



LIFE The Tough Get Going (LIFE TTGG)



POLITECNICO
MILANO 1863

PROJECT SUMMARY





PROJECT DESCRIPTION:

BACKGROUND

The dairy sector is a major creator of wealth and jobs in the Europe. However, dairy products also play a major role in greenhouse gas emissions and have a significant impact even on water resource depletion, freshwater eutrophication, marine eutrophication, freshwater eco-toxicity, land consumption and acidification.

Italy and France are big European cheese producers (France takes the second place after Germany, and Italy takes the sixth place after Germany, France, the UK, Poland and the Netherlands). Solutions are needed to improve Italian and France cheeses supply chain efficiency and to analyse and reduce their Product Environmental Footprint (PEF). The Grana Padano PDO cheese (it accounts for approximately 24% of total milk output in Italy. With 183,000 tonnes produced in 2015, it is one of the country's best-known and mostly widely-consumed cheeses) and 1 French PDO cheese will be taken as a reference for the analysis.

OBJECTIVES

The LIFE TTGG project aims to improve the supply chain efficiency of European hard or semi hard Product Designation of Origin (PDO) cheeses by design and development of an Environmental Decision Supporting System (EDSS) for Product Environmental Footprint (PEF) assessment and its reduction. The instrument will be calibrated, validated and tested on Grana Padano and on other French PDO cheese (1 to be defined), and then proposed as a reference to other EU PDO Consortia. French dairy organisation, CNIEL, a project partner, will be responsible to test the EDSS on French PDO cheeses.

Specific project objectives include:

- Developing effective methodologies for calculating and reducing PEF, tailored to a wide range of hard or semi-hard cheeses;
- Making it easier to calculate and reduce PEF and its reduction through user-friendly tools;
- Spreading PEF among PDO consortia in order to increase the number of individual producers certifying their cheese products;
- Optimization of both environmental and economic performances in farms, dairies, and packaging producers (PEF reduction measures) ; and
- Increasing stakeholder and consumer know-how about PEF, providing sound, reliable and simple information, which could also be used for green public procurement.

The project will contribute to the Roadmap to a Resource Efficient Europe and the Circular Economy Action Plan, which foresee PEF as a common method of measuring environmental performance. Product Environmental Footprint Category Rules (PEFCR) are aimed at providing detailed technical guidance on how to conduct a PEF study. The rules on dairy are currently under development and still need to be consulted upon and examined by the review panel. The LIFE TTGG project represents an opportunity to test PEFCR and feed into policy.



Expected results:

- Development of a life-cycle analysis (LCA) of a representative sample of Grana Padano (65 farms, 18 dairies, and 18 packers) and of a French semi-hard and hard PDO cheeses (35 farms, 15 dairies);
- Implementation of a Life Cycle Inventory (LCI) datasets in compliance with the European International Reference Life Cycle Data System (ILCD) Data Network, following the entry level requirements, for the following specific processes: the production of 1 litre of cows' milk; the production of two of the main feeds used for cows; the production of 1 kg of Grana Padano; and the production of 1 kg of the three packaging solutions. The scope of the LCI datasets are to facilitate the calculation of the PEF of non-PDO cheese products;
- An EDSS (translate in: Italian, English, French, and Spanish) to calculate and reduce the PEF of hard and semi-hard PDO cheeses;
- Testing of 25% of Grana Padano, 5% of other Italian PDO hard cheeses, and 10% of French PDO hard and semi-hard cheeses (in terms of production), using the EDSS; and
- 8.5 million consumers buying products with environmental footprint information (QR code on the packaging) following the project's completion.

BENEFICIARIES:

COORDINATOR

Politecnico di Milano

DESCRIPTION

The Politecnico di Milano is a science and technology university producing engineers, architects and industrial designers through a variety of innovative specialising courses. The Politecnico di Milano has always been based on quality and innovation in teaching and research, resulting in a prolific relationship with the economic and manufacturing worlds through experimental research and the transfer of technology. Two departments are involved in the project: the Department of Energy as Coordinating Beneficiary and the Department of Design as Associated Beneficiary.

PARTNERS

Centre national Interprofessionnel de l'Economie Laitière, France
Università Cattolica del Sacro Cuore, Italy
FONDAZIONE QUALIVITA, Italy
Consorzio per la Tutela del Formaggio Grana Padano, Italy
ENERSEM s.r.l., Italy
Organisation for an international Geographical Indications Network, Switzerland



ADMINISTRATIVE DATA:

PROJECT REFERENCE	LIFE16 ENV/IT/000225
DURATION	03-JUL-2017 to 30-JUN -2021
TOTAL BUDGET	2,148,987.00 €
EU CONTRIBUTION	1,270,869.00 €

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