



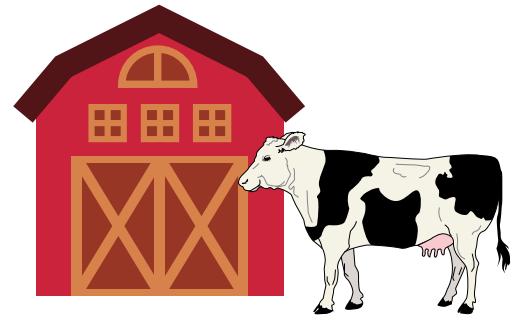
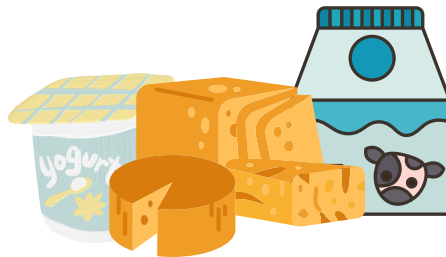
DAIRY FARMS IN FLANDERS

PRESENTATION OF THE SECTOR



Distribution:

- Share of Total Production:
 - Dairy farms = 28% of all Flemish Farms
 - 32% of the milk production for the European Market
- Livestock:
 - In average, 85 cows/farm
 - About 1800 holdings with on-farm processing
 - 5 606 farms in total



- **Total Herd (in 2020):** ≈339000 cows
- **Milk Production (in 2019):** 3 Billions of tons

ENERGY NEEDS

Average Energy Consumption:



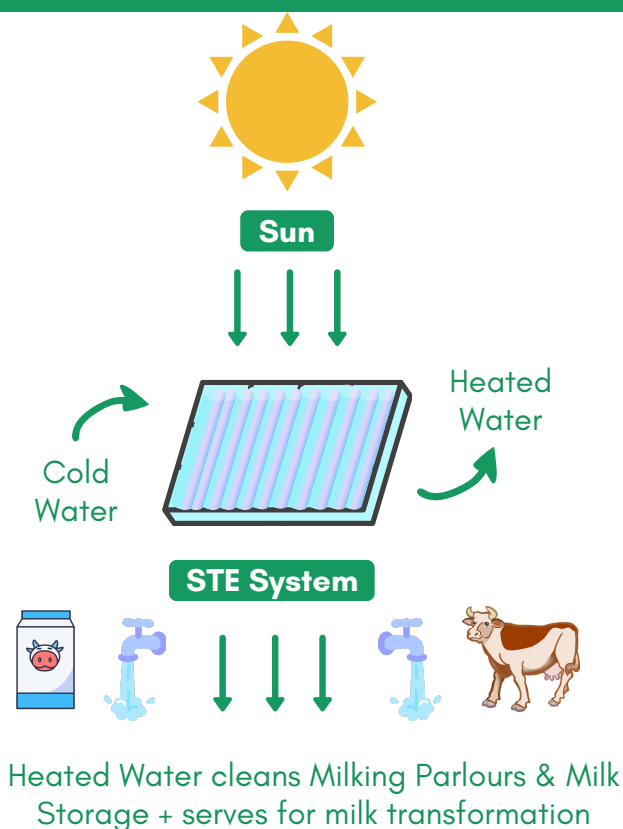
- **Total needs:** 440kWh/year/cow (15% operating costs)
- **Milk Processing:** 1.24 kWh/litre of milk (25% consumption)



- **Cleaning:** ≈ 97 kWh/year/cow (22% of total consumption)
- **Water Supply:** 600 L/day



MODELISATION OF FUNCTIONING



POTENTIAL FOR SOLAR THERMAL ENERGY (STE)

Hot Water in Dairy farms:

- Daily needs & 2nd Electric Consumption
- Regular without depending on seasonality

Relevant Cases:

- 2214 holdings, especially those with On-Farm Processing
- Farm processing at least 170 000 L milk/year (production of at least 85 cows)
- Extra hot water requirements due to milk thermisation

=> 1L of hot water required for 1L of milk

Example: Typical Flemish Dairy Farm

- 85 cows producing 680 000 L/year
- 170 000 L at 80-90° for cheese
- 1.24 kWh/L Milk => 210 800 kWh/y