD

Date: 17/12/2018

Partner organisation: Waste Agency of Catalonia (ARC)

Country: Spain

NUTS2 region: Catalonia

Contact person: Alfred Vara i Blanco

email address: avara@gencat.cat

phone number: +34 93 567 33 00

Signature: Josep Maria Tost, Director