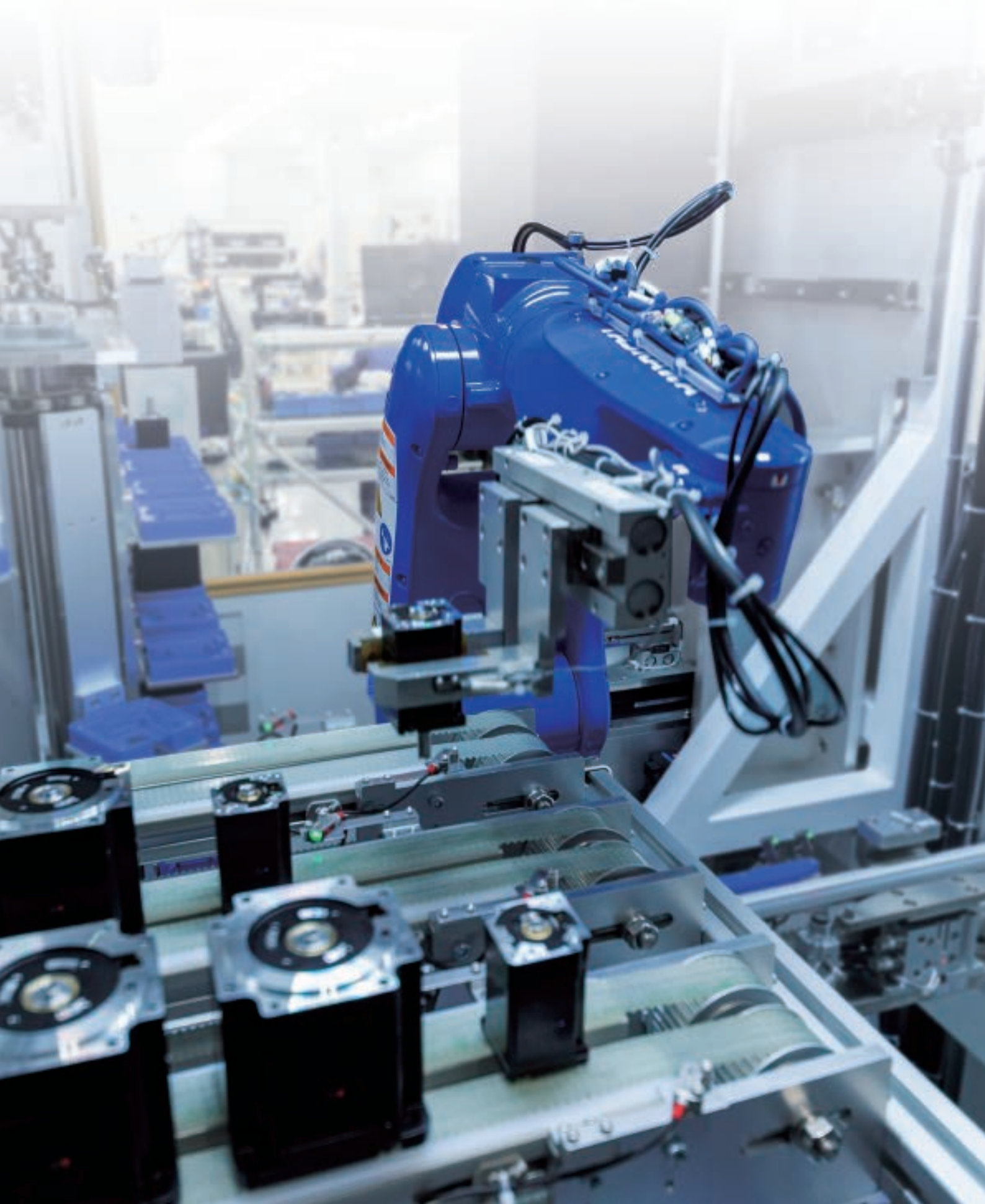
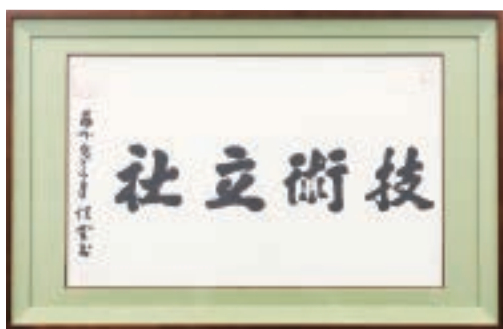


# YASKAWA

YASKAWA Report 2022



# Contents



Calligraphy "A Company Founded on Technology"

## 01 Drivers of Value Creation

- 3 Corporate Motto
- 5 History
- 7 Unique Strength
- 9 Global Network
- 11 Value Creation Process to Realize Long-Term Business Plan "Vision 2025"
- 13 Solution Concept "i<sup>3</sup>-Mechatronics"

## 03 Business Model Transformation

- 31 Technology Development
- 33 Production
- 35 Sales and Service



**i<sup>3</sup>-Mechatronics**

## 05 Initiatives to Support Value Creation

- 49 Human Resource Enhancement
- 53 Dialogue and Co-creation with Stakeholders
- 55 Environmental Initiatives
- 58 Climate Change and Decarbonization Initiatives

## 06 Corporate Governance

- 61 Dialogue
- 65 Composition of the Board of Directors
- 67 Directors
- 71 Corporate Governance
- 77 Risk Management
- 79 Executive Officers

### Scope of Reporting, etc.

**Period covered:** March 1, 2021 to February 28, 2022 (Certain contents include activities occurred in or after March 2022.)

**Scope:** YASKAWA Electric Corporation and consolidated subsidiaries

**Note:** A part of non-financial information is provided of YASKAWA Electric Corporation.

**Accounting standard:** Unless otherwise stated, figures for FY2017 and earlier are stated in accordance with Japanese GAAP, and figures for FY2018 and after are stated in accordance with International Financial Reporting Standards (IFRS).

### Editorial Policy



YASKAWA Report 2022 is intended to serve as a platform for high-quality dialogue with stakeholders. We strive to provide comprehensive financial and non-financial reports on its strategies and results. In addition, by referring to and utilizing the IFRS Foundation's "Integrated Reporting Framework" and the Ministry of Economy, Trade and Industry's "Guidance for Collaborative Value Creation," we aim to be able to help deepen readers' understanding of the medium- to long-term value creation that Yaskawa group is aiming for.



## 02 Vision and Strategy

- 15 Top Interview
- 21 Message from the Management
- 25 Progress of Sustainability Challenges and Targets (Materiality)
- 27 Roadmap for Realizing Vision 2025
- 29 Progress of Mid-Term Business Plan "Challenge 25 Plus"



## 04 Business Strategy

- 37 At a Glance
- 39 Motion Control
- 44 Robotics
- 47 System Engineering



## 07 Corporate Data

- 81 Financial and Non-Financial Highlights
- 83 11-Year Financial Data
- 85 IR Activities and Stock-Related Data
- 86 Corporate and Stock-Related Information

### Cautionary Statement Regarding Forward-Looking Statements

Future projections for performance and other matters contained in this report are based on the information that is available at the time of issue and on a certain level of requirements as seen rational, however, actual results may vary due to various factors. Some examples of such factors are economic conditions, both in Japan and outside the country, trends in demand for the company's products and services, and trends in foreign exchange and stock markets. Please also note that factors which may impact the company's results are not limited to the aforementioned.

# Our Philosophy

In 1979, at the suggestion of then Vice President Reiji Kitani, we established the "Corporate Motto," the first codification of Yaskawa's spirit and philosophy. The corporate motto consists of the "Founding Spirit," "Group Principle of Management," and "Guideline for the Employees." The "Founding Spirit" is based on the wishes of the promoter, Keiichiro Yasukawa. The "Group Principle of Management" is based on the business policy and memorandum\* of the founder, Daigoro Yasukawa, and is centered on quality, profit, and market. In order to deepen understanding of management principle on a global scale and strengthen its practice, we have organized and disseminated them into "Our Purpose" and "Our Values." The "Guideline for Employees" represent the action guidelines for employees to realize management principle. These guidelines are recited daily throughout the company and are firmly rooted.

\* See column on next page

## Corporate Motto

### Founding Spirit

Our Company was founded by Daigoro Yasukawa in 1915 with the aim of "setting up an industry to repay the debt of gratitude to the State", an aspiration held by his father Keiichiro Yasukawa.

### Group Management Principle

#### Our Purpose

The Yaskawa Group's mission is to leverage the pursuit of its business to contribute to the advancement of society and the well-being of humankind.

#### Our Values

We will realize our mission by executing the following three core tenets:

1. Quality Develop and enhance world-class technologies, with an emphasis on our foundation of quality.
2. Profit Boost management and operation efficiency and achieve the returns necessary for the successful growth of the company.
3. Market Satisfy the needs of the market and dedicate ourselves to serving our customers as a customer centric organization.

### Our Action

We will respect the traditions of Our Company and strive to realize our management principle. At the same time, we will increase public trust and thereby seek prosperity for the company and our own happiness.

In particular, the following five items serve as daily action guidelines.

Let's put our customers first.

Let's pursue both high quality and high profitability.

Let's train ourselves and overcome the competition with unyielding spirit.

Let's broaden our horizons and change our way of thinking.

Let's deepen mutual trust and cooperate with each other.







The spirit expressed in our corporate motto is our starting point, which never wavers even when times change. Our values are the guiding principles of our business and corporate activities based on the following common understanding.

### ① Quality

**Develop and enhance world-class technologies, with an emphasis on our foundation of quality**

- While actively absorbing the good points of other companies, we are particular about Yaskawa's originality and create new technologies with pioneering ideas.
- We ensure the quality of products that satisfy customers.

### ② Profit

**Boost management and operation efficiency and achieve the returns necessary for the successful growth of the company**

- We recognize that the company is a member of society and secure the profit necessary to survive.
- We will not engage in simple price competition without regard to profitability, and will strive to maintain prices commensurate with product superiority and added value.
- We ensure competitiveness through sustained productivity growth

### ③ Market

**Satisfy the needs of the market and dedicate ourselves to serving our customers as a customer centric organization**

- In all activities such as development, production, and sales, we will listen to our customers' opinions and make proposals that meet their needs with sincerity.
- We will not only respond to current needs, but also anticipate future needs, proactively propose seeds, and expand sales with competitive products.

#### Column

##### Founding spirit living in the corporate motto

When YASKAWA Electric Manufacturing Co., Ltd. (the predecessor of YASKAWA Electric Corporation) was founded, its founder, Daigoro Yasukawa, drew up the "Founding Spirit", and in the following year, established "Business Policy" and a "memorandum" consisting of 13 points. The business policy was to **"not forget the ideal for the sake of temporary profit, and give first priority to the satisfaction of customers with sincerity."** and the memorandum stated, **"we will strive to design and manufacture products that are unique to our company," "We will always focus on quality," and "We will expand our sales channels with the best quality of our products."** Regarding the memorandum, he said, "It was a very youthful and impractical argument. I feel ashamed comparing it with my later achievements." However, the Yaskawa Group's unique characteristics and strengths have been consistent in that it has developed a great deal of technology, introduced innovative products to the world, and served customers with sincerity as a good partner.



Daigoro Yasukawa



Writings and biographies of Daigoro



Promoter

**Keiichiro Yasukawa**

Keiichiro Yasukawa, the promoter of Yaskawa absorbed new knowledge and philosophies from the West. He engaged himself in mining, later expanding his business to spinning, steel, railway and banking. He personally funded the opening of Meiji College of Technology, a vocational school for training engineers. The school later became Kyushu Institute of Technology, and continues to produce numerous engineers to this day.



Founder

**Daigoro Yasukawa**

Electric motors were starting to advance into all industrial segments as replacements for steam engine at the beginning of the Taisho period. Daigoro Yasukawa, the fifth son of Keiichiro, was among those who learned the fundamentals of such leading-edge technology. In 1915, with his father promising "to provide financial support, but not interfere with the way you run the business," Daigoro founded our predecessor, Yaskawa Electric Manufacturing Co. The company started its business by manufacturing electric motors for mining, where the imported products dominated and domestically produced motors were scarce. Daigoro wished to contribute to the nation by exporting domestically produced motors to overseas as "motivation of establishment," and aimed at undertaking the business with the company's own technologies, not by copying the leading Western products.

# Our History

Since its establishment in 1915, Yaskawa Electric has constantly strived to take on the latest technologies of the times, upholding its corporate motto of being "a company founded on technology" and defining its business domain as "electric motors and their applications." Over the past 100 years since its founding, the six DNAs that have been nurtured as a result of the wisdom of the people in each era and the bold challenges made without fear of failure have become the key corporate cultures that give Yaskawa Group its strength today.

1915

Founding



**Three-phase induction motor**  
Yaskawa's first commercial product



**The first VS motor 5HP**  
Variable speed motor



**Minertia motor**  
A motor that became the basis for the servo motor available today. A revolutionary product that had a response rate 100 times greater than conventional motors.

Motion Control

## Electric Motors and their Applications

1915-

Concentrating management resources  
on motors and their applications

Development  
of society and  
industry

Coal mining equipment shifted  
from steam engines to electricity  
(motor)

Developments  
in  
management

- In addition to various motors, a variety of products such as switches and transformers were developed, but the Company was in the red for 17 years since its establishment.
- Focused management resources on "electric motors and their applications"
- Set forth a business policy stating that "the first priority shall be to never forget our ideals for the sake of temporary profits and to satisfy our customers with all our sincerity."
- Focused on motors as hardware and intelligence as software to control motors

Six DNAs that  
have been  
nurtured since  
our founding  
(corporate culture)

Company founded on technology

Pursuing customer satisfaction

1950-

Building on achievements as the  
"Motor Manufacturer"

Energy shifted from coal to oil, and  
the heavy and chemical industries  
developed

- Shifted business to production facilities (process automation) for materials such as steel manufacturing and spinning, which require stable operation 24 hours a day
- Achieved results in blast furnace electric products and increased market share
- Proposed concept of "Mechatronics" ahead of the world (1969)

Quality-oriented

FY2015  
CentenaryFY2014  
Annual revenue  
exceeded  
400  
billion JPYFY1981  
Annual revenue  
exceeded  
100  
billion JPYWorld's first  
transistor  
AC driveVS-616T  
(1974)Japan's first  
all-electric vertical  
articulated  
industrial robotMOTOMAN-L10  
(1977)Σ series  
World's smallest  
and lightest  
(1991)World's first  
general-purpose  
vector control  
AC driveVS-616G5  
(1995)World's first  
multiple robot  
cooperative controlMOTOMAN-SK Series  
(1995)World's first  
matrix converterVarispeed AC  
(2005)World's first  
dual-arm industrial robot  
for volume productionMOTOMAN-DA20  
(2005)World's first  
GaN power  
semiconductor equippedServo motor with  
built-in amplifier  
(2017)MotoMINI  
The smallest and  
lightest robot in  
industry  
(2017)

Robotics

Power Conversion

1970-

Transformation to "Automation  
Provider"Expansion of mass production-oriented manu-  
facturing of automobiles, home appliances, etc.  
due to Japan's high economic growth

- Accelerated business expansion from conventional process automation to factory automation
- Aggressively devoted management resources into the rapidly growing mechatronics market; unveiling new products back-to-back
- After the business crisis caused by the oil crisis in 1974, introduced TQC (Total Quality Control) and focused on improving the management structure. Won the Deming Prize in 1984

Mechatronics

Policy management

1990-

Accelerating global expansion

Popularization of personal comput-  
ers and progress in computerization

- Changed the company name from YASKAWA Electric Manufacturing Co., Ltd. to YASKAWA Electric Corporation (1991)
- Expanded overseas business bases amid continued weakness in the Japanese market due to the collapse of the bubble economy
- The "glocal vision" penetrated which enabled thinking on a global scale and activities rooted in local communities
- Commenced operations at China's AC servo drive plant in 2010, a robot plant in 2013, and a Slovenian robot plant in 2019, with a focus on local production

Glocal management

2015-

Promotion of digital management

Spread of the Internet and smart-  
phones Transition to a data-driven  
society through the use of IoT and AI

- Launched "i<sup>3</sup>-Mechatronics," a new solution concept (2017)
- Integrated production, sales and technology to establish "i<sup>3</sup>-Mechatronics" business model and promoted digital management with YDX (YASKAWA Digital Transformation)
- Focused on value creation in manufacturing cells (assembly and processing processes)
- Established YASKAWA Technology Center (YTC) in 2021 as a base for integrated technologies

# Our Unique Strength

The six DNAs (corporate culture) that we have cultivated over 100 years of history are strengthened through the practice of management principle that has been handed down from generation to generation, and form the strength of the Yaskawa Group today.

## Six DNAs

### ① Company founded on technology



Creating cutting-edge technologies and products in line with our founder's commitment to design and manufacture unique to our company.

### ② Pursuing customer satisfaction



Inherited the business policy to "not forget the ideal for the sake of temporary profit, and the first priority is to satisfy customers with sincerity."

### ③ Quality-oriented



Activities aimed at overall customer satisfaction by applying the quality-oriented approach fostered by the construction of non-stop production facilities to products and services

#### Unique strength ①

##### Development focused on the world's first and best technologies

Since the foundation of the company, we have focused our business on electric motors and their applications, and have constantly challenged ourselves to the latest technologies of the times. Many of the world's first and best technologies and products that have been created throughout history have led to industrial innovation and contributed to the development of society. At YASKAWA Technology Center, a new R & D center, which began operations in 2021, we are strengthening our resources to take on the challenge of new technological development by streamlining development processes through integration and by encouraging the exchange of engineers with diverse expertise.



YASKAWA Technology Center

#### Unique strength ②

##### Strong presence in global markets

We have been involved in the export of products since the early days of our founding, following the spirit of our founder, who had an wish to contribute to the nation as much as possible by exporting domestic electrical products overseas." Since the 1990s, we have been localizing our business and building our own sales network and production system in demand areas, and we have a top-level global market share in our core products. In addition, our lineup of AC servo drives and controllers, AC drives and robots, which are essential components for factory automation, and our ability to provide these to a wide range of global customers are our unique strengths.





## (Corporate Culture)

### ④ Mechatronics



Introduced the concept of "mechatronics" for the first time in the world in 1969, with the aim of "integrating customers' machines with Yaskawa motors and controllers to achieve higher functionality"

### ⑤ Policy management



Established a management control system based on TQC (company-wide quality control) in the 1980s, which became a part of our corporate culture

### ⑥ *Glocal* management



Implementing "*glocal*" management that balances between globally efficient management and products, sales organization and management tailored to the characteristics of each region

### Unique strength ③

#### Customers' trust

Since the 1930s, we have maintained a policy of not only manufacturing and selling motors, but also learning how they are used (applications) by customers and providing optimal systems. Today's system engineering business has been providing high-quality, highly reliable products and services for many years, building a relationship of trust with customers. At present, we are promoting business based on a strong relationship of trust with a policy of continuing to provide high value-added and high-quality products that help our customers win in their markets. In addition, based on the *i*<sup>3</sup>-Mechatronics concept, we are implementing our own innovation in manufacturing and using our accumulated know-how and knowledge to make proposals to maximize customers' profits.



### Unique strength ④

#### Ability to create innovation

Mechatronics, which originated in Yaskawa, has brought innovation to manufacturing by precisely controlling machines.

In 2017, Yaskawa launched the *i*<sup>3</sup>-Mechatronics solution concept. In order to advance mechatronics through the use of data and realize a new industrial automation revolution, the development system, which had been dispersed in each business division, was integrated into the YASKAWA Technology Center at the head office in Kitakyushu City.

We will further expand the value provided to customers by strengthening cooperation between development and production, and promoting open innovation.

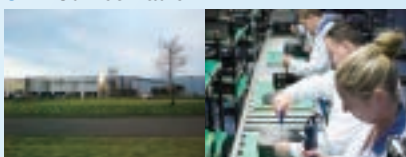
***i*<sup>3</sup>-Mechatronics**

# Our Global Network

Yaskawa Group conducts optimal production at 29 sites in 13 countries and regions around the world based on its policy of production in demand areas and centralized production.

We strive to reduce risks associated with foreign exchange, natural disaster, and geopolitical issues while taking advantage of having manufacturing sites close to our customers in terms of delivery times and building relationships.

**U.K.:** Cumbernauld



Production : AC drive, AC servo amplifier

**India:** Bengaluru



Production: AC drive

**Slovenia:** Kočevje



Production: Robot

**China:** Shenyang



Production: AC servo drive

**Germany:** EMEA HQ

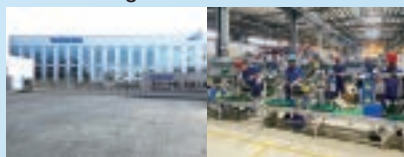
**Europe, Middle East & Africa**

**Singapore:** Asia HQ

**China:** China HQ

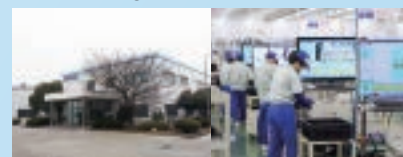
**Asia-Pacific**

**China:** Changzhou



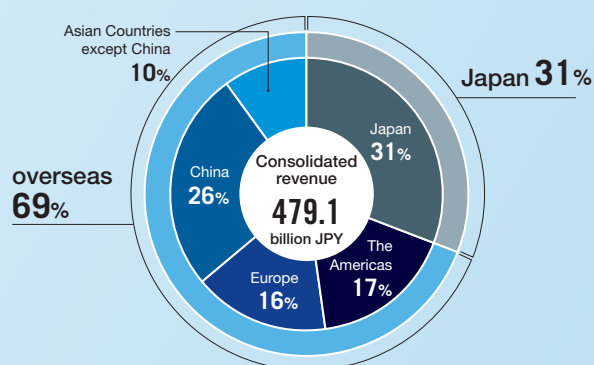
Production: Robot

**China:** Shanghai

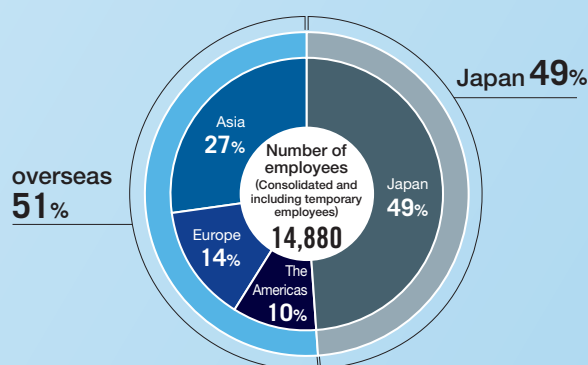


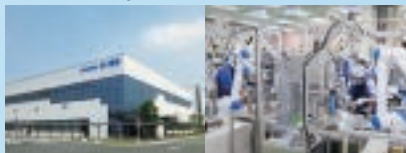
Production: AC drive

Breakdown of revenue by location



Breakdown of personnel by region



**Japan: Kitakyushu**

Production: Robot

**Japan: Yukuhashi**

Production: AC drive

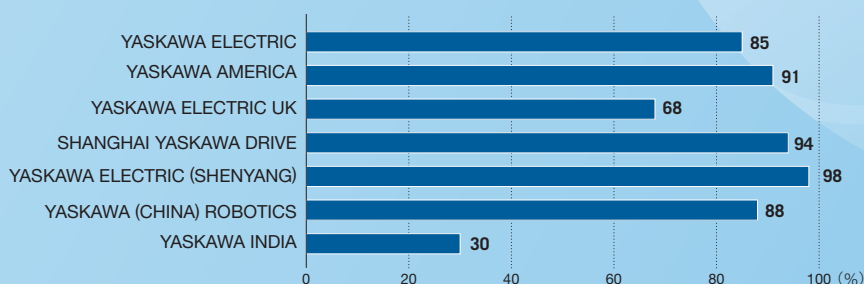
**U.S.A. : The Americas HQ****U.S.A.: Buffalo Grove, Illinois**

Production: AC drive, AC servo motor

**The Americas****Japan: Iruma**

Production: AC servo drive

Operating bases in  
**30** countries and  
 regions around the world  
**29** production sites in  
**13** countries and regions

**Local procurement rate at major production sites**

# Value Creation Process to Realize Long-Term Business Plan "Vision 2025"

## External Environment

### Declining birthrate and aging population in developed countries

- Work style reform
- Productivity improvement
- Labor-saving
- Elimination of 3D labor
- Multi-product variable-volume production

### Environmental issues and climate change

- Decarbonization
- Energy conservation
- Stable supply, safety and security of food
- Utilization of renewable energy

### Human rights

- Promotion of Diversity
- Building a sustainable supply chain

### Evolution of information and communications technology

- Digital transformation (DX)
- Information security

## Input (FY2020)

### Financial Capital

We will use the cash generated by our business activities in three directions: investment for growth, shareholder return, and employee allocation to achieve sustainable earnings growth and increase corporate value. We maintain and improve a sound financial position to support stable business operations.

Profit attributable to owners of the parent:	38.4 billion JPY
Equity attributable to owners of the parent (End of FY):	291.2 billion JPY
Interest-bearing debt (End of FY):	68.0 billion JPY

### Manufactured Capital

We constantly strive to improve the efficiency of our production systems, while at the same time ensuring sufficient production capacity to meet market needs. As a business-to-business manufacturing company, we will utilize the capital to propose improvements to our customers' production.

Capital investment:	24.2 billion JPY
(Ratio to revenue)	5.0%

### Intellectual Capital

As a "company founded on technology" we will continue to develop the world's first and best technologies, strengthen our response to digital solutions, collaborate with joint development partners, and exercise our global intellectual property strategies to create customer value, thereby realizing sustainable business development.

R & D expenditure:	18.2 billion JPY
(Ratio to revenue)	3.8%

### Human Capital

In order to respond swiftly to rapidly changing global markets and to achieve corporate evolution and strengthen competitiveness, it is important for diverse employees to make the most of their abilities. We will strengthen our human resources while aiming to be a company that is rewarding to work for.

	End of FY
Number of employees:	14,880
(Of which, 51% were employees at overseas bases)	

### Social and Relationship Capital

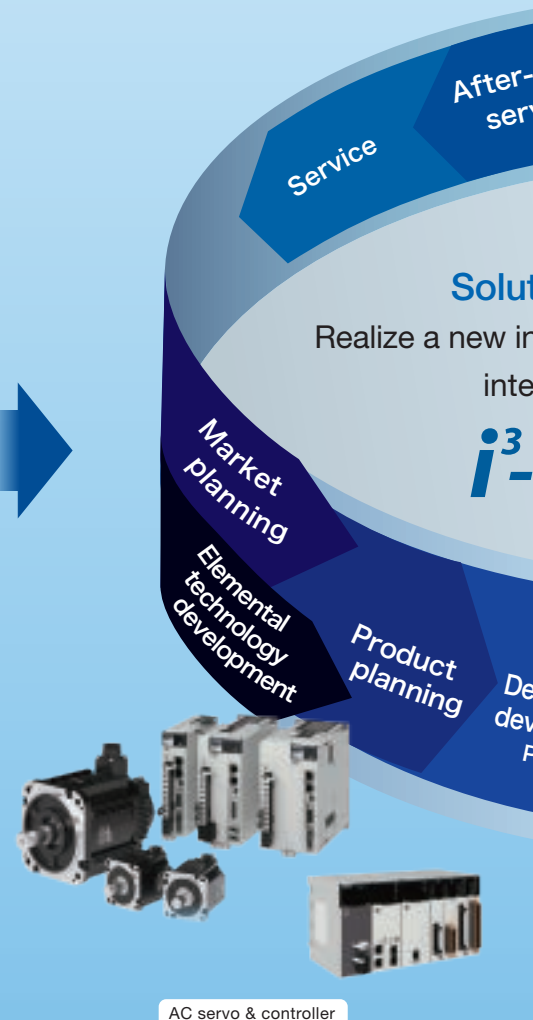
Yaskawa Group's business is founded on relationships of trust with stakeholders, including customers, business partners, and local communities. We are working to build relationships that lead to continuous mutual development.

	End of FY
Business bases:	30 countries and regions

### Natural Capital

Based on the recognition that global environmental conservation is one of the most important issues shared by all humankind, we create value by reducing the environmental impact of our products (green products) and by reducing the environmental impact of Yaskawa Group's business activities (green process).

Environmental conservation costs:	approximately 1.3 billion JPY
-----------------------------------	-------------------------------



Transformation of development, production, sales, and infrastructure of YDX (YASKAWA)

Yaskawa's Inherited  
DNA (Corporate culture)

A company founded on  
technology

Pursuing customer  
satisfaction

Quality-oriented



## Management principle of the Yaskawa Group

"Leveraging the pursuit of our business to contribute to the advancement of society and the well-being of humankind"

### Realization of "Vision 2025"

Yaskawa's FY2025 goals

#### Respect Life

Contribute to improving quality of life and building a sustainable society with technologies accumulated over the past century.

#### Empower Innovation

Venture in new technologies/domains/targets to bring "Waku-Waku"<sup>\*1</sup> excitement to people.

#### Deliver Results

Deliver assured results to stakeholders, while continuously enhancing business execution capabilities.

<sup>\*1</sup> "Waku-Waku": Onomatopoeia used in Japanese language to express someone's feeling of enthusiasm

### FY2025 Financial Targets

Operating profit 100 billion yen

ROE: 15.0% or more

ROIC: 15.0% or more

Dividend payout ratio: 30.0% +  $\alpha$

### Value chain



### Output (FY2021)

#### Factory Automation/Optimization

Optimizing customer production sites and improving productivity by using data



#### Revenue

479.1 billion JPY  
+22.9% YoY

#### Operating profit

52.9 billion JPY  
+94.5% YoY

#### Operating profit ratio

11.0%  
7.0%  
(previous year result)

#### ROE

14.3%  
8.0%  
(previous year result)

#### ROIC

13.3%  
7.0%  
(previous year result)

#### Payout ratio

35.4%  
33.1%  
(previous year result)

#### Mechatronics Applications

- **Energy Saving**  
Helping customers save energy
- **Food & Agriculture**  
Contributing to a stable food supply
- **Clean Power**  
Contributing to the decarbonization of society
- **Humatronics**  
Supporting people's health and livelihood



Dual-arm robot for biomedical applications

### Business portfolio

...es, and services using the digital management (YASKAWA Digital Transformation)

Mechatronics

Policy management

glocal management

## "i<sup>3</sup>-Mechatronics" Solution Concept

We will accelerate the evolution of production, sales, and technology, and contribute to the resolution of customer management issues through cross-business initiatives.

Yaskawa launched the solution concept "i<sup>3</sup>-Mechatronics" in 2017.

The three "i"s, "integrated," "intelligent," and "innovative" of the i<sup>3</sup> (i cube) are concepts that contribute to solving customers' management issues and transform the company's business model.

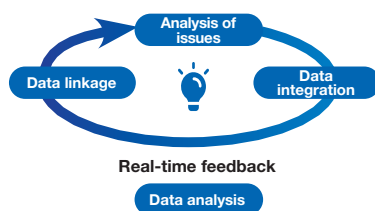
### Business model transformation at Yaskawa Group

#### Strengthen manufacturing functions to demonstrate "i<sup>3</sup>-Mechatronics"



**Develop concept of  
"YASKAWA Solution Factory"**  
that will transform manufacturing and  
business

#### Strengthen sales capability to realize "i<sup>3</sup>-Mechatronics"



**Offer optimal solutions**  
through communication with customers  
including top management

#### Develop technologies/products to realize "i<sup>3</sup>-Mechatronics"



**Develop technologies and products**  
that accurately meets customer needs  
**timely by integrated  
development functions**

#### Strengthen service businesses through demonstration of "i<sup>3</sup>-Mechatronics"



**Develop new services**  
that contribute to improving customers'  
production efficiency

IT

FA (Edge\*1)

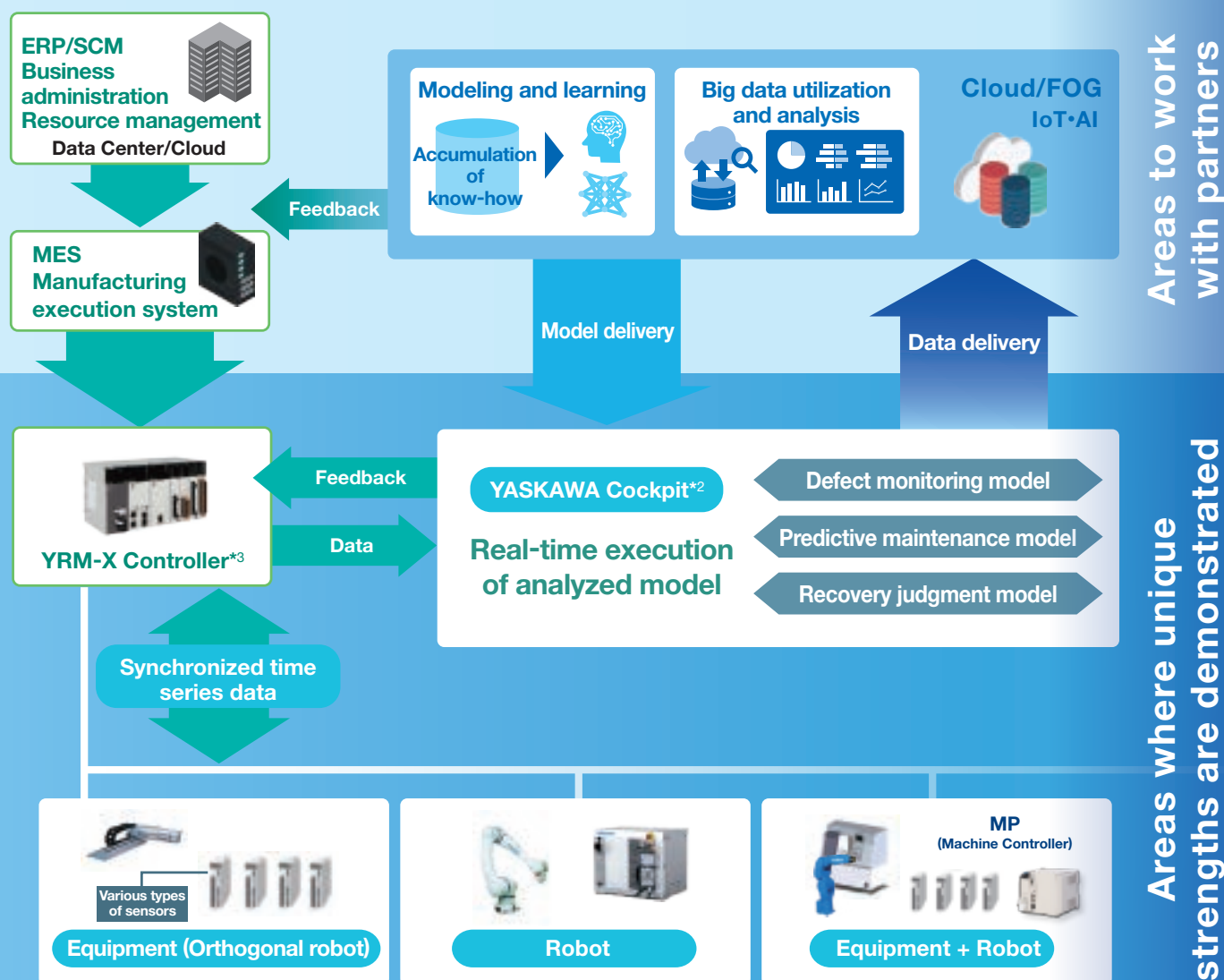
Digital data  
management



Automation of  
manufacturing

By making the most of YASKAWA Solution Factory and YASKAWA Technology Center (YTC) and implementing the "i<sup>3</sup>-Mechatronics" concept through data integration and analysis through YASKAWA Digital Transformation (YDX), the Group is transforming its business model. We thereby provide customers with high value-added automation solutions.

## Solution offered to customers



\*1 Area of information processing for real-time data analysis and feedback (Areas close to production floor, such as factories and production sites)

\*2 Software that can collect, store, and analyze data on production facilities and equipment in real time

\*3 Controller for integrated control of "cell" composed of devices and industrial robots by synchronizing various data from cell at high speed, in real time and in time series

## Energizing Activities Based on the "i<sup>3</sup>-Mechatronics" Solution Concept to Make a Further Leap Forward

Representative Director,  
Chairman of the Board, President

*R. Gasawara*

Q

It has been six years since assuming office of president of Yaskawa. During this time, the company has transformed its business model through i<sup>3</sup>-Mechatronics, promoted YASKAWA Digital Transformation (YDX), and implemented profit-oriented management, and has been recognized by external stakeholders as having a stable and profitable structure. How do you look back on the past six years?

A

The FA industry, to which Yaskawa belongs, has a fluctuating business cycle, and Yaskawa's business performance tends to fluctuate accordingly. In the past, Yaskawa was said to be slow when going up, fast when going down, in contrast to the amplitude of the cycle, but in recent years, it seems to have followed this wave and outperformed other companies in terms of performance improvement. Behind this is the ingrained management practice of conducting thorough benchmark research and comparing and evaluating Yaskawa's performance with other companies in the industry, which has enabled us to objectively understand Yaskawa's position and to flexibly take necessary measures. As a result, it's an achievement to get to the point where we can see the backs of the industry's leading companies. However, I recognize that we are not yet as good as or better than those companies. The COVID-19 crisis which started in 2020 provided me with a clear recognition





of the difference between Yaskawa and the industry's leading companies, which is whether we were an organization in which each and every employee could decide and act on his or her own every day to achieve the organizational goals.

For example, during the FY2021, when demand rapidly expanded following the normalization of business from COVID-19 crisis, a shortage of components became an industry-wide problem, and there was a difference between companies that could produce (supply) and those that could not. Against this backdrop, Yaskawa achieved a record production volume, but was unable to keep up with the pace of order expansion. To become a truly strong company, I feel it is necessary to learn from other companies' strengths not only in the production process but also in development, sales and service, and to "thoroughly" practice what needs to be done. Since becoming president, I have used the key word "data as the common language of the world" to visualize management resources, integrated value chains based on the i<sup>3</sup>-Mechatronics concept, and transformed business models. This puts us in a position to demonstrate Yaskawa's core strengths and accelerate the delivery of differentiated value. To take initiatives in the market and aim for greater heights for Vision 2025 and beyond, we are required to share the "readiness" and "rigor" with organizations and with individuals in their actions.

Q

Over the past few years, it has become commonplace for the business environment to change, with COVID-19 crisis and supply chain disruptions, geopolitical risks, and rapid fluctuations in foreign exchange rates. One of the policies developed within the company this fiscal year was to deepen the understanding of Group Management Principle. What was your thoughts behind this?

A

As I mentioned above, I want to increase the number of people who can decide on their own actions and move to achieve their goals, rather than waiting for instructions based on top decisions amid rapidly changing circumstances. If we don't do that, we won't be able to cope with the drastic changes in the environment. Growing companies are responding to changes in the market with a unified sense of direction and individuals pursue targeted outputs. Yaskawa has Vision 2025, mid-term business plan and a policy management system based on TQM in place, but the levels of penetration of the system among each employee and the implementation in action vary, and I feel this is an issue. I believe that by first acting with an understanding of the three values (quality, profit and market) of Group Management Principle and by visualizing the results of each individual, we can become more aware of high-quality activities. However, it may take some time because these are not easy to accomplish.

Yaskawa today has become rather stable and profitable, and it is impossible to cultivate human resources under the same tough environments as in the past. Still, I believe that no matter what happens, in order for Yaskawa to take the next step, it is necessary not to be satisfied with the status quo, but to have some sort of strict criteria of judgment integrated into the business operations. It is the very act of management principle's infiltration.

Q

What impact has the YASKAWA Digital Transformation (YDX) had on Yaskawa in terms of its ability to respond to change and its pursuit of quality?

A

The availability of key management data has greatly increased the speed with which we understand what are happening where within the group, and we have seen significant improvements in terms of the speed with which we respond to change and our commitment to quality. At the same time, I feel that there is a widening gap in output between those who understand the current situation based on data and use it in their own actions and those who do not. As a manufacturing company, Yaskawa values the concepts of "the three actuals"<sup>\*1</sup> and "5S"<sup>\*2</sup>. Making these concepts visible in data is what DX is all



about, and people who realize this and put it into practice are starting to lead the way. We will continue to emphasize the importance of working with data.

\*1 Solving problems by correctly understanding the actual place, the actual thing and the actual situation

\*2 Activities used to improve and maintain the working environment consisting of organizing, tidying, cleaning, cleanliness and discipline

**Q** Since introducing the i<sup>3</sup>-Mechatronics concept in 2017, we have implemented organizational changes almost every year in each function of the value chain, including development, production, sales, and services. With the completion of YASKAWA Technology Center (YTC) in FY2021, the transformation of our business model has come to a close. Based on this, what are your thoughts on the next mid-term business plan, which is currently being formulated?

**A** First, we need to clarify the solution concept, i<sup>3</sup>-Mechatronics, which forms the basis of management in Yaskawa. People often ask me how much this will contribute to Yaskawa's performance, but it is very difficult to explain quantitatively, just as we can't explain how much a slogan, for example, will affect our performance. i<sup>3</sup>-Mechatronics is a guide to thinking in various aspects of management, not a means in itself, such as we approach customers based on i<sup>3</sup>-Mechatronics concept, and in human resources, we

transform human resources management with the idea of i<sup>3</sup>-Mechatronics, and so on. In other words, it is the thought and action itself that has changed management by grasping things in the order of the three "i"s of i<sup>3</sup>-Mechatronics: integrated, intelligent, and innovative. In the past few years, margins in the robotics business and profits in the system engineering business have been improving, so I think what we have been doing steadily since 2017 is slowly starting to bear fruit.

An important and indispensable initiative for the formulation of the next mid-term business plan is "YDX." Under YDX-II, which started this fiscal year, we intend to make efforts throughout the entire value chain, including customers, partner factories and suppliers. Up to now, YDX-I has been a visualization initiative focused on internal data, but in the future, we would like to broaden our thinking and evolve it into an activity that enhances value throughout the product life cycle. (PLM construction)

This fiscal year is the last year of the current mid-term business plan, "Challenge 25 Plus," and there was also much to learn from the pandemic caused by the COVID-19 and the accompanying lockdown that occurred during the period. As we move on to the next mid-term business plan, we will take advantage of these learnings to root our activities based on the i<sup>3</sup>-Mechatronics concept and YDX in a manner similar to Yaskawa's DNA (corporate culture), while sharing the aforementioned rigor not only with the management but also with our employees, with the aim of stepping up even further as a sustainable company. This will enable us to deliver even greater added value to our stakeholders.

Q

**How do you view securing and developing human resources as the key players of value creation? How should people in Yaskawa grow?**

A

I believe that how human resources development in Yaskawa should be is not just education, but for example, recognizing the challenges YDX has visualized, and solving them and changing them on their own, and boldly taking on those challenges will bring great growth to people and at the same time lead to a work reform. I always say that I want our employees to be the kind of person who will be headhunted or invited by other companies as a result of growing through work that can transform and contribute to the company. (To avoid misunderstanding, I emphasize that employees shouldn't work for the purpose of getting scouted.) We aim to provide an environment and job satisfaction that will encourage people to choose to work in Yaskawa.



I believe that "job satisfaction" means that each person's job matches his or her objectives. Work is a way for people to live, but it's different for everyone, and for some people who spend a lot of their waking hours at work, working is an end in itself. I don't deny it. However, working to kill time without purpose should not be the way at Yaskawa, and I believe it's best to work to achieve results with respect to individual goals and that aligns with the direction of the company. From FY2020 to the current fiscal year, we are reviewing our evaluation and compensation systems to make the company a more rewarding and rigorous place, and not just an easy place to work for.

Q

**What management challenges do you think Yaskawa needs to overcome to achieve the goal of operating profit of 100 billion yen in Vision 2025?**

A

To begin with, looking at the current business environment alone, there are a number of issues that need to be addressed, such as the historically weak yen, the Russia-Ukraine issue, difficulty in procuring components, soaring material and logistics costs, and the lockdown imposed by COVID-19 crisis, and it is inevitable that the business environment will change rapidly in the future. On the other hand, however, there are also growing business opportunities for Yaskawa, including the adoption of EVs and the expansion of the battery market, increased demand for semiconductors and electronic components due to the spread of 5G and AI, capital investment for the advancement and automation of production, and the expansion of new energy sources for decarbonization. Under these circumstances, the first management challenge is to ensure that the expansion of these growing markets leads to growth of Yaskawa. The other is to follow industry benchmarks in all areas, including administrative departments and operations such as development, production, sales and services, etc., and to be more quick in our tactics and execution so that we can deliver results no matter what. I believe that if we can achieve a level of productivity comparable to that of the industry's leading companies, we can achieve a operating profit of 100 billion yen. And we're getting ready to move this along.

It is at times like these that we will put our feet to the ground, solidify our inner strength and achieve results that meet the expectations of our stakeholders. Please don't miss our next leap forward.



## Using YDX to Evolve Business Management and Turn an Uncertain Business Environment into an Opportunity to Achieve Further Growth

Representative Director,  
Senior Managing Executive Officer

**Shuji Murakami**

### Review of FY2021

In FY2021, annual targets in mid-term business plan were achieved at all revenue, operating profit and operating profit ratio. Behind this was the fact that we were able to control expenses appropriately in the midst of rapid revenue expansion, and this was due in large part to the fact that we were able to plan in a top-down manner based on the data visualized in YDX (YASKAWA Digital Transformation) and made sure to operate within the budget.

In addition, amid the tight supply-demand balance in the industry as a whole, we were able to maintain the selling price of robots in particular, and we were able to cover the increase in the price of copper and magnets, which are the materials used in motors, to some extent by explaining to customers and asking them to bear the impact. We were also able to absorb

some of the cost increase through self-help efforts such as switching to new products. With regard to the rising cost of logistics, we had to ask customers to bear the cost as a surcharge, but Yaskawa's basic policy is to produce in demand areas, and we have been able to keep the impact of logistics costs relatively low.

### Business Environment in FY2022 (Opportunities and Risks)

The business environment is expected to remain highly uncertain. We have to assume the risk of further deterioration due to continued supply chain disruptions, the Russia-Ukraine issue and China's zero-corona policy. In addition, it is important to deal with material and expense increases caused by inflation. The basis of our response is to reflect this in

sales prices through value-added proposals based on the i<sup>3</sup>-Mechatronics concept. Under the current tight supply-demand balance, we see this as an opportunity to accelerate this initiative.

In addition, supply chain disruptions and rising geopolitical risks mean that production in demand regions that Yaskawa has been pursuing will accelerate in other companies. Then, as we move from centralized production centered in China to decentralized production bases, capital investment will be required in each region. Even in areas where labor is difficult to secure and labor costs are high, there will be a need to produce, so I believe that investment in automation will continue to grow. In addition, given that the current inflation is also caused by a labor shortage and a lack of capital investment, it is necessary to increase supply capacity in order to resolve this. This is another factor that will increase capital investment. In this way, while the aforementioned various risks will become urgent issues that need to be resolved in the short term, we see the business environment as one that could provide business opportunities for Yaskawa in the medium to long term.

### Assumptions for Production and Expenses to Achieve the FY2022 Plan

The backlog of orders from the previous fiscal year has accumulated significantly, and as long as the order receiving environment does not deteriorate to an extreme degree, the condition for achieving the plan is to ensure that production exceeds the record level of FY2021. In order to do this, we need to have the necessary parts for production, but in the absence of an immediate improvement in procurement difficulties, we are shifting to a policy of obtaining goods from the market for bottleneck parts, even at high prices, and turning them into production. In addition, we have some accumulated inventory of parts, therefore we plan to increase production and

the resulting revenue from FY2021.

With regard to expenses, we will continue our policy of limiting increases in expenses other than strategic investments to no more than 10% of the increase in revenue and will continue to control expenses within the limit by looking ahead in a top-down approach.

### Major Objectives of Capital Expenditures in FY2022

In FY2022, we expect capital expenditures to increase by approximately 5 billion yen from the previous year. In addition to enhancing facilities for mass production of new products, we will work on specific projects under the theme of in-house production in FY2022. We will manufacture circuit boards and machined parts in-house as much as possible, which was previously outsourced to EMS, so that we can respond quickly to volume fluctuations and component changes. The expansion of in-house production is also expected to reduce logistics and inventory costs.

### Capital Strategy

Yaskawa aims to achieve returns higher than the cost of equity of 10% and WACC\*<sup>1</sup> of 9% and has set a target of 15% for both ROE and ROIC. In FY2021, ROE was 14.3% and ROIC was 13.3%, and we recognize that these indicators are among the highest in the industry. We will continue to maintain and improve levels of ROE and ROIC by keeping management discipline.

In terms of ROIC, one way of thinking is to look at each business, but Yaskawa's business consists of customers in all similar industries, and the production system is almost the same, so there is no significant difference in working capital or labor equipment ratio\*<sup>2</sup>. Therefore, rather than using the ROIC of each business as a judgment indicator, we will first place greater emphasis on operating profit ratio, aiming for an operating profit ratio of 10% or higher in each business. Robotics and System Engineering did not

achieve 10%, but for Robotics, we have improved to 9.7% in FY2021 and expect further improvements in the future. As for System Engineering, we have been restructuring the business within the Group, including the transfer of the steel and water treatment plant business to Yaskawa Automation Drive Co., Ltd. However, we need to retain the knowledge and engineering capabilities we have developed within the Group and utilize them in the FA field, which is Yaskawa's current core business. Considering capital efficiency, I believe we need to achieve a 10% profit ratio as soon as possible, rather than trying to expand revenue unreasonably.

In addition, the environmental energy business in the System Engineering segment is an area of great social significance for realizing a decarbonized society. We will continue to develop areas where Yaskawa's technology can be used and where we can demonstrate our superiority, while at the same time we will continue to select areas where we do not.

At the same time, we are exploring new areas where Yaskawa technology can be used through "mechatronics application." However, rather than investing large amounts of capital first, we plan to start small and invest in new portfolios if we can find areas where we can excel.

\*1 Weighted Average Cost of Capital

\*2 Capital investment per employee

### Basic Policy of Balance Sheet Structure

As for current assets, our policy is to maintain cash on hand at a level of about one month revenue while controlling the global distribution of cash so that there is no surplus.

Inventories increased in FY2021 due to an inventory built up caused by a shortage of components, as well as the impact of foreign exchange rates. In FY2022, we will reduce product inventories and increase parts inventories to ensure reliable production and sales.

As for non-current assets, property, plant and equipment will increase because capital investment exceeds depreciation. Our policy is to actively invest 6 to 7% of revenue in capital expenditures that will be a source of future profits.

In terms of capital structure, we will operate with leverage within a certain net D/E ratio while taking safety into consideration. I believe that a cash level that is too high is undesirable from the standpoint of management discipline, and we will consider shareholder returns as one of the ways to ensure appropriate capital efficiency (ROE). If the ratio of equity attributable to owners of parent to total assets exceeds 50%, I believe that we are operating stably, and that the current level at the end of FY2021 (52.1%) is a situation in which we can provide returns flexibly. If it falls below 50%, we will take actions such as increasing retained earnings.

### Basic Policy for Cash Allocation

Under the mid-term business plan "Challenge 25 Plus," to achieve medium-to long-term growth in Yaskawa Group, we will continuously invest 4 to 5% of revenue in research and development and 6 to 7% in capital investment. Future investment for growth will be clarified in the next mid-term business plan, which is currently being formulated, but capital investment and M & A will be set at a slightly higher and more ambitious level.

For shareholder returns, the target payout ratio is  $30\% + \alpha$ . If more cash is generated than expected, we will consider a return, including a share buyback, for capital efficiency.

In addition, we have long sought to return profits to our employees, who are the main contributors to corporate value creation. In the current fiscal year, we have extended our medium- to long-term incentive program to employees. Aiming to increase



awareness of participation in management, we have established a system in which stock-based compensation is paid to managers and above according to the level of achievement of the mid-term plan, and cash compensation is paid to employees, which serves as an incentive for employee stock ownership, to raise awareness of the need to increase corporate value. Bonuses are increased without an upper limit if the operating profit ratio exceeds 10%, while if profit margins decline, they are reduced accordingly under a new system that is more linked to profits. We strive to increase motivation from the perspective that employees' ambitious challenges will lead to future growth and returns of the company.

In addition to these measures, in FY2022 we will shorten the term of payment for suppliers in order to strengthen our supply chain, which is a pressing management issue. We are planning to appropriate about 15 billion yen in cash, assuming that suppliers will use the cash to secure inventory and increase facilities.

### Management Innovation through YDX

YDX has enabled us to change the planning process to a top-down budget and monthly plan, because the data of each company and each business division can now be seen in the same angle, instead of the traditional planning process of piling up plans prepared by each group company and each business division and understanding the situation and deciding on a budget and monthly plan. Each department and company have changed its management style to focus on developing measures to achieve the budget. Currently, a backlog of orders is piling up, and the problem is how to eliminate it, but the status of each company's backlog can be seen in real time from various perspectives, and as a result, revenue plan

can be formulated at the head office.

The next step is to consolidate the overlapping functions of domestic group companies, such as accounting and planning, at the head office to streamline operations. I believe that planning, performance monitoring and payment operations can all be consolidated at headquarters. Although there were differences in the level of each company in these operations, YDX allows us to match the quality of our operations, including internal controls, to the level of our headquarters.

Reports on business management are also processed from data collected at the head office, enabling push-type reporting to group companies and business divisions in the same format. A style is emerging in which each company and each division conducts business management and decision-making using reports and data with a globally unified format.

### To Our Stakeholders

At first glance, the business environment in FY2022 appears to be a headwind due to inflation and geopolitical risks, but we intend to take advantage of this to increase Yaskawa's contribution in the areas of investment in automation and manufacturing and achieve further growth. Please look forward to sustainable growth of Yaskawa and I appreciate your continued support.

# Progress of Sustainability Challenges and Targets (Materiality)

Under the Group management principle, Yaskawa Group formulated its Sustainability Policy in FY2021. In line with this policy, we identify material issues and develop targets for long-term and mid-term business plans to promote strategic

Sustainability Challenges and Targets and Related SDGs	Desired Outcomes	
Create Social Value and Solve Social Issues through Business Activities		
① Realize revolutionary industrial automation with partners through "i <sup>3</sup> -Mechatronics"	Solve customer management issues with i <sup>3</sup> -Mechatronics, a solution concept	• Accumulation of "i <sup>3</sup> -Mechatronics" project success cases
② Build clean social infrastructure and foundation for safe and comfortable living	Use Yaskawa's technological capabilities to improve the environmental performance of products and reduce the environmental impact of the world by expanding sales	• Achieve CCE 100 (Contribution to Cool Earth 100)* <sup>1</sup> [FY2025: 100 times]
	Apply and expand Yaskawa's existing mechatronics technology and take on new domains	• Expanding examples of mechatronics technology applications
③ Develop new technologies and business domains through open innovations	Leverage M & A / Alliance to provide feedback on business expansion and technology in new areas	• Strengthen initiatives in new areas through M & A and alliances
	Promote external collaboration to develop the world's first and best technologies and products	• Reinforcement of Industry-Academia-Government collaboration
	Demonstrate business synergies through venture investment and collaboration	• Expansion of venture investments by YIP* <sup>2</sup>
Strengthen Management Foundation that Contributes to Sustainable Society/Businesses		
④ Sustainable and productive manufacturing	Promote global production efficiency and optimization through domestic and overseas expansion of the "Yaskawa Solution Factory" concept	• Introduction of cutting-edge manufacturing
	Reduce CO <sub>2</sub> emissions and address global climate change issues	• Reduction of greenhouse gas emission through the Green Process
	Provide optimal maintenance throughout the life cycle with the ultimate goal of "not stopping customer equipment"	• Improvement of product safety and quality
	Implement supply chain management based on adherence to sustainable procurement guidelines	• Construction of a sustainable supply chain
⑤ Create a rewarding workplace and human resource development	Demonstrate the strengths of diverse human resources by promoting the active participation of women	• Diversity and inclusion
	Develop human resources based on personnel philosophy and improve the job satisfaction of employees	• Human resource development
	Eliminate work stoppage accidents and create a safe workplace	• Occupational safety
	Raise employees' awareness of human rights and create a workplace where human rights are respected	• Human rights and work practices
	Promote social contribution activities to coexist and co-create with local communities by developing human resources for the evolution of manufacturing	• Contribution to local communities
⑥ Fair and transparent governance system	Promote sustainable growth and increase corporate value through constructive dialogue with investors	• "Aggressive" governance system utilizing the Corporate Governance Code
	Raise the level of the security organization and build an autonomous and continuous information security system	• Strengthening of information security
	Prevent escalation by early detection of compliance risks	• Enhancement of compliance

\*1 A target of reducing CO<sub>2</sub> emissions through Yaskawa products by 100 times or more of the CO<sub>2</sub> emissions of the Group by FY2025

\*2 Abbreviation of Yaskawa Innovation Program. New business creation scheme with CVC functions launched in FY2016

\*3 Revenue per person for indirect and direct personnel at plants in Japan (compared to FY2019)

sustainability. In addition, we will monitor progress and implement the PDCA cycle to achieve a sustainable society and increase corporate value.

Initiatives [Targets]	FY2021 Results
	<ul style="list-style-type: none"> <li>Strengthened customer approach with key products (YRM-X controller, YASKAWA Cockpit) based on i<sup>3</sup>-Mechatronics concept</li> <li>Expanded performance through collaboration with leading manufacturers in a wide range of industries, including semiconductors, electronic components, medical, food, consumer electronics, and apparel <a href="#">P.35-36</a></li> </ul>
	<ul style="list-style-type: none"> <li>61 times <a href="#">P.56</a></li> </ul>
	<ul style="list-style-type: none"> <li>Promoted initiatives in mechatronics application areas with a focus on energy conservation, clean power, food and agriculture, and humatronics <a href="#">P.30</a></li> </ul>
	<ul style="list-style-type: none"> <li>Continued aggressive search for growth opportunities through M &amp; A and other means to create technological synergies in the core FA business and its surrounding areas</li> <li>Additional investment in Doolim-Yaskawa Co. Ltd. (Jan. 2022)</li> </ul>
	<ul style="list-style-type: none"> <li>Number of industry-academia-government collaboration cases: 27</li> <li>Comprehensive collaboration with Kyushu University <a href="#">P.32</a></li> </ul>
	<ul style="list-style-type: none"> <li>Cumulative total: 17</li> <li>2 cases in FY2021 (Additional investment in Novel Crystal Technology, Inc. and new investment in VC Cell Therapy, Inc.) <a href="#">P.32</a></li> </ul>
<ul style="list-style-type: none"> <li>Improving production efficiency at own plants (improving productivity indicators*) [FY2022: +19%*<sup>4</sup> FY2025: +23% (compared to FY2019)]</li> </ul>	<ul style="list-style-type: none"> <li>+18% (compared to FY2019) <a href="#">P.33</a></li> </ul>
<ul style="list-style-type: none"> <li>Reducing greenhouse gas (CO<sub>2</sub>) emissions [FY2025: -30%*<sup>5</sup> (compared to FY2018)]</li> </ul>	<ul style="list-style-type: none"> <li>-4.3% (compared to FY2018) <a href="#">P.55</a></li> </ul>
<ul style="list-style-type: none"> <li>Improving product quality through the introduction of new systems [FY2022: Start of global operation of market quality information centralized system]</li> </ul>	<ul style="list-style-type: none"> <li>Accelerated implementation of temporary and permanent measures to address quality issues through real-time collection of market quality information in Japan and Asia</li> <li>Coded quality information to address quality issues globally</li> <li>Used predictive failure diagnosis with constant monitoring tools for customer equipment to improve maintenance proposals <a href="#">P.53</a></li> </ul>
<ul style="list-style-type: none"> <li>Improving the rate of compliance with Sustainable Procurement Guidelines [FY2022: Compliance rate: 100%*<sup>4</sup> (target: major suppliers of Yaskawa Electric) FY2025: Compliance rate: 100% (target: major suppliers of Yaskawa Group)]</li> </ul>	<ul style="list-style-type: none"> <li>Asked 56% of Yaskawa Electric's major business partners to conduct an investigation and confirmed a 100% compliance rate <a href="#">P.53</a></li> </ul>
<ul style="list-style-type: none"> <li>Raising the ratio of female managers [FY2025: Non-consolidated/Group in Japan: Double (compared to FY2021)]</li> </ul>	<ul style="list-style-type: none"> <li>Ratio of female managers: 0.8% (non-consolidated)</li> <li>Increased the female percentage of new graduates hired <a href="#">P.51-52</a></li> </ul>
<ul style="list-style-type: none"> <li>Increase the ratio of professional human resources*<sup>6</sup> [FY2025: Corporate average 75% or more*<sup>4</sup>]</li> </ul>	<ul style="list-style-type: none"> <li>Professional rating ratio: 47% (as of the beginning of FY2022) <a href="#">P.51</a></li> </ul>
<ul style="list-style-type: none"> <li>Improvement of lost-time injury frequency rate [FY2025: Non-consolidated: Maintain 0.2 or less Major production bases in Japan and overseas: Maintain 0.4 or less]</li> </ul>	<ul style="list-style-type: none"> <li>Lost time injury frequency rate: 0.32 (non-consolidated), 0.20 (domestic group), 0.53 (global)*<sup>7</sup> <a href="#">P.52</a></li> </ul>
<ul style="list-style-type: none"> <li>Implementation and establishment of human rights due diligence processes for employees [FY2022: Implementation of human rights due diligence for group companies in Japan FY2025: Implementation at all global sites]</li> </ul>	<ul style="list-style-type: none"> <li>Publication of human rights policy and implementation of human rights due diligence (non-consolidated)</li> <li>Studied the status of initiatives taken by domestic groups <a href="#">P.54</a></li> </ul>
<ul style="list-style-type: none"> <li>Development of human resources in science and engineering who will realize "evolution of manufacturing" [FY2022: Launch of a new manufacturing human resource development program]</li> </ul>	<ul style="list-style-type: none"> <li>Formulated draft program (overall picture), implemented some remote programs</li> <li>YASKAWA Innovation Center Visitors: 3,295 <a href="#">P.53-54</a></li> </ul>
<ul style="list-style-type: none"> <li>Implementation of the Principles of the Corporate Governance Code (Reasonable explanation where not implemented)</li> </ul>	<ul style="list-style-type: none"> <li>Implementation of the principles of the Corporate Governance Code required of companies listed in "prime market" <a href="#">P.71-76</a></li> </ul>
<ul style="list-style-type: none"> <li>Improving the level of information security through the use of external auditing organizations</li> </ul>	<ul style="list-style-type: none"> <li>Conducted external security threat analysis, identified challenges and enhanced response</li> </ul>
<ul style="list-style-type: none"> <li>Strengthen compliance through internal reporting</li> </ul>	<ul style="list-style-type: none"> <li>Continued appropriate responses to whistleblowing and other compliance issues</li> </ul>

\*<sup>4</sup> Target was revised in April 2022.

\*<sup>5</sup> The target value was changed following the revision of the 2050 carbon neutral target in May 2022.

\*<sup>6</sup> Refers to human resources who have a rating of 3 or higher on a four-point scale in accordance with company rules

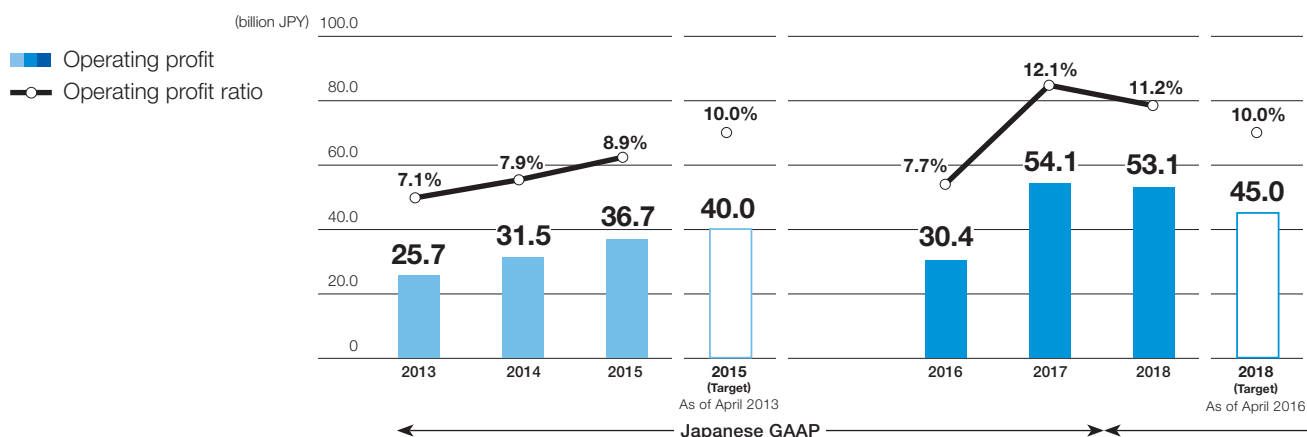
\*<sup>7</sup> Three factories in China (Shenyang, Changzhou and Shanghai) and Yaskawa India

# Roadmap for Realizing Vision 2025

The 10 years of the long-term management plan "Vision 2025" (FY2016 to FY2025) have been divided into 3 mid-term periods, and Yaskawa has been working to increase profitability through expansion of core businesses and business restructuring to achieve operating profit target of 100 billion yen in FY2025.

Currently, under mid-term business plan Challenge 25 Plus, we have been working to transform our business into a highly profitable business structure by integrating and consolidating technology, production, sales and service functions, and

## ■ Track record/goals/asures of the mid-term business plans



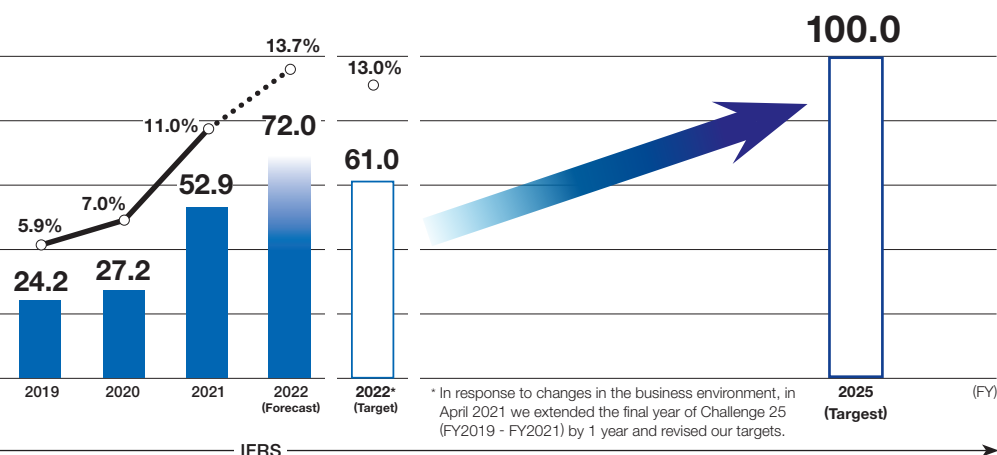
	Long-term business plans				Mid-term business plans			
	Vision 2015				Dash 25			
	2013	2014	2015	2015 (Target)	2016	2017	2018	2018 (Target)
Net sales / Revenue (billion JPY)	363.6	400.2	411.3	400.0	394.9	448.5	474.6	450.0
Capital expenditure, M&A (% of revenue)	70.1 billion JPY(6.0%) *Period total				70.3 billion JPY(5.3%) *Period total			
R&D investment (% of revenue)	46.2 billion JPY(3.9%) *Period total				57.8 billion JPY(4.4%) *Period total			

		Glocal management		Establish profitable business structure	
		Basic policy	Results	Challenges	Results
Development	Results	<ul style="list-style-type: none"> <li>• Evolving business execution capabilities and high-profit structure</li> <li>• Glocal management</li> <li>• Creation of new businesses and core businesses</li> <li>• Restructuring of head office</li> </ul>	<ul style="list-style-type: none"> <li>• Established 4 bases development structure in AC servo and AC drive</li> <li>• Strengthened local customer support by increasing local development, especially in China</li> <li>• Strengthened development resources through M&amp;A (VIPA, The Switch and Solectria)</li> </ul>	<ul style="list-style-type: none"> <li>• Shorten the time to develop new products</li> </ul>	<ul style="list-style-type: none"> <li>• Expanded mainstay product lineup (AC servo drive: Sigma -7 series, AC drive: zero series, new robot and controller)</li> <li>• Established AI solutions development subsidiary AI3</li> </ul>
	Challenges				<ul style="list-style-type: none"> <li>• Strengthen development capabilities of new products to realize i<sup>3</sup>-Mechatronics</li> </ul>
Production	Results		<ul style="list-style-type: none"> <li>• Established global production systems in demand areas for mainstay products, mainly in China</li> </ul>		<ul style="list-style-type: none"> <li>• Full-scale operation of Yaskawa Solution Factory                             <ul style="list-style-type: none"> <li>▣ Dramatic productivity improvement through new production methods based on i<sup>3</sup>-Mechatronics practices</li> </ul> </li> <li>• Expanded of production in demand areas, especially in China and Europe                             <ul style="list-style-type: none"> <li>▣ Servo: Increased local production in the Americas and Europe</li> <li>▣ Robots: Established a European manufacturing base after Japan and China</li> </ul> </li> </ul>
	Challenges		<ul style="list-style-type: none"> <li>• Increase production efficiency by further promoting automation</li> </ul>		<ul style="list-style-type: none"> <li>• Accelerate production efficiency on a global basis</li> </ul>
Sales	Results		<ul style="list-style-type: none"> <li>• Enhanced global sales and service structure and locations                             <ul style="list-style-type: none"> <li>▣ Increased robot centers (Number of global sites: total of 36)</li> <li>▣ Expanded sales network through M&amp;A (VIPA, The Switch and Solectria)</li> </ul> </li> <li>• Launched AC servo drive Sigma -7 series</li> </ul>		<ul style="list-style-type: none"> <li>• Strengthened sales by integrating domestic sales functions (sales integration)                             <ul style="list-style-type: none"> <li>▣ Application and solution proposals made through "one customer one face" sales structure</li> </ul> </li> <li>• Launch of "Yaskawa Cockpit" a core product in realizing the i<sup>3</sup>-Mechatronics concept</li> </ul>
	Challenges		<ul style="list-style-type: none"> <li>• Make Clean Power business profitable and reap investment</li> </ul>		<ul style="list-style-type: none"> <li>• Accumulate track record through penetration of i<sup>3</sup>-Mechatronics concept and strengthen solution proposals</li> </ul>



optimizing and streamlining business operations, with the aim of evolving our business model around the promotion of "i<sup>3</sup>-Mechatronics," as stipulated in the vision.

In the next medium-term plan, we will continue to evolve our business around the i<sup>3</sup>-Mechatronics concept, and by contributing to the improvement of added value for our customers, we aim to achieve the goals of our vision by realizing the industrial automation revolution and improving profitability.



#### Vision 2025

##### Challenge 25 Plus

##### Realize 25

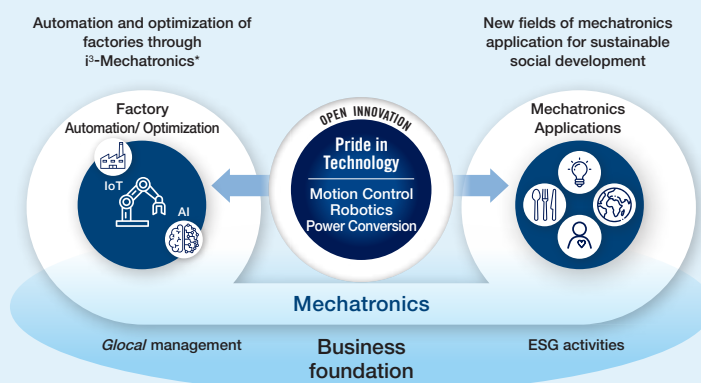
2019	2020	2021	2022 (Forecast)	2022* (Target)
411.0	389.7	479.1	525.0	470.0
71.2 billion JPY(5.6%) *Total during FY2019 - FY2021				
55.0 billion JPY(4.3%) *Total during FY2019 - FY2021				

#### Challenge for creating new values and markets Profitability improvement

- Transform business model through i<sup>3</sup>-Mechatronics
  - Maximize profitability in the growing market through i<sup>3</sup>-Mechatronics
  - Expand new domains for building a sustainable society
  - Improve management efficiency through digital and quality management
- YASKAWA Technology Center started operation (technology integration)
- Deepen open innovation to develop world's best and first products
- Built a common system to visualize global production information (production integration)
- Global production capacity expansion
  - Increase productivity through global expansion of Yaskawa Solution Factory
  - Strengthen in-house manufacturing and procurement of key devices
- Launched new AC servo drive "Sigma-X series"
  - Launched key components to promote i<sup>3</sup>-Mechatronics solution such as YRM-X controller
  - Strengthened service engineering capabilities by absorbing subsidiary (service integration)
- Accumulation of i<sup>3</sup>-Mechatronics success stories and global expansion
  - Expand track record in collaboration with i<sup>3</sup>-Mechatronics CLUB

#### Vision 2025

Contribute to solving customers' management issues in addition to creating new added value to society, through evolution of core businesses, and expansion into new fields by applying mechatronics technology



\* Yaskawa's solution concept for realizing new industrial automation revolutions

#### Financial targets for FY2025

	FY2015 results	FY2025 targets
Operating profit	36.7 billion JPY	Over 100 billion JPY
ROE* <sup>1</sup> ROIC* <sup>2</sup>	12.8% 11.3%	15% or more 15% or more
Payout ratio	23.6%	30.0%+α

\*<sup>1</sup> ROE: Return on Equity = Net income attributable to owners of parent/Shareholders' equity

\*<sup>2</sup> ROIC: Return on invested capital = Net income attributable to owners of parent/Invested capital

## Progress of Mid-Term Business Plan "Challenge 25 Plus"

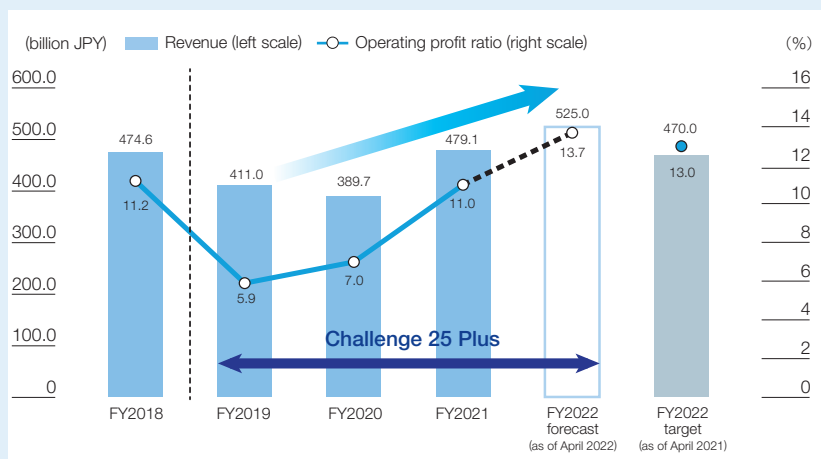
Yaskawa Group's FY2021 results set a new record for revenue. Both revenues and profits increased significantly as the normalization from COVID-19 crisis progressed globally and capital investment expanded across the manufacturing sector.

In FY2022, the market is experiencing prolonged production constraints due to a shortage in the supply of components, mainly semiconductors, that occurred in FY2021. On the other hand, demand remains strong on the back of aggressive capital investment

aimed at upgrading and automating production. In particular, in the automotive market, in addition to accelerating the adoption of electric vehicles (EVs) and expanding investments in new infrastructure such as 5G and lithium-ion batteries in China, the global market for semiconductors and electronic components is expected to continue expanding.

As described above, we expect strong performance in Yaskawa Group's major markets on a global basis, and therefore we plan to increase both revenue and profits, mainly in our core businesses such as robotics.

### "Challenge 25 Plus" performance goals and achievements



### Basic policy 1

### Transform business model through i<sup>3</sup>-Mechatronics

We promote the i<sup>3</sup>-Mechatronics solution concept in Challenge 25 Plus. By providing high-value-added solutions, we will contribute to resolving customer issues and generate profits. i<sup>3</sup>-Mechatronics is making steady progress in penetrating customers, and in FY2022, the final year of the plan, we will continue to strengthen development, production, sales and services.

#### Development capability

##### ► Full-scale operation of YASKAWA Technology Center began. (September 2021)

Utilizing YASKAWA Technology Center, which started operation last fiscal year, we will build a concurrent system\*1 for development, design, quality control and mass production prototypes and strengthen our development capabilities.

\*1 Techniques to shorten the development period and reduce costs by carrying out multiple processes that constitute the product development process simultaneously and in parallel, and by sharing information and collaborating among departments.

#### Production capability

##### ► Visualization of production information by common production system at major plants in Japan and China\*2 (YDX\*3) (February 2022)

##### ► Production of robot controller and circuit boards for servo started at a new plant in Changzhou, China (mass production started in June 2022)

We will strive to increase our production capacity by strengthening parts procurement and increasing in-house production, and to secure parts through supply chain reforms.

\*2 AC servo plants (Iruma, Japan and Shenyang, China) AC drive plants (Yukuhashi, Japan and Shanghai, China) robot plants (Kitakyushu, Japan and Changzhou, China)

\*3 YASKAWA Digital Transformation

#### Sales capability

##### ► Launch of YRM-X controller for integrated cell control (June 2021)

##### ► Launch of MOTOMAN-GP8, a small robot for food processing (October 2021)

##### ► First in the industry! Launch of the industry's thinnest and most efficient Eco PM motor flat type (IE 5\*4) (March 2022)

##### ► Launch of MOTOMAN-HC10SDTP with a payload of 10 kg cooperative robot with short arm (March 2022)

We will reform our sales structure and strengthen cooperation with sales expansion partners to capture growth markets with a focus on new products.

\*4 International standard for motor energy efficiency established by the International Electrotechnical Commission (IEC). IE5 is the most efficient.

#### Service

##### ► Launch of trial offer of annual robot maintenance service (December 2021)

We aim to enhance field services based on predictive diagnosis through data analysis, and to realize high value-added services that do not stop customers' facilities.



## Basic policy 2 Maximize profitability in the growing market through i<sup>3</sup>-Mechatronics

In order to meet the needs of the "3C\*<sup>5</sup>/new infrastructure\*<sup>6</sup>," "automotive" and "semiconductor manufacturing equipment" markets, which are expected to grow further, we are working to strengthen collaboration with our customers in each market, as well as expanding our business and maximizing profits.

\*5: 3C: Digital communication devices (From the initials of Computer, Communication and Consumer Electronics)

\*6: New infrastructure: Areas of industrial digitization in China, focusing on seven areas, including next-generation communications standard 5G, new energy, and AI, etc.

### 3C and new infrastructure market

We will strengthen our activities in sales through collaborations with top Asian manufacturers, especially in China, in order to steadily capture rapidly expanding demand.

### Automotive market

In response to aggressive capital investment demand for electric vehicles (EVs) worldwide, we will expand our product lineup, with a focus on robots. In the lithium-ion battery-related business, which is rapidly expanding due to the adoption EVs, Yaskawa will leverage its comprehensive capabilities to enhance solutions for the entire EV battery manufacturing process to capture demand.

### Semiconductor production equipment market

We will strengthen cooperation with manufacturers of equipment, which are highly competitive in the market, and promote the introduction of products that accurately meet market needs.

## Basic policy 3 Expand new domains for building a sustainable society

As a business area that contributes to the realization of a sustainable society, we are advancing into and taking initiatives in four new areas: energy conservation, clean power, food and agriculture, and medical care and welfare.

### Contributing to the realization of a sustainable society with world-class mechatronics technology

#### Energy Saving

We will contribute to the realization of a decarbonized society by expanding sales of energy-saving equipment such as AC drive and high-efficiency motors.

#### Clean Power

We will strengthen our activities to ensure stable earnings, with a focus on launching and expanding sales of new products to capture demand in the self-consumption market for solar power generation.



#### Food & Agriculture

We will accelerate automation, particularly the use of robots in the home-meal replacement and agriculture sectors. In particular, we will strengthen our efforts in the field of agricultural automation through the full-scale business development of automated food production processes and automated vegetable production systems, as well as the business alliance with JA Zen-Noh (National Federation of Agricultural Cooperative Associations of Japan).

#### Humatronics

We will continue to strengthen our biomedical robotics business with a focus on genomic analysis and iPS cell culture.

# Technology Development

## Akira Kumagae

Director, Managing Executive Officer  
General Manager, Corporate Technology Div.



### Technology integration by YASKAWA Technology Center

We opened a new R&D center, YASKAWA Technology Center (YTC), to build a system that can respond quickly to the diverse needs of our customers.

YTC is based on the three key concepts of integrated development processes, aggregation and creation of intelligence, and creation of innovative technology. The concept is to become a technology-intensive base where we develop products that will lead customers' businesses to success in a timely manner through all of the Yaskawa Group technologies and open innovation.

By consolidating the development systems that were dispersed in each division and corporate development division, we have created an environment in which we can work

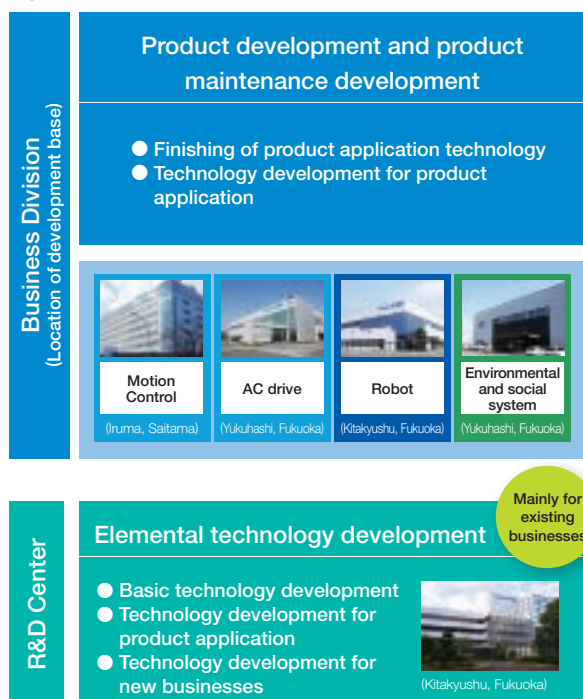
consistently on planning, development, production, and quality control.

We have also created an environment in which employees can be constantly exposed to the world's technological trends, as well as a system to promote information sharing and communication.

In addition to promoting joint research that accelerates industry-academia-government collaboration, we will strengthen technological development that takes full advantage of our strengths both within and outside of the company, and is particular about being the world's best and the world's first through dramatic technological advances.

### Changes in the development system

#### Up to FY2020



#### From FY2021



#### YASKAWA Technology Center

September 1, 2021 Full-scale operation started!





## Promotion of industry-academia-government collaboration

YTC is accelerating the industry-academia-government collaboration by taking advantage of the environment such as the Collaborative Development Office. In FY2021, there were 27 collaborative projects in Japan. We are also promoting comprehensive collaboration with Kyushu Institute of Technology, Kyushu University, and Tokyo Institute of Technology, with a view to creating synergies in a wide range of areas and fostering engineers and researchers. In collaboration with JA Zen-Noh (National Federation of Agricultural Cooperative Associations of Japan), we are accelerating our efforts for automation in the agricultural sector, and are implementing initiatives aimed at realizing smart agriculture, such as the automated demonstration of cucumber leaf clearing operations and the automation of strawberry fruit selection operations at YTC. In addition, using the local 5G wireless station license that we acquired for the first time in the Kyushu area, we are working to develop technologies to improve real-time performance and realize smart factories that utilize wireless connections.



Cucumber leaf scraping



Selecting strawberries

### Examples of Smart Agriculture Initiatives

Overseas subsidiaries have also promoted more than 14 collaborative activities. In particular, Ho Chi Minh City University of Technology in Vietnam established the Yaskawa Mechatronics Lab to learn about Yaskawa's FA equipment and train engineers to become key persons in the Vietnamese industry.



Yaskawa Mechatronic Lab at Ho Chi Minh City University of Technology

## Expanding venture investment and generating synergies

With YIP<sup>\*1</sup>, a new business creation scheme that combines CVC<sup>\*2</sup> functions, we are promoting open innovation through investment in startup companies and business alliances where business synergies are expected, in order to evolve our core businesses and expand new fields by applying mechatronics technology.

Since the start of the program in FY2016, a total of 17 investments have been made in 13 domestic and overseas startup companies up to FY2021, and 2 investments were made in FY2021.

Yaskawa undertook a corporate bond with stock acquisition rights issued by VC Cell Therapy, Inc. (Headquarters: Hyogo, Japan), which is a venture company engaged in the development of technologies for the practical application of regenerative medicine utilizing iPS cell-derived pigment epithelium (iPS-RPE) cells. Yaskawa contributes to automation of the cell culture process using its

dual-armed robot, Mahoro. In addition, Yaskawa has made an additional investment in Novel Crystal Technology Inc. (Headquarters: Saitama, Japan), which is a venture company engaged in the development, manufacturing, sales and device development of gallium oxide wafers, attracting attention as a next-generation power semiconductor material. Funding is expected to accelerate product development and commercialization.



Mahoro, double-arm robot for biomedical applications

<sup>\*1</sup> YASKAWA Innovation Program

<sup>\*2</sup> Corporate Venture Capital. Venture investment activities conducted by companies

## Intellectual property activities

The Intellectual Property Division, which had been distributed to each business division, is now centrally located within YTC, which is a center for technology development, and is promoting intellectual property activities in close contact with the Technology Development Division of the entire company. Leveraging the strength of having the entire company's technology development and intellectual property divisions in one place, Yaskawa is working to create inventions that transcend the boundaries of its business divisions in the areas of mechatronics technology, which is our core competence, and

i<sup>3</sup>-Mechatronics technology, which can be applied in a wide range of applications. Furthermore, the Intellectual Property Department within YTC plays a central role in promoting global intellectual property protection activities for sold products, locally developed products, and manufacturing know-how in cooperation with the intellectual property departments of the Yaskawa Group's overseas affiliates. In addition to intellectual property education by rank and technology field, we also provide literacy education on technology contracts as the importance of technology contracts increases.



# Production

## Yoshikatsu Minami

Director, Managing Executive Officer,  
General Manager, Production Management & Operations Div.;  
General Manager, Export & Import Administration Div.



### Production innovation by i<sup>3</sup>-Mechatronics

In the past, each division (plant) had its own business process for indirect operations related to production (procurement and production planning). Based on the i<sup>3</sup>-Mechatronics concept, we have developed and introduced a production system that is common throughout the company. By integrating business processes and optimizing overall operations, we have achieved more efficient production operations. This common production system has been applied not only to domestic plants but also to overseas plants. By visualizing production information such as global production status, parts procurement status, and inventory status in real time, indirect man-hours are reduced.

The development of production facilities had also been

assigned to each division (plant). By consolidating these, we are upgrading the skills and know-how of production engineers and shortening the time required to build new facilities. By installing more productive production facilities at our plants in Japan and overseas, we are working to reduce the number of direct man-hours, promote the standardization of facilities, and respond quickly and centrally to problems.

By radically overhauling the way production is organized and conducted, we will work on the materiality of "improving production efficiency at our own plants," and reduce production costs from both direct and indirect man-hours, leading to the achievement of the goals of our long-term management plan, Vision 2025.

### Changes in the development system for production facilities



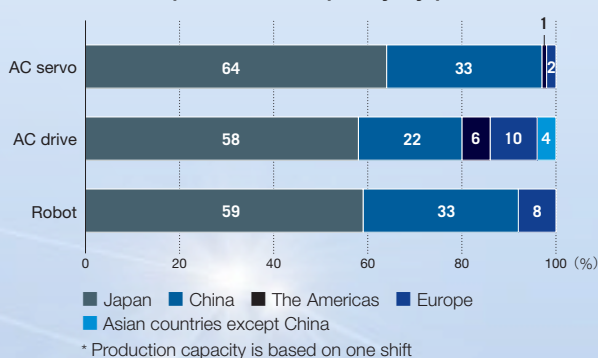
## Global production system

Demand for mechatronics products such as AC servos and robots is expanding amid global acceleration of automation initiatives aimed at reducing labor and improving productivity amid labor shortages and rising labor costs. In addition, there is a growing trend toward the use of IoT and AI to realize highly efficient and high-quality manufacturing, which is driving this demand even higher.

In response to these market trends, Yaskawa is conducting optimum production at 29 sites in 13 countries around the world under its policy of "production in demand areas." By taking advantage of the proximity of production to our customers in terms of delivery times and relationship building, we aim to reduce risks associated with foreign exchange, natural disasters, and geopolitical

issues, and we will surely meet demand that is expected to grow in the future.

### Breakdown of production capacity by product



## Procurement policy and expansion of in-house production for stable supply

In the face of the recent global shortage in parts procurement, particularly for semiconductors, we are concentrating issues in the head office procurement department by strengthening cooperation with each business division and conducting intensive negotiations. Yaskawa Group is also promoting medium- to long-term initiatives aimed at ensuring stable procurement. At the development stage, we are thoroughly evaluating adopting parts to ensure stable procurement over the long term, and at the same time, we are building a multi-company purchasing system against contingencies. Next, we will consolidate procurement activities that had been conducted by each site to the head office procurement department. Starting with semiconductors and electronic components, we will

ensure that parts inventories are secured through centralized purchasing, controlled safety stock management, and strengthened partnerships with suppliers. In addition, we will reduce procurement risks, improve technical capabilities, and incorporate added value by promoting in-house production of parts that previously depended on external procurement and increasing the rate of in-house production.



YASKAWA (Changzhou) Mechatronics System Co., Ltd.  
A production base for major components in China, which began mass production in June 2022

## Building a sustainable supply chain

Yaskawa strives to continue its business while contributing to the resolution of social issues throughout the supply chain through communication with business partners. Semi-annual procurement policy briefings are held for major suppliers with whom Yaskawa does business on a global basis to share and align Yaskawa's management policies, business strategies, and sustainable procurement policies (including environmental policies).

In addition, we have also exchanged opinions and reflected the opinions of suppliers in our purchasing policies to increase their effectiveness. Please refer to "To build a sustainable supply chain" on P.53 of "Dialogue and Co-creation with Stakeholders" for the results of our activities in FY2021 and the details of our initiatives in FY2022 in accordance with our sustainable procurement policy.

# Sales and Service

## Hiroshi Takata

Senior Executive Officer  
General Manager, Corporate Sales  
& Marketing Div.



### i<sup>3</sup>-Mechatronics business model reform and evolving sales and service structure

Since shifting business focus to mechatronics in the 1980s, Yaskawa has expanded globally through sales of "components" such as servos, AC drive and robots. In recent years, however, against the backdrop of changes in the market environment, such as the response to labor shortages and the acceleration of next-generation manufacturing initiatives through the use of IoT and AI, new needs for production efficiency and quality maintenance have rapidly increased.

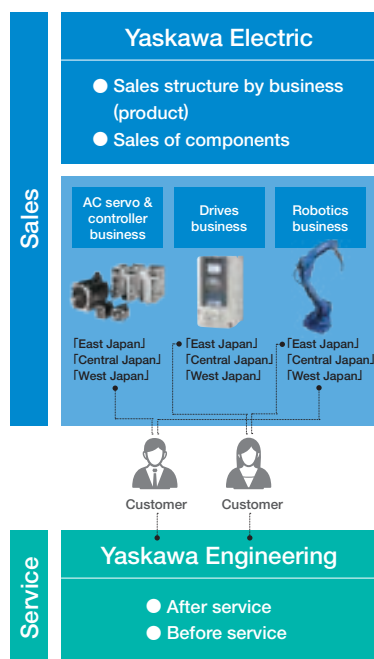
Based on the i<sup>3</sup>-Mechatronics concept, Yaskawa proposes a solution to address this change. We worked to transform our sales force, which is steering us toward a "component + solution" sales. Providing "solution" is to solve management problems faced by customers and make proposals to realize management goals such as improving productivity. In

FY2018, we reorganized our sales structure, which was previously divided by product, into a regional and product-mix sales structure.

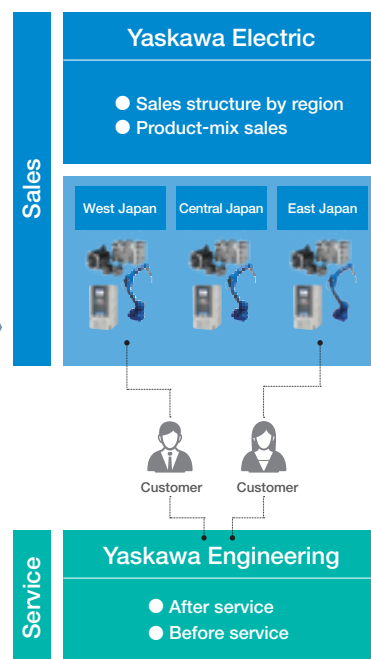
In addition, Yaskawa Engineering has been in charge of service operations as a subsidiary of the Yaskawa Group for about 50 years, and has been expanding its business in response to customer needs. On the whole, however, there was an issue that customer feedbacks from the service operations were hard to reach Yaskawa Electric directly. Therefore, in FY2021, we established a structure that enables us to share the voice of our customers through integrated management of services with sales, and to deliver the raw voice of our customers and product quality issues directly to the development and design departments.

### Changes in the sales and service system

#### Before FY2018

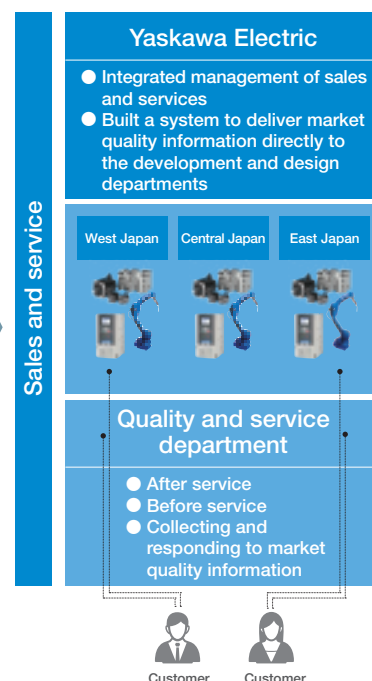


#### After FY2018



- Contact with customers in sales unified
- Difficult to receive customer feedback in after-sales service

#### Since FY2021



- Centralization of customer feedback
- Improvement of product and service quality





### Ryuta Matsutani

Executive Officer  
General Manager, Quality & Service Div.

Through these changes, we will further strengthen our relationship with our customers and move into areas that were not captured by the previous component sales. We will achieve sustainable growth by expanding our

business, improving the quality of our products and services, and providing thorough support to help our customers win in the market.

## Enhancing sales and service activities with YDX

One of YDX's initiatives in sales activities is to standardize and centralize sales information using CRM/SFA\*. In this way, information related to customers is shared among sales representatives, sales managers, administrative departments and management. We manage not only information on our daily activities and individual business meetings, but also business meetings related to our customers' supply chains, while offering proposals to solve problems. By providing extensive and long-term support to our customers, we engage in our daily sales activities with the aim of helping customers who use Yaskawa products to win in the market.

In addition, various market information is being shared by linking sales and service information. Based on this information, sales and service departments discuss and collaborate with each other to improve their activities, while we integrate separate systems to unify sales, service and customer information that make up Product Lifecycle Management (PLM) with YDX. We provide feedback to the development of products and new services, and thereby provide in a timely manner the products and services to help our customers win.

\* IT tools to support sales activities

## Penetration of the i<sup>3</sup>-Mechatronics concept

Under the previous sales structure, each business division had a sales representative, and proposals to customers were limited to the products of the business division to which they belonged, and different sales representatives worked for the same customer, and there were areas where sales representatives did not cooperate with each other. Since FY2018, the product-mix sales structure has been realized where sales representatives propose all products to the customers they serve, requiring them to understand Yaskawa products and technologies more broadly. We recognize that this was an essential initiative as a change in the sales department to realize the i<sup>3</sup>-Mechatronics solution proposal.

In addition to Yaskawa products, we are working with other companies from Yaskawa Group, such as i3 Digital,

AI3 and FAMS to propose products and technologies to customers. All of us at Yaskawa Group will work together to resolve the issues facing our customers.

We have also exhibited at many exhibitions, including the International Robot Exhibition, to promote the i<sup>3</sup>-Mechatronics concept. We have received many consultations for production optimization in response to proposing cell controls that visualize data and convert it into movement using YRM controllers, and robot solutions that respond to high-mix variable volume production and process changes. In order for Yaskawa to become a partner in our efforts to improve productivity for our customers, we will work together in sales and technology to address customer issues.

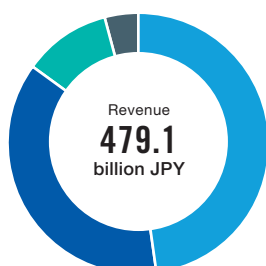
# At a Glance

The Yaskawa Group deploys the technology and knowhow of the highest global standards to its products and services through business activities in the three core business segments of Motion Control, Robotics and System Engineering.

FY2021

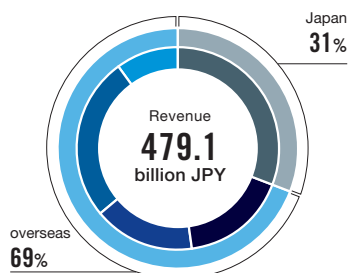
Revenue	<b>479.1</b> billion JPY
Operating profit	<b>52.9</b> billion JPY
Operating profit ratio	<b>11.0%</b>

Revenue breakdown by business segment



Motion Control	48%
Robotics	37%
System Engineering	11%
Other	4%

Revenue breakdown by region



Japan	31%
The Americas	17%
Europe	16%
China	26%
Asian countries except China	10%

## MOTION CONTROL

### AC servo & controller business

Enhancing machine performance as major components incorporated in production equipment



AC servo Σ-X series

### Drives business

Contributing to sustainable development of society and industry by realizing energy-saving and higher performance of machinery through optimum motor control



Yaskawa AC drive new series



Matrix converter U1000



PM motor

## ROBOTICS

- Arc welding robots
- Spot welding robots
- Painting robots
- Handling robots
- Clean/vacuum transfer robots for semiconductor and LCD manufacturing equipment

Responding to the growing need for labor-saving and automation at production sites, we are taking on the challenge of realizing a new industrial automation revolution



Robot controller YRC1000



Arc-welding robot MOTOMAN-AR1730

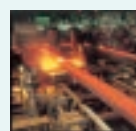


Collaborative robot MOTOMAN-HC20DT

## SYSTEM ENGINEERING

- Social system business
- Environment & energy business
- Industrial automation drive business

Supporting prosperous life and society through technologies and proven performance accumulated over a century



Electrical system for steel plant

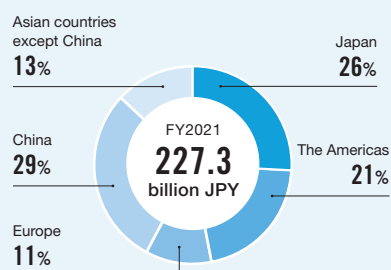


Generator and converter for large scale wind turbines

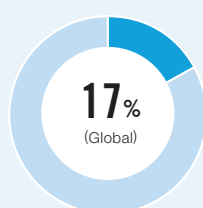
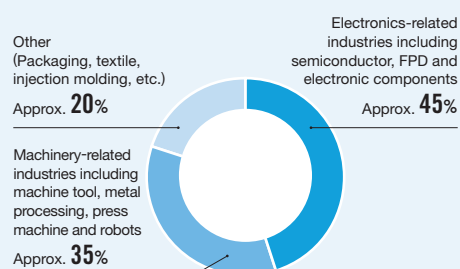


PV inverter

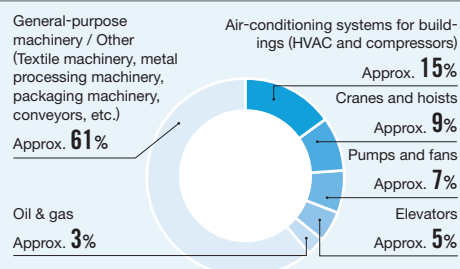
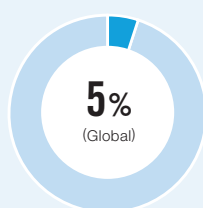
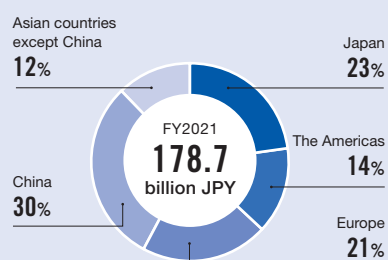


Breakdown of FY2021 revenue  
by regionMarket share  
(company estimate)

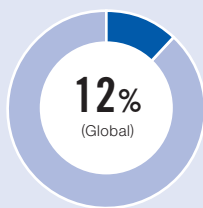
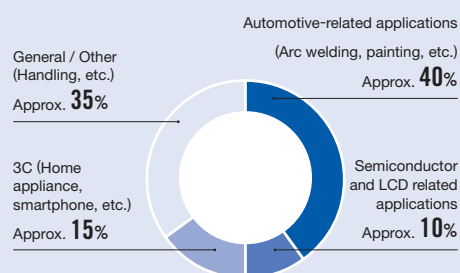
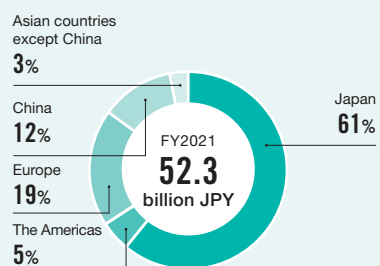
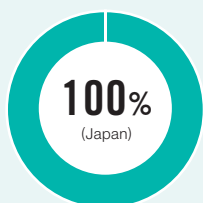
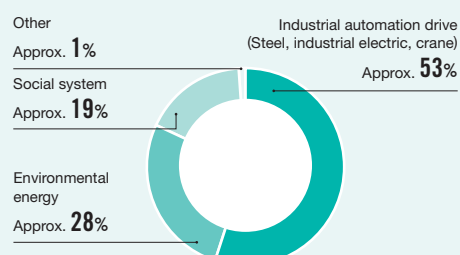
AC servo drive

Revenue breakdown by application  
(FY2021 results)

AC drive

Breakdown of FY2021 revenue  
by regionMarket share  
(company estimate)

Industrial robot

Revenue breakdown by application  
(FY2021 results)Breakdown of FY2021 revenue  
by regionMarket share  
(company estimate)Steel plant systems  
(Blast furnace)Revenue breakdown by application  
(FY2021 results)



# MOTION CONTROL

## AC Servo & Controller Business

### AC servo drive's role in manufacturing digital transformation

In the manufacturing industry, it is important to analyze and utilize various data obtained from equipment in order to improve productivity.

AC servo drive is a key component that is built into and drive a variety of equipment used in manufacturing. By making AC servo drive, which controls the movement of equipment (motion), function as a sensor and acquire various data from the equipment, it is possible to provide new added value to manufacturing, such as preventive maintenance of equipment and improvement of production quality.

Yaskawa provides customers with technologies and products based on the concept of "i<sup>3</sup>-Mechatronics," which "realizes a new industrial automation revolution" by data utilization to improve productivity. In 2021, we released the YRM-X series controllers, which connect AC servo drive  $\Sigma$ -X series and data and use them to achieve this high level of performance.

### Overview of FY2021 performance

- High demand for semiconductors in Japan, the United States, South Korea, China and other countries
- China saw growing demand for lithium-ion batteries, and 5G related products, such as smartphones and base stations.
- Significant revenue growth in the Motion Control segment due to aggressive global capital investment
- Profits increased in the Motion Control segment due to an increase in revenue and the effects of switching to new products despite the impact of higher raw material and logistics costs.

### SWOT analysis of business

#### Strengths: Strengths of Our Business and Differentiation

- Developed the world's first "minertia motor" which is the prototype of the current servo motor in 1958
  - ▶ World-class performance and quality
  - ▶ Brand value as global No.1 market share
- Hold strong relationships of trust with leading companies in various manufacturing equipment
  - ▶ Contributing to the advancement and performance of machines through the pursuit of leading-edge technologies
- Practice of i<sup>3</sup>-Mechatronics
  - ▶ Realization of new automation revolution

#### Opportunities: Business Opportunities

- Growing demand for industrial automation
- Industry sophistication, including 5G, IoT, and autonomous-driving
- Adoption of EVs in the automobile industry

#### Weaknesses: Challenges

- Speed-up of the process from development to mass production
- Reinforcement of production response to rapid changes in demand

#### Threats: Business Risks

- Supply chain disruptions associated with geopolitical risks
- Pricing strategies by manufacturers in emerging countries
- Emergence of an actuator that can surpass the motor in performance and have the potential to replace the motor

**Kenji Ueyama**  
Senior Executive Officer  
General Manager,  
Motion Control Div.



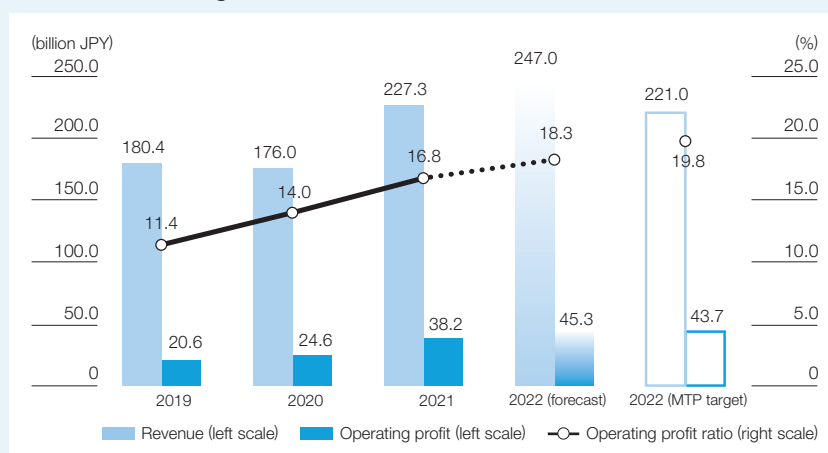
### Measures to address issues and risks

- Further evolution of i<sup>3</sup>-Mechatronics and steady uptake of demand in the semiconductor-related market, which is expected to grow rapidly in the future, and growth markets such as lithium-ion batteries and 5G in China
- Speed up the process from development to mass production and achieve technological improvements that will surpass the manufacturers in emerging market through YASKAWA Technology Center (YTC)
- Strengthen the deployment of the Yaskawa Solution Factory production system at each production base, as well as reinforce parts procurement capabilities and expand in-house production to better respond to rapid changes in demand

### "Challenge 25 Plus" Goals

Establish a global No.1 position as a leading company by further evolving "i<sup>3</sup>-Mechatronics" solution capabilities and expanding the range of components that respond to the changes in production systems, and by building a highly profitable structure

### Trends in performance, forecast and target of mid-term plan (Motion Control segment)



### Progress of "Challenge 25 Plus" and FY2022 measures

	Progress of measures (up to FY2021)	FY2022 measures
<b>Development</b>	<ul style="list-style-type: none"> <li>• Commercialization of AC servo drive <math>\Sigma</math>-X series and YRM-X controllers</li> </ul>	<ul style="list-style-type: none"> <li>• Expansion of AC servo drive <math>\Sigma</math>-X series' lineup</li> </ul>
<b>Production</b>	<ul style="list-style-type: none"> <li>• Realization of visualization of production information at factories in Japan and China</li> </ul>	<ul style="list-style-type: none"> <li>• Increase production capability by strengthening parts procurement and increasing in-house production</li> </ul>
<b>Sales</b>	<ul style="list-style-type: none"> <li>• Expansion of projects for production cells and data utilization</li> <li>• Strengthened relationships with customers and created sales opportunities through top marketing activities</li> </ul>	<ul style="list-style-type: none"> <li>• Capture growth markets with new products and expand the scale and the number of projects through i<sup>3</sup>-Mechatronics with the key YRM controllers, MECHATROLINK-4, and <math>\Sigma</math>-X</li> </ul>
<b>Profitability improvement</b>	<ul style="list-style-type: none"> <li>• Increased productivity of global indirect operations by applying the latest production method</li> </ul>	<ul style="list-style-type: none"> <li>• Strengthen the deployment of Yaskawa Solution Factory production system to each production base</li> </ul>

## MOTION CONTROL AC Servo & Controller Business

Toward "the realization of a new industrial automation revolution" as set out in its long-term management plan "Vision 2025," Yaskawa announced in 2017 a new solution concept, "i<sup>3</sup>-Mechatronics," which adds digital data management to existing automation solutions, and has been strengthening development toward the realization of this concept. The three "i"s represent the three steps of

information utilization and are the three essential elements for realizing a smart factory.

Yaskawa believes that this order of 3 steps is important for the realization of a smart factory, and in order to combine the world's best mechatronics products with data utilization technology, it released the following two new products in 2021.

- **1st step:** integrated: Link with IT by data
- **2nd step:** intelligent: Intelligent factory
- **3rd step:** innovative: Productivity improvement by technological innovation

### MOTION CONTROL

#### AC Servo & Controller Business

## TOPICS 1

### First in the industry!

#### Launch of YRM-X Controller for integrated cell control

With the aim of realizing i<sup>3</sup>-Mechatronics, Yaskawa has commercialized the YRM-X Controller, which synchronizes and integrally controls various data in a "cell" made up of equipment and industrial robots at high speed, in real time, and over time.

At various manufacturing sites, initiatives to advance smart factories are accelerating, such as improving production efficiency and quality using IoT and AI, and ensuring traceability. The basis of these activities is to understand the operating status (data) of production facilities. In order to improve the production efficiency of facilities, data must be collected in an integrated and time-series manner, analyzed based on highly

accurate data, and fed back to the production facilities, rather than collected separately from the various equipment that make up the cells.

To achieve this, the YRM-X Controller, which performs integrated control of cells, and the Yaskawa Cockpit software tool, which collects and analyzes time-series synchronized data in a single operation, are linked to achieve high-speed, real-time data feedback.

The YRM-X Controller will accelerate the realization of i<sup>3</sup>-Mechatronics and further enhance the solution for customer issues and the provision of added value.



### MOTION CONTROL

#### AC Servo & Controller Business

## TOPICS 2

### Launch of AC servo drive, "Σ-X Series" to accelerate progress with industry-leading motion performance and digital data solutions

Since commercializing the industry-leading all-digital servo "AC servo drive" "Σ Series" in 1991, Yaskawa has contributed to improving the performance of various equipment and manufacturing productivity through advances in performance, functionality and miniaturization.

From now on, Yaskawa believes that transformation into a non-stop factory that enables efficient, high-quality, and stable production while responding to the various changes that occur on the production sites will be required for

manufacturing. As a first step toward achieving this goal, development of AC servo drive, which can collect, visualize, and analyze data, led to the birth of Σ-X Series.

Σ-X Series features the industry's best motion performance and "digital data solutions starting with servo," which add sensing data utilization functions to provide even greater added value to customers.





# MOTION CONTROL

## Drives Business

### Tatsuya Yamada

Senior Executive Officer  
General Manager,  
Drives Div.



### AC drive's role in society and industry

AC drives can continuously change the motor's rotational speed by converting the voltage and frequency of the power supply. The use of AC drive not only enables advanced motor control, but also contributes to energy saving by operating as much as necessary. AC drive is widely applied to machinery and equipment in which motors are used, and the global market is estimated to reach 1.5 trillion yen. In the past, AC drive's growth drivers were (1) the advance of electrification in line with industrial sophistication, and (2) the rise of emerging economies. In recent years, however, the energy-saving effects of using AC drive have attracted renewed attention as part of efforts to achieve carbon neutrality in countries around the world. AC drive is increasing its presence as an indispensable device for the sustainable development of society and industry.

### Overview of FY2021 performance

- On the back of the recovery in the global market, sales were strong, particularly for large air conditioning systems (HVAC), cranes, and textiles.
- Demand expanded in China due to energy conservation policies
- Significant revenue growth in the Motion Control segment due to aggressive global capital investment
- Profits increased in the Motion Control segment due to an increase in revenue and the effects of switching to new products despite the impact of higher raw material and logistics costs.

### SWOT analysis of business

#### Strengths: Strengths of Our Business and Differentiation

- Power electronics technology and high-efficiency motor technology
- Control and sensing technologies based on motor drives developed over many years
- Knowledge of how machines and facilities are used (applications) based on system engineering
- Worldwide sales and service bases, development centers, and production plants

#### Opportunities: Business Opportunities

- Expansion of energy conservation promotion policies in each country based on the sustainability codes (SDGs, carbon neutral, etc.)
- Accelerate factory automation including 5G and IoT
- Enhancing the performance of industrial equipment through AI, etc.
- Rise of market in emerging countries
- Enhancement of high-efficiency motor regulations

#### Weaknesses: Challenges

- Accelerated volume expansion, growth scenario
- Improvement of development speed including new technologies
- Improvement in cost competitiveness
- In-house production of main parts
- Reducing the impact of global shortages of materials

#### Threats: Business Risks

- Movement toward in-house production by some customers
- High dependence on specific markets such as oil and gas markets
- Rise of emerging market competitors



## MOTION CONTROL Drives Business

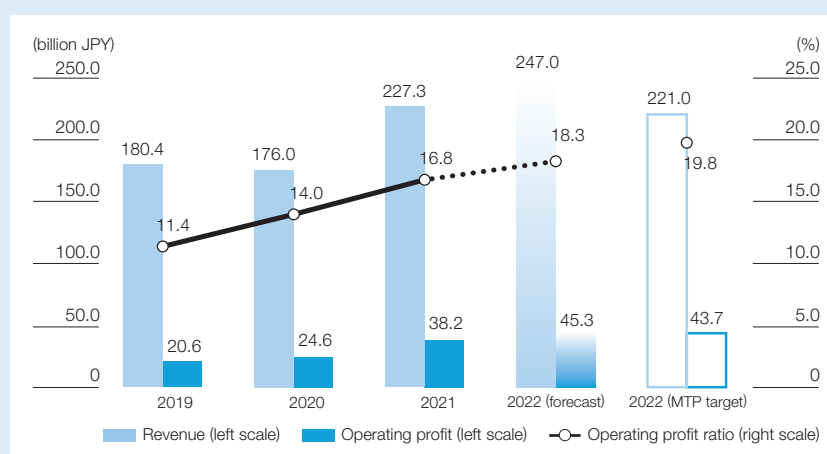
### Measures to address issues and risks

- Accelerate deployment of high-value-added products and solutions for emerging economies, particularly in Southeast Asia
- Enhance QCD of technologies and products by fully utilizing YTC functions
- Expand the use of substitute parts and in-house production of parts through factory reorganization
- Increase the revenue ratio of stable growth markets (HVAC, elevators, etc.) by capturing energy conservation demand

### "Challenge 25 Plus" Goals

Steadily expand revenue of Yaskawa's strong area, driving performance-oriented applications (general machinery, oil and gas, elevators, cranes, etc.) as well as market development for energy-saving performance-oriented applications, for which demand is expected to expand in the medium term, by leveraging the proposal capabilities of PM motors and AC drive, thereby boosting growth potential

### Trends in performance, forecast and target of mid-term plan (Motion Control segment)



### Progress of "Challenge 25 Plus" and FY2022 measures

	Progress of measures (up to FY2021)	FY2022 measures
<b>Development</b>	<ul style="list-style-type: none"> <li>• Commercialized flat type Eco PM motor</li> </ul>	<ul style="list-style-type: none"> <li>• Accelerate replacement of tight parts</li> </ul>
<b>Production</b>	<ul style="list-style-type: none"> <li>• Strengthened production capacity of circuit board</li> </ul>	<ul style="list-style-type: none"> <li>• Improve global productivity</li> <li>• Expand in-house production</li> </ul>
<b>Sales</b>	<ul style="list-style-type: none"> <li>• Cultivated the next core customers</li> <li>• Acquired HVAC orders in India and Thailand</li> </ul>	<ul style="list-style-type: none"> <li>• Penetration of new series products in the global market</li> <li>• Capture demand for decarbonization by combining with flat type Eco PM motor</li> </ul>
<b>Profitability improvement</b>	<ul style="list-style-type: none"> <li>• Improved PM motor profitability</li> </ul>	<ul style="list-style-type: none"> <li>• Accelerate switching to new products</li> </ul>

## MOTION CONTROL

Drives Business

## TOPICS 1

**Launched the industry's thinnest Eco PM motor flat type that reduces motor length by up to 70%\*1 and achieves IE5\*2, the highest level of international high efficiency standards**

Consideration for the environment is an important issue for companies as the realization of a decarbonized society becomes a common global goal. Yaskawa strives to reduce global CO<sub>2</sub> emissions by dramatically improving the productivity and energy conservation of customer equipment through the supply of energy-saving products that utilize motor and power conversion technologies.

A PM motor has a permanent magnet embedded in the rotor

which is the rotating part, which leads to a better energy efficiency than a normal induction motor. This flat type Eco PM motor does not only achieve IE5, high efficiency class, but also achieve miniaturization due to the flat structure of the motor. Combined with the compact, highly functional AC drive, we offer a variety of solutions that help customers add value to their machines and equipment.



\*1 Compared with top runner motor excluding motor shaft length

\*2 International standard for motor energy efficiency established by the International Electrotechnical Commission (IEC). IE5 is the most efficient.



# ROBOTICS

## Masahiro Ogawa

Representative Director,  
Senior Managing Executive Officer  
General Manager, Robotics Div.



### Role of robots in manufacturing

Industrial robots are used to automate welding, painting, assembly and transportation in various fields, including the automotive market. In recent years, against the backdrop of labor shortages and the prevention of the spread of infectious diseases, demand has been increasing in general industrial fields such as the food, medical, pharmaceuticals, and 3C (computers, consumer electronics and communications equipment.)

In the future, manufacturing sites are expected to see a growing need for smart manufacturing, such as increasing production efficiency, improving quality, and ensuring traceability, in addition to the realization of high-mix variable-volume production. Against this backdrop, Yaskawa is taking on the challenge of realizing an industrial automation revolution by further enhancing the judgment and work abilities of robots, contributing to further automation and optimization at existing manufacturing sites, and providing new automation solutions in areas where robots have traditionally been difficult to apply.

### Overview of FY2021 performance

- In the automobile sector, which is the main market, capital investment was steady due to the sophistication of production and EV-related investment.
- In the general industrial sector, investment in labor saving caused by labor shortages and automation for the purpose of increasing the sophistication of production expanded globally.
- Sales of semiconductor robots performed well against the backdrop of expanding global demand for semiconductors.
- Earnings increased significantly due to an increase in revenue and improvement in capacity utilization.

### SWOT analysis of business

#### Strengths: Strengths of Our Business and Differentiation

- Improved performance and evolving solutions through in-house production of motion control products (servo motors, drives, and controllers) that are the most important for robot performance
- Providing the cross-divisional solution based on the i<sup>3</sup>-Mechatronics concept
- Cross-business development system utilizing YASKAWA Technology Center

#### Opportunities: Business Opportunities

- Expanded demand for labor saving and automation in general industries
- Manufacturing innovation in the automotive industry (including the adoption of EVs and eco-friendly system)
- Advances in robot-related technologies

#### Weaknesses: Challenges

- Strengthening adaptability to rapid changes in demand in production

#### Threats: Business Risks

- Global shortage of materials and rising material costs
- Decline in demand for capital investment due to geopolitical risks
- Rise of emerging manufacturers

## ROBOTICS

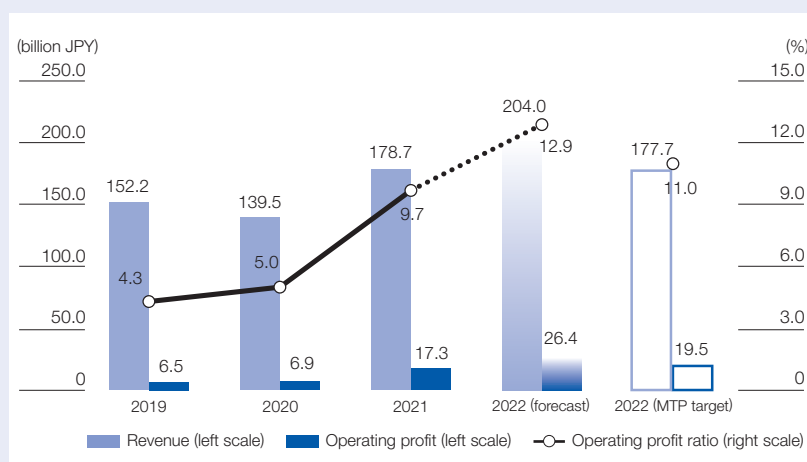
### Measures to address issues and risks

- Further evolution of the system that enables production with minimum personnel changes in response to changes in production volume at the mother plant and its deployment to overseas production bases
- Strategic product development for the actual deployment of the i<sup>3</sup>-Mechatronics solution and strengthening partner cooperation
- Corporate-wide enhancement of supply chain strategy and expansion of in-house production

### "Challenge 25 Plus" Goals

Based on our strategy to provide solutions to end users through the implementation of the "i<sup>3</sup>-Mechatronics" concept, achieve growth that exceeds the growth of the robot market by expanding our business domain, and realize a business structure in which profitability will significantly increase along with volume growth

### Trends in performance, forecast and target of mid-term plan



### Progress of "Challenge 25 Plus" and FY2022 measures

	Progress of measures (up to FY2021)	FY2022 measures
<b>Development</b>	<ul style="list-style-type: none"> <li>• A new autonomous robot MOTOMAN NEXT (tentative name) was exhibited at the 2022 International Robot Exhibition for reference, aiming to expand the market by autonomous decentralized automation solutions that flexibly respond to changes in products, volume, and process, and automation of remaining manual work areas.</li> </ul>	<ul style="list-style-type: none"> <li>• Development of new products that realize the i<sup>3</sup>-Mechatronics concept</li> </ul>
<b>Production</b>	<ul style="list-style-type: none"> <li>• Automated and saved labor at the mother plant, and established a system that enables production with minimal personnel changes in response to changes in production volume</li> </ul>	<ul style="list-style-type: none"> <li>• Continue efforts to upgrade production in anticipation of global expansion</li> <li>• Expansion of the automation field by in-house application of MOTOMAN NEXT (tentative name)</li> </ul>
<b>Sales</b>	<ul style="list-style-type: none"> <li>• Expanded product lineup and released products with improved usability for the general industrial market and collaborative robot market, where demand is increasing</li> </ul>	<ul style="list-style-type: none"> <li>• Increase orders by providing accurate solutions to growing markets</li> <li>• Strengthen cooperation with partners</li> </ul>
<b>Profitability improvement</b>	<ul style="list-style-type: none"> <li>• Realized a business structure in which profitability increases with volume growth through improved tracking of volume fluctuations in production</li> </ul>	<ul style="list-style-type: none"> <li>• Reap the effects of a business structure in which profitability increases with volume growth</li> </ul>

## ROBOTICS

## TOPICS 1 Exhibited at "2022 International Robot Exhibition"

We exhibited at the "2022 International Robot Exhibition" held at Tokyo Big Sight in March, 2022.

At the main solution exhibition, autonomous distributed smart factory that can flexibly respond to diverse production including high-mix variable-volume and process changes was exhibited as advanced i<sup>3</sup>-Mechatronics solution. In addition, a new autonomous robot, the MOTOMAN NEXT series (tentative name), which was unveiled for the first time, was exhibited as a reference. This is a proposal to expand the use of robots in situations where it has been difficult to introduce robots in the past by using "teaching-free," which requires no instruction. The demonstration, which can flexibly respond to changes in work content, attracted a great deal of attention and attracted

many visitors to Yaskawa booth. Also, we exhibited collaborative robot's packaging and AI/applications, providing an opportunity to

promote Yaskawa's technological capabilities and products comprehensively. We will continue to propose the theme of this exhibition, "realization of smart manufacturing by i<sup>3</sup>-Mechatronics," in a variety of situations.



## ROBOTICS

## TOPICS 2 Cumulative shipments of industrial robots reached 500,000 units

Yaskawa shipped Japan's first all-electric industrial robot, the MOTOMAN-L 10, in 1977. Since then, our robots have enjoyed widespread popularity in Japan and overseas, with cumulative shipments totaling 500,000 units in February 2021.

Beginning with the application of robots to the automation and labor-saving of welding processes in automobile factories, we have pursued customer needs thoroughly, and in the course of our first efforts in the robotics industry, we have developed "application optimization robots" with optimized structure for each application in use and function. In addition, we have opened up new robot markets with cutting-edge technologies, such as 7-axis robots that realize the same degree of freedom as a human arm, and double-arm robots



Japan's first all-electric industrial robot

that can reproduce human tasks performed with both arms by applying this 7-axis robot. In recent years, demand for collaborative robots has been increasing in the general industrial sector as a result of a serious labor shortage and the prevention of the spread of infectious diseases. In response to the diversifying needs of manufacturing, in 2018 we began offering collaborative robots that allow workers to work next to robots.

On the site of manufacturing in the future, in addition to the realization of diversification, the need for smart manufacturing is expected to expand, such as improvement of production efficiency and quality, and ensuring traceability. Yaskawa will continue to contribute to further automation and optimization in existing manufacturing sites, and will take on the challenge of realizing an industrial automation revolution by providing new automation solutions in areas that were previously difficult to apply robots.



Collaborative robots applied at the robot factory



# SYSTEM ENGINEERING

## Overview of System Engineering business

The System Engineering segment consists of the environmental energy business of Yaskawa Electric Corporation and the industrial automation drive business of Yaskawa Automation & Drives Corporation\*. In the environmental energy business, we are contributing to the expansion of the use of renewable energy through products such as PV inverter for solar power generation and generators for large-scale wind power generation. In the industrial automation drive business, we have developed system engineering technologies and electrical products that we have cultivated over many years. This contributes to the high productivity and stable operation of water treatment plants, large crane control, and industrial plants (textile, paper, film lines, etc.). We provide total solutions with advanced system technologies and high-quality products, and contribute to building reliable social and industrial systems, comfortable lifestyles, and a sustainable society.

\* Succeeded Yaskawa Electric Corporation's social systems business from FY2022

## Overview of FY2021 performance

- Strong demand for port cranes and lithium-ion battery production facilities in Asia
- Japan's steel plant-related revenue remained weak.
- Sales of electric systems for water supply and sewerage systems in Japan and electric appliances for large-scale wind power generations were favorable.
- Revenue increased year on year, mainly in the environmental and social systems business.
- Operating profit increased due to strict profitability management and continued cost control, as well as the elimination of temporary product repair costs incurred in the previous fiscal year.

## SWOT analysis of business

### Strengths: Strengths of Our Business and Differentiation

- Power conversion technology and automation/remote technology for energy saving and high efficiency
- Ability to respond to diversified needs such as solar and large-scale wind power generation
- Achievements in the field of electric systems for water supply and sewage and system technology development capabilities
- 100% domestic share of systems for blast furnaces in steel plants
- Share higher than 50% in port crane market in Japan, China and Southeast Asia
- Top-class share in Japan in the industrial electric business including film, textiles, and paper machinery

### Opportunities: Business Opportunities

- Accelerated efforts to achieve carbon neutrality
- The market for wind power generation grows over the medium to long term, particularly for offshore wind power.
- Increasing demand for electrification of large ships
- Need for labor-saving and high-efficiency electricity systems for water and sewage systems using IoT, AI and robots
- Increasing demand for lithium-ion battery production facilities
- Full automation and remote operation of port cranes

### Weaknesses: Challenges

- Improvement in cost competitiveness
- Improvement in product development speed
- Creating business synergies by integrating systems businesses
- Strengthen overseas business in growth fields (secondary batteries, cranes)

### Threats: Business Risks

- Oligopolization of wind turbine manufacturers and their in-house production
- Modification of renewable energy systems and grid interconnection regulations
- Concerns over project delays and cancellations due to rising prices of materials and procurement difficulties in building equipment and facilities
- Intensifying cost competition
- Decline in infrastructure investment in Japan



### Tatsuya Yamada

Senior Executive Officer  
General Manager, Drives Div.  
General Manager,  
Environmental Energy  
Business



### Jiro Nakagawa

President & CEO  
Yaskawa Automation &  
Drives Corp.



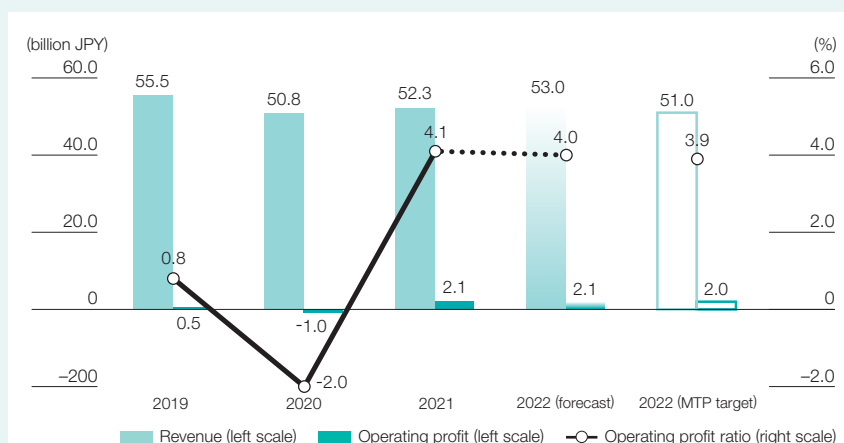
#### Measures to address issues and risks

- Improving profitability by optimizing procurement, production systems, and cost structures and introducing new products
- Using YASKAWA Technology Center to improve technology and development speed
- Expanding the market and customer base and developing new businesses
- Providing system support for customer's manufacturing processes to achieve carbon neutrality in the steel market
- Strengthening business for Chinese and Japanese separator companies in the secondary battery market, which is a growth material market
- Follow-up to large-scale investment projects for port cranes in Southeast and South Asia
- Securing profits through establishment of efficient production system and in-house production of high-value-added products (drive panels for cranes, motors, etc.)

#### "Challenge 25 Plus" Goals

Strengthen profitability in the environment and energy businesses and pursue high profitability in the steel, social systems, cranes, and industrial electric (paper, film, etc.) businesses to stabilize earnings.

#### Trends in performance, forecast and target of mid-term plan



#### Progress of "Challenge 25 Plus" and FY2022 measures

	Progress of measures (up to FY2021)	FY2022 measures
<b>Development</b>	<ul style="list-style-type: none"> <li>• Started development of PV inverter for private consumption market</li> <li>• Realized miniaturization of induction motors and promoted development of large-capacity drive panels and integrated controllers</li> </ul>	<ul style="list-style-type: none"> <li>• Completion of development of new PV inverter</li> <li>• Start of development of the next integrated controller</li> <li>• Completion of development and market launch of a drive panel for cranes</li> </ul>
<b>Production</b>	<ul style="list-style-type: none"> <li>• Stable supply of large generators for wind power generation</li> <li>• Integration of product development and production of industrial drive system equipment and motors, control panel manufacturing, engineering, and after-sales service</li> </ul>	<ul style="list-style-type: none"> <li>• Start planning to optimize procurement and strengthen production systems</li> <li>• Expansion of in-house production of drive panels for industrial use and cranes</li> </ul>
<b>Sales</b>	<ul style="list-style-type: none"> <li>• Large scale orders continued for wind power generation projects.</li> <li>• Implemented and examined value-added proposals for social systems, steel, industrial machinery, and cranes</li> </ul>	<ul style="list-style-type: none"> <li>• Increase share in growth markets (self consumption markets) with new products</li> <li>• Expand sales of carbon neutral systems in the steel market</li> <li>• Accelerate sales expansion into globally growing markets such as harbor cranes and rechargeable batteries</li> </ul>
<b>Profitability improvement</b>	<ul style="list-style-type: none"> <li>• Strengthened approaches to EV-related and high-profit markets, and withdraw from unprofitable areas</li> <li>• Improved added value through cost reduction</li> </ul>	<ul style="list-style-type: none"> <li>• Increase profitability by introducing new products</li> <li>• Increase earnings by expanding in-house production of electrical equipment for cranes (drive panels and motors)</li> </ul>

## Human Resource Enhancement

The Yaskawa Group has established a common global human resources philosophy and a basic approach to human resources and personnel systems. The ideal is for employees to have aspirations, learn autonomously with high motivation, and continue to take on the challenge of creating new value, and we continue to work to improve our personnel systems, work styles, and human resource development to achieve this.

Through these initiatives, we aim to increase our corporate value on a sustainable basis by enhancing the job satisfaction of each and every employee while realizing that they are contributing to our customers, and leading to a virtuous cycle of employee growth to achieve their individual goals and Yaskawa Group's increased competitiveness.

### Strengthening human resources management

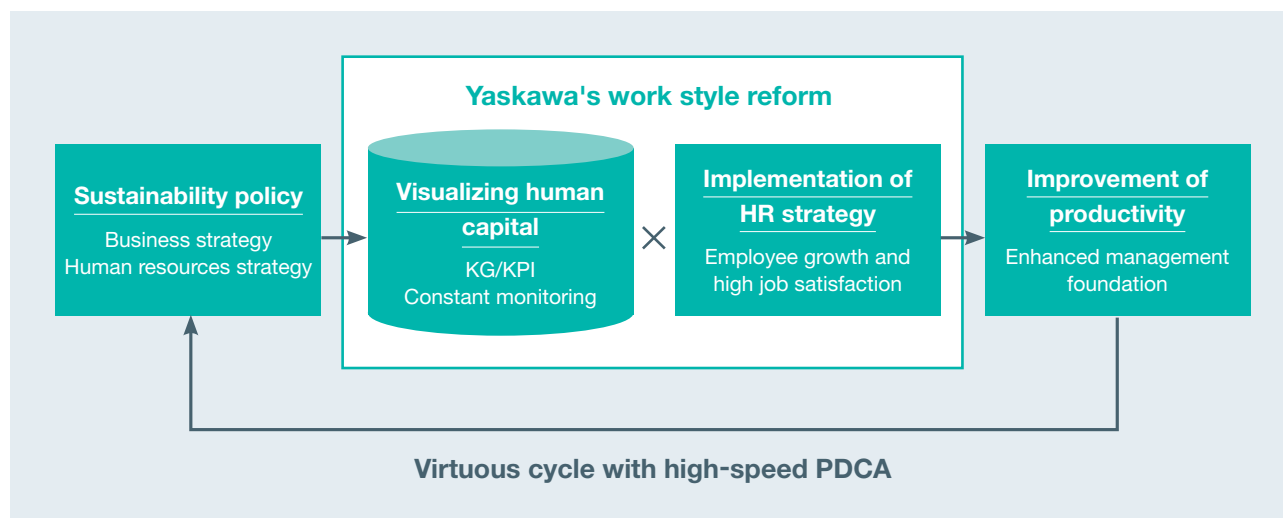
Yaskawa Group is working to link and visualize data related to human resources globally through "YDX (YASKAWA Digital Transformation)." The collected data is then linked to sustainability policy and business strategies to be analyzed in a timely manner for the speedy development of various personnel measures, including recruitment, placement, training and institutional management.

We have also established a definition of "professional human resources" for each job category that can meet the changing

and increasingly sophisticated needs of our customers, and we focus on nurturing those professionals.

Through the above strengthening measures, we will strive to strengthen our management base and increase our corporate value through a virtuous cycle of human resources management, in which the growth of individuals and the enhancement of job satisfaction increase organizational productivity and continue to provide new value to customers.

### Structure of human resource management



## Work style reform

By fostering a corporate culture and environment in which each and every employee can feel satisfied about his or her work, Yaskawa is strengthening its management base, while

at the same time implementing specific measures based on the belief that each employees' activities that create customer value will increase the corporate value.

Measures	Purpose
<b>Review of evaluation and compensation systems</b>	Evaluate work performance in a digital and fair manner, and ensure a well-defined, performance-oriented treatment
<b>Introduction of a regional work system</b>	Acknowledge diverse ways of working and work in a style that suits each individual to fairly evaluate and treat them
<b>Integration of qualifications of positions and introduction of free agent system</b>	Give opportunities to motivated people and promote voluntary growth within the principle of competition

In view of the changes in the organization, human resources and external environment to achieve Vision 2025, we are taking steps to strengthen our organizational and human resources. In addition, since FY2021, a new normal has been established for a variety of work styles, regardless of time or place due to the spread of the COVID-19, and we introduced a telework

system to provide more options for work style.

At the same time, regardless of whether an employee is in the office or not, we have developed an environment in which ICT can be used to increase the productivity of the workplace and individuals and produce results, as well as a system for supervisors to evaluate this.

## Evaluation and compensation system to realize job satisfaction

With the declining birthrate, the aging population, globalization, and the evolution of digital technology, competition for talent is increasing due to changes in the work consciousness of young talent and the increasing importance of highly specialized talent in business. Against this backdrop, in order to secure and promote the advancement of talented human resources, we revised our evaluation and compensation systems to realize attractive compensation that comprehensively takes into account hiring, improved employee performance, retention and future growth.

The new evaluation and compensation system aims to

enhance employee satisfaction by weakening the concept of evaluating the accumulation of knowledge and skills through seniority, allowing fair evaluation of the results achieved in performing duties, and enabling compensation based on the role each person plays and the size of the duties.

The new system was introduced in stages from FY2020 to FY2022, and the ES questionnaire (Employee Satisfaction Survey) quantifies the percentage of employees who feel job satisfaction on a regular basis, which has remained high at around 80%.



### Human resource development

In human resource development, based on the human resources philosophy of "Let us grow and nurture" Yaskawa promotes activities with an eye to fostering a climate in which employees develop on their own. Against this backdrop, we have recently implemented the following priority measures.

#### 1. Penetration of management principle

At Yaskawa Electric, management principle is the fundamental activity policy and judgment standard, and we are implementing ideological education to increase the number of people who have an unshakable axis and can embody our principles, even when the environment surrounding the company changes drastically.



A scene of a philosophy lecture given by an executive to new employees

#### 2. Development of professional human resources

In today's business environment, which demands global competition, it is necessary to professionalize each person in order to maintain our competitive edge as a company. We believe that the more professional talent we have, the more competitive the company will be and the more flexible we will be in our ability to respond to change and crisis.

In order to increase the ratio of professional talent, we will use skill maps to visualize the ratio of professional talent, and create a career path and visualize the skills and abilities to be acquired as well as the path to step up to create an environment where all employees actively learn the necessary abilities and skills and encourage independent (autonomous) growth. In addition, through the establishment of an education system, necessary education is provided at the appropriate time to improve the organizational capacity of the entire Group.

### Diversity and inclusion

In order to respond quickly to changes in the business environment surrounding the VUCA\* era, Yaskawa aims to evolve and enhance its competitiveness as a company that will continue to grow for the next 100 years, and is working to create a climate where the strengths of diverse human resources can be utilized, not only in the active participation of women, which is an issue in Japanese society.

In Yaskawa Group as a whole, women account for about 20% of employees and about 10% of managers, but Yaskawa Electric (non-consolidated) faces the challenge of having a low percentage of female employees as a result of

the fact that, as a manufacturer and technology-oriented company, there are many technical hires and a small percentage of female students in science, which is the mother figure. The results of the most recent internal survey also showed that while the percentage of female employees who want to pursue managerial positions has increased, gender roles awareness among men and women, while showing an improvement trend, still shows a gender gap.

To address these issues, we have set a goal of doubling the ratio of female managers (non-consolidated) in FY2025 compared to FY2021, as one of the materialities based on

our Sustainability Policy. As a specific initiative, we are actively promoting the recruitment of women, regardless of their expertise. In addition, we provide training to develop female managers, not only to improve their skills and change their minds, but also to promote awareness and engagement among workplace managers to develop female employees.

\* An acronym for Volatility Uncertainty Complexity Ambiguity. A condition in which the future is uncertain and difficult to predict



Training for women's career advancement

## ES questionnaire

Since FY2016 the Company conducts a monthly employee satisfaction (ES) survey for all non-consolidated employees. Questionnaires are used to measure employees' understanding of and penetration of management measures, their sense of busyness in the workplace, and their satisfaction with the personnel system. At the same time, questionnaires are used to resolve issues faced by employees, and the Company aims to foster a corporate

culture in which management and all employees are more united in order to realize its long-term management plan, "Vision 2025," and achieve its mid-term business plan goals. The survey response rate exceeds 90% every month, and we receive a variety of opinions and requests. We strive to publish the results of our questionnaire analysis and provide feedback to all opinions and requests.

## Occupational health and safety

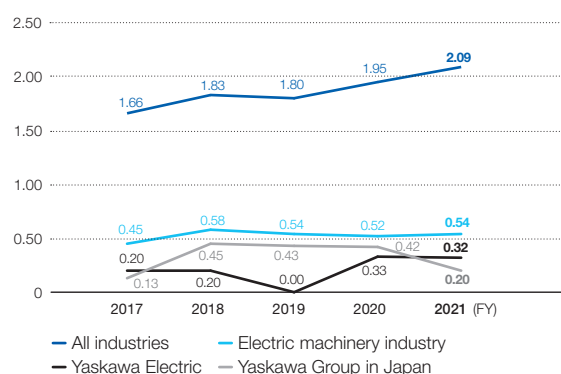
We are working to improve our lost-time injury frequency rate, aiming to eliminate work-related lost-time injuries and to create a safe and rewarding workplace and work style for each and every employee.

Group companies in Japan conducted patrols led by the safety patrol observers of each business, as well as improvement activities through various patrols, and implemented thorough measures to prevent the recurrence of disasters and ensure horizontal deployment.

We have also started to assess the current lost-time injury frequency rate at major overseas production sites, and found that the global lost-time injury frequency rate is somewhat high (0.53\*). Major overseas production sites will also be analyzed for factors and measures will be shared to improve the lost-time injury frequency rate.

### Frequency of work accidents (Frequency rate)

(Number of cases / one million hours)



\* Frequency rate of three factories in China (Shenyang, Changzhou and Shanghai) and Yaskawa India



## Dialogue and Co-creation with Stakeholders

Yaskawa Group has inherited the founder's commitment to "serve the nation and society without pursuing temporary interests" and has contributed to the prosperity of the society by taking root in local communities. As a global company, we will not only carry out business activities rooted in local communities, but also develop various symbiotic activities in line with local social issues. We will further deepen our dialogue and co-creation with stakeholders and strive to realize a sustainable society.

### To ensure customer satisfaction

**FY21 results** In order to build a system for improving quality, we integrated the service functions formerly under the sales division with the market quality promotion functions. As a result, we have consolidated market quality information on a global basis, which we had been promoting to date, and have further strengthened the prompt collection and response of market quality information, establishing a system to realize product and service quality that does not stop customers' facilities and lines.

**FY22 initiatives** In addition to gathering market quality information on a global basis, we will strive to improve product and service quality by enhancing our data analysis capabilities and reflecting customer feedback. In addition, we will expand and improve the functions of the Connect Service, which started in 2021 to continuously monitor customers' robots, with the aim of realizing predictive maintenance. We will also provide services that will enhance customer satisfaction by starting an annual maintenance contract for robots and remote maintenance services.

### To build a sustainable supply chain

**FY21 results** In addition to daily communication, we also disseminated the newly established Sustainable Procurement Guidelines\*1 to our major business partners at explanatory meetings and visits, and confirmed compliance with the guidelines by asking to answer the Self-Assessment Questionnaire for Sustainable Procurement (SAQ). In FY2021, we asked 56% of Yaskawa Electric's major suppliers\*2 to conduct surveys, and received responses indicating compliance with the guidelines.

**FY22 initiatives** In order to achieve 100% compliance with the Sustainable Procurement Guidelines by FY2025, we will further strengthen cooperation with overseas Group companies and steadily promote group-wide efforts to address social issues in procurement activities. In FY2022, we aim to achieve a 100% compliance rate with major suppliers for the entire domestic Group, and we are preparing for SAQ at overseas Group companies.

\*1 Sustainable procurement guidelines

<https://www.yaskawa-global.com/company/csr/scm/guidelines>

\*2 Major suppliers: Suppliers that accounted for 80% or more of total procurement in the previous fiscal year

### Contribution to local communities

**FY21 results** In FY2021, due to the spread of COVID-19, face-to-face activities were not realized, but we continued to support the promotion of culture, arts and sports. Specifically, in addition to being the main sponsor of the soccer team Gilavanz Kitakyushu, we provided an exhibition using Yaskawa's industrial robots at Space LABO (Kitakyushu Science Museum). In this exhibition, three robots are reloading blocks modeled after landmarks that symbolize Kitakyushu City, such as Kokura Castle and Wakato Ohashi Bridge, to continuously create the city. Furthermore, while it was difficult to accept elementary school field trips

nationwide due to the impact of pandemic, we quickly resumed accepting elementary school field trips, albeit under an online environment. We also tried to support aspiring female engineers by holding an online Girls' Day event to support middle and high school girls' career choices. In addition, we solicited ideas from employees and donated to eight special needs schools in Kitakyushu City. We also supported sales of creation of ornaments depicting the oriental zodiac and eco bags made with the hearts of people with disabilities.

**FY22 initiatives** In order to further accelerate unique activities, Yaskawa will enhance its programs based on its Social Contribution Policy, focusing on two directions: (1) development of human resources responsible for the evolution of manufacturing, and (2) coexistence and co-creation with local communities. For example, while the option of holding Girls' Day remotely remains open, we aim



Girls' Day



Demonstration by a robot



Yaskawa's exhibition at Space LABO

to hold a real event where people can experience actual robot operation while implementing measures against infectious diseases.

In COVID-19 crisis, we will continue to provide as much support as we can without changing the policy of our activities to contribute to the revitalization of local communities.

## Dialogue with shareholders and investors

**FY21 results** Yaskawa believes that it is important to promote constructive dialogue with shareholders and investors in order to achieve sustainable growth and increase corporate value over the medium to long term. When necessary, the president, the director in charge of investor relations, the general manager of corporate communications, and other senior management actively engage in dialogue with shareholders and investors. In FY2021, we engaged in dialogue with a total of 1,053 institutional investors and analysts. The opinions received at the dialogue are fed back to the management to improve management measures.

**FY22 initiatives** In FY2022, we will continue to disclose information necessary for making investment decisions in a timely and appropriate manner, and work to deepen relationships of trust with shareholders and investors through constructive two-way dialogue with the aim of further increasing

Activities	Results
Results briefing for analysts and institutional investors (telephone conference, etc.)	6
One-on-one meeting with institutional investors	258
Conference meeting hosted by securities companies	106
Meeting at NDR*	25
Seminar for individual investors	1

\* Due to travel restrictions caused by the spread of the COVID-19, the meetings were held online in FY21.

corporate value. In June 2022, a briefing on sustainability was held in a hybrid format, in which we explained our sustainability initiatives and introduced its facilities. We received feedback from participants that the content raised expectations for long-term growth and improved profitability.

## Respect for human rights

**FY21 results**

**1. For Employees** As part of the first round of human rights due diligence, we conducted a survey on employees' awareness of human rights in August 2021 using an in-house questionnaire system.

We also surveyed the current status of human rights initiatives at domestic Group companies.

**2. Treatment of human rights as a corporation** With the aim of building a sustainable supply chain, we have begun to grasp the status of our business partners' efforts regarding guidelines (including human rights).

**FY22 initiatives**

**1. For Employees** In FY2022, after conducting e-learning on human rights, we will continue our efforts to raise awareness of human rights by identifying changes in employee awareness through surveys.

**2. Treatment of human rights as a corporation** We will continue to investigate and confirm the status of compliance with Guidelines, which began in FY2021.

## Environmental Initiatives

Yaskawa Group's environmental management is driven by both its Green Process, which aims to reduce the environmental impact of Yaskawa's operations, and its Green Products\*<sup>1</sup>, which aim to help customers around the world reduce their environmental impact through Yaskawa products.

In particular, we recognize that addressing the issue of climate change is an urgent global issue, and in 2025, we set a unique target for reducing CO<sub>2</sub> emissions by Yaskawa products by more than 100 times the amount of CO<sub>2</sub> emissions produced by Yaskawa Group (CCE 100), and are promoting environmental management.

\*<sup>1</sup> We evaluate the degree of environmental contribution of a product from three perspectives: prevention of global warming, resource conservation and recycling, and proper management of chemical substances. Products that meet certain standards are certified as Green Products, and products that demonstrate the highest level of environmental performance in the industry are certified as Super Green Products.

### Goals and progress of the mid-term environmental plan

	Targets for FY2022	Achievements in FY2021	Self evaluation
Green processes	The Group's CO <sub>2</sub> emission reduction rate <b>10%</b> (Compared to FY2018)	The Group's CO <sub>2</sub> emission reduction rate <b>4.3%</b> (Compared to FY2018)	△
	CO <sub>2</sub> -free electric power rate <b>58%</b> (Yaskawa Electric)	CO <sub>2</sub> -free electric power rate <b>41%</b> (Yaskawa Electric)	○
	Reduce volume of waste discharged by the Group <b>FY2018 results (3,986 tons) or less</b>	Volume of waste discharged by the Group <b>90%</b> (compared to FY2018)	○
	Proper water management Reduce volume of water consumed by the Yaskawa Electric <b>FY2018 results (216,000 m<sup>3</sup>) or less</b>	Volume of water consumed by Yaskawa Electric <b>78%</b> (compared to FY2018)	○
Green products	Contribution to reducing CO <sub>2</sub> emissions through products <b>73 million t</b> or more (Cumulative since FY2016)	Contribution to reducing CO <sub>2</sub> emissions through products <b>52.15 million t</b> (Cumulative since FY2016)	○
	<b>100% compliance with the RoHS Directive</b> (six original substances plus four additional substances excluded)	<b>Target products are 100% compliant with the RoHS Directive.</b> Compliance for four additional substances is complete. Implementation of priority education at bases in China	○
Management	Increase in the number of companies covered under EMS in the Yaskawa Group <b>Environmental impact load ratio: 95% or greater</b>	Covered one new overseas Group company. <b>Environmental impact load ratio: 95% or greater</b>	○

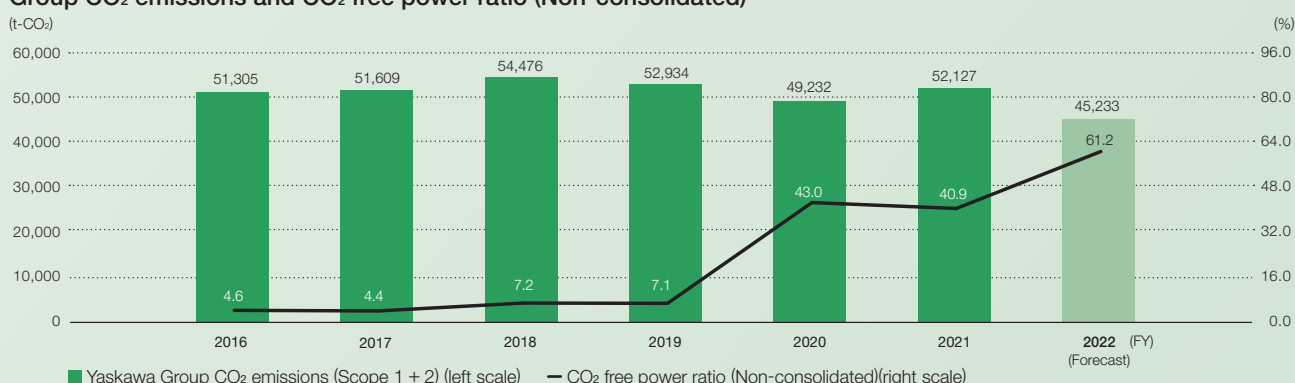
Self-evaluated achievement ratios to targets: ◎ 130% or more, ○ 100% or more, △ 50% or more, × under 50%

## Achievements and challenges of FY2021

**FY21 achievements** We were generally able to progress measures in line with the targets of the Medium-Term Environmental Plan. In the green process, the main focus was on reducing CO<sub>2</sub> emissions, and in addition to solar power generation, we actively adopted CO<sub>2</sub>-free electricity from electric power companies. In addition to the Yahatanishi Plant, the Nakama Robot Plant, the Kokura Plant, and the Nakama System Plant, we have also introduced CO<sub>2</sub>-free power purchasing at the Iruma Plant, which began in FY2019. On the other hand, we worked to reduce energy

purchases through stable operation of solar power generation facilities, investment in energy-saving equipment, and individual energy-saving activities. As a result, the ratio of CO<sub>2</sub>-free electricity generated by Yaskawa Electric alone is expected to reach about 61% in FY2022, which greatly contributes to the reduction of CO<sub>2</sub> emissions in Yaskawa Group. As for Group EMS activities, we established a promotion system for overseas Group companies and worked to raise the level of the Group by developing educational programs in response to the RoHS Directive.

### Group CO<sub>2</sub> emissions and CO<sub>2</sub> free power ratio (Non-consolidated)

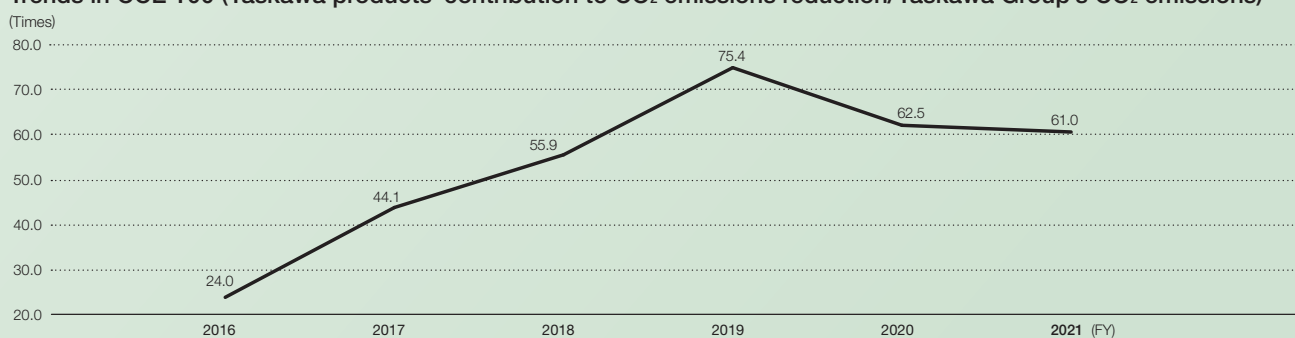


**Challenges of FY21** In FY2021, we expanded the introduction of CO<sub>2</sub>-free electricity, introduced internal carbon pricing, and established internal systems to accelerate investment in energy conservation. In FY2021, however, the Group's reduction of total CO<sub>2</sub> emissions was sluggish due to the start of new buildings and an increase in

production volume.

In addition to the above effects, mainly due to the sales expansion of products that are less involved in the reduction contribution while business performance increased, CCE 100 remained at 61 times which is around the same level as FY2020.

### Trends in CCE 100 (Yaskawa products' contribution to CO<sub>2</sub> emissions reduction/Yaskawa Group's CO<sub>2</sub> emissions)



Fiscal year	2016	2017	2018	2019	2020	2021
Yaskawa products' contribution to CO <sub>2</sub> emissions reduction	1,233	2,275	3,046	3,993	3,067	3,072
Yaskawa Group's CO <sub>2</sub> emissions	51	52	54	53	49	50

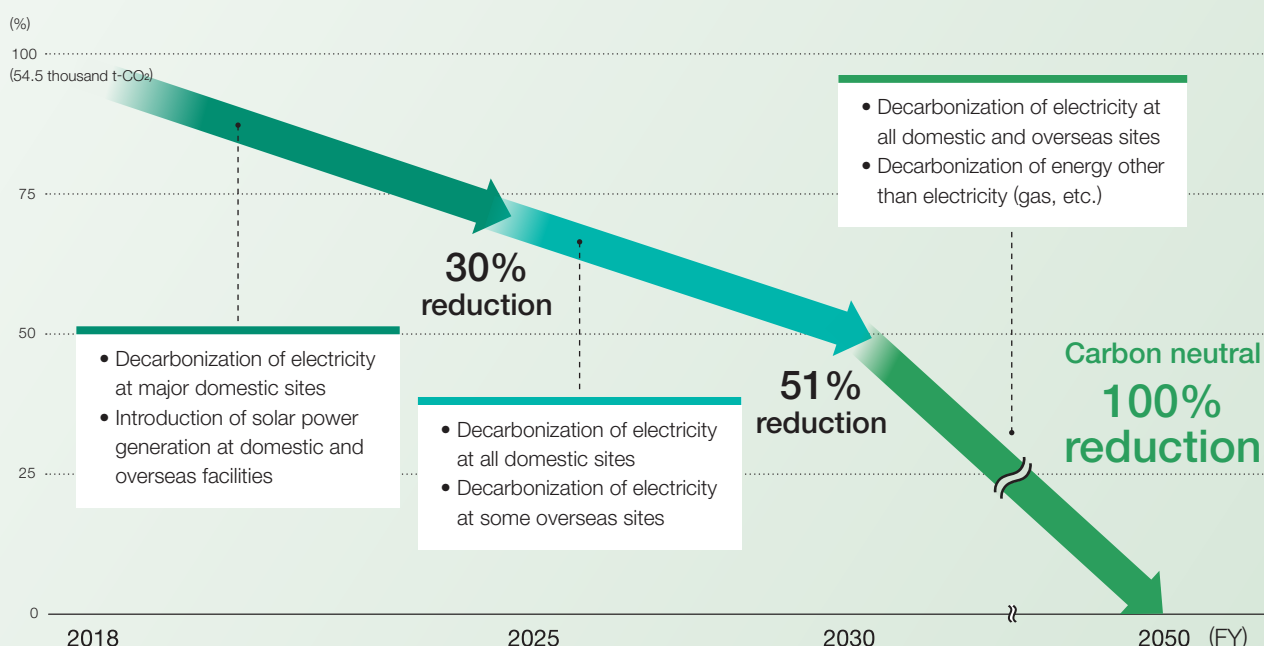


### Toward carbon neutrality

In October 2020, the Japanese government declared that Japan would be carbon neutral in 2050, and in April 2021, it clearly stated that Japan would aim to reduce greenhouse gas emissions by 46% from 2013 levels in fiscal 2030. Decarbonization policies are also progressing rapidly in Europe, the United States, China and other countries where Yaskawa Group operates, and in May 2022, Yaskawa revised its 2050 Carbon Neutrality Target, which was set in March 2021. We will actively invest in the environment to achieve our goals.

#### <Contents of revision>

1. Revised 2030 reduction target for Yaskawa Group's CO<sub>2</sub> emissions from business activities (Scope 1 + Scope 2) from - 36% to - 51% (compared to 2018 levels)
2. Set a new goal to reduce CO<sub>2</sub> emissions upstream and downstream of the supply chain (Scope 3) by 15% in 2030 (compared to 2020 levels)



### Future Initiatives

With the aim of achieving carbon neutrality by 2050, we will promote environmental management throughout the Group and accelerate the reduction of the environmental impact of production activities based on our global structure in cooperation with factories in Japan, Europe, the United States and China.

In addition to thoroughly reducing energy use through measures that have been implemented to date, such as replacing lighting with LEDs, upgrading air conditioning systems, and increasing the efficiency of production facilities, the Group will also promote group-wide decarbonization by installing photovoltaic panels at each plant and office, including overseas Group companies, and introducing CO<sub>2</sub>-free electricity. We will also increase the share of green products in revenue

for the entire Group and accelerate our efforts to increase the environmental contribution of our products and reduce their environmental impact by complying with the European RoHS Directive, REACH and other regulations and ensuring that we control the chemical substances contained in our products. In addition, in line with the results of information disclosure based on TCFD recommendations made in May 2021, we will address the risks and opportunities identified and further disclose information in light of stakeholder feedback. In order to ensure consistency with the scientific evidence for these goals, we are applying for SBTi<sup>\*2</sup> certification<sup>\*3</sup>.

<sup>\*2</sup> Science Based Targets initiative: An international initiative to certify that a company's CO<sub>2</sub> reduction targets are consistent with scientific evidence

<sup>\*3</sup> Yaskawa applied for certification as a 1.5 degree target to limit the global average temperature increase caused by climate change to less than 1.5 degrees Celsius above pre-industrial levels.



## Endorsement of TCFD Recommendations and Initiatives

Yaskawa group expressed its support for the TCFD Recommendations in September 2019, and in September 2020, we participated in the Ministry of the Environment Support Project for Scenario Analysis of Climate Risks and Opportunities in line with the TCFD Recommendations. Through these and other activities, we disclosed information related to climate change based on the TCFD recommendations in May 2021. Going forward, we will continue to enhance information disclosure related to climate change and continue to conduct business activities that are even more environmentally friendly, in order to contribute to the realization of a sustainable society and further enhance our corporate value.

### Information Disclosures Based on TCFD

<https://www.yaskawa-global.com/company/csr/env/tcf>

### Governance

Based on our sustainability policy, Yaskawa is identifying sustainability challenges and targets (materiality) in the Board of Directors and Management Committee that serve as important challenges for sustainable growth and deciding on measures to solve those challenges and targets. We have also established the Sustainability Committee, which is chaired by the president and attended by heads of related divisions and outside directors as advisors, as our sustainability promotion system in order to monitor and accelerate the deployment of sustainability measures for the Group as a whole.

For our response to climate change, we have positioned it as an important challenge in our materiality, and we are

monitoring it in the Sustainability Committee. For the overall execution of these and other measures, we are conducting PDCA (plan, do, check, action) management in the organization for environmental promotion, which is run by the corporate environmental officer appointed by the president. Additionally, the achievement of CO<sub>2</sub> emissions reduction targets through Yaskawa products is being evaluated and incorporated into the compensation of directors (excluding outside directors and directors who are members of the Audit and Supervisory Committee) with the goals of achieving sustainable corporate activities and responding to social issues.

### Strategy

We have investigated the risks and opportunities caused by climate change in motion control, robotics, and system engineering, which are our primary businesses. These risks and opportunities can be thought of as "transition" risks and opportunities caused by changes such as measures for climate change (e.g., policies and regulations) and "physical" risks caused by changes such as natural disasters and rising temperatures. We have derived these risks and opportunities and evaluated their impact on our business activities as serious, moderate, or minor.

The derived risks and opportunities (see table on the next

page) with a moderate and serious impact were analyzed with 2°C and 4°C scenarios for society in 2030.

We have also learned that the impact on our financial plan from these analysis results is a larger increase in sales due to opportunities than a reduction in sales due to risks.

As a response to these opportunities, the Yaskawa Group is working on factory automation and optimization based on "i<sup>3</sup>-Mechatronics," and moving into new challenges that expand the areas in which mechatronics are applied for the sustainable development of the society as the goal in our long-term business plan "Vision 2025."

## Business Impacts Related to Risk and Opportunity Factors

Risk/ Opportunity	Transition/ Physical	Factor	Impact	Evaluation
Risk	Transition	Carbon price	• Increased fuel and material procurement costs due to the introduction of carbon taxes by national governments.	Serious
		Government policies on carbon emissions	• Increased costs (e.g., purchasing clean energy) that accompany the introduction of emissions trading and the strengthening of emissions regulations.	Serious
		Transformation to energy savings and carbon reductions	• Production impacts due to price increases and procurement difficulties for reasons such as insufficient related materials from electrification and the transition to electric vehicles.	Serious
		Recycling regulations	• Increased costs from using substitute materials, etc., due to regulations such as those on plastics.	Minor
		Growth of low-carbon technologies	• Increased investment costs, such as R & D costs, due to increased competition in the energy saving performance of products against a background of increasing demands for energy savings.	Moderate
		Changing behavior of investors and customers	• Increased support costs due to investors and customers preferring companies that are more environmentally responsive. • Decreased company valuation and loss of business opportunities due to delayed responsiveness to environmental responsibility related to information disclosure and procurement.	Minor
	Physical	Increasing average temperatures	• Increased energy costs due increased air conditioning energy in our factories. • Need to move production sites where the risk of flooding exceeds tolerances due to sea rise.	Moderate
		Intensification of unusual weather	• Operation stoppages, reductions in production, and additional investment to restore equipment from typhoons, tornadoes, and flooding.	Serious
Opportunity	Transition	Transformation to energy savings and carbon reductions	• Increased demands for factory automation devices and industrial AC drives due to increased energy saving needs. • Expanded business opportunities for solutions that increase the productivity and energy saving performance of factories and equipment. • Expanded demand for solar power generators and wind power/geothermal power/biomass power generation equipment due to feed-in tariff incentives and so on. • Expanded business opportunities for electronics in electric vehicles as the electrification of automobiles progresses. • Expanded business opportunities for marine electronics due to increased demands for electric and hybrid ships.	Serious
		Changing behavior of investors and customers	• Increased investor valuation, increased ESG investment, and increased corporate value due to expansion of businesses that contribute to the environment.	Minor

Main scenarios used in the scenario analysis

• Used mainly to analyze transition risks:

IEA<sup>\*1</sup>: SDS<sup>\*2</sup>, STEPS<sup>\*3</sup>

• Used mainly to analyze physical risks:

IPCC<sup>\*4</sup>: RCP2.6<sup>\*5</sup>, RCP8.5<sup>\*6</sup><sup>\*1</sup> International Energy Agency<sup>\*2</sup> Sustainable development scenario<sup>\*3</sup> Stated policies scenario<sup>\*4</sup> Intergovernmental panel on climate change<sup>\*5</sup> Scenario in which the average temperature of the

world rises about 2°C over the average temperature before the industrial revolution

<sup>\*6</sup> Scenario in which the average temperature of the world rises about 4°C over the average temperature before the industrial revolution

## 2°C scenario

A certain response is required to the intensification of unusual weather, but the response to the rising cost of materials and resources is more important. On the other hand, there are opportunities created by moving forward with reductions in carbon, such as expanding demands for factory automation devices, industrial AC drives, and renewable power generation equipment, as well as a solutions business that increases productivity and energy saving performance in the factories and equipment of companies by using these devices.



Extreme weather



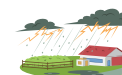
Rising prices of materials and resources



Equipment for renewable power generation

## 4°C scenario

Carbon reduction is not promoted and unusual weather intensifies, so the response to physical risks caused by this are considered the most important challenges.



Extreme weather

## Risk Management

The Yaskawa Group has established the Risk Management Committee with a committee head appointed by the president to swiftly and accurately handle risks that may pose a problem either directly or indirectly to the management and business operations of the Group. The Risk Management Committee evaluates, manages, plans measures, and implements those measures for company-wide risks.

This committee also evaluates and manages risks related to climate change. When a crisis occurs, this committee establishes a crisis response headquarters according to the level of the crisis and implements a suitable response.

The Risk Management Committee shares information with the Board of Directors, Management Committee, and Sustainability Committee, and it supervises and monitors risk management for the entire company while also attempting to enhance risk management company-wide by ensuring consistency in risk assessments and materiality analysis.

## Metrics and Targets

In order to prevent global warming, which is a social issue for all humankind, Yaskawa will go carbon neutral in 2050, essentially eliminating the CO<sub>2</sub> emissions (scope 1 + scope 2) that accompany Yaskawa Group global business activities, and as a milestone for achieving that goal, we have also established a target called "2050 CARBON NEUTRAL CHALLENGE" to reduce those same CO<sub>2</sub> emissions by 51% in 2030 compared to 2018. In addition, the company has also set a target of reducing its 2030 CO<sub>2</sub> emissions by 15% from the 2020 level for emissions upstream and downstream in the supply chain (Scope 3).

We are also contributing to the reduction of CO<sub>2</sub> emissions in the world through the supply of AC drives and other products that boast the world's highest performance utilizing power conversion technology, which is Yaskawa's core technology. To this end, Yaskawa is working to achieve "CCE 100," with which it will promote the reduction of CO<sub>2</sub> emissions of the world through its products and make the reduction more than 100 times the amount of CO<sub>2</sub> emitted by Yaskawa Group in 2025.

To achieve these goals, Yaskawa has introduced an internal carbon pricing system (internal carbon price: 5,000 JPY/t-CO<sub>2</sub>) and is making aggressive environmental investments.







**Hiroshi Ogasawara**

Representative Director,  
Chairman of the Board; President



**Toshikazu Koike**

Outside Director,  
Member of the Audit and Supervisory Committee

## Delivering Sustainable Business Growth through Sharing a Sense of Urgency and Increasing the Speed of Execution

**Q** In ASKAWA Report 2018, we included an article on a dialogue on corporate governance between Mr. Akita, a then outside director, and then Chairperson Mr. Tsuda. At that time, issues were raised about active risk-taking, so-called "aggressive governance." How do you feel the approach taken by the board has changed in recent years? What are your top corporate governance priorities for Yaskawa?

**Ogasawara** Yaskawa shifted to a company with an audit and supervisory committee in 2015. By 2018, the new structure was on track and the board was moving to a "forum for deeper discussion." Since then, there have been discussions on how to realize the operation of the Board of Directors, which is closer to the essence of the business, but due to the impact of the pandemic caused by the COVID-19 from 2020, it has become difficult to raise the level of the operation. Now, although we are still under COVID-19 influence, face-to-face activities have resumed, and we can begin to think about the management of the board of directors to approach the essence of business again. Against this backdrop, I

believe that speed is the top priority for corporate governance in Yaskawa. I feel that the speed at which we make decisions and do things with "data" is still slow. With YDX (YASKAWA Digital Transformation) we now have the data to make our decisions. Now it's all about how we speed up our execution.

**Koike** In 2020, when I received the proposal of becoming an outside director and member of the Audit and Supervisory Committee, the chairperson of the nominating committee at Brother Industries, Ltd. where I work as Director & Chairman of the Company said, "It is a very difficult mission," because Yaskawa is a company with an Audit and Supervisory Committee, and therefore I would be required to serve both as an outside director and as a member of the Audit and Supervisory Committee. However, because I have been involved in the management of an operating company for a long time, I thought I could be of service, so I decided to accept it. During my first year in office, I have visited many business offices in Japan and gained a better understanding of Yaskawa's business model and

business challenges through participation in the Board of Directors and other meetings. From now on, I believe it is most important to actively make proposals that I can make, and to thoroughly discuss whether those proposals can be realized through various opportunities for dialogue.

**Q** Yaskawa has conducted an annual Board of Directors Evaluation Questionnaire since 2016 for all directors, including members of the Audit and Supervisory Committee, and seeks to further improve its effectiveness by reviewing and implementing measures to address issues identified through the questionnaire. Mr. Koike, what is your impression of the board of directors of Yaskawa?

**Koike** I'm surprised that Yaskawa has such an open atmosphere. The ability of outside directors to attend important internal meetings, such as management meetings, is a significant difference from Brother Industries, where I am chairperson, and I feel that information sharing is very advanced. However, it is difficult to read and properly understand the materials of these meetings, but I am now able to understand them by clarifying with the secretariat of the Board of Directors, so I am currently making opinions and proposals based on a realistic understanding on the next mid-term business plan, which is a core theme at Yaskawa, as well as future management strategies and issues.

On the other hand, in addition to the importance of dialogue I mentioned earlier, a challenge for Yaskawa that I personally feel is the promotion and development of human resources from the perspective of succession. I feel that we need to plan a pipeline of human resources and a program to develop successors, assuming who will be running the company 10 years from now.

**Ogasawara** The real challenge in nurturing talent is that it has become difficult to nurture people in the so-called "pandemonium" situation like the times when business conditions were extremely difficult, partly because of the stability of business performance and the trend of reforming work styles. Other than that, I believe we are proceeding with a pipeline outlook for the next 10 years or so.

**Koike** Brother Industries also experienced a crisis in the 1990s, and the management is made up of people who grew up in hard times. People who take the stable environment of the last 20 years for granted tend to be slow in their actions.

**Ogasawara** I feel strongly that makes things slow down. There were times when I used to worry that if I didn't act immediately, the company would be in crisis. Historically, that's when people grow up.

**Q** With the election of Mr. Koike in FY2021, the number of independent outside directors increased from 4 to 5. In addition, Ms. Matsuhashi was elected in FY2022 to increase the independent and outside ratio and diversity of the Board of Directors. What is the purpose of this change?

**Ogasawara** I understand that the primary role of outside directors is to stop the reckless leadership (of representative directors). To this end, it is important for outside directors to be able to collaborate with directors other than the representative directors, and they should not be close friends with the representative directors. Independence is important. I also believe that diversity is important in order to receive opinions from a variety of perspectives. Based on these ideas, we must create a system that enables active discussions on improving corporate value.

**Q** What impact do you feel the statements of outside directors have on the Board of Directors, the Nomination Advisory Committee and the Compensation Advisory Committee?

**Koike** Outside directors make opinions based on their own experience while taking a stance on whether they can be convinced that the management is fair, transparent and best for Yaskawa. We never push our opinions, but point out any points that seem off, and look for a compromise while respecting the company's thinking.

As chairperson of Yaskawa Compensation Advisory Committee, I believe that there are many different ways of thinking about compensation, depending on the





background and circumstances of the company, but I make recommendations based on my sense of the level of the world and my own knowledge and experience.

**Ogasawara** With regard to the nomination, I believe that it is difficult at this point for outside directors who have little information about personnel in the company to determine whether the candidate is really appropriate. Therefore, what I expect from outside directors is that they do not hesitate to make statements such as "that director should resign," in a timely and appropriate manner from the perspective of whether the current director is functioning properly.

In terms of compensation, I feel that the appropriate compensation judgment for performance is weak, partly because the previous Yaskawa was not in a good financial position historically. I also look forward to your advice on how much is reasonable from an outside perspective.

**Q** The revised Corporate Governance Code requires companies to explain the investment and use of intangible assets, such as human capital and intellectual property, that are necessary to create value sustainably. At Yaskawa, various activities are underway, including the revision of the evaluation and compensation system, the visualization of

management resources by YDX, and the integration of technology by YASKAWA Technology Center, and Mr. Ogasawara is actively disseminating information to stakeholders, including the stock market and the media on these initiatives. What do you keep in mind when communicating with external stakeholders? Also, If you have any initiatives on intangibles that you think Yaskawa should strengthen further, please let us know.

**Ogasawara** I explain Yaskawa's business model and solution concept "i<sup>3</sup>-Mechatronics" as thoroughly as I can in a limited amount of time. And when asked about sustainability (ESG), I try to tell them that everything boils down to the i<sup>3</sup>-Mechatronics concept. I always tell them that it is important to look at things from a broad perspective in order to go from partial to total optimization, and that the practice of i<sup>3</sup>-Mechatronics is what Yaskawa management is all about.

**Koike** In the world of FA, in order to achieve labor saving and unmanned operation, it is necessary to properly manage the data of every device and look at the entire factory, but even if we can detect the failure of our own machines, I think there is a limit to what we can do if we try to do more. That is why I believe it is important to realize the improvement of the equipment reliability

and zero downtime at manufacturing sites that customers want with the i<sup>3</sup>-Mechatronics concept, and to create a sustainable business with a system that allows customers to continue using Yaskawa products. Servos and AC drives have a certain lifetime, so I think there are a lot of different ideas to make sustainable business, like offering subscription incentives for continuous purchasing, or a service to enable 100% capturing of Yaskawa devices through network.

In addition, with regard to YDX, we are currently in the process of evolving into initiatives to link the value chain, such as the construction of PLM (Product Lifecycle Management) and CRM (Customer Relationship Management), and I believe that realizing customer satisfaction through this will be the next major growth opportunity and challenge. How to put your soul (data) into the box (data lake) and increase the sensitivity of those who take advantage of it, as well as realtime action through operational management, are essential to the success of data-driven sales management.

**Q** What are your expectations for Yaskawa in order to achieve the goals of Vision 2025 long-term management plan?

**Koike** Over the past year, I have come to understand the good things about Yaskawa and what we need to do in the future. From a position with long experience in

corporate management, I will actively participate in management from both a comprehensive business perspective, including governance, finance and accounting, and legal, as well as management and supervision, with the aim of achieving sustainable business growth, and engage in intensive discussions with the management team on how to materialize various proposals.

The last fiscal year of Vision 2025 is three years away. We can't do anything big all of a sudden, but in a rapidly changing business environment, I would like to take the initiative to help carry out the tasks aimed at realizing the vision with a sense of speed.














**Ogasawara** Yaskawa's challenge is speed. In order to survive in the market, we must avoid at all costs the worst situation in which we do not realize that we are being attacked by our competitors and are in a situation where we can not recover. To that end, we will put i<sup>3</sup>-Mechatronics into practice, promote and fully utilize YDX, and with all the help of our outside directors, share a sense of urgency, speed things up, and press ahead vigorously toward the realization of Vision 2025.



## Composition of the Board of Directors

Yaskawa's Board of Directors is composed of individuals with advanced knowledge and experience in various areas of corporate management. In addition, areas of particular importance in corporate management are defined as "corporate management and management strategy," "corporate governance," "finance and accounting," "legal affairs," "sales and marketing," "manufacturing, R & D and ICT," and "global."

\* Please refer to the Notice of Convocation of the Ordinary General Meeting of Shareholders for the reasons for the election of each Director.  
[https://www.yaskawa-global.com/wp-content/uploads/2022/04/106\\_agm\\_en.pdf](https://www.yaskawa-global.com/wp-content/uploads/2022/04/106_agm_en.pdf)

Name	Age	Gender	Attributes	Structure				
				Board of Directors	Audit and Supervisory Committee	Nomination Advisory Committee	Remuneration Advisory Committee	
Hiroshi Ogasawara	66			◎		◎	○	
Shuji Murakami	63			○			○	
Masahiro Ogawa	57			○			○	
Yoshikatsu Minami	62			○				
Akira Kumagae	59			○				
Yasuhiko Morikawa	59			○				
Yuichiro Kato	52		Outside Independent	○		○	○	
Yuji Nakayama	62			○	◎			
Koichi Tsukahata	61			○	○			
Junko Sasaki	62		Outside Independent	○	○	○	○	
Hideo Tsukamoto	41		Outside Independent	○	○	○	○	
Toshikazu Koike	66		Outside Independent	○	○	○	◎	
Kaori Matsuhashi	52		Outside Independent	○	○	○	○	

◎ Chairperson ○ Member

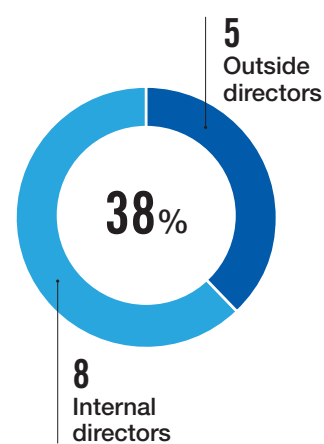
Note: The above table does not represent the full knowledge of each director. Age is as of the 106th general meeting of shareholders held on May 26, 2022.

In addition to the requirements for outside directors set forth in the Companies Act and the independence standards set forth by financial instruments exchanges, Yaskawa selects independent outside directors who meet its own standards.

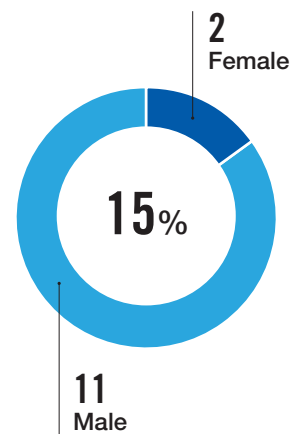
\* Yaskawa's independence standards are on Yaskawa website.  
<https://www.yaskawa-global.com/company/csr/governance/structure>

	Field of capability that Yaskawa expect each director to demonstrate						
	Corporate management Management strategy	Corporate governance	Finance Accounting	Legal	Sales Marketing	Manufacturing R & D and IT	Global
	●	●	●		●	●	●
	●	●	●	●			●
	●	●			●	●	●
	●	●				●	●
	●	●				●	●
	●	●	●	●			●
	●	●			●	●	●
	●	●	●				●
	●	●					●
	●	●			●	●	●
	●	●		●			●
	●	●			●		●
	●	●	●				●

Ratio of outside directors



Ratio of female directors



## Directors (As of May 26, 2022)



### Hiroshi Ogasawara

(Born on September 19, 1955)

#### Representative Director, Chairman of the Board; President

Number of shares of the Company held 459 hundred

Mar. 1979 Joined the Company  
 Jun. 2006 Director  
 Mar. 2007 Director, General Manager, Drives Div.  
 Mar. 2011 Director, General Manager, Motion Control Div.  
 Jun. 2012 Corporate Vice President, General Manager, Motion Control Div.  
 Jun. 2013 Director, Managing Executive Officer  
 Mar. 2014 Director, Managing Executive Officer, General Manager, Technology & Development Div.  
 Mar. 2015 Representative Director, Senior Managing Executive Officer, General Manager, Technology & Development Div.  
 Mar. 2016 Representative Director, President, General Manager, Technology & Development Div.  
 Mar. 2017 Representative Director, President, In charge of Human Resources Development, Manager, Diversity Management Div.  
 Mar. 2018 Representative Director, President, In charge of Human Resources Development, Manager, ICT Strategy Div.  
 Jul. 2020 Representative Director, President, In charge of Human Resources Development, Regional Manager, China, Manager, ICT Strategy Div.  
 Mar. 2022 Representative Director, Chairman of the Board; President; In charge of Human Resources Development; Regional Manager, China; In charge of ICT Strategy (incumbent)



### Shuji Murakami

(Born on April 21, 1959)

#### Representative Director, Senior Managing Executive Officer

Number of shares of the Company held 342 hundred

Mar. 1982 Joined the Company  
 Jun. 2008 Director, Manager, Corporate Planning Div.  
 Jun. 2012 Director, Corporate Vice President  
 Mar. 2014 Director, Managing Executive Officer  
 Mar. 2016 Representative Director, Senior Managing Executive Officer  
 Mar. 2017 Representative Director, Senior Managing Executive Officer, In charge of CSR & Compliance, In charge of Administration, General Manager, Corporate Planning Div.  
 Mar. 2020 Representative Director, Senior Managing Executive Officer, In charge of CSR, In charge of Administration, General Manager, Corporate Planning Div. (incumbent)



### Masahiro Ogawa

(Born on August 25, 1964)

#### Representative Director, Senior Managing Executive Officer

Number of shares of the Company held 122 hundred

Mar. 1987 Joined the Company  
 Dec. 2010 Chairman, YASKAWA AMERICA, Inc.  
 Jun. 2012 Corporate Vice President  
 Mar. 2016 Corporate Vice President, General Manager, Robotics Div., Chairman of the Board of Directors, YASKAWA SHOUKANG ROBOT CO., LTD. (incumbent)  
 Mar. 2019 Corporate Vice President, General Manager, Robotics Div., General Manager, Control Technology Div., Robotics Div.  
 May 2019 Director  
 Mar. 2020 Director, Managing Executive Officer, General Manager, Robotics Div., General Manager, Control Technology Div., Robotics Div.  
 Mar. 2021 Director, Managing Executive Officer, General Manager, Robotics Div.  
 Mar. 2022 Representative Director, Senior Managing Executive Officer, General Manager, Robotics Div.; Department Manager, Business Planning Dept. Robotics Div. (incumbent)



### Yoshikatsu Minami

(Born on October 31, 1959)

#### Director, Managing Executive Officer

Number of shares of the Company held 324 hundred

Dec. 1983 Joined the Company  
 Jun. 2008 Director  
 Jun. 2012 Corporate Vice President, General Manager, Robotics Div.  
 Jun. 2015 Director, Managing Executive Officer  
 Mar. 2017 Director, Managing Executive Officer, In charge of ICT strategy, General Manager, Production Management & Operations Div., General Manager, Export Administration Div.  
 Mar. 2018 Director, Managing Executive Officer, General Manager, Production Management & Operations Div., General Manager, Export Administration Div.  
 Mar. 2020 Director, Managing Executive Officer, General Manager, Production Management & Operations Div., General Manager, Export & Import Administration Div. (incumbent)





## Akira Kumagae

(Born on October 14, 1962)

### Director, Managing Executive Officer

Number of shares of the Company held 126 hundred

Mar. 1985 Joined the Company  
 Mar. 2014 Executive Officer; General Manager, Motion Control Div.  
 Mar. 2019 Executive Officer; General Manager, Corporate Technology Div.; Department Manager, Electric Drive System Dept., Corporate Technology Div.  
 Mar. 2020 Managing Executive Officer; General Manager, Corporate Technology Div.; Department Manager, Electric Drive System Dept., Corporate Technology Div.  
 Mar. 2021 Managing Executive Officer; General Manager, Corporate Technology Div.  
 May 2022 Director; Managing Executive Officer; General Manager, Corporate Technology Div. (incumbent)



## Yasuhiko Morikawa

(Born on June 11, 1962)

### Director, Senior Executive Officer

Number of shares of the Company held 95 hundred

Apr. 1985 Joined The Dai-Ichi Kangyo Bank, Limited (currently Mizuho Bank, Ltd.)  
 Apr. 2008 Corporate Officer, Corporate Planning Group, Mizuho Corporate Bank, Ltd. (currently Mizuho Bank, Ltd.)  
 Apr. 2010 General Manager, Gotanda Branch, Mizuho Bank, Ltd.  
 Apr. 2012 General Manager, Financial Institutions Banking Division No.1, Mizuho Corporate Bank, Ltd. (currently Mizuho Bank, Ltd.)  
 Apr. 2013 Executive Officer, Mizuho Corporate Bank, Ltd.  
 May 2015 Joined the Company, Associate Director  
 Mar. 2016 Executive Officer; General Manager, Tokyo Office, Corporate Marketing Div.; In charge of Corporate Marketing, Corporate Marketing Div.  
 Mar. 2017 Executive Officer; General Manager in Finance, Corporate Planning & Finance Div.; In charge of Liaison, Corporate Planning & Finance Div.  
 Mar. 2020 Executive Officer; In charge of Compliance; Deputy General Manager, Corporate Planning & Finance Div.; General Manager in Finance, Corporate Planning & Finance Div.  
 Mar. 2021 Senior Executive Officer; In charge of Compliance; Deputy General Manager, Corporate Planning & Finance Div.; General Manager in Finance, Corporate Planning & Finance Div.  
 May 2021 Director, Senior Executive Officer; In charge of Compliance; Deputy General Manager, Corporate Planning & Finance Div.; General Manager in Finance, Corporate Planning & Finance Div.  
 Sep. 2021 Director, Senior Executive Officer; In charge of Compliance; General Manager, General Affairs & Risk Management Div.; In charge of Finance & Liaison, Corporate Planning & Finance Div.  
 Mar. 2022 Director, Senior Executive Officer; In charge of Compliance; General Manager, General Affairs & Risk Management Div. (incumbent)



## Yuichiro Kato

(Born on October 20, 1969)

### Outside Director

Number of shares of the Company held 33 hundred

Apr. 1992 Joined Nichirei Corporation  
 Apr. 1995 Joined DAIKO ADVERTISING INC.  
 Apr. 2003 Associate professor of industrial strategy engineering, Graduate School of Engineering, Nagoya Institute of Technology; Visiting researcher, Business Knowledge Bureau, DAIKO ADVERTISING INC.  
 Jan. 2015 Member, The Deming Prize Examination Committee, Union of Japanese Scientists and Engineers (incumbent)  
 Oct. 2015 Representative Partner, Brand Design LLC (currently Brand Design Co., Ltd.) Specially-appointed professor, Industry-Academia-Government Collaboration Center, Nagoya Institute of Technology  
 Apr. 2018 Professor, Vocational Ability Development Institute, Polytechnic University administrated by the Ministry of Health, Labour and Welfare Member, The Japan Quality Recognition Prize Examination Committee, Union of Japanese Scientists and Engineers (incumbent)  
 Nov. 2018 Representative Director, Brand Design Co., Ltd. (incumbent)  
 Jun. 2019 Professor, Project for Organization for Co-Creation Research and Social Contribution, Nagoya Institute of Technology (incumbent)  
 May 2020 Outside Director; Member of the Audit and Supervisory Committee of the Company  
 May 2021 Outside Director (incumbent)

## Directors



### Yuji Nakayama

(Born on May 17, 1960)

#### Director, Member of the Audit and Supervisory Committee (full-time)

Number of shares of the Company held 287 hundred

Mar. 1983 Joined the Company  
 Jun. 2010 Director, General Manager, Accounting Div.  
 Jun. 2012 Corporate Vice President  
 Jun. 2013 Director, Corporate Vice President  
 Mar. 2017 Director, Corporate Vice President, General Manager, Human Resources & General Affairs Div.  
 Mar. 2019 Director, Corporate Vice President, In charge of Human Resources & General Affairs Div. and audit  
 May 2019 Director, Member of the Audit and Supervisory Committee (full-time, incumbent)



### Koichi Tsukahata

(Born on September 22, 1960)

#### Director, Member of the Audit and Supervisory Committee (full-time)

Number of shares of the Company held 90 hundred

Mar. 1985 Joined the Company  
 Mar. 2009 Motion Control Div., General Manager, Yahata Factory  
 Jun. 2010 Deputy General Manager, Motion Control Div.  
 Mar. 2013 Trustee, Director, President, YASKAWA ELECTRIC (SHENYANG) Co., Ltd.  
 Mar. 2018 Trustee, In charge of audit  
 May 2018 Director, Member of Audit and Supervisory Committee (full-time, incumbent)



### Junko Sasaki

(Born on January 12, 1960)

#### Outside Director, Member of the Audit and Supervisory Committee

Number of shares of the Company held 23 hundred

Apr. 1983 Joined IBM Japan Ltd  
 Jan. 2007 Executive Officer, APAC & Japan Technical Sales Support, IBM Japan Ltd  
 Jan. 2011 Joined Microsoft Japan Co., Ltd. Executive; General Manager, Customer Service & Support  
 Feb. 2015 Joined WEIC Corporation (currently SALES ROBOTICS Corporation)  
 Apr. 2015 Director, Vice President, WEIC Corporation (currently SALES ROBOTICS Corporation)  
 Jan. 2016 Vice President, FireEye, Inc.  
 Dec. 2016 President & CEO, Sartorius Japan K.K.  
 May 2018 Outside Director; Member of the Audit and Supervisory Committee of the Company (incumbent)  
 Jun. 2019 External Director, Sumitomo Mitsui Trust Bank, Limited  
 Jun. 2020 Outside Director, Hanwa Co., Ltd. (incumbent)  
 Sep. 2020 External Director, Gemini Strategy Group Inc. (incumbent)  
 Jun. 2021 External Director; Member of Audit and Supervisory Committee, Sumitomo Mitsui Trust Bank, Limited (incumbent)  
 Apr. 2022 Chief Director, Nagaoka Institute of Design (incumbent)



### Hideo Tsukamoto

(Born on July 25, 1980)

#### Outside Director, Member of the Audit and Supervisory Committee

Number of shares of the Company held 0 hundred

Apr. 2003 Entered the Legal Training and Research Institute, Supreme Court of Japan  
 Oct. 2004 Graduated from the Legal Training and Research Institute, Supreme Court of Japan (57th Term), Registered as an Attorney (member of Daini Tokyo Bar Association), Joined Anderson Mori Law Office (currently Anderson Mori & Tomotsune LPC)  
 Nov. 2010 Worked at Civil Affairs Bureau, the Ministry of Justice (in charge of planning and formulation of Revised Companies Act)  
 Jan. 2013 Partner, Anderson Mori & Tomotsune LPC (incumbent)  
 Apr. 2014 Part-time lecturer, Faculty of Law, The University of Tokyo  
 Jan. 2016 Expert Member, Case Study Committee, The Japan Audit & Supervisory Board Members Association (incumbent)  
 Dec. 2017 Member (2nd term), Corporate Governance System (CGS) Workshop, the Ministry of Economy, Trade and Industry  
 Jun. 2018 Outside Audit & Supervisory Board Member, JA MITSUI LEASING, LTD. (incumbent)  
 May 2019 Outside Director, Member of the Audit and Supervisory Committee of the Company (incumbent)  
 Aug. 2019 Member, the Study Group on the Process of the General Meeting of Shareholders in the New Era, the Ministry of Economy, Trade and Industry



## Toshikazu Koike

(Born on October 14, 1955)

### Outside Director, Member of the Audit and Supervisory Committee

Number of shares of the Company held 3 hundred

Apr. 1979 Joined BROTHER INDUSTRIES, LTD.  
 Aug. 1982 Seconded to Brother International Corporation (U.S.A.)  
 Oct. 1992 Director, Brother International Corporation (U.S.A.)  
 Jan. 2000 Director & President, Brother International Corporation (U.S.A.)  
 Jun. 2004 Director, BROTHER INDUSTRIES, LTD.  
 Jan. 2005 Director & Chairman, Brother International Corporation (U.S.A.)  
 Apr. 2005 Director & Managing Executive Officer, BROTHER INDUSTRIES, LTD.  
 Apr. 2006 Director & Senior Managing Executive Officer, BROTHER INDUSTRIES, LTD.  
 Jun. 2006 Representative Director & Senior Managing Executive Officer, BROTHER INDUSTRIES, LTD.  
 Jun. 2007 Representative Director & President, BROTHER INDUSTRIES, LTD.  
 Jun. 2018 Representative Director & Chairman, BROTHER INDUSTRIES, LTD. (incumbent)  
 Jun. 2020 Outside Director, Toyo Seikan Group Holdings, Ltd. (incumbent)  
 May 2021 Outside Director, Member of the Audit and Supervisory Committee of the Company (incumbent) Apr. 1979



## Kaori Matsuhashi

**Kaori Hosoya (Name on family register)** (Born on June 7, 1969)

### Outside Director, Member of the Audit and Supervisory Committee

Number of shares of the Company held 0 hundred

Apr. 1993 Joined Toyo Information Systems Co., Ltd. (currently TIS Inc.)  
 Oct. 2002 Joined KPMG Tokyo Office (currently KPMG AZSA LLC)  
 Apr. 2006 Registered as a Certified Public Accountant  
 Jul. 2006 Joined Asset Investors Co., Ltd. (currently Merchant Bankers Co., Ltd.)  
 Nov. 2007 General Manager, Corporate Planning Division, Asset Investors Co., Ltd.  
 Mar. 2008 Joined MK Capital Management Corporation (currently IDERA Capital Management Ltd.), Executive Officer  
 May 2009 Established Luminous Consulting Co., Ltd. Representative Director (incumbent)  
 Representative, Matsuhashi Kaori Certified Public Accountant Office (incumbent)  
 Jan. 2014 External Auditor, NTS Holdings Co., Ltd. (incumbent)  
 Jun. 2014 External Director, Spiber Inc. (incumbent)  
 Jun. 2017 Outside Audit & Supervisory Board Member, Kakaku.com, Inc.  
 May 2019 Outside Audit & Supervisory Board Member, Seven & i Holdings Co., Ltd. (incumbent)  
 May 2022 Outside Director; Member of Audit and Supervisory Committee of the Company (incumbent)

## Basic Approach to Corporate Governance

Yaskawa has established Yaskawa Electric Corporate Governance Policy, which outlines its basic stance on corporate governance, with the aim of enhancing corporate value for our stakeholders over the medium- to long-term.

Yaskawa Electric Corporate Governance Policy	
Chapter 1 Ensuring Shareholder Rights and Equality	Chapter 4 Responsibilities of the Board of Directors, etc.
1. Policy for the General Meeting of Shareholders	1. Organization Design
2. Capital Policy	2. Board of Directors Policy
3. Policy on Cross-Shareholdings	3. Policy on Directors
4. Policy on Takeover Defense Measures	4. Independent Outside Director
5. Policy for Transactions between Relevant Parties	5. Access to Independent Experts
Chapter 2 Appropriate Collaboration with Stakeholders Except Shareholders	6. Advisory Committee
1. Basic Concept for Strengthening Social and Relationship Capital	7. Exchange of information and sharing of awareness among independent outside directors
2. Social and Environmental Issues	8. Directors' Remuneration
Chapter 3 Ensuring Appropriate Information Disclosure and Transparency	9. Roles of the Audit and Supervisory Committee
	Chapter 5 Communication with Shareholders
	Chapter 6 Other

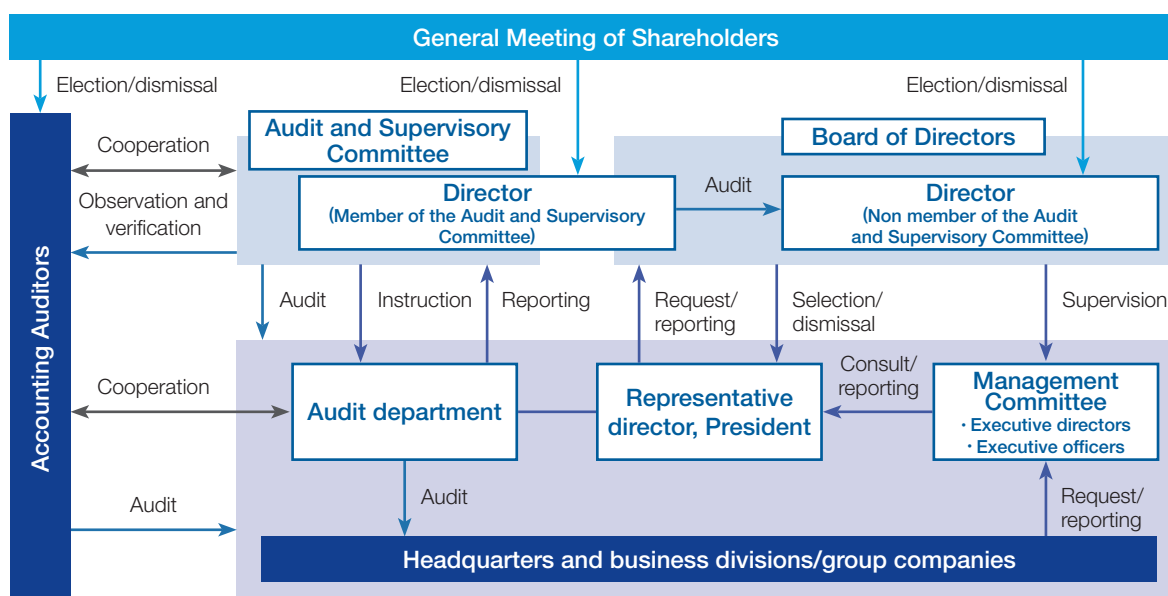
\* For details of this policy, please see the website. <https://www.yaskawa-global.com/company/csr/governance/policy>

## Corporate Governance System

Yaskawa Electric has adopted a corporate structure with an Audit and Supervisory Committee in order to further strengthen the oversight function of the Board of Directors over management and corporate governance, as well as to enhance the soundness and efficiency of management. The Company believes that the supervisory function of the Board of Directors will be further enhanced by utilizing the legal functions of Audit and Supervisory Committee Members, such as the ability of Audit and Supervisory Committee Members as directors to exercise voting rights at the Board

of Directors on important matters of the Company, such as the appointment and dismissal of Representative Directors, and the ability to examine the results of the execution of business by Executive Directors and to express opinions at the General Meeting of Shareholders on the appointment, dismissal and remuneration of Executive Directors. In addition, the Company has introduced an executive officer system to separate management decision-making and business execution functions, enhance each function, and speed up business execution.

### Corporate governance structure



### **Board of Directors**

Yaskawa Electric's Board of Directors consists of 13 members, including 8 internal and 5 external directors.

In addition to the regular meetings of the Board of Directors, the Board of Directors convenes extraordinary meetings as necessary to decide on important matters related to management and matters stipulated by laws and regulations, and to supervise the status of business execution on an ongoing basis.

Yaskawa has appointed Yuichiro Kato, Junko Sasaki, Hideo Tsukamoto, Toshikazu Koike and Kaori Matsuhashi as Outside Directors to provide advice and suggestions from an independent perspective on overall management of Yaskawa based on their diverse perspectives, experiences and advanced expertise. In deliberations by the Board of Directors, Outside Directors fully understand the current status of Yaskawa based on information submitted or reported by the Internal Audit and Control Division, Corporate administration operations and other functions, and the Accounting Auditor provide advice and proposals based on their respective knowledge, thereby fulfilling appropriate supervisory functions.

### **Audit and Supervisory Committee**

The Audit and Supervisory Committee consists of 6 directors (of which four are outside directors) who are Audit and Supervisory Committee Members, and audits the status of execution of duties by Directors and others. In conducting audits, the Audit and Supervisory Committee fully understands the current status of Yaskawa Electric based on information reported by the Internal Control Division, the Internal Audit Division, and the head office business divisions, while full-time Audit and Supervisory Committee Members conduct audits based on actual inspections. In addition, the Audit and Supervisory Committee carries out duties in cooperation with the Accounting Auditor, and monitors and verifies the duties of the Accounting Auditor.

Yaskawa Electric has appointed EY ShinNihon LLC as an accounting auditor, and has provided accurate management information under an auditing contract and created an environment in which audits are conducted from an independent standpoint. We consult with and receive advice from our accounting auditors when they need to make a decision.

### **Executive Committee**

The Executive Committee is composed of executive directors and executive officers and discusses important decisions related to business execution, including reports on the progress of management plans and deliberations on policies and measures for all businesses. As a general rule, meetings are held once a month, and extraordinary meetings are held as necessary to establish a flexible and prompt business execution system.

### **Nomination Advisory Committee**

The Nomination Advisory Committee, of which the majority are independent outside directors, has been established under the Board of Directors to ensure the transparency and fairness of the nomination of director candidates, the selection process of representative directors and officers, etc., and to ensure a forum for outside directors to obtain and discuss sufficient information to form opinions on the nomination of director candidates, etc. When submitting proposals regarding the nomination, etc. of director candidates, etc. to the Board of Directors, the details thereof shall be fully reflected upon the report of the Committee.

### **Compensation Advisory Committee**

The Compensation Advisory Committee consisting of a majority of independent outside directors is established under the Board of Directors to ensure the appropriateness and transparency of the remuneration of directors (excluding directors who are Audit and Supervisory Committee Members) and executive officers through fair deliberations, and to ensure a forum for outside directors to obtain sufficient information and discuss the remuneration in order to form opinions.

The Committee deliberates on the compensation for directors calculated in accordance with the directors' compensation rules and other necessary matters concerning directors' compensation from the viewpoint of appropriateness.



## History of Initiatives to Enhance Corporate Governance

Yaskawa Electric has developed a governance system to enhance the effectiveness of the Board of Directors by actively incorporating external knowledge, and to strengthen both defensive and offensive governance, in order to

continuously improve corporate value. Yaskawa will continue to pursue its best, enhance management transparency, and further enhance corporate governance.

### History of initiatives to enhance corporate governance

Fiscal year		FY2012-2014	FY2015-2017	FY2018-2021
Main measures		<b>FY2012</b> <ul style="list-style-type: none"> <li>Adoption of executive officer system</li> <li>Number of Directors was reduced to 12 from 20</li> </ul> <b>FY2014</b> <ul style="list-style-type: none"> <li>Compensation Advisory Committee established</li> </ul>	<b>FY2015</b> <ul style="list-style-type: none"> <li>Transition to a company with Audit and Supervisory Committee</li> <li>Nomination Advisory Committee established</li> </ul> <b>FY2016</b> <ul style="list-style-type: none"> <li>Evaluation of the effectiveness of the Board of Directors commenced</li> </ul>	<b>FY2018</b> <ul style="list-style-type: none"> <li>More than 1/3 of the board of directors are independent outside directors</li> </ul> <b>FY2019</b> <ul style="list-style-type: none"> <li>Disclosed skill matrix of the board of directors</li> </ul> <b>FY2020</b> <ul style="list-style-type: none"> <li>Determination of basic policies for executive compensation</li> <li>Established Corporate Governance Policy of Yaskawa</li> </ul> <b>FY2021</b> <ul style="list-style-type: none"> <li>Established Sustainability Policy</li> </ul>
Aim and purpose		<ul style="list-style-type: none"> <li>Faster and more efficient management decision-making and execution</li> <li>Ensuring the appropriateness and transparency of executive compensation</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening of offensive and defensive governance</li> <li>Ensuring transparency and fairness in nomination of director candidates</li> <li>Improving the functions of the Board of Directors to increase corporate value</li> </ul>	<ul style="list-style-type: none"> <li>Improving the independence and objectivity of the Board of Directors</li> <li>Enhancement of information disclosure</li> <li>Contributing to the realization of a sustainable society in addition to improving corporate value</li> </ul>
Institution establishment		Company with Board of Corporate Auditors	Company with Audit and Supervisory Committee	
Composition of the Board of Directors	Internal	6	8*	8*
	Independent outside (Female)	1	3*	5* (1)
Composition of Audit and Supervisory Committee (Up to FY2014, data indicated as "Board of Corporate Auditors")	Internal	2	2	2
	Independent outside (Female)	2	3	4 (1)

\* Including directors who are members of the Audit and Supervisory Committee.

Note: The No. of members of the Board of Directors and the Audit and Supervisory Committee are of the latest figure of the corresponding fiscal years on the table.

## Initiatives in FY2021

In FY2021, in response to the Corporate Governance Code revised in June 2021, the Board of Directors held discussions to ensure greater effectiveness, established a Nomination Advisory Committee and a Compensation Advisory Committee under the Board of Directors, with the

majority of members being independent outside directors, and established a Sustainability Committee to examine initiatives to address issues surrounding sustainability. We are making steady progress in deliberating and monitoring various themes to enhance our corporate value.

### Major matters discussed by the Board of Directors in FY2021

- Mid-term business plan "Challenge 25 Plus" progress report and discussion
- Reports and deliberations on the operational status of the internal control system, including operational effectiveness and efficiency, compliance with laws and regulations, information management, crisis management, etc.
- Report and discuss the status of initiatives for sustainability issues, including environmental initiatives
- Report and deliberation on board effectiveness evaluation (third-party questionnaire survey of all directors)

## Directors' Compensation

### Basic policy on executive compensation

With the aim of continuously increasing corporate value and strengthening competitiveness, executive compensation at Yaskawa is designed to maintain a level of compensation that secures talented human resources and provides incentives for short-term, medium- to long-term performance improvement.

### Remuneration to Directors

#### (Excluding Audit and Supervisory Committee Members)

##### 1. Basic compensation

At the 99th Ordinary General Meeting of Shareholders held on June 18, 2015, a resolution was passed to set a fixed limit of 430 million yen or less for the basic remuneration of Directors. Details are as follows. The number of Directors subject to this basic remuneration is 12 or less, as stipulated in the Articles of Incorporation.

##### • Directors (excluding outside directors)

As directors assume the responsibility of improving corporate value, a certain amount will be paid according to the performance evaluation and position of each Director.

##### • Directors (excluding outside directors)

Outside directors are responsible for supervising the execution of duties, so a fixed amount is paid in advance.

##### 2. Performance-linked compensation

At the 99th Annual General Meeting of Shareholders held on June 18, 2015, the Company resolved as follows. The number of Directors who are eligible for this performance-linked compensation is limited to 12 or less in accordance with Yaskawa's Articles of Incorporation.

##### • Directors (excluding outside directors)

The maximum amount of performance-linked compensation shall be 1.0% or less of the consolidated net income of the fiscal year prior to the general meeting of shareholders elected or reappointed, in order to further clarify the link with consolidated performance. The amount of remuneration for each Director is calculated by taking into account the relative results to Yaskawa's business performance from the standard deviation based on operating profit rate, operating profit growth rate and ROA of other companies in the same industry.

##### • Outside Directors

Performance-linked compensation is not provided.

##### 3. Stock compensation

###### (medium- to long-term compensation)

At the 99th Annual General Meeting of Shareholders held on June 18, 2015, the Company resolved as follows. The number of Directors who are eligible for this performance-linked compensation is limited to 12 or less in accordance with Yaskawa's Articles of Incorporation.

##### • Directors (excluding Outside Directors)

The evaluation indices used to calculate stock-based compensation in mid-term business plan "Challenge 25 Plus" from FY2021 to FY2022 are as follows. The stock compensation is calculated by multiplying the performance factor according to the target value of each evaluation index.

##### • Outside Directors

Points will be awarded according to whether or not the company's performance targets set under mid-term business plan "Challenge 25 Plus" has been achieved.

### Evaluation indicators and formulas for stock compensation for directors (excluding outside directors)

<div>(a) Base amount by rank (Base amount for one year)</div>		×	<div>(b) Operating profit amount (Fiscal year concerned)</div>		×	<div>(c) Operating profit ratio (Fiscal year concerned)</div>	
×	<div>(d) Achievement level of ROIC (Fiscal year concerned)</div>	×	<div>(e) Comparison of TSR with TOPIX (Fiscal year concerned)</div>	×	<div>(f) Achievement level of CO<sub>2</sub> emissions reduction through Yaskawa products (Fiscal year concerned)</div>	=	<div>Stock compensation to be paid</div>

## Target

	FY2021		FY2022	Achievement factor
	Target	Result	Target	
(a) Base amount by rank (Base amount for one year)				
(b) Operating profit amount (Fiscal year concerned)	42.0 billion yen or more	52.8 billion yen	61.0 billion yen or more	$(0.84/347 \times \text{Operating profit amount}) - a^{*1}$
	Less than 42.0 billion yen		Less than 61.0 billion yen	$0.64/b \times \text{Operating profit amount}^{*2}$
	Less than 27.1 billion yen		Less than the results of the previous fiscal year (52.8 billion yen)	0
(c) Operating profit ratio (Fiscal year concerned)	9.8%	11.0%	13.0%	0.80 ~ 1.20
(d) Achievement level of ROIC (Fiscal year concerned)	11.3%	13.3%	15.0%	0.80 ~ 1.0
(e) Comparison of TSR with TOPIX (Fiscal year concerned)	No settings	98.6%	No settings	0.90 ~ 1.10
(f) Achievement level of CO <sub>2</sub> emissions reduction through Yaskawa products (Fiscal year concerned)	40 million tons	52.15 million tons	73 million tons	0.80 ~ 1.20

\*1 a: Substitute the numbers on the right FY2021: 0.017 FY2022: 0.477

\*2 b: Substitute the numbers on the right FY2021: 420 FY2022: 610

**(a) Base amount by rank (Base amount for one year)**

In light of the size and responsibilities of the areas in which Directors are responsible and their contribution to Group management, the Company sets the base amount according to their positions.

**(b) Operating profit amount (fiscal year concerned)**

Evaluations are based on operating profit values for each fiscal year of the mid-term business plan "Challenge 25 Plus" from FY2021 to FY2022. From the time of exceeding the results of the previous fiscal year, evaluation is conducted by a certain coefficient, and the coefficient is set higher after achievement of the target originally planned for the fiscal year. By doing so, we aim to increase the motivation of directors to

achieve the plan and to maintain their willingness to take active measures after achieving the plan.

**(c) Operating profit ratio (fiscal year concerned)**

The evaluation is based on the degree of achievement of operating profit ratio for the purpose of securing high competitiveness and growing into a highly profitable company.

**(d) Achievement level of ROIC (fiscal year concerned)**

To motivate Directors to improve capital efficiency and profitability, we evaluate directors according to their degree of achievement of ROIC.

**(e) Comparison of TSR (total shareholders return) with TOPIX (fiscal year concerned)**

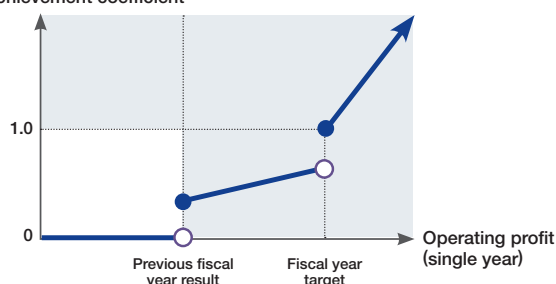
Evaluations are conducted according to the degree of achievement of TSR with the aim of motivating directors to increase corporate value from the shareholders' point of view.

**(f) Achievement level of CO<sub>2</sub> emissions reduction through Yaskawa products (fiscal year concerned)**

In order to realize sustainable corporate activities and respond to social issues, Yaskawa evaluates the achievement of CO<sub>2</sub> emission reduction targets through its products.

**Evaluation image**

Target achievement coefficient



## Policy on the proportion of each remuneration

### • Directors (excluding outside directors)

Performance-linked compensation (single-year compensation) and stock compensation (medium- to long-term compensation) are designed so that any improvement in performance is returned as compensation without any upper limit. For this reason, if the performance of the indicators used as the basis for calculation is good, the ratio of basic compensation is relatively small. On the other hand, if the performance of the indicators used as the basis for calculation is poor, the ratio of basic compensation is relatively large.

### • Outside Directors

From the perspective of independence, performance-linked compensation will not be paid, and base compensation as well as non-performance-linked stock compensation only when performance targets are achieved will be paid. The proportion of outside directors' remuneration shall be as follows.

(a) In the event that stock compensation does not accrue

Basic compensation: Stock-based compensation = 100%: 0%

(b) When stock compensation is generated (when stock compensation is maximum)

Basic compensation: Stock-based compensation = 75%: 25%

## Remuneration of Audit and Supervisory Committee members

### 1. Basic compensation

The maximum amount of basic remuneration for Directors who are the members of the Audit and Supervisory Committee was fixed at a maximum of 150 million yen per year and resolved at the 104th Ordinary General Meeting of Shareholders held on May 27, 2020. The number of Audit

and Supervisory Committee Members subject to this basic remuneration shall be six or less pursuant to the provisions of the Articles of Incorporation of Yaskawa.

### 2. Stock compensation

Points will be awarded according to whether or not the company's performance targets set under mid-term business plan "Challenge 25 Plus" has been achieved.

### Methods of Determining Directors' Compensation

The maximum amount of total remuneration for Directors (excluding directors who are Audit and Supervisory Committee Members. Hereinafter referred to as "Directors".) and Directors who are Audit and Supervisory Committee Members (hereinafter referred to as "Audit and Supervisory Committee Members".) is determined by resolution of the General Meeting of Shareholders. The remuneration of each Director is determined by the Board of Directors after deliberation by the Compensation Advisory Committee on the amount of remuneration calculated in accordance with the Officers' Compensation Regulations, etc. The remuneration of each Audit and Supervisory Committee Member is determined through consultation with the Audit and Supervisory Committee.

In addition, Yaskawa has established the Compensation Advisory Committee, of which the majority are independent outside directors, under the Board of Directors to ensure the appropriateness and transparency of compensation for directors and executive officers through fair deliberation.

With regard to the stock compensation system for Directors and Audit and Supervisory Committee Members, shares are scheduled to be paid to Eligible Directors upon retirement in accordance with the Officers' Share Benefit Rules.

**Total amount of compensation, etc. by director category, total amount of compensation, etc. by type, and number of applicable directors (FY2021)**

Director category	No. of directors	Total amount of compensation (millions of yen)			
			Monetary compensation		Non-monetary compensation
			Basic compensation	Performance-linked compensation	Stock-based compensation
Directors (excluding Audit and Supervisory Committee Members)	6	474	278	116	79
Directors who are Audit and Supervisory Committee Members (excluding outside directors)	2	66	61	–	5
Outside directors	6	91	78	–	13

Note: The above includes 1 Director who was an Audit and Supervisory Committee Member retired at the conclusion of the 105th Annual General Shareholders Meeting held on May 26, 2021.

## Working Together as an Escort for Business Divisions to Ensure Stable Business Continuity

**Yasuhiko Morikawa**  
Director, Senior Executive Officer;  
In charge of Compliance;  
General Manager, General Affairs & Risk  
Management Div.



### History of the establishment of the General Affairs and Risk Management Division and its policies

I have been in charge of risk management for a long time during my time in banking. Since joining Yaskawa, the company's corporate value has been rapidly expanding in line with the growth of its business, and I believed that a system was necessary to ensure that Yaskawa was fully accountable to its stakeholders not only for the business itself but also for the way it operated. In other words, the company's skeleton must also grow in order to support its growing body. Against this backdrop, in the second half of FY2021, General Affairs and Risk Management Division was established, which brings together crisis management, compliance, and health and safety functions. This built a structure that enables us to flexibly implement global risk and crisis management.

At the time of the establishment of the General Affairs and Risk Management Division, I made it a policy to act as an escort to ensure stable business continuity in Yaskawa, which is in the process of growing. As a navigator rather than a brake in a car, it gives advice on precautions along the way. In the past, as a manufacturer, response to physical disasters such as

earthquakes and floods was the basis of BCP/BCM, but now, through COVID-19 crisis, we conduct detailed and systematic analysis of risk factors for the continuation of plant operations, such as infection prevention and supply chain disruption, while also engaging in activities at the worksites of business units.

### Risk Management in Yaskawa Group

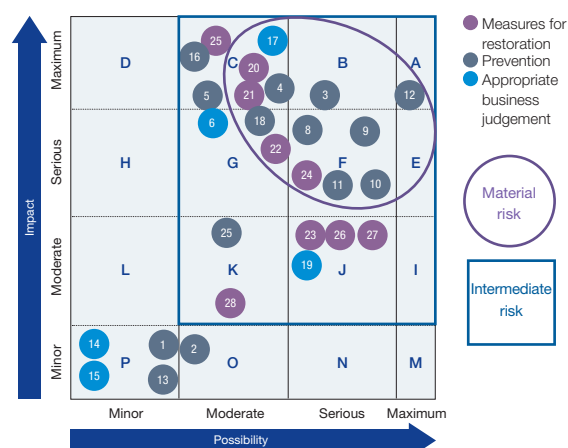
In the past, Yaskawa's approach to risk was carried out on a vertical line, such as by department or region, so it can be said that the president was actually responsible for risk management through the department heads directly under the president. The General Affairs and Risk Management Division is responsible for risk management across the global business to support corporate growth. To achieve this, we first try to clarify what the risks are and make them understood by management and other stakeholders. Risks are classified into three categories: (1) risks such as natural disasters that are beyond human control, (2) risks that have internal causes, such as compliance issues, and (3) risks that should be taken as a management decision, such as investment in new businesses.

Types of Risk		Examples	Measures	
①	External risk	Natural disasters, terrorism, conflicts, infectious diseases, accidents, etc.	Measures for restoration	→ Risks to avoid
②	Internal risk	Compliance risks such as information leaks, quality issues and cartels	Prevention	
③	Risks associated with the conduct of business	Expansion into new fields, investment in R & D, etc.	Appropriate business judgment	→ Risks to take

Risk items are then identified and classified in terms of their impact and likelihood of occurrence, and appropriate measures are taken for each item.



Risk map



Specifically, we are cross-cutting in our approach to company-wide risks, raising awareness, disseminating information, and reviewing policies and making specific recommendations, such as giving specific instructions and developing organizational structures, whenever necessary. In addition to sounding the horn, we also work with headquarters and business units to resolve problems in the event of an emergency.

In order for us to continue to grow sustainably as a company, we believe that we are now required to take a comprehensive approach that takes a bird's eye view of the risks of the entire company, that is, to anticipate future risks based not only on individual risks that have materialized, but also on the demands of society, and to take measures that change the company. For example, when considering the risks involved in securing promising human resources, we consider it important for job seekers to have a workplace culture that allows them to take advantage of the strengths of diverse human resources and a healthy work environment as check points for selecting a company from their perspective.

### Key Points of Yaskawa Group's BCP

As a global company that supports manufacturing around the world, Yaskawa Group is building a business continuity plan (BCP) to address management and social issues facing customers. In COVID-19 crisis, we are making progress in reforming work styles, such as dispersing work hours and work locations, remote working, and encouraging video conferencing. In terms of infrastructure, we are responding quickly and flexibly to ensure the safety and security of our employees as our top priority, by checking the ventilation capacity of our buildings and working rooms and renovating them as needed.

In addition, Japan is especially prone to natural disasters such as earthquakes and typhoons, so it is important to prepare daily for various events. We have also introduced emergency power sources and private power generation, but the fact that Yaskawa has plants in the cities of Kitakyushu in Fukuoka and Iruma in Saitama, which have strong foundations, has also contributed to BCP. We also believe it is important to have factories in areas where it is easy to commute by private car, bicycle or on foot without using public transportation.

In addition, Yaskawa's basic manufacturing policy of "production in demand areas" helps to reduce risks in areas such as foreign exchange and logistics, but on the other hand, global management can be difficult. We hope to ensure stable business continuity by strengthening our risk management system with a global profile.

### Thoughts Based on the Yaskawa Group's Business Model

Risks change from time to time and we need to think what to do about them, but what I have in mind is where Yaskawa stands in the supply chain. If we had a scale of 10, from raw materials to end consumers, Yaskawa would be in the middle, level 5. The business environment in which Yaskawa's suppliers, customers, and other stakeholders are visible has to some extent mitigated the impact of rapid changes in the world on Yaskawa's business. In addition, when it comes to geopolitical risk, Yaskawa's business model of local production and local consumption provides the biggest risk management.

Yaskawa has been headquartered and operating in Kitakyushu for more than 100 years. I also believe that continuing to contribute to the local community as a global company with deep roots in the region is a source of pride for our employees, and that this contributes significantly to risk management.

We will practice solid risk management that is suited to the unique circumstances of the Yaskawa Group, and will work hard together with the business divisions to continue stable business operations.

## Executive Officers

### Senior Executive Officers

---



**Michael Stephen Knapek**

Regional Manager, the Americas  
President & CEO, Yaskawa America, Inc.



**Junichi Nakano**

Branch Office General Manager,  
Tokyo Branch  
In charge of global compliance,  
General Affairs & Risk Management Div.  
In charge of Tokyo, General Affairs &  
Risk Management Div.



**Nobuaki Jinnouchi**

Regional Manager, Asia  
President & CEO, Yaskawa Asia  
Pacific Pte. Ltd.



**Kenji Ueyama**

General Manager, Motion Control  
Div.  
Department Manager, Business  
Planning Dept., Motion Control Div.



**Bruno Schnekenburger**

Regional Manager, Europe  
President & CEO, Yaskawa Europe  
GmbH



**Akinori Urakawa**

General Manager, Global Marketing  
Div.  
Global Market Manager, Secondary  
Battery Market, Global Marketing Div.



**Tatsuya Yamada**

General Manager, Drives Div.  
General Manager, Environmental  
Energy Business  
Department Manager, Business  
Planning Dept., Drives Div.



**Hiroshi Takata**

General Manager, Corporate Sales &  
Marketing Div.  
Department Manager, CRM Strategy  
Promotion Dept. Corporate Sales &  
Marketing Div.  
Global Market Manager, General  
Industrial Market

## Executive Officers



### Masahiko Okura

Director, President,  
Yaskawa Electric  
(Shenyang) Co., Ltd.



### Takenori Otsuka

General Manager, Human  
Resources & Labor & Welfare Div.



### Yukio Tsutsui

In charge of external  
collaboration and  
technology development,  
Corporate Technology  
Div.



### Ayumi Hayashida

General Manager, Corporate  
Communications Div.



### Michiaki Higuchi

Department Manager,  
Procurement Dept., Production  
Management & Operations Div.



### Ryuta Matsutani

General Manager, Quality &  
Service Div.



### Shunrin Mizutani

Director, President, Yaskawa  
Tsusho (Shanghai) Co., Ltd.



### Yasushi Ichiki

Deputy General Manager,  
Corporate Planning & Finance Div.

In charge of ICT strategy promo-  
tion, ICT Strategy Promotion Div.

Department Manager, Corporate  
Planning Dept., Corporate  
Planning & Finance Div.



### Manabu Okahisa

Chairperson and President,  
Yaskawa Electric (China) Co., Ltd.



### Albert Shiina

President, Yaskawa Electric Korea  
Corp.



### Shinya Araki

Factory Manager, Robot  
Plant, Robotics Div.

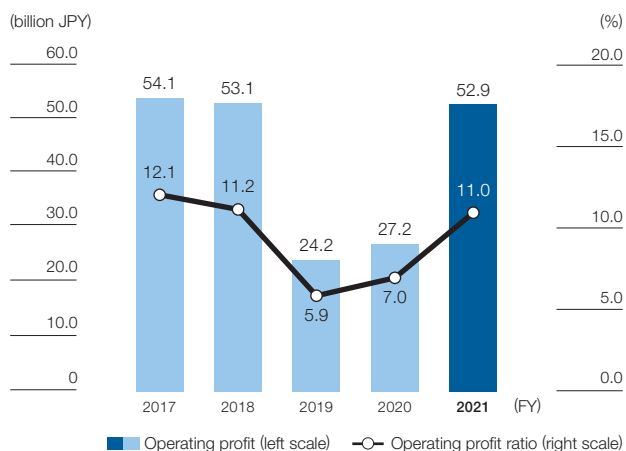


### Shoichiro Shimoike

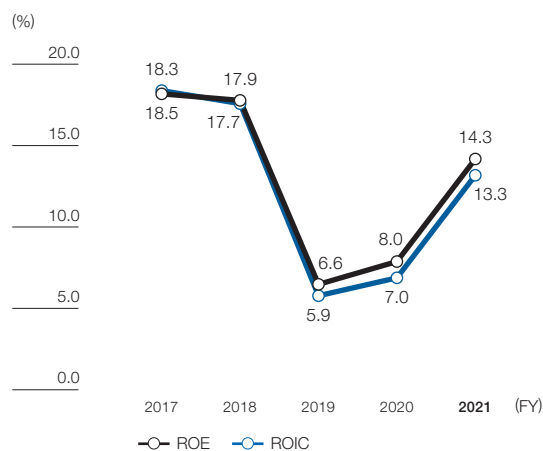
Manager, ICT Strategy Promotion  
Div.

# Financial and Non-Financial Highlights

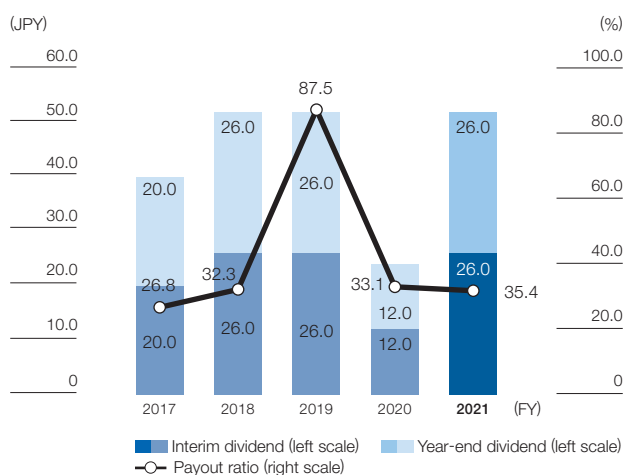
## Operating profit / Operating profit ratio



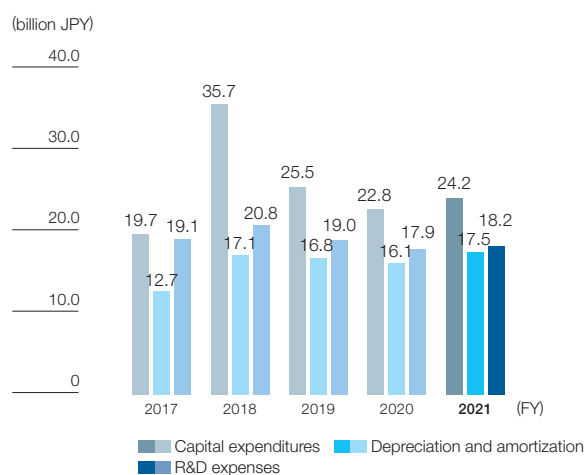
## ROE / ROIC



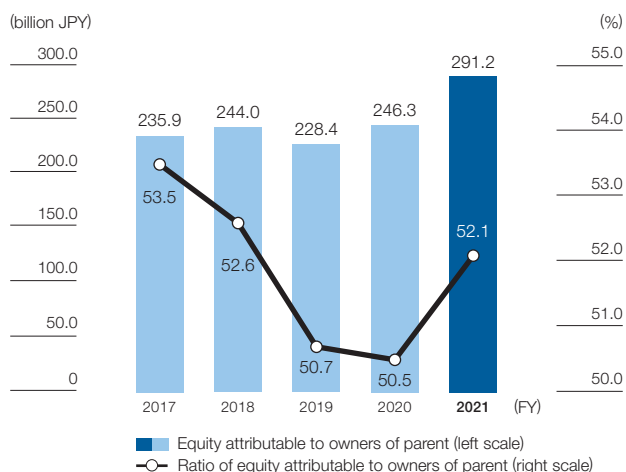
## Dividends per share / Payout ratio



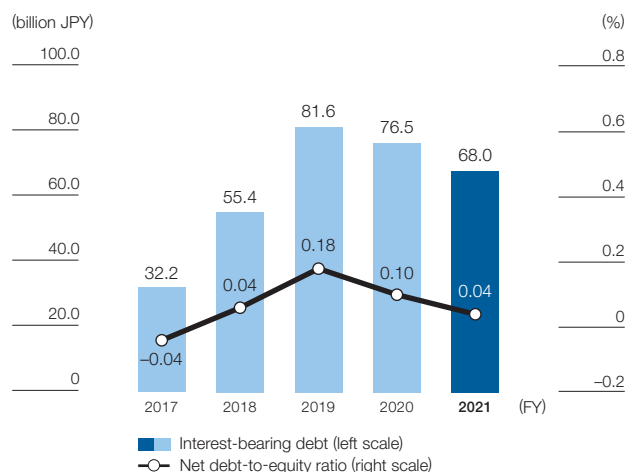
## Capital expenditures / Depreciation and amortization / R&D expenses



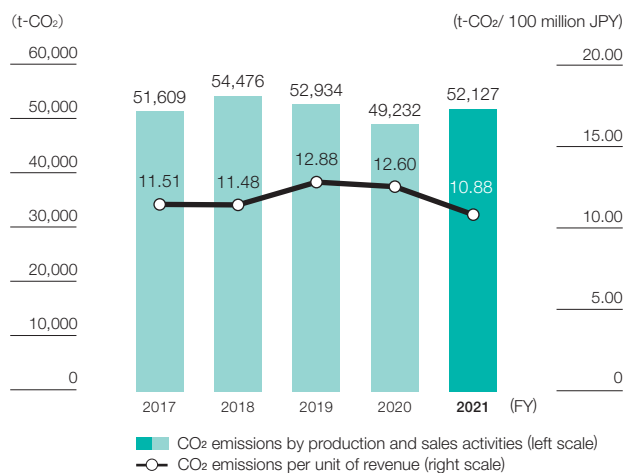
## Equity attributable to owners of parent / Ratio of equity attributable to owners of parent to total assets



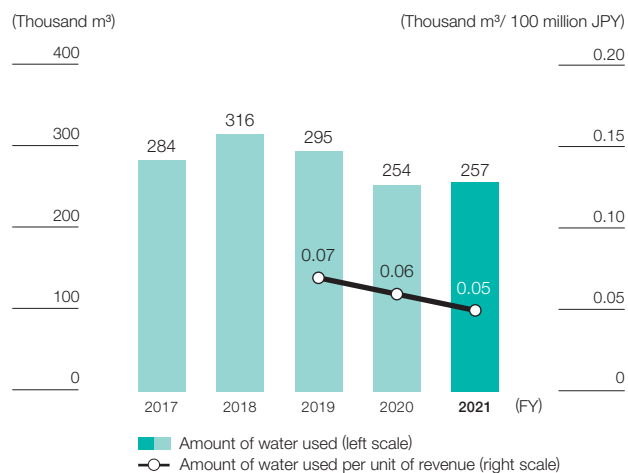
## Interest-bearing debt / Net debt-to-equity ratio



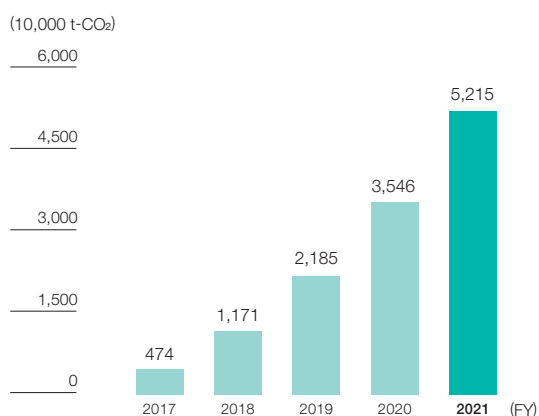
### CO<sub>2</sub> emissions by production and sales activities / CO<sub>2</sub> emissions per unit of revenue



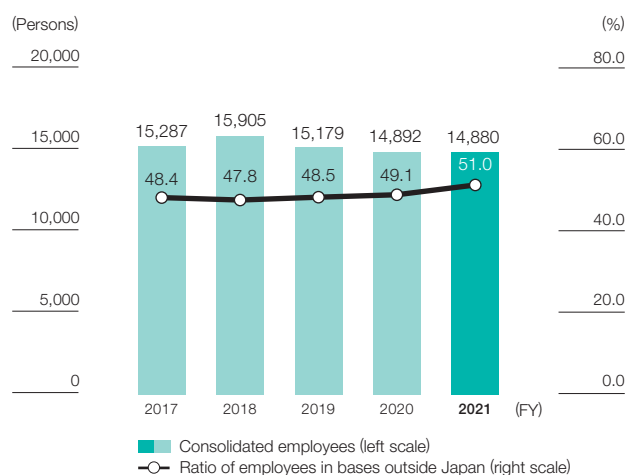
### Amount of water used / Amount of water used per unit of revenue



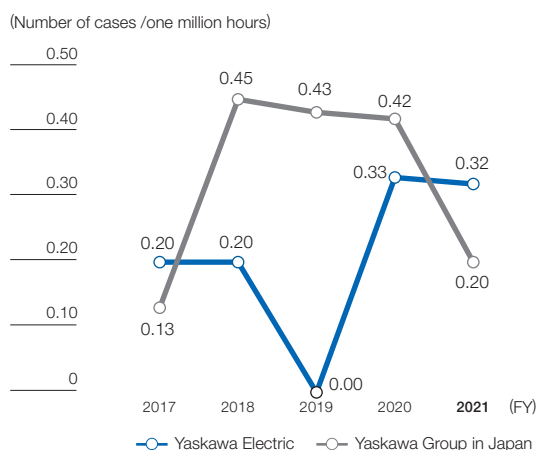
### Contribution to CO<sub>2</sub> emissions reduction through products (Cumulative since FY2016)



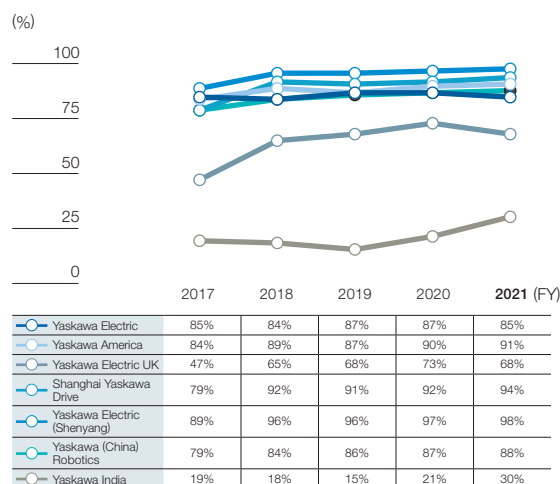
### Consolidated employees / Ratio of employees in bases outside Japan



### Frequency rate of lost-time injuries



### Local procurement rate at key business sites





# 11-Year Financial Data

Japanese GAAP						
(Fiscal year)	2011	2012	2013	2014	2015	2016
Net sales	307,111	310,383	363,570	400,153	411,260	394,883
Gross profit	79,571	82,108	108,139	126,890	134,147	124,018
Operating profit	14,818	13,070	25,702	31,532	36,730	30,409
Profit before income taxes	15,353	12,125	25,717	34,413	35,202	29,910
Profit attributable to owners of parent	8,432	6,800	16,964	24,819	22,365	20,397
<b>Business Segment Information<sup>*1*2</sup></b>						
Motion Control	Net sales	149,410	144,333	162,346	188,116	172,025
	Operating profit	5,824	3,248	16,444	21,748	22,772
	Operating profit ratio (%)	3.9	2.3	10.1	11.6	13.2
Robotics	Net sales	101,065	110,223	122,543	135,956	154,068
	Operating profit	7,014	8,365	9,511	10,558	15,304
	Operating profit ratio (%)	6.9	7.6	7.8	7.8	9.9
System Engineering	Net sales	35,520	37,263	35,327	40,980	43,053
	Operating profit	1,917	1,504	-5	-768	-591
	Operating profit ratio (%)	5.4	4.0	-0.0	-1.9	-1.0
<b>Sales by Destination<sup>*3</sup></b>						
Japan	143,019	143,456	150,101	144,246	135,495	134,205
The Americas	43,985	51,113	58,481	72,616	85,088	74,691
Europe	33,939	32,047	42,499	46,921	52,011	50,736
China	85,276	48,555	67,165	85,017	81,938	81,246
Asia except China		32,752	41,430	47,761	52,355	49,798
Other	890	2,456	3,892	3,590	4,370	4,205
Overseas sales ratio (%)	53.4	53.8	58.7	64.0	67.1	66.0
<b>Cash Flow</b>						
Cash flows from operating activities	6,391	24,640	23,972	29,023	31,954	33,752
Cash flows from investing activities	-11,874	-18,058	-16,942	-27,874	-22,421	-18,936
Free cash flows	-5,483	6,582	7,029	1,149	9,533	14,816
Cash flows from financing activities	13,592	-9,053	-5,983	-1,471	-2,601	-16,453
Cash and cash equivalents at end of period	20,206	19,389	22,992	24,347	31,656	29,735
<b>Per Share Information</b>						
Earning (yen)	33.51	27.03	67.42	98.45	84.71	76.60
Dividends (yen)	10.00	10.00	12.00	20.00	20.00	20.00
<b>End of the Fiscal Year</b>						
Total assets	279,072	302,518	340,506	388,205	373,533	387,512
Interest-bearing debt	58,612	54,684	55,528	52,430	48,426	36,765
Shareholders' equity	100,109	112,218	134,076	171,388	181,281	198,513
<b>Management and Financial Indicators</b>						
Operating profit ratio (%)	4.8	4.2	7.1	7.9	8.9	7.7
ROE: Return on equity (%)	8.7	6.4	13.8	16.3	12.8	10.7
Shareholders' equity ratio (%)	35.9	37.1	39.4	44.1	48.5	51.2
Debt-to-equity ratio (times)	0.59	0.49	0.41	0.31	0.27	0.19
Dividend payout ratio (%)	29.8	37.0	17.8	20.3	23.6	26.1
<b>Exchange rate</b>						
U.S. dollar (yen)	79.3	81.9	99.6	108.2	120.8	108.4
Euro (yen)	109.6	105.7	132.7	139.7	133.0	119.2

\*1 Starting FY2013, reportable segments changed to the following 3 segments: Motion Control, Robotics, and System Engineering. There have also been partial changes in the division of businesses within these segments. Figures and profit ratios of each segment for the period up until FY2012 are based on figures before the change was implemented. The figures for former Information Technologies segment and Other segment are omitted. Revisions were made to the division of businesses segments starting FY2017. The PV inverter business, which was previously included in Motion Control, is included in System Engineering. Figures and profit ratios of each segment for FY2016 reflect this change. The change is not applied to figures and profit ratios for the period up until FY2015.

	IFRS				(million JPY)
2017*4	2018	2019	2020	2021	(Fiscal year)
448,523	474,638	410,957	389,712	479,082	Revenue
154,174	156,353	124,496	116,370	168,645	Gross profit
54,126	53,098	24,198	27,180	52,860	Operating profit
53,556	55,051	24,642	27,172	55,378	Profit before tax
39,749	42,524	15,572	18,927	38,354	Profit attributable to owners of parent
					Business Segment Information*1*2
212,095	213,260	180,446	176,014	227,260	Revenue
41,729	34,697	20,554	24,576	38,162	Operating profit
19.7	16.3	11.4	14.0	16.8	Operating profit ratio (%)
163,379	177,995	152,170	139,494	178,670	Revenue
17,761	17,986	6,503	6,907	17,249	Operating profit
10.9	10.1	4.3	5.0	9.7	Operating profit ratio (%)
52,934	51,627	55,535	50,763	52,265	Revenue
-3,794	-770	469	-1,030	2,127	Operating profit
-7.2	-1.5	0.8	-2.0	4.1	Operating profit ratio (%)
					Revenue by region*5
133,896	154,539	151,481	135,908	150,190	Japan
83,078	84,908	73,906	58,928	80,706	The Americas
60,879	70,436	61,275	54,822	73,726	EMEA
103,313	103,404	79,974	97,938	126,055	China
63,397	60,914	43,892	41,818	48,405	Asia except China
3,957	435	428	296	—	Other
70.1	67.4	63.1	65.1	68.7	Overseas revenue ratio (%)
					Cash Flow
46,054	34,347	21,480	39,602	49,233	Net cash provided by operating activities
-18,852	-27,111	-20,645	-9,601	-24,165	Net cash used in investing activities
27,202	7,236	835	30,000	25,068	Free cash flows
-14,820	-10,268	491	-20,284	-22,475	Net cash provided by (used in) financing activities
42,213	39,289	40,307	50,953	55,151	Cash and cash equivalents at end of period
					Per Share Information
149.35	161.00	59.42	72.41	146.72	Earnings per share (yen)
40.00	52.00	52.00	24.00	52.00	Dividends per share (yen)
					End of the Fiscal Year
441,249	463,965	450,127	487,428	559,038	Total assets
32,247	55,415	81,578	76,543	68,044	Interest-bearing debt
235,865	243,967	228,362	246,266	291,234	Equity attributable to owners of parent
					Management and Financial Indicators
12.1	11.2	5.9	7.0	11.0	Operating profit ratio (%)
18.3	17.9	6.6	8.0	14.3	ROE: Return on equity (%)
53.5	52.6	50.7	50.5	52.1	Ratio of equity attributable to owners of parent to total assets (%)
0.14	0.22	0.36	0.31	0.23	Debt-to-equity ratio (times)
26.8	32.3	87.5	33.1	35.4	Dividend payout ratio (%)
					Average Exchange Rate
111.5	110.5	109.0	106.0	111.5	U.S. dollar (yen)
128.8	128.9	121.4	122.8	130.4	Euro (yen)

<sup>\*2</sup> From FY2020, high-pressure AC drive systems were included in the Systems Engineering segment, but are now included in the Motion Control segment. Amounts and operating profit ratios for each segment are presented on the basis after the change of segments for FY2019 and before the change of segments for the period up to FY2018.

<sup>\*3</sup> For FY2010 and FY2011, figures for Japan, the Americas, Europe, Asia, and Other were disclosed.

<sup>\*4</sup> The Company changed its accounting period starting FY2017 from March 20 to the last day of February. As a transitional year for this change, FY2017 was from March 21, 2017 to February 28, 2018.

<sup>\*5</sup> Regional revenue is disclosed by destination up to FY2020, and by location since FY2021.

# IR Activities and Stock-Related Data

## IR Activities

Yaskawa believes it is important to promote constructive dialogue with shareholders and investors in order to achieve sustainable growth and increase corporate value over the medium to long term.

In addition to enhancing information disclosure and opportunities for dialogue with our stakeholders, including institutional investors and analysts, we appropriately report to the management the opinions and requests of our stakeholders, and use them in discussions aimed at improving corporate value.

### ■ YASKAWA Global Website Information

A wide range of IR related information is available. Please visit the following URL.



**Investor Relations** <https://www.yaskawa-global.com/ir>



**Sustainability** <https://www.yaskawa-global.com/company/csr>

### ■ External evaluation of IR activities (FY2021)

#### Overall IR Activities

- Japan Investor Relations Association  
"Best IR Award"

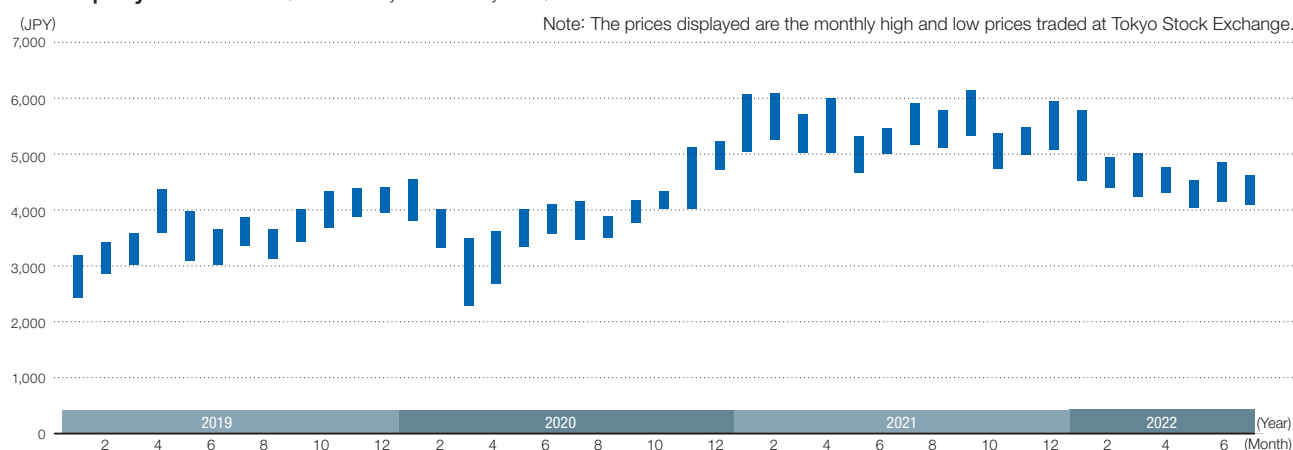
#### IR website

Daiwa Investor Relations Co., Ltd.  
2021 "Internet IR Awards" Excellence Award

Nikko IR Co., Ltd.  
"Ranking of all listed companies' websites in FY2021"  
Best site (General award)

BroadBand Security, Inc.  
"Gomez IR Site Ranking 2021" Excellent company:  
Bronze Prize

### ■ Company Share Price (From January 2019 to July 2022)



### ■ Stock price indicators and data (as of the end of FY)

	2018	2019	2020	2021
Price Earnings Ratio (PER) (Times)	19.66	56.97	73.47	31.15
Price Book-value Ratio (PBR) (Times)	3.42	3.87	5.65	4.10
Market capitalization at the end of the period (million JPY)	844,075	902,747	1,418,793	1,218,776

# Corporate and Stock-Related Information

## Corporate Information (As of February 28, 2022)

Corporate name	YASKAWA Electric Corporation
Head office	2-1 Kurosakishiroishi, Yahatanishi-ku, Kitakyushu 806-0004, Japan
Founded	July 16, 1915
Share capital	30,562 million yen

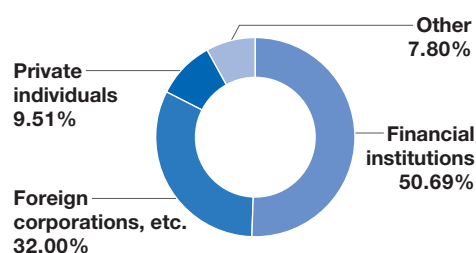
Employees	14,880 Consolidated (including temporary employees)
Number of consolidated subsidiaries	66 companies
Number of affiliates accounted for by the equity method	9 companies

## Stock and Shareholder Information (As of February 28, 2022)

### ■ Stock Information

Securities code	6506 (Japan)
Business year	March 1 to the last day of February of the following year
Record date for dividend payout	Last day of February and August 31 of each year
Month of the Ordinary General Meeting of Shareholders	May
Number of shares outstanding	266,690,497
Stock exchange listings	Tokyo (Prime market*), Fukuoka
Share unit	100 shares
Number of shareholders	45,585

### ■ Share Distribution by Shareholder Type



\* As of April 4, 2022

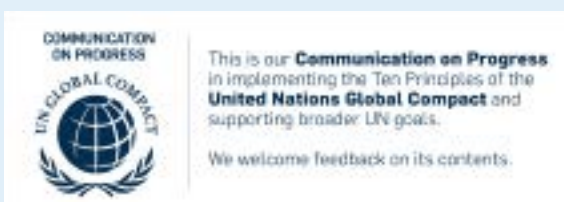
### ■ Major Shareholders

Major shareholders (Top 10 shareholders)	Number of shares (Thousands)	Share holding ratio (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	49,611	18.89
Custody Bank of Japan, Ltd. (Trust Account)	20,491	7.80
THE BANK OF NEW YORK 133972	13,896	5.29
Mizuho Bank, Ltd. (MHBK)	8,100	3.09
Custody Bank of Japan, Ltd. (Sumitomo Mitsui Trust Bank, Limited Employee Retirement Benefit Trust Account)	7,439	2.83
Meiji Yasuda Life Insurance Company	7,230	2.75
PICTET AND CIE (EUROPE) SA. LUXEMBOURG REF: UCITS	6,282	2.39
SSBTC CLIENT OMNIBUS ACCOUNT	5,824	2.22
Custody Bank of Japan, Ltd. (Sumitomo Mitsui Trust Bank, Limited ReTrust Account, The Bank of Fukuoka, Ltd. Employee Retirement Benefit Trust Account)	5,100	1.94
STATE STREET BANK WEST CLIENT – TREATY 505234	4,424	1.69

Note: Treasury stock (4,122,586 shares) is deducted in the calculation of the shareholding ratio.

## Signing the United Nations Global Compact

Yaskawa signed the United Nations Global Compact and was registered as a participating company on August 4, 2021. We will comply with and implement the 10 principles of the United Nations Global Compact, further promote responsible management as a global corporation, and contribute to the sustainability of society.



# **YASKAWA**

## **YASKAWA ELECTRIC CORPORATION**

2-1 Kurosakishiroishi, Yahatanishi-ku, Kitakyushu 806-0004, Japan

Phone +81-93-645-8801 Fax +81-93-645-8831

URL <https://www.yaskawa-global.com>

2022.9 P024E-01