

Factsheet on food waste reduction and related eco-innovations in Catalonia

ERDF 2014-2020 : 800 Mio EUR

The main objectives of the ERDF are:

- 1 - To boost research, technological development and innovation (including ecological innovation);
- 2 - To improve the use and quality of ICTs and facilitate access to them;
- 3 - To improve the competitiveness of SMEs (including the implementation of circular economy measures to improve waste management);
- 4 - To foster progress towards a low-carbon economy in all sectors;
- 6 - To conserve and protect the environment and promote resource efficiency.

It addresses 16 Investment Priorities:

- 1.1. Enhancing research and innovation infrastructure and capacities to develop R&I excellence, and promoting centres of competence, in particular those of European interest.
- 1.2. Promoting business investment in R&I, developing links and synergies between enterprises, research and development centres and the higher education sector, in particular promoting investment in product and service development, technology transfer, social innovation, eco-innovation, public service applications, demand stimulation, networking, clusters and open innovation through smart specialisation, and supporting technological and applied research, pilot lines, early product validation actions, advanced manufacturing capabilities and first production, in particular in key enabling technologies and diffusion of general-purpose technologies.
 - 2.1. Extending broadband deployment and the roll-out of high-speed networks and supporting the adoption of emerging technologies and networks for the digital economy.
 - 2.2. Developing ICT products and services, e-commerce and enhancing demand for ICTs.
 - 2.3. Digital literacy, e-government, e-learning, e-inclusion, e-culture.
- 3.1. Promoting a spirit of enterprise, in particular by facilitating the economic exploitation of new ideas and fostering the creation of new companies, including the use of business incubators.
- 3.3. Supporting the creation and the extension of advanced capacities for product and service development.
- 3.4. Supporting the capacity of SMEs to grow in regional, national and international markets, and to engage in innovation processes.
 - 4.1. Promoting the production and distribution of energy from renewable sources.

- 4.2. Promoting energy efficiency and renewable energy usage by companies.
- 4.3. Supporting energy efficiency and renewable energy usage in public infrastructures, including public buildings, and in homes.
- 4.4. Developing and implementing smart distribution systems in low and medium voltage grids.
- 4.5. Promoting carbon reduction strategies for all types of territory, especially in urban areas, including the promotion of sustainable urban multimodal mobility and adaptation measures with mitigation effect.
- 6.3. Conserving, protecting, promoting and developing natural and cultural heritage.
- 6.4. Protecting and restoring biodiversity, soil protection and restoration, and promoting ecosystem services, including through Natura 2000 and green infrastructures.
- 6.5. Improving the urban environment, rehabilitating former industrial zones and reducing atmospheric pollution.

This document provides a brief overview of how the challenges and opportunities faced by ECOWASTE 4 FOOD on food waste and eco-innovations are addressed by the ERDF (or another fund).

1. Situation and key challenges

Catalonia covers an area of 32,108 km² of which 88% is rural.

The total population is 7.5 million – of which 81.42 % lives in cities (more than 10,000 people).

Catalonia faces many challenges regarding the environment, resource efficiency and food waste:

The Catalan General Waste and Resource Management and Prevention Programme 2013-2020 (PRECAT20), includes the following targets related to food waste prevention:

1 – Strategic objective 4. To reduce waste generation by promoting prevention and, in particular, reuse.

2 – General objectives:

[4a.1] To effectively reduce the total primary generation of municipal, industrial and construction-related waste in Catalonia, and specifically to achieve by 2020 a 15% weight reduction in the generation of waste in respect of the figures for 2010.

[4a.2] To set, by the end of 2018, specific waste reduction targets for specific flows or sectors, whether on a general scale or for specific population groups, economic sectors, etc.

[4a.3] To raise citizens' awareness of the existing availability of reusable or second-hand products.

[4a.4] To promote the adoption of eco-design strategies for products and services.

[4a.5] To foster the lengthening of the useful life of products, placing specific emphasis on combating planned and perceived obsolescence.

[4a.6] To offer economic incentives for good waste prevention practices.

3 – Specific objectives for material flow:

[4b.1] To achieve a 50% reduction of food waste by 2020 in respect of the figures for 2010 in the retail distribution, restaurant, catering and domestic areas.

[4b.2] To set, by the end of 2018, a target for the reduction of food waste in the primary and agrifood sectors, including wholesale distribution.

The table below shows the evolution of the food wastage (considering only avoidable food) found in the organic fraction from 2012 to 2015:

INDICATOR OF FOOD WASTE IN OFMSW	2012	2013	2014	2015
Total food waste % (in respect of gross tonnes) arithmetic mean (Note 1)	8.87%	7.40%	7.39%	9,23%
Food waste (tonnes)	34,532.43	28,078.13	27,715.68	34.409,85
Food leftovers, food in bad condition... (tonnes)	31,749.70	26,241.40	25,864.14	32.433,99
Packaged food (impurities) (tonnes)	2,782.73	1,836.73	1,851.53	1.975,86

Note 1: Sum of food waste found in OFMSW and the food waste found in impurities

2. How Catalonia will address these challenges between now and 2020

The Catalan General Waste and Resource Management and Prevention Programme 2013-2020 (PRECAT20), includes the following actions related to food waste prevention:

- 7. Increasing knowledge of waste and aspects directly related to it.
- 12. Collaboration in carrying out regular diagnoses of food waste in the primary and agrifood sectors.
- 44. Implementation of waste prevention communication actions.
- 45. Implementation of specific waste prevention actions in the education sector.
- 53. Design of a communication strategy for food waste prevention.
- 55. Implementation of local support actions for the prevention of organic biodegradable waste.
- 56. Design of a communication strategy for food waste prevention.
- 57. Promotion of cooperation in activities related to the work of the Food Surplus Committee of Catalonia.
- 58. Support for measures to reduce food waste applied by private organisations and cooperation with organisations in the distribution of food.

The funding sources for the implementation of these actions are government budget allocations and industrial and municipal waste levies.

3. What kind of eco-innovations may offer opportunities to help Catalonia to address these challenges?

The four eco-innovation domains will help Catalonia to address its challenges:

- Limitation of waste production at source in the food processing industry by introducing eco-efficient manufacturing processes (ECOINNOV1)

- Conception and design of products that facilitate food waste reduction by end users, the catering industry and individual consumers (ECOINNOV2)
- Use of products currently considered unusable or unserviceable (ECOINNOV3)
- Provision of services to help reduce food waste directly or by changing consumption patterns (including e-services, connected objects) (ECOINNOV4)

The list below shows some Catalan good practice that went to scale:

- We're Food Wise campaign, Catalan Govern, Barcelona City Council and Metropolitan Area or Barcelona.
- Plataforma Aprofitament els Aliments (PAA);
- ‘Remenja’mmm’, leaded by Rezero, Resource Bank Fundation, NSF and GSR ;
- Nutrition without borders (NSF): Barcelona shares its food;
- Espigoladors : It’s im-perfect;
- Pont Alimentari, Promoted by Rezero and Resource Bank Fundation;
- Gestió Alimentària, Leaded by the city of Reus, the Taller Baix Camp and Caritas Interparroquial of Reus;
- No wasting food campaign, Association of Wholesale Consumption Companies (AECOC);
- Reuse of leftovers by customers of eco-restaurants through the use of doggy bags. Prevention Thematic Day of EWWR’14
- Guides for the implementation of good food waste prevention practices in the restaurant and catering sector
- Tapper;
- Food Management, Reus City Council;
- The Charity Shop, Cornellà de Llobregat City Council;
- “Recooperem, finsh your meal at home”, Vallès Occidental Waste Management Consortium

The Catalan key stakeholders who can help to deliver the expected impacts are the representatives of the Public Administration, universities, the business sector and civil society.