

# LIFE BEEF CARBON

## Demonstration actions to mitigate the carbon footprint of beef production in France, Ireland, Italy and Spain.



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### INTRODUCTION

In Italy, agriculture accounts for 7% of two greenhouse gas (CH<sub>4</sub> and N<sub>2</sub>O) emissions and beef production is considered one of the main contributors of GHG, included also CO<sub>2</sub> emitted in on- and off-farm feed production. Public concern on this economic sector has imposed to apply mitigation strategies and to demonstrate that reduction of GHG emission in beef sector is possible. For this reason, the EU has funded the "BEEF CARBON ACTION PLAN" project, which aims to reduce the carbon footprint of beef production by 15% over the next 10 years in four European countries: France, Ireland, Italy and Spain. The aim of "LIFE BEEF CARBON" project is:



- ❖ TO PROMOTE INNOVATIVE LIVESTOCK FARMING SYSTEMS ENSURING THE TECHNICAL, ECONOMIC, ENVIRONMENTAL AND SOCIAL SUSTAINABILITY OF BEEF FARMS;
- ❖ TO REDUCE THE CARBON FOOTPRINT OF BEEF PRODUCTION BY 119000 tons CO<sub>2</sub> eq;
- ❖ TO CONTRIBUTE TO THE IMPLEMENTATION OF EUROPEAN CLIMATE CHANGE LEGISLATION.

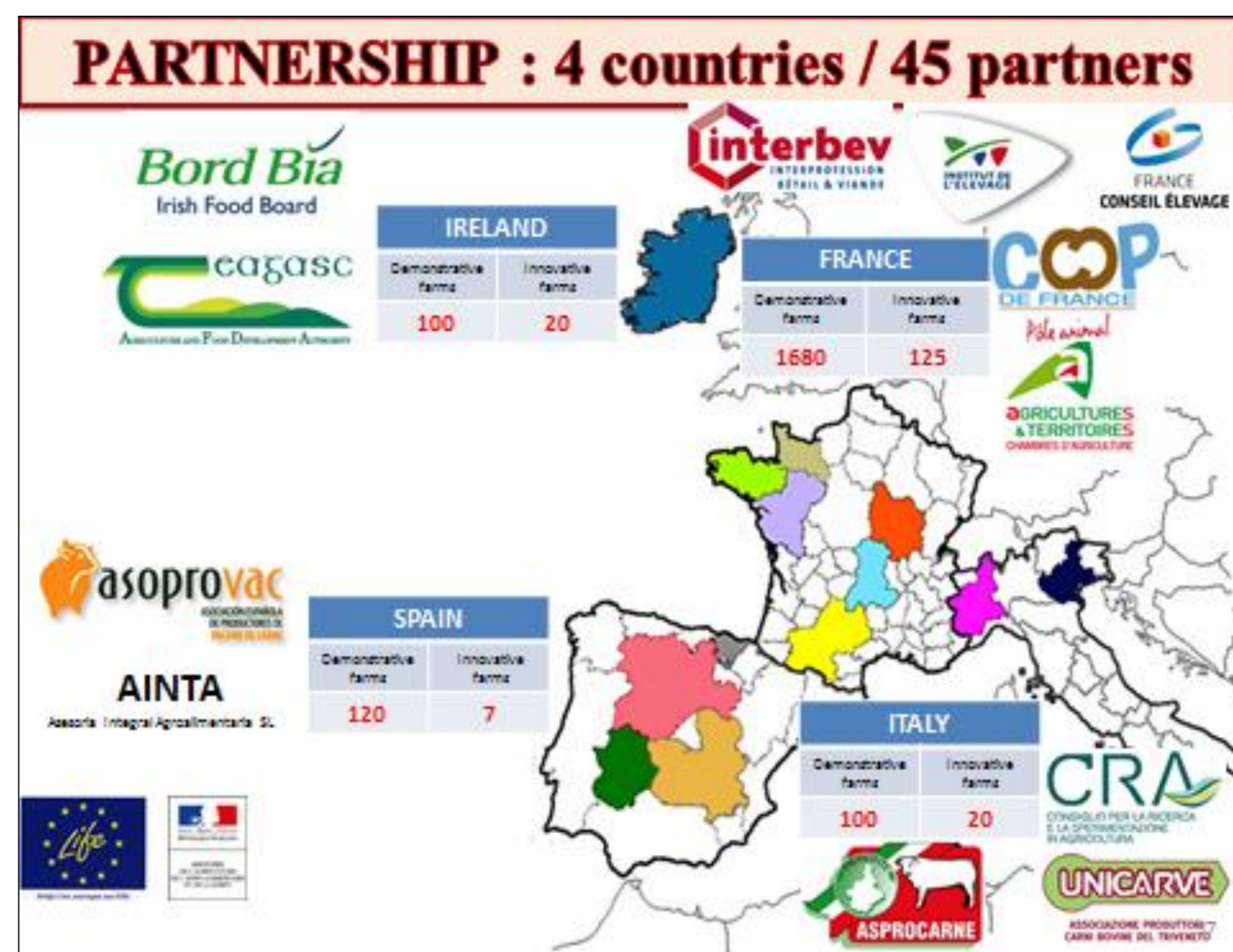
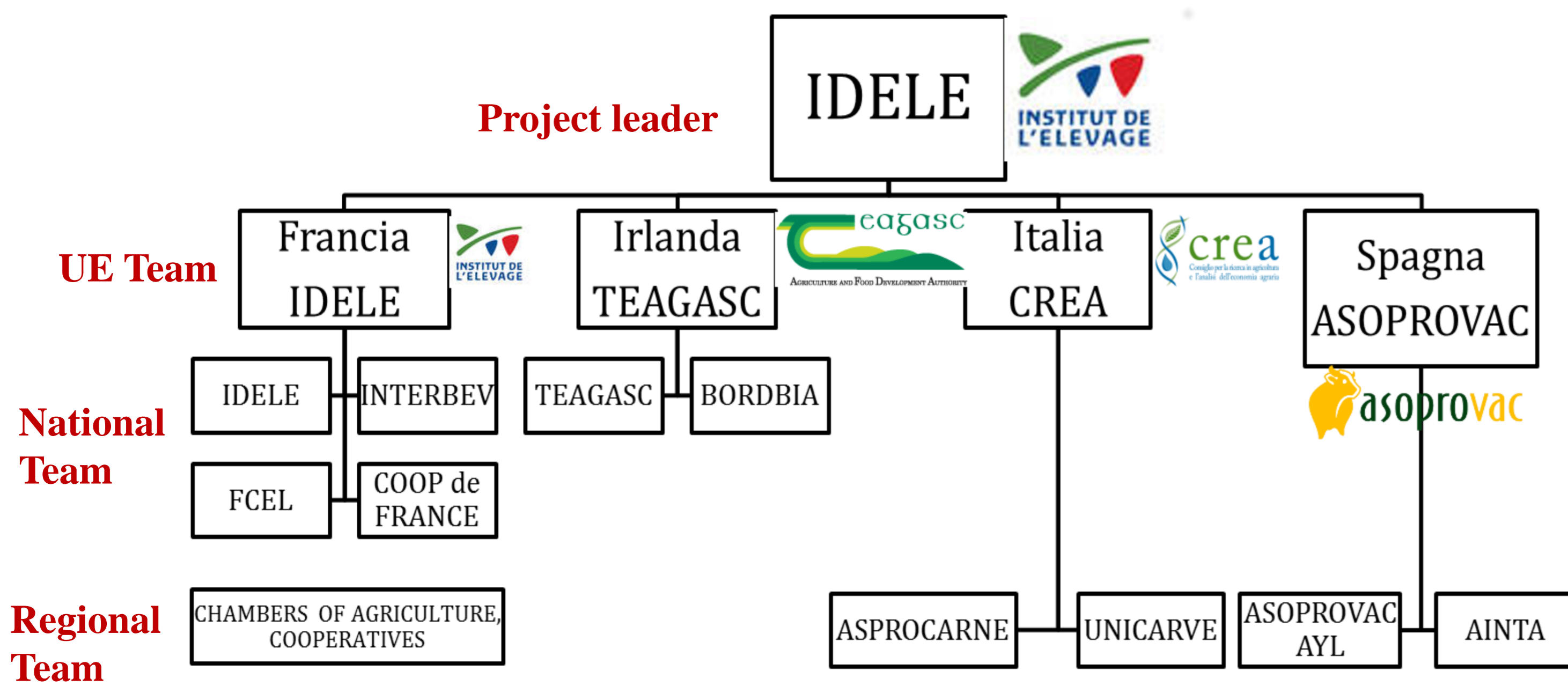
**Coordinator:** the French Institut de l'Elevage (IDELE);

**Duration:** 5 years (January 2016-Dicember 2020);

**Involved farms:** about 2000;

**Production systems:** 1) calf to weaning system producing weaners and culled suckler cows; 2) bulls/heifers and culled suckler cows; 3) fattening system producing young bulls/heifers; 4) fattening system producing beef steers; 5) fattening system producing heifers; 6) dairy system producing culled dairy cows.

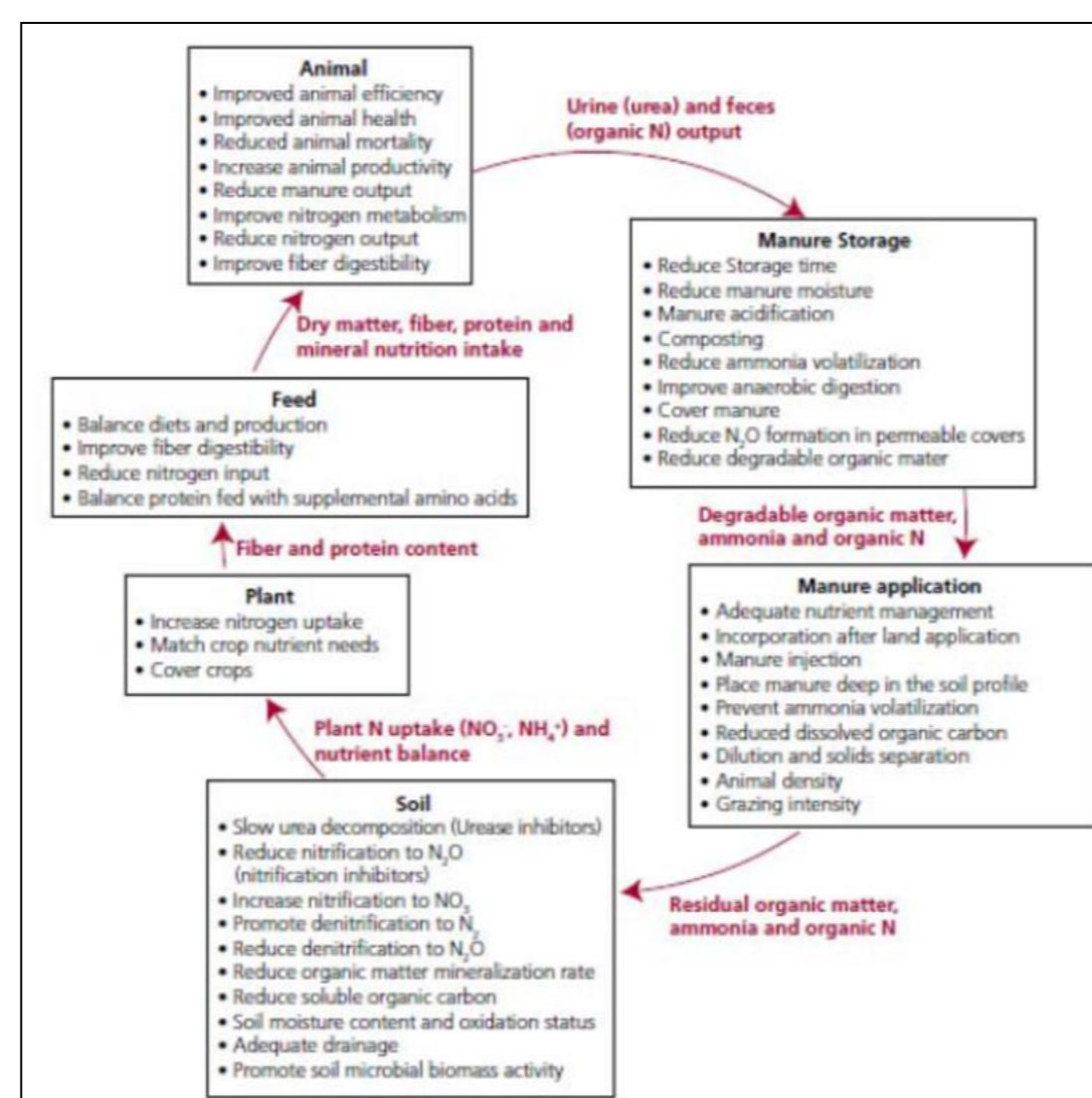
### PROJECT PARTNERS AND FARMS



### INNOVATIVE FARMS

172 innovative farms will be identified where GHG mitigation strategies will be applied and evaluated:

- ❖ Animal feed;
- ❖ Productivity and herd management;
- ❖ Nitrogen fertilizer;
- ❖ Waste management;
- ❖ Energy consumption;
- ❖ Carbon sequestration.

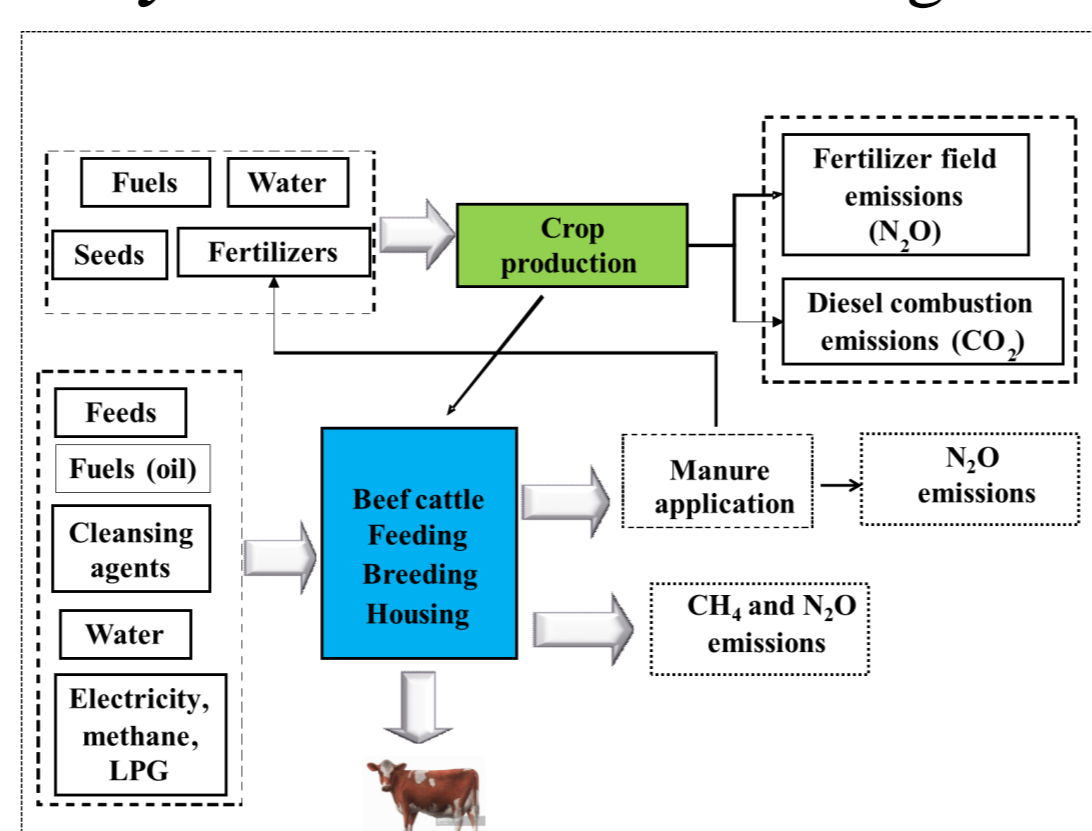
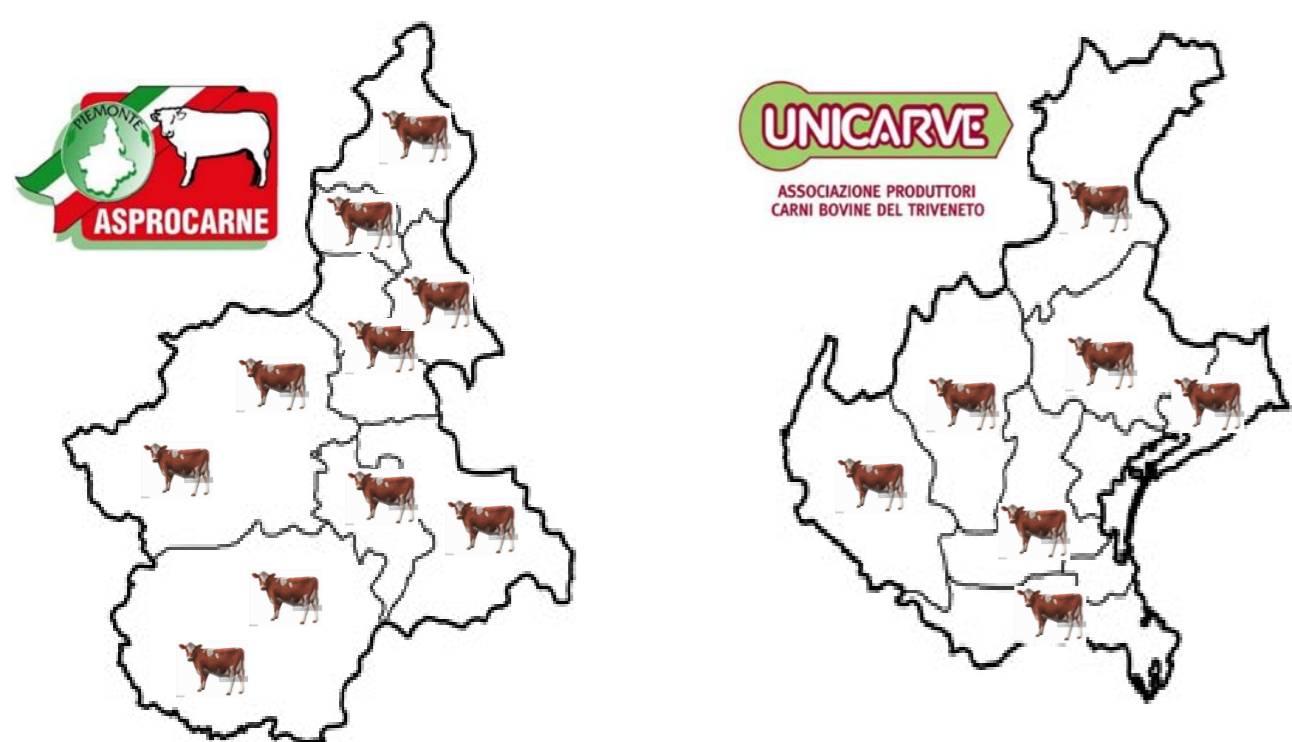


### PROJECT EXPECTED RESULTS

- ❖ GHG emission assessment in 2.000 demonstrative beef farms.
- ❖ A carbon mitigation plan applied in 172 innovative beef farms.
- ❖ Evaluation of innovative mitigation practices.
- ❖ A European network.
- ❖ 4 BEEF CARBON ACTION PLANS for France, Italy, Ireland and Spain.
- ❖ Economic and social feasibility analysis for carbon plan implementation at beef production level.

### LIFE BEEF CARBON IN ITALY (<http://centroflc.entecra.it/index.php/project>)

- ❖ 2 regions: Piedmont and Veneto
- ❖ the system boundaries: farm gate



100 demonstrative (production systems 1, 2, 3) and 20 innovative beef farms.

Specialized finishing farm or slaughterhouse.

- ❖ **Functional unit:** 1 kg of live weight gain (LGW).
- ❖ **Environmental categories:** global warming, eutrophication, acidification, water consumption and contribution of beef farms to rural landscape.
- ❖ **Environmental impact evaluation** using "Calcul Automatisé des Performances Environnementales en Elevage de Ruminants" (CAP'2ER Niveau 1 and 2) developed at IDELE.
- ❖ **Evaluation of the effect of the mitigation strategies for carbon footprint reductions and their economic feasibility on 20 innovative farms.**