CALF FARMS IN FRANCE

PRESENTATION OF THE SECTOR

Low carbon

Interreg North-West Europe ICARE4FARMS

European Regional Development Fund

Distribution:

- Share of Total Production:
  Brittany & Loire Atlantique = 38% of the total production

Crisis of chronic overproduction due to:

- Seasonality of production
- Drop in consumption

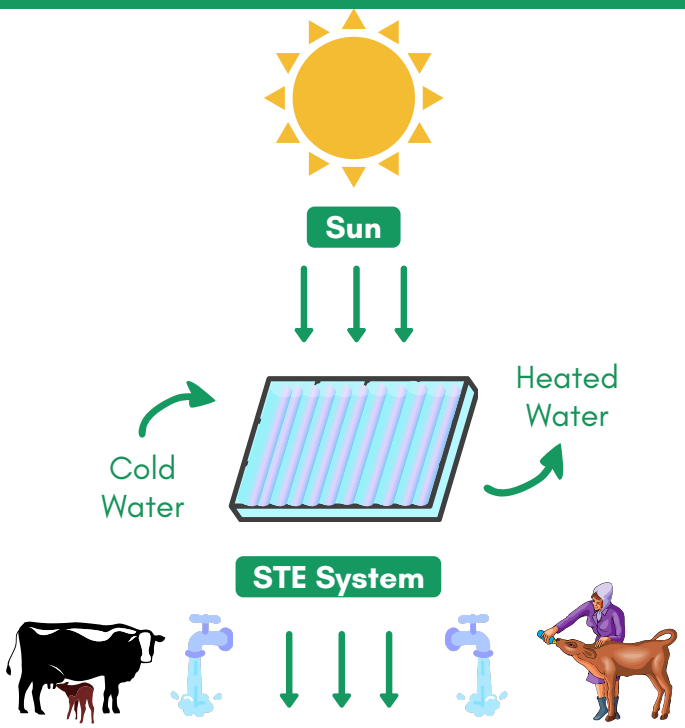
- Livestock:
  - o 2200 farms in total with at least 50 calves/year
  - o 512 workshops in Brittany + 478 farms in Loire Atlantique
    => In average, 250 cows/farm

Total Herd (in 2019): 1.27 Millions

Average Energy Consumption:

- **Total needs**: 152kWh/year/cow (15% operating costs)
- **Feeding:** 108 kWh/year/place (71% of total consumption)
- **Water Supply:** 7L with 4L heated/day/calf
- **Energy:** propane (81%-11kg/calf) C_3H_8

MODELISATION OF FUNCTIONING



Heated Water cleans Milking Parlours & Milk Storage + serves for milk transformation

POTENTIAL FOR SOLAR THERMAL ENERGY (STE)

Hot Water in Dairy farms:

- Regular without depending on seasonality & Daily needs
- Decline of propane (66% vs RE 37%) & savings with STE up to 66%
  cf. 5kg propane (STE) vs 11kg (Prior)

Relevant Cases:

- *Farm rearing at least (average):*
  - 185 calves during 6 months
    cf. 2 lots/year
  - 164 calves over 8 months
    cf. 1.5 lots/year-lot= 123 calves
- *Energy needs*: ≥ 20000 kWh/yea

Example: Typical French Calf Farm

- 185 calves needing 4L (hot)/day
  => 740 L/day for all (heated drink)
- 270000 L* at 70-80° / year (2 lots)
  * 250000 L if 1 month of sanitary vacuum / only 11 months of activity
- 108 kWh/place/y => 19 980 kWh/y

Sources: Market Analysis I4F: www.nweurope.eu/icare4farms