



WHAT ARE REFRIGERATION SYSTEMS?

Refrigeration systems cool a space or substance by removing unwanted heat, which is transferred to another object or space. The removal of heat may be accomplished through the use of ice, chilled water or mechanical refrigeration, the latter made possible through refrigeration systems. Examples include air conditioning, refrigerators and freezers.

WHAT ARE THE BENEFITS OF THE ENERGY SAVINGS ACHIEVED?

Different measures can be taken to reduce the energy consumption of refrigeration systems, and as a result, reduce emissions. By using different devices, implementing energy efficiency practices and adapting systems to meetin production needs, it is possible to achieve better performance and higher efficiency.

WHAT ARE THE ENERGY SAVINGS OPPORTUNITIES?

The scope of application of refrigeration systems is broad, ranging from the air conditioning of buildings and food preservation in various sectors, to production processes such as plastic injection. The streamSAVE project will specifically address refrigeration systems in the commercial sector and the agro-food industry.

WHAT MAKES CALCULATING ENERGY SAVINGS CHALLENGING?

Calculating the efficiency of refrigeration systems is complex, and on-site data collection can be complicated given that performance varies under different conditions. In addition, poor management practices result in missed opportunities to improve performance and reduce energy consumption.

WHAT IS NEEDED TO IMPROVE ENERGY SAVINGS CALCULATIONS?

There is a need to define a baseline in order to ensure that energy savings achieved are accounted for. There is also a need for more realistic and standardised benchmarking tools to calculate efficiency and facilitate on-site data collection, for streamling engineering methods to calculate energy savings, and lastly, for best practices for implementation.