



Tech Talk

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*Head of Industrial
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Danfoss

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**21ST EUROPEAN
COLD CHAIN CONFERENCE**
14-16 MARCH 2018 | ANTWERP
Global Cold Chain Alliance



ENGINEERING
TOMORROW



Tech Talk – Industrial Refrigeration Fit for the Future?

Kristian Strand, Head of Industrial Refrigeration, Danfoss Cooling
GCCA European Conference, March 2018



Megatrends enable Cooling growth



SUSTAINABLE COOLING

- Urbanization – 1.5 billion more people to live in cities by 2030
- Digitalization



COLD CHAIN

- Population growth - 60% more food needed by 2050
- Online grocery shopping



ENERGY TRANSITION

- Energy efficiency
- Renewables
- Electrification
- Energy storage



REFRIGERANTS & CLIMATE

- Low GWP refrigerants
- Natural refrigerants
- Need for clean water



We keep people, products and the planet cool.

Cooling Supports the Energy Transition

38%

from energy efficiency to stay in 2 degrees scenario

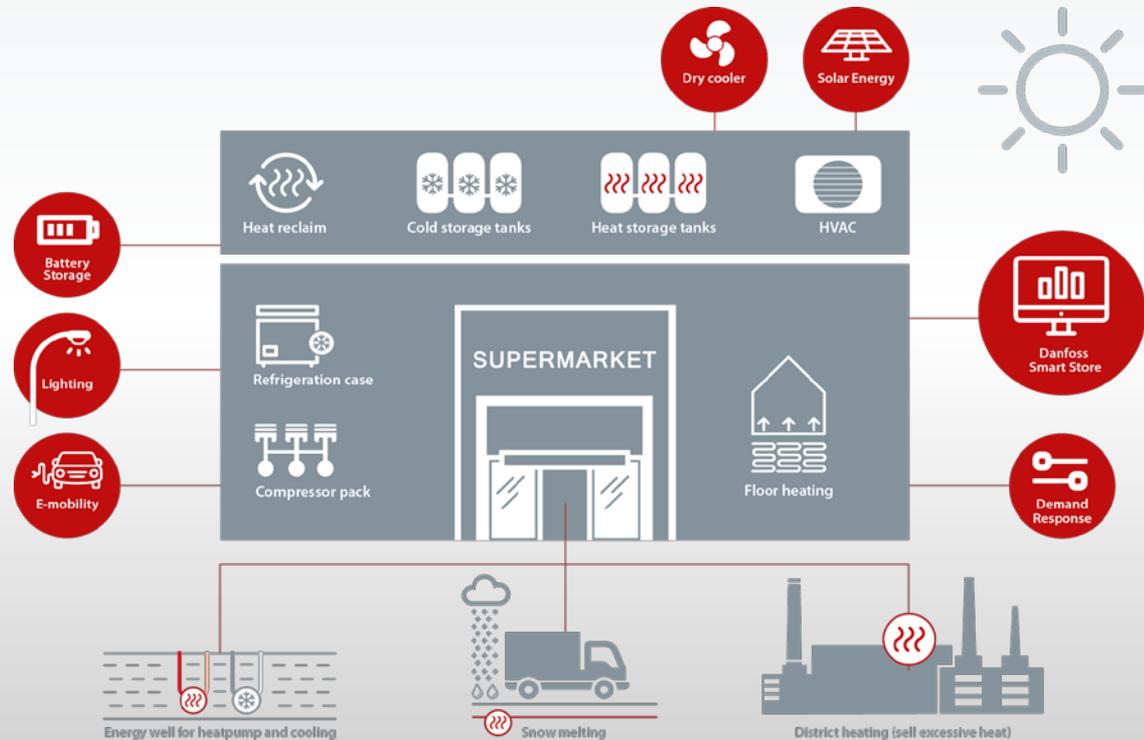
90%

of the buildings in EU have not been renovated for energy efficiency

> 1%

increase in EU GDP/year by implementing energy efficient technologies

Trendsetting combination of Cooling/Heating, Energy and E-Mobility



Energy Efficiency for Sustainable Cooling



Why is sustainable cooling important?

- 1bn people without cooling
- Fridge or air-conditioner first thing to buy once access to electricity

7 AFFORDABLE AND CLEAN ENERGY



13 CLIMATE ACTION

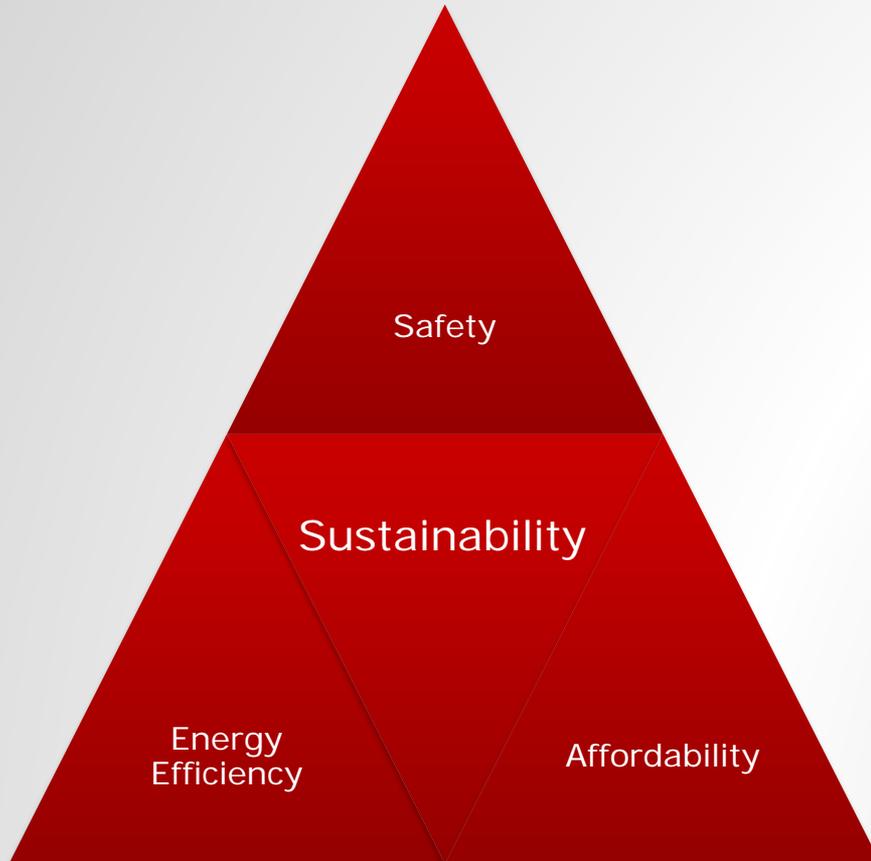


10%
of the world's
CO₂ emissions
is produced by
cooling

Refrigeration: Growing Complexity



Sustainability is Key



Safety must never be compromised. All low GWP refrigerants are safe if used according to standards



Energy efficiency is important to address minimized electricity consumption and reduce running cost.



Affordability in the market is a basic parameter to be addressed ensuring the good business case

Danfoss - the natural partner

Your reliable, fast and innovative partner providing strong cooling application expertise.

Application Know-How

Training at ADC's

Service