

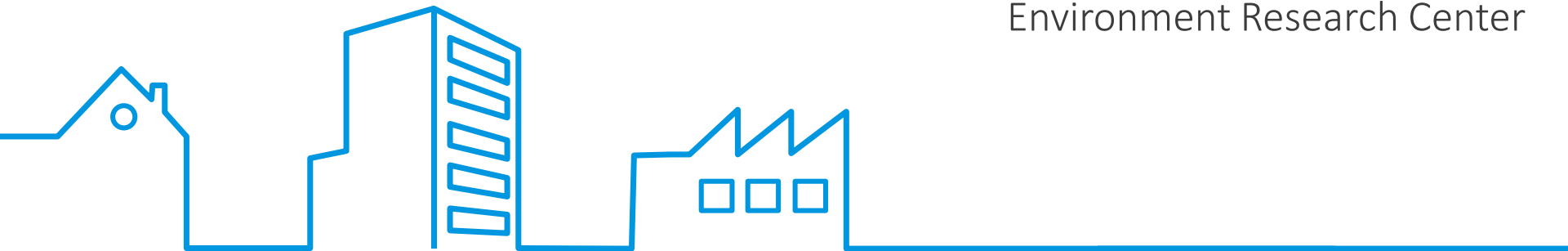
EUREKA[★]2019

Heating, Cooling & Ventilation: Sustainable technologies for a better life

Daikin Europe N.V.

Hilde Dhont

Environment Research Center



- Paris Agreement



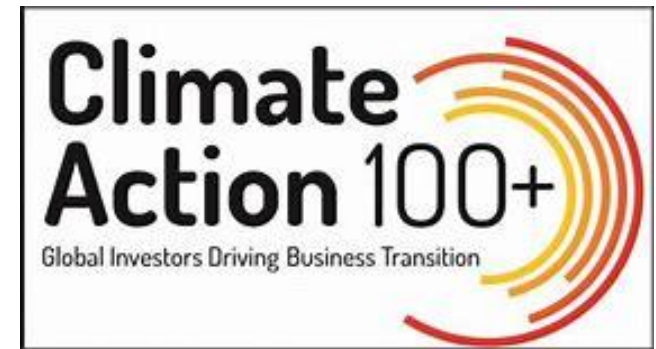
- Montreal Protocol-Kigali



- SDGs



- Investors



Daikin Mission

The Daikin Group aims to contribute to the realization of the sustainable development goals (SDGs) , grouped in 3 themes:

1. health and comfort



2. cities



3. environment



1. Value Creation for Health and Comfort

Protecting people's health & comfort
with "Air" technology

- Cooling, heating, humidity, air quality

Reduce food loss

- Refrigeration solutions to maintain a cold chain of chilled and frozen products



2. Value Creation for Cities

Solving comfort, health and energy challenges arising from urbanization

- Contribute to net zero energy buildings (NZEB)
- Energy management, demand response
- Energy creation



3. Value Creation for the environment

Reduce the environmental impact of our products

- Improve energy efficiency
- Reduce refrigerant impact

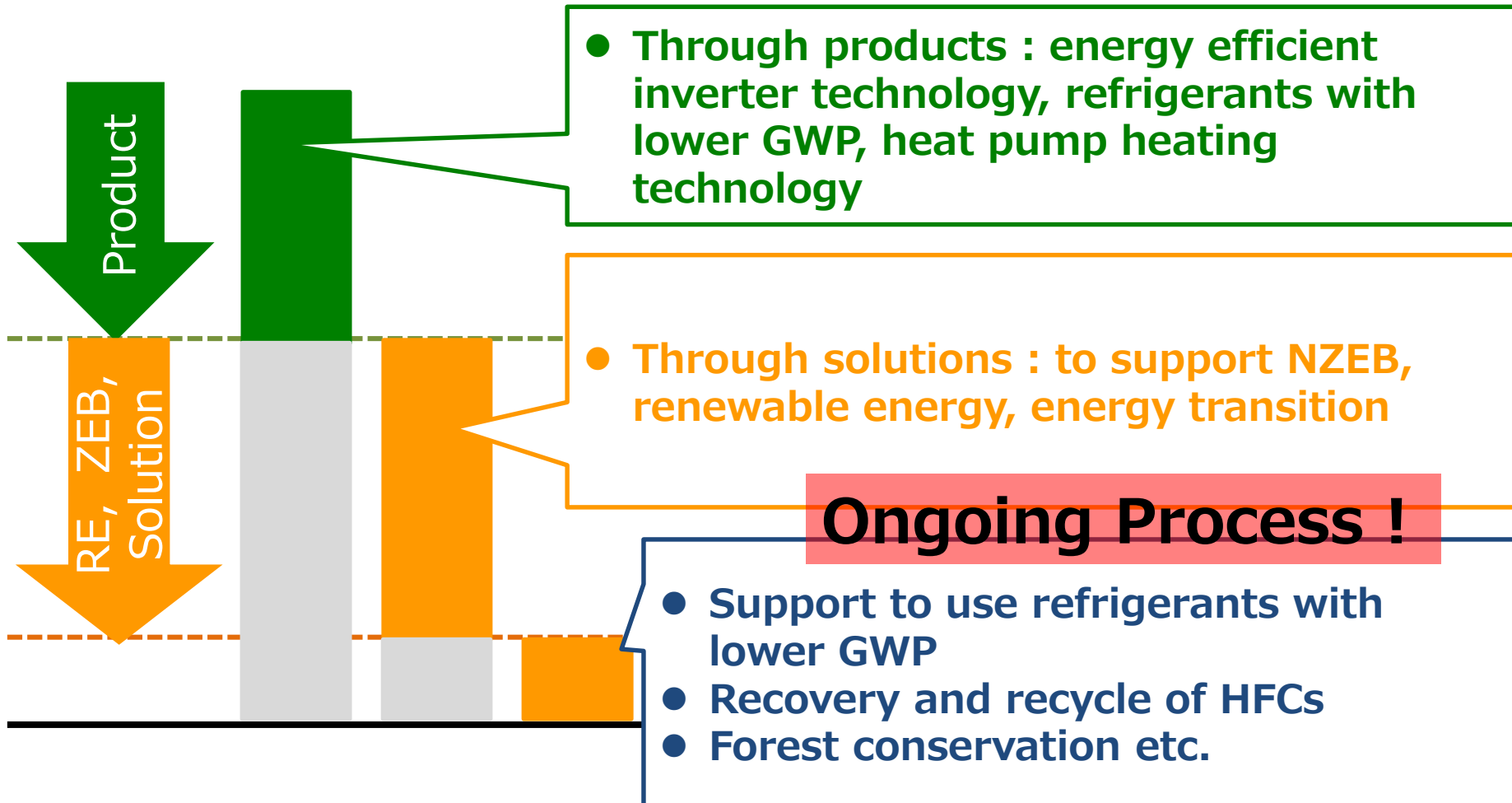
Replace fossil fuel based technology

Use renewable energy

- heat pump technology
- Energy storage technology



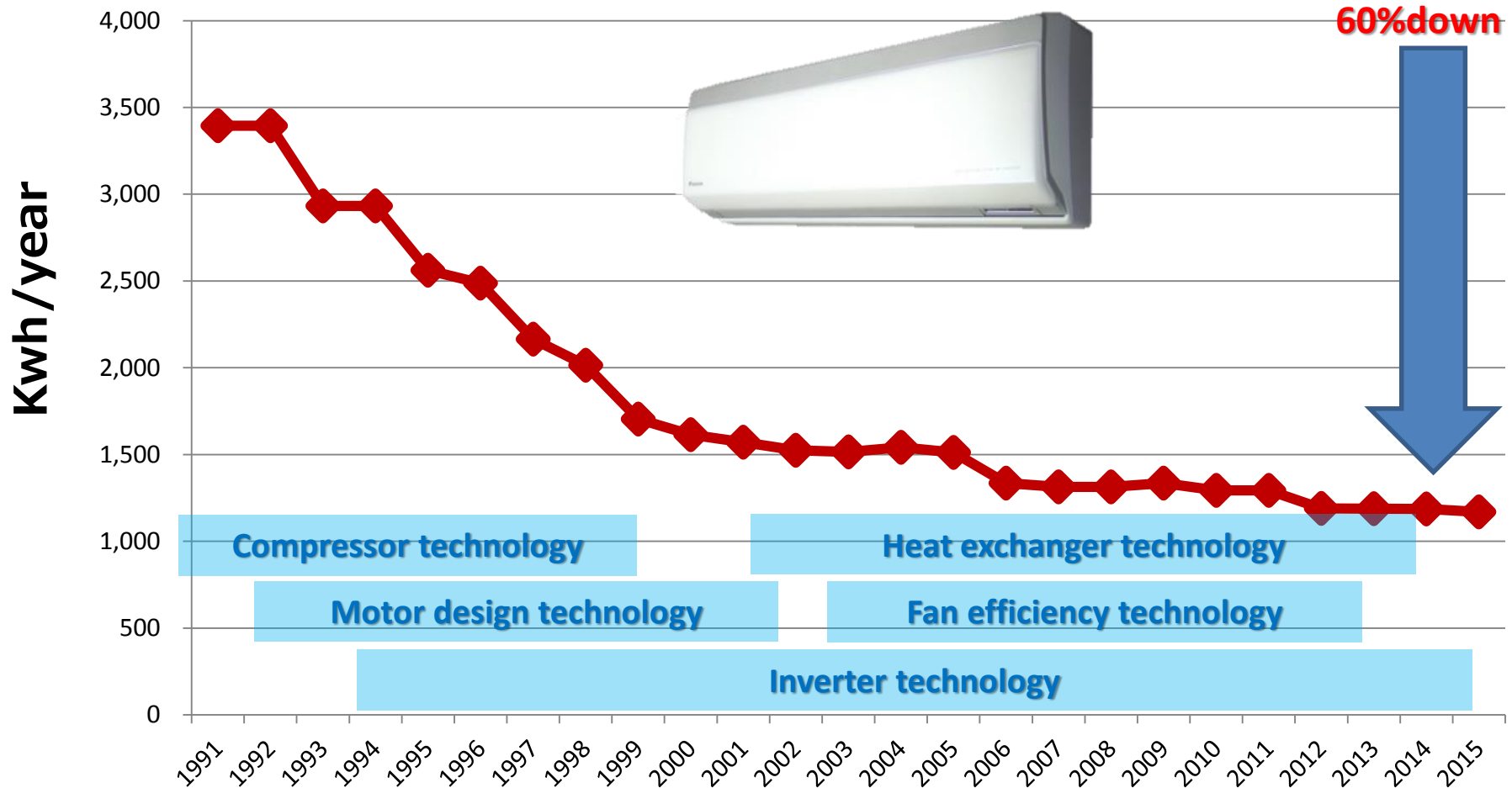
Daikin Vision 2050 : net zero GHG emissions by 2050



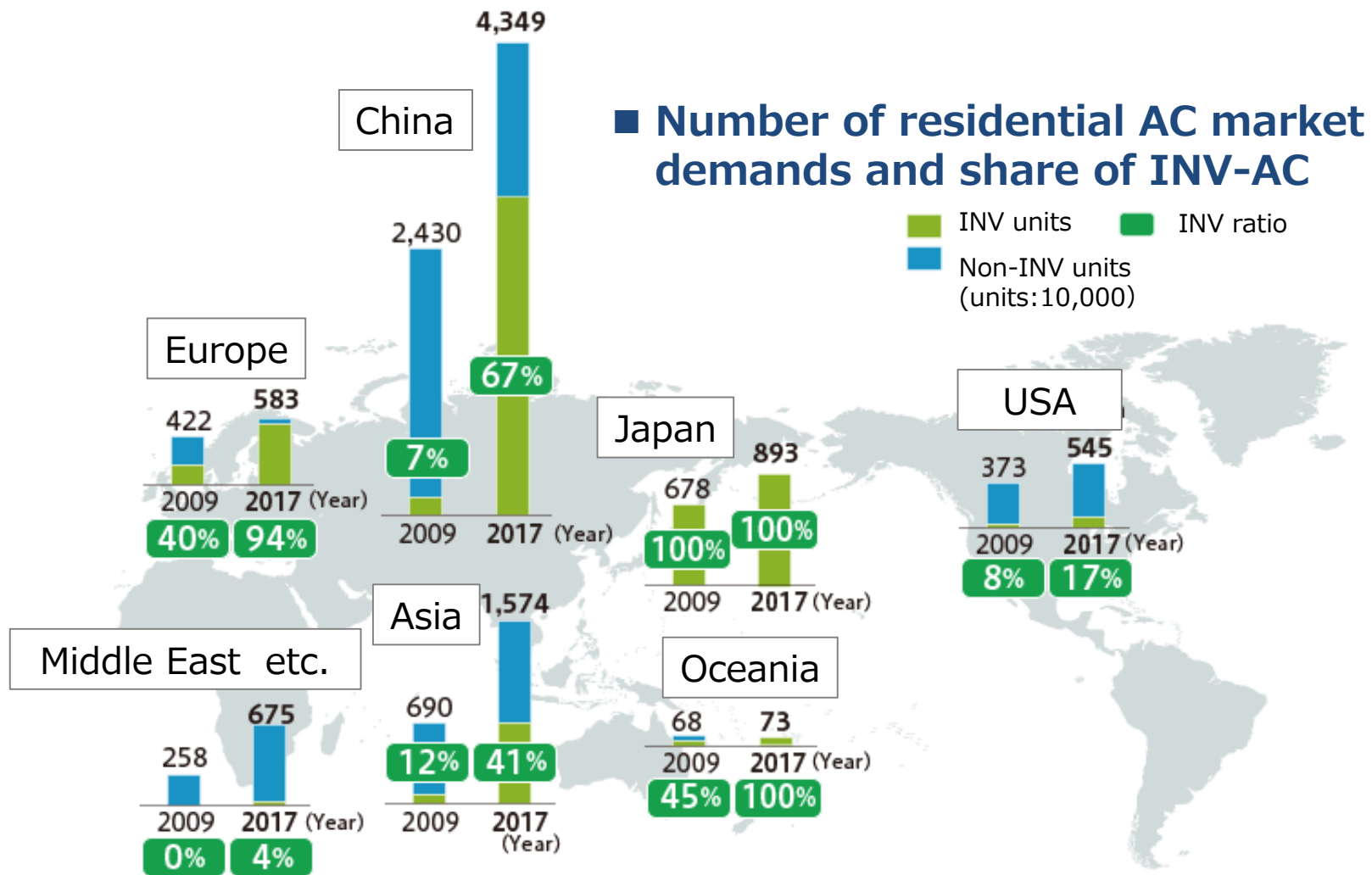
Product Example : Energy efficiency

Daikin has been disseminating inverter(INV) AC globally

Year-round power consumption transition



- Global residential AC market – use of inverter technology



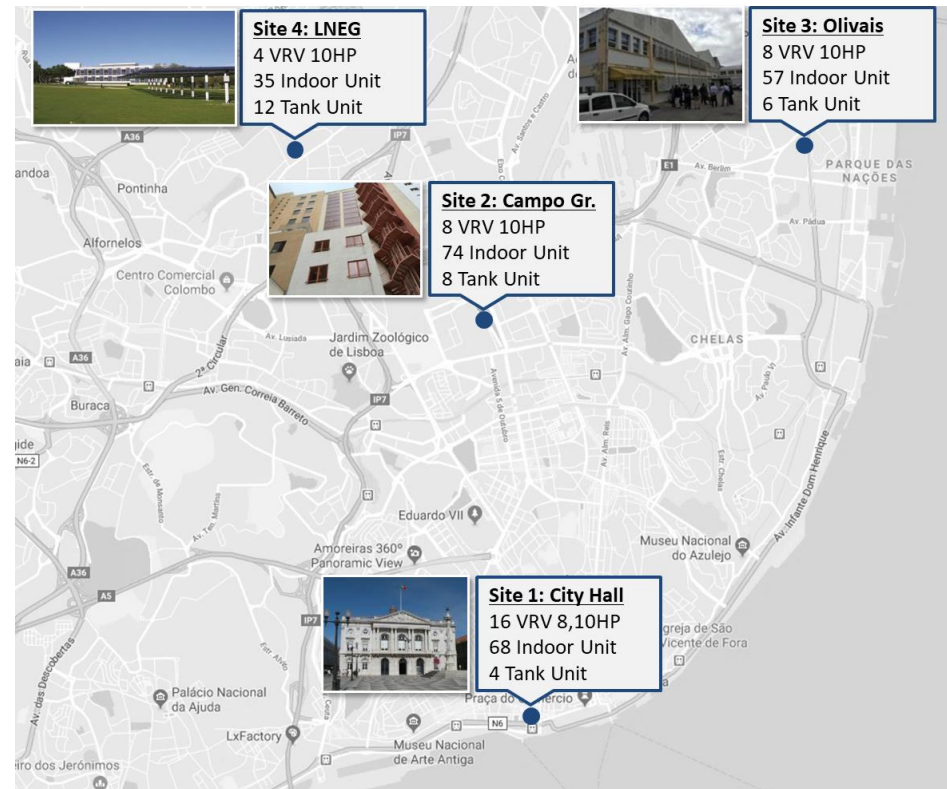
Example refrigerant recovery & reuse



Solutions example : LisCool project

Demonstration Project on ADR (Automated Demand Response) and VPP (Virtual Power Plant) in the City of Lisbon

Adjust AC consumption and Use “cold” as a battery to maximize renewable energy consumption, solve restrictions/emergencies on the electricity grid and/or adjust to the electricity price



Message to the HVAC industry

Can you support to :

- Combat climate change ?
- Ensure food security ? Avoid food loss ?
- Phase down the consumption of HFCs ?
- Build sustainable buildings and cities ?
- Support the energy transition ? Balance the energy grid ?
- Provide cooling/heating/refrigeration solutions which are safe/energy efficient/affordable and use low GWP refrigerants?
- Provide decent work and economic growth ?



Challenges or Opportunities ?

- Energy transition
- Customer confidence
- Policy makers
- Simulation & monitoring methods
- AI/IoT and Big Data solutions
- How to create market value for innovation
- Affordability, sustainable financing
- ...



Thank you