Danfoss: Innovation in energy efficiency

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Business segments

**DANFOSS POWER SOLUTIONS**

- **#2 Market position**
- 32% of Group net sales
- 6,815 employees
- 22 factories in 11 countries
- 13.9bn DKK sales / 1.9bn EUR

**DANFOSS COOLING**

- **#1 Market position**
- 27% of Group net sales
- 6,396 employees
- 13 factories in 10 countries
- 11.9bn DKK sales / 1.6bn EUR

**DANFOSS DRIVES**

- **#2 Market position**
- 24% of Group net sales
- 4,652 employees
- 11 factories in 7 countries
- 10.3bn DKK sales / 1.4bn EUR

**DANFOSS HEATING**

- **#1 Market position**
- 17% of Group net sales
- 5,339 employees
- 26 factories in 12 countries
- 7.3bn DKK sales / 1.0bn EUR
Urban efficiency

• **Putting energy efficiency first** – 40% of emissions reductions needed by 2050 have to come from energy efficiency (to keep the rise in planet temperature at 2 degree Celsius)

• Energy efficiency is the most **cost-effective way** to decarbonize our economy, while helping to decouple GDP growth from energy use

• Energy-efficient technologies that are **ready for implementation** exist and are good business cases

• Cities are key to unlocking energy efficiency

• **Urban efficiency**: Connecting buildings, energy systems, industry, water, food infrastructure
The store was built in 1988. The sales area covers 2430sqm.

CO2-Refrigeration system installed in August 2010.

Heat recovery unit, which takes heat out of refrigeration system to heat tap water and building, installed in 2014.

Results

- 1 Million kWh gas heating saved in the first year
- >100 Tons CO₂ emissions avoided
- 90% reduction in gas usage
- 900£ savings / week in the winter
- 2,3 year payback time
• 8,000 houses switched from charcoal boilers to district heating – potential for 40,000 houses

• District heating network uses the excess heat from the municipal power plant

Results

• 66% cost and energy savings for citizens; with gas imports getting more expensive, district heating becomes even cheaper in comparison

• Reduced air pollution (by replacing individual charcoal boilers with district heating)

• Reliable and secure heating system delivering continuous comfort

• Reduced energy consumption and emissions
Over the next 50 years, Nordhavn will develop into a new district with 40,000 residents and 40,000 jobs.

The ambition is to become an example of a future sustainable city, supporting Copenhagen’s 2025 carbon-neutrality goal.

The EnergyLab demonstrates ways to integrate renewable power, heat, transport and energy-efficient buildings into an intelligent, flexible energy system.
DANFOSS AND FOOD SUPPLY

BANANA FESTIVAL

- CII Cold Chain Task Force and CII Tamil Nadu identified Banana as a focus crop for Tamil Nadu
- State Government decision to **educate farmers** through Banana festivals
- Three Banana Festivals conducted at Chennai, Coimbatore and Trichy

**India ranks First with 29% share of World’s Banana Production**

![Banana Production Chart](chart.png)
Results

- Farmers are more aware of understanding post harvest losses
- Banana ripening through ripening chambers has distinctly increased
- Number of Cold storages for Banana have increased in specific clusters
- State Government has further included our suggestions in the Vision 2023 document