DryFiciency at a glance

- H2020 project with 13 partners and 6 Mio € funding
- started in September 2016
- development and demonstration of high temperature heat pumps
DryFiciency Consortium

**Closed Loop Heat Pumps**

- **2 RTOs**
- **3 compressor manufacturers (2 SME)**
- **1 refrigerant manufacturer**
- **1 lubricant manufacturer**
- **1 plant engineer/system expert (1 SME)**
- **3 end-users**
- **2 experts on dissemination & exploitation (1 SME)**

**Open Loop Heat Pump**

- **2 RTOs**
- **SINTEF**
- **3 compressor manufacturers (2 SME)**
- **1 refrigerant manufacturer**
- **1 lubricant manufacturer**
- **1 plant engineer/system expert (1 SME)**
- **3 end-users**
- **2 experts on dissemination & exploitation (1 SME)**
Closed loop HP

Compressor
adaption to high temperatures applications

Viking Heat Engines AS
Piston compressor

Bitzer Kühlmaschinenbau GmbH
Screw compressor

up to 160°C

Condenser
Heat supply for industrial drying

Wienerberger AG & Agrana Stärke GmbH

Evaporator
Industrial heat source

OpteonMZ as refrigerant by Chemours
non flammable, non explosive, non toxic, low GWP

Expansion valve

Lubricant by Fuchs Schmierstoffe GmbH
Providing sufficient viscosity for the compressors,
compatibility with OpteonMZ, chemically stable
Twin cycle heat pump design