

## Optimisation of product homogeneity and reduction of residual brine in the cured ham industry

### Summary

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The aim of this project is to develop innovative salting systems for the production of cured ham with a lower, homogeneous salt content and thereby reduce the discharge of residual brine and decrease energy spending.

Reducing the amount of salt in the preparation of cured ham will directly and proportionally reduce the amount of brine generated by production companies and, therefore, reduce their consumption of water, wastewater treatment costs and the risk of environmental damage at the public wastewater treatment plants (or water courses) that ultimately receive this type of treated water. It will also result in the shortening of the salting and drying stages for part of the production, which will also yield energy savings.

To execute the project, changes will be made to the traditional ham curing process to improve the quality of both the product and the process. These changes will be made based on the knowledge contributed by the IRTA (Institute of Agrifood Research and Technology) and the use of online non-destructive technologies (Lenz Instruments), which allow the product to be monitored and classified throughout the entire production process.

### Objectives

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The global objective of this project is the optimisation of the processing of cured ham in order to produce a healthier (lower salt content) and higher quality (no defects and the salt bliss point) product, while maintaining food safety (Listeria) and using a sustainable process (reduction of brine discharges and energy spending).

### Description of initiatives outlined in the project

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Identify and classify the most suitable raw material to produce safe, low-salt cured ham that is free of sensory defects. Define improvement actions during the salting process to reduce the variability of the product's salt content and brine discharges without affecting its quality. Intelligent readjustment of the salting process to reduce the variability of the product's salt content and decrease energy spending during the drying process, homogenising the characteristics of the batches and facilitating their management. Characterisation, classification and labelling of the product, incorporating nutritional declarations and improving the competitiveness of the product.

### Expected results and practical recommendations

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## Task force leader

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Entity: **Boadas 1880 SA**

Contact e-mail:  
**info@boadas1880.com**

Typology of entity:  
**Agri-food company**

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## Task force coordinator

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Entity: **INNOVACC**

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**innovacc@olot.cat**

Typology of entity:  
**Innovation centre**

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## Other task force members (grant beneficiaries)

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Entity: **Noel Alimentària SAU**

Contact e-mail:  
**noel@noel.es**

Typology of entity:  
**Agri-food company**

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## Other task force members

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Entity: **IRTA**

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**elena.fulladosa@irta.cat**

Typology of entity:  
**Research centre**

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## Subject area(s) of application

Food quality/processing and nutrition  
Water management

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## Geographical area(s) of application

**Province(s)**  
Girona

**Region(s)**  
Gironès  
Garrotxa

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

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News article in the INNOVACC bulletin of November 2017 explaining the submission of the subsidy application: <http://www.innovacc.cat/2017/11/28/projectes-presentats-en-la-linia-de-grups-operatius-2017-del-darp/>

News article in the INNOVACC bulletin of July 2018 announcing the granting of a subsidy for the project: <http://www.innovacc.cat/2018/07/23/ajuts-obtinguts-per-a-6-projectes-pilots-de-grups-operatius-del-darp-2017/>

Publication of information about the project on the INNOVACC website:  
<http://www.innovacc.cat/2018/07/23/el-projecte-optimitzacio-de-la-homogeneitat-de-producte-i-reduccio-de-salmones-residuals-en-industria-elaboradora-de-vernils-curats-a-obtingut-un-ajut-de-grups-operatius-del-darp-20/>

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## Project website

<http://www.innovacc.cat/2018/07/23/el-projecte-optimitzacio-de-la-homogeneitat-de-producte-i-reduccio-de-salmones-residuals-en-industria-elaboradora-de-vernils-curats-a-obtingut-un-ajut-de-grups-operatius-del-darp-20/>

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## More information on the project

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### Project dates

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### Budget approved

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Starting date (month-year): June 2018

Completion date (month-year):

Current status: *Underway*

**Total budget: €173,098.00**

*DARP funding: €70,741.56*

*EU funding: €53,366.44*

*Own funding: €48,990.00*

**With funding from:**



Generalitat de Catalunya  
**Departament d'Agricultura,  
Ramaderia, Pesca i Alimentació**



**Fons Europeu Agrícola  
de Desenvolupament Rural:**  
Europa inverteix en les zones rurals

Project funded through Operation 16.01.01 (Cooperation for Innovation) through the Catalan Rural Development Programme 2014-2020.

*Order ARP/133/2017, of 21 June, approving the regulatory bases of grants for cooperation for innovation through the promotion of the creation of European Association for Innovation task forces in terms of agricultural productivity and sustainability and the execution of innovative pilot projects by these groups.*

*Resolution ARP/1868/2017, of 20 July, calling for applications for grants for the year 2017.*

*Project ID: 030\_2017*