

Sustainable Refrigeration Summit

Connecting the Pieces for
Supermarket Refrigeration Solutions





Accelerating solutions for natural refrigerants

Heat Exchangers technology for Energy Efficiency and Sustainable Innovations



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Our purpose

– Advancing better™



“We exist to accelerate success for our customers, people and planet”



3 Division, 3 Technologies

– Many different Industries and Applications



Energy

This area covers a wide range of industries such as HVAC, oil & gas, chemicals, biofuels – with a special focus on energy efficiency.



Food & Water

Offers products, solutions and systems in the areas of food processing and water treatment.



Marine

The company has supplied the marine industry since 1917 and has today a broad offering incl. environmental marine products.

HEAT TRANSFER

ENERGY DIVISION

- Brazed & Fusion Bonded Heat Exchangers
- Gasketed Plate Heat Exchangers
- Welded Heat Exchangers

FOOD & WATER DIVISION

- Food Heat Transfer
- Food Systems

MARINE DIVISION

- Marine Separation & Heat Transfer Equipment
- Boiler Systems
- Gas Systems

SEPARATION

ENERGY DIVISION

- Energy Separation

FOOD & WATER DIVISION

- High Speed Separators
- Decanters
- Food Systems

MARINE DIVISION

- Marine Separation & Heat Transfer Equipment

FLUID HANDLING

FOOD & WATER DIVISION

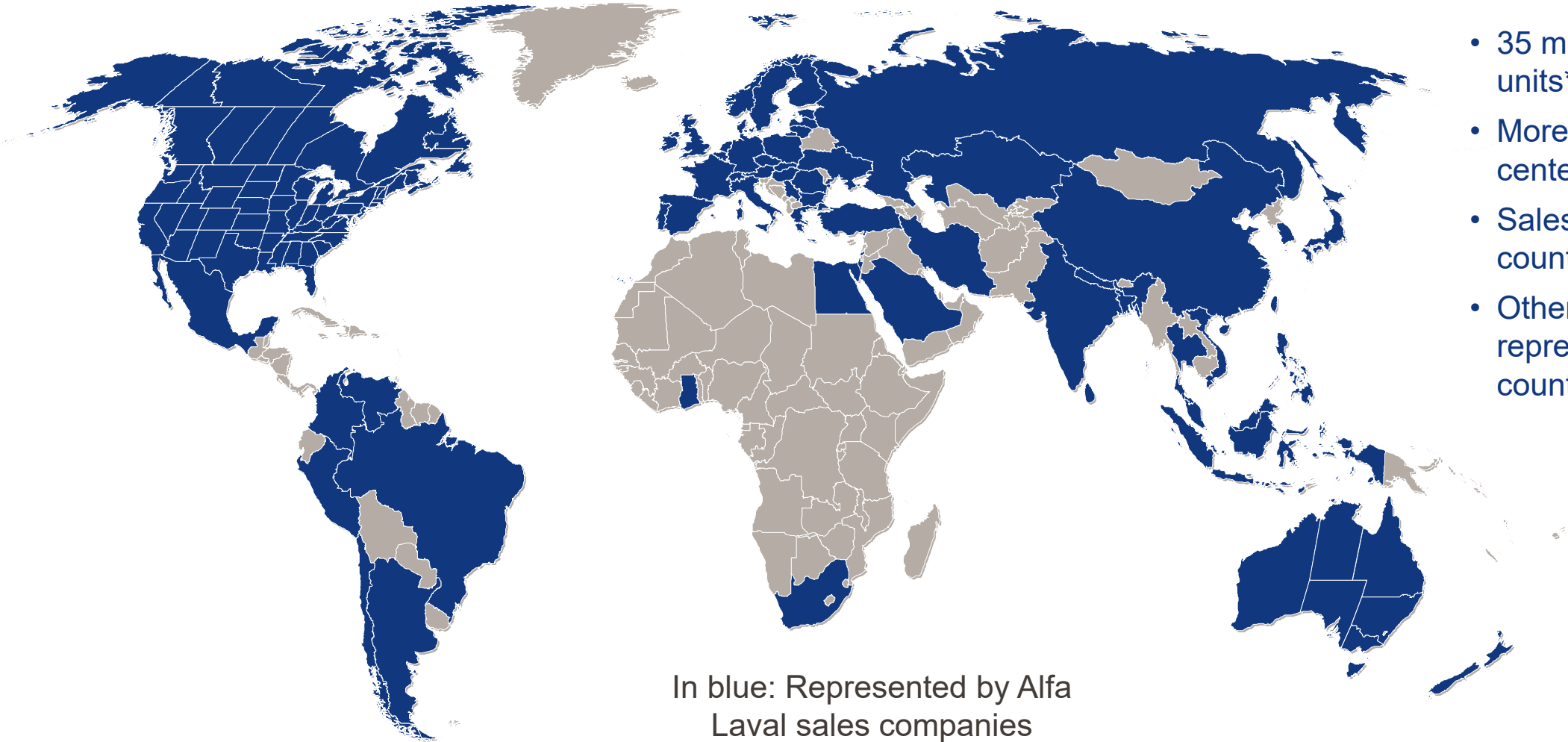
- Food Systems
- Hygienic Fluid Handling

MARINE DIVISION

- Pumping Systems



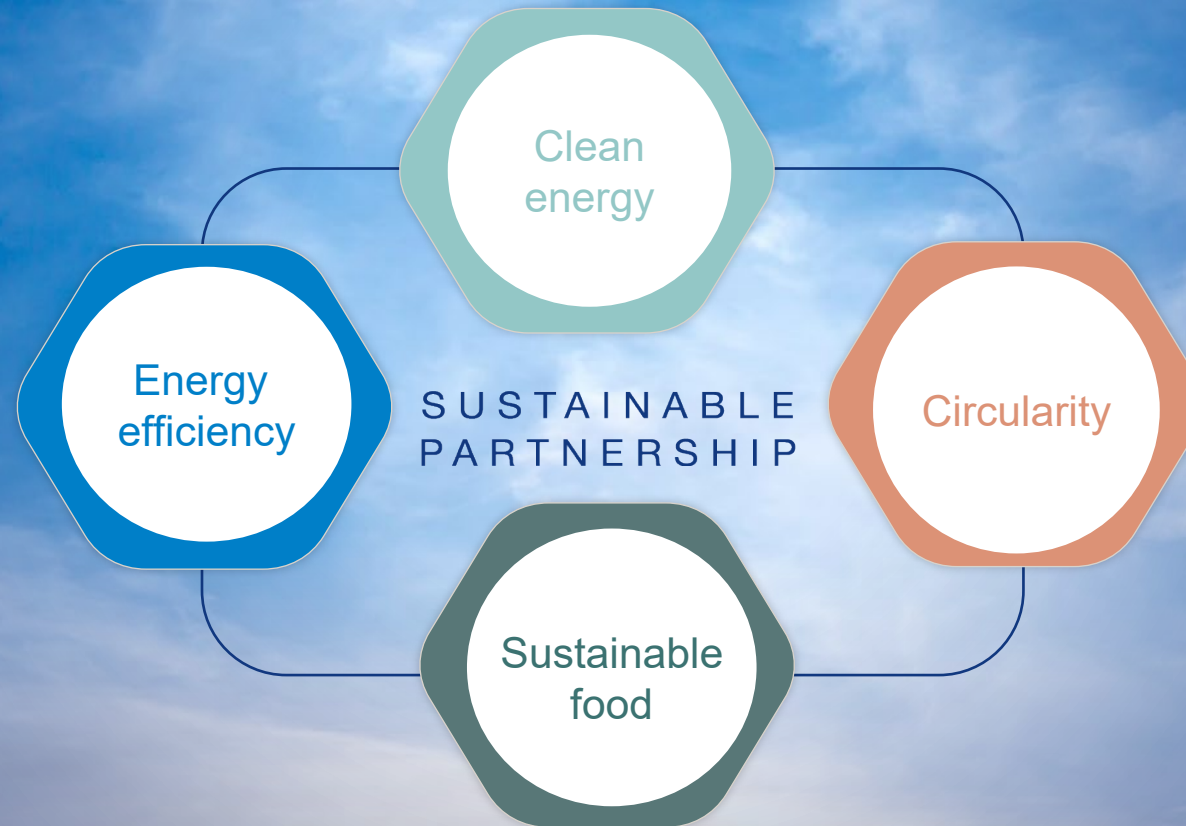
Strong local presence



- 35 major production units*
- More than 100 service centers
- Sales companies in 55 countries
- Other sales representation in 45 countries

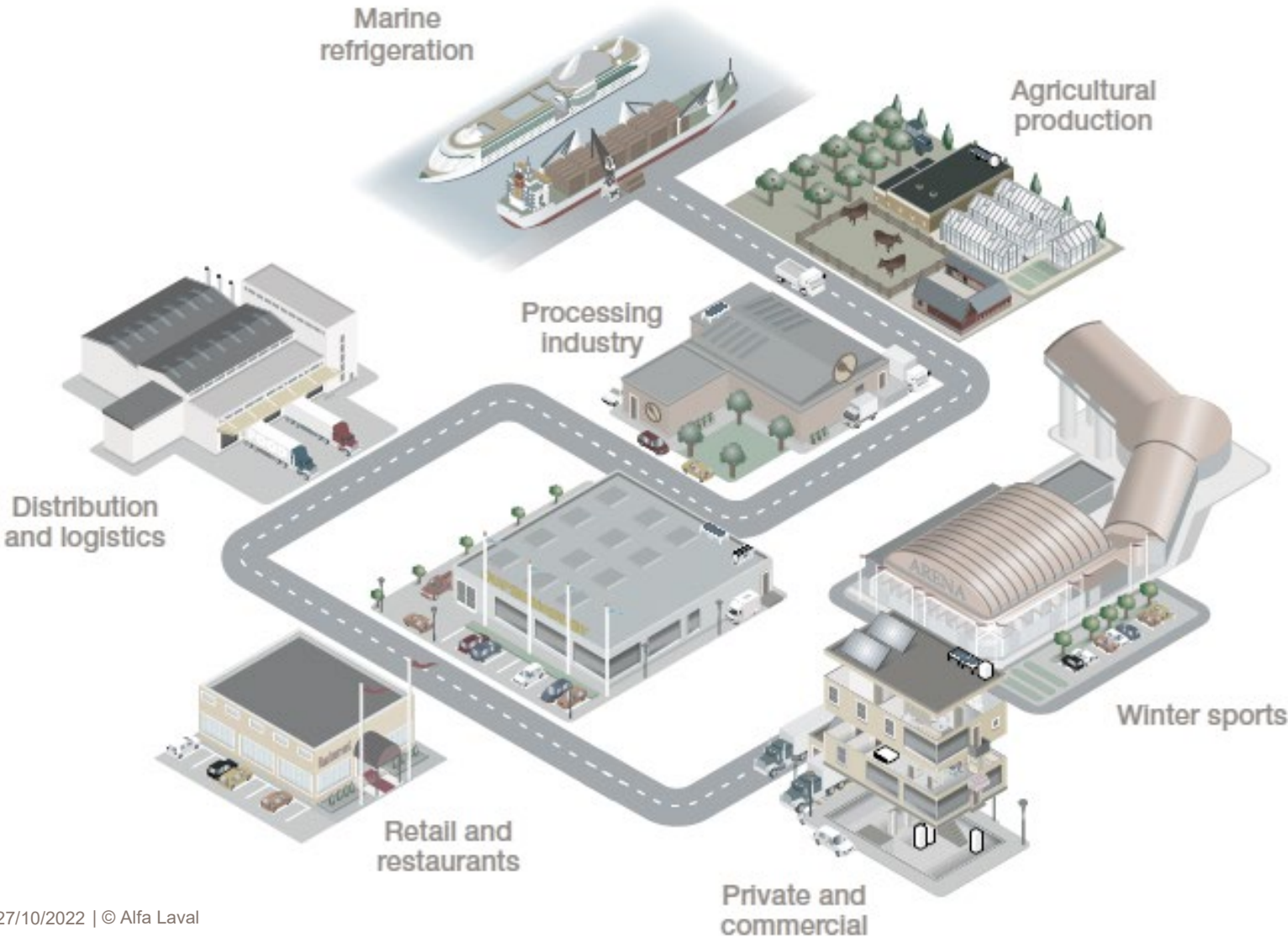
Sustainability focus areas in Alfa Laval

Towards customers



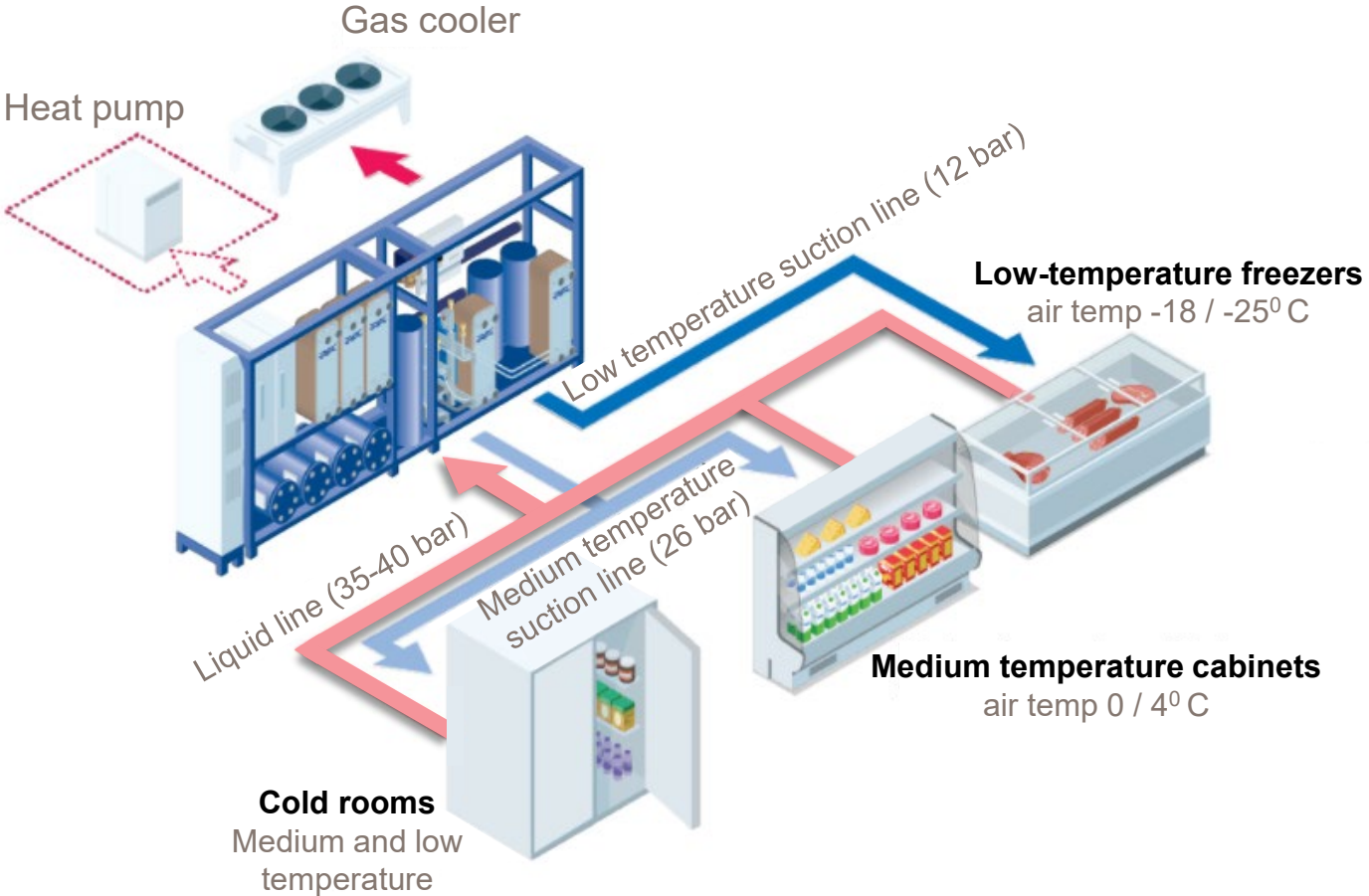
Growing Applications of the Naturals

Matched with Alfa Laval heat exchanger product portfolio



Commercial refrigeration

- Supermarkets racks and Heat pump/Air Conditioning implementation



Heat reclaim opportunities



High Pressure CO₂ Portfolio Innovations

AXP & CBXP ranges



Design Innovation

Higher pressure, Bigger capacity
without external reinforcements

Smaller footprint

Reduction in CAPEX

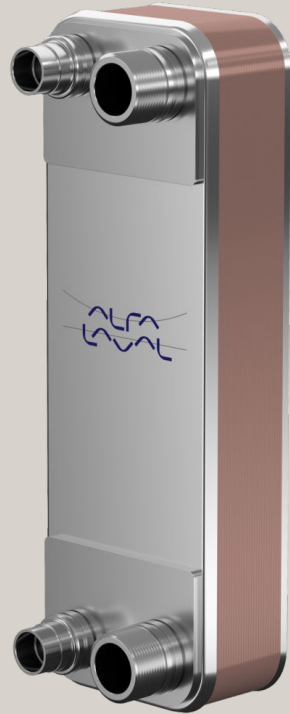


CO₂
(R744)

Ready for natural refrigerant: CO₂

Natural Innovations: AXP82

- Frameless Extreme High-Pressure Design



PRODUCT DESCRIPTION

Size : 6.5" X 19.29"

Weight : 40 – 110 tons

Design: 2030 psi pressure design

- ✓ Transcritical operation
- ✓ 15 – 20% **cost savings**
- ✓ Optimal **plate thickness**
- ✓ Reinforce **port design**
- ✓ Reduced **pressing depth**
- ✓ **Enlarged water ports** to reduce pressure drops
- ✓ **Enhanced thermal and pressure fatigue resistance**

Specifically designed to work in air conditioning and other refrigeration applications, where the pressure requirements are extremely high. Because of their high-pressure performance, they are well suited for CO2 applications, such as transcritical gas cooling.

Plate Heat Exchangers Portfolio

- A compact and efficient solution



Copper Brazed BHE

Withstands high temperatures and extremely high design pressures

Subcritical & Transcritical CO2



AlfaNova Line

100% stainless steel fusion-bonded plate heat exchangers

Ammonia & CO2 portfolio



Semiwelded Heat Exchangers

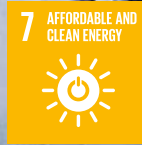
Higher efficiency and reliability when using low-GWP refrigerants

Ammonia & CO2 cascade portfolio



Energy efficient, safe, and sustainable heating and cooling

Simaka Energie- und Umwelttechnik GmbH use Alfa Laval brazed heat exchangers with natural refrigerant (R290)



Energy savings



Emission savings



Cost savings

A future-proof heat pump system

The heat pump station engineered together with Alfa Laval for a Swiss supermarket chain, contains three large Alfa Laval brazed heat exchangers utilizing propane (R290) as refrigerant. The result: an innovative heating and cooling solution that offers long-term sustainability, energy efficiency, and a safe operation.



Exchange programme to increase energy efficiency and save resources

A circular partnership between Stena Recycling and Alfa Laval



Energy savings



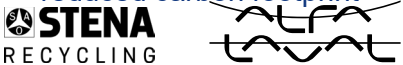
Resource savings



Emission savings

Re-made to matter

- Pioneering exchange program for heat exchangers
- Upgrade with new plate heat exchanger and refund for old equipment
- Recovering up to 100% of the valuable metals
- Improved energy efficiency with reduced carbon footprint



Concept Zero – carbon neutral heat exchanger by year 2030

The worlds' first heat exchanger made using fossil-free steel and recycled materials



The Invisible revolution

Concept Zero is our vision and target to produce the world's first carbon neutral heat exchanger by 2030. It will be made using fossil-free steel from our partnership with SSAB and with recycled material in the gaskets. The heat exchanger will also be easy to recycle.

Concept Zero means a CO₂ reduction of over 40%, which is a huge step on our journey towards a fully carbon neutral heat exchanger.



7 AFFORDABLE AND CLEAN ENERGY

12 RESPONSIBLE CONSUMPTION AND PRODUCTION

17 PARTNERSHIPS FOR THE GOALS



Energy savings



Resource savings



Emission savings

Contact us

– Questions?



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Innovation
that accelerates sustainable solutions



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