

COOLING SECTORS PROFILES

Air-Conditioning and Refrigeration Sector



The refrigeration and air-conditioning industry plays a major and further increasing role in the society and makes significant contributions to keeping people, products and the planet cool. According to the International Institute of Refrigeration (IIR), more than 3 billion refrigeration systems are currently operating worldwide, consuming about 17% of all electricity used in the world. The sector is currently employing almost 12 million people worldwide, and even more people are indirectly employed. As a consequence of increasing income and standards of living throughout the world combined with global warming, demand for refrigeration and air-conditioning is increasing making the number of operating systems and number of people employed even higher in the future (IIR, 2015)

3 BIL

refrigeration systems are currently operating worldwide, consuming

17%

of all electricity used in the world

12 MIL

people employed worldwide

 The world's population is growing and combined with increased income and standards of living in key emerging markets, the demand for fresh food is increasing faster than ever. In order to meet this increasing demand for fresh produce, a heavy expansion in the Cold Chain infrastructure is required.

 Moreover, urbanisation is a tendency seen all over the world. By 2050, another 2.3 billion inhabitants are expected to join the urban population. A large share of these future cities has yet to be build, and demand for both refrigeration systems and especially air-conditioning systems is a huge unleashed potential for the industry.

€ On a global scale, annual sales of refrigeration and air-conditioning equipment is as high as 300 billion USD (IIR, 2015), constituting a significant fraction of the economy. It seems, however, reasonable to believe that the indirect effects of the refrigeration and air-conditioning systems contributes with a significantly higher amount of GDP, both through service agreements of the systems but more importantly through limiting loss and increasing sales of food and pharmaceuticals.

👍 The societal and social benefits of the sector seem to be at least as important as the purely economic GDP benefits of the industry. Advanced refrigeration systems ensure that people all over the world are provided with fresh foods and pharmaceutical products. Refrigeration systems are contributing to limiting famine by expanding the lifetime of perishable products.



A great variety of sustainable solutions already exist. Energy efficient air-conditioning and refrigeration solutions are ready to use natural refrigerants or integrate excess heat from refrigeration. Such applications are found in many different buildings like hotels, airports, shopping malls, train stations and other buildings around the world.

Efficient products play a role in the energy transition. Industry works to integrate more renewable energy and to decarbonize the energy system, which requires more flexibility and demand-response-ready buildings.

Information kindly provided by Danfoss (www.danfoss.com)

Danfoss Cooling mission is to keep people, products and the planet cool. With a wide range of products and solutions, including compressors, valves, sensors, electronics, pumps and heat exchangers, they help their customers put energy efficiency and a sustainable approach first, as they are engineering tomorrow's cool planet.