



**WORKSHOP ON
ENERGY EFFICIENCY**
NAIROBI, KENYA
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Cooling as a business model and other innovative approaches

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This presentation is given in my personal capacity

The challenge is massive: The world's population is growing. Emissions need to be decoupled from growth.

Population

The world's population will increase to approx. **10bn** by 2050, up from 7.7bn today

Economy

The global middle class will grow to **5.5bn** by 2030, up from 3.5bn in 2017

Urbanization

70% of the population will be living in cities by 2050

Energy efficiency + Renewables need to go hand in hand to reduce emissions

75% of global greenhouse gas emissions are related to energy production & consumption

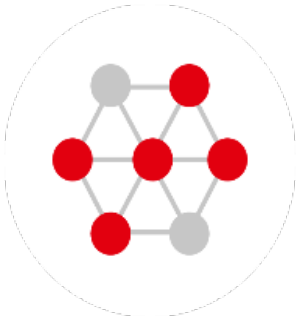
Renewables share must double in electricity and final use by 2030 vs 2019

Energy efficiency must triple by 2030 vs the past two decades

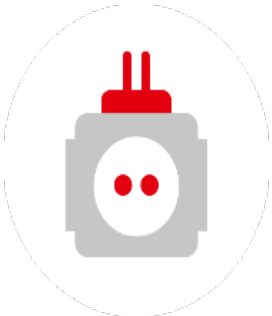
Science Based Targets are increasingly popular among global companies



Energy efficiency
reduce

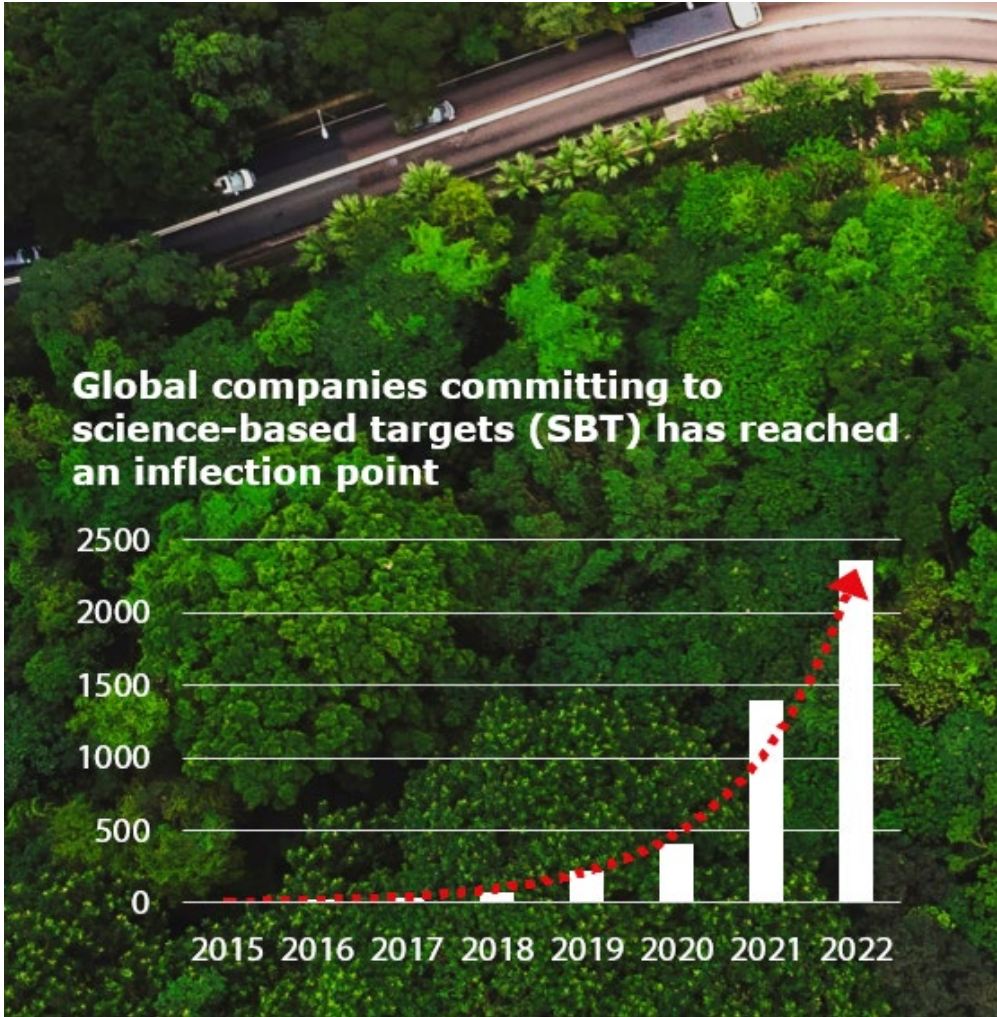


Energy recovery
re-use



Source renewable energy
re-source

Major levers on the journey to net zero



Real-life example: Danfoss Nordborg campus reached CO₂ neutrality in 2022

Heating savings: 2007-2022



1. Reduce
78%



2. Re-use
7%



3. Re-source
15%

Power savings: 2007-2022



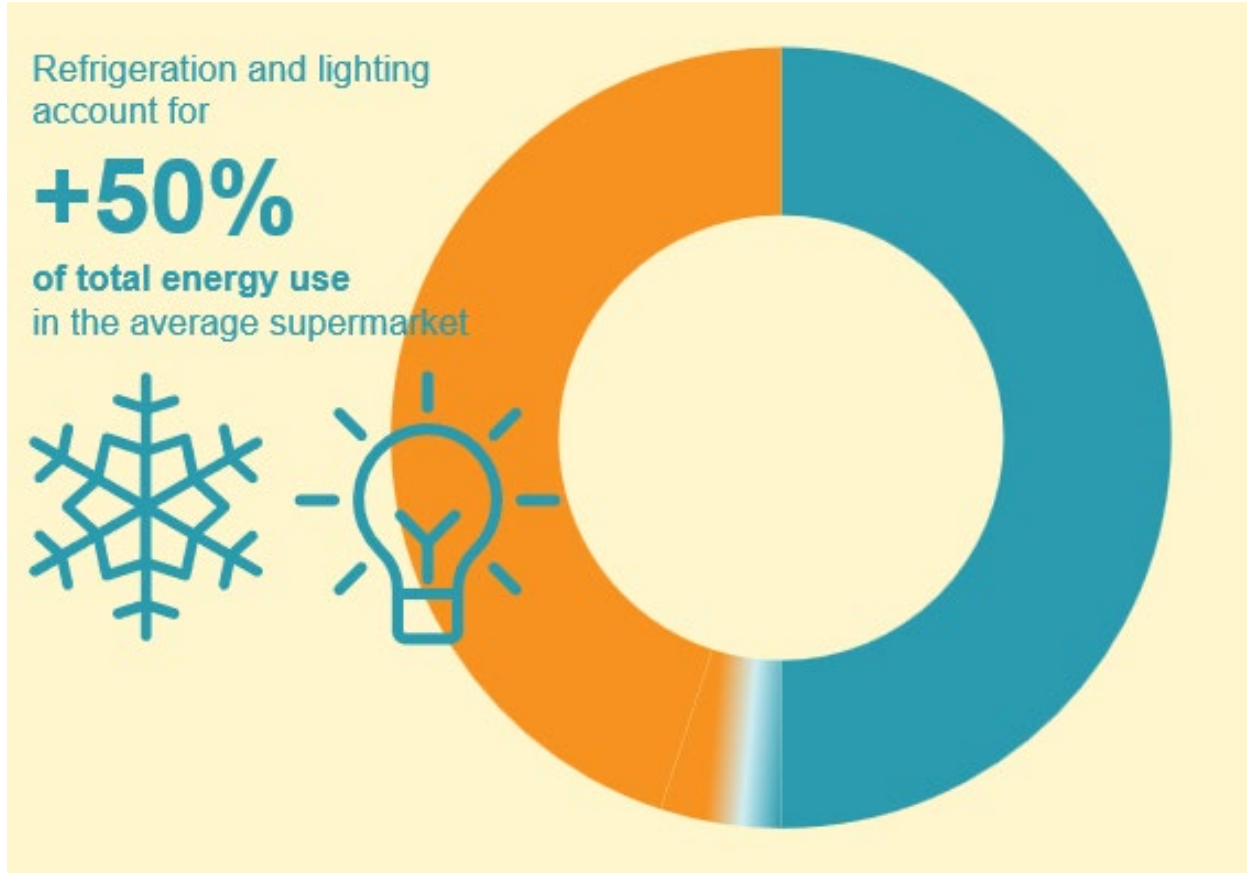
1. Reduce
50%



3. Re-source
50%

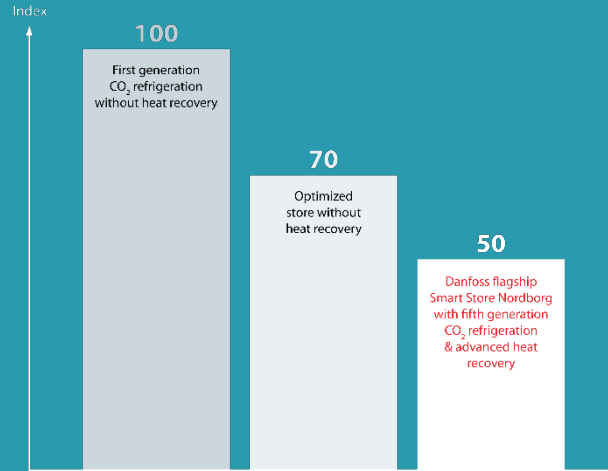


Supermarkets: a major stakeholder for step change on the way to net zero



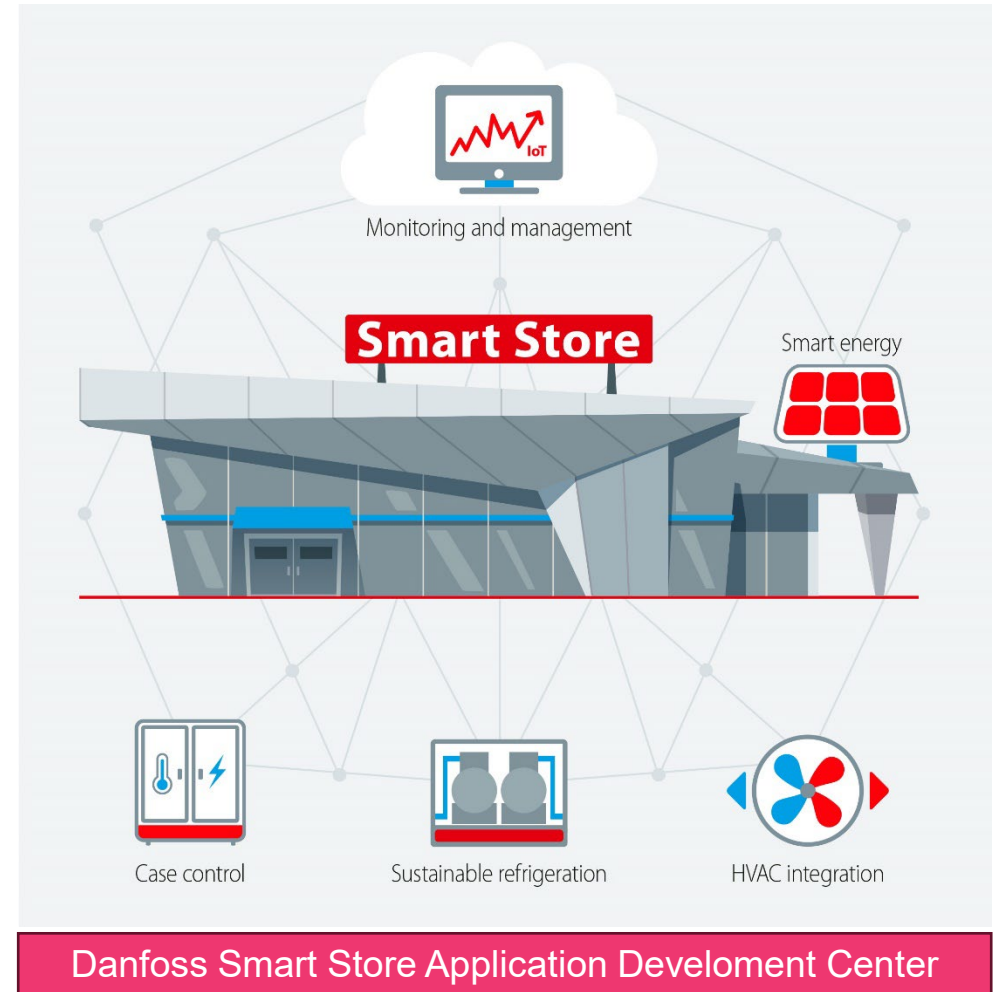
Huge Opportunities to save energy, reduce emissions and cut cost

**50%
more
energy efficient***



The installations and technologies used in the Danfoss Smart Store supermarket are the most energy efficient solutions available on the market, and each typically has an average payback time of 2-3 years.

*compared to a typical supermarket with a first-generation CO₂ refrigeration system



Technology is ready: **So what is slowing down deployment?**

Technical hurdles

Lack of skills and interdisciplinary expertise for increasingly interconnected solutions

Political hurdles

Complex frameworks with overlaps between policies dedicated to refrigerants, energy efficiency, energy supply, waste, etc.

Financial hurdles

Higher upfront investment

OPEX and CAPEX addressed by separate entities

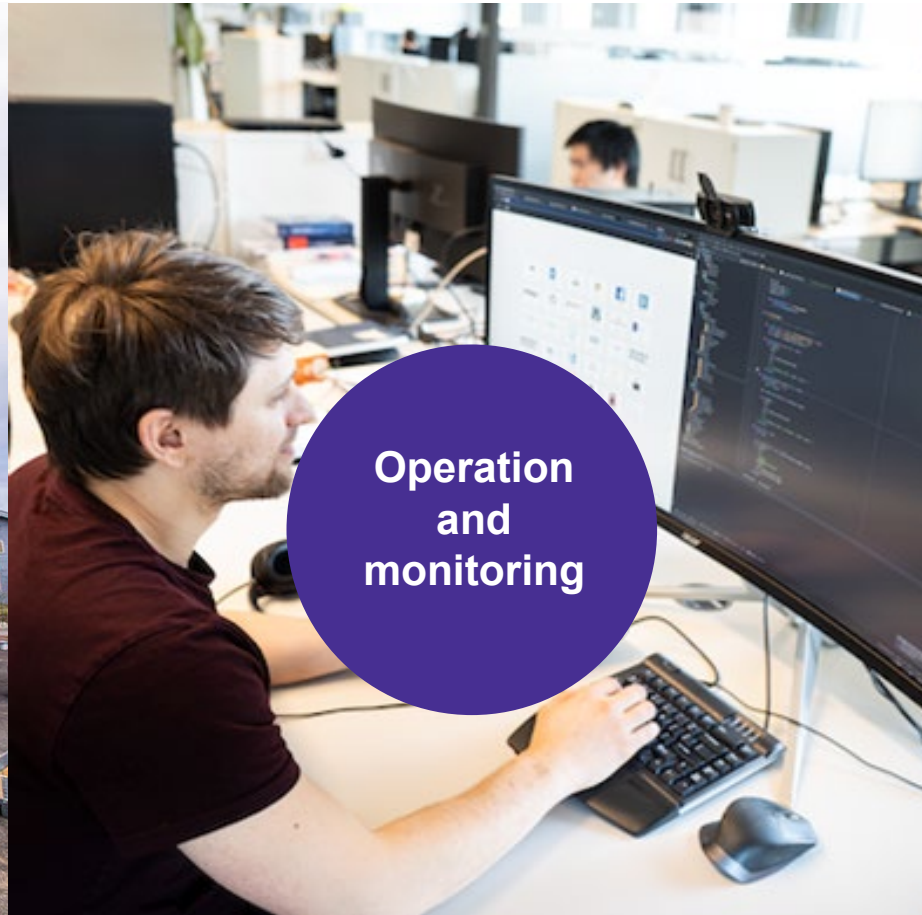


Energy as a Service to accelerate deployment of best-in-class technology

- A holistic service model for Energy infrastructure



**Projecting
and
remodelling**



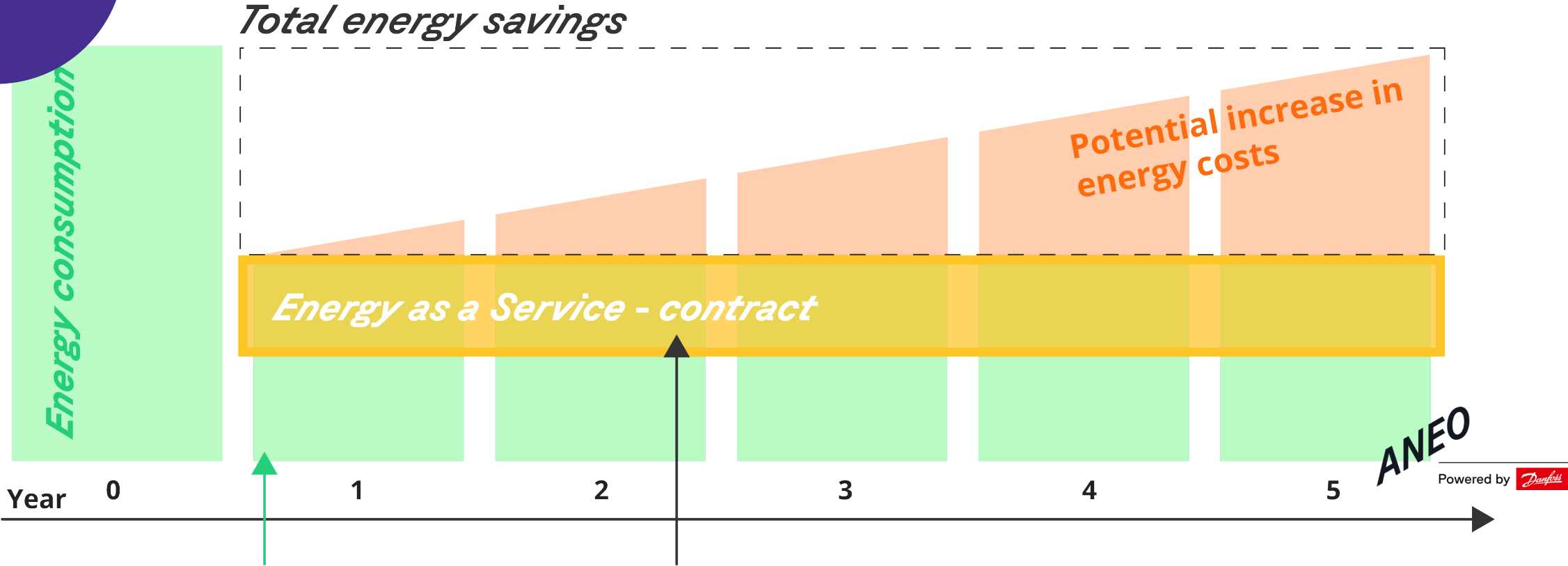
**Operation
and
monitoring**



**Financing
and
guarantees**

Financing and guarantees

Shift from CAPEX to OPEX with best-in-class technology: Saves energy, cost, effort at no tech risk

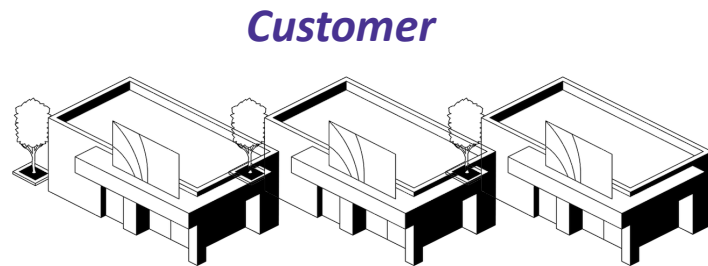


Great reduction in energy bills after the first round of measures

Continuous monitoring and coordinated handling of energy demanding components keeps the electricity bill down over time

ANEQ

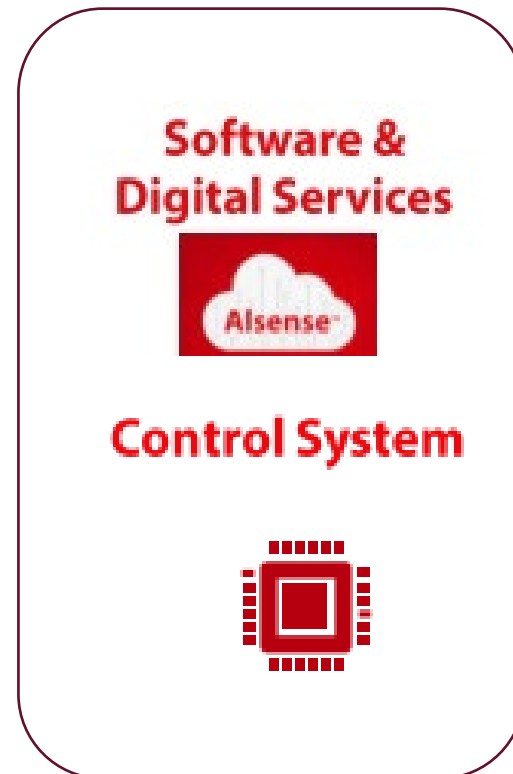
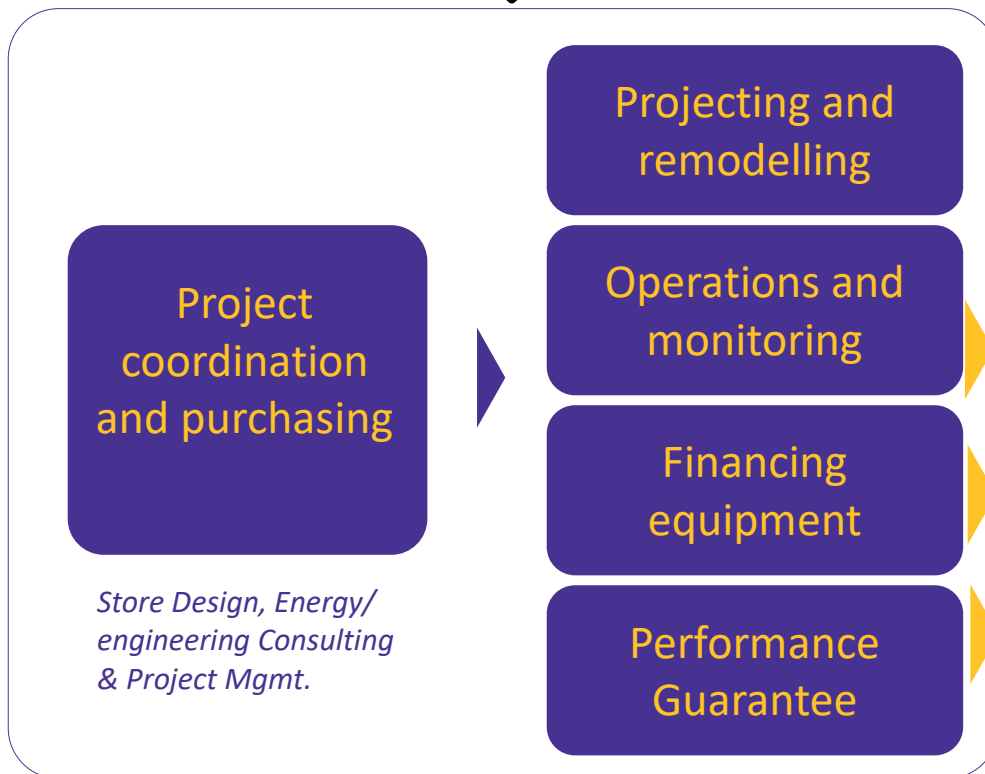
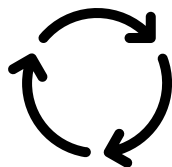
Powered by




Customer



- Equipment financing
- Contractor
- Field Service
- System monitoring & Optimization
- Asset Management




A win-win for all stakeholders



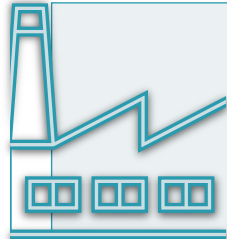
Supermarket

- Shift from CAPEX to OPEX
- Best-in-class technology to decarbonize
- Energy bills under control
- Focus on business, not on complex rules and regulations




Bank

- Recurring revenues
- Data for investment transparency
- Decarbonization technologies



Manufacturer

- Customer relationship
- Circular business models
- Service & maintenance



Government

- Safety & health with improved coldchain
- Refrigerant & Energy Transition
- Optimization of infrastructure

Join our workshop on 24 October
Room CR-14 ; 1pm – 3pm

Learn about energy efficiency and refrigerants
to build better supermarkets for the world

A photograph of wooden blocks spelling out 'THANK YOU' on a wooden plank. The blocks are light-colored wood with dark letters. The plank is resting on a dark surface. The background is a blurred green and yellow bokeh.

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