

## Efficient management and use of water in food processing

### Summary

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The task force of the food service clusters and the Catalan Water Partnership (CWP) cluster has assessed the water cycle in two subsectors of the Catalan food industry. The objective was to characterise opportunities to generate efficient solutions, foster innovative projects in the production process and analyse the implications of the use of water in food products. It is a strategic pillar based on common challenges that takes into account the comprehensive management of water, input water, process water and the wastewater generated, in accordance with quality, efficiency and cost parameters in order to optimise the production process and obtain more sustainable management of the water while reducing the impact on the environment of the sector's production process.

### Objectives

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The specific objectives to achieve the main objective of generating the most efficient opportunities and solutions in the complete water cycle of the sector are as follows:

- Selection of five companies that are representative of the catering industry to identify the stages of the production process with ad hoc surveys and plant visits.
- Assessment of possible improvements to make the management of production plants as efficient as possible and analysis of the implications of the use of water in food products. Special care will be taken to find potential innovative projects or uses of innovative technologies, and the results will subsequently be reported to the entire sector.

All the proposals focus on achieving the three objectives: (i) operating cost savings, (ii) brand differentiation in relation to the consumer and (iii) social/environmental responsibility, as can be seen in the following list of innovative projects:

#### SUMMARY OF IDENTIFIED INNOVATIVE PROJECTS:

- Study of the possibilities of using alternative sources of water for food sector organisations in order to optimise the costs associated with water consumption.
  - Monitoring of water consumption in the various production processes to identify the key control points and the corresponding water consumption reduction and/or current recirculation measures.
  - Promotion of a project to foster the reuse of water in the food sector to address the social, economic and technological barriers associated with the reuse of water.
  - Foster the circular economy in relation to the comprehensive management of water in the food sector.
  - Study of the effects of the quality of water on the various food products that incorporate water.
- Assessment of the characteristics of food based on the quality of water, in addition to the assessment of the effects of water on both the machinery and the customer's perceived quality. Potential development of an ad hoc filtration system.
- Promotion of the implementation of monitoring and control systems adapted to the food sector's purification process in order to have decision-support tools to optimise the process.
  - The development of a water footprint calculator/tool for the various subsectors of the food industry.

## Conclusions

The project has firstly enabled coverage of a gap that no other association was covering, that is, fostering solutions, projects and knowledge by means of good practices in water management with the aid of experts from the CWP cluster, which includes companies, research centres and universities with expertise in water management.

The final result of the creation of the task force has enabled:

- The positioning of water management as a key element, not just from the legal or environmental perspectives, but also as a tool to foster the competitiveness of the sector, through cost efficiency or positioning in relation to an end customer who is increasingly aware of the importance of water management.

## Task force leader

Entity: **THE FOODSERVICE CLUSTER ASSOCIATION OF CATALONIA**

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Typology of entity:

**Other actors in the sector**

## Subject area(s) of application

Agricultural production system  
Biodiversity and nature management  
Energy management  
Food quality/processing and nutrition

## Geographical area(s) of application

### Province(s)

Tarragona  
Lleida  
Girona  
Barcelona

### Region(s)

## Dissemination of the project (publications, conferences, multimedia...)

The project has been disseminated in the media (website and social media) and in a number of seminars organised by the water sector and the annual seminars of the partners of the Catalan clusters.

## Project website

[www.clusterfoodservice.org](http://www.clusterfoodservice.org)

[www.cwp.cat](http://www.cwp.cat)

## More information on the project

### Project dates

Starting date (month-year): March 2018

Completion date (month-year): July 2018

Current status: *Executed*

### Budget approved

**Total budget: €14,000.00**

*DARP funding: €5,586.00*

*EU funding: €4,214.00*

*Own funding: €4,200.00*

## With funding from:



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**Departament d'Agricultura,  
Ramaderia, Pesca i Alimentació**



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Project ID: 193 2017

Grant for the preparation of innovation projects. Call 2017

**July 2018**