

Farmers adopting mitigation best practices



Life Beef Carbon

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Context (2012-2014)

- Beef production contributes to greenhouse gases (GHG) emissions and to carbon sequestration
- Some mitigation practices have been identified without dissemination
- No tool has been developed for GHG advice on farm
- Farmers were not really aware about GHG and carbon sequestration

→ LIFE BEEF CARBON project



LIFE BEEF CARBON action plan

January 2016 – December 2020

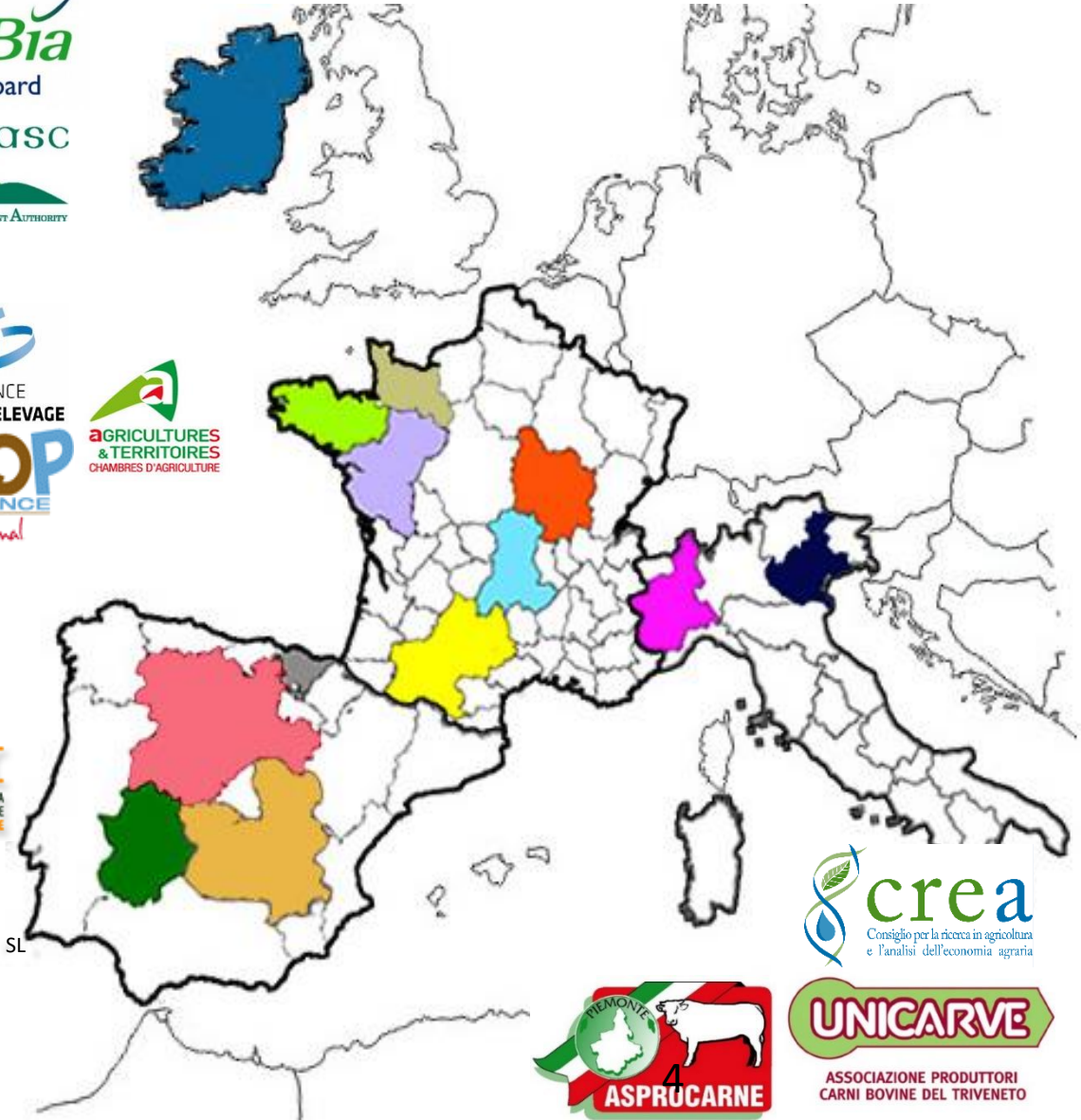


➔ Reducing the beef carbon footprint
of 2,000 farms by 15%





A large regional/national partnership



LIFE BEEF CARBON, key objectives

1- A common framework on GHG

- Tools comparison and harmonization

Teagasc Bord Bia
Irish Food Board

The Beef Carbon Navigator

Improving carbon efficiency on Irish beef farms

The Farm Carbon Navigator was developed by Teagasc and Bord Bia as an advisory tool to support the roll out of Origin Green at farm level.
www.oas.bordbia.ie

CAP'2ER AN ENVIRONMENTAL FOOTPRINT CALCULATOR AND DECISION MAKING FOR RUMINANTS LIVESTOCK SYSTEMS

Assess your environmental performances and farm's sustainability, to improve farming systems and practices

A MULTICRITERIA ANALYSIS TO EVALUATE SUSTAINABILITY

CAP'2ER® allows to assess :

- Positive contributions of the farm
 - Carbon sequestration (kg carbon / year)
 - Conservation of biodiversity (in eq of biodiversity)
 - Food performance (Number of fed people/year)
- Environmental impacts
 - Greenhouse gases emissions (kg CH₄, kg N₂O, kg CO₂ → kg CO₂ eq)
 - Air quality (acidification) (kg NH₃ emitted → kg SO₂ eq)
 - Water quality (eutrophication) (kg N and kg P leaching → kg PO₄ eq)
 - Energy consumption (Direct and indirect energy → MJ)
- Economical performances and work
 - Economical performances (Production costs)
 - Work conditions (Quantity of work, painless...)

CAP'2ER® is for :

- Livestock systems
 - Dairy cattle
 - Beef cattle
 - Sheep cattle
- Public
 - Farmers
 - Livestock advisers

BOVIDO

Instrumento de evaluación ambiental de apoyo técnico a granjas de vacuno

Un análisis multicriterio de evaluación de la sostenibilidad

BOVIDO permite determinar:

- Qué parte de carbono es emitido de la granja
- El impacto de la granja en el medio ambiente
- El nivel de bienestar de los animales
- El nivel de bienestar de los trabajadores

BOVIDO está desarrollado por:

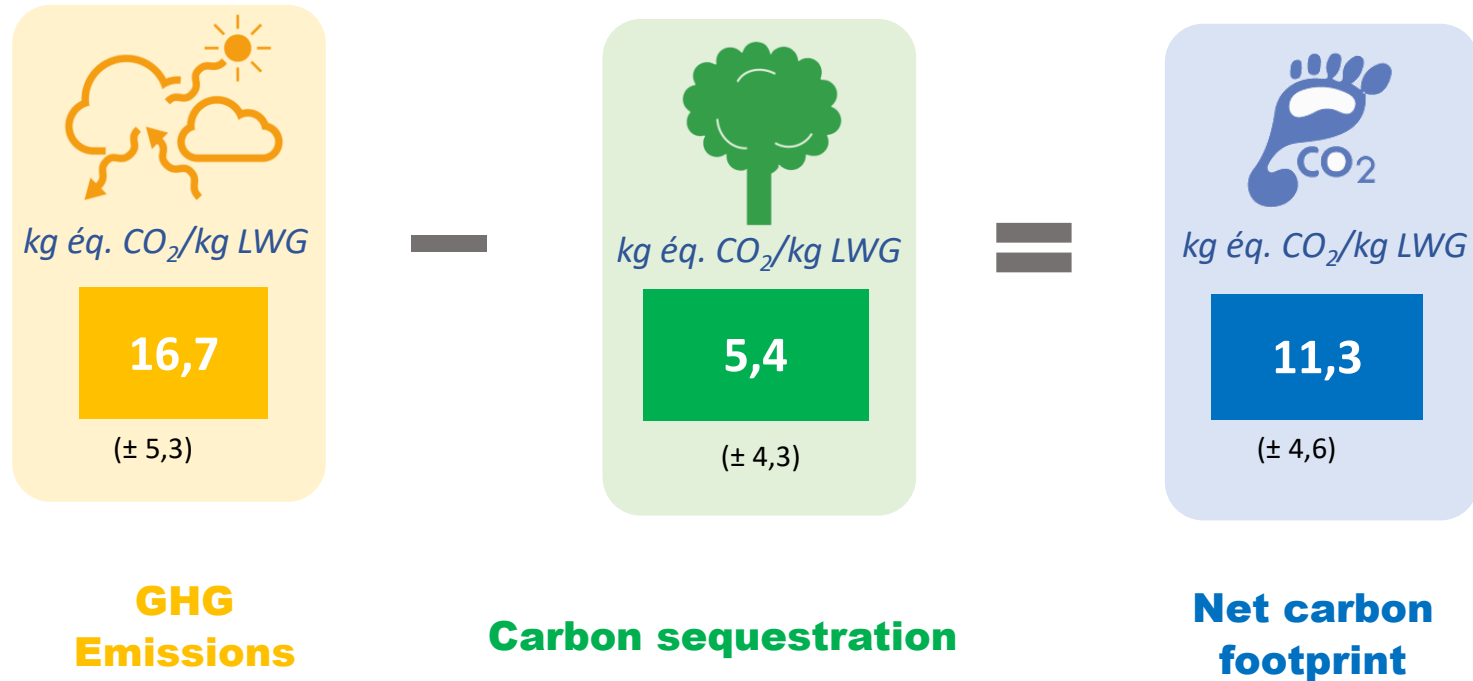
INIA - Instituto Nacional de Investigación y Tecnología Agraria y Alimentaria

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- Inventory of mitigating practices at farm level

Common indicator: kg eq CO₂ / kilogram of liveweight gain

First results on 1800 farms



LIFE BEEF CARBON, key objectives

2- Train farmers and technicians

Individual and collective training sessions

- 2,000 farmers
- 190 technicians/advisers

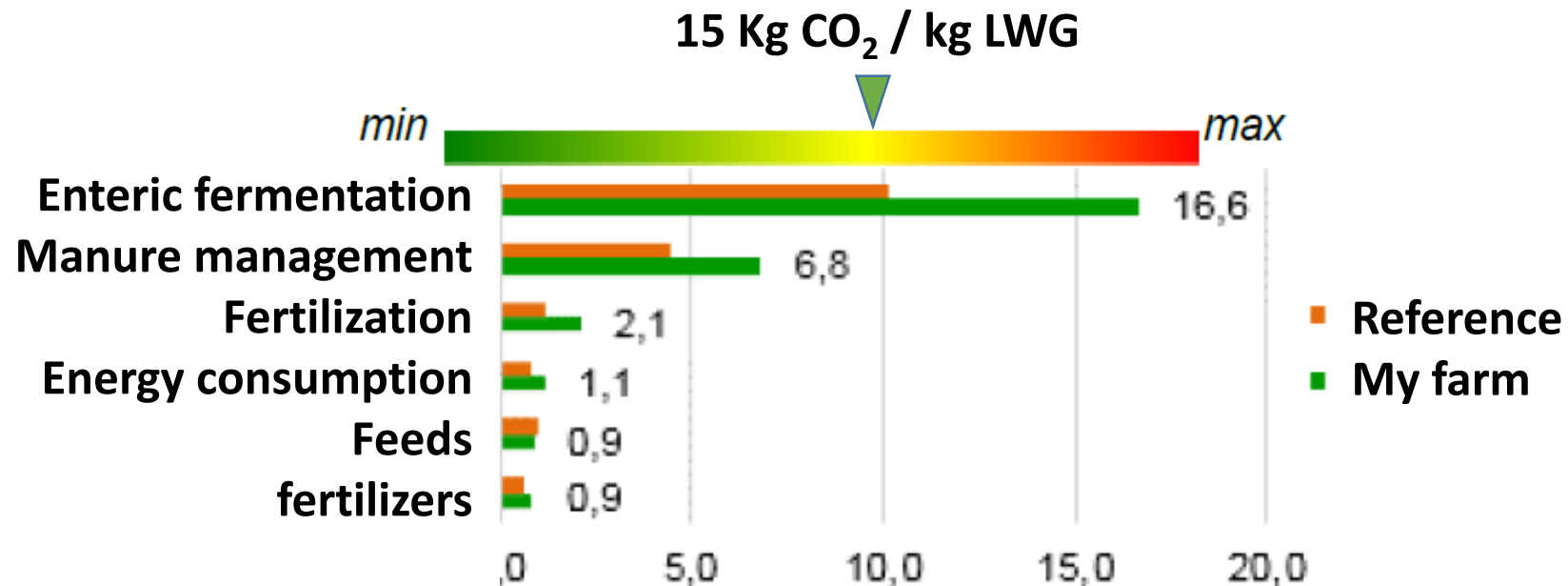


LIFE BEEF CARBON, key objectives

3- A European farm observatory – 2,000 beef farms

Implementing the methodology and tools on a huge farm sample

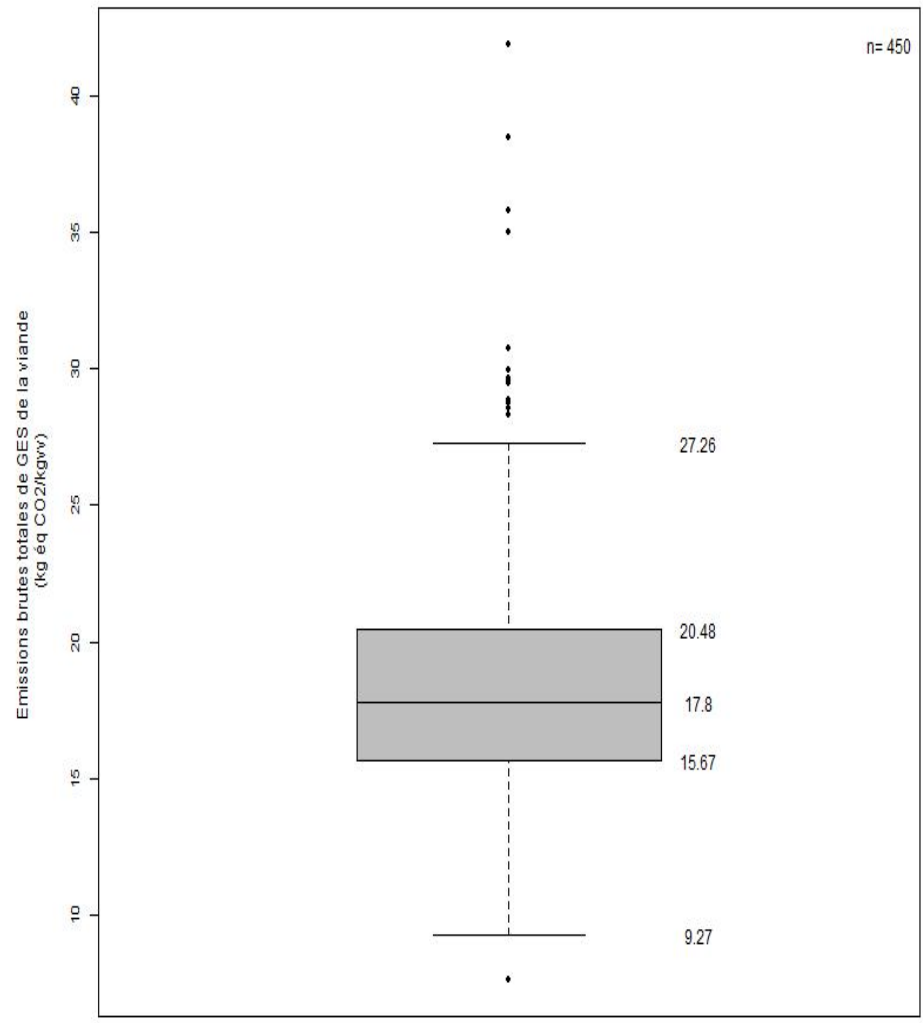
- Determining the environmental efficiency of farms according to production systems and practices
- Presenting to farmers the results and farm performance level in comparison with references





Focus on suckler to weanling systems

GHG emission
(kg eCO₂/ kg lvg)



Huge variability intra system
→ Improve each farm within the system

450 Suckler to weanling farms

LIFE BEEF CARBON, key objectives

4- Identify and apply best practices on innovative farms

170 innovative farms to apply the best practices

- *Demonstrating the feasibility of mitigation practices in real conditions*
- *Evaluating the technical, environmental and economic benefits of adopting mitigation practices at farm level after 3 years*

**GHG and economic win-win
-15% seems feasible**



Mitigation techniques and associated mitigation potential

Cattle nutrition	2-3 %
Cattle management	6-10 %
Inputs management	1-2 %
Manure management	2-4 %
Crops management	2-4 %
Carbon sequestration	2-8 %



LIFE BEEF CARBON, key objectives

5- The Beef carbon action plans

- **Establishing the low carbon strategy plans corresponding to the main production systems existing in the four countries**
- **Describing the social and economic effects**
- **Describing the partnership strategy to be put in place for the wide spreading of a beef carbon action plan**



French Carbon Action Plan

Value chain organisation, cooperatives, farm advisory services, chambers of agriculture, farmers associations, industries...

- Raise awareness among all the actors in relation with farmers (milk/meat/multiproduction...)
- Increase farm advising

Improve farm efficiency, large dissemination of simple indicators and best practices

- Orienting R&D towards innovative low carbon solutions
- Training of advisors and farmers
- Funding and deployment programmes
- Financial recognition of the process

Carbon Credit, Environmental Services

- Communication



LIFE BEEF CARBON has been distinguished by the United Nations and by the French Ministry for Environment with COP21 label for his ambitious scope and his scientific rigor

