



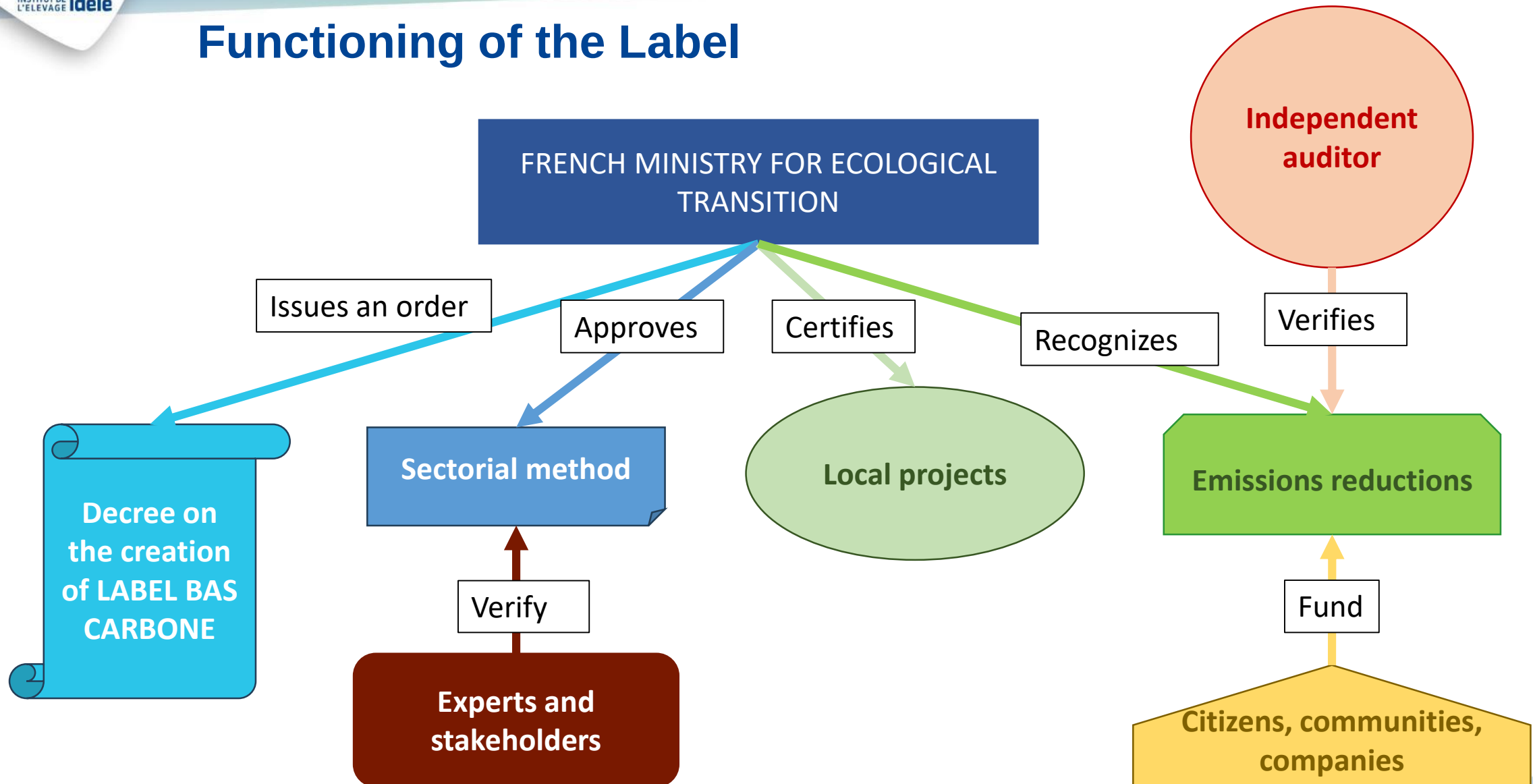
Carbon farming and certification schemes –

Lessons learned in France

Anaïs L'HÔTE – French livestock Institute – Counting carbon

FRAMEWORK AND METHOD

Functioning of the Label



LIFE Carbon Farming project

Main objectives of the LIFE CARBON FARMING project:

- Reducing by 15% the carbon footprint of agricultural products in 6 years in 700 farms
- Building a common result-based rewarding mechanism



Action C.1. : Elaboration of harmonized tools and standards for implementing carbon farming initiatives - Tool farm kit, MRV standard, engineering tools

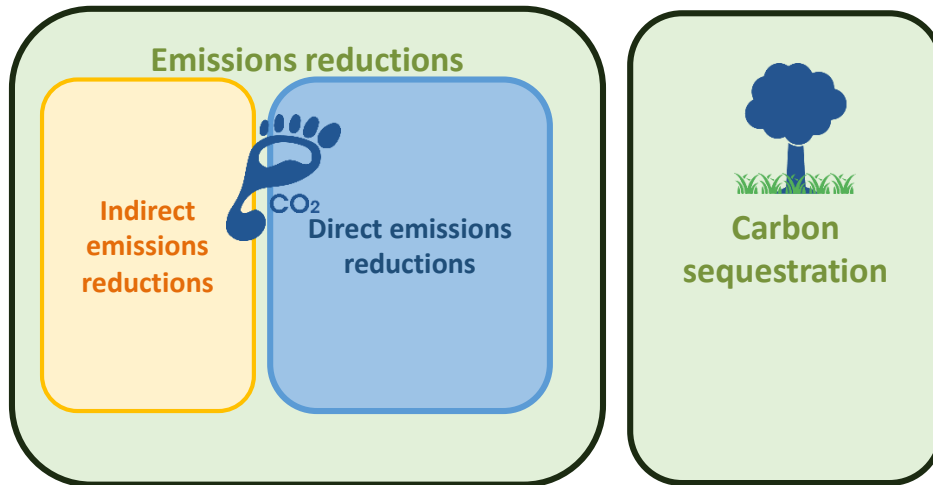
Action C.2.: Implementation of low carbon projects in 700 livestock farms in France, Belgium, Germany, Ireland, Italy and Spain

Action C.3. : Elaborating low carbon projects referential costs

Action C.4. : Applying result-based carbon funding mechanism



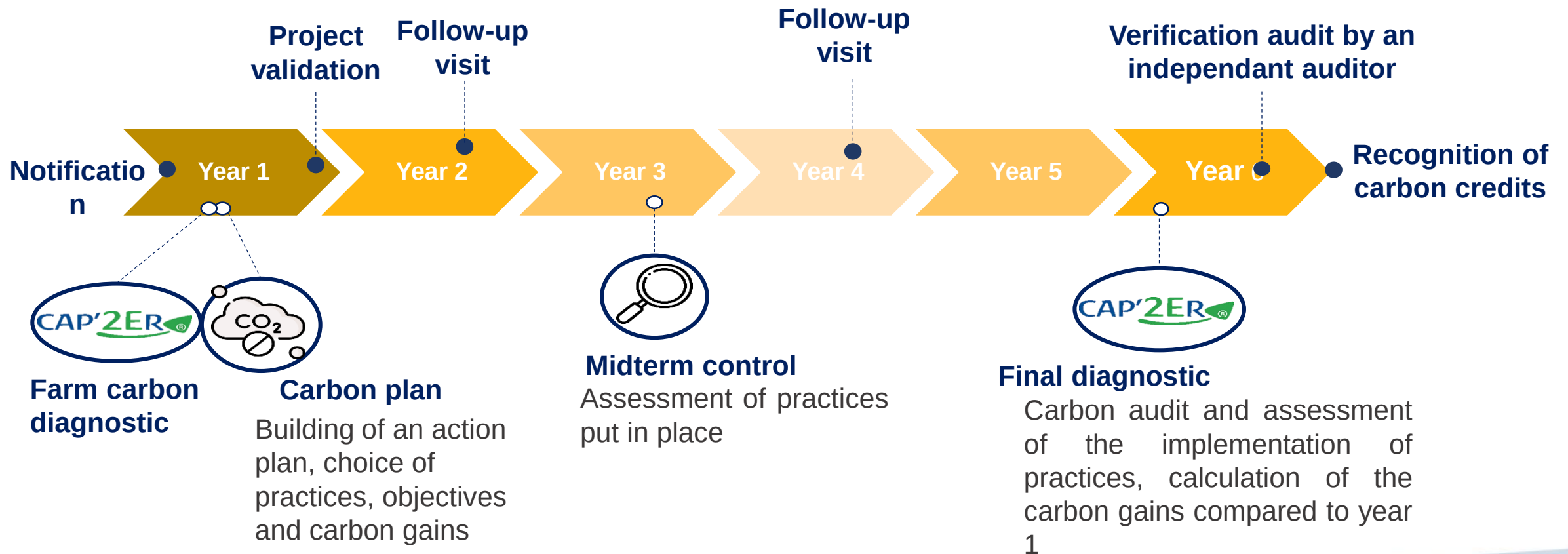
COVERED REDUCTIONS



- **Eligibility criteria:** Maintaining or increasing carbon storage.
- **40 practices** proposed to farmers
- Mandatory evaluation of environmental **co-benefits**
- Method based on **Life Cycle Analysis**
- **Units considered:** emissions/per kg of live meat or /L of milk or /ha of crop

Follow-up steps

Maximum duration: 5 years, revolving project for 5 years



INVOLVING FARMERS IN LOW CARBON STRATEGIES

- *95 suckler cows, 185 ha including 20 ha of tillage and 32 ha of permanent grasslands.*
- *Age at first calving: 36 months, 291 kg of live meat/livestock unit. Stocking rate: 1,2 livestock unit/ha.*

Mitigation action plan:

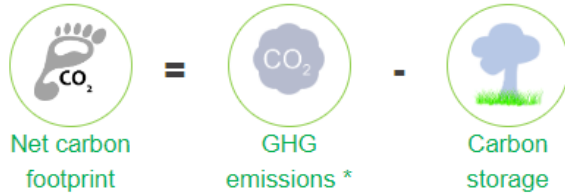


- Increasing the surface of catch crops from 12 to 27 ha,
- Reducing the use of chemical fertilisers,
- Improving the sanitary conditions of animals by reducing the calving interval from 395 to 380 days
- Producing renewable electricity with photovoltaic panels.

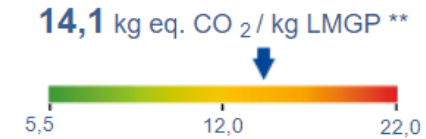
CASE STUDY OF A BEEF FARM

MEAT PRODUCT RESULTS

Net carbon footprint



24% of my GHG * emissions are offset by carbon storage

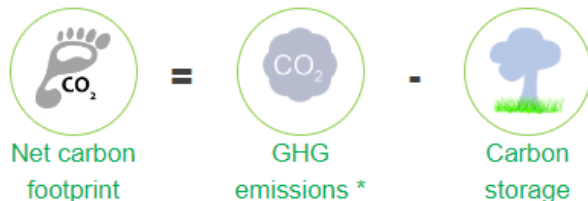


Carbon gain: 608 tons of CO₂eq → 30 t of carbon storage + 578 t of emissions reduction

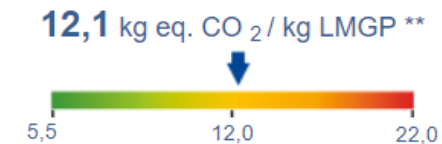
Payment: 608*32€/tCO₂eq = 19 456€ received by the farmer during the project → 105€/ha

MEAT PRODUCT RESULTS

Net carbon footprint



25% of my GHG * emissions are offset by carbon storage



- *69 dairy cows, 203 ha including 164 ha of tillage and 10 ha of permanent grasslands.*
- *Age at first calving: 27 months, 10125 L/cow, stocking rate: 2,7 livestock unit/ha of dairy area.*

Mitigation action plan:



- Direct seeding on 155 ha



- Seeding of legumes on 5 ha



- Increasing grazing length to 75 days per year



- Improvement of the equipment to spread slurry.

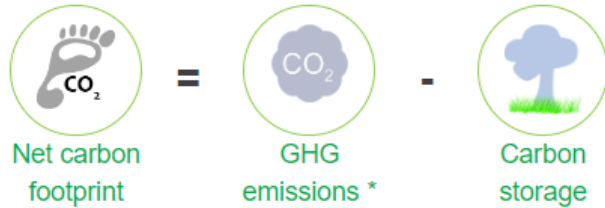


- Biogas plant

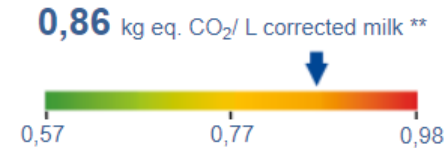
CASE STUDY OF A DAIRY FARM

MILK PRODUCT RESULTS

Net carbon footprint



1% of my GHG * emissions are offset by carbon storage

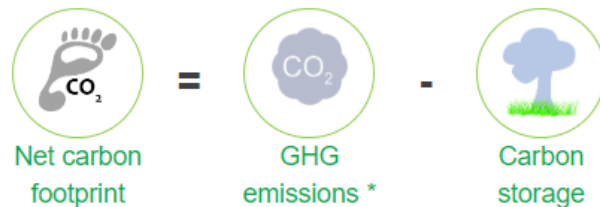


Carbon gain: 435 tons of CO₂eq → 136 tons of carbon storage + 299 tons of emissions reduction

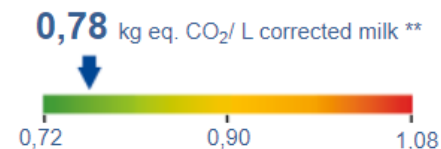
Payment: 435*32€/tCO₂eq = 13 920€ received by the farmer during the project → 69€/ha

MILK PRODUCT RESULTS

Net carbon footprint



1% of my GHG * emissions are offset by carbon storage



- *149 ha including 60 ha of wheat and 22 ha of maize, 14 ha of protein crops, 44 ha of grasslands.*

Mitigation action plan:



- Better adjust forecast doses
- Taking into account climatic conditions to start inputs



- Intra-plot modulation for nitrogen inputs
- Liming of acidic soils



- Landfill of organic and mineral inputs
- Introducing legumes in the rotation
- Increasing quantity of biomass coming from plant cover



- Increasing share of waste product for fertilization (e.g. digestate of industrial waste)

CASE STUDY OF A TILLAGE FARM

Fertilisation
emissions

- 1088 tCO₂eq

Fossil energy
emissions

- 86 tCO₂eq

Carbon
sequestration

- -1030 tCO₂eq

Carbon gain: 641 tons of CO₂eq → 566 tons of carbon storage + 75 tons of emissions reduction

Payment: 641*32€/tCO₂eq = 20 512€ received by the farmer during the project → 138€/ha

Fertilisation
emissions

- 1013 tCO₂eq

Fossil energy
emissions

- 86 tCO₂eq

Carbon
sequestration

- -319 tCO₂eq

Enterprise type	Suckler Beef	Dairy
Farm size, ha	34	40
Stocking rate, LU/ha	1.6	2.1
GHG emission, t CO ₂ equiv./ha	6.2	11
GHG emission, t CO ₂ equiv./farm	210	428
Carbon price, euro/t CO ₂ equiv.	32	32
Emission avoided, % - LIFE Carbon Farming target	15	15
Emission avoided, t CO ₂ equiv./farm	31	64
5-year carbon project, euro/farm	992	2048
Emissions avoided, % - National target Ireland	25	25
Emission avoided, t CO ₂ equiv./farm	53	107
5-year carbon project, euro/farm	1696	3424

HOW TO PAY FARMERS?

HOW TO PAY FARMERS? FCAA, AN EXAMPLE OF AGGREGATOR

Carbon credit –
total price:
40€/tCO₂eq

*Average world price:
6,1 €/ton CO₂eq*

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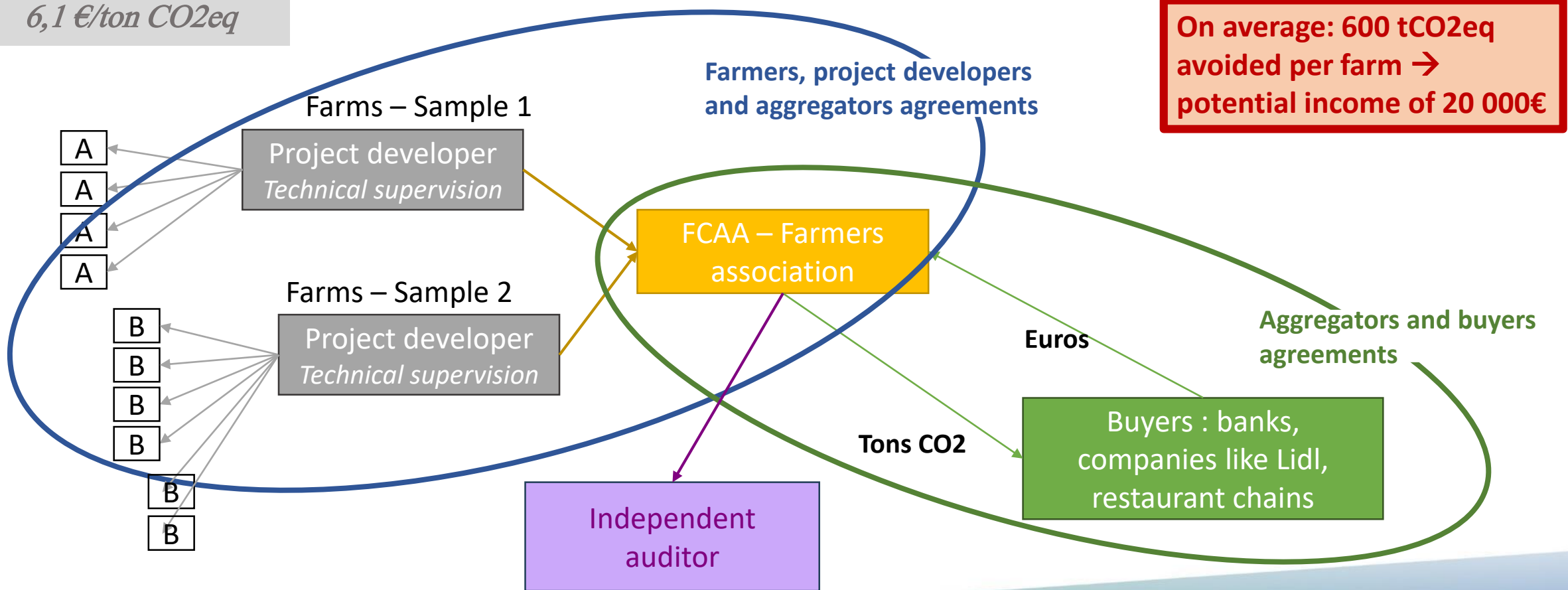
Farmer:
32€/tCO₂eq

+

Project developer:
5€/tCO₂eq

+

FCAA:
3€/tCO₂eq



- **Several ways for companies to fund farmers:**
 - Offsetting of the residual emissions of a company
 - Voluntary contribution to the climate change mitigation
 - Reduction on scope 3
- **Buyers are:** banks, luxury companies, agrifood industries, restaurant chains, service companies, energy companies, etc.
- **Example of Lidl:** reduction on scope 3 by purchasing Label Bas Carbone certificates generated by its own beef suppliers.
- **Law evolution regarding voluntary carbon market**
 - Mandatory offsetting of GHG emissions caused by coal-fired power plants
 - European obligation of publishing a CSR report every year for biggest companies.

- **Certification frameworks** like Label Bas Carbone can be one of the **solutions to fund the transition** towards low carbon production systems.
- Incentive for farmers: **1250 agricultural projects** of beef and dairy farms proposed by FCAA have been **certified** by the Ministry for Ecological Transition in France, representing **660 000 tCO₂eq avoided**.
→ On average: **600 tCO₂eq avoided per farm → 19 000€ per farm** considering 32€/tCO₂eq
- Within this dynamic voluntary **carbon market**, **rules must be clarified** for companies wishing to fund low carbon projects: several possible strategies and not only carbon credits.
- **Most of certified tCO₂eq avoided by livestock farms are emissions reductions.**



Thank you for your attention