

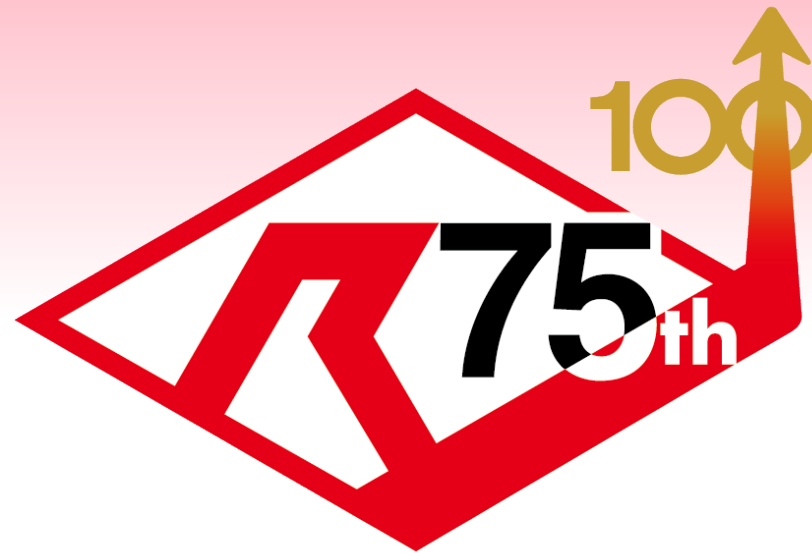


**Fiscal Year Ended March 2022**

# **Financial Results Briefing**

May 20, 2022

Ryoden Corporation



# Anniversary

**On April 22, 2022, Ryoden Corporation celebrated  
the 75th anniversary of its foundation**

- 1. Overview of the RYODEN Group**
- 2. Financial Results and Financial Conditions**
- 3. Future Management Strategy**



# **1. Overview of the RYODEN Group**



# Overview of Ryoden Corporation

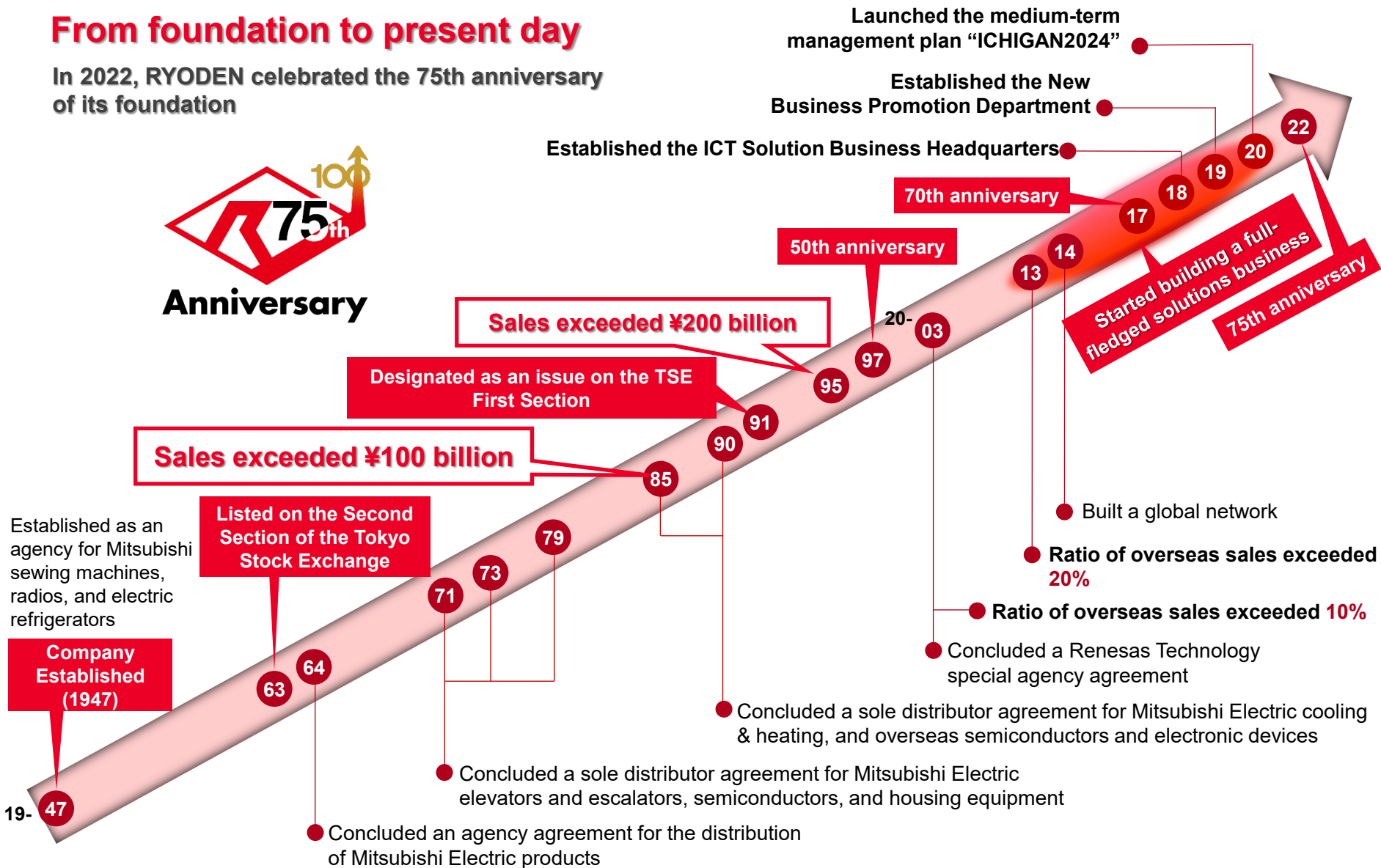


Trade name	Ryoden Corporation
Establishment	April 22, 1947
Head office	3-15-15, Higashi Ikebukuro, Toshima-ku, Tokyo
Capital	¥10,334,298,875 (As of April 1, 2022)
Stock	Listed on the Tokyo Stock Exchange Prime Market <Code: 8084>
Representative	Director of Board, President & CEO Nobuo Shogaki
Number of employees	Consolidated: 1,214 Non-consolidated: 1,016 (Both as of the end of March 2022)
Net sales	Consolidated: ¥229.1 billion Non-consolidated: ¥201.9 billion (Both for the term ended March 2022)
Associated companies	Subsidiaries: 18 (10 consolidated + 8 unconsolidated) Affiliates: 2 (to which the equity method is applied) Other associated companies: 1 (Mitsubishi Electric Corporation)

# History of the RYODEN Group

## From foundation to present day

In 2022, RYODEN celebrated the 75th anniversary of its foundation



In April 2023, the company name will be changed to:

# **RYODEN CORPORATION**

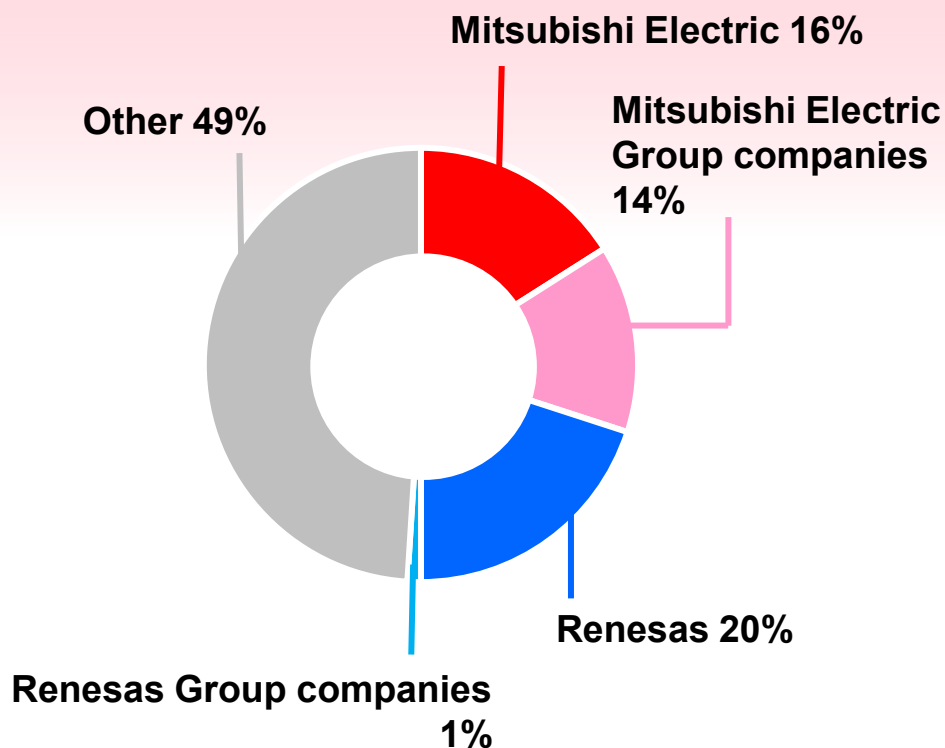
**From a trading firm to a company that contributes  
to realization of a sustainable society**

- Each and every one of the employees will create new value
- RYODEN will evolve into a global corporation full of vitality

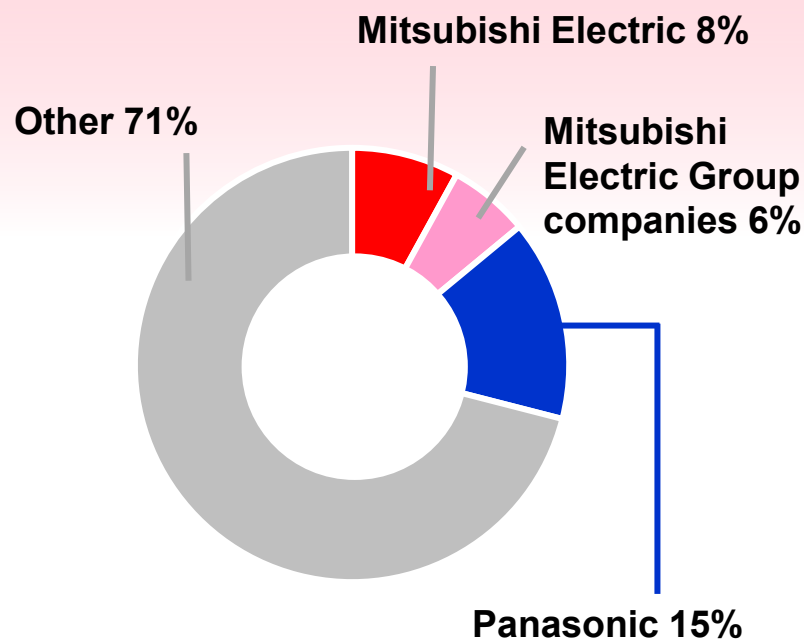
# Suppliers and Clients

Mitsubishi Electric- and Renesas-affiliated companies hold a comparatively large trading share among suppliers, and Mitsubishi Electric- and Panasonic-affiliated companies do so among clients, but others account for the majority of both suppliers and clients.

**Percentage of each supplier  
(on a purchase value basis)**



**Percentage of each client  
(on a sales value basis)**





# Global Business Development



RYODEN

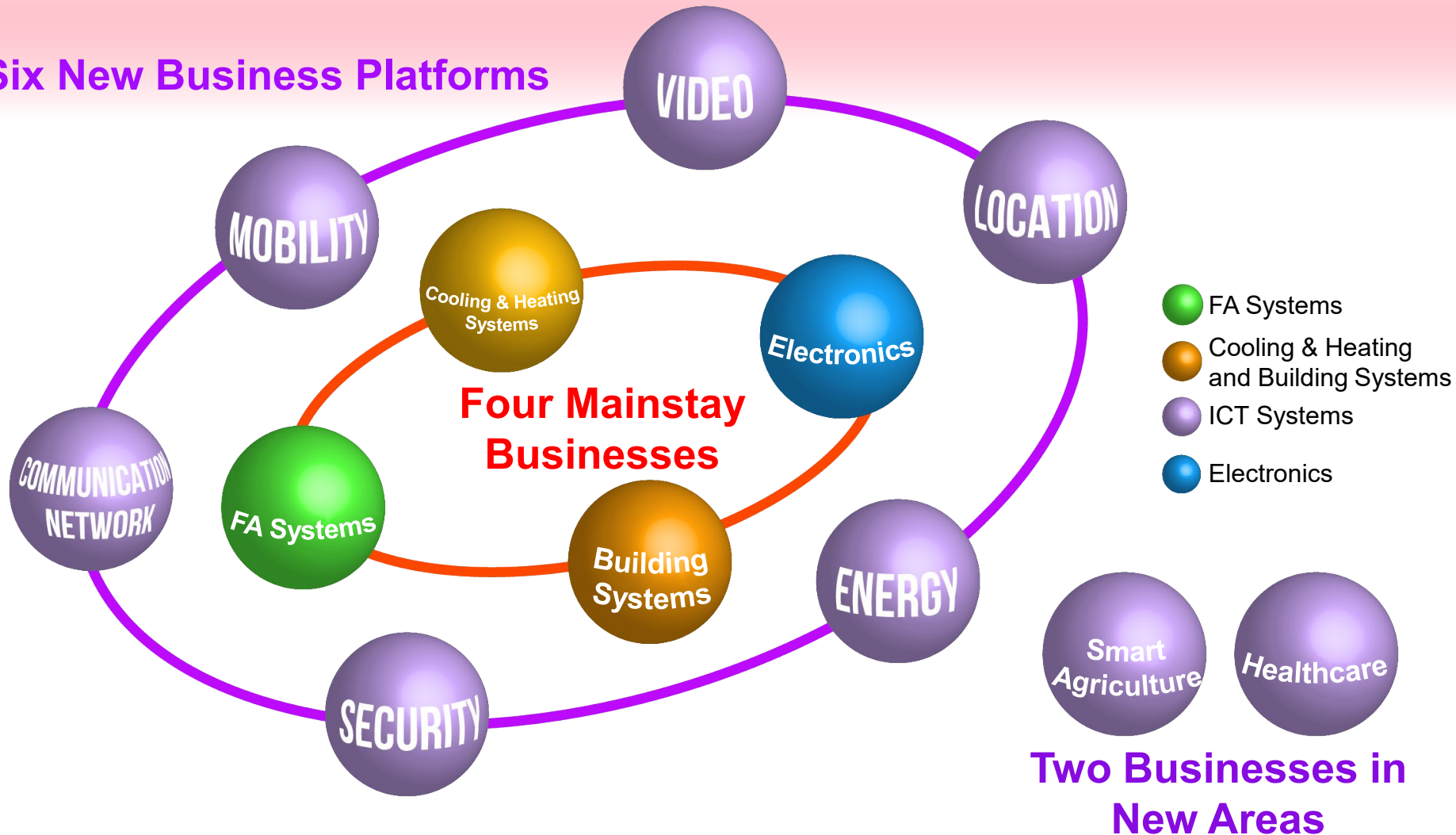
RYODEN whose global business consists mainly of overseas subsidiaries established in 11 countries and territories has a total of 19 bases, including branch offices.

**RYODEN has built a global business system by unifying strategy with regional markets in mind and establishing close cooperation among its networks.**



# RYODEN's Wide Range of Business Domains

## Six New Business Platforms



# Details of Business by Segment

Purchasing and selling FA system products, cooling & heating and building system products, ICT system products, and electronic products and providing services incidental to each business

## Sales (outer circle) and operating profit (inner circle) by segment

### Electronics

- Electronic devices
- Industrial systems, etc.



- Smart agriculture
- Healthcare
- Information and communications, etc.
  - Information solutions
  - Security solutions
  - Imaging and visual solutions

[Net sales] ¥154.4 billion/67.3%  
[Operating profit] ¥4.85 billion/65.6%



### ICT Systems

[Net sales] ¥6.9 billion/3.1%  
[Operating profit] ¥0.07 billion/1.0%

[Net sales] ¥42.9 billion/18.8%  
[Operating profit] ¥1.41 billion/19.1%

### FA Systems

- FA equipment systems
- Industrial mechatronics, etc.

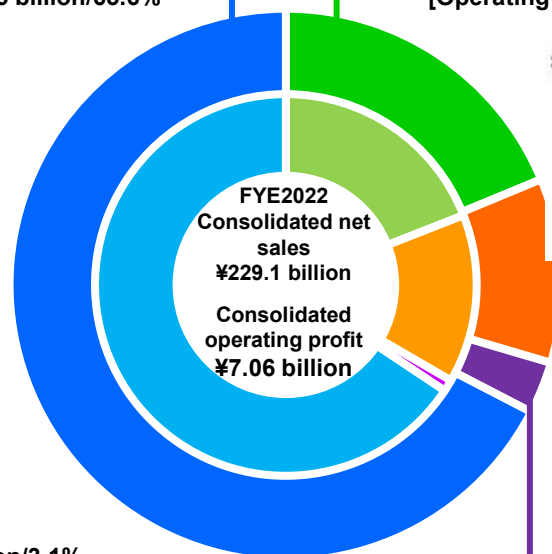


- Air-conditioning equipment
- Housing equipment
- Applied low-temperature equipment
- Construction of clean room equipment
- Industrial cooling & heating systems
- Building systems, etc.



[Net sales] ¥24.7 billion/10.8%  
[Operating profit] ¥1.05 billion/14.3%

### Cooling & Heating and Building Systems



\*For sales, any fractional sum of less than ¥100 million is disregarded, and for operating profit, any fractional sum of less than ¥10 million is disregarded.

\*Percentages indicate the component ratio of each segment.



## **2. Financial Results and Financial Conditions**



— Overview of financial results for the fiscal year ended March 2022 —

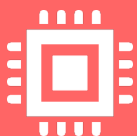
# Highlights of Financial Results (Consolidated)



COVID-19

## [Market trends]

- Continuous recovery from the decline due to the COVID-19 pandemic
- Disruption of supply chains, shortages of supply of semiconductors, and sharp rises in energy prices
- Demand for electronic components for in-vehicle and industrial equipment remained high, continuing to keep the supply-demand relationship for components and materials tight, while demand for machine tools for electric vehicles and semiconductor-related equipment continued to remain high



Shortages of  
supply of  
semiconductors

## [Situation of RYODEN]

- RYODEN entered the second year in its Medium-term Management Plan “**ICHIGAN2024**,” focusing on creating value as a business creation company



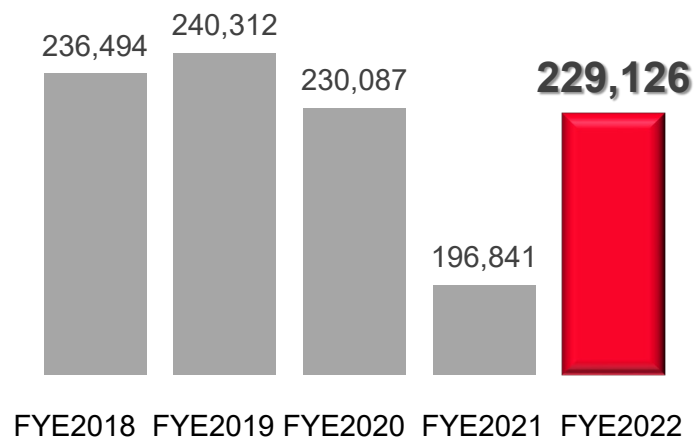
Situation in  
Ukraine

# Summary of Financial Results (Consolidated)

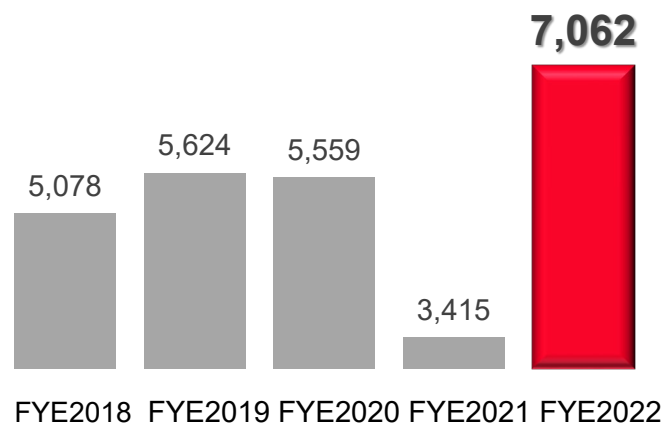
	<b>FYE2021</b> (Millions of yen)	<b>FYE2022</b> (Millions of yen)	<b>Year-on-year change (%)</b>
<b>Net sales</b>	196,841	229,126	16.4
<b>Gross profit</b>	21,843	26,147	19.7
<b>Operating profit</b>	3,415	7,062	106.7
<b>Ordinary profit</b>	3,653	7,285	99.4
<b>Profit attributable to owners of parent</b>	2,343	5,004	113.6

# Changes in the Most Recent Five Years [In millions of yen]

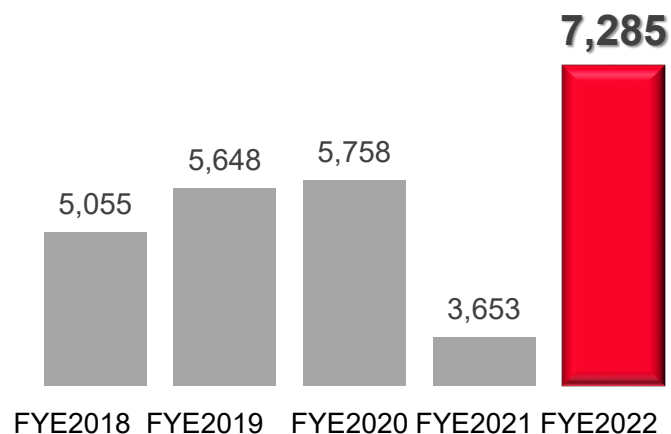
## Consolidated net sales



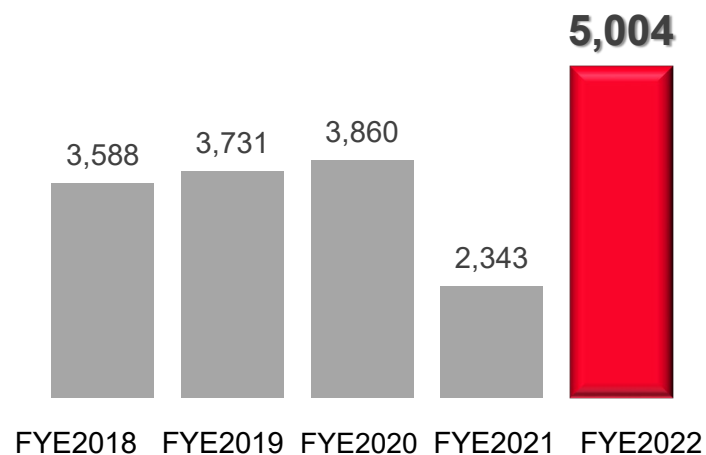
## Consolidated operating profit



## Consolidated ordinary profit



## Profit attributable to owners of parent



# Trends in Financial Results by Segment 1/4

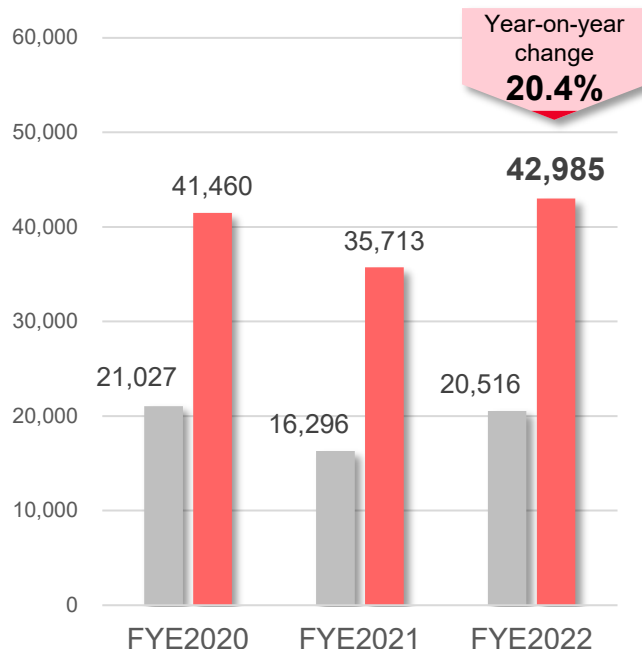
## FA Systems

FYE2022  
Proportion of net sales

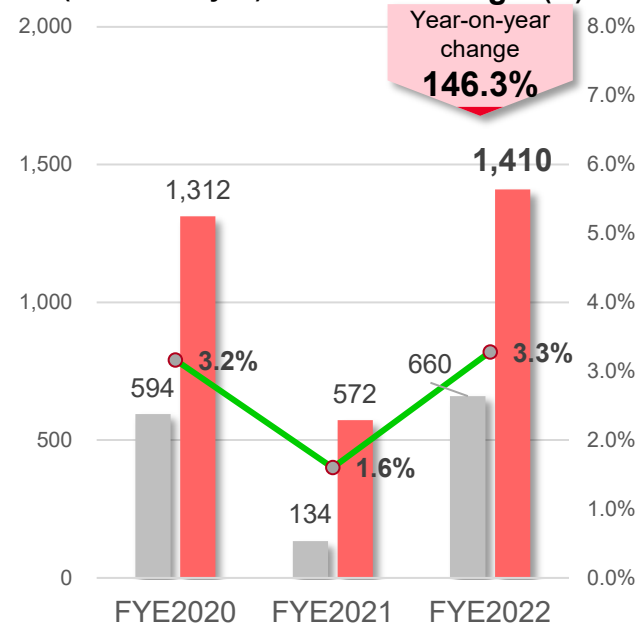
18.8%



Net sales (Millions of yen)



Operating profit (Millions of yen)



Operating profit margin (%)

Year-on-year change  
146.3%

## Main points

- Some of the systems handled were in short supply, but there were signs that capital investment projects for the manufacturing industry in Japan recovered.
- Sales of FA systems for semiconductor production equipment and machine tools continued to be brisk.



# Trends in Financial Results by Segment 2/4

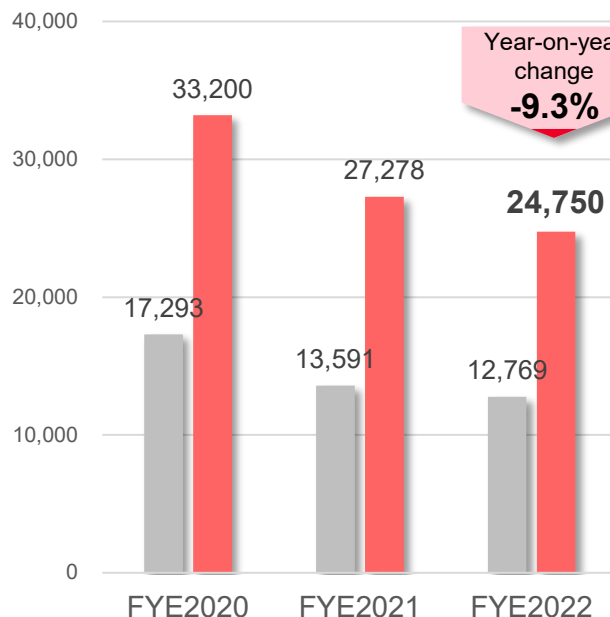
## Cooling & Heating and Building Systems

FYE2022  
Proportion of net sales

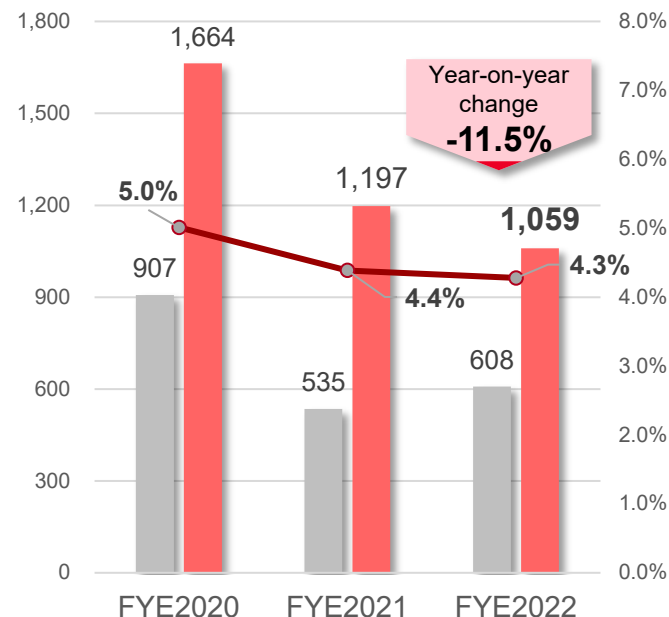
10.8%



Net sales (Millions of yen)



Operating profit (Millions of yen)



## Main points

- Strong sales of systems that met ventilation- and intense heat-related demand and those in the refrigeration and freezing areas underpinned the segment's performance.
- The overall financial results continued to be weak, affected by the delayed delivery of major products handled by RYODEN and the postponement and cancellation of new projects due to shortages of supply of components and materials.

# Trends in Financial Results by Segment 3/4

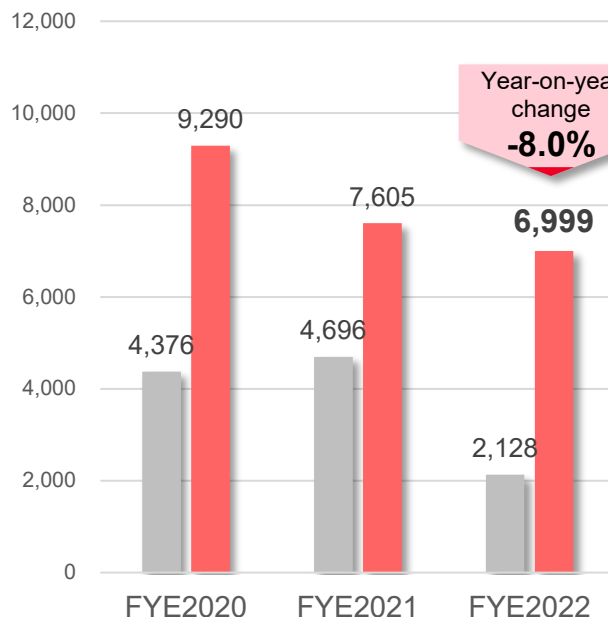
## ICT Systems

FYE2022  
Proportion of net sales

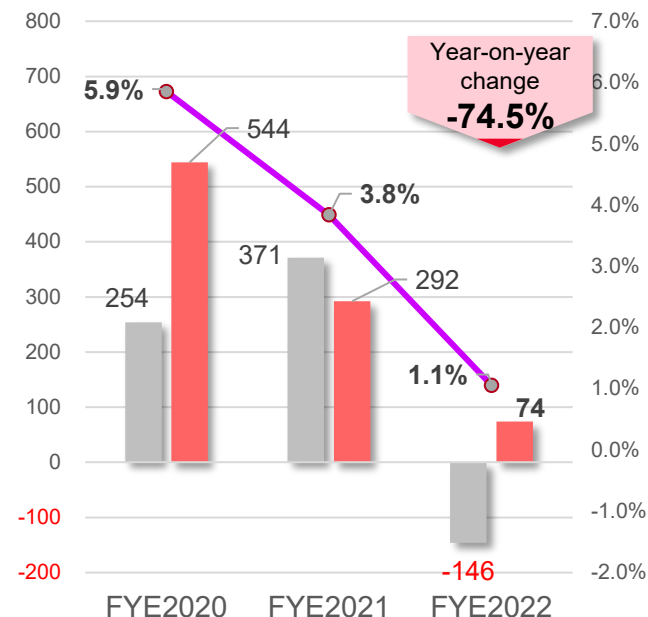
3.1%



Net sales (Millions of yen)



Operating profit  
(Millions of yen)



## Main points

- In the healthcare sector, **sales of products related to COVID-19 and business related to in-hospital IT equipment** continued to be **strong**.
- Smart agriculture continued to be **weak because the Company focused on constructing its own plant factory in an effort to shift its business model to production**.
- Network systems saw **new orders for monitoring and other factory management systems** continue to be **sluggish**.

# Trends in Financial Results by Segment 4/4

## Electronics

FYE2022  
Proportion of net sales

67.3%



## Main points

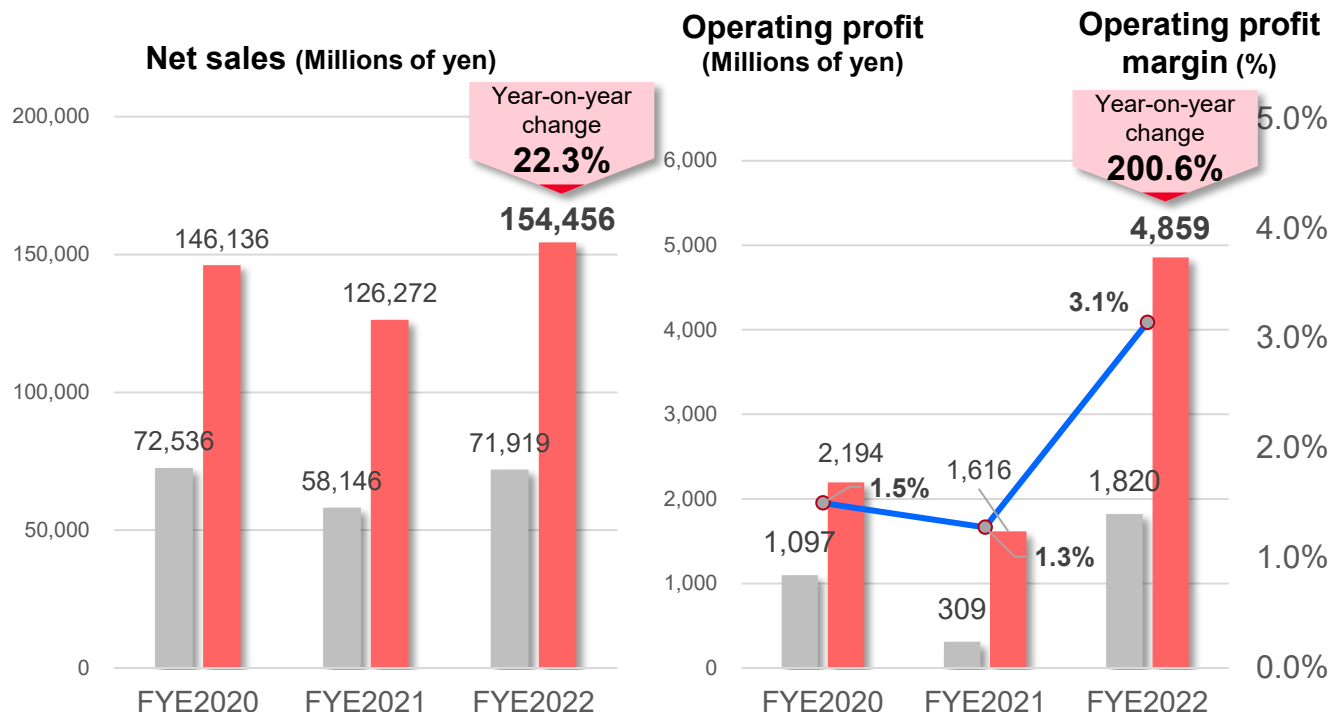
### [Japan]

- Sales of products for “infotainment equipment” such as car navigation systems continued to be **strong**.
- As demand for semiconductors grew, sales of industrial equipment-related products for **semiconductor production equipment and machine tools** continued to be **brisk**.

### [Overseas subsidiaries]

- Sales of electronics for industrial equipment-related products in China and in-vehicle equipment in Europe and North America continued to be **strong**.

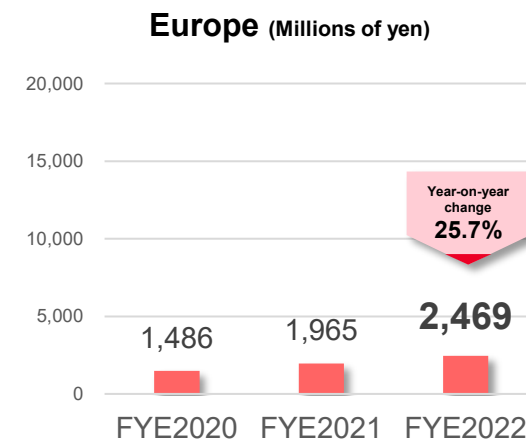
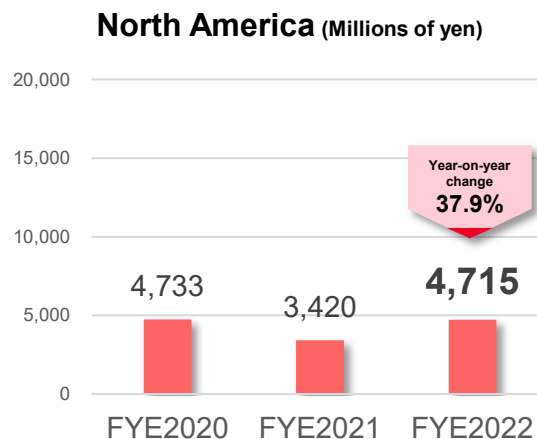
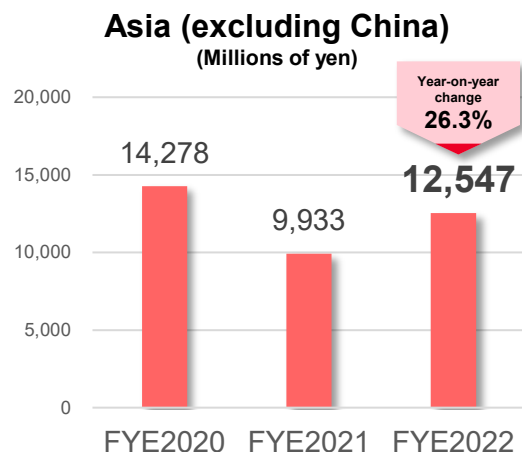
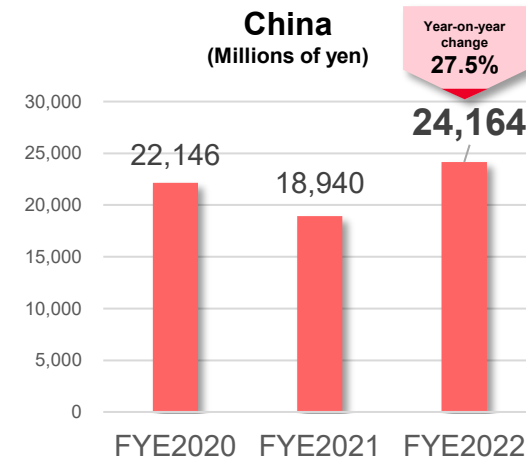
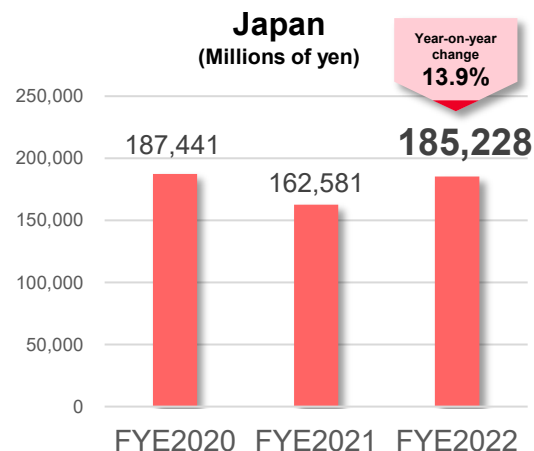
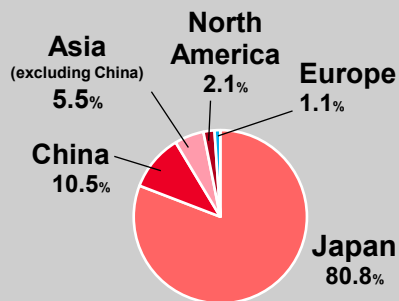
■ 2Q ■ Whole year — Profit ratio



# Changes in Sales by Region

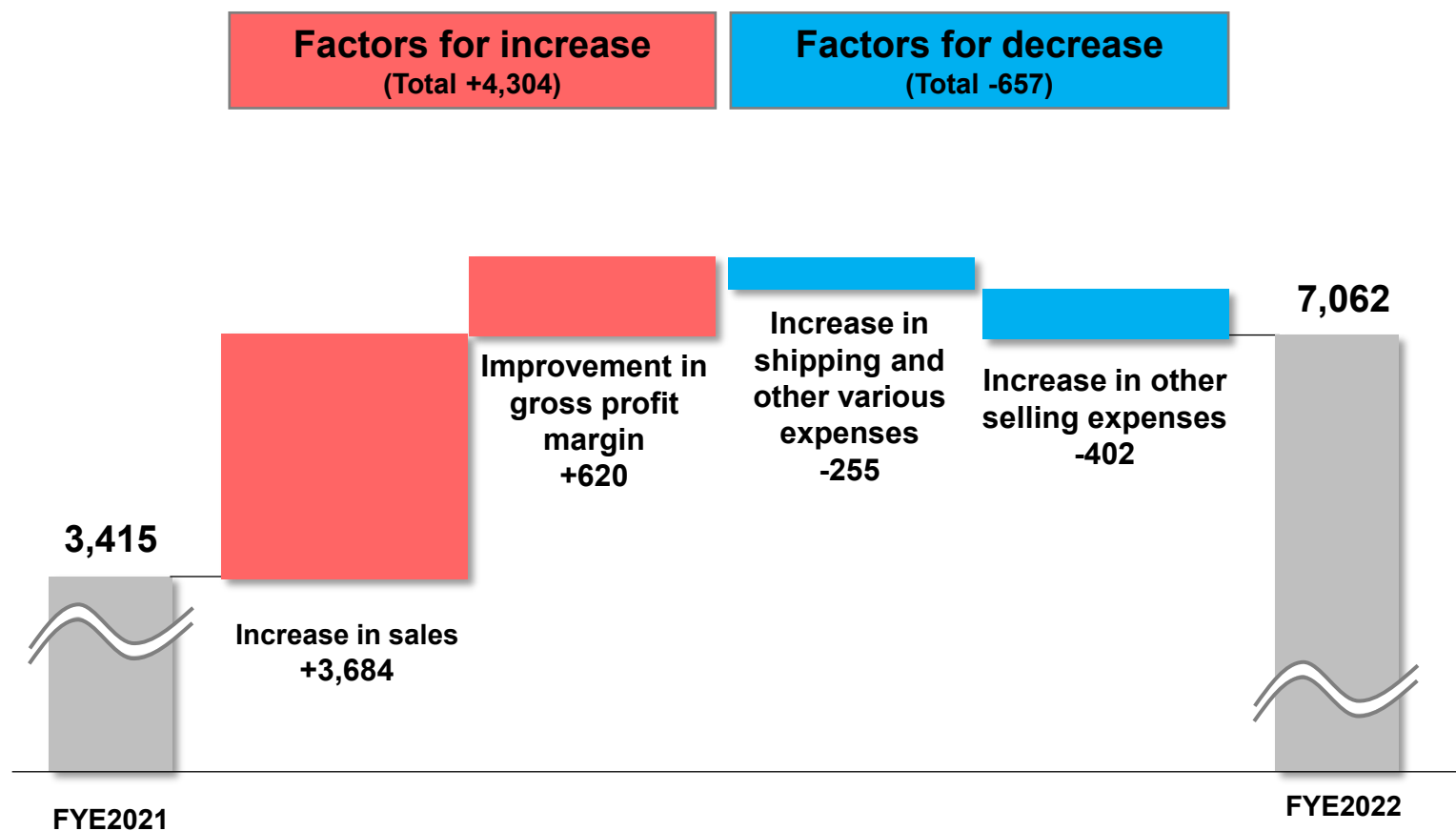
■ Whole year

Proportion of net sales by region  
**FYE2022**



# Factors for Increase/Decrease in Operating Profit

(In millions of yen)



# Financial Conditions (Consolidated)

## [Financial conditions]

	As of March 31, 2021 (Millions of yen)	As of March 31, 2022 (Millions of yen)	Increase/decrease
Total assets	125,529	<b>140,970</b>	¥15,441 million
Total liabilities	55,609	<b>66,204</b>	¥10,594 million
Net assets	69,919	<b>74,766</b>	¥4,846 million
Equity ratio (%)	55.6%	<b>52.9%</b>	(2.7) points

## [Cash flows]

	FYE2021 (Millions of yen)	FYE2022 (Millions of yen)
Cash flows from operating activities	<b>1,939</b>	<b>(7,623)</b>
Cash flows from investing activities	<b>183</b>	<b>(1,326)</b>
Cash flows from financing activities	<b>(1,052)</b>	<b>(883)</b>
Cash and cash equivalents	<b>21,120</b>	<b>11,577</b>

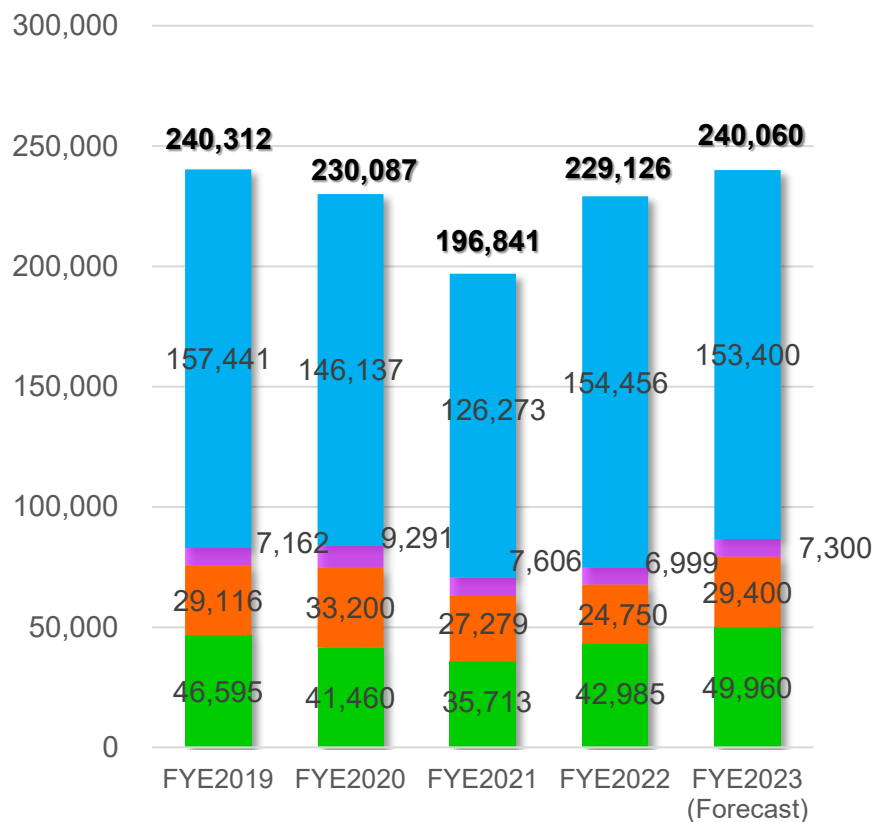
# Prospects of Financial Results for the Whole Year of FYE2023 (Consolidated)

	Results for FYE2022 (Millions of yen)	Forecasts for 2Q of FYE2023 (Millions of yen)	Year-on- year change (%)	Forecasts for the whole year of FYE2023 (Millions of yen)	Year-on- year change (%)
Net sales	229,126	117,000	9.0	240,000	4.7
Operating profit	7,062	3,000	8.2	7,100	0.5
Ordinary profit	7,285	3,100	9.4	7,300	0.2
Profit attributable to owners of parent	5,004	2,150	13.7	5,100	1.9

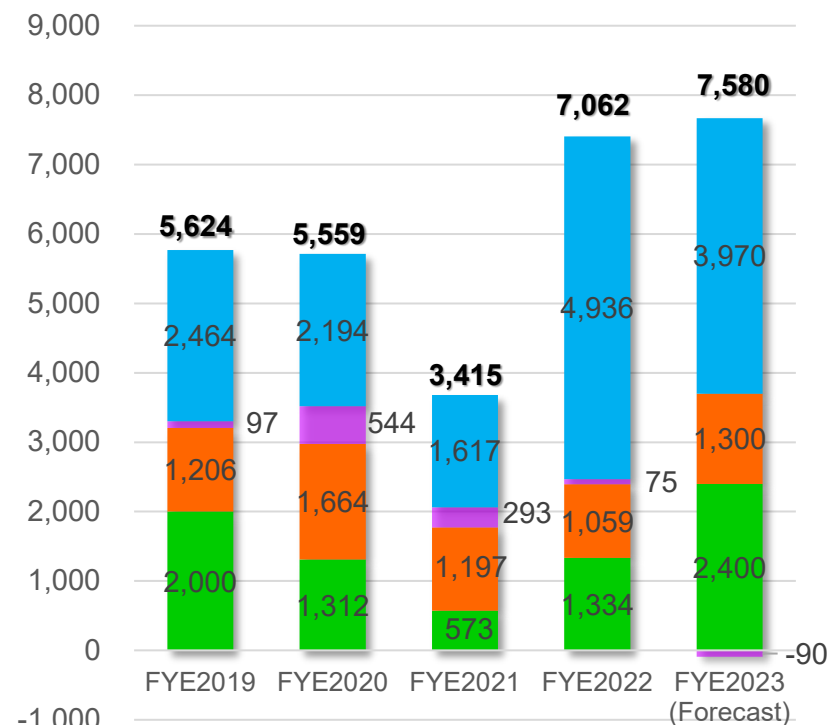
# Changes in Results (Consolidated)

■ FA Systems
 ■ Cooling & Heating and Building Systems
 ■ ICT Systems
 ■ Electronics

**Net sales (Millions of yen)**



**Operating profit (Millions of yen)**



\*(Note) Company-wide expenses are not included.



# Forecasts for FYE2023 by Segment (Consolidated)

		Results for FYE2022 (Millions of yen)	Forecasts for 2Q of FYE2023 (Millions of yen)	Forecasts for FYE2023 (Millions of yen)	Year-on- year change (%)
FA Systems	Net sales	42,985	24,240	49,960	16.7%
	Operating profit	1,334	1,110	2,400	79.9%
	Both sales and profits are expected to exceed those of the previous year as 5G-related investments recover, the core business is strengthened, the business domains are expanded, and new businesses are created.				
Cooling & Heating and Building Systems	Net sales	24,750	13,340	29,400	18.7%
	Operating profit	1,059	460	1,300	22.7%
	Sales and profits are anticipated to go up due to the maximization of profits from existing businesses, sales expansion in brisk markets such as ventilation- and intense heat-related measures, and efforts for ZEB proposals.				
ICT Systems	Net sales	6,999	2,940	7,300	4.3%
	Operating profit	74	(130)	(90)	-
	In addition to the early launch of a new plant factory and the advancement of existing DX businesses, business development for CN-related new systems is expected.				
Electronics	Net sales	154,456	76,510	153,400	(0.9)%
	Operating profit	4,936	1,800	3,970	(19.6)%
	Sales of automobile-related electronics for the Japanese and Chinese markets as well as 5G-related investments are expected to recover.				
Company-wide expenses	Operating profit	(341)	(240)	(480)	-
	Expenses for new-business development that do not belong to particular segments				
Total	Net sales	229,126	117,000	240,000	4.7%
	Operating profit	7,062	3,000	7,100	1.4%

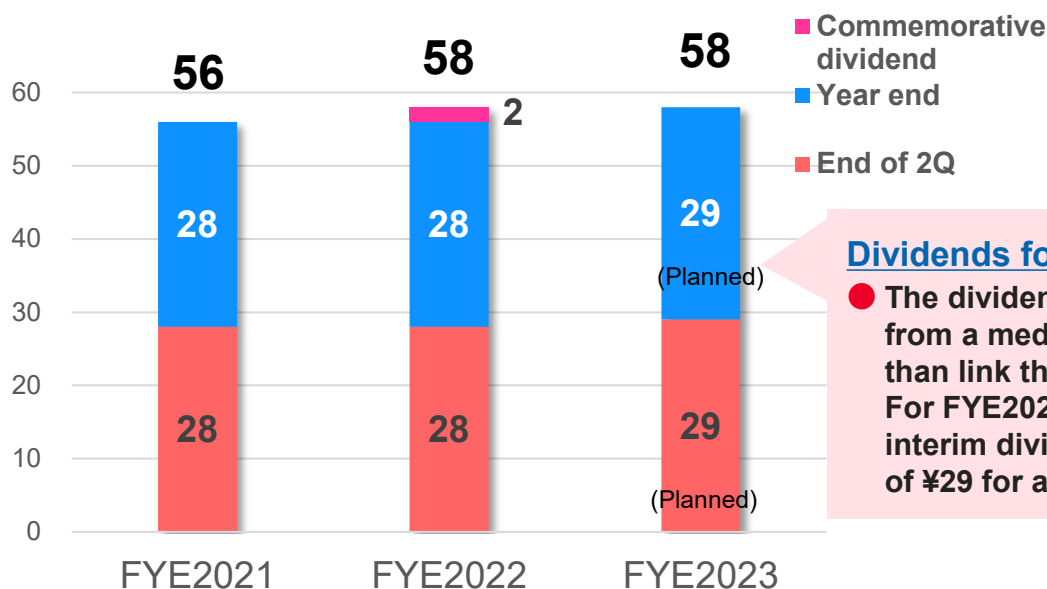
# Shareholder Returns

## [Dividend policy]

- The basic principle is to increase internal reserves to strengthen the management foundation and the financial structure and utilize them as resources for investments to expand business, and profits will be returned to shareholders appropriately in accordance with the principle.
- Dividends will be paid to return profits while taking into consideration factors such as consolidated financial results in each business year and the group's medium- to long-term strategy.

## [Results of dividends paid]

Changes in dividends (yen)



### Dividends for the FYE2023

- The dividend policy is to pay stable dividends from a medium- to long-term perspective rather than link them to short-term financial results. For FYE2023, the Company plans to pay an interim dividend of ¥29 and a year-end dividend of ¥29 for a total of ¥58 for the whole year.

Payout ratio	52.0%	25.2%	24.8% (Forecast)
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## **3. Future Management Strategy**



# Goals for FYE2025 Financial Results

Operating profit

¥ **10** billion or more (**¥7.06 billion**)

Net sales in new businesses

Up ¥ **15.0** billion  
compared to FYE2019  
(Down **¥0.16 billion**)

Operating profit margin

**3.8**% (**3.1**%)

Gross profit margin in  
new businesses

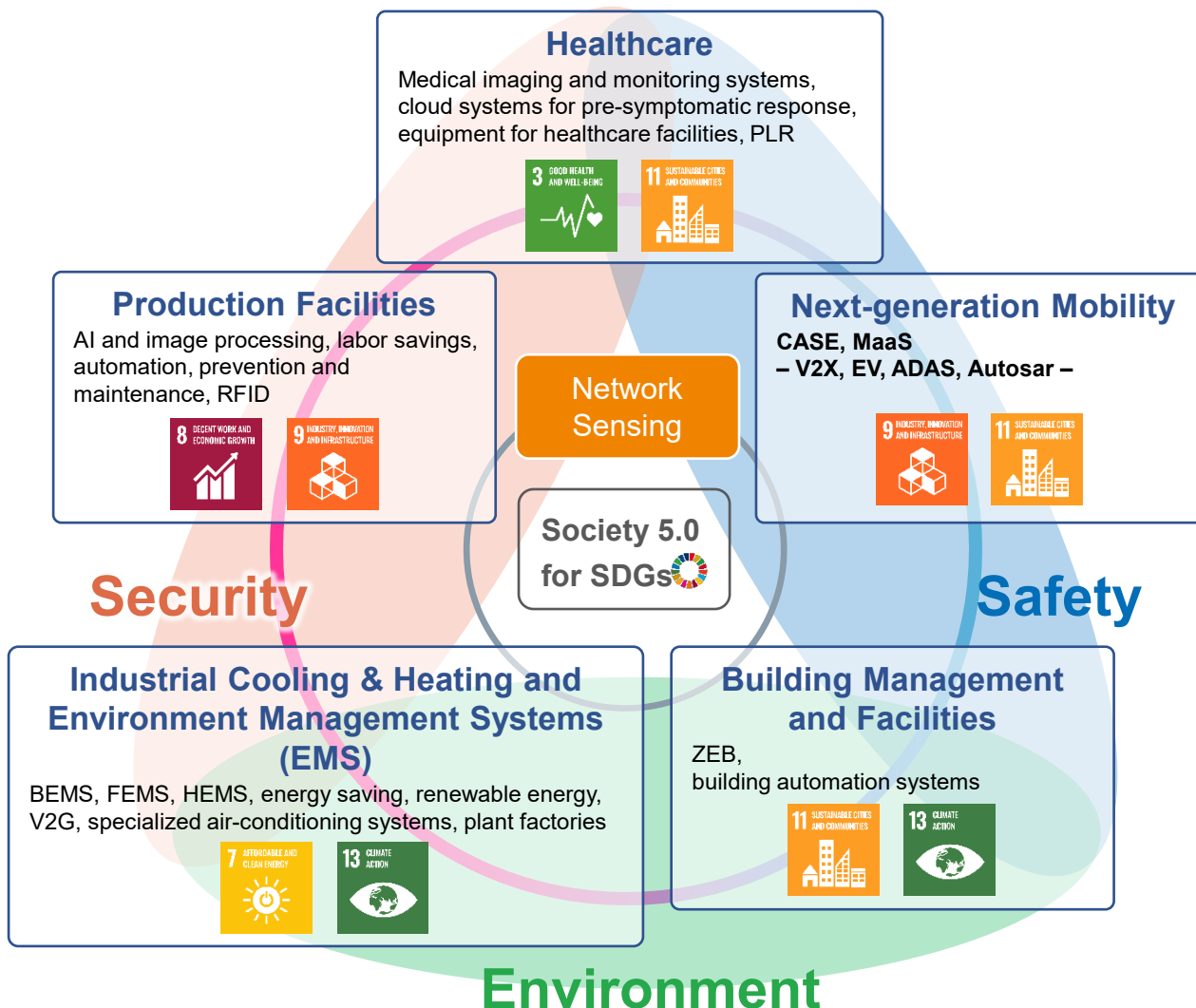
**18**% (**16**%)

ROE

**8.0**% (**6.9**%)

Figures in parentheses indicate results for the fiscal year ended March 2022

# Focus Domains of RYODEN



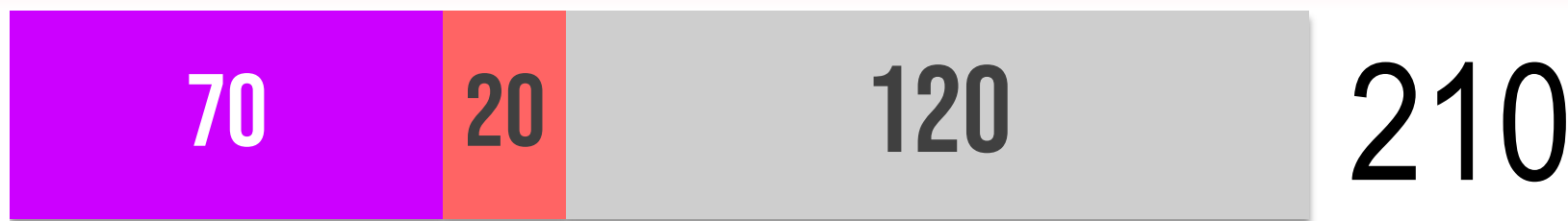
## Major licenses held

Construction license  
(Types of construction for which licenses have been obtained)

- ☒ Special Construction License:  
Plumbing work, machine and equipment installation work
  - ☒ Ordinary Construction License:  
Scaffolding and earth work
  - ☒ Special Construction License:  
Electrical work
  - ☒ Ordinary Construction License:  
Telecommunications work
- 
- ☒ Telecommunications business registration
  - ☒ Selling and leasing license for specially controlled medical devices
  - ☒ Medical devices repair license

## ★Forecasts of cloud/subscription services sales in FYE2023

(In millions of yen)



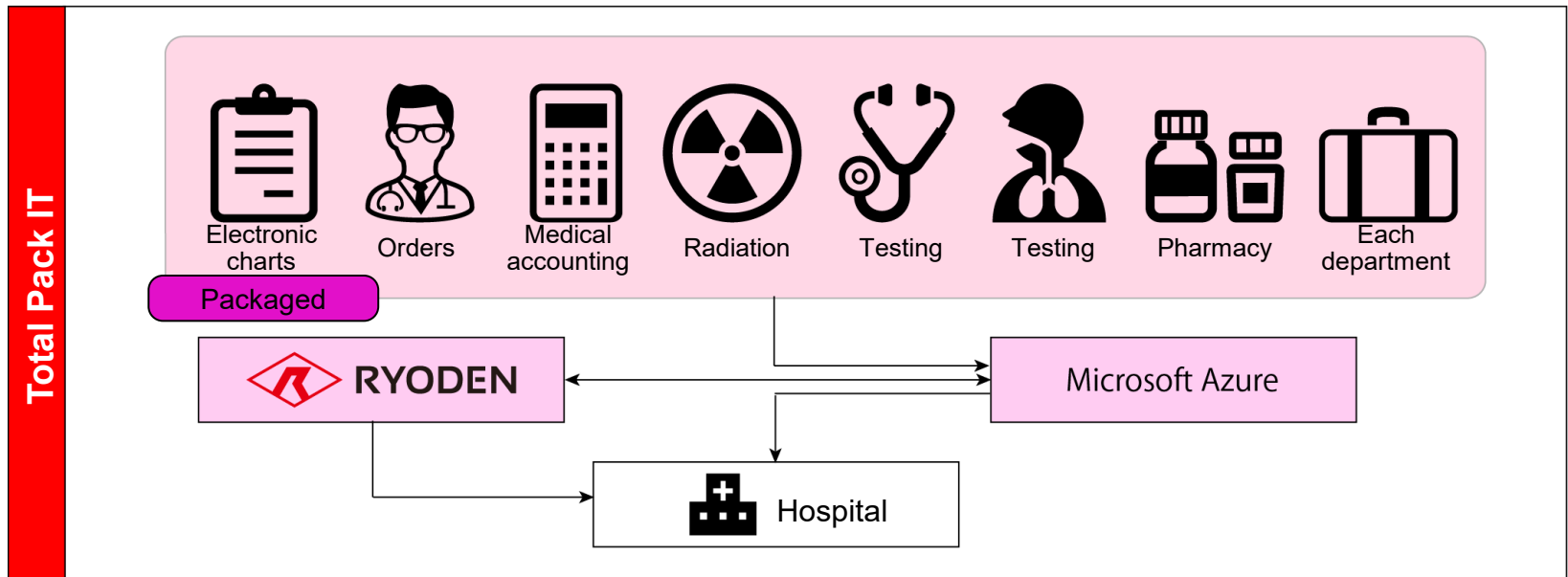
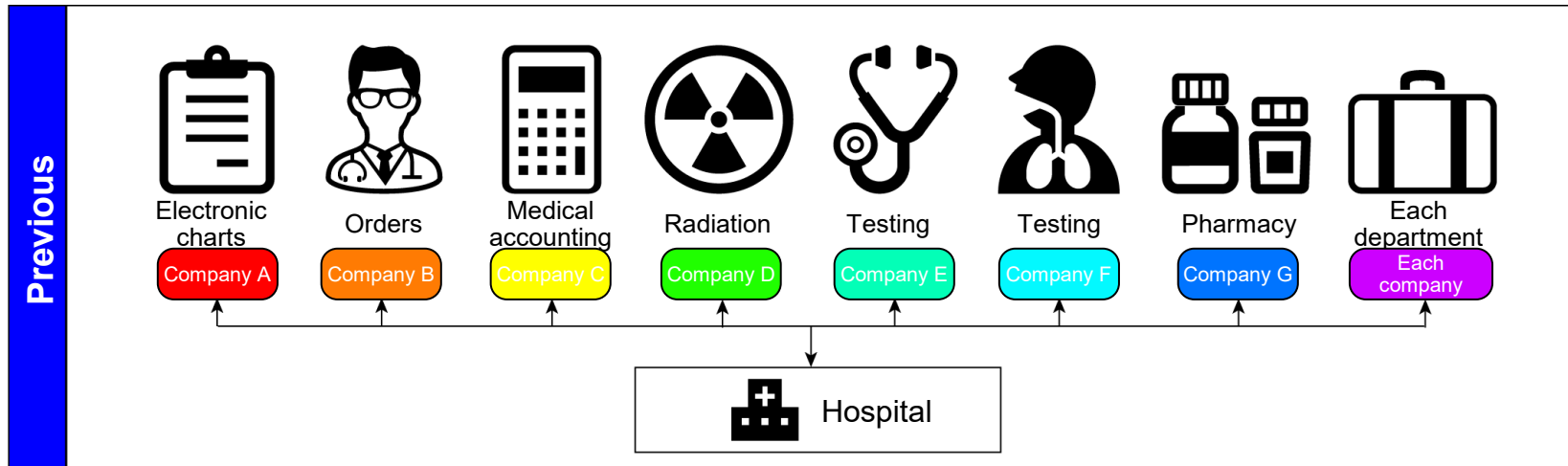
- **Healthcare** Packaged service of various systems for hospitals (Total Pack IT)
- **Networks** Network cameras and RoLa-WAN IoT service
- **Devices** Cloud AI service (pest control)  
Microcomputing simulator for development of in-vehicle systems (VLAB license), etc.

Subscription/cloud services have grown as a result of the past focus on solutions business.

# Healthcare Business: Total Pack IT

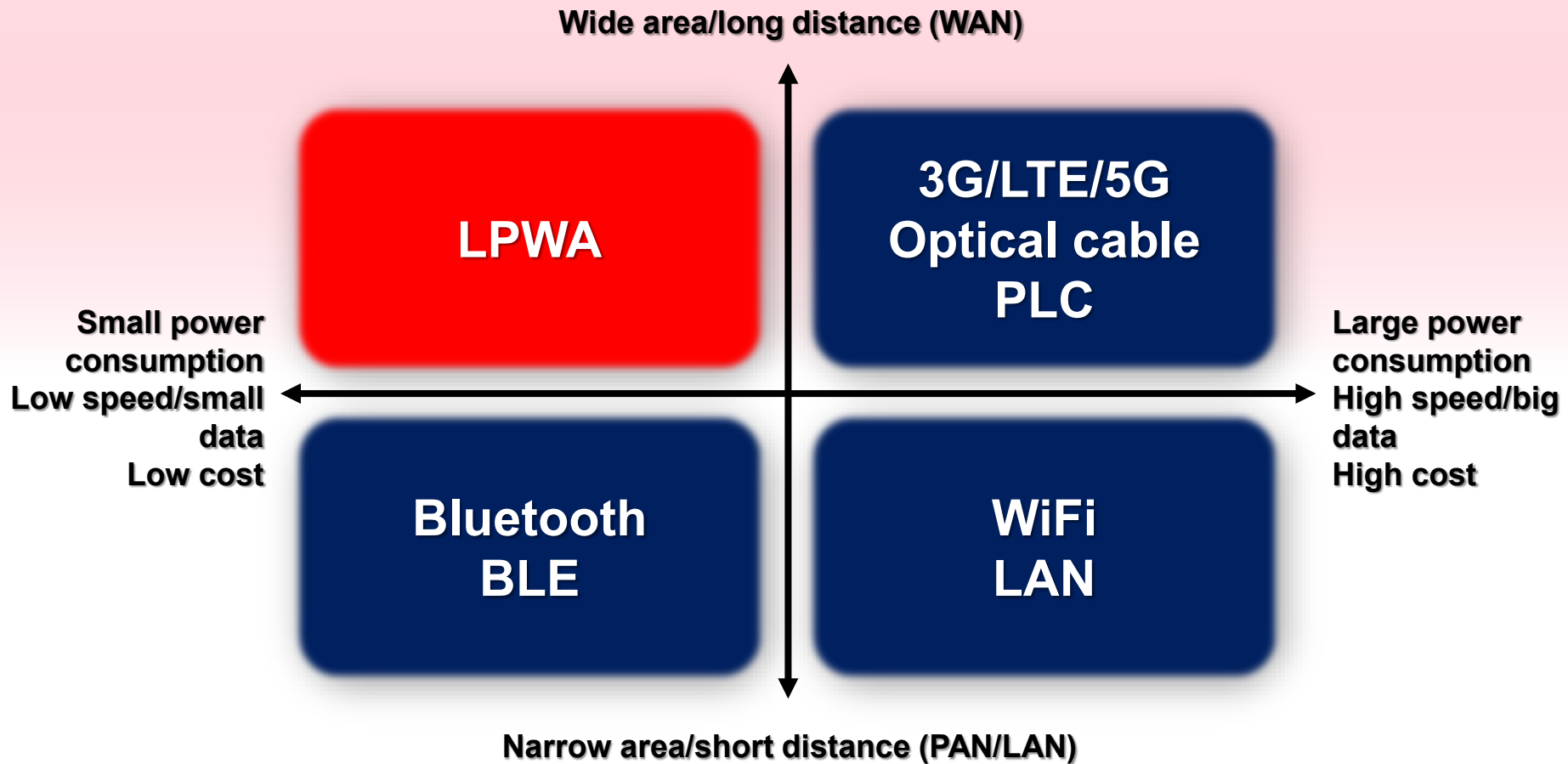


RYODEN



# Communication Network (LoRa Communication)

◆ LPWA (Low Power Wide Area Network) is attracting attention





# Communication Network (LoRa Communication)

## ◆ Slope applications utilizing LoRaWANTMwo

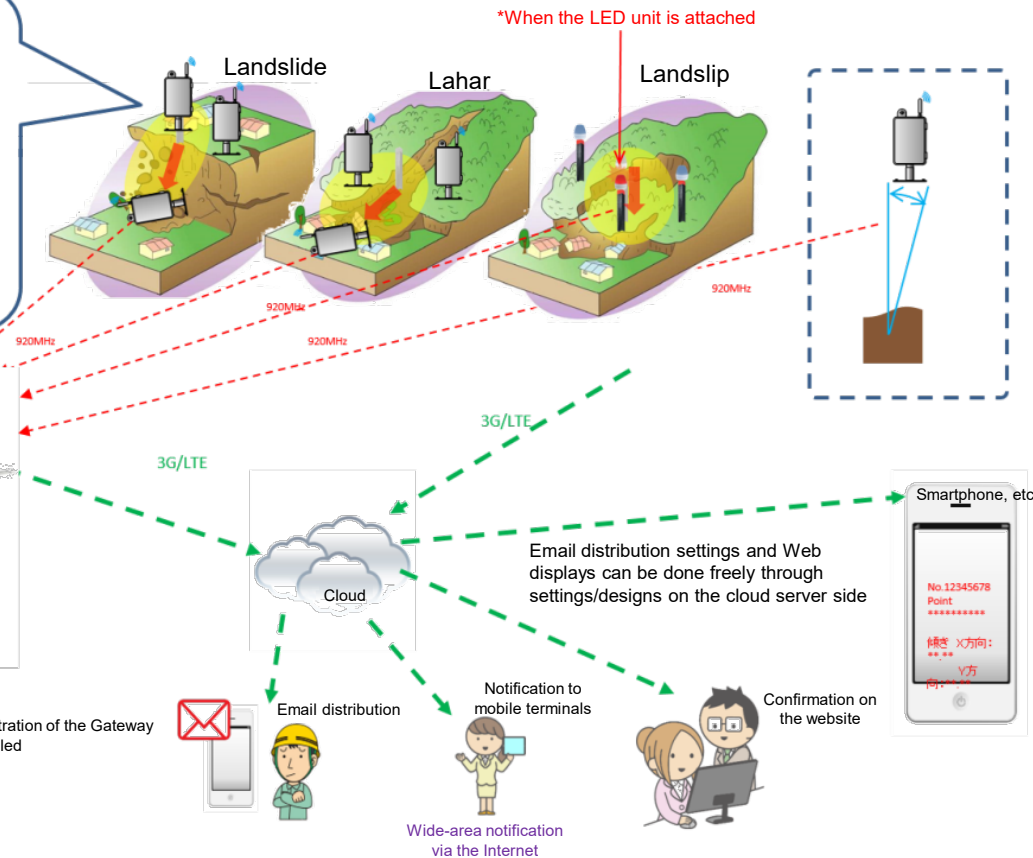
## Disaster risk reduction and sign management utilizing LoRaWAN™



Portable machine (inclination sensor + temperature)  
920 MHz wireless module  
Acceleration sensor (inclination)  
Battery-driven (dry-cell battery)

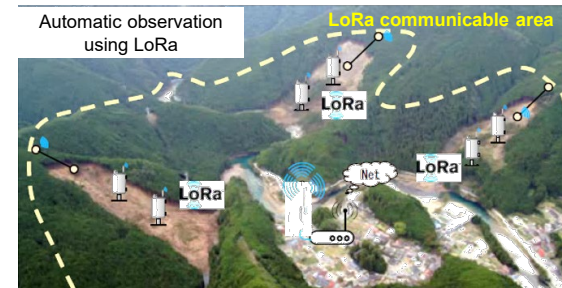


\*Photo of the machine installed



### [Comparison]

Illustrations of observation using conventional automatic observation systems and that employing LoRa communication technology



# Safety Solutions Offered by RYODEN



Virtual environment solutions for mobility: reducing development man-hours by offering virtual tests and analyses

## MILS/SILS development support

Analysis of requirements,  
basic design, and definition  
of system specifications

Design of functions  
- Sub-systems  
- Definition of ECU specifications

Design of details  
- SW/HW

Coding

Mounting of MPU

User specifications  
Code-based MILS control  
Plant model development



Microcomputing simulator  
Virtual ECU simulations

Providing microcomputing simulator VLAB  
and supporting development

## HILS development support

System testing

Verification of software  
combinations

Verification of software  
for functions



Affordable version  
of motor simulator  
Smart-HILS

## Characteristics of simulator proposals

- (1) Enabling a wide range of proposals in all areas listed above
- (2) RYODEN's unique know-how such as the WARXSS graphic simulator and the VLAB microcomputing simulator is available
- (3) Enabling scalability proposals using the customer's environment

## Pescle provides a cloud AI service to contribute to sustainable pest control and food safety



**Providing only necessary information**  
**Reducing the time required for data confirmation**

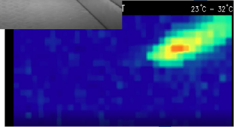


**Contributing to initial, early response**

**Detecting only harmful animals using RYODEN's unique AI**



\*Reference image of rats being detected



**Enabling remote surveillance**



**Enabling confirmation of detection results and past data anywhere at any time**

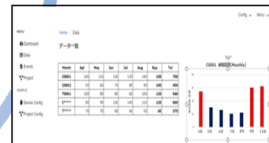
**Providing information on detected animals in real time**

PESCLE Alert [C0002] 2021/12/23 00:55:41  
Pescle Alerter <no-reply@pescle.com>  
To 自分  
平高よりPESCLEをご利用いただきありがとうございます。  
お客様にお知らせがあります。ご確認ください。  
発生日時: 2021/12/23 00:55:41  
発生場所: ABCDE工場 2階  
センサーID: C0002  
URL: <https://dev.pescle.com>

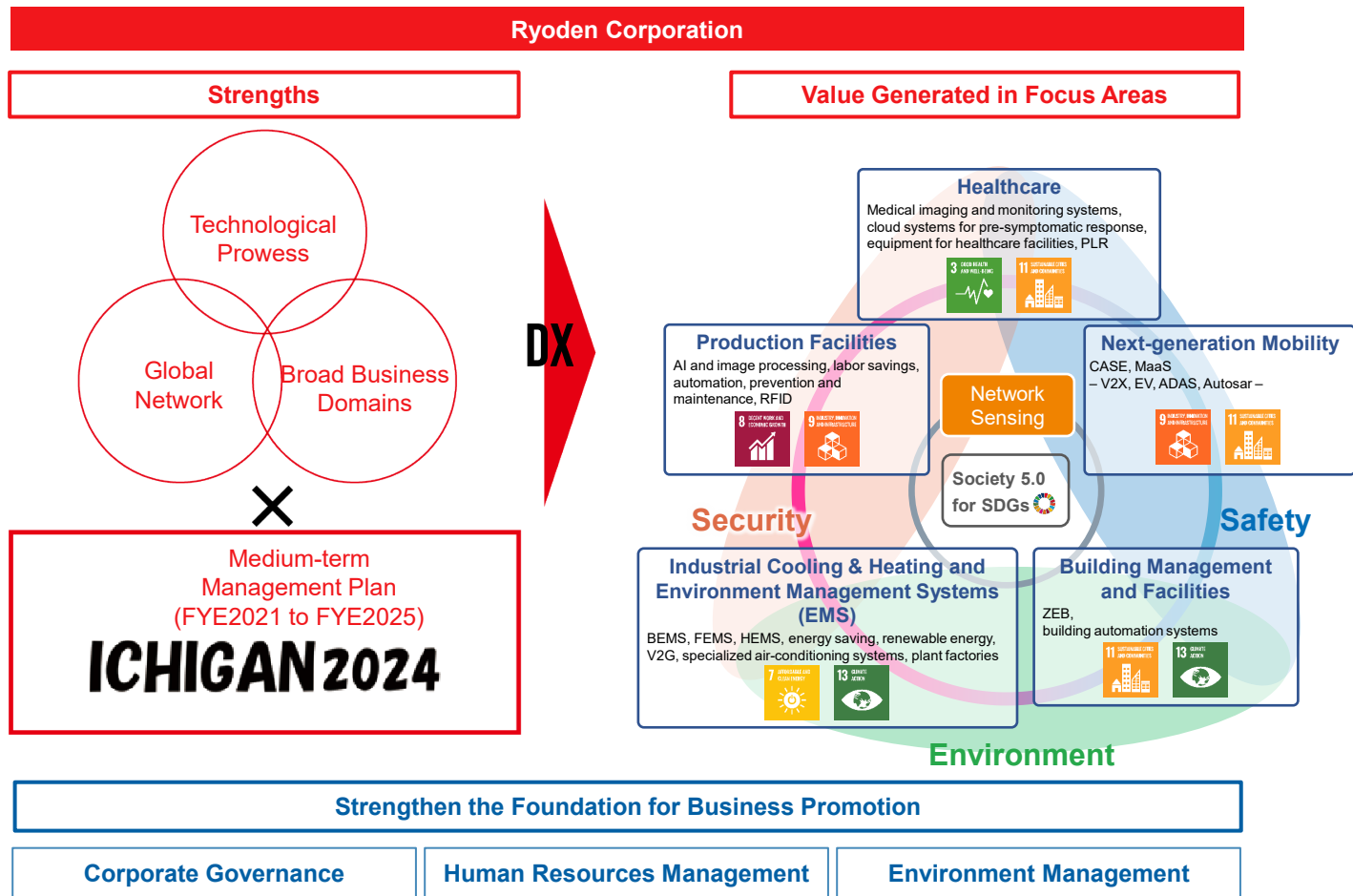
**Visualizing and analyzing information on detected animals**



**Visualizing information useful for anti-rat measures, contributing to more effective countermeasures**



## Promoting GX (Green Transformation)



# Establishment of the Environmental Vision

On April 1, 2020, RYODEN established the environmental vision for the period up to 2030.

## Ryoden Corporation Group's Environmental Vision

By 2030, the Ryoden Corporation Group will

**Strengthen initiatives for a decarbonized society**

### [Priority initiatives]

- Strive to achieve zero greenhouse gas emissions associated with electricity usage
- Provide solutions that contribute to reducing environmental burden, such as ZEB

**We will create environmental solutions to contribute to the concept of product life cycles to enhance environmental value**

**In its business activities, the RYODEN Group aims at achieving the following important SDGs:**



# RYODEN's Initiatives for a Decarbonized Society

## ◆ TCM (Total Carbon Management)

**RYODEN Group's unique environmental activities**

### **RYODEN's business activities**

**Greenhouse gas emissions**

**Contribution to reduction in  
greenhouse gas emissions**



**Visualizing results as much as possible**

**All personnel grasp and analyze results**

**All personnel make united efforts for greater contribution to  
reduction in GHG emissions in the entire supply chain**



# RYODEN's Initiatives for a Decarbonized Society (Scope 2)

## ◆ Example of initiatives to realize the environmental vision

— RYODEN aims at covering all power it consumes with power it generates through its photovoltaic power generation equipment at the Kurihara Photovoltaic Power Plant —

= Scheme using **clean electricity**, which reduces net GHG emissions to zero =



**Kurihara Photovoltaic  
Power Plant**  
(owned by Ryoden)  
**Kurihara City, Miyagi**



Registered as renewable energy

**METI Agency for Natural  
Resources and Energy**



**Non-fossil fuel  
energy certificate  
trading market**



**New electric power  
company**  
(Daiwa House Industry)



**Ryoden Corporation**  
(individual offices)

Non-fossil fuel energy value in the form  
of **non-fossil fuel energy certificates**

Auction (bidding)

Designated purchases of **non-  
fossil fuel energy certificates**  
from the Kurihara Photovoltaic  
Power Plant from the trading  
market

Electricity and **non-fossil fuel  
energy certificates** from the  
Kurihara Photovoltaic  
Power Plant are combined and  
purchased as **clean electricity**

Base	When the switchover is completed	Base	Planned timing for switchover
Hamamatsu Office	August 1, 2021	Iwaki Office	November 2021
Head Office/ Eastern Japan	August 16, 2021	Takamatsu Office	Gradually after the spring of this year
Kyoto Office	September 12, 2021	Maebashi Office	
Techno Osaka	September 15, 2021	Utsunomiya Office	

- The switchover is under way first at RYODEN's own building and buildings all of whose floors are rented.
- If the switchover is completed at all locations listed in the left table, **approximately 60% of power consumed by Ryoden in Japan will be replaced by clean electricity.**

# RYODEN's New Initiatives for a Decarbonized Society (Scope 2)

## ◆ Smart agriculture business: next-generation plant factory



- \* **Mega-solar** photovoltaic power generation equipment is installed, and the power thus generated is all consumed at the plant factory.
- \* Substantial energy conservation is achieved through new environmental control equipment and the REMCES integrated IoT system.
- \* Food loss is reduced through processing and freezing equipment as well as reduction-type garbage treatment equipment.

The amount of electricity purchased for cultivation rooms is reduced by 50% compared to the previous level.

GHG emissions from the plant factory are reduced by 1,764 tons annually.

(Reference: The RYODEN Group emitted 1,495 tons of GHG in FYE 2021)

### Next-generation plant factory



2 ZERO HUNGER



7 AFFORDABLE AND CLEAN ENERGY



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



11 SUSTAINABLE CITIES AND COMMUNITIES



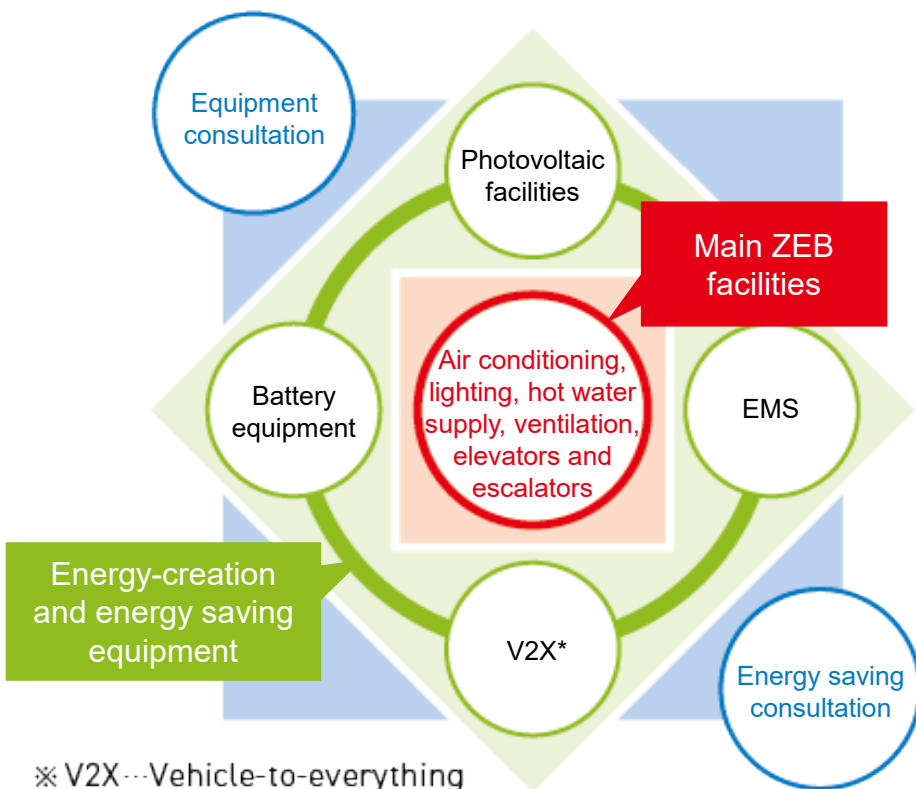
13 CLIMATE ACTION





# RYODEN's Initiatives for a Decarbonized Society (Scope 3)

## ◆ Supporting in realizing ZEB (net zero energy buildings)



### Concept of ZEB buildings

High-performance insulating materials are used for external coverings. Air-conditioning combines a high-efficiency inverter air-conditioning system with a sensor and an all-heat converter, using the night purge system to achieve reduction in air-conditioning load. LED lighting is used with energy consumption reduced using a human detecting sensor. A high-efficiency heat pump hot water supplier is used for hot water supply. Efficient equipment operation is possible due to BEMS-based load control and tuning functions. ZEB is achieved through energy created using photovoltaic power generation.

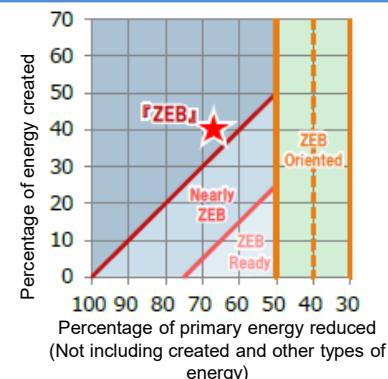
### ZEB rank

Result of introduction  
by Ryoden

**The highest rank**

**ZEB**

**has been obtained**



△ Example of ZEB introduced by RYODEN

## Ryoden Corporation is registered as ZEB Planner

A ZEB Planner, based on the gist of the ZEB Roadmap, is an entity which utilizes the ZEB Design Guidelines or the Technical and Design Knowhow on the Design of ZEB and Energy-saving Buildings of each company. A consulting window is established at such entity for the realization of ZEB widely for the general public, with the aim of supporting business and disclosing the activities.



# RYODEN's Initiatives for a Decarbonized Society

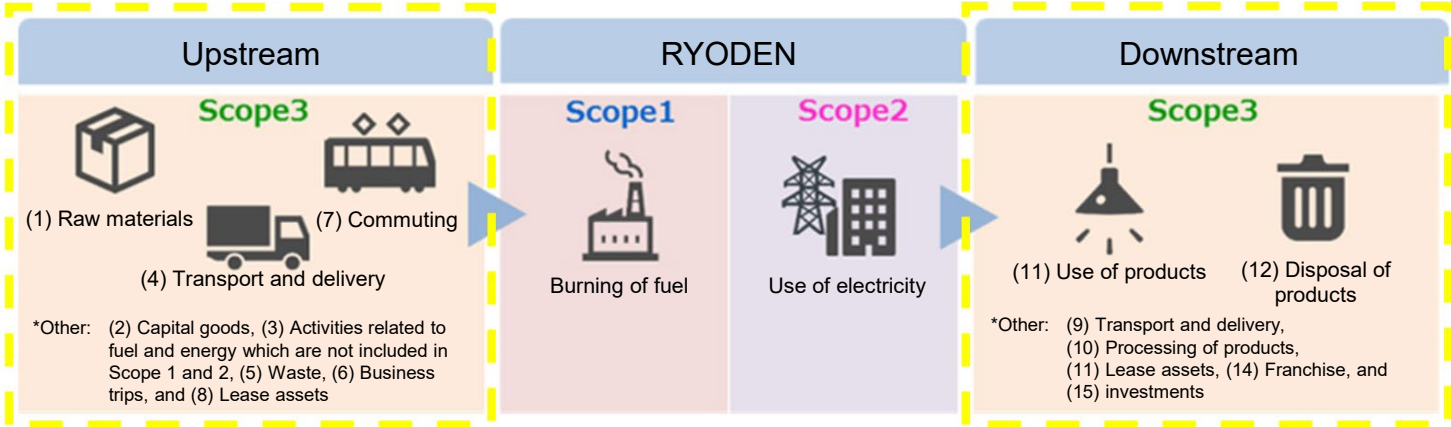


RYODEN

## ◆ TCM (Total Carbon Management)

			FYE2019	FYE2020			FYE2021		
			GHG emissions (t-CO <sup>2</sup> )	GHG emissions (t-CO <sup>2</sup> )	Proportion	Comparison with previous fiscal year	GHG emissions (t-CO <sup>2</sup> )	Proportion	Comparison with previous fiscal year
Total GHG emissions (Scope 1, 2, and 3 combined)			7,227,392	7,146,547	100.00%	99%	6,200,480	100.00%	87%
Scope 1	Company cars		554	505	0.01%	91%	401	0.01%	80%
Scope 2	Offices (for electricity used)		1,128	1,023	0.01%	91%	998	0.01%	98%
Scope 3			7,225,710	7,145,019	99.98%	99%	6,199,081	99.97%	87%
	Cat.11	Use of marketed products	6,364,359	6,328,026	88.55%	99%	5,497,614	88.65%	87%

**\*Cat.11 indicates the total of only particular products selected by RYODEN (53 items)**



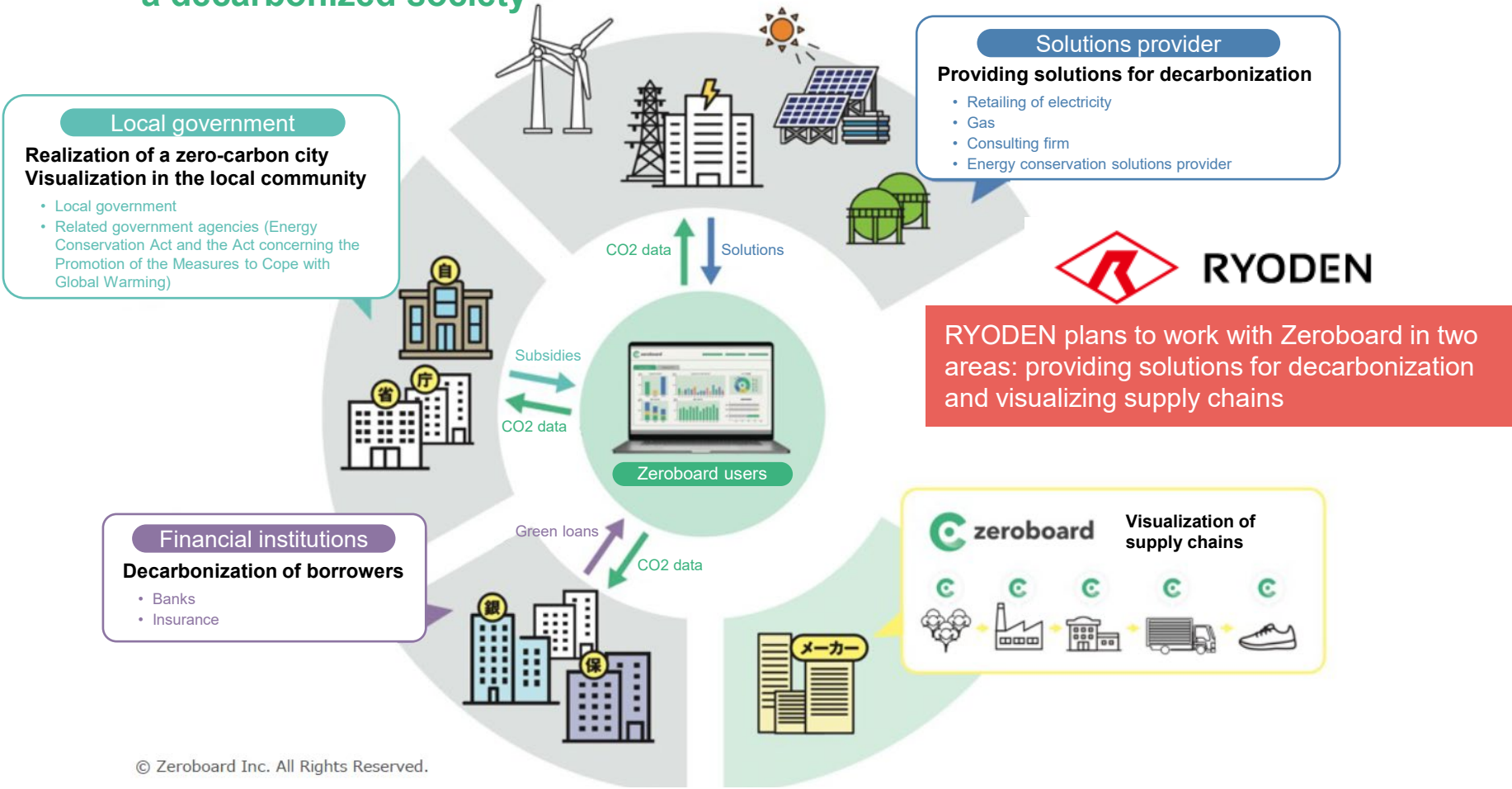
Scope 1: Greenhouse gas emitted directly by the business operator itself (burning of fuel and industrial processes)  
 Scope 2: Indirect emissions associated with the use of electricity, heat, and steam supplied by other companies  
 Scope 3: Indirect emissions other than those in Scope 1 and Scope 2 (emissions by other companies as associated with the business operator's activities)

# RYODEN's Initiatives for a Decarbonized Society



## ◆ Zeroboard, Inc.

Building an ecosystem with a partner company as a CO2 emissions data infrastructure, accelerating efforts to realize a decarbonized society



# RYODEN's Initiatives for a Decarbonized Society

◆ Zeroboard, Inc. provides cloud services to calculate and visualize greenhouse gas (GHG) emissions

These cloud services enable calculation and visualization of GHG emissions from business activities and supply chains in accordance with the GHG Protocol, an international standard



- Calculation of GHG emissions from a supply chain (Scope 1 to 3) or each product, which requires a huge amount of data
- Highly visible dashboard to manage reduction in GHG emissions and simulate cost-effectiveness
- Output of data to meet reporting methods under various domestic environmental laws and ordinances in addition to the GHG Protocol and other international disclosure formats
- User-friendly operability that does not require technical knowledge
- System appropriateness guaranteed by international judging and certification organs (ISO14064-3\*3-based verification)

Don't you have these problems?

- ✓ It takes time to collect GHG data (Scope 1 to 3).
- ✓ Multiple management is needed to meet domestic environmental laws and ordinance and disclose information to the financial market.
- ✓ Data have been visualized, but we do not know where we should start reduction.



Strong point 1



Supporting calculation of emissions in supply chains

Strong point 2



Output of data in various reporting formats

Strong point 3




Reduction management using the dashboard

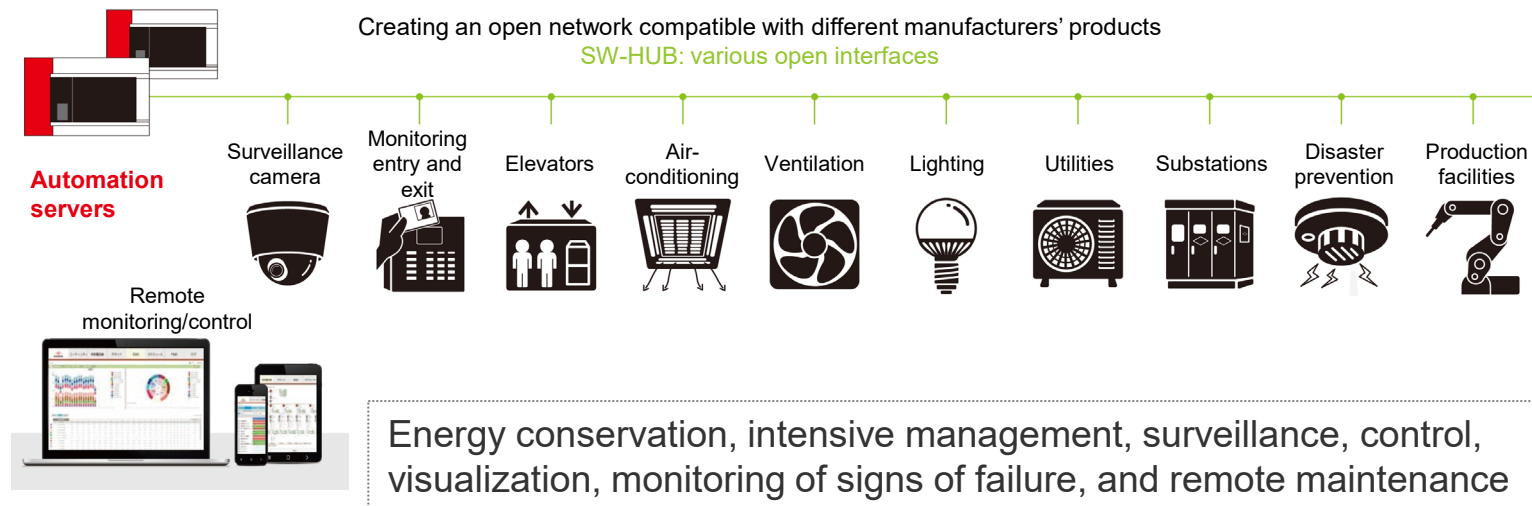
Zeroboard makes it possible to achieve greater efficiency in calculating GHG emissions and disclosing their data and manage reduction efforts properly.

# RYODEN's New Initiatives for a Decarbonized Society (Scope 3)

## ◆ General development of integrated cloud-type management IoT systems

 **Remces** supports everything from manufacturing to the lives of people.  
It is RYODEN's original IoT platform.

- Characteristics
- Achieving remote-controlled visualization and high scalability using cloud systems
  - Saving personnel and labor through unified management and control of equipment and environmental information
  - Supporting multi-vendor connectivity using open interfaces





# **Smart Agriculture Business**



# Trends in the Agriculture Market and RYODEN's Position

## ◆ Smart agriculture business: next-generation plant factory

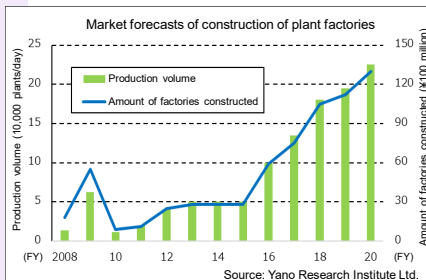
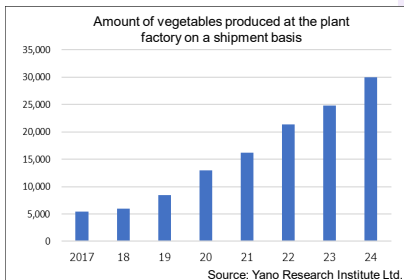
### (1) Trends in the plant factory market

#### Social and agricultural issues

Shortage of supporters  
due to ageing population  
Decrease in the number of  
people engaged in  
agriculture  
Decrease in the area of  
agricultural land

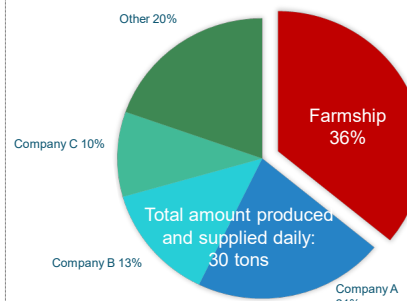
Global warming  
Response to climate  
change  
Increasingly  
devastating disasters

Growing orientation to  
safety  
Demand for stable  
supply

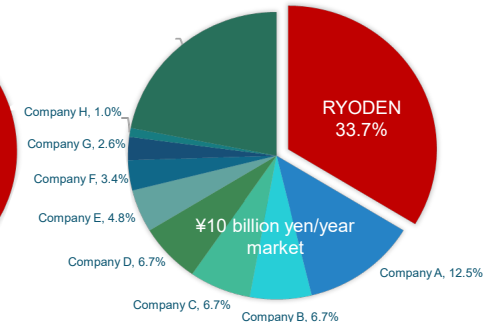


### (2) RYODEN's position

#### 1. Share of leading plant factory operators in 2020



#### 2. Share of equipment and machinery constructors in 2020



Fuji Keizai Agriculture, Forestry, and Fisheries Business 2020 (Excerpt)

There is a growing need for plant factories, one efficient type of agriculture, which achieves stable supply and conservation of personnel and labor. The market is expanding at an annual rate of over 20%.

RYODEN has built a competitive business model through collaboration!  
RYODEN also gained a firm position in the area of next-generation agriculture, which has high barriers to entry!



# Trends in the Agriculture Market and RYODEN's Position

## ◆ Smart agriculture business: (1) Creation of new businesses

### Block-FARM's Numazu plant factory

Completed on May 26, 2022



**Working with the local community and administrative agencies for construction and launch of the project**

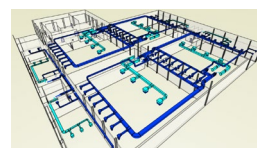
**Ministry of Agriculture, Forestry and Fisheries:**

Comprehensive support to develop strong supporters of agriculture  
Adoption of projects to empower production

**Ministry of the Environment:** Subsidizing photovoltaic power generation for agriculture

**Shizuoka Prefecture:** Certification of the plant as one of the Fuji-no-kuni Frontier Promotion Areas

Correlated energy-saving air-conditioning system



Integrated IoT system for next-generation agriculture



Establishment of an R&D center



Utilization of renewable energy



Automated equipment based on robotics



Establishment of Ryoden's solutions showroom



- Energy conservation signage
- Panoramic view



**Implementing unique solutions to contribute solving social issues**

**Enhancing the Group's corporate value**

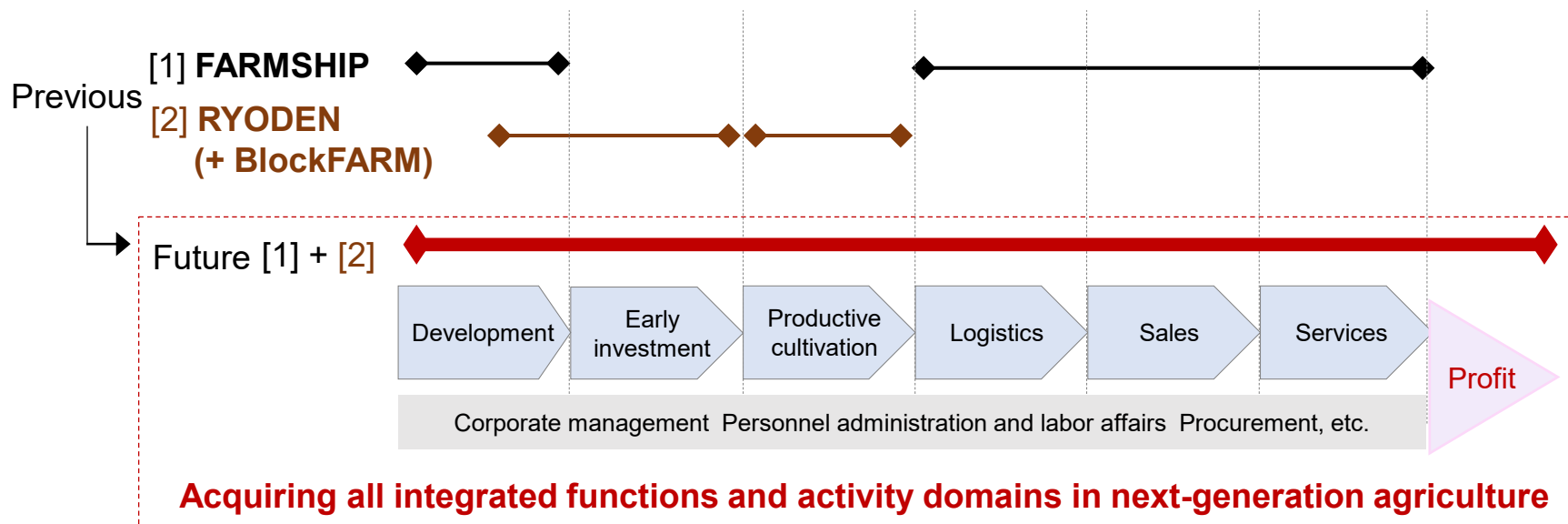


# Trends in the Agriculture Market and RYODEN's Position

## ◆ Smart agriculture business: (2) Expanding the business domains

Making Farmship, Inc., the collaboration partner, RYODEN's affiliate through additional equity investments

- RYODEN takes leadership in strengthening each function of the next-generation agricultural value chain by shifting from horizontal division of work to horizontal integration
- Establishing a business system that enables RYODEN to gain the early developer's benefits by responding to future demand expansion
- Developing energy- and labor-saving business in the food industry, a new domain for RYODEN
- Acquiring skills in all processes up to sales and logistics to prepare for overseas business development



# Trends in the Agriculture Market and RYODEN's Position



RYODEN

◆ Smart agriculture business: (3) Enhancing business value — strengthening the manufacturer's functions of plant factory systems —

## Technological capabilities

## Uniqueness

## Engineering systems



Small-scale plant factory system



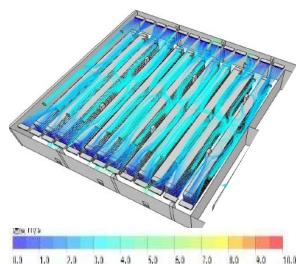
Large-scale plant factory system



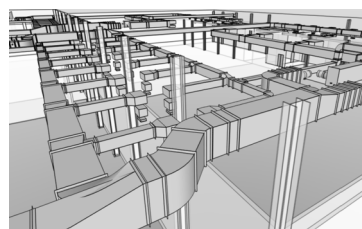
Facility horticultural system



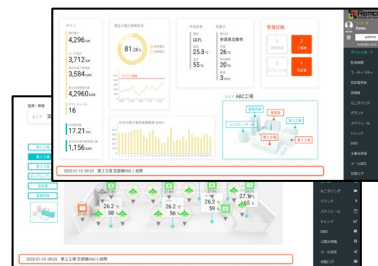
Planning, design, technical construction system



Environmental design: temperature and air current simulations



Energy-saving environmental control system



Remces integrated IoT system



LED lighting for cultivation



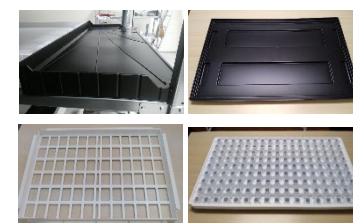
Planting robot system (being developed)



Cleaning system



Automated equipment



Development of dedicated materials (molded products)

# Contact for Inquiries



Ryoden Corporation

3-15-15, Higashi Ikebukuro, Toshima-ku,  
Tokyo 170-8448

General Affairs Department

e-mail: ryoden\_ir@mgw.ryoden.co.jp

TEL: 03-5396-6111

FAX: 03-5396-6448

## **Note**

Statements of plans for financial results and other prospects of the future included in this presentation are based on the information so far obtained by the Company and the certain assumptions considered as reasonable, and actual financial results, etc. may differ significantly from the statements due to various factors. Major factors include:

- Rapid changes in the economic situation of major markets (such as Japan and Asia), consumption trends, and supply of and demand for products
- Significant fluctuations in the exchange rate of yen against the U.S. dollar, etc.
- Substantial changes in quotations in the capital market