



# Heating & Ventilation A/C Company

## European Growth Strategy

November 22, 2022

Masaharu Michiura

# Contribute to Society via Business Globally

A sustainable society and Earth



▼

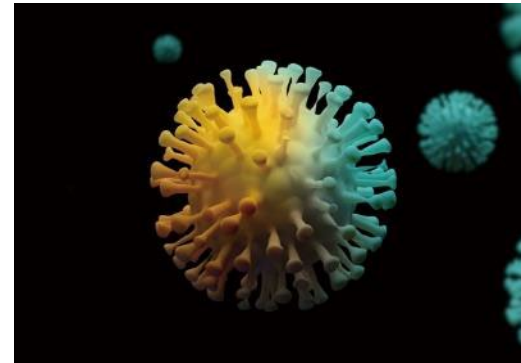
**Low GWP refrigerant  
chillers, A2W**



▼

**Electric AC, gas AC**

Bacteria, viruses,  
air pollution



▼

**Active air purification  
and humidity regulation**

Productivity  
improvement



▼

**DX for installation  
and maintenance**

# Commitment

## Vitalize the Future with Air

These are times of exceptional challenge.

If the world is to move forward confidently, it must overcome the serious threats of the new global pandemics and the degrading of the environment. It must find ways large and small to reduce the stresses that affect people's health and the stability of their communities.




At Panasonic, we're utilising the power of air to create positive change.

Air that benefits body and mind.  
Air that energizes the places where people gather to work and play.  
Air that reduces our burden on the Earth.

With more than a century of research and expertise to guide us, we're using air to open a more hopeful and vital future for all.

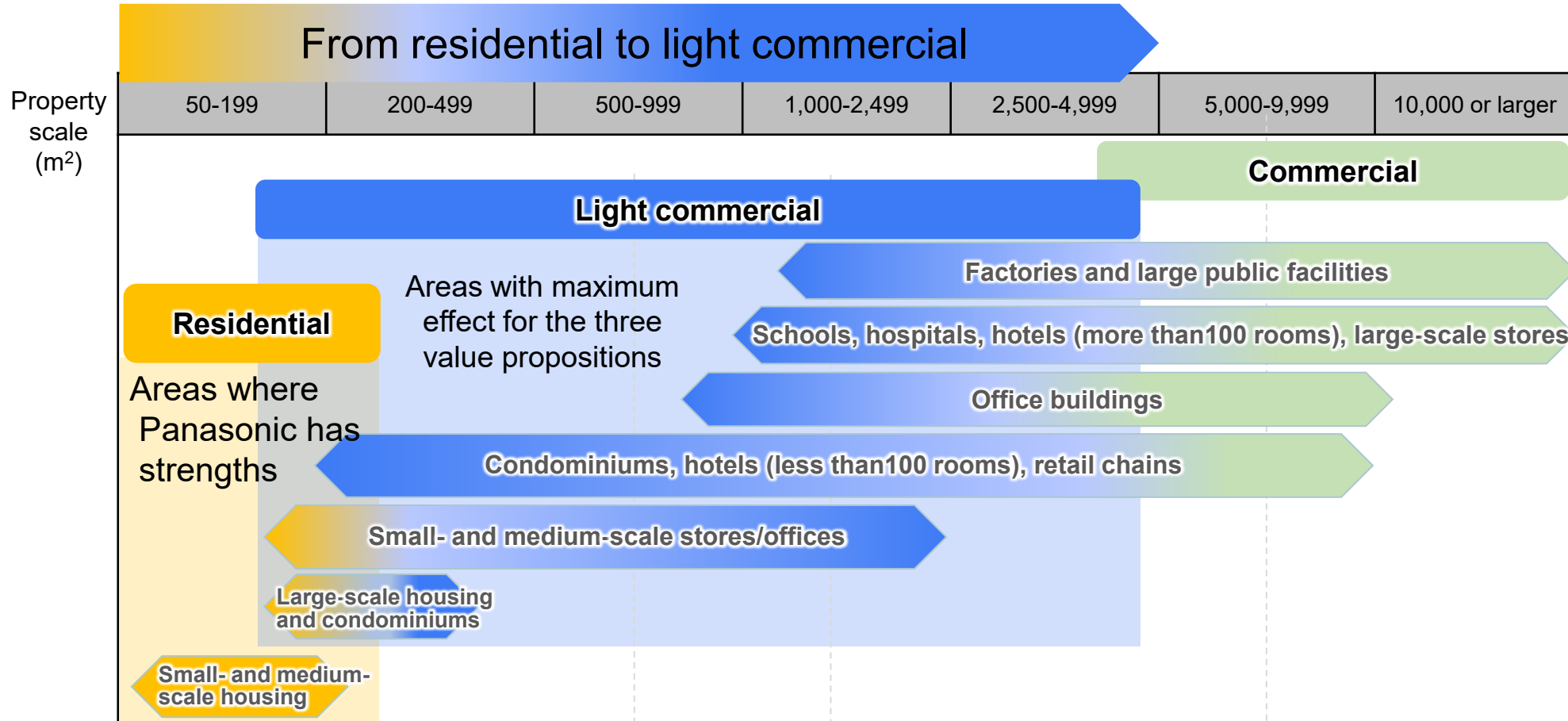


# Create Three Values Provided Together with Customers and Partners

Three values	 Sustaining the planet with air	 Promoting wellbeing with air	 Energising lifestyles with air
Property owners Construction agencies	Contribution to implementing environmental management and fulfilling social responsibilities	Provision of a better air environment to residents and contribution to increasing property value	Contribution to labor-saving and improvement of safety and productivity in construction and maintenance work
End-users	Contribution to reducing environmental impact	Contribution to creating clean spaces, sterilization, and antivirus measures	Contribution to improving physical and mental health, intellectual productivity, and vitality

# Expand Business Areas

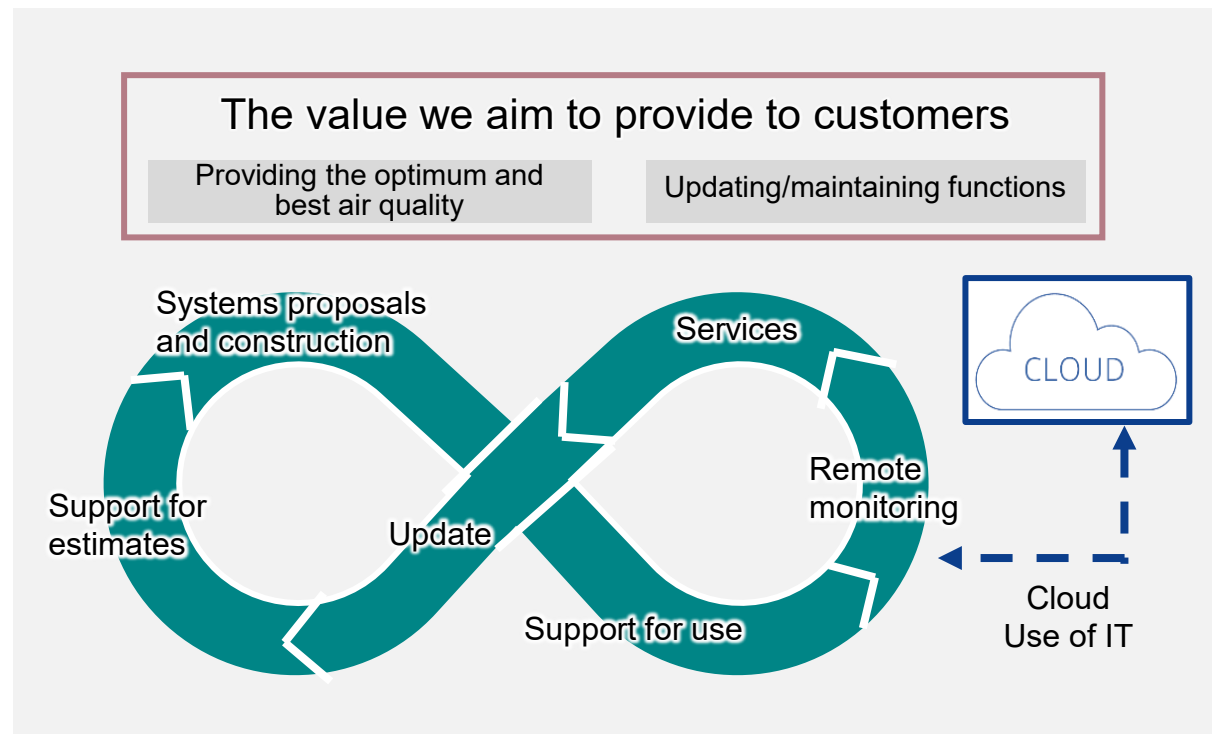
(Image of Europe)



# Target Vision for the Heating & Ventilation A/C Company

Constantly continue to provide the highest value

Aim to build a circular business



Points to reinforce

Expand solution business by key strategy

## 1. Strengthen environmental technology

- Expand contributions to the environment
- Strengthen the light commercial business area
  - ... Fill in the missing pieces

## 2. Strengthen customer touchpoints

- Build a circular business base
  - ... Boost specialists
  - IT/cloud utilization

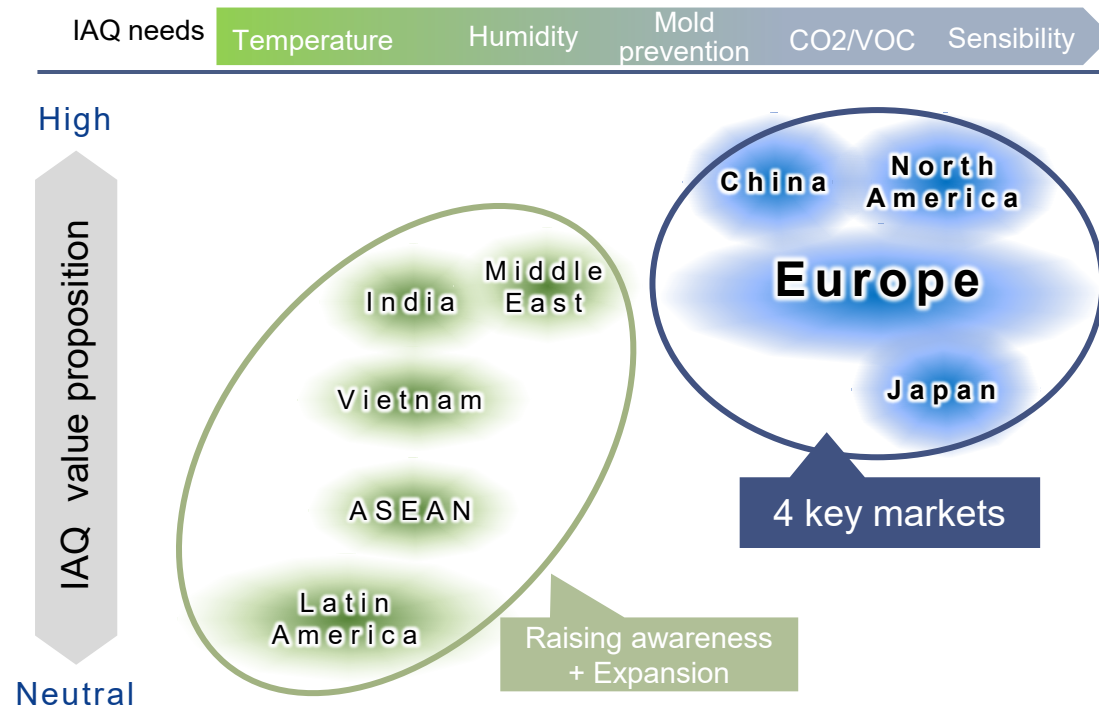
## 3. Operational reform

- Locally optimized (local production, local consumption) management

# Positioning of the European Market

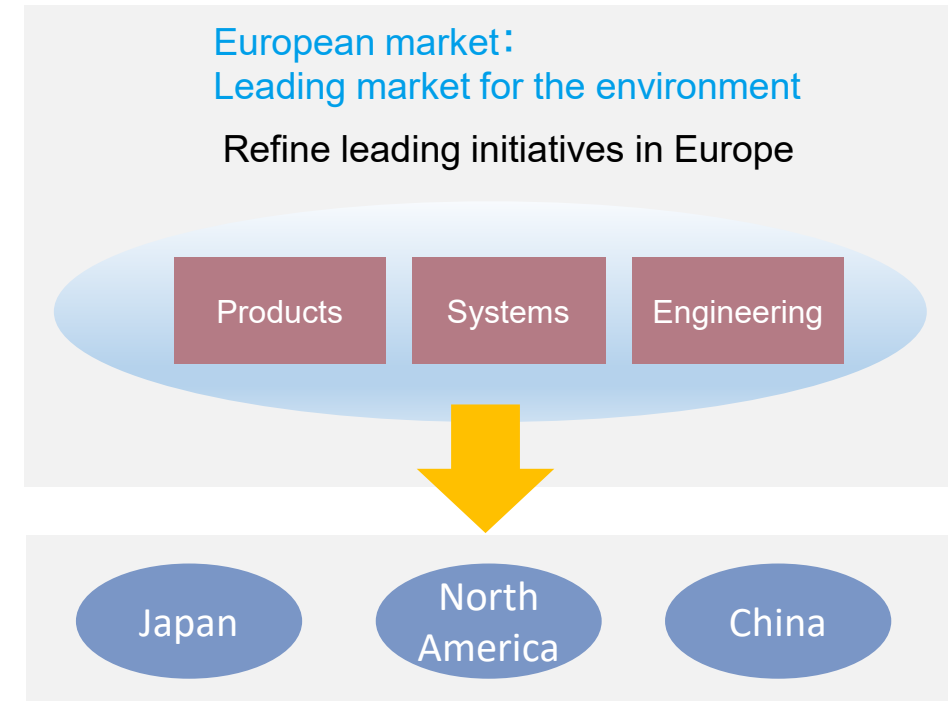
## Strategic area for IAQ needs

Europe: High IAQ needs, value-oriented market



## Precedent toward Global market

Europe : Advanced area with tough competition

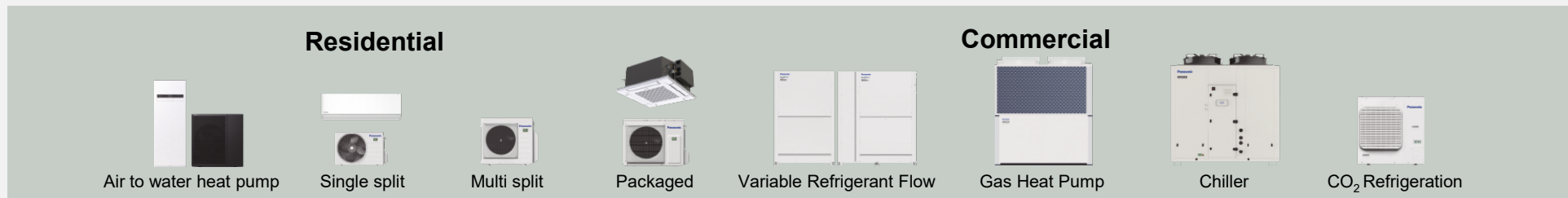


VOC (Volatile organic compounds): General term for highly volatile substances that can harm health and pollute indoor air.

※IAQ: Indoor Air Quality



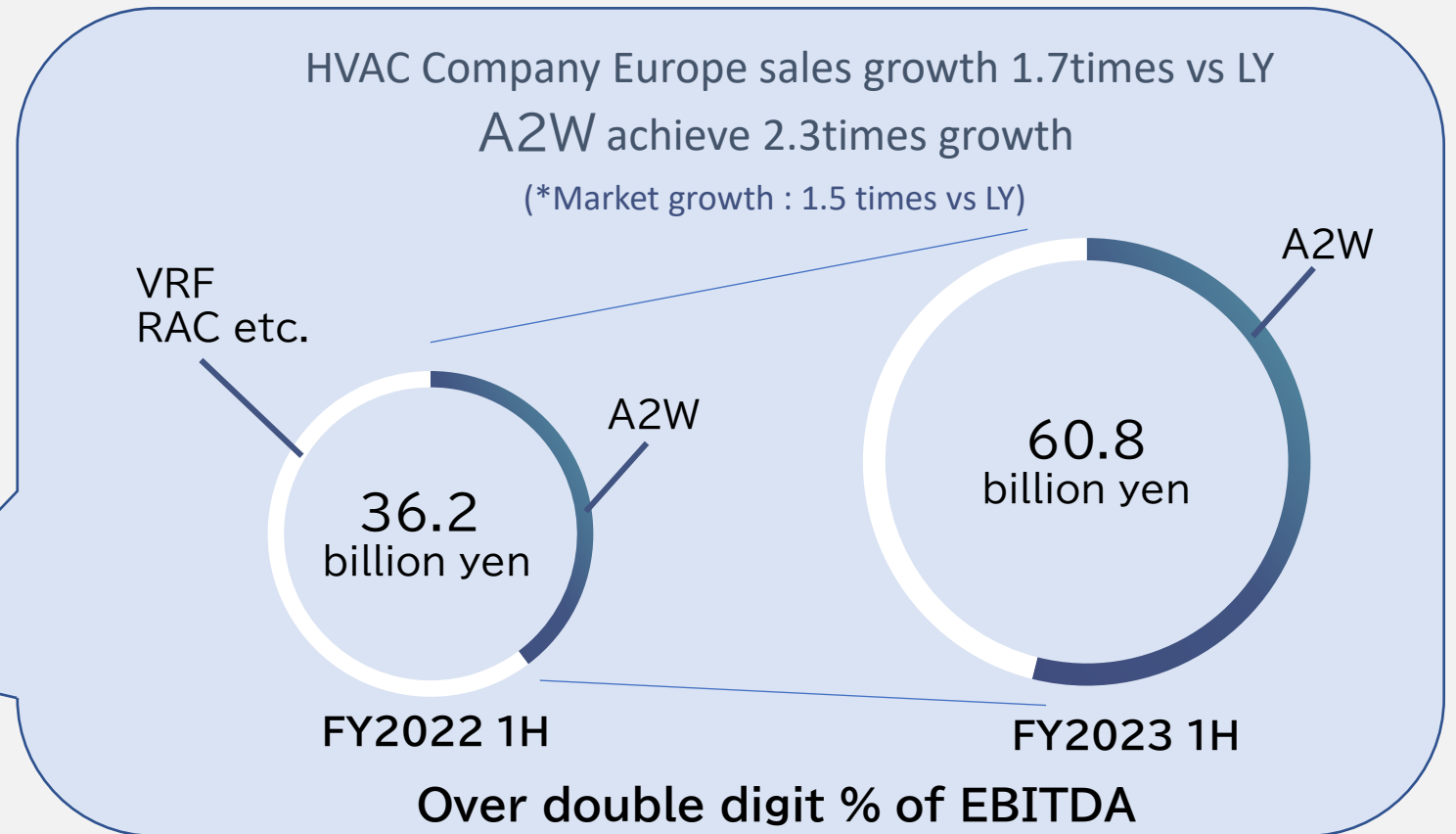
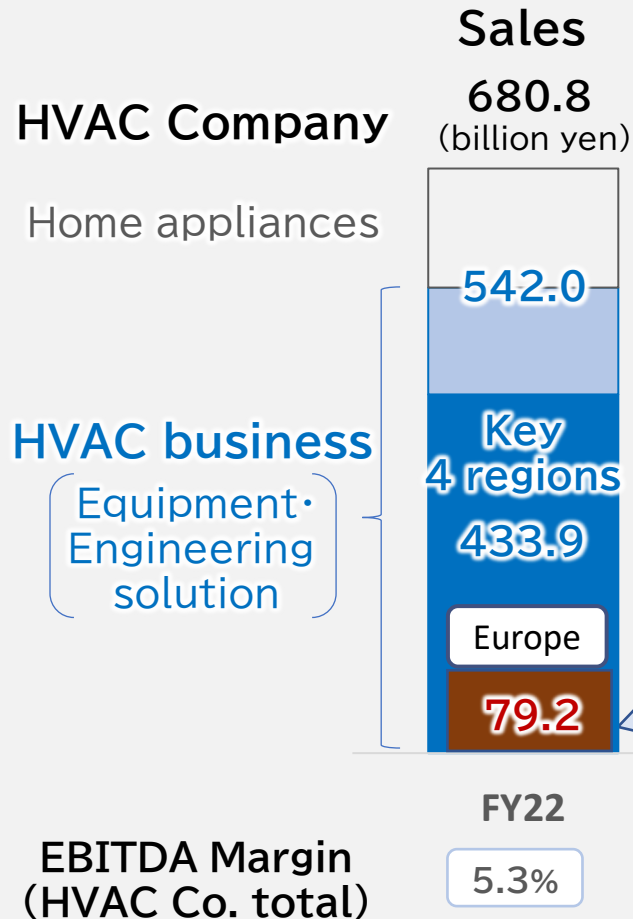
# Develop the Current Panasonic Air-conditioning Business in Europe





# Sales result (FY23 1H, Europe total)

Made huge growth 1.7times in FY23 1H (vs LY)



\*Estimated by Panasonic

Panasonic Corporation

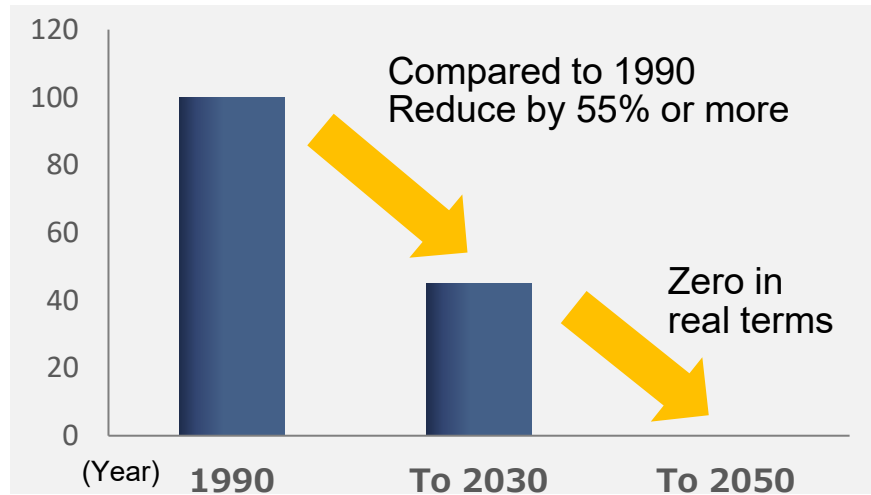
# Increasingly Tough Environmental Regulations

## Kigali revision of the Montreal Protocol

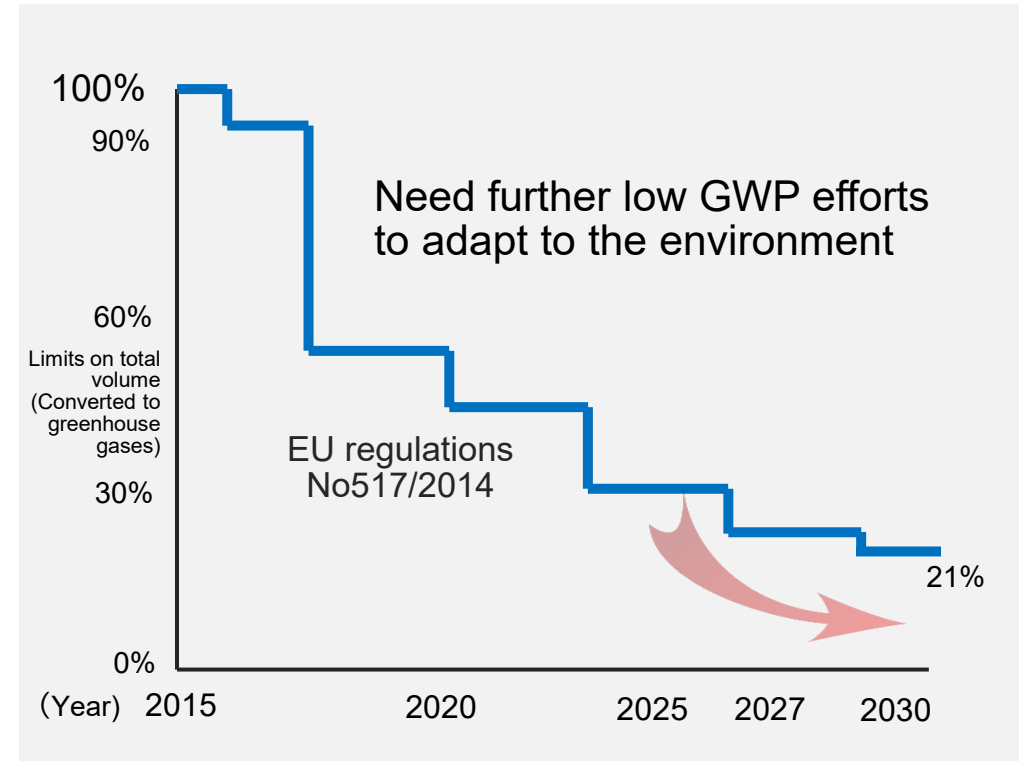
Issued January 1, 2019  
Made CFC alternatives subject to the protocol

## Regulations on the volume of greenhouse gas emissions (in the EU)

(%) European Climate Law issued July 1, 2021

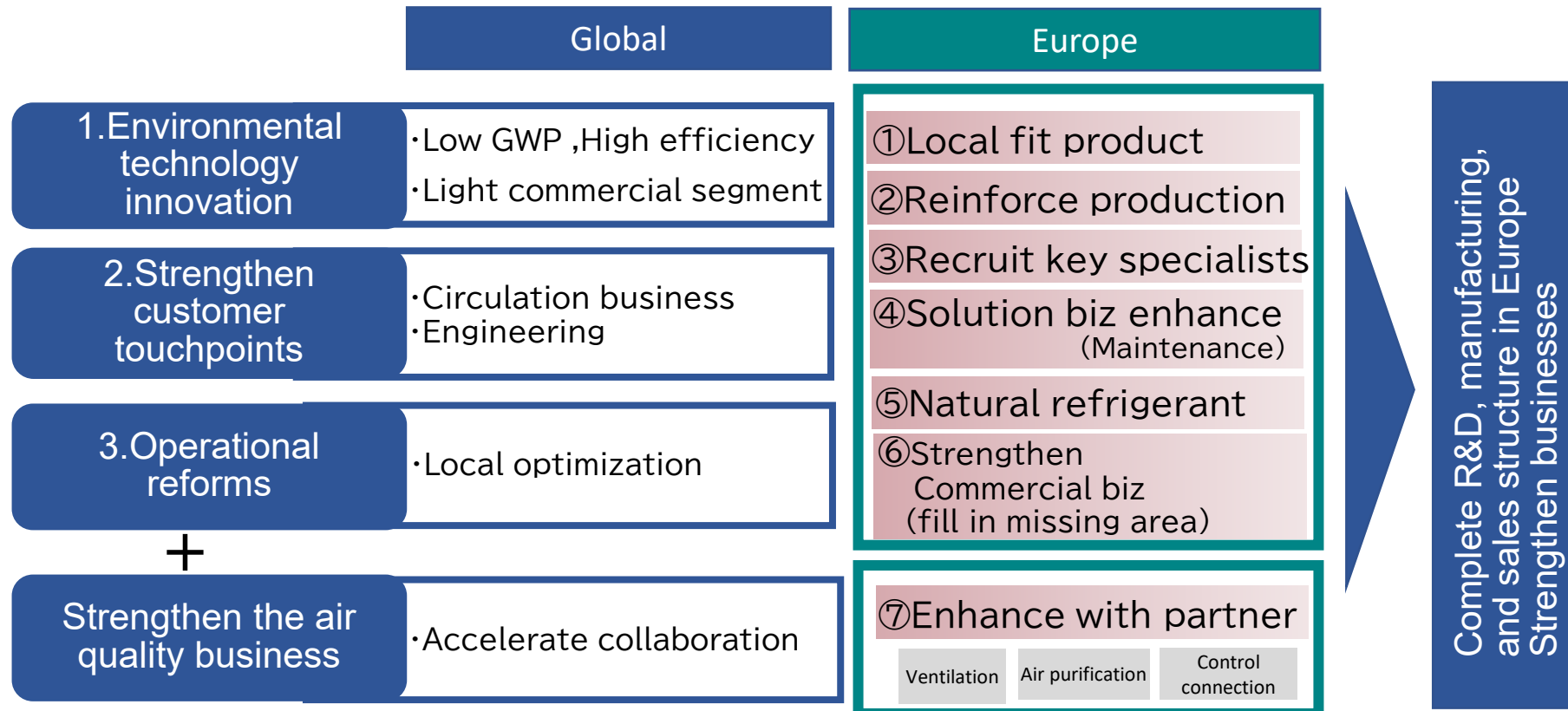


## F Gas Regulation and GWP regulation



# Initiatives to Strengthen Our European Business

Expand areas (light commercial) + Strengthen the equipment/solutions business



# Realize Locally Optimized (Local Production for Local Consumption) Management

Locally optimized (local production for local consumption) management

## ①Local fit product

Launch new R&D base in FY24

Realize on-demand development

Low GWP /  
High efficiency

Air  
purification

Sensing

## ②Reinforce production

Reinforce Czech resource

Production  
capacity

14times  
FY2022

Mid term  
target  
Global  
1 Million  
units

## Build a circular business

### ③Recruit key specialists

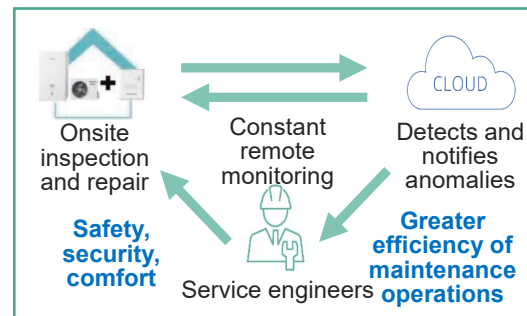
Strengthen engineering and services sales

Double or more by FY2026

Training center /Show-room  
50 base in Europe in FY2026  
(vs FY2022 1.5times)

### ④Solution biz enhance

FY2022: Formulate structure in Denmark  
; Expand Europe-wide

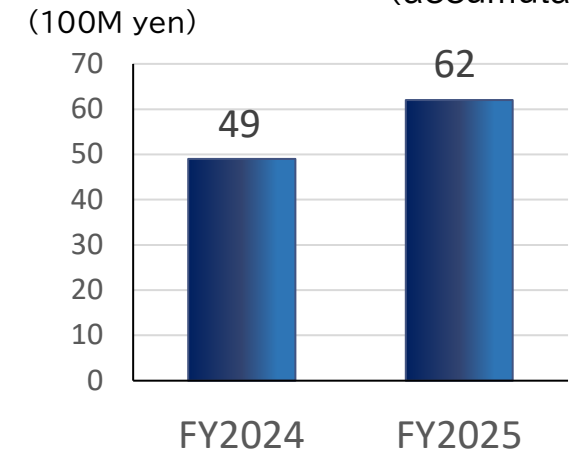


## Affect of Localization

### Cash flow betterment

- Reduce inventory for transit / storage
- Reduce production supply L/T by 60%

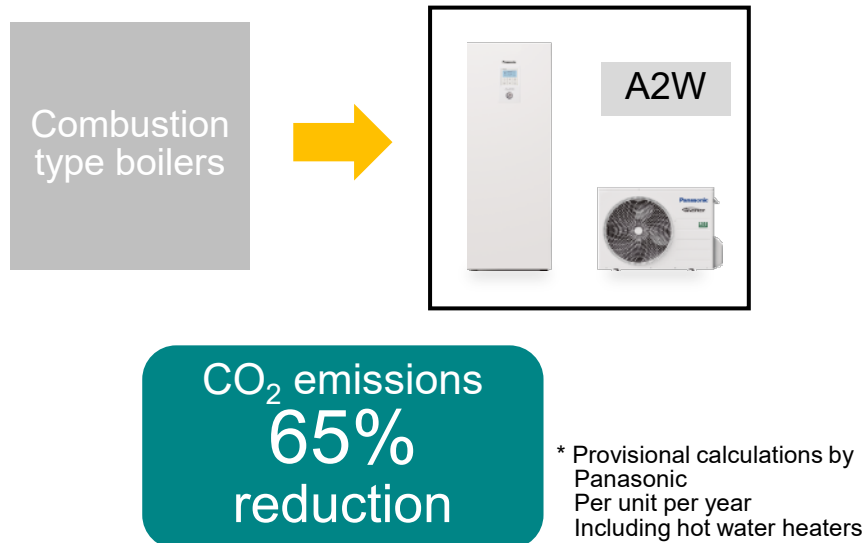
Europe: Impact of Czech reinforce  
(accumulated)



# A2W Environmental Contributions and European Market Expansion

## A2W CO<sub>2</sub> reduction contribution

Contribute to switching from combustion-type



A2W estimate  
Boiler estimate

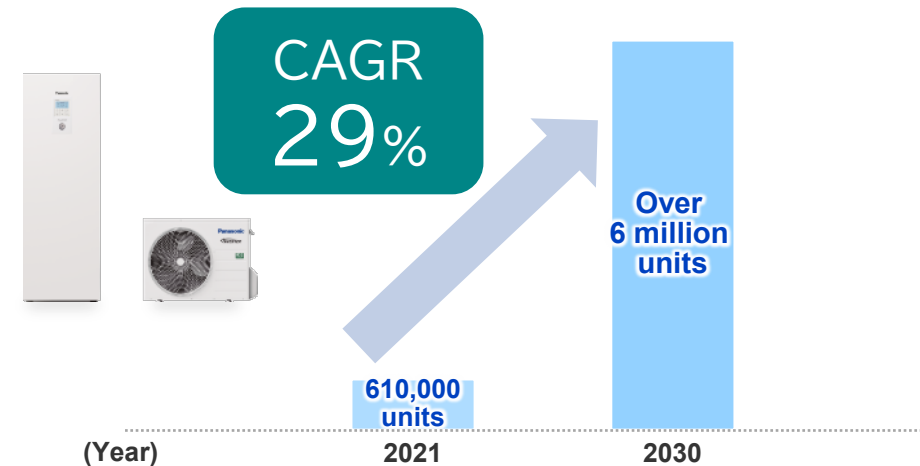
Electricity emissions factor (kg-CO<sub>2</sub>/kWh): 0.277  
Heat conversion (MJ/kWh): 3.6 Gas conversion (m<sup>3</sup>/MJ): 0.0217  
Gas emissions factor (kg-CO<sub>2</sub>/m<sup>3</sup>): 2.24

## Expanding market

Expedite shift from fossil fuels in the heating equipment market

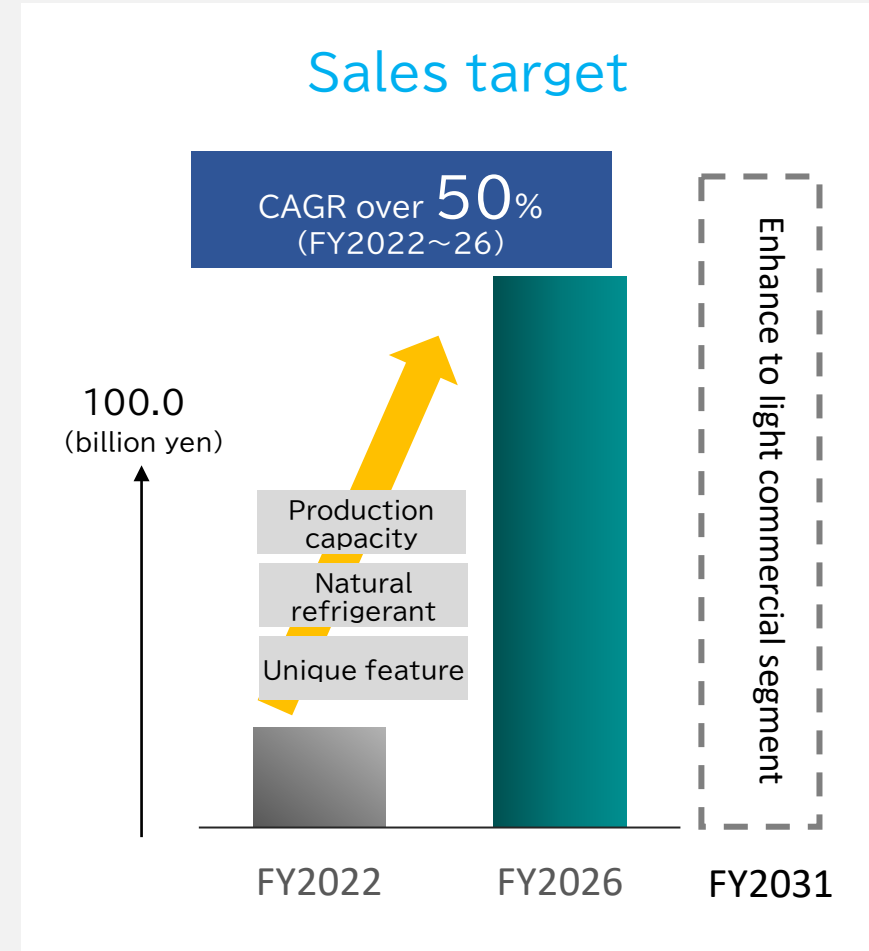
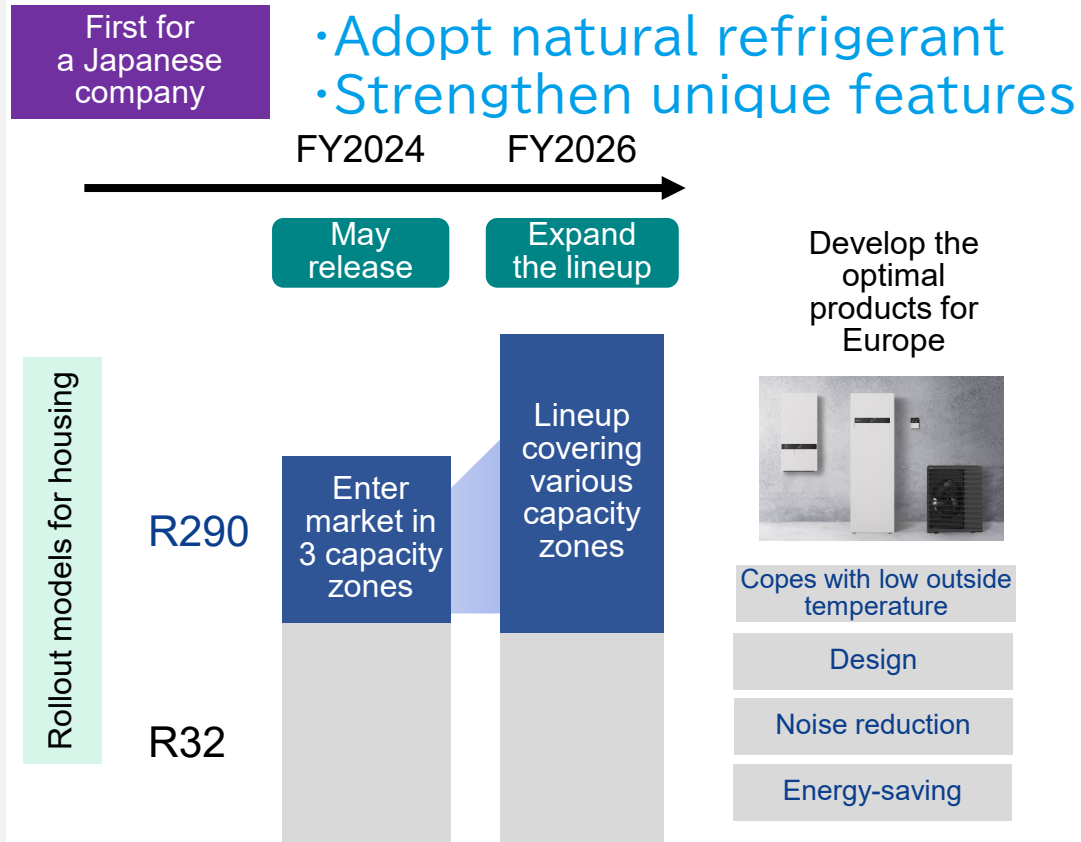
### A2W market volume in Europe

**A2W market scale**  
(By units) Europe EHPA base



# Evolution of A2W and business target

## ⑤Natural refrigerant



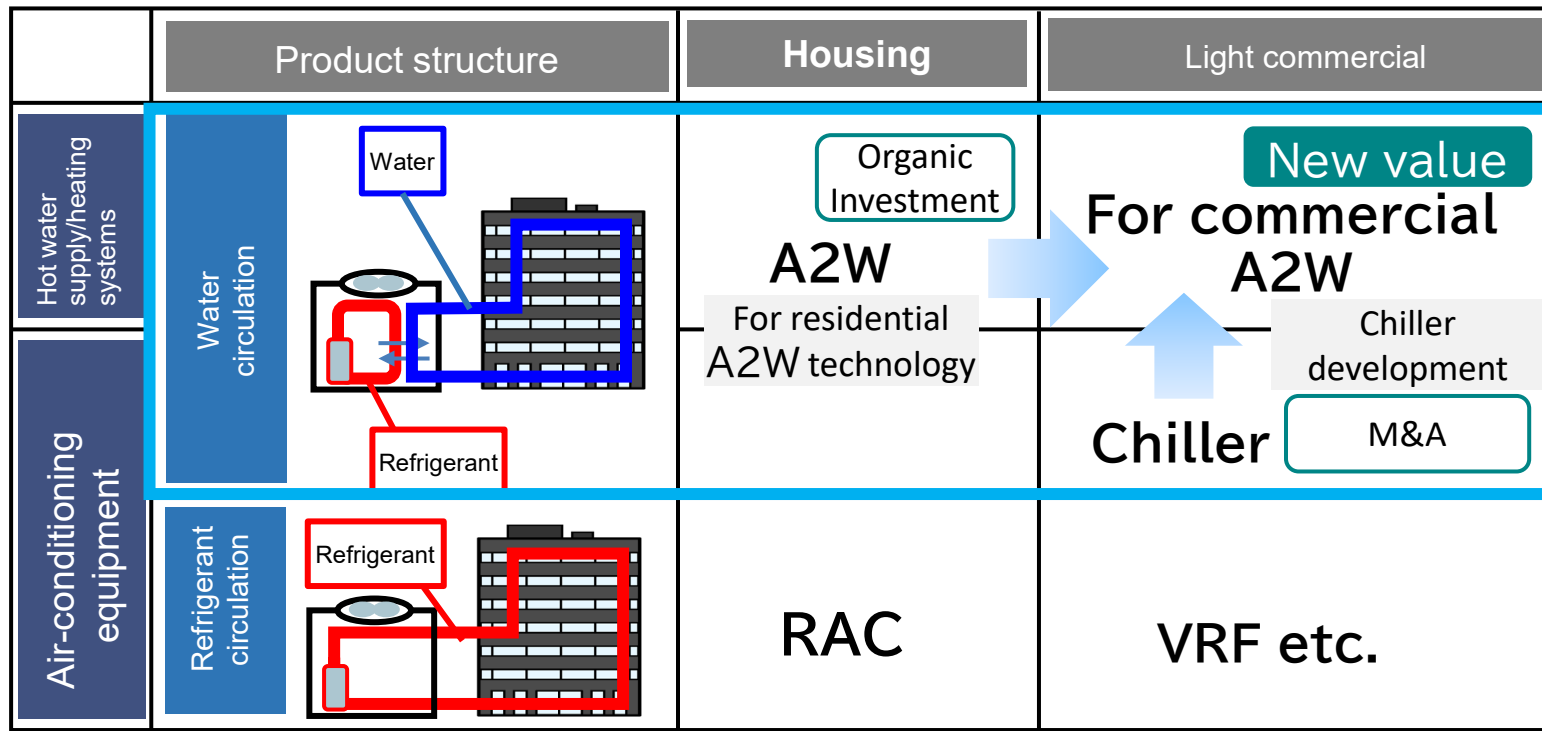
For home A2W with heating and cooling functions using the R290 natural refrigerant in all of Europe. Research by Panasonic, as of October 03, 2022.

The photo is the model for release in May 2023

# Strengthen Chiller segment

## ⑥Strengthen Commercial biz

Fill in the missing pieces for “Light commercial × Chiller business”



- ◆ Create new value by utilizing synergy of A2W / commercial
- ◆ Enlarge target segment to light commercial range

Conversion from combustion-type

Low GWP

◆ Fill in the missing pieces

- ◆ Strengthen solutions linked to air quality
- ◆ Low GWP and energy saving



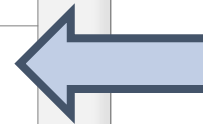
# The M&A of the Systemair AB Air-conditioning Business

## ⑥Strengthen Commercial biz

Acquiring Systemair AB's air-conditioning business enables the following:

- ① Construct one-stop organization in Commercial business. (R&D/Production/Sales/Maintenance)
- ② Create high valued-added solution for heating etc. in addition to air conditioning biz.

Item	Overview
Relevant companies	<ul style="list-style-type: none"><li>Systemair AB air conditioning business (three companies)</li></ul>
Acquisition price	<ul style="list-style-type: none"><li>100 million euro</li></ul>
Funding	<ul style="list-style-type: none"><li>With cash reserves only</li></ul>
Schedule	<ul style="list-style-type: none"><li>The M&amp;A will be completed by March 2023 after going through the necessary procedures</li></ul>



### Systemair AB biz segment

#### Air conditioning

Systemair AC SAS

Systemair S.r.l.

Tecnair S.p.A

Ventilation・Air quality

Others

# Value Owned by the Systemair AB Air-conditioning Business

(Acquisition target)

(Acquisition target)

## Commercial air-conditioning technology

## Water circulation technology



Indoor terminals, etc.



## Possesses R&D, manufacturing, and sales departments in Europe



## Systemair AC SAS

Systemair S.r.l.

Tecnair S.p.A

## R&D and manufacturing



Tillières-sur-Avre  
(Paris, France)

R&D department and testing facilities,  
production equipment and warehouses

Sales



Barlassina  
(Milan, Italy)

Has sales functions in the business

Air conditioning biz sales 63 Million euro (FY2022)

# Potential Synergy

Synergy by M&A

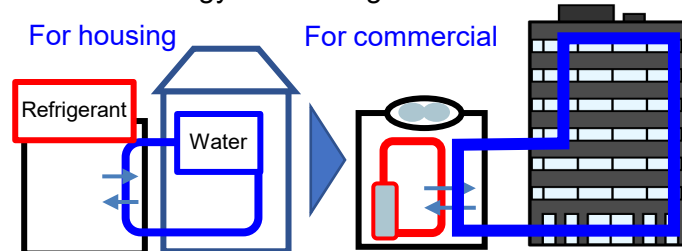
## Strengthen environmental technology

### Enhance product capacity

- Commercial air-conditioning technology + Inverter technology
- Strengthen R290 efforts

### Promote development of hot water supply/heating systems

Water circulation technology + A2W technology for housing



## Strengthen customer touchpoints

### Develop the circular business

- IT/cloud utilization
- Installers
- Securing accounts
- Strengthen sales using the Panasonic sales network



## Operational reform

### Strengthen procurement capabilities

Procurement in Europe + Panasonic Global Procurement systems



Collaboration with Systemair AB

## Collaboration with air quality business

Systemair: Commercial air quality (ventilation) technology

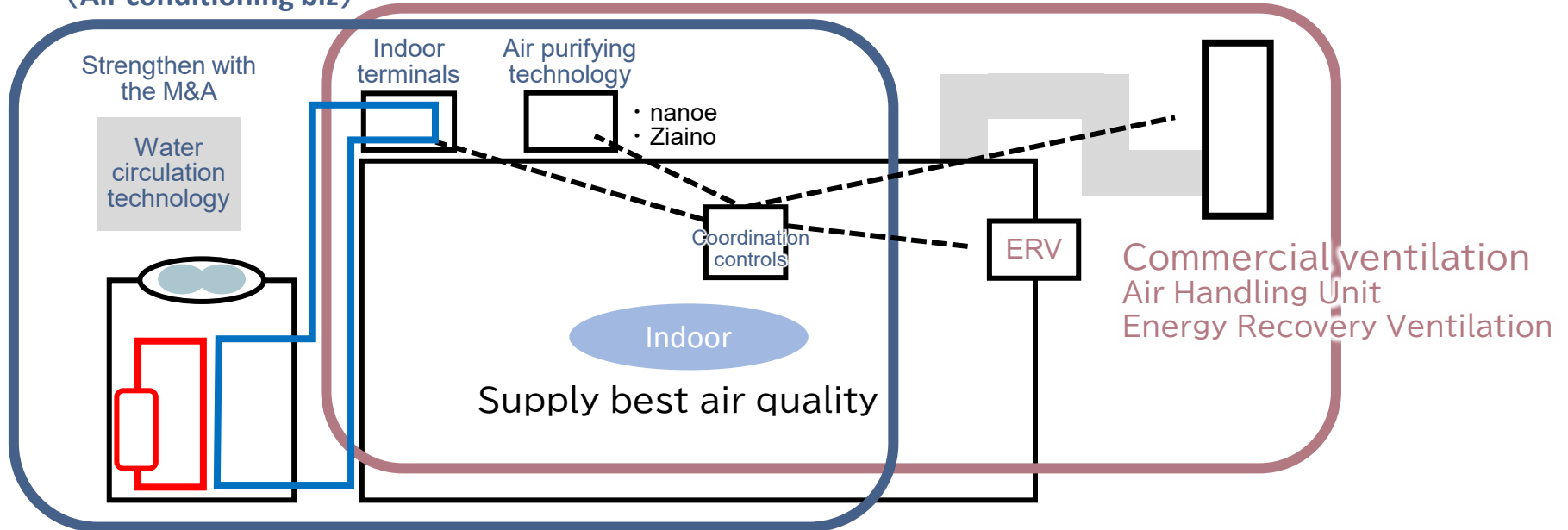
Panasonic: Original purification technology/ highly efficient technology

# Initiatives to Boost Value Going Forward

## ⑥Strengthen Commercial biz

### Strengthen development by owned R&D base (Air conditioning biz)

### Initiatives in collaboration with partners



Strengthen resources

Promote water circulation development

Development of air quality and air conditioning integration

Development of solutions

Strengthen collaboration

Integration of air quality technology

Ventilation linkage (Energy saving)

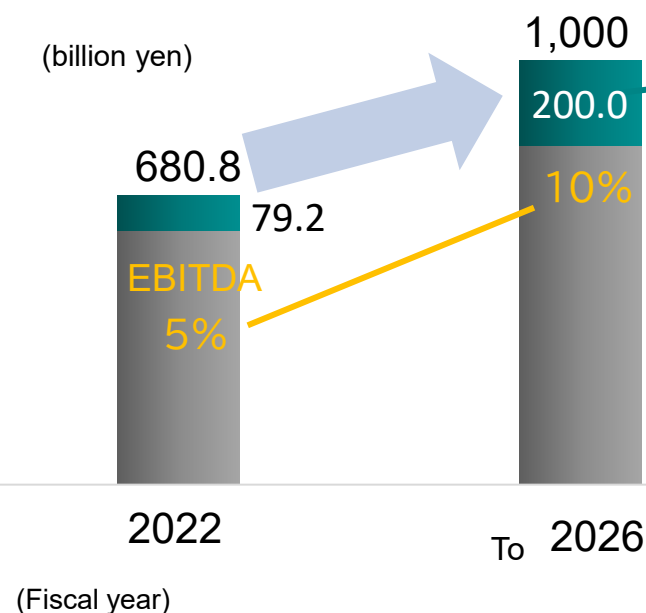
Link to air handlers

Links with highly efficient technology

# HVAC Company mid term target

## Sales : 1 Trillion yen / EBITDA : over 10%

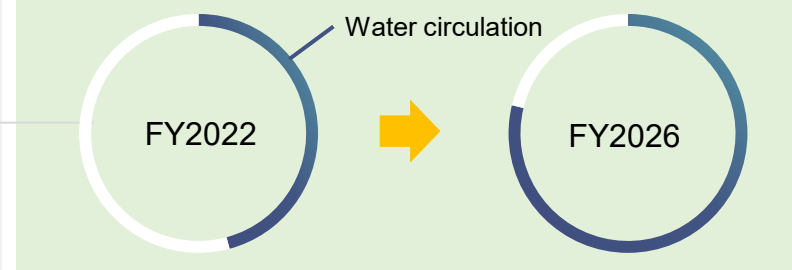
### HVAC Company Business Target



### European business

FY2026  
Aim for 200 billion yen  
CAGR 25% or more  
(2022-2026)

### Changes in the composition ratio by categories



### Execution of strategic investment

Strategic investment to expand the European business up to FY2026

100 million euro

Systemair AB  
Air-conditioning business

+

Strengthen the A2W business, etc.  
Approx. 50 billion yen

Strengthen A2W production structure

Adopt natural refrigerant R290

Strengthen customer touchpoints

Enhance R&D capabilities

With expansion of European business as a trigger, achieve our FY2026 target ahead of schedule.

**Panasonic**

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