



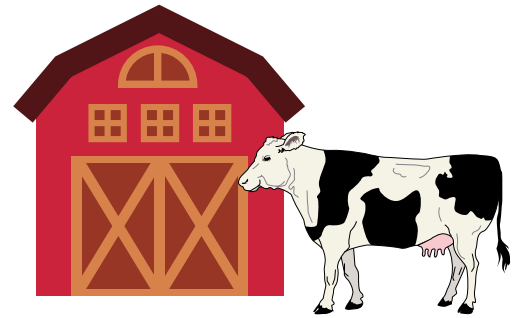
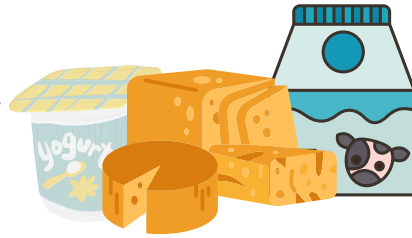
DAIRY FARMS IN IRELAND

PRESENTATION OF THE SECTOR



Distribution:

- Share of Total Production:
 - o Most of those Irish Farms are located in Cork, Tipperary, Kerry and Limerick (counties)



Livestock:

- o 18 000 farms in total
- o 5300 L milk/cow/year
- o 11 milk processing & 13 purchasing cooperatives selling dairy products

- **Total Herd (in 2019):** 1.55 Millions
- **Milk Production (in 2019):** 7.9 Billions of tons
- **On average,** 90 cows/farm

ENERGY NEEDS

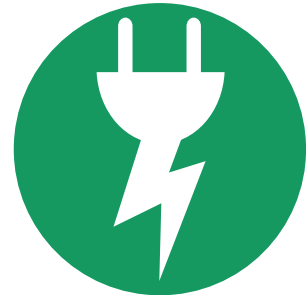
Average Energy Consumption:



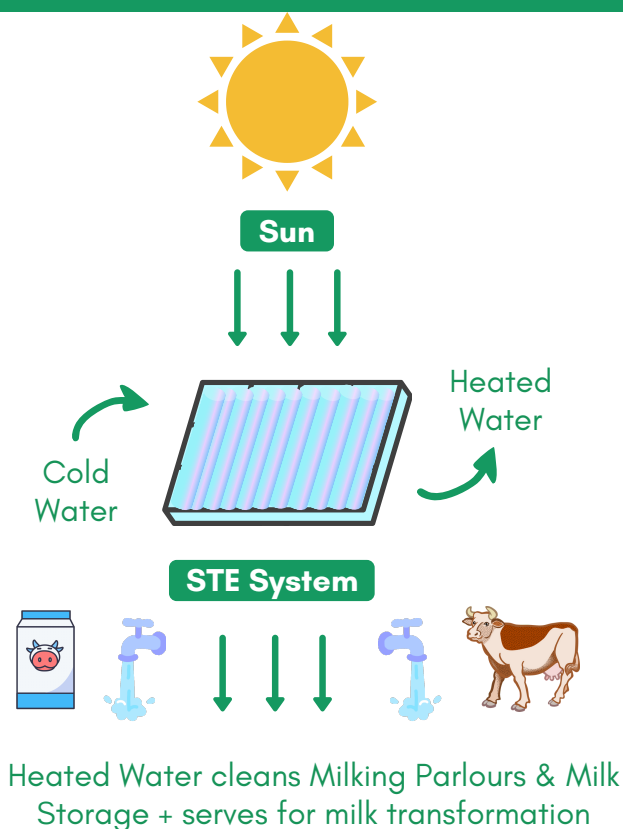
- **Total needs:** 884kWh/year/cow (12% operating costs)
- **Milk Processing:** 254kWh/year /litre of milk



- **Cleaning:** 144-338 kWh/year/cow (23% of total consumption)
- **Water Supply:** 600-900 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: Typical Irish Dairy

- Farm processing at least 477 000 L milk/year (production of 90 cows)
- Extra hot water requirements due to milk thermisation

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

Exemple: Typical Irish Dairy Farm

- 90 cows producing 477 000 L/y
- Production = 34 995 kWh/y
- Energy supply beyond 50% of those needs with the right dimensionning