

## RUMPRINT - Environmental footprint of cow's milk and beef

### Summary

Environmental concerns surround the meat, milk and dairy products sector due to its contribution to greenhouse gas emissions, deforestation and biodiversity loss related to feed imports, among other major environmental issues. Its key role and contribution to achieving sustainable development goals have also been identified. In response to social demands, livestock farmers and the meat and dairy products industry have sought ways to measure, reduce and raise awareness of the environmental footprint of their products. However, the absence of regulation has meant that the results and eco-labels that have been produced for communication purposes are not comparable with each other. Consumers consequently have difficulty understanding the wide range of eco-labels found in the market, and with using the information as a criterion for their purchases, and producers are therefore calling for ways to objectively and fairly identify green products to deal with false eco-labelling. Given this situation, there is a need for an environmental footprint measurement methodology based on scientific knowledge that inspires confidence. This need has also been identified by the European Commission, which has launched an initiative to standardise the measurement of the environmental footprint of products (abbreviated to PEF in English). The PEF is currently in the testing phase, and will be implemented in policies in 2023. The RUMPRINT operational group (OG) was created to evaluate the suitability of the PEF guidelines for companies in Catalonia's local beef sector, to prepare the sector for compliance with future European environmental regulations, and to make progress in environmental competitiveness in a globalised market.

### Objectives

The overall objective is to identify improvements that can be introduced throughout the value chain of beef and cow's milk produced in Catalonia in order to reduce its environmental footprint, while maintaining the productivity and quality of the end product.

The specific objectives are:

1. Inventory resource consumption and pollutant emissions throughout the value chains of beef and veal.
2. Make an environmental diagnosis of the inventories compiled using the PEF guides.
3. Add environmental indicators complementing the PEF, which are relevant for the environmental diagnosis of beef and cow's milk.
4. Identify points for environmental improvement and propose viable alternatives.
5. Raise awareness of the PEF, the results of its application in the beef sector and the benefits of adopting a life cycle perspective (from production of the feed to retail) to reduce the environmental footprint of food in general, and those of the cattle sector in particular.

### Description of the measures planned in the project

There are five phases of action:

**Phase 1: Inventory of resource use and pollutant emissions in milk and beef production.** An exhaustive compilation of all the inputs and outputs of materials and energy, from the farm to the sale of the product, will

be carried out in order to obtain detailed knowledge of the two production chains. The information will be gathered according to the PEF guidelines.

**Phase 2: Quantification of the PEF environmental footprint in milk and beef production.** The inventory of resources used and pollutant emissions obtained in phase 1 will be turned into 16 environmental impact indicators, and then into a single aggregated measure of impact.

**Phase 3: Definition of indicators supplementing those in the PEF profile.** Some environmental indicators are important in livestock farming but are not measured in the PEF. We will complete the PEF profile obtained in Phase 2 with other indicators that are being developed by the IRTA and FAO and United Nations working groups, in order to assess the impacts and benefits of livestock farming on biodiversity and maintenance of soil health, among other areas.

**Phase 4: Proposal for improvements in the meat and cow's milk value chains to reduce environmental impact.** Based on the results of the previous phases, we will identify measures for environmental improvement and evaluate the feasibility of implementing them. If the effects of implementation are measurable in the short term, we will evaluate the effectiveness of the footprint reduction using the PEF and complementary indicators.

**Phase 5: Communication and dissemination** of the PEF initiative and the results of applying it in this OG. Dissemination will take place internally among the members of the OG and externally in outreach format.

### Expected results and practical recommendations

Benefits for:

- Understanding costs, especially of raw materials, energy and logistics.
- Obtaining accurate environmental information for internal decision-making which may be associated with reduced environmental and financial costs.
- Increased environmental skills internally, within the company.
- Management of regulatory, operational, economic and image risks.
- Increased sales and access to new markets in response to consumers' growing environmental awareness.

### Leader of the Operational Group

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### Coordinator of the Operational Group

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### Subject area(s) of application

- Agricultural production system
- Agricultural practice

<input type="checkbox"/>	Agricultural equipment and machinery
<input type="checkbox"/>	Livestock farming and animal welfare
<input type="checkbox"/>	Vegetable production and horticulture
<input type="checkbox"/>	Landscape / Territorial management
<input type="checkbox"/>	Pest and disease control
<input checked="" type="checkbox"/>	Fertilisation and nutrient management
<input checked="" type="checkbox"/>	Soil management
<input type="checkbox"/>	Genetic resources
<input type="checkbox"/>	Forestry
<input checked="" type="checkbox"/>	Water management
<input checked="" type="checkbox"/>	Climate and Climate Change
<input checked="" type="checkbox"/>	Energy management
<input checked="" type="checkbox"/>	Waste and by-product management
<input checked="" type="checkbox"/>	Biodiversity and environmental management
<input type="checkbox"/>	Food quality/processing and nutrition
<input checked="" type="checkbox"/>	Supply chain, marketing and consumption
<input checked="" type="checkbox"/>	Competitiveness and agricultural and forestry diversification
<input type="checkbox"/>	General

### Geographical area(s) of application

PROVINCE(S)	REGION(S)
Barcelona Girona	Osona Baix Empordà

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

National and international dissemination in Catalan, Spanish and English.

Technology transfer seminars will be organised as part of the annual plan (PATT) of the Catalan Ministry of Agriculture, Livestock, Fisheries and Food (DARP, Government of Catalonia). Various summaries of the partial results will be posted on the European Commission's EIP-AGRI website <https://ec.europa.eu/eip/agriculture/en/find-connect/projects> to raise awareness of the project in Europe. Presentations will take place at international technical conferences on agriculture and the environment and at Spanish cattle shows, and in informative multimedia format at the end of the project, among others.

### Project website

A section will be created on the website of the leading company of the Operating Group, [www.grupvinas.com](http://www.grupvinas.com), which will include the RUMPRINT project, among other items.

### More information on the project

PROJECT DATES	TOTAL BUDGET
Start date (month-year): July 2020	Total budget: €151,987.92

Completion date (month-year): September 2022	DARP funding: €62,114.31
Current status: Underway	EU funding: €46,858.16
	Own funding: €43,015.45

### With funding from:

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*Order ARP/133/2017 of 21 June, approving the regulatory bases for grants for cooperation for innovation by promoting the creation of European Association for Innovation operational groups in the areas of agricultural productivity and sustainability and the execution of innovative pilot projects by those groups, and Resolution ARP/1531/2019, of 28 May, announcing the call for the grant.*

