



LIFE ECOLAC - PREVENTION OF DAIRY PRODUCT'S ENVIRONMENTAL IMPACT THROUGH ECODESIGN

LIFE13 ENV/ES/000615



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Contact details:

Contact person: Susana ETXEBARRIA

Tel: 34946574000

Email: setxebarria@azti.es

Project description:

Background

Around 80% of most products' environmental footprint is determined during their design phase. Focusing on environmental considerations during design stages can therefore reduce negative impacts and increase resource efficiency.

European dairy products have lifecycles that traditionally consume large amounts of energy and other resources. This sector has great potential to become more resource-efficient through adoption of more holistic environmental perspectives throughout the product lifecycle. Currently, eco-design approaches have focused mainly on primary production and the final packaging phases. Further benefits can be gained by integrating more environmental perspectives along the entire product chain.

Objectives

The project's primary aim is to reduce negative environmental impacts from the production of dairy products. Reaching this objective will help enhance the environmental competitiveness of agri-food companies, especially dairies. A core aim is to provide the dairy industry with an ICT tool for analysing the environmental impacts of its production processes.

The project will carry out a Lifecycle analysis (LCA) of the dairy industry in order to identify priority areas and key opportunities for improving environmental

performance. It will also develop a new ICT software tool that will provide companies in the dairy sector with data on the environmental impacts of their production processes. The aim is to foster the implementation of eco-design approaches in the dairy industry by providing information on different indicators (e.g. carbon footprint, water footprint, ozone layer potential depletion, loss of biodiversity, etc.). The prototype will be tested and validated on six different dairy products and a manual of good practices in eco-design applications for food products will be produced. A study will also be carried out on consumer behaviour concerning eco-designed food products. This study will serve as the basis for the development of future products and for raising the environmental awareness of consumers.

Expected results:

- A software tool for the eco-design of dairy products;
- LCA of dairy products, identifying critical points with higher environmental impact for dairy products;
- Calculations of different environmental impact indicators for six dairy products (carbon footprint, water footprint, ozone layer potential depletion, loss of biodiversity, etc.) using the newly developed tool, and identification of potential actions to mitigate them. The proposed actions are foreseen to help improve the general environmental impact of the whole process by 15% over the evaluated environmental impact;
- Production of 5 000 units of one prototype at pilot scale for one dairy product, which has been developed using the new eco-design methodology;
- A new guide to eco-design of food products and good practice recommendations;
- A user manual for the new software;
- An environmental awareness and educational campaign for dairy product consumers in the project area.

Results

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Environmental issues addressed:

Themes

Environmental management - Eco-products design

Industry-Production - Food and Beverages

Environmental management - Life Cycle Assessment-Management

Keywords

decision making support, food production, life-cycle management

Natura 2000 sites

Not applicable

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Beneficiaries:

Coordinator	Fundación AZTI-AZTI Fundazioa
Type of organisation	Research institution
Description	AZTI-Tecnalia, an NGO, is a technology centre specialised in strategic and applied environmental research.
Partners	CAPSA(CORPORACIÓN ALIMENTARIA PEÑASANTA, S.A.), Spain INGENET(INGENET, INGENIERÍA DE INFORMÁTICA Y CONTROL, S.L. / INGENET, COMPUTING AND CONTROL ENGINEERING), Spain FeNIL(FEDERACIÓN NACIONAL DE INDUSTRIAS LÁCTEAS), Spain

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Administrative data:

Project reference	LIFE13 ENV/ES/000615
Duration	01-JUL-2014 to 30-SEP -2017
Total budget	1,452,503.00 €
EU contribution	722,122.00 €
Project location	Asturias(España) País Vasco(España) Madrid(España)

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