

# LIFE BUSINESS AREA

## 2024

## Life Business Area

MITSUBISHI ELECTRIC CORPORATION

May 29, 2024



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# Executive Summary

Aim to become a solution provider that creates comfortable, safe and secure environments in all living spaces by promoting growth and synergy strategies in the HVAC&R Business and Building Systems Business.

**FY2026 targets** ————— **Aim for a revenue of 2.3 trillion yen and an operating profit margin of 9% or more.**

**FY2024 progress** ————— **The air-conditioning market in Europe and the U.S. was affected by changes in the market, with a revenue of 2.1 trillion yen and an operating profit margin of 7.1%.**

### Growth targets

( ): Value announced on May 2023(IR Day)

		FY2024 actual	FY2025 plan	FY2026 target
Air Conditioning Systems & Home Products	Revenue	¥1,426.7 bn	¥1,450.0 bn	¥1.6 tn (¥1.7 tn)
	Operating profit margin	6.2%	7.3%	9% (11%)
Building Systems	Revenue	¥625.5 bn	¥630.0 bn	¥0.7 tn (¥0.7 tn)
	Operating profit margin	9.1%	8.3%	10% (10%)
Life BA	Revenue	¥2,052.2 bn	¥2,080.0 bn	¥2.3 tn (¥2.4 tn)
	Operating profit margin	7.1%	7.6%	9% (11%)

#### A/C Systems & Home Products Business

Air Conditioning Systems & Home Products Business will continue to have mid-term growth potential in the market, although market expansion will stagnate in the short term due to changes of market environments in Europe and the U.S. Invest resources in the HVAC&R\* Business, centered on the A/C & Refrigeration Systems Business, while monitoring market recovery, responding to refrigerant conversion, and strengthening the business foundation.

#### Building Systems Business

In the Building Systems Business, key strategies were executed as planned despite the stagnant real estate market in China. Steadily improve profitability by enhancing recurring revenue business model, strengthen the portfolio of elevator products, and reap the effect of business integration by Mitsubishi Electric Building Solutions Corporation, to further enhance Building Solutions Business.

#### Life BA

Life BA will utilize the components of the A/C & Refrigeration Systems Business and the knowledge and assets of the recurring revenue business model of the Building Business to expand its Circular Business foundation connected to its customers and aim to create innovative new value through digital engineering.

\*HVAC&R is an acronym for Heating, Ventilation, Air Conditioning & Refrigeration, standing for equipment and facilities relating to the foregoing.

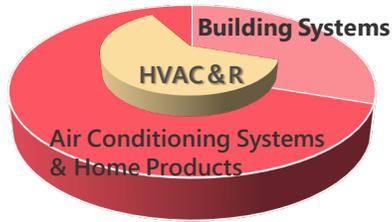
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## Business Structure

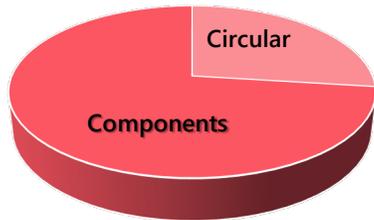
Life BA consists of Air Conditioning Systems & Home Products segment centering on HVAC&R area and Building Systems segment. It operates the strong Components Business and Circular Businesses such as maintenance and services mainly for buildings.

### Life BA Revenue\*

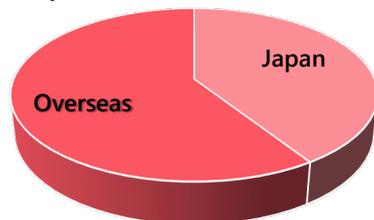
<By segment>



<By business system>

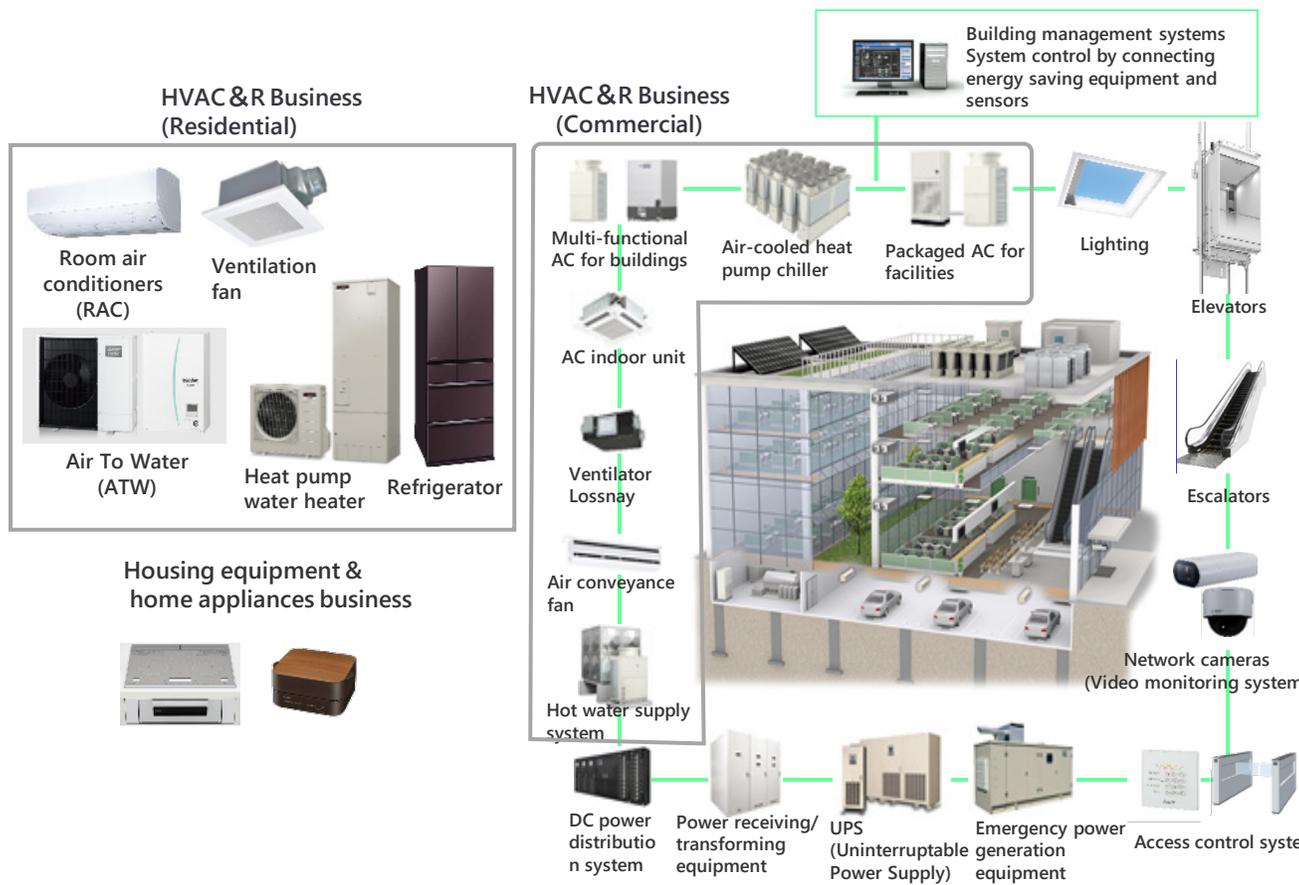


<Japan/overseas ratio>



\*FY2024 Actual

### Components Business



### Circular Businesses

**Facility management service**

- Equipment sales, manufacturing, installation
- Maintenance and repair, remote monitoring
- Renewal

**Whole building service**

- One stop proposals (From consultation on introduction to support)
- Energy management
- Smart solution proposals

**Energy management service**

**Mobility support service using robots**

**Remote monitoring / maintenance service "MEL<~るLINK"**

Smooth communication when faults occur

**Air-conditioning and refrigeration circulating businesses and services**

Europe U.S.

# 3

## A/C Systems & Home Products Business

# A/C & Refrigeration Systems Business: Market Environment and Industry Position

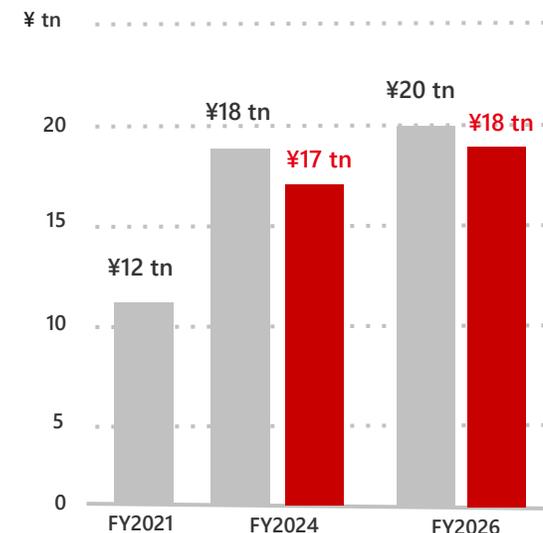
## Market environment

- Although our focus markets in Europe and the U.S. are recently stagnant due to rising cost of living and sluggish housing demand, the heat pump air conditioning market will continue to expand on a global basis.
- Demand for heat pumps is growing as a demand for heating thermal energy conversion due to the carbon neutrality requirements associated with global warming.
- Energy conservation and conversion to low-GWP refrigerants are progressing as a demand to reduce environmental impact.
- Structural changes in new equipment portfolios, such as the water system\* instead of the direct expansion system\*, are underway

	Market trends (by region)	Growth trend
Europe	<ul style="list-style-type: none"> <li>• Reduction of ATW incentives and postponement of fossil fuel regulations have temporarily slowed a shift in thermal energy conversion (from gas heating combustion system to electric heat pumps).</li> <li>• The direction of medium- and long-term F-gas regulations will not change, and a shift to low GWP (natural) refrigerants and water air-conditioning systems that use less refrigerant is expected.</li> </ul>	
U.S.	<ul style="list-style-type: none"> <li>• Weak demand for new housing has led to a significant decline in demand for household products compared to initial expectations.</li> <li>• The trend toward decarbonization, which is a state policy, will not change, and demand for highly efficient ductless products is expected to recover moderately from FY2026 onwards.</li> </ul>	
India	<ul style="list-style-type: none"> <li>• Population growth, economic growth and rising temperatures will continue to increase demand for air conditioning, and inverter rate is expected to expand. Demand for maintenance is increasing.</li> </ul>	
Japan	<ul style="list-style-type: none"> <li>• Growth in residential use was sluggish due to rising cost of living and other factors. Commercial use is also expected to stagnate due to labor shortages, such as Japan's so-called "2024 problem."</li> </ul>	
China	<ul style="list-style-type: none"> <li>• Declining economic growth and a slowdown in the real estate housing market slowed demand for air conditioning.</li> </ul>	
SE Asia	<ul style="list-style-type: none"> <li>• Market growth due to a rebound from COVID-19.</li> </ul>	

## Global demand

Value announced on May 2023 (IR Day)  
 Updated value this time



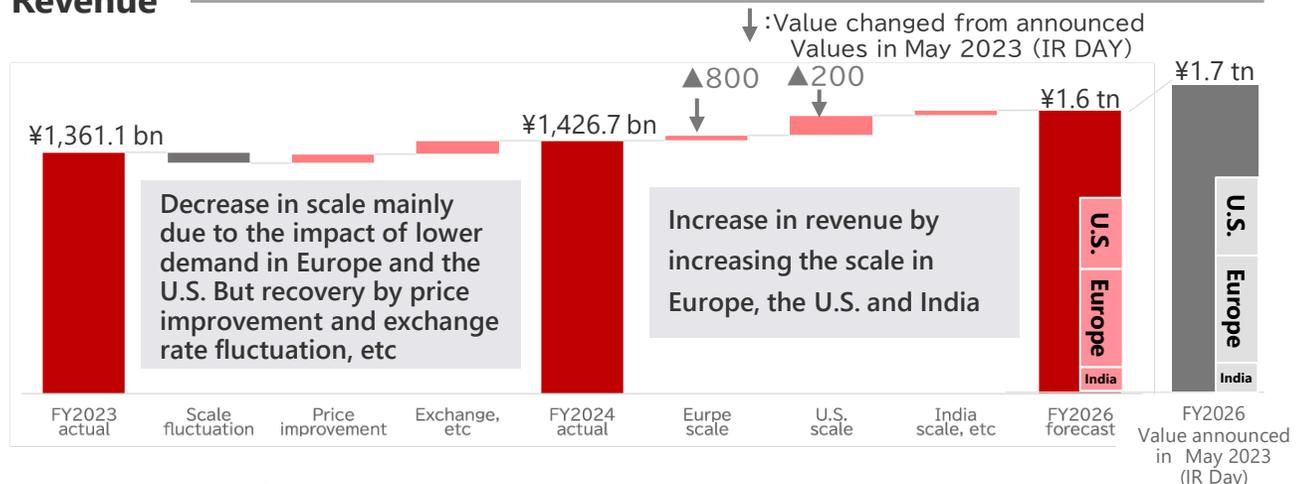
\*P28 Detailed explanations provided in the appendix

# A/C Systems & Home Products Business : Mid-term Plan

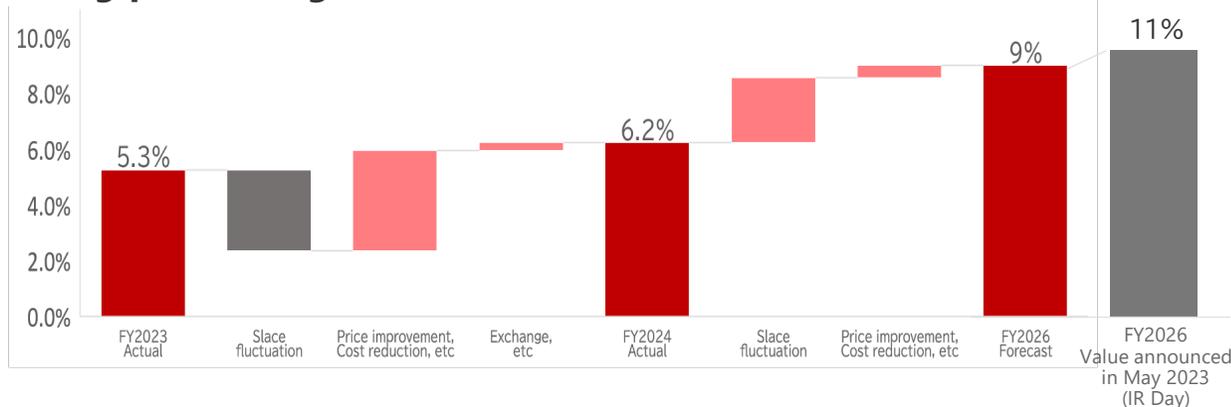
Although the initial plan has been revised due to recent changes in the European and U.S. markets, we will continue our growth strategy centered on Europe, the U.S., and India, with an eye on recovery.

## Air Conditioning Systems & Home Products Business mid-term plan

### Revenue



### Operating profit margin



Issues arising from market trends	Our response
Response to heat pump	Further improvement of efficiency through power semiconductors, inverters, and refrigeration cycle technology
Conversion to low-GWP refrigerants	Compressor technology able to fully utilize the new refrigerant ➤ U.S.: Ultra-low GWP refrigerant R454B ➤ Europe: Natural refrigerant R290
Structural changes in the new equipment portfolio	Support direct expansion system* → water system* + hybrid system combining water system* + ATW* device support Based on regional strategies, • Our core technologies + alliance with other companies ➤ U.S.: Alliance with Trane Technologies • Strengthen lineup through M&A ➤ Europe: Acquisition of a hydronic air conditioning company
Strengthening of business foundation	• Accelerate local production/local consumption including supply chain management • Insider shift in relation to protectionism • Strengthen regional strategies (R&D centers by region, etc.)
Strengthen Circular Businesses	Europe: Service business expansion through acquisition of maintenance companies

\*P28 Detailed explanations provided in the appendix

Although the initial plan has been revised due to recent changes in the European and U.S. markets, we will continue our growth strategy centered on Europe, the U.S., and India, with an eye on recovery.

#### Key strategy 1

#### Introduce higher efficiency products and products that compliant with refrigerant regulations in response to carbon neutrality

- Strengthen heat pump development through power electronics, higher efficiency, and refrigerant cycle technologies
- Adapt to low GWP refrigerants in accordance with regulations in each region
- Respond to changes in equipment portfolios in accordance with the needs in each region (Development of facility portfolio for direct expansion/water systems, hybrids, ATW, etc.)

#### Key strategy 2

#### Continue to promote measures for strengthening of business foundation based on changes in growth markets

- Localization of R&D, local procurement of functional components, etc.
- Continue to promote regional strategies based on local production for local consumption in the European, U.S., and Indian markets

#### Key strategy 3

#### Strengthen connection with customers through Circular Businesses (installation/maintenance, operation control/renewal)

- Strengthen Circular Businesses that starts by connecting with customers through remote monitoring of device operation status and maintenance contracts, etc., and develop a global maintenance system (M&A, etc.)

Although the initial plan has been revised due to recent changes in the European and U.S. markets, we will continue our growth strategy centered on Europe, the U.S., and India, with an eye on recovery.

### Introduce higher efficiency products and products that compliant with refrigerant regulations

#### Strengthen development of natural / ultra-low GWP refrigerant

Further refine our energy-saving and environmental-conscious technologies to contribute to a decarbonized society

- Europe: Natural refrigerant R290 adopted
  - ◆ ATW: FY2024 introduction completed/number of models increased
  - ◆ Room air conditioners: To be introduced in second half of FY2025
- U.S.: Ultra-low GWP refrigerant R454B adopted
  - ◆ Room air conditioners: To be introduced in second half of FY2025

#### Strengthen applied business in Europe

Strengthen water air-conditioning business (Compliance with environmental regulations/strengthen proposal ability for DC business, etc.)

- Implement M&A with an air-conditioning company, AIRCALO (completion April 2024) to secure wide lineup of hydronic HVAC systems and customization ability

#### Alliance with U.S. company, Trane Technologies

Further expand areas of collaboration

- Supplementing the Components Business - Supplement mutual development and supply of Trane's applied/unitary equipment and Mitsubishi Electric's ductless systems (RAC/PAC\*/VRF)
- Sales channel collaboration - Mutual utilization of strong sales channels of both companies in each region
- Development collaboration - Mutual utilization of compressor and inverter technologies, etc. and integration with unitary technology
- Manufacturing collaboration - Collaboration in manufacturing and procurement, etc.

\*PAC: Packaged Air Conditioner

### Strengthening of business foundation

#### Strengthen global development capability

Strengthen the foundations for self-sustained development and local R&D centers in each region to implement locally driven development that meets regional needs.

- Strengthen overseas R&D function
  - Europe: MEHITS\*, strengthen R&D function for commercial chillers
  - U.S.: Expand domain from control system development to component development
  - Asia: Plan to establish an R&D center at a local manufacturing site in India
- Establish a development department for DX Innovation Center collaboration and business co-creation

Execute streamlining and optimization of development on a global scale

- Transfer the global development control function of Japan to Asia R&D, and focus on advanced development in Japan
- Leverage the strengths of development in other regions to divert and contribute to global development

#### Capital expenditure for new installation/strengthen for air conditioner production

Establish global business foundation by strengthening local production for local consumption in Europe, the U.S., and India

- Utilize existing site as insider bases in North America
  - Consider the use of existing site in the U.S. and the establishment of site through government subsidies in order to accelerate establishment of in-country presence and achieve local production for local consumption
- Invest in site in India, which is a key growth market
  - Promote investment in RAC Business with an eye to low procurement costs and development of competitive models through local production for local consumption
- Invest in site for heat pump expansion in Europe
  - Continue to invest in residential ATW Business while keeping an eye on market trends



### Promote strengthening of Circular Businesses

#### Develop maintenance systems by region

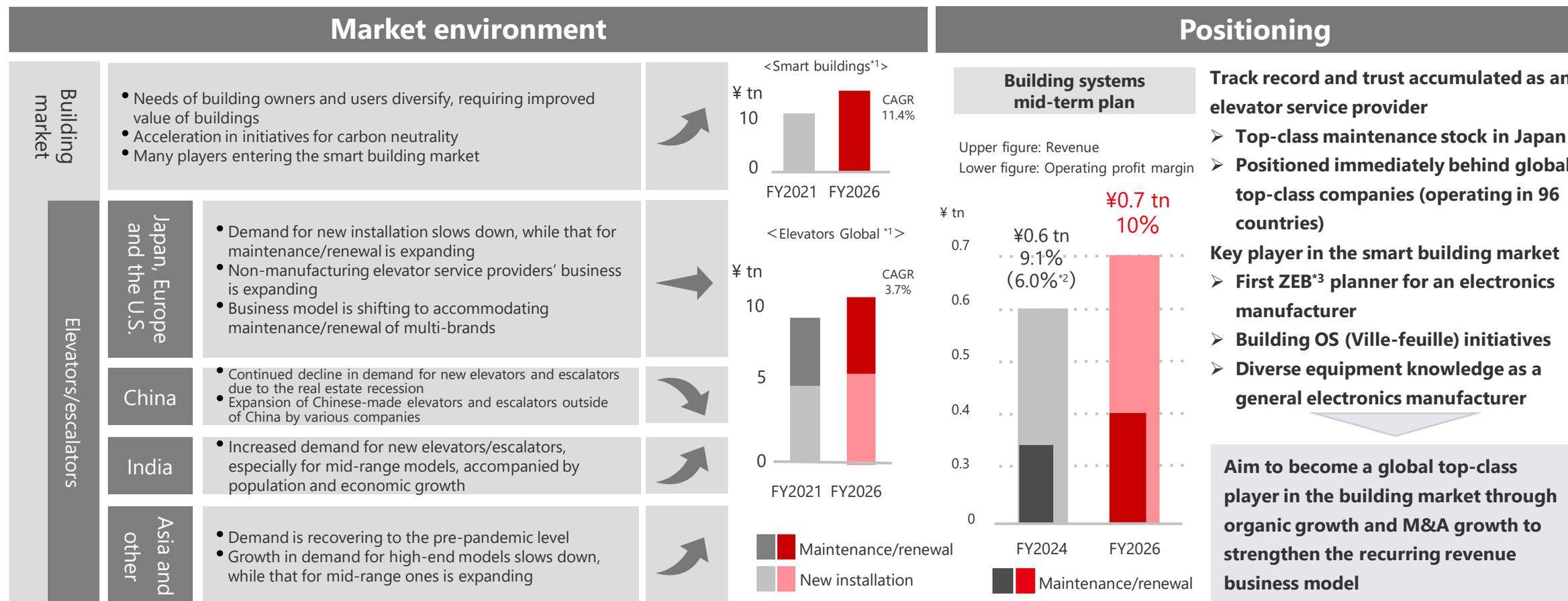
- U.S.: Plan to launch "KUMO Cloud" for residential use and "KENZA Cloud" for commercial use on the market, and expand services such as remote monitoring functions and support for commissioning and maintenance
- Japan: Use "MEL<~>LINK" and other Mitsubishi Electric tools to establish a domestic service system for simple inspections in compliance with the Act on Rational Use and Proper Management of Fluorocarbons and remote monitoring of micro-combustible refrigerants
- Europe: M&A of Zilioli S.r.l. to strengthen maintenance business (completed in January 2024)

\*MEHITS: Mitsubishi Electric Hydronics & IT Cooling Systems S.p.A

# 4

## Building Systems Business

While China's demand for new elevators/escalators is declining, maintenance and renewal, which are growing steadily, are focus areas. By region, mid-range demand is expanding, including the Indian market. The mid-term strategy of the Building Systems Business is progressing almost as planned in each strategy.



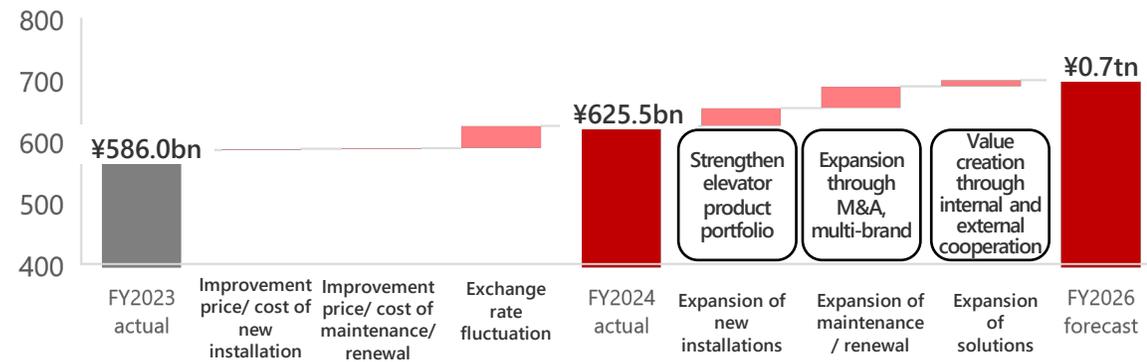
\*1 Assumed values by Mitsubishi Electric. For Smart Buildings, it includes facility monitoring and control function and data linkage function in building management on a global scale.

\*2 Excluding proceeds from sale of property, plant and equipment    \*3 ZEB: Net Zero Energy Building

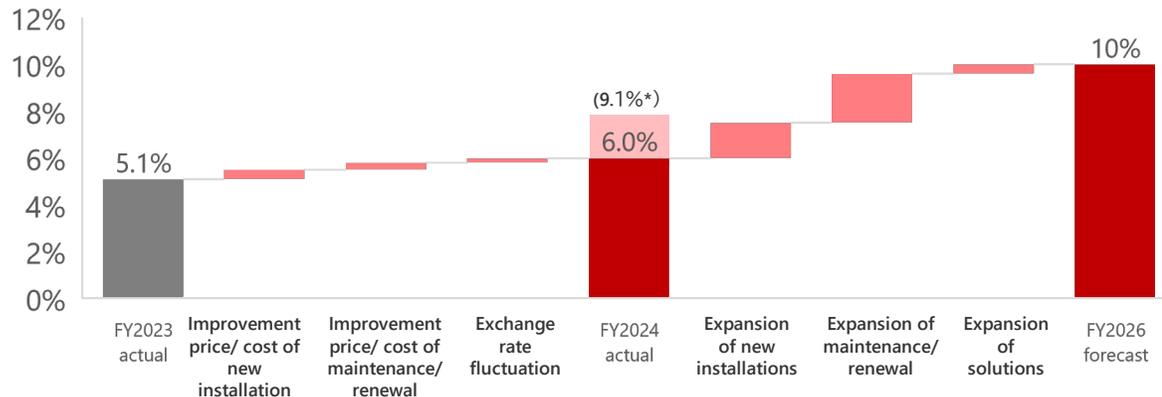
Promote key strategies and respond flexibly to changes in the business environment while steadily achieving mid-term targets

### Effects of key strategies

#### Revenue



#### Operating profit margin



\*Including proceeds from sale of property, plant and equipment

### Key strategies

- Expand recurring revenue business model centered on elevators and escalators on a global basis
- Elevator/escalator stock: 1 million units to 1.3 million units

#### Key strategy 1

Strengthening the portfolio of elevators to enhance the medium-high- and mid-range model market

#### Key strategy 2

- Increase the number of units for maintenance/renewal
- Scale-up of new installation of elevators/escalators (linked to Key strategy 1)
  - Improve maintenance service contract rate
  - Expand maintenance/renewal of multi-brands

#### Key strategy 3

Demonstrate synergy through collaboration within the company (A/C & Refrigeration Systems Business, each BA), outside the company, etc.

#### Key strategy 4

Shift resources and improve asset efficiency to build an optimum one-stop business structure, spanning development to production, sales, maintenance and renewal

Increase the number of new installation/maintenance elevators and escalators and create solutions, in order to promote business strategy and strengthen our platform steadily in a well-balanced way

Sales, manufacturing and development strategies

### Strengthen the product portfolio of elevators to enhance the medium-high- and mid-range model market

- Reinforce both global models and regional strategic models



**NEXIEZ-Fit**  
Elevator for low-rise residential building for the global market



**LEHY**  
SMEC\*-made elevator for the global market



**DeLITE**  
Machine-room-less elevator for India



**MOVE**  
Machine-room-less elevator for Europe

### Accelerate the shift to self-sustaining global production and development bases

- Optimize global supply chain management to develop strategic models
- Strengthen development by establishing a global R&D system
  - Establishment of a global manufacturing and development system centered on Japan, Thailand, and China
  - Reinforcement of the system to manufacture regional strategic models within the region  
(South Korea, Taiwan, Indonesia, India, the Netherlands, Mexico, Columbia, etc.)

### Maintenance/renewal expansion

- Improve maintenance service contracts by cooperation with Hanshin Yusoki Co., Ltd.
- Strengthen service through remote monitoring systems, etc.
- Leverage Motum's expertise to expand multi-brand maintenance and renewal globally



### Solution creation and social contribution through collaboration within the company (A/C & Refrigeration Systems Business, Infrastructure BA), outside the company, etc.

- Strengthening of the energy management service
- Provision of new value through co-creation with external parties
- Providing BUILDDAYS®, a smartphone platform app for office buildings

\*SMEC: Shanghai Mitsubishi Elevator Co., Ltd.

Increase the number of new installation/maintenance elevators and escalators and create solutions, in order to promote business strategy and strengthen our platform steadily in a well-balanced way

### Foundation enhancement (including M&As)

#### Business integration (April 2022) to enhance our foundations through a one-stop business structure from new installation to maintenance and renewal

- Increase capability to offer one-stop service to customers and improve service quality
- Accelerate investment in information technology (strengthen data utilization infrastructure)
- Acceleration of capital reorganization within the Group
  - Domestic subsidiary reorganization: December 2023, etc.
  - Capital reorganization of overseas affiliates (excluding China)
- Further streamlining operations in response to labor shortages
  - Development of a new elevator construction method that shortens construction period and saves resources
  - Introduction of moving offices to improve efficiency of renewal work in remote areas

#### Further business expansion through M&As and collaboration

- M&A of companies engaging in elevator/escalator business focused on Europe and the U.S.
- Build an alliance system with domestic independent maintenance operators



Hanshin Yusoki (Japan)  
From 2020



Den hållbara hiss- och portkoncernen

Motum (Sweden)  
From 2022

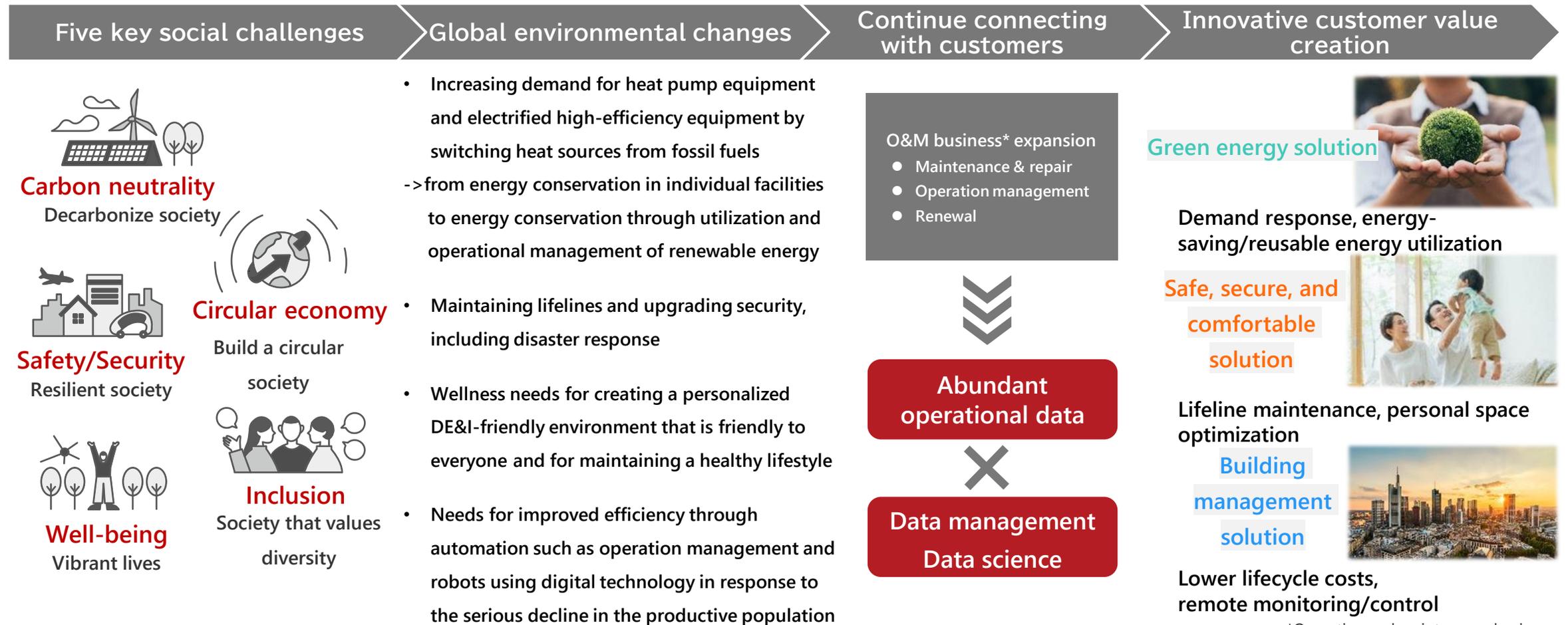
Continued investment  
in strategic regions  
(Japan, Europe and  
the U.S.)

5

## Life Business Area: Ideal Form

Aiming to be a solution provider that creates comfortable, safe and secure environments in all living spaces

As social issues and market environments change and new values emerge, it is imperative to provide Circular Businesses that stay connected to our customers in order to continuously improve customer value



# 6

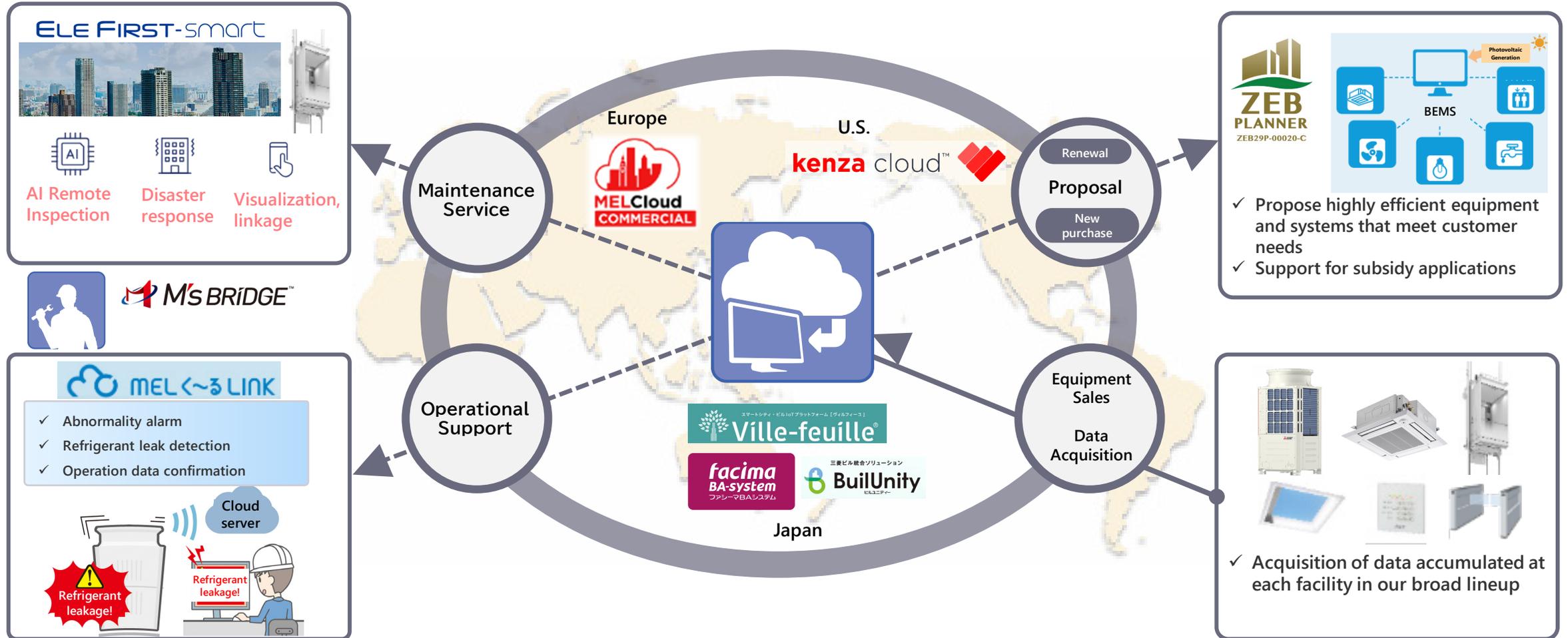
## Expansion of Circular Businesses That Stay Connected with Customers

# Expansion of Circular Businesses That Stay Connected with Customers

## 6. Expansion of Circular Businesses That Stay Connected with Customers

Global development of Circular Businesses such as maintenance and operation management services that keep customers connected to us

Strengthen the mutual collaboration between the A/C & Refrigeration Systems Business and the Building Systems Business within Circular Businesses to create unique and innovative value



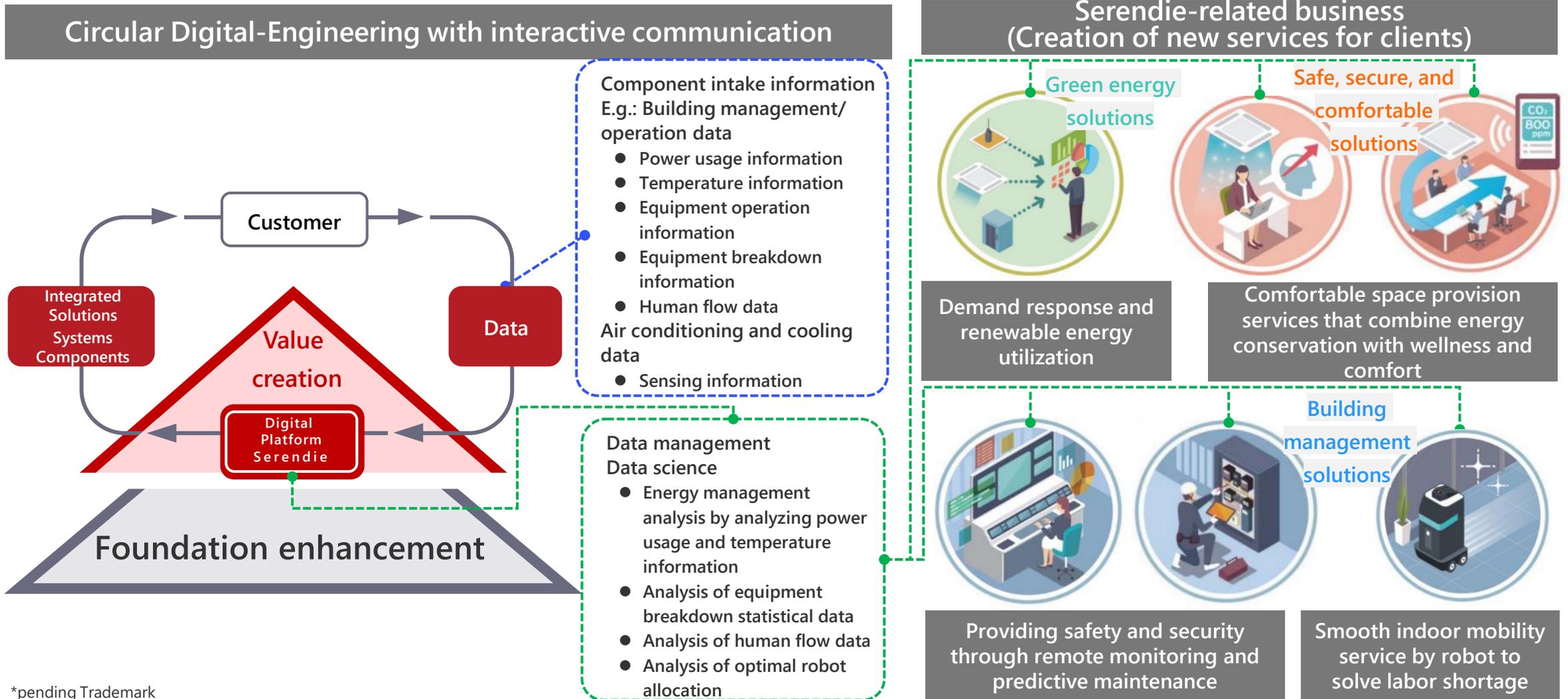
**7**

## **Circular Digital-Engineering Business: Serendie-related Business**

# Circular Digital-Engineering: Serendie\*-related Business

## 7. Circular Digital-Engineering: Serendie-related Business

Creating new services to solve social issues by analyzing diverse operational data obtained from businesses connected to customers.



\*pending Trademark

# Circular Digital-Engineering: Serendie-related Business

## 7. Circular Digital-Engineering: Serendie-related Business

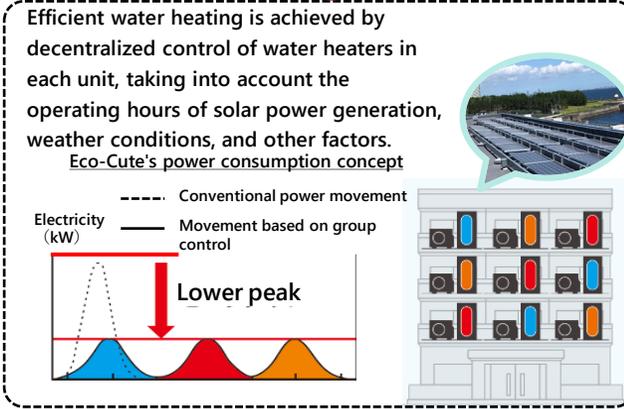
First in Japan\*! Eco-Cute becomes a storage battery  
 "Solei-Yu" – a ZEH model that reduces 38% of annual utility costs

Green energy

### Utilizing Mitsubishi Eco-Cute

#### "group control system" for efficient water heating distribution

- Large-capacity solar power generation system shared by the entire condominium
- Mitsubishi Electric's "group control system" allows water to be heated during the daytime and 100% of solar power generation to be consumed in-house without waste, further reducing electricity costs by lowering peaks



Elevator remote maintenance service that leverages AI and other advanced technologies to the fullest

Building management

Safe, secure, and comfortable

### "ELE FIRST-smart"

- Preventive maintenance with AI remote inspection system
- Responding to the suspension of operations due to earthquakes and flood damage due to heavy rain



\*As an energy management system for large low-rise condominiums

Office improvement service  
 Providing a space environment that supports office presence search and promotion of well-being

Safe, secure, and comfortable

### Indoor environment monitoring system "MELRemo-IPS"

From employees' personal work computers...



Connections with people are visible

- ✓ Confirm the people present on a floor

Temperature of a space is visible and adjustable

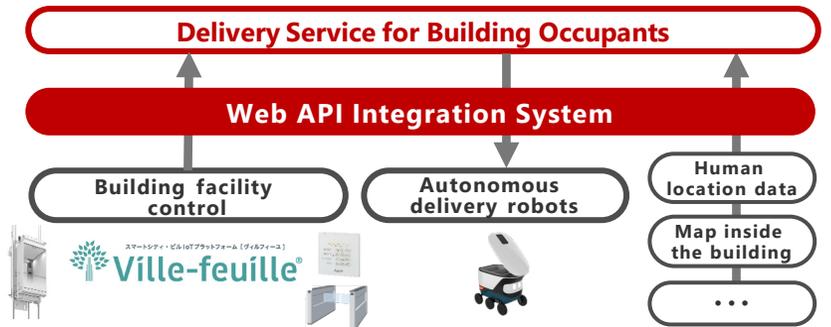
- ✓ Visualize the temperature status of an entire area
- ✓ Control air conditioning units at the palm of your hand

Food and beverages delivery service utilizing autonomous robots

Building management

### Robot mobility support utilizing the smart city/building IoT Platform

- Autonomous delivery robots transport food and beverages from nearby shops directly to the people of tenant in a building (under development)



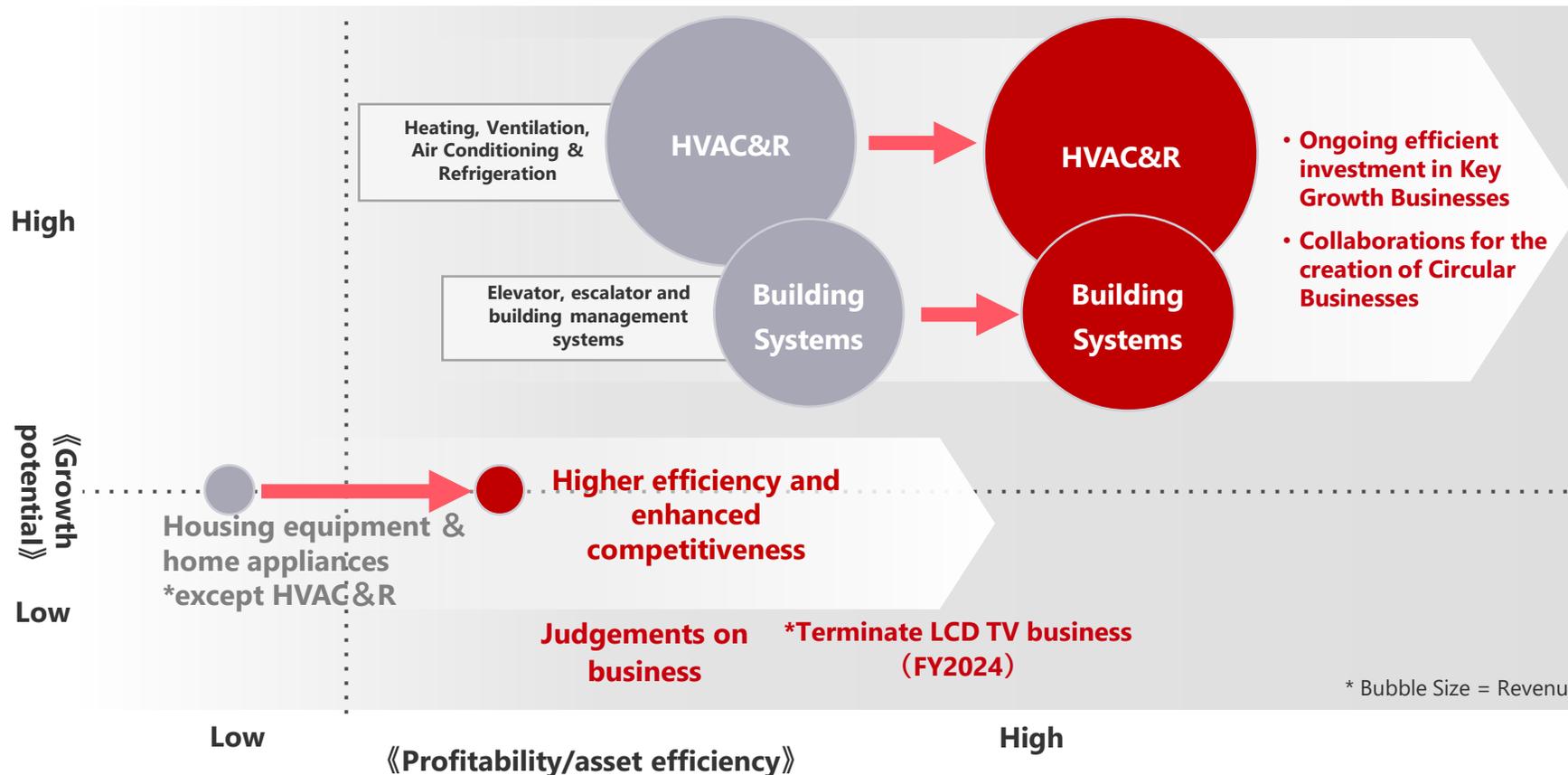
# 8

## Portfolio Strategy

Continue to concentrate resources into the core HVAC &R and Building Systems Business areas. Less profitable businesses falling below a certain threshold shall be terminated upon judging feasibility, to conduct resource shifting.

### Portfolio

### Key initiatives



### Collaborations for the creation of Circular Businesses

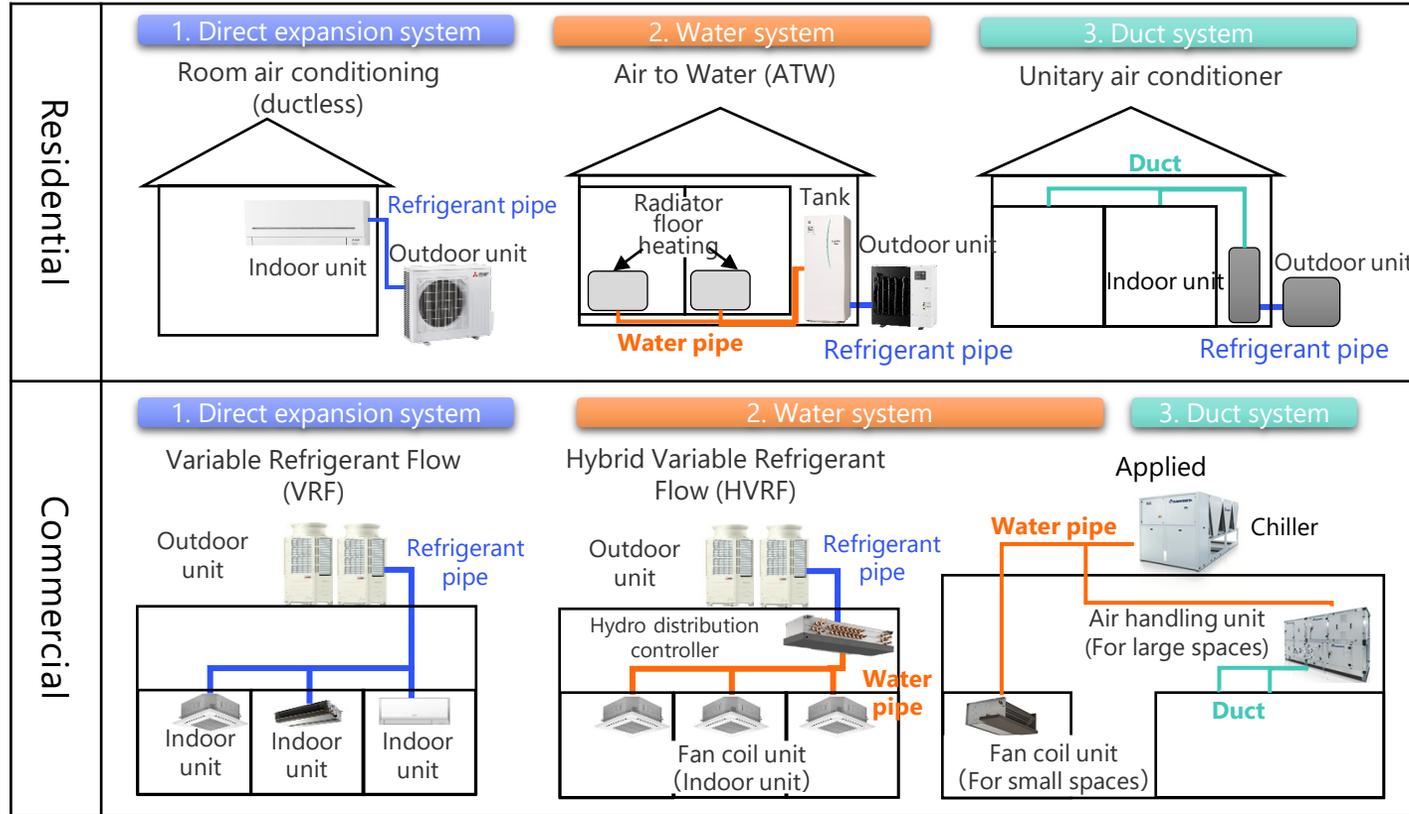
- Expansion of maintenance and renewal mainly in Europe and the U.S. through M&A
- Promotion of collaboration and M&A to expand business areas such as data management and application development

### Implementation of effective reorganization and integration

- Optimization of affiliate functions to establish an efficient service and construction system
- Integration at the division and plant level

# Appendix

## Differences in air conditioning systems



## Characteristics by region

Area	1. Direct expansion system	2. Water system	3. Duct system, etc.
Global	Approx. 60%	Approx. 20%	Approx. 20%
Japan	Approx. 90%	Approx. 10%	A few %
Europe	Approx. 50%	Approx. 50%	A few %
U.S.	Approx. 10%	Approx. 20%	Approx. 70% Unitary, rooftop
China	Approx. 90%	Approx. 10%	A few %
Asia	Approx. 80%	Approx. 10%	A few %

- 1. Direct expansion system:** Refrigerant is transported directly to the target space by piping and heat-exchanged with air
- 2. Water system:** Water that has been cooled and heated by heat exchange with a refrigerant is transferred to the target space, where it is again heat-exchanged with air
- 3. Duct system:** Heating and cooling is performed by transporting air that has undergone heat-exchange with a refrigerant to the target space via ducts

## FY2024 Sales by region

Region	Units	Y o Y (%)
Japan	Monetary	100% (100%)
U.S.	Monetary	91% ( 85%)
Europe	Monetary	114% (103%)
China	Monetary	107% (102%)
Asia and others	Monetary	113% (107%)

( ): Excluding exchange rate effects

## FY2024 sales by region and major application

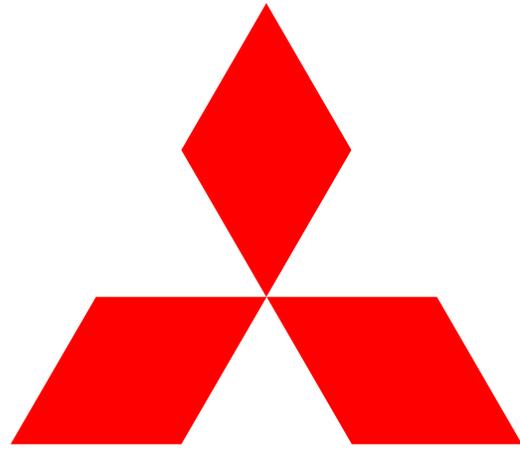
Region	Type of model	Units	Y o Y (%)
Japan	Residential	Number	97%
	Commercial	Number	106%
U.S.	Ductless (Residential)	Number	76%
Europe	Residential	Number	94%
	Commercial	Number	105%
	ATW	Number	94%
	Applied	Local currency	122%

## Cautionary Statement

While the statements herein, including the forecasts regarding the Mitsubishi Electric Group, are based on assumptions considered to be reasonable under the circumstances on the date of announcement, actual results may differ significantly from forecasts. The main factors materially affecting the expectations expressed herein include but are not limited to the following:

1. Changes in worldwide economic and social conditions, as well as regulations, taxation and other legislation
2. Changes in foreign currency exchange rates
3. Changes in stock markets
4. Changes in the fund-raising environment
5. Changes in the supply and demand of products, as well as the material procurement environment
6. Establishment of important patents, status of significant licenses and disputes related to key patents
7. Litigation and other legal proceedings
8. Issues related to quality and defects in products or services
9. Laws, regulations and issues related to the global environment, especially responses to climate change
10. Laws, regulations and issues related to human rights
11. Radical technological innovation, as well as the development, manufacturing and time-to-market of products using new technology
12. Business restructuring
13. Information security incidents
14. Large-scale disasters, including earthquakes, tsunamis, typhoons, volcanic eruptions and fires
15. Social, economic and political upheaval due to heightened geopolitical risks, war, conflict, terrorism or other factors
16. Social, economic and political upheaval due to pandemics or other factors
17. Important matters related to Mitsubishi Electric Corporation's directors and executive officers, major shareholders, affiliated companies and other stakeholders

\* This document has been translated from Japanese original for reference purpose only.  
In the event of any discrepancy between this document and the Japanese original, the original shall prevail.



**MITSUBISHI  
ELECTRIC**

*Changes for the Better*