TO REDUCE ENERGY COSTS
- 12-25% of industrial energy consumption is used for drying on a national scale
- No or minimal re-use of waste heat
- In the EU alone, total waste heat potential was calculated to be 11.3 EJ

TO REDUCE CO₂ EMISSIONS
- The industrial processing sector still relies heavily on fossil fuels
- The sector produces 374 mill tonnes of CO₂ every year in the EU alone

TO UPSCALE HEAT PUMP TECHNOLOGY
The main recognized barriers for implementation:
- Lack of heat pumps over 100°C supply temperature
- Long return on investment
- Availability of industrial heat pump engineers
- Ensuring technology performance

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The DryFiciency project
The project goal is to develop and demonstrate two high-temperature industrial heat pump technologies for waste heat recovery in industrial drying processes.

The DryFiciency objectives
- Technology demonstration and validation
- Generically designed heat pumps
- DryFiciency training programme

THE SOLUTION - HEAT PUMPS

HEAT PUMP TECHNOLOGY

Cost efficient open loop heat pump
An innovative but verified lubricant-free multistage compression system based on mass produced air turbo compressors with supply temperatures of up to 150°C for steam drying processes.

First closed loop heat pump
Demonstration of industrial closed loop heat pumps with a supply temperature of up to 160°C and a heating capacity of around 400 kW.

INDUSTRIAL DEMONSTRATIONS

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