# CARBON AGRI, a result-based carbon farming scheme in livestock

***Jean Baptiste Dollé***

***Institut de l'Elevage – French Livestock Institute***

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# CARBON AGRI : A result based methodology

5 years duration

**From reductions quantification to rewarding farmers**

**Paying farmers for carbon reductions**


**Verifying and certifying the carbon reduction**


**Quantifying $CO_2$ reductions 2nd Audit**


**Applying mitigation measures**

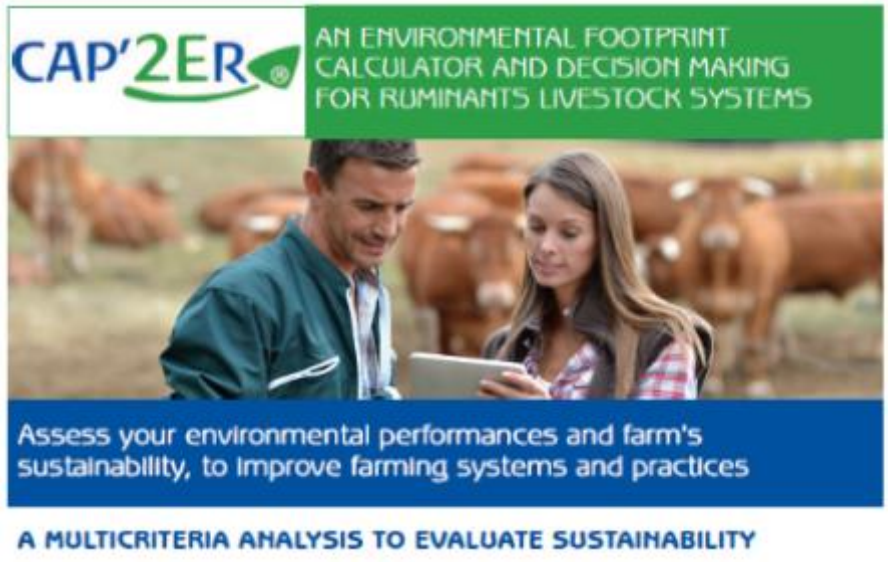
**Building up mitigation action plan**

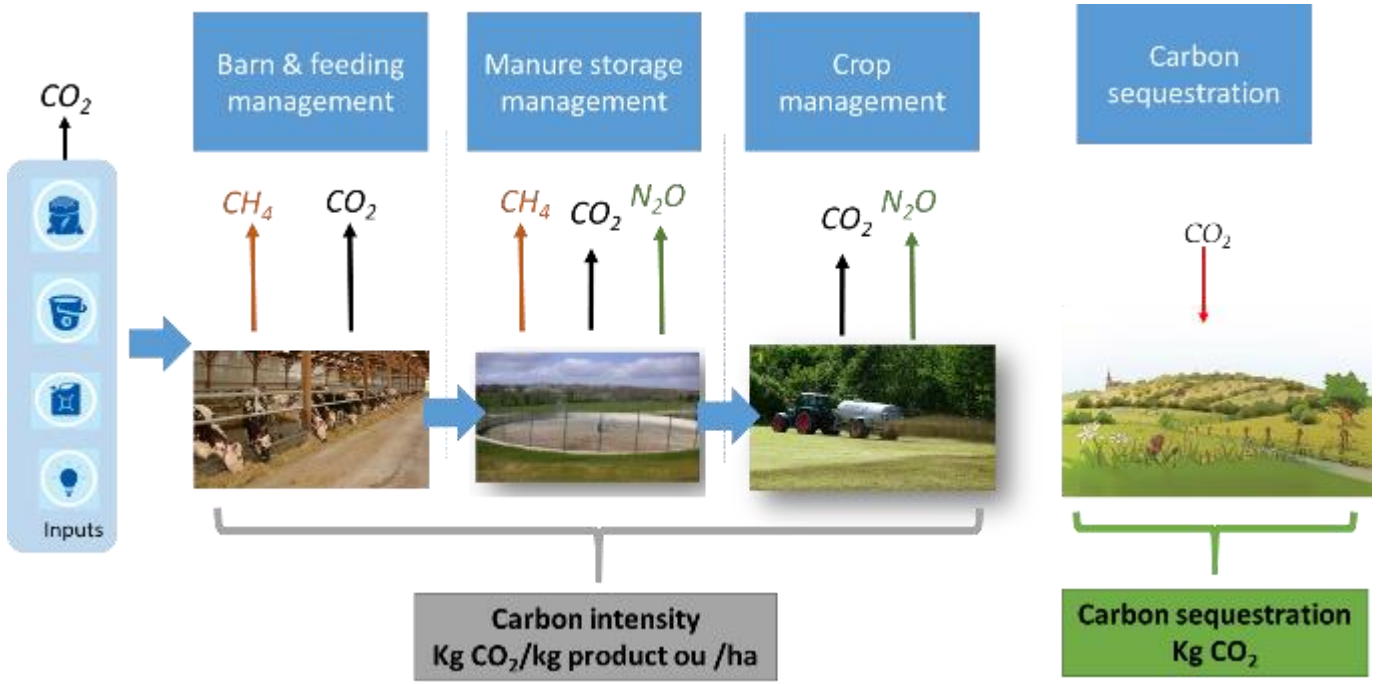

**Defining baseline 1st Audit**

Results based mechanism

**From the audit to the $CO_2$ reductions quantification**

# Audit for making the reference/baseline




Methodology: In accordance with main guidelines

Certified by Ecocert

# Building up a mitigation action plan among 40 mitigations practices

## GHG emissions

**Inputs**
Pasture management,
Concentrates and fertilizers,
Legumes, Crops rotation

**Fuel and electricity**
No-till cultivation,
Power and equipment,
Working organization

**Crops management & fertilization**
Legume fodder crops,
Optimization of fertilizers uses

**Herd management**
Increasing productivity
Reducing number of unproductive animals

**Feed**
Feed efficiency,
Forage quality and yield

**Manure management**
Time spent in shed vs pasture,
Biogas production

## Carbon sequestration

**Cover crops**

Introduce more intermediate crops, more row intercropping and more grass strips

**Avoid bare soil**

Never leave soil bare and work it less, for example by using no-till methods

**Agroforestry**

Add to the hedges at field boundaries and develop agroforestry

**Grassland management**

Optimize pasture management – with longer grazing periods, for example

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# Main mitigation practices applied

- Mitigation practices must be additional
- Respecting organic nitrogen pressure of the EU nitrates directive
- Preserving carbon storage

## Landscapes & crops

Hedges&agroforestry – pasture and legumes– Fertilizer use-Manure and nitrogen spreading-cover crops

## Feeding

Forage quality, pasture and concentrates, protein autonomy.

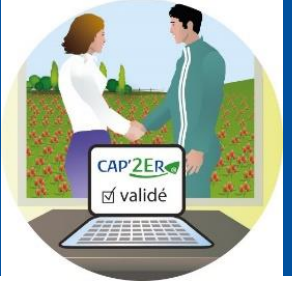
## Energy and manure

Energy consumption, biogaz, slurry cover.

## Herd management

Animal health, shed, heifers rearing

**Implementation cost From 0 to 100 €/tons CO2**




# Quantifying $CO_2$ reductions

| Baseline GHG emissions and carbon sequestration | | After 5 years GHG emissions and carbon sequestration | | |
|---|---|---|---|---|
| Milk carbon footprint x milk production | - | Milk carbon footprint x milk production | = | GHG gains in dairy |
| Beef carbon footprint x beef production | - | Beef carbon footprint x beef production | = | GHG gains in beef |
| Crops carbon footprint x crop area | - | Crops carbon footprint x crop area | = | GHG gains in crops |
| Carbon sequestration x area | - | Carbon sequestration x area | = | C sequestration gains |

**CARBON AGRI methodology**

$$\sum \textit{Carbon reductions}_{\textit{farm}}$$

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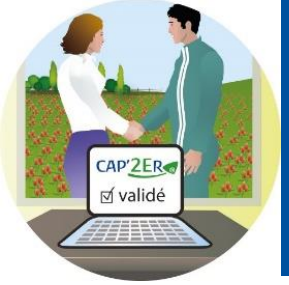



# Monitoring the environmental co-benefits

| Indicators | Units |
|---|---|
| Increasing contribution to biodiversity | ha equivalent of biodiversity / ha |
| Reducing ammonia emissions (air quality) | kg $NH_3$ / an |
| Reducing nitrogen balance (water quality) | Kg N / ha / an |
| Producing renewable energy | MJ / an |
| Reducing soya bean consumption | Kg / an |
| Increasing catch crops area | Ha |
| ..... | |

Conservation of biodiversity

Air quality (acidification)

Water quality (eutrophication)

Energy production

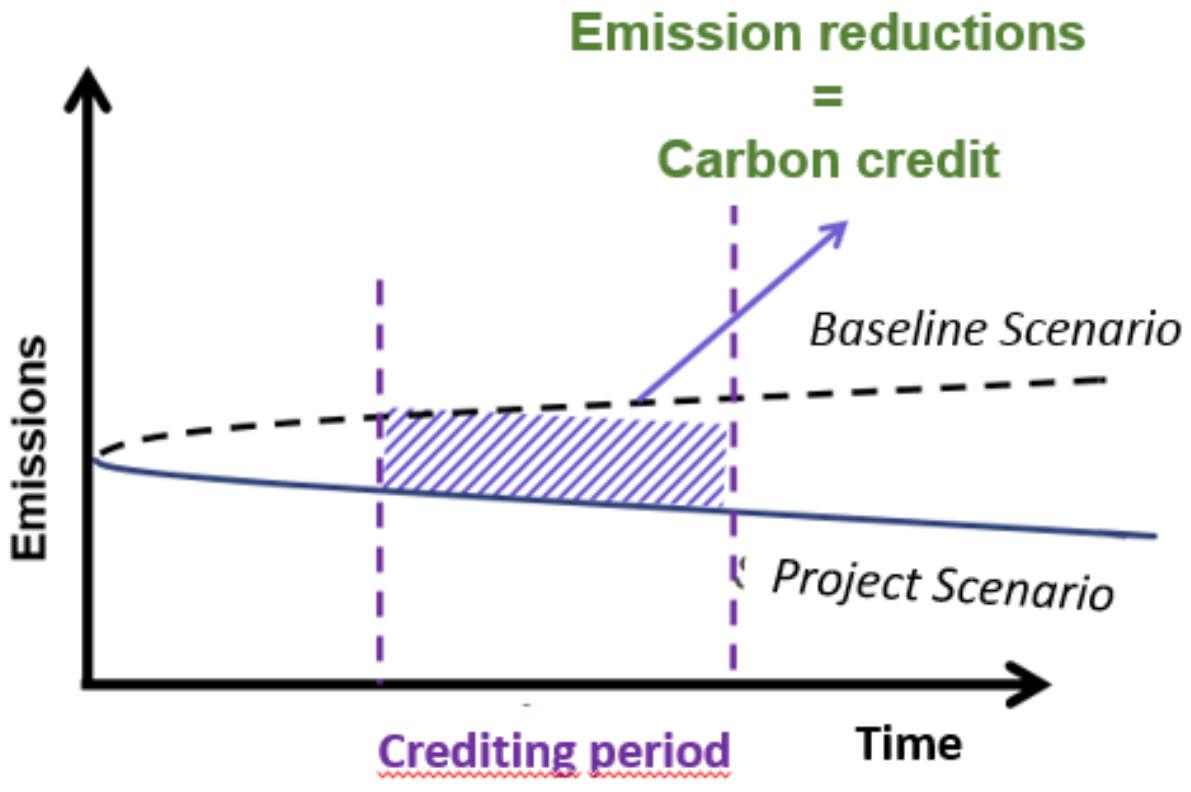
Deforestation

Soil fertility


# Carbon reductions Verification and Certification

**External auditor**


LABEL BAS CARBONE

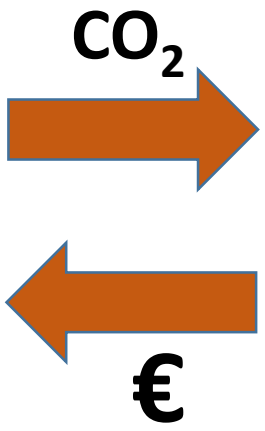



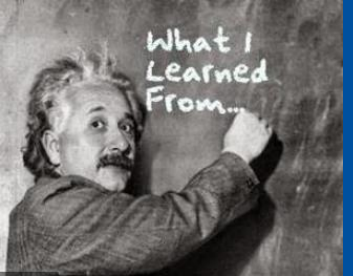
# Result based payment

**Average reduction of carbon intensity : 14 %**

**After 5 years project :**

**<u>400 tons of carbon avoided</u>**




# Result based carbon farming schemes

- **An innovative mechanism**
  - **For quantifying and certifying GHG reductions in agriculture (Robust MRV system is essential for the results based approach)**
  - **For developing a transparency accounting and communication**
  - **To lever barriers in applying mitigation practices**
  - **To support farmers in reducing GHG emissions and increasing carbon sequestration**
  - **To mobilize innovative funds for local climate actions**

**A mechanism for boosting low carbon initiatives and moving to net zero carbon**

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# Thanks for your attention

*Jean Baptiste DOLLE*

*Jean-baptiste.dolle@idele.fr*

*French Livestock Institute - IDELE*

*Paris*