CALF FARMS IN THE NETHERLANDS

PRESENTATION OF THE SECTOR

Low carbon

Interreg North-West Europe ICARE4FARMS

European Regional Development Fund

Distribution:

- Livestock:
  - 1599 farms in total
    => In average, 663 calves/farm
- Share of Total Production:
  - 31% of the whole European Production

Total Herd (in 2019): 1.061 Millions

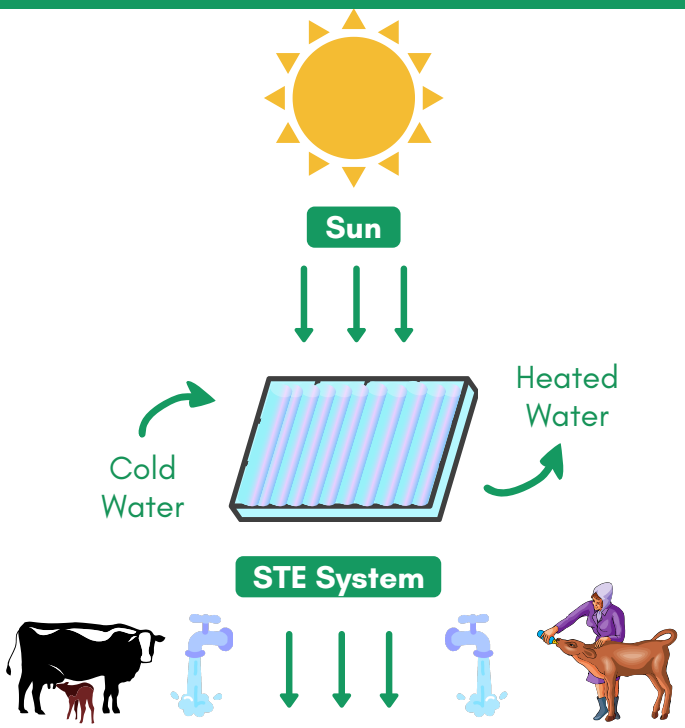
Total Turnover: 1 Billion €

ENERGY NEEDS

Average Energy Consumption:

- **Total needs**: 152kWh/year/place (15% operating costs)
- **Feeding:** 38 kWh/year/place (25% of total consumption)
- **Water Supply:** 7L with 4L heated/day/calf
- **Energy:** gas/electricity (both 0,2PJ); 0.4 for all other united

MODELISATION OF FUNCTIONING



Heated Water is used for preparing milk-based feedstuff for calves

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 Dutch Calf Farm

- 663 calves needing 4L (hot)/day
  => 2652L/day for all (heated drink)
- 967 980 L* at 50° / year (X lots)
  * 888 420 L if 1 month of sanitary vacuum / only 11 months of activity
- 38kWh/place/y => 25 194 kWh/y

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