YASKAWA

YASKAWAReport 2019

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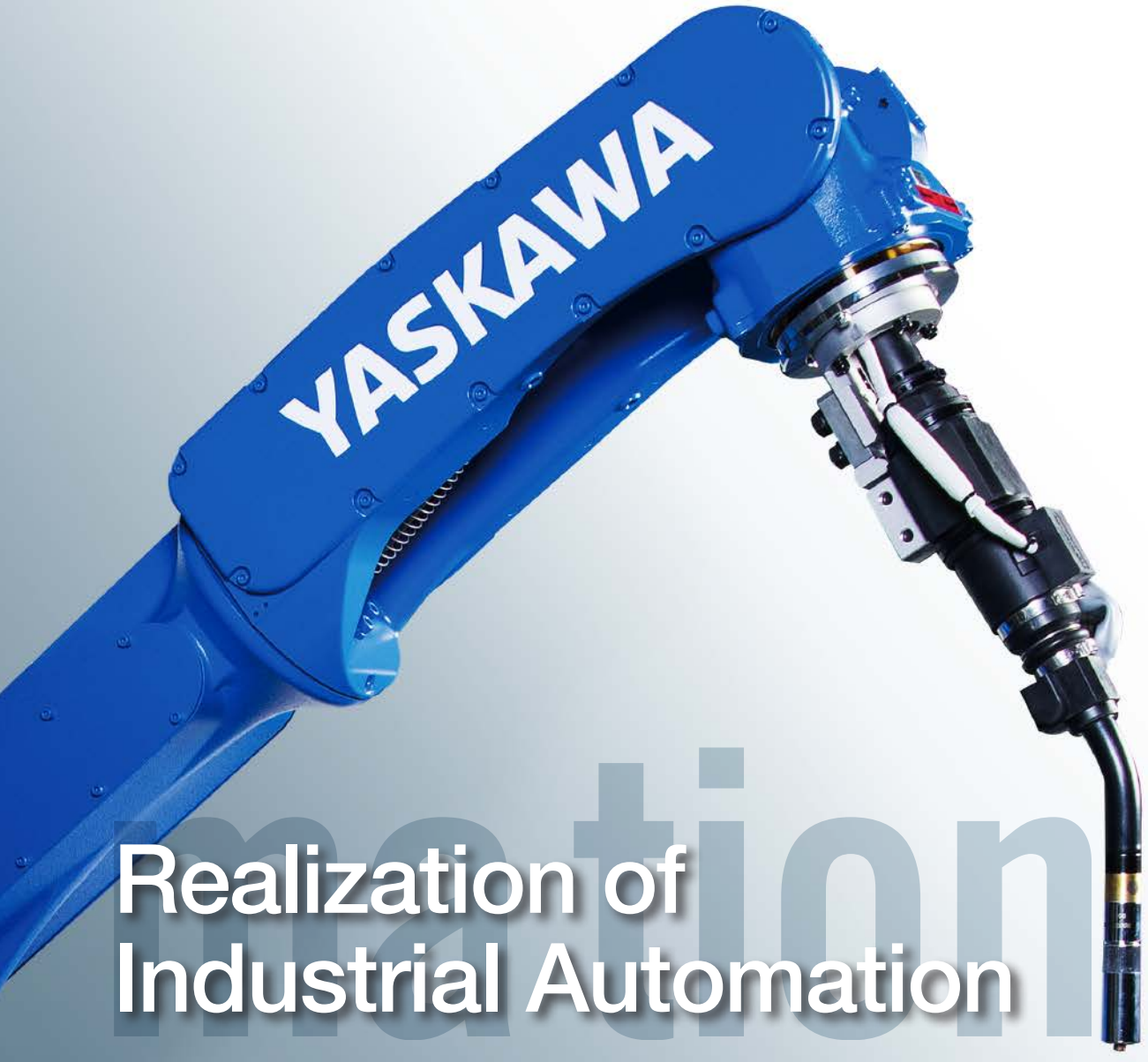


Realization of Industrial Automation

Since its founding in 1915, Yaskawa Electric has set motors and their applications as its business domain, and continued to support the cutting-edge industries of the times with its products and technologies.
From “motor manufacturer” to “automation provider,” we gave birth to the now universally accepted concept of mechatronics*, and now we evolved to a “total solution provider.”
Global demographic changes, environmental issues caused by increases in energy consumption, transformation in the manufacturing scene caused by rapid evolutions of information technology-dramatic changes are now happening in the business environment that surrounds our Group. Against this backdrop, the Yaskawa Group aims to contribute to the resolution of customer management issues through the evolution of core technologies (motion control, robot technology, and power conversion) and to create new added value for society by expanding the application of mechatronics. By realizing our management principle of "contributing to the development of society and the welfare of humankind through business operations" we will contribute to the sustainable development of society.

* Yaskawa Electric led the world in putting forward the term "mechatronics" in the late 1960s. This concept evolved when we combined our customers' machinery with Yaskawa's electronic products to create superior quality and function.

Financial Period Covered
This report covers FY2018
(From March 1, 2018 to February 28, 2019)

Editorial Policy
This report has been compiled with the intent to communicate broadly the future potential of Yaskawa for its shareholders, investors, and a wide readership, and care has been taken to enable prompt understanding of its value creation from various perspectives in a balanced manner.
This report is prepared with reference to the "International Integrated Reporting Framework" by the International Integrated Reporting Council (the IIRC), with the aim of helping readers make a comprehensive assessment of Yaskawa's value.

Note on Numerical Values and Graphs
All numerical values are rounded down, as applicable.

Note on Forecasts Mentioned in this Report
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 HISTORY

Contributing to the development of industry and society with world's first epoch-making products and technologies

Since its establishment in 1915, Yaskawa Electric has held its mission of being "a company founded on technology" in order to undertake the business by its own technologies and continued to make challenges into the latest technology of the times.
In 1969, Yaskawa led the world in putting forward the concept "mechatronics" combining mechanism and electronics. In 1970s, Yaskawa shaped an idea of "unmanned factories" which are automated plants where human and machines coexist. And Yaskawa has begun the full utilization of digital data and announced the concept "i³-Mechatronics*"(i cube Mechatronics) for creating new value at manufacturing scenes in 2017. In 2018, Yaskawa Solution Factory was established to realize the unmanned factory which had been planned for a long time.
Yaskawa group continues to take on challenges for realizing new industrial automation revolution.

* i³-Mechatronics: Yaskawa's solution concept for realizing a new industrial automation revolution

Net sales → 1925 → 1935 → 1945 → 1955

1915 Founding

Three-phase induction motor
Yaskawa's first commercial product

Minertia motor DC servomotor
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.

Electric Motors and their Applications

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.

1915-

Startup period

- Focusing business on electric motors and their applications
- Focusing on motors as hardware and intelligence as software to control motors

1915 ·YASKAWA Electric Manufacturing Co. established as a limited partnership
1917 ·Commercialized "three-phase induction motor"
1919 ·YASKAWA Electric Manufacturing Co. Ltd. established
1927 ·Commercialized "super synchronous motor"
1928 ·Commercialized "three-phase induction motor with ball bearings"
1936 ·Opened research laboratory
1937 ·Registered "Yaskawa Motor" as trademark
1946 ·Absorbed Yaskawa Aviation Electric Co., Ltd. as Yukuhashi plant
1949 ·Shares listed on the Tokyo and Osaka stock exchanges

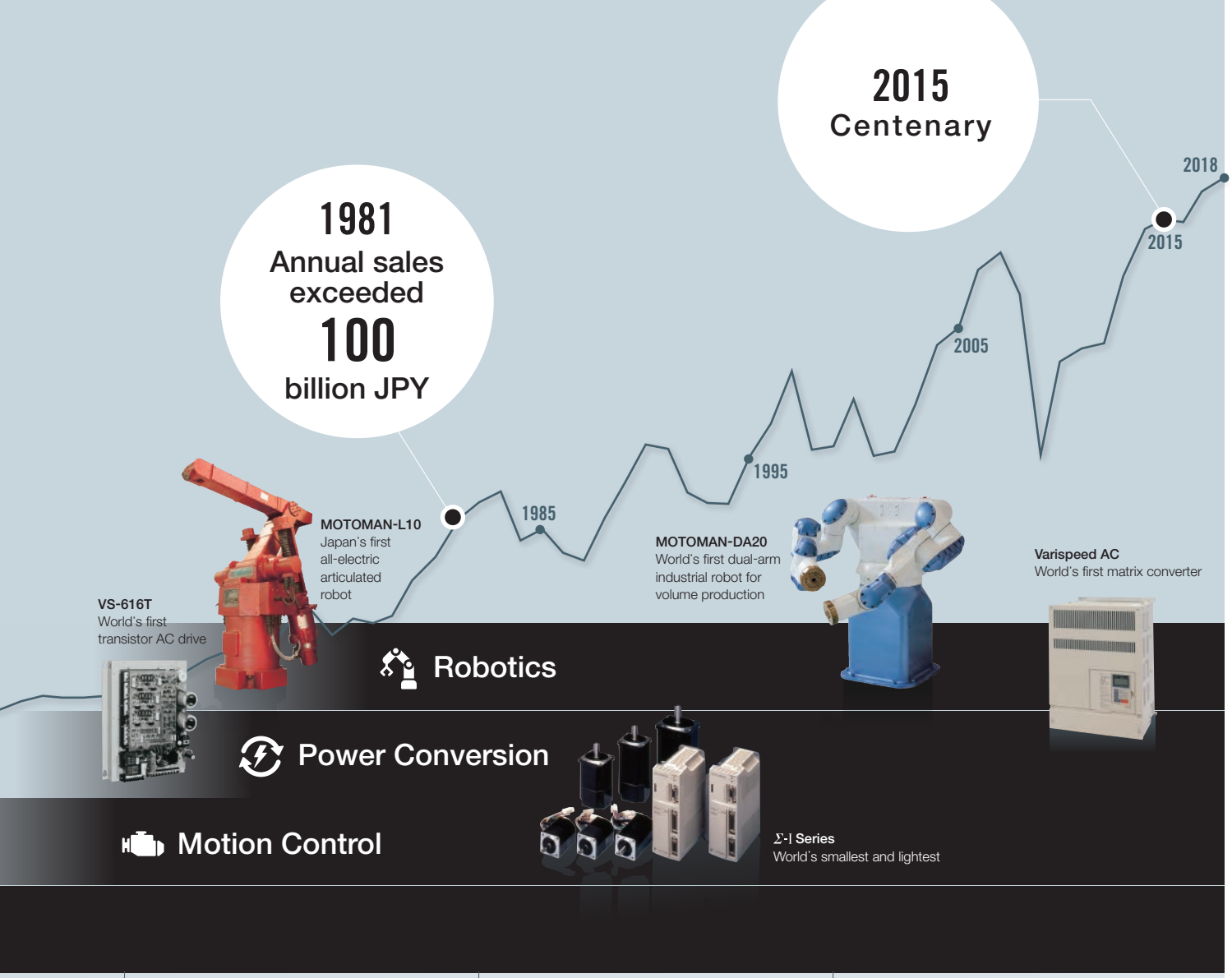
1950-

Motor manufacturer

- Aiming for mechanical automation by leveraging advancements in control technology
- Proposed concept of "Mechatronics" ahead of the world

1953 ·Commercialized the first VS motor
1958 ·Invented the "minertia motor" DC servo motor
1961 ·Opened Kokura plant (Kitakyushu)
1964 ·Opened Tokyo plant (Iruma)
1968 ·Developed automation equipment "MOTO-FINGER," "MOTO-ARM" and "MOTO-HAND"
1969 ·Opened Nakama foundry

The first VS motor 5HP
Variable speed motor

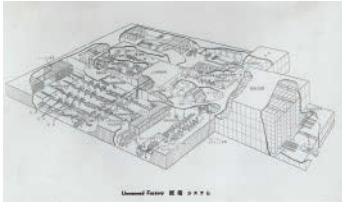


1970-

Automation provider

- Announced the concept of "unmanned factory", automated plant with support of machines
- Aggressively devoted management resources into the rapidly growing mechatronics market; unveiling new products back-to-back
- Changed the company name from YASKAWA Electric Manufacturing Co., Ltd. to YASKAWA Electric Corporation on the occasion of 75th anniversary

1971 · Commercialized the "Varispeed (VS) series" AC drives
1974 · Started domestic production of floppy disk drives (as Y-E Data)
· Developed of the "YASNAC" NC with built-in microcomputer
1977 · Commercialized "MOTOMAN-L10" vertically articulated industrial robot
1979 · Commercialized "VS-626TV" vector control AC drive
1983 · Commercialized the AC servo drive series
1987 · Commercialized vacuum robot for semiconductor manufacturing



The concept of "unmanned factory"

1990-

Mechatronics promoter

- Offering solutions that match changes in society and industry
- Creation of new business by developing applications of mechatronics technology

1991 · Commercialized "Σ series" AC servo drives
1995 · Commercialized "VS-616G5" vector control AC drive
1998 · Commercialized "MOTOMAN-UP6"
1999 · Commercialized "MOTOMAN-CS series" clean robots for transferring liquid crystal substrates
2002 · Commercialized "TEM LX2" lower limb rehabilitation robot
2003 · Developed "SmartPal" next-generation robot

MOTOMAN-UP6
World's first multiple robot cooperative control

VS-616G5
World's first general-purpose vector control AC drive

2005-

Total solution provider

- Launch of i³-Mechatronics, a new solution concept
- Established Yaskawa Solution Factory to realize "unmanned factory"

2005 · Commercialized new generation robot (dual-arm and 7-axis)
· Commercialized matrix converter "Varispeed AC"
2006 · Commercialized "1000 series" generalpurpose AC drive
2009 · Developed "QMET DRIVE" motor drive system for hybrid electric vehicles
2010 · Released "Enewin" electrical products for large-scale wind turbines
· Commercialized "PV 1000" PV inverter
2013 · Commercialized "MOTOMAN-BMDA3" for biomedical applications
2017 · Commercialized servo motor with built-in amplifier
· Commercialized "MOTOMAN-HC10" collaborative robot
· Commercialized "MotoMINI" small and lightweight robot
2018 · Commercialized the digital data solution "YASKAWA Cockpit"

World's first servo motor with built-in amplifier
Equipped with GaN power semiconductor

MotoMINI
The smallest and lightest in industry

OUR PHILOSOPHY

Corporate motto reflecting the founding spirit

In 1979, Vice President Reijiro Kitani (at that time) proposed the "corporate motto", which codified the Company's spirit and philosophy for the first time. The corporate motto consists of the "founding spirit," "management principle" and "guideline for the employees." "Founding spirit" is based on the aspiration of Keiichiro Yasukawa, the promoter of the company, to "to set up an industry to repay the debt of gratitude to the State." "Management principle" is based on the business policy and memorandum of the founder, Daigoro Yasukawa, with the three pillars of quality, profit and market orientation. The "guideline for the employees" is a set of action guidelines for employees to realize management principle. These guidelines are recited daily throughout the company and are firmly rooted.

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

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

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

Guideline for the Employees

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.

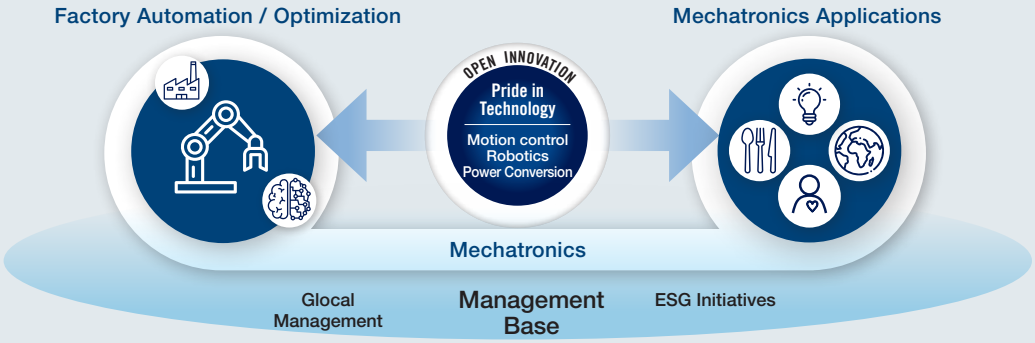
Let's put our customers first.
Let's pursue both high quality and high profitability.
Let's train ourselves and overcome the competition with unyielding spirit.
Let's broaden our horizons and change our way of thinking.
Let's deepen mutual trust and cooperate with each other.

Aim for sustainable corporate value improvement with the realization of management principle at the core

In light of the recent heightening of geopolitical risks and uncertain economic and social conditions in the macroeconomic environment, we revised our long-term business plan "Vision 2025", which was disclosed on April 20, 2015. In this review, we have redefined our vision for FY2025 in an easy-to-understand manner, as well as attempting to instill the management principle inside and outside the group by drawing on our vision, with the realization of our management principle at the core.

1. Redefining Business Areas

With mechatronics at its core, Yaskawa Group has established two business domains: "factory automation and optimization" and "mechatronics applications" and is pursuing initiatives based on the following strategies.



Strategies in "Factory Automation and Optimization"

- Realization of the industrial automation revolution centered on i³-Mechatronics
  We provide new automated solutions by integrating mechatronics and ICT technologies.
- Pursuing the global No.1 in core businesses
  We will pursue and achieve global No.1 share in robotics and motion control segments.

Strategies in "Mechatronics Applications"

- Challenge for new mechatronics applications
  We determine business commercialization by exploring and demonstrating fields in which mechatronics technology can be applied. In particular, we will focus on the commercialization of the following areas.

· Energy Saving Reduce power consumption by energy-saving equipment
· Food & Agri Promote automation in food production and agriculture market
· Clean Power Establish energy creation, application and storage business
· Humatronics Promote development of medical and welfare markets

2. Revision of Financial Targets

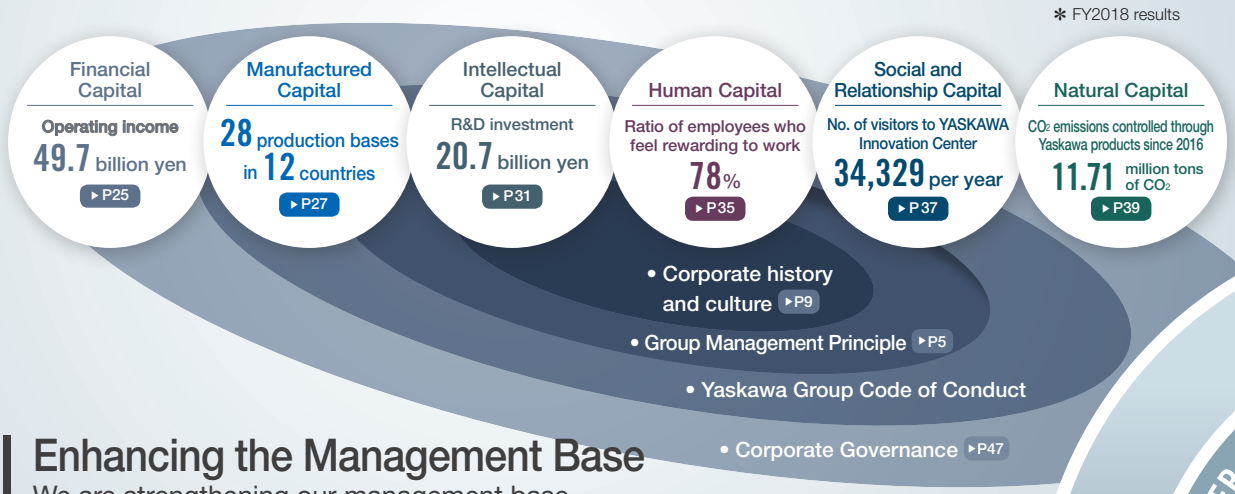
By eliminating the previously established sales targets of "Net Sales (Twice or more as compared to FY2015)" and "Ratio of Sales in New Business Areas (Twice or more as compared to FY2015)" for FY2025, we have positioned operating income as the most important management indicator and are aiming to generate a record operating income of 100 billion yen in order to accelerate quality improvement. In addition, we have revised upward the ROE target, which had been adopted as an indicator of capital efficiency, from 13% to 15%. To maintain a constant level of financial leverage and further improve the return efficiency for shareholders, we have also adopted ROIC and set targets for the efficiency of invested capital, including interest-bearing debt. In terms of returns to shareholders, we will continue to strengthen returns to shareholders using the dividend payout ratio as an indicator.

	FY2015 Results	Financial Targets for FY2025
Operating Income	36.7 billion yen	Over 100 billion yen
ROE*1	12.8%	15% or more
ROIC*2	11.3%	15% or more
Dividend Payout Ratio	23.6%	30% + α

*1 ROE /Return on Equity = Profit attributable to owners of parent / Shareholders' equity
*2 ROIC/Return on Invested Capital = Profit attributable to owners of parent / Invested capital

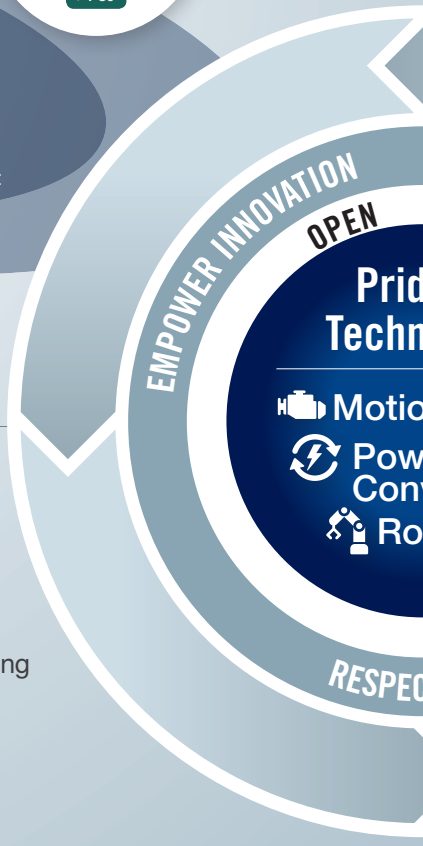
The Value Creation Process for Realizing Long-Term Business Plan “Vision 2025”

Yaskawa has been implementing business strategies to achieve Vision 2025 by capitalizing on the management capital it has accumulated over its 100 year history. Through these efforts, we are achieving sustainable growth and contributing to the SDGs through the creation of social value, which leads to the realization of our management principles.



Enhancing the Management Base

We are strengthening our management base, which has been fostered over more than 100 years, to create value.



Environmental Change

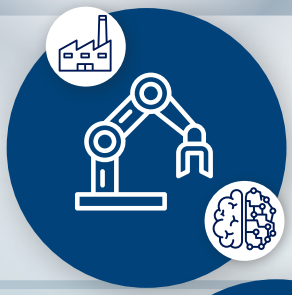
Declining birthrate and aging population in developed countries

Environmental issues and climate change

Evolution of information and communications technology

Promoting Our Business Strategies

We contribute to the resolution of management issues faced by our customers through the evolution of our core businesses, while expanding the application of mechatronics technology to create new added value for society.



Factory Automation / Optimization

- Realize revolutionary industrial automation through i³-Mechatronics
- Pursue global No.1 in core business

Mechatronics Applications

- Challenge for new mechatronics applications

Energy Saving
Clean Power
Food & Agri
Humatronics

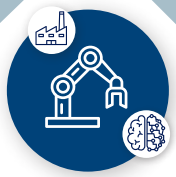
Creating Social Value

We provide value to our stakeholders through our business operations.

Realization of Management Principle

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

Energy saving and reduce environmental impact	Increased use of renewable energy	Liberation from 3D* labor through automation * Dirty, dangerous, and demeaning	Stable food supply by vegetable factories	Contribute to medical and welfare sector



Realizing Sustainable Growth

We will realize sustainable growth through initiatives aimed at achieving Vision 2025.

Financial Targets for FY2025

Operating Income Over 100 billion yen

ROE 15% or more | ROIC 15% or more | Dividend Payout Ratio 30%+α

Realize factory automation and optimization

Application of mechatronics for the sustainable development of society

Glocal Management

Digital Management

- Realize real-time management through centralization and visualization of global management data
- Strengthen group management through standardization/automation of work processes

Quality Management

- Improve quality of operation and strengthen job operating capabilities through implementation of TQM*
- Improve product quality through process-focused improvement activities

* TQM: Total Quality Management, the application of unified quality management objectives throughout the organization to management strategies

ESG initiatives

Environment

- Promote green process

Society

- Contribute to local communities
- Support development of next-generation engineers
- Empower diverse human resources

Governance

- Improve management transparency and strengthen group governance

MANAGEMENT MESSAGE

Utilizing the corporate culture cultivated since our founding to open up a new era

How the founding spirit of “being a company founded on technology”, ”pursuit of customer satisfaction”, and “quality-oriented” took root as a corporate culture

Yaskawa’s founder Daigoro Yasukawa had the mission statement of “being a company founded on technology” in order to conduct business with original technologies, rather than imitating the leading Western technologies. The company was in the red for the first 17 years since its founding, and despite having to go through difficult times, it did not change its mind. I think this is because the enthusiasm and determination of Daigoro has permeated the organization since the dawn and has been shaped as a corporate culture.

Since then, as motors have been used by customers through our business operations, the ideal form and direction of the entire organization have been created based on the concept of "Pursuit of customer satisfaction" in addition to “being a company founded on technology”. The term "Electric motors and their applications" which has been Our Company's business domain to date, is considered to have arisen from the dialogue with customers.

At that time, we were also involved in the production equipment of materials, such as steel and spinning, which operated 24 hours a day. The idea of "quality-oriented" took root in the organization as we believed that we should not cause any trouble to our customers' equipment. In this way, the cumulative actions of the people in the organization over the years have served as the basis for value judgments and have developed into our corporate culture.

"Mechatronics as a forward-looking business concept" and "policy management"

New turning point for our corporate culture was when we introduced the concept of “Mechatronics” to realize automation when manufacturing was about to change from material industry to assembly industry at the end of Japan’s economic growth. At this time, the existing business was still mainly focused and the concept was not a culture yet but just a vision. As such, Yaskawa worked on TQC (policy management) as a tool to set the whole organization in one direction. Yaskawa established its own management system, including tools for setting and managing targets in sales, development, quality control, and manufacturing. As a result, the vision of mechatronics and TQC have become part of our corporate culture, and Yaskawa has made significant progress in the R&D and customer development for automation in the assembly industry.

Yaskawa’s “glocal” expansion

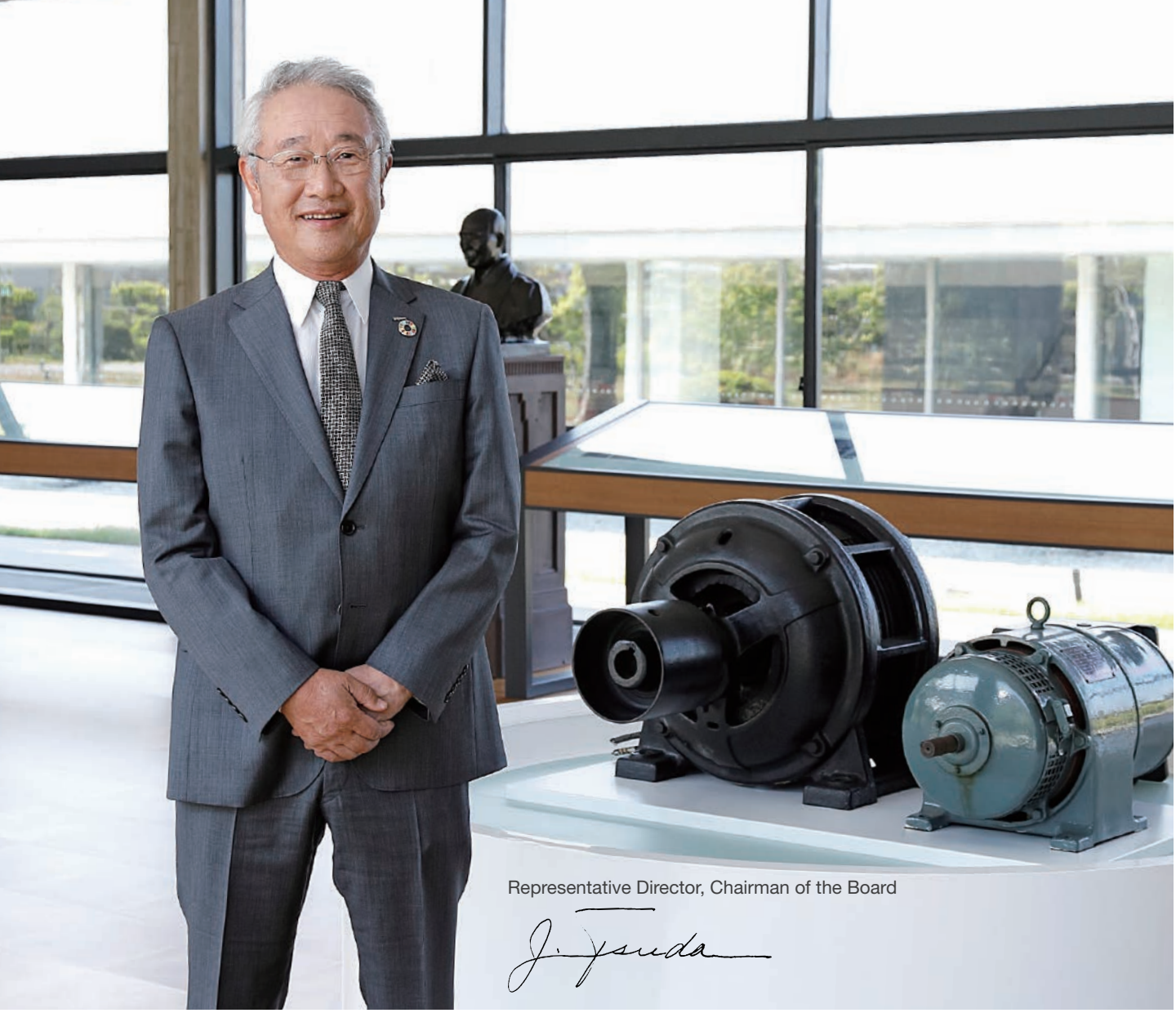
After that, globalization of our business proceeded. Yaskawa accelerated the “glocal”* expansion which is not to selling Japanese products as they are to overseas but to provide customer services and products needed in each community. It was a different way from many Japanese companies at that time but the culture matched well with changes of business environment and it resulted in today’s Yaskawa.

We have faced many difficulties since our founding, but as a result of the wisdom and courage of the people involved in each era, we are now a leading global company. The 6 cultures that have been nurtured over the years – (1) "company founded on technology" (2) "pursuing customer satisfaction" (3) "quality-oriented" (4) "mechatronics as a forward-looking business concept" (5) "policy management" (6) "glocal management" – are critical to Yaskawa Group's strength today.

* it means providing best services based on any local community in the world in addition to business management with global mindset

Toward the age of big data and AI

There's no doubt that the trend of collecting, analyzing, and using data is going to take off at a tremendous pace, and the time is coming again when Our Company needs a forwad-looking business concept (Vision). In the 1970s, "mechatronics" from Our Company had the impact of leading the third industrial revolution. The Yaskawa Group



Representative Director, Chairman of the Board

With the first order motor (1917)

will continue to drive the evolution of production from short-, medium-, and long-term perspectives under the concept of i³-Mechatronics in the Fourth Industrial Revolution, which aims for an optimal production system in a data-driven society.

Now that the basic theory of AI is widely shared, the key to AI is its utilization and application. We believe that Our Company's corporate culture of working with customers to solve on-site problems provides a significant advantage in becoming a company that can provide more and more ideas on what to do with AI.

On the other hand, even if you have a lot of ideas, success is part of it. We will be asked how we will evaluate and manage them. In the course of policy management up to now, we have worked hard to set a firm outlook and achieve it, but for new things for which a value judgment has not been set, we must be flexible to incorporate them. In this sense, we do not need to be bound by a single set of values. I believe that actions to realize a new era will create the next corporate culture.

Until a while ago, some people said that there would be no further technological development, but now there is a common recognition that IoT and AI will make further technological leaps. Up until now, we have been working on the idea of how to use electronics to control mechanisms (Machinery). In the future, however, dramatic changes may occur due to ideas born from new values, such as designing machines that are easy for AI to operate. Even in such a world, I believe that the Yaskawa Group has personnel with a broad range of abilities enough to lead what is required by society in the new era. We will open a new era by developing our next corporate culture while acting.

I would like to take this opportunity to ask our stakeholders for the continued support to Yaskawa for its development in the days to come.

MESSAGE FROM THE PRESIDENT

Representative Director
President

H. Ogasawara

Under the banner of i³-Mechatronics, we aim to maximize value creation by transforming the way technology, production, and sales are carried out, thereby achieving the goals of Vision 2025 and further growth in the years ahead.

Results of the previous mid-term business plan Dash 25

Based on the theme of "Establishing a highly profitable corporate structure" we implemented initiatives over the three years of Dash 25 from FY2016 to 2018. Although we achieved our sales target a year ahead of schedule under the mid-term business plan in 2004, we achieved our performance targets for the first time, including profitability, which is a big result for us. As we have not achieved our profit target for a long time, we have been aware of the high hurdle to achieving an operating profit ratio of 10%. However, the achievement of 12.3% in FY2017 has given us confidence, which I believe is significant. Although the rapid growth in FY2017 was partly due to the favorable market environment, we believe that our efforts to instill a profit-oriented mindset among managers since FY2016 have had a major impact.

As the global shift of manufacturing industries to China became clearer, we began full-scale development of our AC servo business in China in 2012, supplying key components to local machinery manufacturers. Since then, the Chinese business has grown significantly, driven by the need for automation of production due to labor shortages and soaring labor costs, as well as the need for more sophisticated production to improve quality. As we have established a profitable business structure in China with a solid grasp of growing markets, this has spread to Japan, Europe and the United States, and we have established a structure that focuses on profits as a group.

Recognition of issues and reform for further evolution

It has become clear that the escalating trade friction between the United States and China has an immediate impact on corporate capital investment sentiment, making it easier for Our Group, which has been expanding into China, to be swayed by this market. At the same time, dramatic changes in the global management environment have become a norm, with technological advances such as AI and the Internet of Things forcing changes in the way businesses operate in the FA market. It is imperative that Our Group establish a system that can respond to these changes without delay.

Under these circumstances, there are two major reforms that are currently underway. The first is to break down the walls of the business divisions. We have aimed to become the global No. 1 in the AC servo, drives, robotics, and system engineering businesses by polishing them and making them seem as if they were separate companies. However, as moves toward the realization of next-generation manufacturing accelerate and new needs for productivity improvement such as production efficiency improvement and quality maintenance increase rapidly, it is becoming difficult to achieve further growth only by selling products in individual businesses. In addition, as I have accumulated experience in various businesses, including the system engineering business, I have come to realize that the walls of the business divisions are one of the causes of inefficiency. For example, the components of AC servo and AC drives can be commonalized, but different components are used to achieve the same functions. With the establishment of the YASKAWA Technology Center (tentative name)* at its core, we are integrating the development functions of each business and product to improve the efficiency of technology development. In terms of production, we are working to strengthen cooperation between our business divisions and the production technology department of headquarters through the establishment of YASKAWA Solution Factory, and in terms of sales, we have reorganized our sales structure from business to market, strengthening horizontal ties in the areas of technology, production and sales while making incremental improvements. However, we still need to accelerate these efforts.

The second reform is the reorganization of subsidiaries and businesses. In the past, it was a small set of businesses in a narrow market, so when we pursued partial optimization, we were in a situation where it would lead to total optimization. However, as businesses grow globally and require solutions that integrate Our Group products and technologies, the legacy of partial optimization is increasingly a barrier to

overall optimization. For example, even if a business with a subsidiary is in the red, the existence of many companies within the Group makes problems difficult to be found and does not lead to improvement. We have spent 40 to 50 years building our current subsidiaries and business structures. Restructuring them will take a considerable amount of time and money, but we will continue to make steady progress.

* A research and development base for accelerating the use of open innovation, such as joint research among industry, academia, and the government, while establishing an integrated research and development system covering basic research, mass-production trial, and quality control. (Scheduled to open in 2020)

Three objectives of revision of Vision 2025

The problem with the previous Vision 2025 was that it was difficult for employees to gain a common understanding. Because we had three goals: sales, operating income, and operating income ratio, some people were trying hard to increase sales while others were trying to increase profits, making it difficult to keep the same vectors. One of the aims of the revision is to enable all employees to answer "Operating income of 100 billion yen" when asked about the content of the vision.

The second objective is to redefine our business domain as a B-to-B FA company. Previously, we defined clean power and humatronics as new businesses. However, we have positioned motion control, robotics and power conversion, which are Our Company's core competencies, at the center, and defined the value creation around these as "mechatronics applications." Together with the factory automation / optimization, these businesses form a business domain.

The third objective is to return to our management principle and continue our efforts to realize it.

Mid- and long-term business environment outlook and strategies

In the long term, looking beyond 2025, it is expected that food sustainability will become an issue due to the labor shortage caused by the declining birthrate and aging population, and the worsening climate change. Yaskawa's technologies are expected to contribute to the resolution of social issues in this field, and we have begun contributing to the secure and stable supply of food through initiatives such as the automated vegetable production system and food production automation.

At the same time, we will broaden our horizons to explore the possibility of utilizing core technologies and

continue to demonstrate these capabilities. By doing so, we will work to commercialize these technologies, and this will enable us to realize Our Group's management principle of "Contributing to the development of society and the welfare of humankind through the execution of business" and contribute to the achievement of the SDGs.
In order to contribute to the resolution of global social issues and continue to grow over the long term, I believe "selection and concentration" and "responding to change" are necessary. As a business-to-business manufacturer, we need to keep these two issues in mind and ensure that we continue to invest in technology, production and sales. In particular, we have invested in production on an unprecedented scale over the past few years. As a business-to-business manufacturer, I believe it is necessary to constantly introduce the latest machines and keep our production strong so that we can appeal to customers about our manufacturing sites. Our Group must continue to invest in human resources, including alliances, for the enhancement of sales, as a part that is directly linked to earnings, and in technology development, we continue to invest in new technologies, such as AI, software, and materials, in order to maintain our global No.1 position. I believe that successful implementation of these measures is essential for sustainable growth.

Short-term measures

I believe that we need to respond carefully to changes in the business environment over the three years of the current mid-term business plan in order to promote management from this long-term perspective. There is no doubt that market competition will intensify not only for Our Group but also for our customers. With the rise of protection policies, how the Japanese manufacturing industry will continue to exist will become an important issue. At present, the center of manufacturing has shifted to China, and in the global market, where U.S. companies are leading the evolution of IT, the way for Japanese manufacturers to survive is to simultaneously pursue the utilization of data in host systems such as IoT and AI and the improvement of productivity in manufacturing sites.
Against this backdrop, in FY2019, we will focus on the penetration of the i³-Mechatronics concept and the establishment of a new business model, as we steadily build a foundation for leading the industrial automation revolution.

Expectations of the employees

Our Group's mission is to consider and act on how to increase profits for customers and enable them to lead their businesses in their respective markets, based on the idea that profits are shared by customers. Under these circumstances, I hope that employees will aim to be recognized for their value from the outside, rather than from within their own departments. Our Group aims to realize further growth by providing an environment in which each and every employee grows from both the business and institutional perspectives and by improving the motivation for work.

Progress of "Making Data a Common Language"

When I assumed the position of president in 2016, I declared "Making Data a Common Language" as my policy statement, and I feel that this has been firmly entrenched in the organization. At present, we are in the stage of accelerating our efforts toward digital management. The aim is simply to "making numbers consistent to achieve overall optimization." We have already discussed the problems to be solved with respect to the walls of business divisions and subsidiaries. The partial optimization of data makes it difficult to compare specific sections across businesses and subsidiaries. What this means is that, for example, employees are now evaluated only in the department to which they belong, and are not evaluated in a balanced manner across the entire company, that is, according to the performance and results of the entire company. The only way to ensure a fair view of how each employee's accomplishments are linked to the performance of the entire company is to share common data, which leads to digital evaluations and changes in work styles. The essence of digital management is to ensure that the work of each employee leads to the profits of the entire company. Based on this concept, under the banner of i³-Mechatronics, we aim to maximize our creation of social value by transforming the way technology, production, and sales are carried out, thereby achieving the goals of Vision 2025 and further growth in the years ahead.
I would like to take this opportunity to ask our shareholders, investors and other stakeholders for the continued support and patronage to Yaskawa in the days to come.

Challenge to Create New Values and Markets

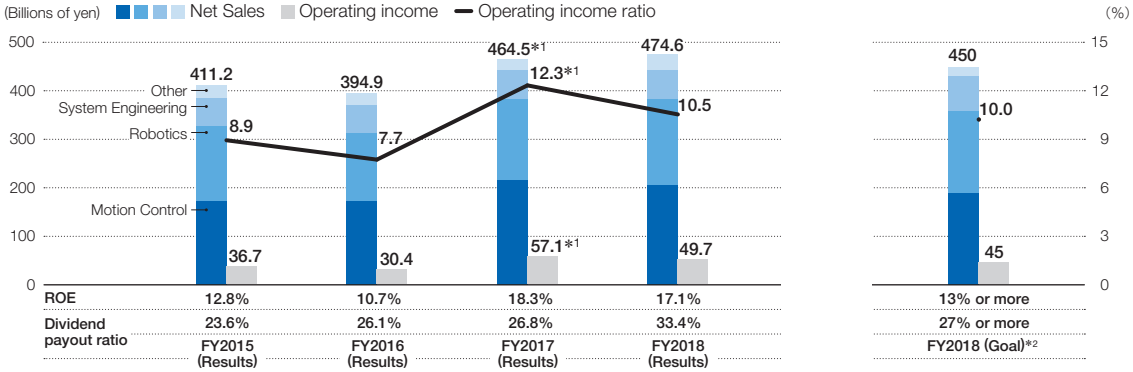
We began the second step in our long-term business plan, namely our mid-term business plan Challenge 25 (FY2019-FY2021), dividing the 10 year period into 3 mid-term plans. Based on the theme of "Challenge for Creating New Values and Markets," we will steadily implement measures to achieve the targets set out in Vision 2025.

Positioning of the New Mid-Term Business Plan Challenge 25

Review of Dash 25

Under the previous mid-term business plan, Dash 25, we achieved our corporate performance and financial targets one year ahead of schedule, reflecting the expansion of capital investment in the smartphone-related market in China, the acceleration of automation in the general industry, and the rapid expansion of capital investment in the semiconductor market worldwide.

Financial and performance trends in the Dash 25 period



Note: FY2015/2016 reflect changes in segment classification introduced in FY2017
*1 Reference values resulting from change in date of financial closure *2 Goals established in April of FY2016

Dash 25 achievements and challenges

	Maximize Results of Realize 100	Build Foundation for Realizing Vision 2025	Grow Clean Power as Core Business
Results	☑ Expanded lineup of core products and its sales ☑ Strengthened sales capabilities by integrating sales functions ☑ Expanded local production, particularly in China and EU	☑ Started new solution concept i³-Mechatronics ☑ Established FAMS Co. for fullfledged automation of food production ☑ Established AI Cube Inc., subsidiary for AI solutions	☑ Growth of sales and improved profitability for wind power generation equipment ☑ Launched new products for PV equipment ☑ Mass production of EV components at Chinese JV ☑ Restructuring of the global Clean Power business structure
Issue	Establishing a competitive advantage for products and services in the automation domain	Creating businesses based on i³-Mechatronics concept	Building a stable profitability structure for Clean Power business

Develop measures for Challenge 25

Business Strategies in Challenge 25


▸ See page 7-8

As the 2nd step toward the realization of Vision 2025 under the new mid-term business plan Challenge 25 launched in FY2019, we will further accelerate the measures implemented under the Dash 25 and challenge new business models to create new values and markets.
In the two business areas "Factory Automation / Optimization" and "Mechatronics Applications" defined in 2025 Vision, we will implement measures for further growth based on the following three basic policies in Challenge 25.

Basic policy of Challenge 25

Basic Policy 1
Transform Business Model through i³-Mechatronics

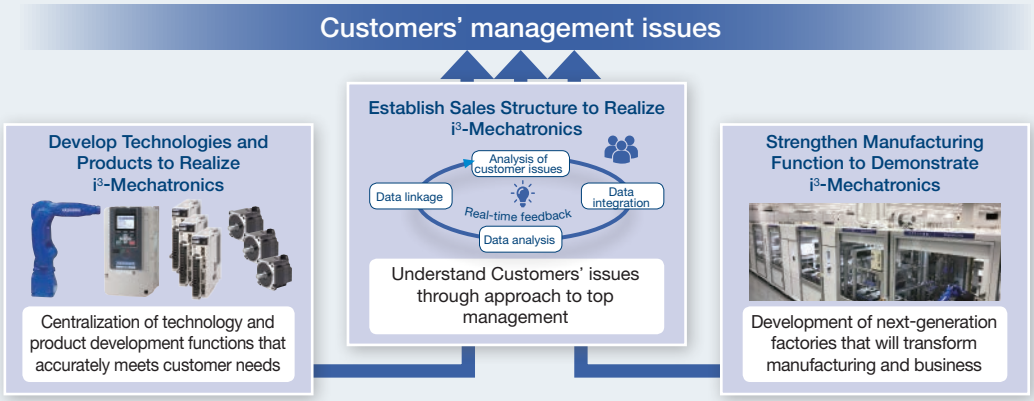
Basic Policy 2
Maximize Profitability in the Growing "Robotics" Business Field

Basic Policy 3
Expand New Domains by Strengthening Resources through "Selection and Concentration"

Basic Policy 1 Transform Business Model through i³-Mechatronics

Yaskawa Group is further accelerating the transformation to a business model based on the unique solution concept i³-Mechatronics announced in 2017 and aims to enhance the functions of technology, production and sales in order to expand business domains and realize further management efficiency.

Contribute to solving customer's managemental issues through evolution of production, sales and technology



As for the **enhancement of technology and product development**, we will consolidate functions by establishing the YASKAWA Technology Center (tentative name) and strengthen our integrated efforts from the development of elemental technologies to trial manufacture for mass production. Based on the i³-Mechatronics we will develop and market technologies and products that meet customer needs in a timely manner. →Details are given in the **page 31-32** Message from the CTO.

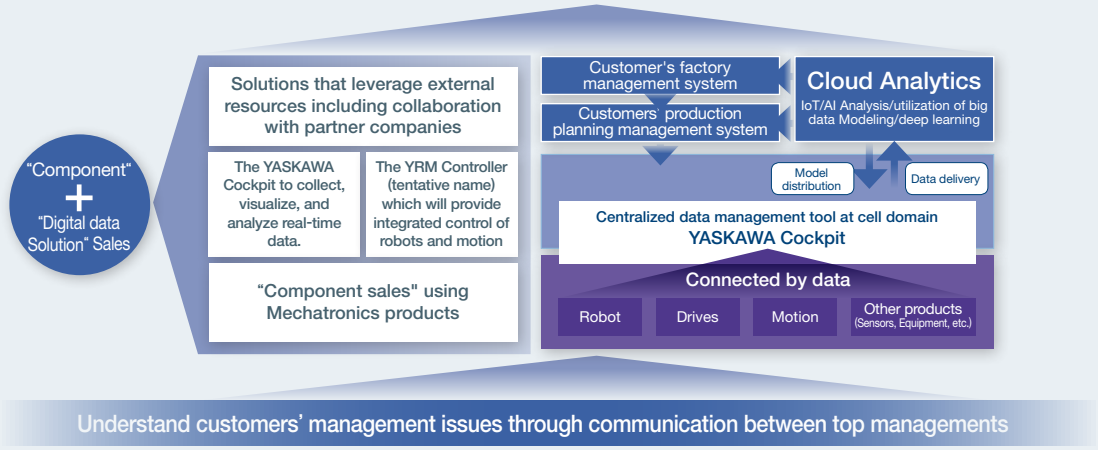

Completion image of YASKAWA Technology Center (tentative name)

As for the **enhancement of production functions**, we will improve our own productivity and strengthen our ability to propose solutions to customers through the implementation of i³-Mechatoronics at the AC servo plant YASKAWA Solution Factory, which started operation in FY2018. We also aim to improve productivity and profitability on a global scale by globally deploying the latest production technologies cultivated in this factory. →Details are given in the **page 27-28**, Special Feature: A New AC Servo Factory, YASKAWA Solution Factory.

In order to **establish sales structure**, we will work to evolve our sales scheme from a simple "product-selling" to a "selling product + digital data solution." Specifically, in FY2018 we launched a cross-business marketing and sales system, and we will continue to strengthen and further accelerate the penetration of top-level sales activities, in order to provide direct solutions to customers' management issues and to increase added value. In FY2018, we launched the "YASKAWA Cockpit" to collect, visualize, and analyze real-time data. In addition, we plan to launch the "YRM Controller (tentative name)" which will provide integrated control of robots and motion in the current mid-term business plan. With these two at the core, we strengthen our solutions for customers. →Details are introduced in the special feature "Realizing a New Industrial Automation Revolution with the Solution Concept i³-Mechatronics" on **page 11 of the YASKAWA Report 2018**.

Establish sales structure to realize i³-Mechatoronics

Establishment of a sales scheme that enables transformation to “Component + Digital Data Solution" sales



Basic Policy 2 Maximize Profitability in the Growing “Robotics” Business Field

We define the automation field including robots in various industries as the "Robotics" field, and expand our business in this field, which is expected to expand significantly in the future.
Specifically, we will accelerate our efforts to capture the Chinese and Asian markets centered on the "3C*" which are expected to expand significantly in the future. In the automobile-related market, where Our Group has competitive edge, we will strengthen our efforts with finished vehicle and parts manufacturers and expand our business by providing new solutions and robots. In the semiconductor production equipment market, which is expected to grow significantly in the future, we aim to expand earnings by strengthening our product lineup and improving productivity.

*3C: Digital communications equipment (From the three acronyms Computer, Communication, and Consumer Electronics)

Basic Policy 3 Expand New Domains by Strengthening Resources through “Selection and Concentration"

Yaskawa Group will concentrate its resources on application fields where it can utilize its strengths of mechatronics technology to develop new fields and markets. In particular, we will focus on developing four areas.

01 Energy Saving
We will expand sales for applications where energy conservation performance is important by offering high added value through the combination of highly functional AC drives and other energy-saving equipment and high-efficiency motors.

02 Food & Agri
We will strengthen our efforts for automated solutions for the food production process by strengthening collaboration with key partners. We will expand sales of production automation solutions in the field of ready-to-eat foods by strengthening the lineup of robots that can flexibly handle a variety of tasks, as well as automatic vegetable production systems.

03 Clean Power
In the wind power business, we will focus on Europe and work to steadily increase earnings by continuing to increase orders from customers of leading wind turbine manufacturers. In the solar power business, we aim to improve earnings by reaping the benefits of the restructuring and by expanding sales of the new XGI series. In the field of electric vehicles, we aim to achieve stable profitability in joint ventures with leading Chinese partners.

04 Humatronics
In the robot rehabilitation market, we aim to create a new market by strengthening our sales scheme and expanding our lineup. In the biomedical market, we will further strengthen industry-academia-government collaboration to establish a genomics-analysis business that is expected to grow significantly.

Financial Targets of Challenge 25

In order to achieve operating income of 100 billion yen as set forth in our Vision 2025 at an early date, we will expand our business and further improve efficiency by implementing the i³-Mechatoronics. By focusing on improving operating income and the operating income ratio, we aim to achieve operating income of 70 billion yen as the most important financial target under the Challenge 25.


▸ See page 7-8

	FY2018 results	FY2021 targets
Net Sales	474.6 billion yen	540 billion yen
Operating Income and Operating Income Ratio	49.7 billion yen (10.5%)	70 billion yen (13.0%)
ROE	17.1%	15% or more
ROIC	17.2%	15% or more
Dividend Payout Ratio	33.4%	30%+α

Strengthening the Management Base to Achieve Sustainable Growth


▸ See page 7-8

Our Group will work to strengthen its management base to realize sustainable growth by maximizing the social value it creates through its business, corporate activities, dialogue, and co-creation. In particular, we will accelerate management efficiency through digital management and quality management. In order to realize digital management, we will centralize management data globally and promote thorough "visualization" of data through the use of IT. We also aim to establish a management style that enables us to anticipate the future and to conduct real-time management based on the visualized data. To put quality management into practice, we will focus on improving business quality and strengthening workplace capabilities through the application of TQM*.

In our corporate activities, we enhance our management foundation from the perspective of the environment (Environment), society (Society), and governance (Governance), or "ESG", and contribute to the sustainable development of society.

(The activities are introduced on page 37-50.)

* Total Quality Management: Application of consistent quality control objectives to management strategies throughout the organization

Creation of Social Value


▸ See page 7-8

Yaskawa Group has utilized its core competencies in motion control, robotics, and power conversion to solve a variety of social issues. We will continue to contribute to society through our business activities by providing value to our stakeholders from the aspects of energy conservation and reduction of environmental impact, the spread of renewable energy, and freedom from 3D jobs through automation, stable supply of food through plant factories, and contributions to the medical and welfare fields. This will lead to the realization of Yaskawa Group's management principle of contributing to the development of society and the welfare of humankind through the execution of business, and thereby contribute to the sustainable improvement of its corporate value.

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.

Business Overview

MOTION CONTROL

- AC servo & controller business

AC servos are incorporated in production equipment for electronic parts, semiconductor products, etc., that require high precision.

AC servo Σ-7series and machine controller MP3300

MOTION CONTROL

- Drives business

AC drives are used in social infrastructure, such as HVAC, escalators and elevators, and contribute to energy-saving.

Yaskawa AC drive new series

Matrix converter U1000

PM motor

BOROTICS

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

The segment supplies vertical articulated robots as key products to contribute to the automation of welding, painting, assembly, transfer, etc., at production sites of automobile- related markets and various other fields.

Arc-welding robot MOTOMAN-AR1730

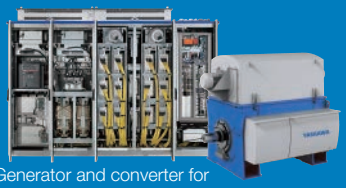
Robot controller YRC1000

Collaborative robot MOTOMAN-HC10DT

SYSTEM ENGINEERING

- Steel plant business
- Social system business
- Environment & Energy business
- Industrial electronics business

Our advanced technological capabilities in system engineering and electrical products contribute to automation and stable operation in the steel, water treatment, and large crane markets, and contribute to expanded use of renewable energy in the environmental energy markets such as solar and large-scale wind power generation.



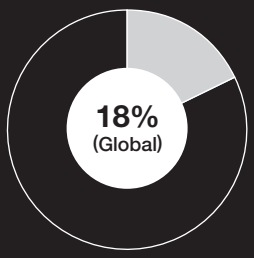
Generator and converter for large-scale wind turbines

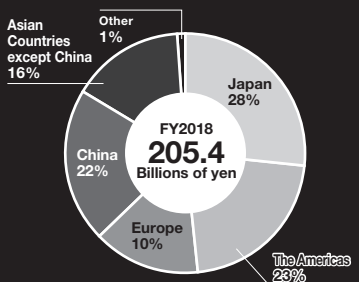
Medium-voltage matrix converter

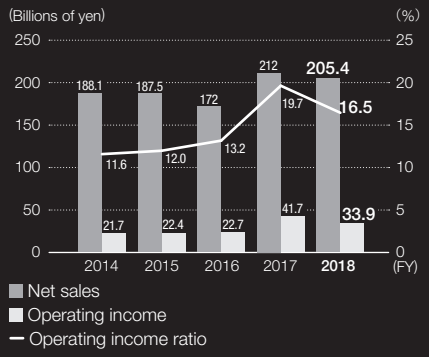
PV inverter

Market Share (Company estimate)	FY2018 Sales Breakdown by Region	Net Sales, Operating Income, Operating Income Ratio

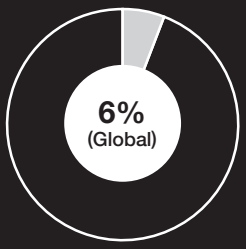
AC Servo Drives



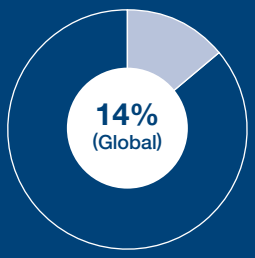


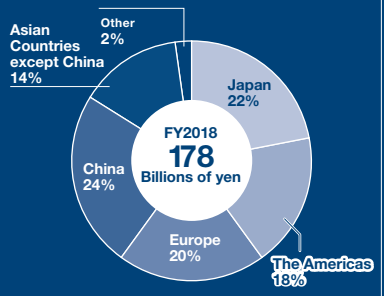


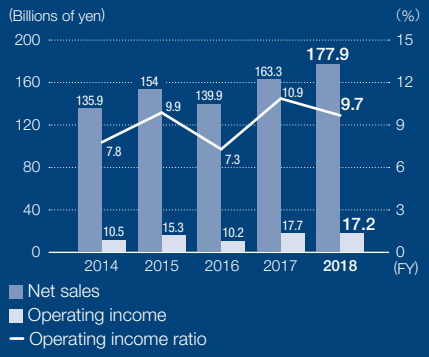
AC Drives



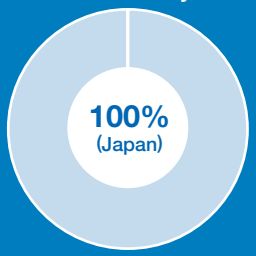
Industrial robot

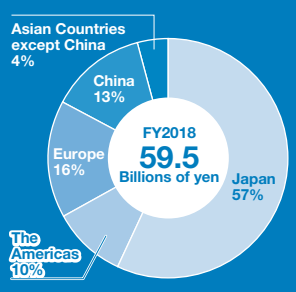


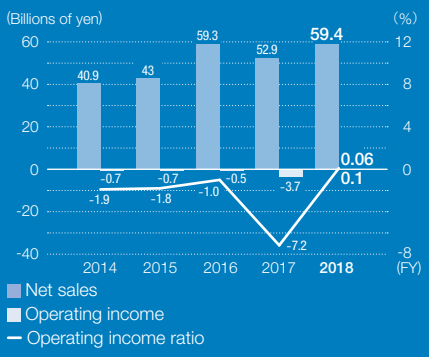




Steel plant facilities (Blast furnace system)







MOTION CONTROL

AC Servo & Controller Business

Enhancing machine performance as major components incorporated in production equipment

SWOT Analysis of Business

Strength :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
  ⇒No.1 global market share in terms of brand power
- 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

Opportunities :Business Opportunities

- Advancement and labor-saving of industrial machinery
- Industry sophistication, including 5G, IoT, and self-driving

Weaknesses :Challenges

- Speed-up of the process from development to mass production
- Reinforcement of production response to rapid changes in demand
- Evolution from component sales to sales of integrated solutions

Threats :Business Risks

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

Challenge 25 (2019 – 2021) Goals

We will further advance our solutions capabilities through i³-Mechatronics and expand our components to respond to changes in the production systems. We will also build a highly profitable business structure and establish ourselves as the global No.1 leading company.

Results of Previous Mid-Term Business Plan Dash 25 (FY2016-FY2018) and Goals of Challenge 25 (FY2019-FY2021)

FY2016-FY2018	FY2019-FY2021	FY2022-FY2025
Dash 25 Achievements	**Challenge 25 Initiatives and Targets**	**Realize 25**
<Development capability> • Expanded robotics components* • Expanded product lineup of components for production automation * Products for robot applications (robot control modules, etc.)	**<Initiatives>** ❶ Expand sales in growing markets by implementation of i³-Mechatronics ❷ Expand sales in growing markets including China and Asia ❸ Enhance production efficiency	**<Policy>** Consolidate global No.1 market share by maximizing the components' added value through i³-Mechatronics
<Production capability> • Improved efficiency by YASKAWA Solution Factory production method • Increased global production capacity		
<Sales capability> • Boosted sales by capturing smartphone-related demand	**<Financial targets>** * Motion Control Segment **Net sales: 240.0 B.JPY** **Operating income: 43.4 B.JPY** **Operating income ratio: 18.1%**	

Challenge 25 Initiatives

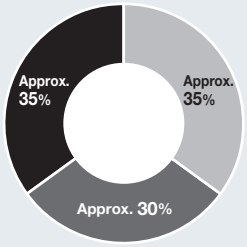
1 We position robotics, semiconductors, machine tools, electronic components, metal processing, and packaging as the six growth markets and expand sales by launching strategic products that realize i³-Mechatronics.

2 We increase sales in China and other Asian growth markets by thoroughly strengthening customization, providing high-value-added robotics products to robot manufacturers and EMS, and ensuring quality tailored to local market environments.

3 The latest production method developed in YASKAWA Solution Factory will be applied to all of our global production sites to maximize profits by increasing production efficiency.

Sales Breakdown by Application

(FY2018 Results)



- Electronics-related industries including semiconductor, FPD and electronic components
- Machinery-related industries including machine tool, metal processing, press machine and robots
- Other (Packaging, textile, injection molding, etc.)

Global Market Outlook for AC Servo

(Company estimation)

Estimated market size in fiscal 2021

Approx. **850** billion yen

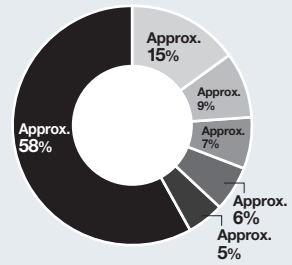
Average annual market growth for 2018 – 2021 (CAGR)

5.0%

MOTION CONTROL

Drives Business

Sales Breakdown by Application
(FY2018 Results)



- Air-conditioning systems for buildings (HVAC) and compressors
- Cranes and hoists
- Pumps and fans
- Oil & gas
- Elevators
- General-purpose machinery / Other
  (Textile machinery, metal processing machinery, packaging machinery, conveyors, etc.)

Global Market Outlook for AC Drive
(Company estimate)

Estimated market size in fiscal 2021

Approx. **1.35** trillion yen

Average annual market growth for 2018 – 2021 (CAGR)

2.7%

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

SWOT Analysis of Business

Strength :Strengths of Our Business and Differentiation
- Power electronics technology and high-efficiency motor technology that lead in energy-saving performance
- Control and sensing technologies based on motor drive cultivated over many years
- Knowledge of machinery and equipment founded on system engineering
- Worldwide sales and service bases, development centers, and production plants

Opportunities :Business Opportunities
- Expansion of infrastructure investment
- Continual expansion of energy conservation needs
- Acceleration of factory automation
- Rise of market in emerging countries

Weaknesses :Challenges
- Improvement in development speed
- Improvement in cost competitiveness
- External procurement of main parts

Threats :Business Risks
- Intensification of cost competition due to the rise of emerging manufacturers and the self-manufacture of drive products by some customers
- Parts procurement risk due to factors such as rapid growth in the 5G and EV sectors
- Impact of falling crude oil prices on investment in oil and gas-related facilities

Challenge 25 (2019 – 2021) Goals

With an aim of achieving a 10% market share, we expand drive applications (General machinery, oil and gas, elevators, cranes, etc.) steadily and establish a foundation for expanding market share in energy-saving applications. (HVAC, fans, pumps, etc.)

Results of Previous Mid-Term Business Plan Dash 25 (FY2016-FY2018) and Goals of Challenge 25 (FY2019-FY2021)

FY2016-FY2018	FY2019-FY2021	FY2022-FY2025
Dash25 Achievements	**Challenge25 Initiatives and Targets**	**Realize25**
<Development Capability> • Accumulated application specific technology and skills • Released new AC drive series	<Initiatives> ❶ Capture target markets through global enforcement of customer response capabilities ❷ Capture automation market by predictive management technology ❸ Capture energy-saving application through new value proposals	<Policy> Aim to achieve global share of 10% by increasing share in energy saving application
<Production Capability> • Initiated production of new AC drive series at five global factories • Validated the viability of ASEAN supply chain		
<Sales Capability> • Actively developed connection with customers • Launched new AC drive series	<Financial target> * Motion Control segment Net Sales: 240.0 B.JPY Operating income:43.4 B.JPY Operating income ratio: 18.1%	

Challenge 25 Initiatives

1. We aim to increase earnings in key markets such as elevators, cranes, air conditioning fans, pumps, and general machinery by enhancing the performance of machines through the expansion of AC drive lineup for specific applications and by providing prompt service in each region.
2. By combining i³-Mechatronics with the AC drive's self-diagnosis function, we offer new value such as predictive control of machinery and extending the life of equipment.
3. We will develop the energy-saving market by proposing combinations with high-efficiency motors.

ROBOTICS

Answering expanding automation needs of production sites to open up new opportunities of use

SWOT Analysis of Business

Strength :Strengths of Our Business and Differentiation

- Developed Japan's first all-electric articulated robot in 1977
  ⇒Respond to diversified automation needs with the world's broadest product lineup
  ⇒Hold top-class global market share
- The servo motor, which is the most important factor for the performance of the robot, is manufactured in-house.
  ⇒Securing competitive advantage by improving robot performance and reducing production costs

Opportunities :Business Opportunities

- Demand for automation of manual work due to labor shortages
- Enhancement of production through IoT
- Manufacturing innovation in the automobile industry

Weaknesses :Challenges

- Steady follow-up to demand growth resulting from rapid market expansion
- Strengthen engineering capabilities to expand solutions based on i³-Mechatronics
- Development of sales channels for collaborative robots

Threats :Business Risks

- Dramatic changes in tariff conditions associated with geopolitical risks
- Excessive expectations for market growth
- Rise of emerging manufacturers

Challenge 25 (2019 – 2021) Goals

Achieving growth that exceeds the growth of the robot market

Results of Previous Mid-Term Business Plan Dash 25 (FY2016-FY2018) and Goals of Challenge 25 (FY2019-FY2021)

FY2016-FY2018	FY2019-FY2021	FY2022-FY2025
Dash 25 Achievements	**Challenge 25 Initiatives and Targets**	**Realize 25**
<Development capability> • Expanded new product lineup (53models) ⇒Improved product competitiveness ⇒Cost reduction through switch over • Released lineup of collaborative robot • Commercialized YASKAWA Cockpit	**<Initiatives>** ❶ Expand orders in key markets(Automotive/ General industries) ❷ Expand product lineup and technological domain by strengthening development capabilities ❸ Enhance production capacity and efficiency in response to volume increase	**<Policy>** Aim to achieve global No.1 share through pursuing the development of solution based on i³-Mechatronics concept and contributing to expansion of manufacturing automation (as a result, expansion of Yaskawa's business)
<Production capability> • Enhanced global production capacity and improved profitability(Expansion of Changzhou factory, and establishment of new Slovenia factory)		
<Sales capability> • Improved relationships with customers by top management sales activities • Focused sales and development of new technologies in automotive, general and semiconductor markets	**<Financial target>** Sales: 210.0 B.JPY Operating income:27.3 B.JPY Operating income ratio: 13.0%	

Challenge 25 Initiatives

1 In the automobile market, we aim to expand our business by strengthening our ability to provide solutions that respond to changes in production processes associated with environmental measures and the shift to EVs and to expand the scope of automation. In the general industrial market, we aim to expand our share by realizing the provision of digital data solutions based on the i³-Mechatronics concept.

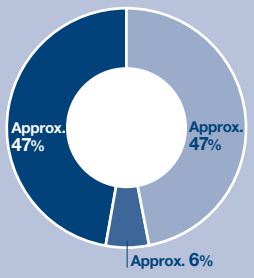
2 We will strengthen technological development to create a digital twin* system in which the operating status of objects and facilities is constructed in a digital environment and analysis and simulation results based on various data are fed back to the real environment.

3 We will strategically improve production capacity at our three global bases (Japan, China and Slovenia) and implement system of Japan to further improve production efficiency.

* Software solutions that collect real-time information on the operating status and environment of real equipment and facilities in physical space, construct equipment and facilities in cyberspace, and conduct simulations using this digital information, enabling design improvements, instructions based on environment, and failure prediction.

Sales Breakdown by Application

(FY2018 Results)



- Automotive-related applications (arc welding, spot welding, painting, etc.)
- Semiconductors- and LCDs-related applications
- General / Other (handling technologies, etc.)

Global Market Outlook for Industrial Robots

(Company estimate)

Estimated market size in fiscal 2021

Approx. 1.6 trillion yen

Average annual market growth for 2018 – 2021 (CAGR)

15%

SYSTEM ENGINEERING

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

SWOT Analysis of Business

Strength :Strengths of Our Business and Differentiation
- Yaskawa's power conversion technology and global sales network, as well as the strong technological capabilities and customer base of the acquired Solectoria*1 and the Switch*2
- 100% domestic share of systems for blast furnaces in steel plants
- Top-class share in Japan in the industrial electric business including film, textiles, and paper machinery
- Share higher than 50% in port crane market in Japan, China and Southeast Asia
- Achievements and system technology development capabilities gained in the social system sector

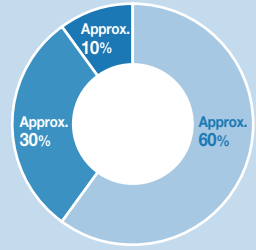
Opportunities :Business Opportunities
- Increase in demand for renewable energy and large-scale projects
- High demand for labor saving and efficiency improvement in steel plants and social systems
- Increase in the investment for production of new materials for EVs
- Full automation and remote operation of harbor cranes

Weaknesses :Challenges
- Improvement in cost competitiveness
- Improvement in product development speed
- Creation of Business Synergies

Threats :Business Risks
- Intensification of cost competition due to in-house production of parts by customers
- Modification of feed-in tariffs and grid interconnection regulations for renewable energy
- Decline in infrastructure investment in Japan

*1: U.S. subsidiary that manufactures and sells PV inverters
*2: Finnish subsidiary that manufactures and sells generators and converters for large-scale wind turbines

Sales Breakdown by Business (image)



- Industrial automation drive (steel, industrial electric, crane)
- Environmental energy
- Social system

Global Market Outlook (Company estimate)

Estimated market size in fiscal 2021

Generator and converter for offshore wind power generation :
Approx. **80** billion yen

Three-Phase distributed PV inverter :
Approx. **400** billion yen

Industrial automation drives (Yaskawa's served market):
Approx. **200** billion yen

Average annual market growth for 2016 – 2040 (CAGR)

5.5 % wind power
9.3 % solar power

*: Ratio of wind and solar power generation: 12% (2016) → 35% (2040)

Challenge 25 (2019 – 2021) Goals

Achieve stable earnings by strengthening profitability in the environmental energy businesses and pursuing high profitability in the social systems and industrial automation drive businesses

Results of Previous Mid-Term Business Plan Dash 25 (FY2016-FY2018) and Goals of Challenge 25 (FY2019-FY2021)

FY2016-FY2018	FY2019-FY2021	FY2022-FY2025
Dash 25 Achievements	**Challenge 25 Initiatives and Targets**	**Realize 25**
<Development capability> • Application of FA technology to industrial automation drive business • Introduced wind power generators for larger capacities • Started in-house production of wind power converters • Launched XGI1000, new product for PV inverter, developed jointly by Japan and the U.S.	**<Initiatives>** ❶ Expand large-scale wind power generation business, focusing on offshore projects in Europe ❷ Expand sales of new products and restructure PV inverter business ❸ Streamline the industrial automation drive business through business restructuring ❹ Stable continuation of social systems business	**<Policy>** Expand business area of renewable energy market into new regions (Asia,etc.) and fields (energy storage applications, etc.), based on business built up in Challenge 25
<Production capability> • Completed preparation for mass production of wind power generators • Integration of U.S. production sites		
<Sales capability> • Implemented high-value-added proposals for steel, industrial electric, cranes, and social systems • Large-scale orders obtained for wind power generators • Discontinued sales of unprofitable PV inverter products	**<Financial target>** * System Engineering segment Sales: 60.0 B.JPY Operating income: 1.8 B.JPY Operating income ratio: 3.0%	

Challenge 25 Initiatives

1. We will accelerate the creation of new global business opportunities, such as the acquisition of domestic offshore wind power projects, while expanding our business for leading wind turbine manufacturers mainly in Europe.
2. We will improve earnings by introducing new products and strengthening our sales strategy, as well as improve business efficiency through reorganization.
3. We will strengthen the foundations of steel, industrial electric, and crane systems businesses centered on Yaskawa Automation & Drives Corp.
4. We will use IoT and AI to increase added value and secure orders.

MESSAGE FROM THE CFO

Realizing sustainable improvement of our corporate value and operation efficiency through increasing our profitability, continuing to improve our return of profits to the society at large, as well as advancing business administration with digital management.

Representative Director;
Corporate Executive Vice President
Shuji Murakami

My mission as CFO

In the Corporate Planning & Finance Div., which I am in charge of, the mission is to understand and share the status of management in a timely manner for making Yaskawa group more competitive globally and maximizing our corporate value, and to make business strategies based on the gained information and develop it to the whole of Yaskawa group. As CFO, I am also committed to increase financial efficiency along with the management strategy and allocate management resources properly. In addition, I am working on improving our corporate value and operation efficiency through IR by appropriate communication and profit allocation as well as making feedback of shareholders and investors reflected in the management.

Background of revision of Vision 2025

The objective of this revision was to narrow down our most important management target to operating income of 100 billion yen. To date, we have targeted both a doubling of sales and an operating income of at least 100 billion yen. Management believes that quality should be improved rather than volume, and that profit ratio should be given priority. With operating income of approximately 50 billion yen in FY2018, we aim to double earnings over the remaining 7 years by growing profit at an annual rate of 10%. We believe that by focusing on profits, it will be easier to take various measures, and that we can achieve this faster and more reliably through our own efforts.

Perspective of indicators for capital efficiency

Aiming to continue generating returns that exceed the cost of capital by making effective use of the capital invested in Yaskawa, we have raised our ROE target to 15% or more, as we achieved the previous target of 13% level in the previous mid-term business plan. I recognize that Western companies generally achieve this level, but Yaskawa's capital structure suggests that achieving operating income of 100 billion yen will lead to a higher ROE.

In this revision of our vision, we added ROIC as a new index and set a target of at least 15%. By doing so, we aim to establish a structure that will enable us to

consistently improve returns from the perspective of investment efficiency while maintaining a certain level of financial leverage*, and thereby achieve operating income of 100 billion yen, as set forth in Vision 2025, as soon as possible.

* Increasing a profit rate on shareholders' equity by utilizing borrowed capital (liability)

The ways to reduce the cost of capital to increase corporate value

One way to reduce the cost of capital is to reduce the risk and volatility* of a business. Because the Yaskawa Group's business deals mainly with components such as motors for customers involved in production facilities, we are aware that it is easily affected by economic conditions and has high volatility. To reduce volatility, (1) expand business to a wider range of customers, and (2) expand business into new fields, (3) increase the added value of businesses, and (4) increase the volume of stock-type businesses. From this perspective, Yaskawa is seeking to expand its business into new areas such as clean power, humatronics, and food and vegetable plants as applications of mechatronics, which is our core technologies. As these businesses grow significantly, we can expect to reduce volatility. In the factory automation and optimization business, we are working to provide higher value-added products and proposals based on the i³-Mechatronics concept. This approach creates a stock-type business that expands demand timing and increases revenues from operations such as after-sales service and consulting, which also reduces volatility.

The second is to reduce operational risk. Our Company is working to strengthen control over its operations by linking order receipt, production, and sales with data and enhancing linkage. This leads to a reduction in risk associated with capital management and inventory.

The third is to accurately identify and disclose profit opportunities and risks. We need to share our potential and risks with investors through appropriate guidance in our IR activities. We will continue to improve our IR activities from this perspective.

* Degree of variation

Advancement of business administration realized by digital management

The goal of promoting digital management is to realize a simple operation as if Yaskawa group is a single company. So far reporting on business administration used the information summarized by each company of the group or each business, but Yaskawa will build an environment where information collection can be done based on a unified standard for all companies and businesses. Adopting the same system globally also automates business processing with a standard process, and automates/simplifies transactions inside our group as if those are handled by a single company. We will be able to understand abnormal values and the degree of improvement globally in real time by aggregating the unified raw data into the center, and it will facilitate comparison and audit of each company and business.

Furthermore, by incorporating forward-looking management indicators, such as customer information and industry information of the end users, in addition to information within the Group, we will improve the accuracy of forecasts and continually review resource allocation, thereby improving the efficiency and appropriateness of operations and reducing risks.

Yaskawa will also evaluate and improve our business from more objective perspective through integrating comparative assessments which include benchmarks of other companies as indicators, and we are building a system to realize more accurate real-time management by collecting more benchmark information of other companies.

Approach to profitability and return of profits

Yaskawa has been able to maintain high profitability in recent years as it has entered a good cycle of recouping investments, generating profits, redirecting those profits to growth investments, and achieving even higher profitability. We are aiming to become a company with sustainable growth by returning profits to society as a whole through stakeholders, rather than accumulating them as safe assets (retention). We are also aiming to achieve better performance and management efficiency than other companies by using quality improvement indicators such as the operating income ratio and the profit growth ratio as benchmarks of other companies.

Delivering the Leading-Edge Manufacturing that Continues to Evolve Using Data

Toward the Realization of Innovation in Manufacturing and Business Model

In July 2018, Yaskawa opened a new plant, "YASKAWA Solution Factory". This plant will demonstrate cutting-edge production technology based on the i^3-Mechatronics solution concept announced in October 2017.

Business model transformation

The background to the establishment of this plant is the shift in Yaskawa's business model from the current "component sales" to the "sales of integrated solutions." In other words, it is a business model that not only sells products such as AC servos, AC drives, and robots, but also visualizes various data obtained through these machines, and proposes new manufacturing solutions that solve customers' management problems, such as improving production efficiency and quality using IoT and AI, as well as predicting failures.

For this reason, with YASKAWA Solution Factory, we have established a system to understand the actual site where our product is actually used, to verify the solution to the problem, and to reflect the problem obtained through the demonstration to the product development through the production of AC servo "Σ-7" series using Yaskawa's robot, AC servo and AC drives.

Responding to rapid demand fluctuations

In recent years, Yaskawa's AC Servo production has doubled over the past five to six years due to the rapid increase in capital investment for production automation on a global basis.

In addition, as globalization has increased, customers have diversified and large-scale orders with shorter delivery times have increased than in the past. As a result, it has become difficult to meet customer needs using the same production methods as in the past, and it has become necessary to create new production systems.

Yaskawa's production toward realization of Vision 2025

Against this background, and in order to achieve operating income of 100 billion yen as early as possible as stated in our long-term business plan Vision 25, we have set "Meet deadlines and minimize costs to maximize profitability" as a goal of the Our Company Production System Concept and are working to achieve the following 3 goals.

① Strict adherence to market demand for delivery dates
② Labor-saving manufacturing
③ Building a framework for improvement based on data

A new production system based on this concept is first verified at the YASKAWA Solution Factory through the production of AC Servo Drives "Σ-7" series, and once the results are confirmed, then it will be introduced to other factories.

Future developments

Other companies also analyze data collected from the field. However, the strength of Yaskawa's products, which are responsible for the actual operation of products, is the ability to collect data digitally and in an integrated manner. Moreover, problems arising from data analysis can be fed back to production lines in real time and can be improved in a timely manner at production sites by changing the way equipment is operated.

By using the data in this way and using the PDCA cycle quickly, we aim to expand new business opportunities by developing and establishing the Yaskawa Group's manufacturing system with the ever-evolving state-of-the-art production system, and by utilizing this advantage in our business models for proposing to customers.

FOCUS

Increase productivity through technological innovation

At YASKAWA Solution Factory, the three-step demonstration of i³-Mechatronics dramatically improved productivity.

Integrated

Intelligent

Innovative

1 Production automation through integration of components

Advanced automation is achieved by integrating processes through the introduction of integrated controllers that can simultaneously control mechatronics products such as AC servos and robots at production sites. It also significantly reduced cycle time.

2 Data management and utilization at production sites

The YASKAWA Cockpit*1 digitizes labor-intensive work and enables real-time visualization of production conditions, such as production load and material allocation to orders, to achieve overall optimization.

*1: Software tools to collect, visualize, accumulate, and analyze big data generated at production sites.

3 Digital solution to realize intelligent factories

By analyzing big data collected by the YASKAWA Cockpit and feeding it back, the production is further advanced. High-efficiency, consistent production has been realized by automating the inspection of abnormal motor noise through AI analysis, which used to depend on human experience and senses.

Achieved higher productivity

Market demand for delivery date	Production Speed*2	Lead time*2	Production efficiency*2
99.9% Guaranteed	3 Times	1/6	3 Times

*2: Compared to Yaskawa's previous plant

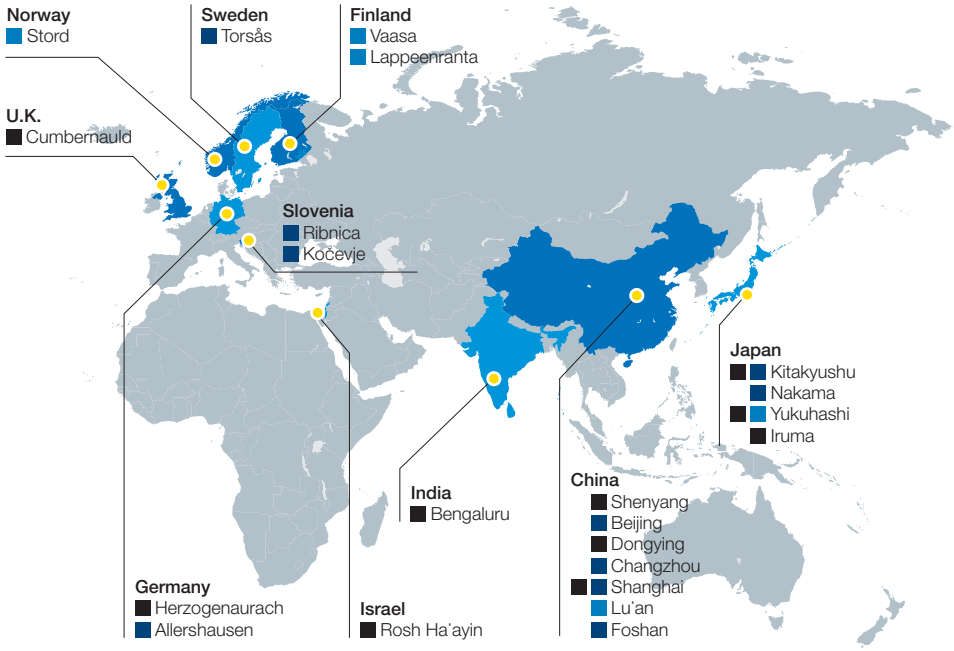
GLOBAL PRODUCTION

Yaskawa group conducts optimum production at 28 locations in 12 countires for its businesses of Motion Control, Robotics and System Engineering with the policies to produce in the areas where the demand is and concentrated production.
We benefit from producing close to our customers in aspects of delivery time and building relations, as well as reduced risks related to forex rates, disasters and geopolitics.
∗ Production locations for robotics include system factories.

Slovenia

Kočevje, Slovenia
YASKAWA Europe Robotics d.o.o.

Responding to customer needs in the European market with high growth potential
In order to meet future robotics demands in Europe, the production base started to operate in 2019 as the third robot production location following Japan and China. Yaskawa creates new supply chain to quickly supply to all EMEA (Europe, Middle East, Africa) areas.



China

Shenyang, China
YASKAWA ELECTRIC (SHENYANG) CO., LTD.

Supplying a robust demand in China as a concentrated production site for AC servo motors and ampliers
Shenyang plant began production in 2010. The facility supplies high quality AC servo motors and amplifiers to Chinese market where manufacturing for the global market is concentrated. By building the third plant in FY2018, Yaskawa has in place the structure to respond to Chinese demands expected to further grow.

Shanhai, China
SHANGHAI YASKAWA DRIVE CO., LTD.

Contributing to the business expansion as Yaskawa's rst plant in China
Shanghai plant was established in 1995 as Yaskawa's first manufacturing plant in China. It started with the production of single-phase motors, and now produces industrial AC drives and PM motors for elevator application. It is supplying the Chinese demand while improving QCD* by cooperating with the mother factory in Japan.

∗: Quality, Cost and Delivery

Changzhou, China
YASKAWA (CHINA) ROBOTICS CO., LTD

Supplying a demand for automation in China where manufacturing for the global market is concentrated
Changzhou plant began production in 2013. It conducts in-house machining of cast products for robots and assembly, and supplies high-quality industrial robots to the Chinese market. The plant implements environment-friendly manufacturing through adoption of water-soluble paints for robots for the first time and reducing VOC* emissions considerably.

∗: VOCs (Volatile Organic Compounds) are organic solvents that are also a major source of photochemical smog. VOC emissions from industries that handle large volumes of paint are regarded as a significant issue.

NETWORK

Japan

Kitakyushu, Japan
Yaskawa Electric Corp.
Headquarters (Robot Village)

Supplying globally as the mother factory for Robotics business

Current headquarters in Kitakyushu is where Yaskawa Electric Manufacturing Co., the predecessor of Yaskawa Electric Corp. was established in 1915. In the startup period, it produced motors for use in coal mining. Now the headquarter building and robot factories are located, and together with YASKAWA Innovation Center, the Robot Village welocme many visitors every day.

Nakama, Japan
Yaskawa Electric Corp. Nakama plant

Built on the concept of being "environmentally and human-friendly, fast, and efcient" site, producing mid to large sized robots.

Nakama plant conducts in-house parts processing and assembly for mid to large sized robots. With the third plant completed in August 2015, this facility has not only reduced production lead time by 30%, but also achieved a 70% reduction of VOCs emissions.

Iruma, Japan
Yaskawa Electric Corp. Iruma plant

Supplying a global demand as the mother factory for AC servo motors and ampliers

The plant was established as Tokyo plant in 1964. Now the plant supplies globally as the concentrated production site for AC servo motors and amplifiers. The new “YASKAWA Solution Factory” was completed in FY2018, and drastic improvement in productivity was achieved by the demonstration of cutting-edge production technologies such as IoT and AI utilization.

Yukuhashi, Japan
Yaskawa Electric Corp. Yukuhashi plant

Contributing to the global energy saving with two mother factories for Drives busienss and System Engineering business

Two mother factories for the Drives business and System Engineering business are located in Yukuhashi plant. The plant produces AC drives and medium voltage drives, and the headquarters for photovoltaic and wind generation-related businesses are located, contributing to the global energy saving.

MESSAGE FROM THE CTO

Expanding the fields Yaskawa can contribute to in solving social issues to realize Vision 2025.

Executive Officer
General Manager, Corporate Technology Div.
General Manager, EV Powertrain System Dept., Corporate Technology Div.

Akira Kumagae

Opening of YASKAWA Technology Center (tentative name) for further improvement of development speed and the ability to respond to diversity

History and technological turning points of Yaskawa Electric

In the period of our startup, in which coal mine equipment shifted from steam engine to electricity, our business started with providing motors for mining and carrying coal. After 1950s, energy shifted from coal to oil and the industry structure drastically changed to a heavy industry while the target of our motor technology was changed from coal mine to iron and steel. The turning point of carving out a path to next era was development of motors and control devices to realize high reliability of running 24 hours a day, 365 days a year required by control of steel plants.
Next turning point was the coming of the era of mass production and consumption of automobile and home electrical appliance, etc. along with Japanese economic growth from late 1970s. It required mass production of the same quality by machine tools and production equipment using highly reliable motor drives instead of manpower. Within this background, the concept "Mechatronics (mechanism + electronics)" came out of the idea "fusion of clients' machines and our motors and control devices provides more advanced functions" and the word we created is now commonly used in the industry.
Then, Yaskawa declared the shift to mechatronics field and first domestic all-electric industrial robot MOTOMAN was born. It allowed for mass production of automobile with the same quality level. When the era of digitalization such as PC and smartphone began before long and it required a large amount of electronic parts, faster and more accurate motors than the ones used in iron manufacturing and machine tools were needed and AC servo motors became an essential technology for manufacturing.
Yaskawa Electric's technologies and products led each era and we made right choices at the historical turning points such as the shift to mechatronics. I think these

are the reason why Yaskawa has been existing over 100 years.

The link between technology development and business strategy

We consider future technologies based on the vision of our management team on how the world will be changed. Yaskawa creates a vision that automation will make a progress not only in the traditional manufacturing industry but also in the fields such as agriculture, logistics, medical and welfare with the assumption that it will be required to sustain the quality of life while addressing lack of labor due to low birthrate and aging population and a variety of influences by climate change. Under this vision, Yaskawa group shares the concept of expanding the fields it can contribute to and the status of production, sales, and technology, of which I am in charge, are in the middle of innovation. Although AC servo, AC drives, and robots have been developed individually for the best performance in the world, to expand the fields we can contribute to, we need to actively make use of open innovation and cooperation with venture companies after clarifying what technologies are missed by aggregating the technologies. Also, it will be important for us to communicate our technologies to public and find the opportunity where others can make use of our technologies.

Direction of future technology development

While we will develop a base technology leading to reduced size and enhanced performance of AC servo and AC drives, and quality improvement of welding and painting of robots, we will also focus on development for realizing new things with combination of our technologies. For example, it is a technology which realizes productivity improvement in manufacturing through controlling a cell consisting of robots and machines in integrated ways and analyzing the data obtained from motors. This technology is already being developed based on the i³-Mechatronics concept for early realization. However, we need the greater speed and the ability to respond to diversity in order to provide solutions along with various business issues of our clients. Our products have been chosen because of high reliability and precision but factors such as usability and flexibility will be more important. In this industry with tough competition among engineers all over the world, the speed of development is becoming increasingly important. The above is the background of opening YASKAWA Technology Center (tentative name). We will enhance the speed through aggregating our production technologies and quality assurance functions so that we can consider how to manufacture while we develop products at the same time.

Concept of technologies that will become a black box and those that will become open in the expansion of open innovation

Our technologies on production, design and control of motors, motor drive technology, controller technology and robot control technology, which are our core competence, are the fields we will continuously improve and make as black boxes. On the other hand, these applied technology need cooperation with external partners. For example, we should consider how to harvest with farmers when expanding to agriculture. I think that having many strong connections with external partners will expand the possibility of our technology for use in applications such as driving a motor based on the information from censors and satellites.

For realization of Vision 2025

While we improve individual engineer's repertoire of skills and their vision with making more connections with external parties globally, we work on utilization of ICT and double productivity and output of technology development. This way, Yaskawa will expand the fields we can contribute to in solving social issues even outside the industry and realize our sustainable growth.

INTELLECTUAL CAPITAL

Positioning of Intellectual Capital in Management

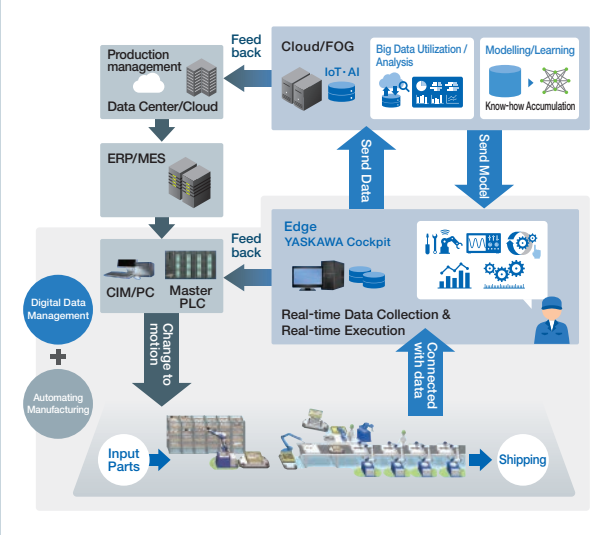
The management principle of the Yaskawa Group is to continuously develop and improve world-class technologies, inheriting the founding spirit as a "company founded on technology." By developing technologies that support the sustainable development of our businesses on a global basis and creating new value for society through these technologies, we aim to continuously improve our corporate value.

FY2018 R&D Results

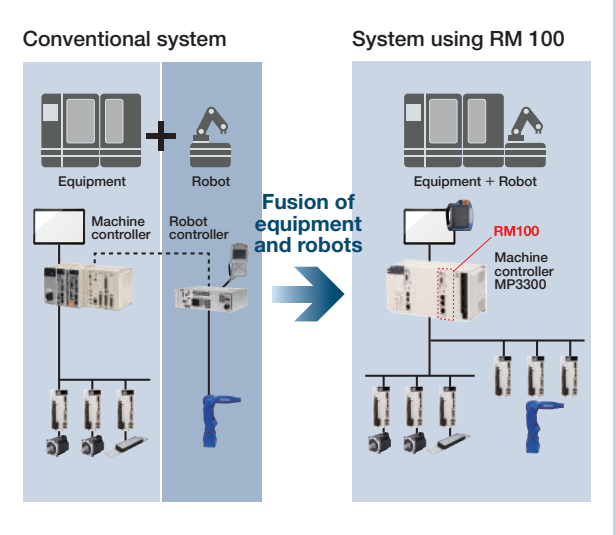
In FY2018, we continued to develop technologies to support the solution concept of i³-Mechatronics for the realization of revolutionary industrial automation.
Yaskawa commercialized "YASKAWA Cockpit" a software tool that collects, visualizes, accumulates, and analyzes big data generated at various manufacturing sites through its globally competitive AC servo, AC drives and robot products. We support the evolution of our customers' manufacturing with solutions that utilize data, such as monitoring and diagnosis of production site conditions, failure prediction, equipment abnormality diagnosis, and quality defect detection. At the YASKAWA Solution Factory, which began full-scale operation at the Iruma Plant in December 2018, data detected from servo motors and other sources are linked with YASKAWA Cockpit to in order to prevent equipment damage and improve product quality.

Combining the world's top class servo drive and robot control technology, we have also developed the robot module "RM 100" which enables industrial robots to be controlled by machine controllers. RM 100 attached to the machine controller enables industrial machines (equipment) and articulated robots to operate in collaboration with high precision.
In addition, the data detection function of the servo drive has been improved to enable more detailed monitoring of a wide variety and a large amount of data than before. Sensing technology that uses the internal information of the AC drives has been used to improve the visibility of machines and equipment, as well as the ability to predict and detect failures.
We will contribute to our customers' high-value-added production lines by developing these technologies and products.

Factory where i³-Mechatronics is realized



Advanced cooperation between equipment and robots by robot module RM 100



Corporate Venture Capital Activities

Yaskawa Innovation Program (YIP)

In order to realize its Vision 2025, the Yaskawa Group launched a new business creation scheme called the Yaskawa Innovation Program (YIP) in FY2016. As part of the Yaskawa Group's CVC* functions, YIP solicits new business plans from around the world, and is promoting the creation of new businesses that will serve as pillars of future business through such steps as venture investment and the establishment of subsidiaries.

* CVC: Corporate Venture Capital. It refers to venture investment activities conducted by companies.

Venture investment

Portfolio					Exited
Factory automation / Optimization	Mechatronics applications				Mechatronics applications
	Energy Saving	Food & Agri	Clean Power	Humatronics	Clean Power
AI, machine learning	Power devices		Storage system	Exoskeletal walking assist system	Luxury EV sports car
IoT devices			Sodium ion battery		Internal venture
Wireless multistage relay communication network			High power battery system		Factory automation / optimization
Large 3D printers			Small EV		AI for factory automation
Abnormal noise detection					

YIP results

Since the start in FY2016, we have invested in 10 venture companies that have synergies with the Yaskawa Group's businesses, and established one subsidiary (AI³) from this collaboration, resulting in a business with sales of several hundred million yen. In addition, we have been selected as one of the CVC Cooperation Activities "alpha TRACKERS" jointly operated by the leading Japanese VC* Global Brain and Forbes Japan, and have begun sharing know-how and exchanging information with other leading Japanese CVC operating companies.

* VC: Stands for Venture Capital, an investment fund that specializes in venture investing.

Future policy

Under the current mid-term business plan Challenge 25, in addition to investment, we will expand our focus on business verification and business development by our internal startup team, and accelerate the creation of new businesses under the name YIP 2.0.

Members of the YIP Secretariat

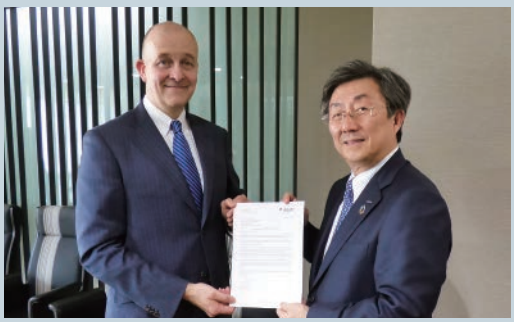
Results of Intellectual Property Activities

Yaskawa received Clarivate Analytics "Derwent Top 100 Global Innovators Award"

Yaskawa has been awarded this award for 4 consecutive years for the "Derwent Top 100 Global Innovators 2018 -19" announced in January 2019, which identifies the world's most innovative companies and organizations by analyzing intellectual property and patent trends based on patent data held by Clarivate Analytics, Inc. (Headquarters: Philadelphia, USA).

Based on the 4 evaluation axes "number of patents", "success rate", "Globality", and "Influence of patents in citations", this award is given to companies and organizations that lead businesses around the world by protecting original invention ideas with intellectual property rights and successfully commercializing them.

Yaskawa carries on the founding spirit of "being a company founded on technology" with a focus on research and development that is truly world-class. It is a great honor to receive this award for the fourth consecutive year, and it encourages our future activities. Going forward, we will continue to develop intellectual property activities in cooperation with our business divisions and R & D divisions, with the aim of obtaining high-quality patents that contribute to our business on a global scale.



President Ogasawara receives the award from Timothy Neely (left), President of Clarivate Analytics

HUMAN CAPITAL

Positioning of Human Capital in Management

Based on its management principle, the Yaskawa Group aims to improve productivity and achieve sustainable development by securing, developing, and optimally allocating human resources who can contribute to the development of society and the welfare of humankind through the execution of business.

Human Resources Philosophy

The Yaskawa Group has established its Human Resources Philosophy, which describes the basic concept for the Yaskawa Group's human resources and personnel systems.

Expectations for human resources

Since its founding, Yaskawa Electric has continued to anticipate the needs of the times and take on new challenges. We are looking for people who are professional and keep challenging new things while cooperating with others without fear of failure.

Human resource development

We will provide opportunities for employees to take on challenges and grow so that each employee can realize his or her own goals. Through self-development, OJL and OFF-JL, we develop human resources who can contribute to global business expansion beyond cultural, customary and linguistic barriers.

Creation of work environments

We will do our utmost to create a work environment in which employees can spend their daily work in good physical and mental health. We will eliminate all forms of discrimination in the workplace environment and work to prevent harassment. In addition, in order to promote work-life balance, we are implementing initiatives and building various systems to realize a variety of working styles.

Evaluation and Compensation

Through regular communications, we clarify the roles that each employee is expected to play. We will enhance transparency by creating a system in which people who work hard and achieve results are evaluated and disclosing information on evaluation standards. The results achieved are evaluated in a fair manner through consultation and fair compensation and promotion.

KPIs for Mid-Term Business Plan Targets and Roadmap toward Achievement

Challenge 25 Targets	KPI (FY2021)	FY2018 Results
Reform personnel system with emphasis on employee job satisfaction	Percentage of employees who feel rewarding to work* 80% or more	Percentage of employees who feel rewarding to work* 78% (As of December 2018)
Empower highly diverse human resources	① Female percentage of those applying for employment Compared to the FY2018 level Secure at least 125%	① Female percentage of those applying for employment 20% (Those who graduated in 2019 / hired in 2018)
	② Percentage of female employees who are willing to become managers* 23% or more	② Percentage of female employees who are willing to become managers* 19% (As of July 2018)
	③ Penetration among employees about promotion of human resource diversity* 70% or more	③ Penetration among employees about promotion of human resource diversity* 53% (As of December 2018)

* Rate of affirmative answers on employee questionnaire

Approach to "Reform personnel system with emphasis on employee job satisfaction"

In order to achieve Vision 2025, we have identified the people we are looking for as (1) human resources capable of thinking on their own and taking on new challenges and activities, (2) people who can compete and win globally, and (3) human resources that respect diversity, and pull, bind and support organizations and human resources, and are taking the following measures.

- Review of the personnel and evaluation systems for managers in order to evaluate the performance of their work in a fair and digital manner and to provide them with a balanced compensation system that emphasizes the results.
- Introduction of a work area restriction system and a teleworking system to allow employees to work in a variety of ways and to fairly evaluate and treat their work in a way that suits each individual.
- Providing opportunities for motivated employees and encourage their voluntary growth based on the principle of competition, unifying qualifications for career-track, and revising systems for career paths and promotion.
- Measure employee satisfaction using employee questionnaire and review personnel system based on impact factors

As mentioned above, we will work to strengthen our organizational and human resources capabilities in light of the organization and human resources required to achieve Vision 2025 and the changes in external environment.

Approach to "Empower highly diverse human resources"

In order to achieve Vision 2025, we have been promoting diversity since the second half of 2014 and have been working on creating a corporate culture that utilizes the strengths of diverse human resources.
As part of these efforts, we have set targets for the allocation, hiring, and promotion to managerial positions over the past three years based on the Act on the Promotion of Women's Participation and Advancement. However, we were unable to achieve the targets for the recruitment and promotion to managerial positions. Accordingly, we have decided to review our recruitment strategy and enhance support for the career development of female employees in order to realize the Second Action Plan.

Approach to achieving the Second Action Plan

- To strengthen recruitment, we will focus on women in the technical field and take part in school visits and events to appeal to comfortable working environment and job satisfaction for women to increase the number of female job applications. We also conduct career education for middle and high school students from a medium- to long-term perspective.

An experience-based event "Girl's Day" was held for female junior high school students to introduce the work environment of science and the manufacturing.

Robot operation training at "Girl's Day".

- With regard to promotion to managerial positions, we first place importance on the formation of a population, and in an effort to increase the number of people who are willing to become managers, we provide career support by sending employees to seminars and training courses to help them develop awareness and acquire skills.
- In order to promote diversity (foreigners, persons with disabilities, caretakers, etc.) not only among women, we will plan various events, carry out internal publicity, and raise awareness, while giving due consideration to workplace issues, in order to promote initiatives that contribute to securing diverse human resources.

Intranet-based internal communication activities.

SOCIAL AND RELATIONSHIP CAPITAL

Positioning of Social and Relationship Capital in Management

Yaskawa is committed to building good relationships and creating value through dialogue and collaboration with its stakeholders. This commitment reflects its founder's will to develop human resources and contribute to society at large. Under the banner of "supporting development of next-generation engineers through use of facilities such as Yaskawa Innovation Center and robotics centers" and "contributing to local communities on a global basis" of the Vision 2025, the Group engages in symbiotic activities in local communities where it operates as well as in the training of engineers using its products and facilities.
We will also fulfill our responsibilities as a supplier to our customers and business partners who support the Yaskawa Group's business activities, from the perspective of ensuring product safety and quality, and building a sustainable supply chain. We will also work to maintain and improve relationships of trust with them so that our stakeholders and we continue to grow together.

KPIs for Mid-Term Business Plan Targets and Roadmap toward Achievement

Challenge 25 Targets	KPI (FY2021)	FY2018 Results
Coexistence with glocal communities	Continued implementation of symbiosis activities at each local site	Continued implementation of symbiosis activities at each local site (Some examples are shown on the right page.)
Support development of next-generation engineers by utilizing YASKAWA Innovation Center	Number of visitors **30,000** or more per year Number of student visitors **10,000** or more per year	Number of visitors **34,329** per year Number of student visitors **10,385** per year
Guaranteeing product safety and quality	Visualization of real-time global quality information	Grasp of current status of global infrastructure completed
Build a sustainable supply chain	Obtain agreement on procurement policies from 100% of major suppliers	Held semiannual briefings on procurement policies at the head office and each division

Approach to "Coexistence with glocal communities"

Centered on its headquarters in Kitakyushu, Yaskawa supports human resource development and regional revitalization through academic research and educational activities, as well as the promotion of sports in regions where Yaskawa has plants and business bases. We will also actively participate in local events, receive global visitors, and provide venue for communication among industry, academia, and government.

Participation in the Kurosaki Yosakoi Festival

Sponsorship of "Vocational Training Programs for Women's Economic Independence" in India

Approach to "Support development of next-generation engineers"

Using the robot village (YASKAWA Innovation Center, YASKAWA History Museum, Robot Plant and Greenbelt), factories, and robotics centers, visitors can experience technologies and products centered on the "motors and their applications" that Yaskawa has cultivated over more than 100 years. The purpose of this program is to stimulate interest in science and technology, which are constantly evolving, and to contribute to the development of human resources who will be in charge of next-generation manufacturing.

Acceptance of students from Super Science High School

Approach to "Guaranteeing product safety and quality"

As part of the digital management that Yaskawa Group is aiming for, in order to ensure quality on a global scale, we will construct a "Quality Dashboard" that centralizes quality information from development to the market and makes global quality information visible in real time. We aim to further improve customer satisfaction by quickly ensuring quality. To achieve this goal, we will first accelerate our efforts to unify the global quality information code and promote infrastructure development.

Approach to "Build a sustainable supply chain"

We will continue to ask our business partners to agree to and implement the "Yaskawa Group Procurement Policy", and we will also check and follow up on their compliance with the procurement policy. We also educate employees engaged in procurement activities on compliance and other important CSR issues so that they can provide guidance and support to suppliers.

NATURAL CAPITAL

Positioning of Natural Capital in Management

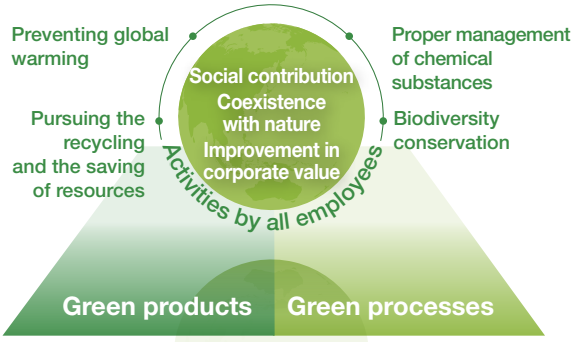
Based on the Management Principles of the Yaskawa Group, we recognize that the conservation of the global environment is one of the most important issues for all humankind. In every stage of our business operation, we contribute to the realization of a sustainable society through our proactive environmentally conscious actions.

Yaskawa Group's Vision and Long-term Plans for the Environment

Yaskawa makes contributions to the environment by reducing the burdens that result from its manufacturing activities (green process) at a greater rate, and by reducing the burden on the ecosystem with its products (green products) leveraging its technology to enhance the environmental performance.

As climate change poses a number of problems on a global scale, we are striving to enhance corporate value by pursuing sustainability through multifaceted environmental activities, with a focus on reducing CO_2 emissions through products that utilize one of our company's core competences of power conversion.

YASKAWA ECO VISION



FY2025 Target

∗1: Cumulative total after FY2016
∗2: Compared to FY2015, per unit of sales

Green products

- Reduction of environmental loads through products CO_2 emission control by 120 million tons∗1
- Installation of the in-house environmental products and displaying them
- Improvement in recyclability of product components
- Application of green procurement to all products

Green processes

- Reduction of CO_2 emission by 10%∗2 Reduction by 15% by 2030
- Amount of waste emissions below FY2018 level
- Appropriate management of use and waste of water
- Thorough management of hazardous substances in production activities

KPIs for Mid-Term Business Plan Targets and Roadmap toward Achievement

Contributing to the Environment through Green Products and Green Processes (CCE 100*)

Challenge 25 Targets	KPI (FY2021)	FY2018 Results
Green products Improve energy consumption by spreading the use of Yaskawa products	Contribution to reducing CO_2 emissions through products Over **40** million tons of CO_2 (Cumulative since FY2016)	Contribution to reducing CO_2 emissions through products Over **11.71** million tons of CO_2 (Cumulative since 2016)
Green processes Reduce effects on the environment throughout Yaskawa	Amount of CO_2 emissions improvement per unit of sales **6** % or more (Compared with FY2015)	Amount of CO_2 emissions improvement per unit of sales **9** % (Compared with FY2015)
	Introduction of photovoltaic power generation More than **2.5** MW cumulative	Introduction of photovoltaic power generation **1.73** MW cumulative

∗ Contribution to Cool Earth 100: Contributing to the environment by reducing Yaskawa's CO_2 emissions as well as by reducing more than 100 times that through its products

Approach to achieving green products KPIs

In addition to further reducing power consumption by expanding the range of applications for energy-saving equipment, we will improve global energy consumption through the widespread use of Our Company products by expanding environmental contributions in the clean power market through the energy creation, storage and utilization business.
As part of these efforts, the real-time signage of CO_2 reduction by products is made available to the public on Our Company's official website.

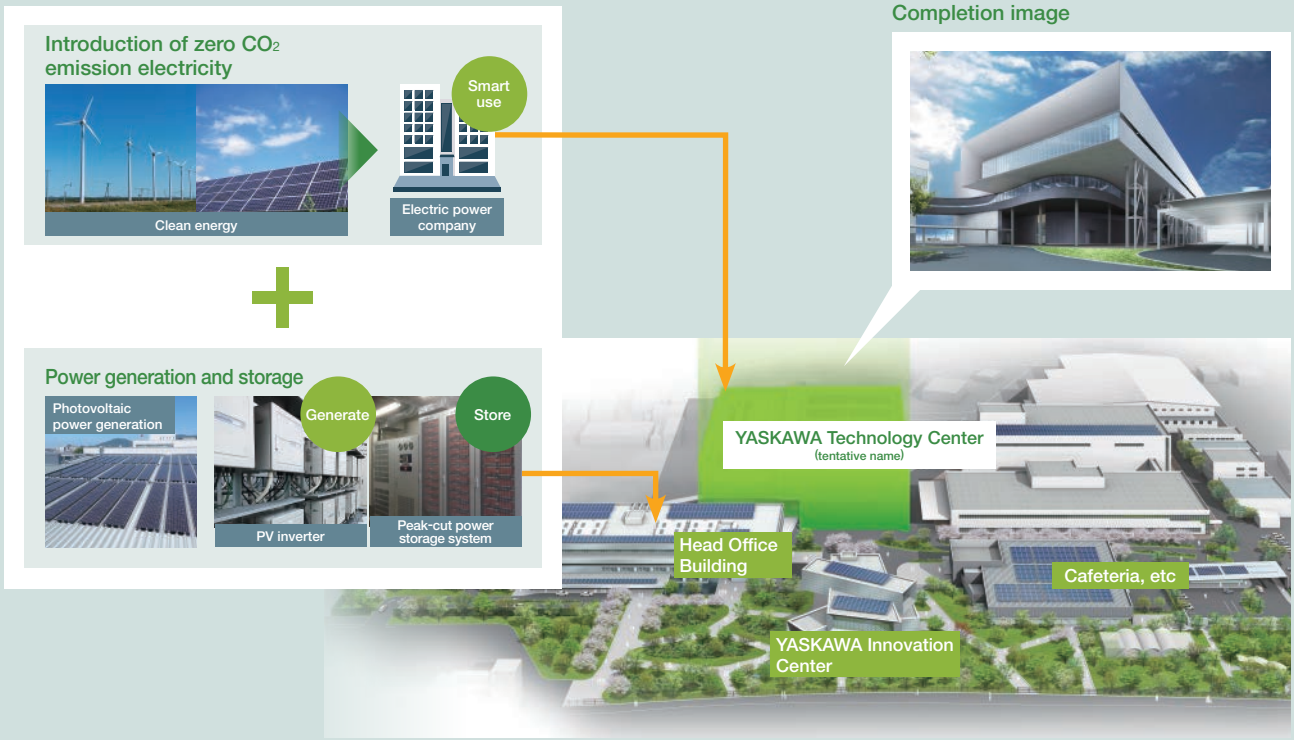
URL:
https://www.yaskawa-global.com/company/csr/env

The real-time signage of CO_2 reduction by products on official website

Approach to achieving green process KPIs

As part of our group-wide efforts to reduce environmental impact, in order to achieve high results in reducing CO_2 emissions, we are promoting the group-wide use of LED lighting, renewing old-fashioned air conditioning, and installing solar power generation for energy conservation and energy creation at business sites.
The Head Office, including the YASKAWA Technology Center (tentative name), which is scheduled to open in 2020, is promoting initiatives to make no CO_2 emissions by 2021 (Headquarters Clean Power 100 Project), and is taking on the challenge of attaining high targets as an environmentally advanced company.

Headquarters Clean Power 100 Project



1 The development of the Yaskawa Group will lead to the achievement of SDGs

Tsuda As a social issue to be tackled by the international community, the "Sustainable Development Goals (SDGs)" was adopted at the UN General Assembly in September 2015, and the Paris Agreement adopted at COP21 in December of the same year made the trend toward decarbonization a global trend. In order for companies to continue to exist and develop in the future, it is essential to contribute to solving social issues through business. How should Yaskawa Group view this global trend? What opportunities do you see?

Akita Companies exist primarily to contribute to the development of humankind and improve living standards by constantly innovating and adding value. The adoption of the SDGs by the UN General Assembly is a good thing, it should be welcomed, and I personally am very pleased. If all the companies in the world work together, the world will surely be better. Yaskawa is a company that impatiently puts into practice what is stated in its management principle. It is implementing SDGs even before they were adopted. In other words, the better Yaskawa's performance is, the more it implements SDGs. This is because its products contribute to the promotion of energy conservation, the expansion of the use of renewable energy, the elimination of labor shortages and 3D labor, and the improvement of productivity and quality that contribute to the reform of working styles. I would like Yaskawa to contribute to the development of humankind by developing the most advanced technologies with confidence and further increasing sales.

Tsuda Mr. Sakane is a former employee of Nippon Steel Corporation. The Japanese steel industry has a long-term strategy to achieve 0 CO_2 emissions by 2100. In addition to the steel industry, it is expected that the pace of innovation toward decarbonization will accelerate. How should Yaskawa Group contribute to this trend?

Sakane The steel industry uses about 500 kg of coal to produce 1 ton of iron. It is the largest industry that generates 40% of CO_2 in all industries. The Japan Iron and Steel Federation (JISF) is working on COURSE50, a new steel making process using hydrogen, with the aim of decarbonizing. This is in response to Prime Minister Abe's

proposal "Cool Earth 50" in 2007 to reduce CO_2 emissions by 50% by 2050. On the other hand, coal used in steel is converted into tar, a raw material for chemical products, and combustible gases such as methane and CO, which are used as energy for society. Therefore, in order to realize decarbonization of steel, it is essential to improve energy efficiency in various industries and society as a whole. Yaskawa's proposal for energy-saving equipment and systems is needed.

2 Robots save people

Tsuda On the other hand, there is a deep-rooted negative view in Europe and the United States that new technologies deprive people of their jobs, although this is not a popular topic in Japan. There's been a movement to levy special taxes on robots that take away human jobs to cover the cost of retraining humans, and a bill to levy taxes on robots was submitted to the European Parliament, but was rejected two years ago.
One of the reasons Yaskawa developed robots was to improve the 3D workplace in the company. In this sense, only about 3 million industrial robots are used in the world, which is still less than 1% of our goal of freeing people from a 3D workplace. As the international Federation of Robotics, which I chair, it is conducting awareness-raising activities on robots as a tool to improve jobs which you don't want your children to do.
Mr. Akita, how do you think our Group should respond?

Akita Think about the Industrial Revolution. Innovation has increased efficiency and improved people's living standards. As lifestyles changed, so did the way people worked. It is the wisdom of humankind to change the way people work. In this context, we should not consider "A robot taking a job." but "How do we use robots?" This will create new business opportunities and change the roles of people. History tells us that those who built new business models have contributed to the development of humankind. Yaskawa is in a position to promote the effective use of robots, to create rewarding workplaces, and to set an example for this initiative. If you can't do that, you have to realize that you are not qualified to sell robots.

Tsuda Mr. Sakane and Ms. Sasaki, what do you think about "Symbiosis between humans and robots" which contributes to the welfare well-being of humankind?

Sakane I have read a book based on interviews with various workers in America. What comments from the workers suggest is that people's desire is to help others,

and not to do just simple tasks, but to leave something meaningful. Unfortunately, occupational accidents have not disappeared. The utilization of robots is of course important in terms of personnel shortages and improving work efficiency, but from the perspective of human dignity, it is also important to be able to shift people to higher value-added work by substituting dangerous and simple work with robots.
Sasaki I believe that it is unfounded concerns that robots deprive people of their jobs and that robots increase inequality. Of course, there are a lot of jobs that can and should be replaced with robots, and jobs that are more productive this way. And then I think we should shift to more value-added jobs that only human could do.
As for the field of utilization of robots, "Mahoro*" is a good example. I expect Yaskawa, a leading company that is engaged in advanced initiatives in the medical and welfare fields as well as the environmental field, to propose and promote such initiatives. There will be a wide range of fields in which robots can be used in the manufacturing industry to enable people to concentrate on higher-value-added jobs. I look forward to Yaskawa's continued leadership in this area.

* Robots that automate tedious tasks related to experiments, which are essential for biotechnological development and research

3 Thoughts for realizing Vision 2025

Tsuda In June this year, we revised our long-term business plan, Vision 2025 which we had first formulated in 2015. Our most important management goal is to achieve operating income of 100 billion yen, which is based on our desire to firmly recognize the value we provide to our customers and to continue to evolve.
Our business strategy is to contribute to the sustainable development of society through factory automation/ optimization and the application of mechatronics.
Mr. Akita, what is your view on the direction of this vision?

Akita The first prerequisite for a company to survive and contribute to society is to generate profits. The direction of our vision is impeccable and consistent with our mission.

However, once the vision is clear, the strategy, organization, operations, and KPIs that accompany it must be laid out in a comprehensive manner. The most important thing is to create a system that can quantify and manage the degree of target achievement. We, outside directors, have a responsibility to closely monitor this. In this regard, I would like you to be prepared to implement best practice that will serve as a model for other companies.

Tsuda It is clear that each of the measures in the Vision is in line with the SDGs. What does this mean for Yaskawa? What do we need in the future to prevent this from becoming a pie in the sky?

Sakane Investors value companies from the perspective of SDGs. Assuming that the results are followed every year, it is necessary to actively communicate specific results as part of CSR. In implementing the vision, it is necessary to develop it into a specific business plan and an annual plan, and to establish a system for periodically monitoring progress. I also believe that corporate value can be enhanced not only by internal activities, but also by large-scale activities such as corporate partnerships and industry-academia partnerships, which are conducted with the external parties.
On the other hand, given the breadth of themes, you may need to select and focus in some cases to make your limited resources work effectively.

Tsuda Under the slogan "Empower diverse human resources to challenge into the future" in the Vision 2025, we are working to create a corporate culture that makes the best use of the strengths of diverse human resources. However, the ratio of women in managerial positions in Our Company (0.8%) is low compared to the industry average (3.3%). Ms. Sasaki is Yaskawa's first female member of the Board of Directors. How do you view this?

Sasaki There is a positive correlation between high organizational diversity and high productivity, and various data show that companies with high managerial diversity have higher ROE and growth rates. The meaning of diversity is not limited to gender, but we believe that promoting the active participation of women as the top priority is essential to the promotion of corporate growth strategies. In that sense, the current situation in Yaskawa has a lot of room for growth. To promote diversity, it is essential to clarify its mission and to exercise leadership of the top management. Based on my experience in promoting diversity management at several companies, I would like to strongly support Yaskawa in this regard.

Tsuda About half of Our Company's employees are expected to be over the age of 50 in 2025. As the youngest outside director, Mr. Tsukamoto, what do you think is the ideal form of the organization to enable all employees, regardless of age, to demonstrate their strengths?

Tsukamoto I think it is important to be an organization that encourages challenges and, conversely, allows failures. Young people, in particular, tend to be concerned about their boss's eyes, so they tend to concentrate on doing their work safely and within their assigned limits. However, in order to meet the needs of our customers, we sometimes need to take on bold challenges. I think the organization that accepts it, and the organization that considers doing nothing as a risk is a strong organization. As a prerequisite, we need an open organization and environment where we can thoroughly discuss what is best for customers and our company regardless of position.

4 Building a corporate culture for sustainability

Tsuda Lastly, what are your thoughts on management issues that will enable Yaskawa to continue to demonstrate its unique strengths and realize sustainable value creation? Mr. Tsukamoto, I would also like to ask you about your aspirations for working at Yaskawa.

Akita Yaskawa is a global company with customers, business partners, investors and other stakeholders around the world. In addition, we are conducting business operations in a world situation where not only economic aspects but also security aspects are involved in a complex manner. Even in such an environment, we must not forget that human beings are human beings, and must contribute to the world without undermining our corporate culture that always respects others. Management decisions by

balancing opportunities and risks are tested in order to realize true global management by enhancing the quality of our financial base and advancing our regional and product matrix management. A company like Yaskawa, with honesty, integrity, and world-class technological prowess, is an asset to humankind and must never retreat. All of us, including outside directors and top management, must work together to reaffirm our readiness. At the same time, from the perspective of sustainability, we need to make preparations, such as deciding what to focus on in the worst times of the business environment, such as the great recession.

Sakane Yaskawa is not in a position to be chased by social change; rather, it is in a position to bring about social change and to lead society. We believe that it is necessary to always pursue the advancement of technology and take a step ahead in order to maintain our pioneering spirit. I recognize that the current challenge is how to predict and invent the 5G world.

Sasaki I realized anew that Yaskawa has done businesses related to SDGs for a long time. That is why its social contribution activities, such as labor saving, productivity improvement, and environmental contribution, etc. should be more actively communicated with evidence although employees may take them for granted. As a leading global company in Japan, there is room for improvement in governance, such as interactive development of local human resources and promotion to management level. I also look forward to seeing how the evolution of the management base brought about by digital management will progress.

Tsukamoto As a lawyer, I handle corporate law and corporate governance as one of my main duties. With regard to governance reform, I understand the efforts and

concerns of various listed companies as well as what institutional investors are looking for. In light of the recent trend of governance reform, I will closely monitor the Group whether a governance system is in place that is both appropriate for Yaskawa and acceptable to institutional investors.
Also, I do not have any experience in managing a company, but because of that, from the same perspective as general shareholders, I will not hesitate to point out concerns and insufficient explanations regarding what executives are trying to do and the direction they are heading, and will participate in the discussion so that the company can go in a better direction from both offensive and defensive perspectives.

Tsuda The Yaskawa Group has about 16,000 employees. The SDGs are a very good tool for shaping an organization's value criteria for the future — a corporate culture — in a positive way. We, the top management, need to encourage each and every employee to be aware of their role as good members of a society. Based on this, we aim to become an organization that can further contribute to the sustainable development of society through mutual influence with the businesses.
Yaskawa has set forth a direction in which it will pursue its business activities from the perspective of solving customers' management issues and creating customer value. At this point, the i³-Mechatronics approach will enable us to implement data-based management and optimize each cell in the production line for factory management, not only for customers but also within Yaskawa. We will continue to pursue our ambitious dream of realizing flexible manufacturing and eliminating the 3D workplace, which was conceived in "unmanned factory" in 1970.

Directors

(As of May 28, 2019)

Junji Tsuda (March 15, 1951)

Representative Director, Chairman of the Board
Number of shares of the Company held: 437 hundred

March 1976	Joined the Company
June 2005	Director, General Manager, Drives Div., Motion Control Div.
June 2009	Managing Director, General Manager, Robotics Div.
March 2010	President (Representative Director)
March 2013	Representative Director, Chairman of the Board, President
March 2016	Representative Director, Chairman of the Board (incumbent)

[Significant concurrent position]
Outside Director, TOTO LTD.

Hiroshi Ogasawara (September 19, 1955)

Representative Director, President
Number of shares of the Company held: 264 hundred

March 1979	Joined the Company
June 2006	Director
March 2007	Director, General Manager, Drives Div.
March 2011	Director, General Manager, Motion Control Div.
June 2013	Director, Corporate Senior Vice President
March 2014	Director, Corporate Senior Vice President, General Manager, Technology & Development Div.
March 2015	Representative Director, Corporate Executive Vice President, General Manager, Technology & Development Div.
March 2016	Representative Director, President, General Manager, Technology & Development Div.
March 2017	Representative Director, President, In charge of Human Resources Development, Manager, Diversity Management Div.
March 2018	Representative Director, President, In charge of Human Resources Development, Manager, ICT Strategy Div. (incumbent)

Shuji Murakami (April 21, 1959)

Representative Director, Corporate Executive Vice President
Number of shares of the Company held: 346 hundred

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

Yoshikatsu Minami (October 31, 1959)

Director, Corporate Senior Vice President
Number of shares of the Company held: 222 hundred

December 1983	Joined the Company
June 2008	Director
June 2012	Corporate Vice President, General Manager, Robotics Div.
June 2015	Director, Corporate Senior Vice President
March 2017	Director, Corporate Senior Vice President, In charge of ICT strategy, General Manager, Production Management & Operations Div., General Manager, Export Administration Div.
March 2018	Director, Corporate Senior Vice President,General Manager, Production Management & Operations Div., General Manager, Export Administration Div. (incumbent)

Koichi Takamiya (July 12, 1960)

Director, Corporate Senior Vice President
Number of shares of the Company held: 161 hundred

March 1983	Joined the Company
June 2010	Director
March 2011	Director, Chairman, YASKAWA EUROPE GmbH (incumbent)
June 2012	Corporate Vice President
March 2015	Corporate Vice President, General Manager, Corporate Marketing Div.
June 2016	Director, Corporate Senior Vice President
March 2017	Director, Corporate Senior Vice President, General Manager, Corporate Marketing Div., General Manager, Tokyo Office
March 2018	Director, Corporate Senior Vice President, General Manager, Sales Div. (incumbent)
September 2018	Director, Chairman, YASKAWA ELECTRIC KOREA CORPORATION (incumbent)

[Significant concurrent positions]
Chairman, Yaskawa Electric Taiwan Corporation
Chairman, YASKAWA TSUSHO (SHANGHAI) CO., LTD.

Masahiro Ogawa (August 25, 1964)

Director, Corporate Vice President
Number of shares of the Company held: 61 hundred

March 1987	Joined the Company
December 2010	Chairman, YASKAWA AMERICA, Inc.
June 2012	Corporate Vice President
March 2016	Corporate Vice President, General Manager, Robotics Div.
April 2018	President & CEO, Robotic Biology Institute Inc. (incumbent)
March 2019	Corporate Vice President, General Manager, Robotics Div., General Manager, Control Technology Div., Robotics Div.
May 2019	Director, Corporate Vice President, General Manager, Robotics Div., General Manager, Control Technology Div., Robotics Div. (incumbent)

[Significant concurrent positions]
Chairman, YASKAWA SHOUGANG ROBOT CO., LTD.
President & CEO, Robotic Biology Institute Inc.

Note: The date of birth of each director is in brackets next to his/her name.

Yuji Nakayama (May 17, 1960)

Director, Member of the Audit and Supervisory Committee (full-time)
Number of shares of the Company held: 209 hundred

March 1983	Joined the Company
June 2010	Director, General Manager, Accounting Div.
June 2012	Corporate Vice President
June 2013	Director, Corporate Vice President
March 2017	Director, Corporate Vice President, General Manager, Human Resources & General Affairs Div.
March 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 (September 22, 1960)

Director, Member of the Audit and Supervisory Committee (full-time)
Number of shares of the Company held: 72 hundred

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

Independent

Yoshiki Akita (February 12, 1952)

Outside Director, Member of the Audit and Supervisory Committee
Number of shares of the Company held: 117 hundred

September 1984	Registered as a Certified Public Accountant
March 2006	Outside Director, Bell-Park Co., Ltd. (incumbent)
September 2007	Representative Director and Chairman and Executive Director, Layers Consulting Co., Ltd. (incumbent)
June 2012	Outside Director of the Company
June 2015	Outside Director, Member of the Audit and Supervisory Committee (incumbent)

[Significant concurrent positions]
Representative Director and Chairman and Executive Director, Layers Consulting Co., Ltd
Outside Director, Bell-Park Co., Ltd.

Independent

Junichi Sakane (August 29, 1955)

Outside Director, Member of the Audit and Supervisory Committee
Number of shares of the Company held: 0

April 1980	Joined Nippon Steel Corporation (currently NIPPON STEEL CORPORATION)
February 2004	Joined KROSAKI HARIMA CORPORATION, General Manager, Kimitsu Branch
June 2008	Corporate Officer, General Manager, Kimitsu Branch, KROSAKI HARIMA CORPORATION
June 2015	Director, Managing Corporate Officer, KROSAKI HARIMA CORPORATION
June 2017	Outside Director, Member of the Audit and Supervisory Committee of the Company (incumbent)
June 2018	Director, Managing Corporate Officer, In charge of Ceramics Business Division, In charge of Research & Development Division, General Manager, Technology Management Division, In charge of Safety, Health, Environment & Disaster Preparedness, KROSAKI HARIMA CORPORATION
April 2019	Director, KROSAKI HARIMA CORPORATION (incumbent) President and Representative Director, Shin-Nippon Thermal Ceramics Corporation (incumbent)

[Significant concurrent position]
President and Representative Director,
Shin-Nippon Thermal Ceramics Corporation

Independent

Junko Sasaki (January 12, 1960)

Outside Director, Member of the Audit and Supervisory Committee
Number of shares of the Company held: 1 hundred

April 1983	Joined IBM Japan Ltd
January 2007	Executive Officer, APAC & Japan Technical Sales Support, IBM Japan Ltd
January 2011	Joined Microsoft Japan Co., Ltd. Executive, General Manager, Customer Service & Support
December 2016	Joined Sartorius Japan K.K. President & CEO
May 2018	Outside Director, Member of the Audit and Supervisory Committee of the Company (incumbent)

Independent

Hideo Tsukamoto (July 25, 1980)

Outside Director, Member of the Audit and Supervisory Committee
Number of shares of the Company held: 0

April 2003	Entered the Legal Training and Research Institute, Supreme Court of Japan
October 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)
November 2010	Worked at Civil Affairs Bureau, the Ministry of Justice (in charge of planning and formulation of Revised Companies Act)
January 2013	Partner, Anderson Mori & Tomotsune LPC (incumbent)
April 2014	Part-time lecturer, Faculty of Law, The University of Tokyo
January 2016	Expert Member, Case Study Committee, The Japan Audit & Supervisory Board Members Association (incumbent)
December 2017	Member (2nd term), Corporate Governance System (CGS) Workshop, the Ministry of Economy, Trade and Industry (incumbent)
June 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)

[Significant concurrent positions]
Partner, Anderson Mori & Tomotsune LPC
Outside Audit & Supervisory Board Member, JA MITSUI LEASING, LTD.

Positioning of Corporate Governance in Management

At Yaskawa Group, we recognize the importance of corporate ethics based on legal compliance. At the same time, we consider raising corporate value to be an important management issue by speeding up management decision-making and improving management soundness in response to the changing social and economic environment.
As part of our efforts to resolve these issues, we are working to enhance our corporate governance by building good relationships with our stakeholders, including shareholders and customers, as well as with our business partners, local communities, and employees, and by further strengthening our institutions, including the General Meeting of Shareholders, the Board of Directors, the Audit and Supervisory Committee, and accounting auditors.

KPIs for Mid-Term Business Plan Targets and Roadmap toward

Challenge 25 Targets	KPI (FY2021)	FY2018 Results
Establish a "defensive" governance system through measures against company compliance and internal control	Maintain zero cartel and other serious violations of laws and regulations	Number of serious violations: zero
	Awareness of the reporting system for violations of laws and regulations Improvement by 20% (Measure awareness in employee questionnaire)	Prepared for measuring the current status of awareness (Employee questionnaire scheduled in FY2019)
	Improvement of level evaluation scores for security measures +10% or more (Measure evaluation scores for each IPA-compliant security index)	• Qualitative Assessment: Improved • Prepared for the implementation of quantitative assessment
Strengthen initiatives for an "offensive" governance system using Corporate Governance Code	Percentage of domestic offices that meet in-house standards in the checklists for measures against major earthquakes, heavy rains, and river flooding 100%	Percentage of domestic offices that meet in-house standards in the checklists for measures against major earthquakes, heavy rains, and river flooding 78% (Seven of the nine domestic sites achieved the standards)
	Continue implementation of Board of Directors' evaluation once a year	Implementation of Board of Directors effectiveness review by a third party (August 2018)

Approach to "Establish a 'defensive' governance system through measures against company compliance and internal control" and "Strengthen initiatives for an 'offensive' governance system using Corporate Governance Code"

- In order to maintain and maintain zero cartel and other serious violations of laws and regulations, we will continue to provide education on related laws and regulations and general compliance within the Group, including affiliated companies, by utilizing the "Yaskawa Compliance Manual (Revised October 2017 First Edition)" and the "Cartel Prevention Guidelines (Established on February 28, 2018)".

- In order to raise awareness of the reporting system for violations of laws and regulations within the Group, the Compliance Promotion Department has been newly appointed and experts familiar with operations and applicable laws and regulations in each department have been appointed as "person in charge of laws". In addition, we will continue to send messages to the intranet through discussions and training during the Compliance Promotion Month.

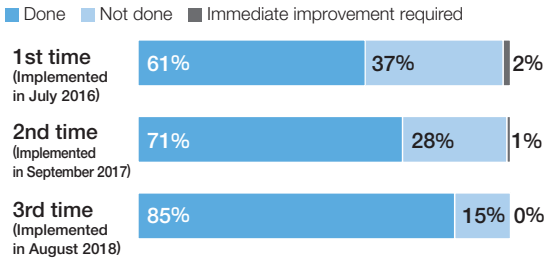
- In order to improve the scores of security measures, we are developing an environment to conduct quantitative evaluations of a total of 26 items, including e-mail security, authentication, and data protection. As an example of a concrete measure, we are moving forward with the so-called thin client, in which data is not placed on PC terminals, so that data is placed in a secure data center environment. By doing so, we aim to reduce the risk of information leakage in the event of a loss of a PC and avoid fundamental security risks.

- In order to achieve the standards of the checklists for major earthquakes, torrential rains, and river flooding in each region in Japan, we regularly hold company-wide meetings of the Crisis Management Committee and the Disaster Countermeasures Committee, and are taking measures to minimize damage from natural disasters.

- Yaskawa has been conducting an annual Board of Directors Effectiveness Review since FY2016. An independent review in 2018 found that the effectiveness of the board of directors is generally ensured at present. Regarding the specific results of the questionnaire, 85% of the items necessary to enhance the effectiveness of the Board of Directors are evaluated as "done" (Up 14 points from the previous survey), 15% are "not done" (Down 13 points from the previous survey), and 0% are "Immediate improvement required" (1 point decrease from the previous survey), showing a steady improvement overall. At the same time, a variety of issues were highlighted, including the deepening of discussions from a medium- to long-term perspective to further improve effectiveness. In order to resolve these issues, we will further improve the effectiveness of the Board of Directors by taking measures based on the PDCA cycle.

Questionnaire on Board of Directors' Evaluation

Items necessary to enhance the effectiveness of the Board of Directors



Scope: All directors, including Audit and Supervisory Committee Members
No. of questions: 28

- The Board of Directors of Yaskawa shall be composed of personnel with advanced knowledge and experience in various fields related to corporate management. We also define the areas of particular importance in corporate management as follows and expect each director to fully demonstrate his or her capabilities.

Director (Age)	Field of capability that Yaskawa expect each director to demonstrate							● Male ○ Female
	Corporate management Management strategy	Corporate governance	Finance Accounting	Legal	Sales Marketing	Manufacturing R & D and IT	Global	
Junji Tsuda (68)	●	●			●		●	●
Hiroshi Ogasawara (63)	●	●	●		●	●	●	●
Shuji Murakami (60)	●	●	●	●			●	●
Yoshikatsu Minami (59)	●	●				●	●	●
Koichi Takamiya (58)	●	●			●		●	●
Masahiro Ogawa (54)	●	●			●	●	●	●
Yuji Nakayama (59) Member of the Audit and Supervisory Committee	●	●	●				●	●
Koichi Tsukahata (58) Member of the Audit and Supervisory Committee	●	●					●	●
Yoshiki Akita (67) Independent Outside Director and Member of the Audit and Supervisory Committee	●	●	●	●			●	●
Junichi Sakane (63) Independent Outside Director and Member of the Audit and Supervisory Committee	●	●				●	●	●
Junko Sasaki (59) Independent Outside Director and Member of the Audit and Supervisory Committee	●	●			●	●	●	○
Hideo Tsukamoto (38) Independent Outside Director and Member of the Audit and Supervisory Committee	●	●		●			●	●

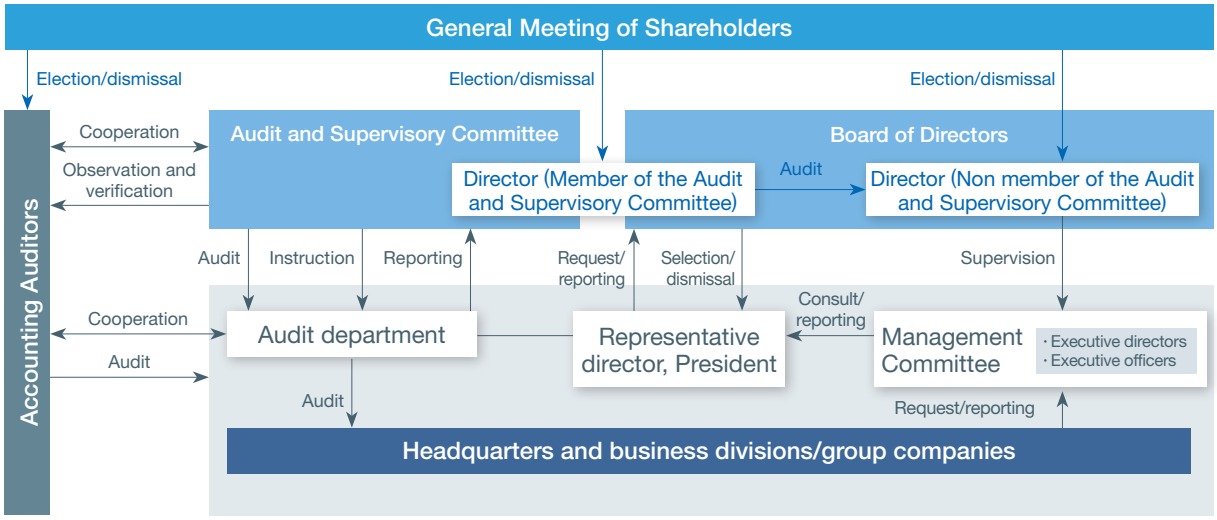
✻ The above table does not represent the full knowledge of each director. Age is as of the 103 general meeting of shareholders held on May 28, 2019.

- We are redesigning our mid- and long-term incentive system for directors (excluding directors who are Audit and Supervisory Committee Members. hereinafter the same) to achieve the targets of our new mid-term business plan Challenge 25. In June 2017, Yaskawa introduced a performance-based stock-based compensation system to motivate directors to achieve its medium- and long-term business plans and to ensure that directors share with shareholders not only the benefits of rising stock prices but also the risks of falling stock prices. Stock compensation not linked to the Company's performance has been introduced for directors who are Audit and Supervisory Committee Members. At the 103rd Ordinary General Meeting of Shareholders (Held in May 2019), the maximum amount of performance-linked shares, etc. for directors was changed from 150 million yen to 250 million yen per year. This is intended to encourage directors to set high targets and to further encourage them to achieve their targets.

Corporate Governance System

In FY2015, the Company adopted a system of audit and supervisory committees to further strengthen the oversight of the Board of Directors and corporate governance, and to enhance the soundness and efficiency of management. Audit and Supervisory Committee Members, as directors, may exercise their voting rights at the Board of Directors meetings with respect to important matters of the Company, such as the election and dismissal of representative directors. In addition, Audit and Supervisory Committee Members may examine the business execution of executive directors and express their opinions at the General Meeting of Shareholders regarding their election, dismissal, and remuneration. Yaskawa introduced an executive officer system in FY2012 to speed up business execution.
In FY2019, we established the Corporate Governance Promotion Office directly under the president to strengthen the management of corporate governance.

Corporate Governance System



Board of Directors

Yaskawa's Board of Directors consists of a total of 12 directors with eight internal directors and four outside directors.
The Board of Directors makes decisions on important matters related to business and matters required by laws and regulations as well as directs the continuous monitoring of the execution of business. We have appointed Yoshiki Akita, Junichi Sakane, Junko Sasaki and newly appointed Hideo Tsukamoto in 2019 as outside directors, and expect them observe the company from the standpoint of investors, customers and the general public. During deliberations at the meetings of the Board of Directors, outside directors after having fully grasped the current circumstances of the company based on information that is addressed or reported by internal control divisions, internal audit divisions, head office divisions and the Accounting Auditor, provide recommendations, etc., using their respective knowledge, thus serving as an appropriate supervisory function.
During FY2018, 13 Board of Directors meetings were held, and the attendance rate of outside directors at each meeting was 100%.

Audit and Supervisory Committee

The Audit and Supervisory Committee is comprised of six members of the Board of Directors (including four outside directors who are Audit and Supervisory Committee Members). They thoroughly understand information reported by the Company's internal control division, Head Office business divisions, and subsidiaries, and conducts audits based on actual inspections mainly done by full-time Audit and Supervisory Committee Members.
The Audit and Supervisory Committee Members attended meetings of the Board of Directors and other important meetings, received reports on the status of business execution, and supervised the decision-making process and content. We also cooperated with EY ShinNihon LLC, which has been appointed as an accounting auditor, to periodically exchange information and opinions, and received periodic internal audit reports from the Internal Audit Division.
In FY2018, the Audit and Supervisory Committee met 14 times, and the attendance rate of outside directors who are Audit and Supervisory Committee members was 100%.

Management Committee

The Management Committee, which consists of executive directors and executive officers, reports on the status of implementation of management plans and deliberates on policies and measures for all businesses, and discusses important business decisions. As a general rule, these meetings are held once a month, and extraordinary when necessary to establish a flexible and prompt business execution system.

Committee Structure for Enhancement of Monitoring Function of the Board of Directors

Nomination Advisory Committee

The nomination advisory committee, an advisory body to the president, is in place for the purpose of securing transparency and fairness for the designation of candidate directors and the selection process for representative directors as well as titled officers, and for the purpose of securing means for outside directors, who are member of Audit and Supervisory Committee, to discuss matters based on ample information necessary for developing opinions, on agenda items such as the designation of officers. When proposals are being presented to the board of directors' meeting concerning such matters as the designation of officers, we report the proposal to the pertaining committee to fully reflect its opinions to the discussion.

Remuneration Advisory Committee

For remuneration of directors (excluding those who are members of the Audit and Supervisory Committee) and executive officers, we have established a Remuneration Advisory Committee that serves as an advisory body for the president for the purpose of ensuring justification and transparency, and to ensure that outside directors who are members of the Audit and Supervisory Committee are given sufficient information to form opinions about the remuneration for discussion. The committee discusses remuneration for executives based on calculations made through regulations, etc., for officer remuneration in response to inquiries from the president and other matters pertaining to officer remuneration from the standpoint of justification and answers to the president.

Structures for the Board of Directors, the Audit and Supervisory Committee, and Advisory Committees

Name	Position	Board of Directors	Audit and Supervisory Committee	Nomination Advisory Committee	Remuneration Advisory Committee
Junji Tsuda	Representative Director, Chairman of the Board	◎			
Hiroshi Ogasawara	Representative Director, President	○		◎	
Shuji Murakami	Representative Director, Corporate Executive Vice President	○			○
Yoshikatsu Minami	Director, Corporate Senior Vice President	○			
Koichi Takamiya	Director, Corporate Senior Vice President	○			
Masahiro Ogawa	Director, Corporate Vice President	○			
Yuji Nakayama	Director, Member of the Audit and Supervisory Committee	○	◎		
Koichi Tsukahata	Director, Member of the Audit and Supervisory Committee	○	○		
Yoshiki Akita	Outside Director, Member of the Audit and Supervisory Committee	○	○	○	◎
Junichi Sakane	Outside Director, Member of the Audit and Supervisory Committee	○	○	○	○
Junko Sasaki	Outside Director, Member of the Audit and Supervisory Committee	○	○	○	○
Hideo Tsukamoto	Outside Director, Member of the Audit and Supervisory Committee	○	○	○	○

◎ Chairman ○Member

Remuneration Policy

For directors who are not Audit and Supervisory Committee Member (Hereinafter, "Director"), the compensation system consists of basic compensation, single year performance-linked compensation, and medium- to long-term stock compensation. For directors who are Audit and Supervisory Committee Members (Hereinafter, "Audit and Supervisory Committee Members"), the compensation system consists of basic compensation and stock compensation.

【Single year compensation】
Distribute the profits generated during the fiscal year to raise awareness of the need to improve profits throughout the company

【medium- to long-term compensation】
Raise awareness of raising corporate value over the medium- to long-term and share profits with stakeholders

The annual compensation limit for directors is the total (excluding employee wages) of (a) the fixed annual amount and (b) the profit-linked amount.

(a) Up to 430 million yen per annum

As directors (except for outside directors) are responsible for improving corporate value, a certain amount will be paid in accordance with their performance appraisals and titles. As for outside directors, as they are responsible for supervising the execution of duties, they will be paid a fixed sum as determined in advance.

(b) Less than 1.0% of consolidated net profit for the business year prior to election or reappointment at shareholders' meeting

In order to make clearer the association with consolidated performance, directors will receive remuneration at less than 1.0% of consolidated net profit for the previous business year, which will not be paid to outside directors.

In addition to the above, in FY2017, we introduced a stock based compensation plan for directors and executive officers as strengthened incentive for achieving its long-term business plan Vision 2025.

Also, in addition to the conventional function of Audit and Supervisory Committee to oversee the execution of business, in order to make the achievement of our mid-term business plan and other business plans a more definite reality, we have introduced a stock-based compensation plan for members of Audit and Supervisory Committee in FY2017, considering that they are responsible for monitoring the execution of management. Furthermore, to eliminate impact on the supervising function over the execution of business, the number of stocks delivered to Audit and Supervisory Committee members under this plan does not change in parallel with company's performance.

Policy Pertaining to Cross-Held Shares

Yaskawa may hold cross-held shares for the purpose of strengthening ties or alliances with partner companies. As for individual cross-held shares, we make a regular review of our business strategy, business ties with our partners, and other such items from a medium- to long-term standpoint each year, as an agenda item for monitoring by the board of directors' meeting, and deliberate continued holdings as well as the number of stocks which are held.

Also, we exercise voting rights for cross-held shares after checking the necessity against the holding purposes, considering whether they contribute to improvements in our corporate value. Furthermore, we will hold dialogue with the issuing companies on the details of them as necessary.

Internal Control System

Based on the Companies Act and the Ordinance for Enforcement of the Companies Act, the Board of Directors set the "Systems to ensure that the execution of duties by directors complies with laws and regulations and the articles of incorporation, and other systems to ensure the appropriateness of the company's business" (so-called "Basic Policy of the Internal Control System"). The Company and its subsidiaries, which comprise the Yaskawa Group, respond appropriately to social demands and make continuous improvements.

Financial Data

(Millions of yen)

(Fiscal year)			2009	2010	2011	2012	2013
Net sales			224,710	296,847	307,111	310,383	363,570
Operating income			-6,977	12,874	14,818	13,070	25,702
Operating income ratio			-3.1%	4.3%	4.8%	4.2%	7.1%
Ordinary income			-6,049	13,429	15,626	14,053	27,084
Ordinary income ratio			-2.7%	4.5%	5.1%	4.5%	7.4%
Prot attributable to owners of parent			-5,699	6,544	8,432	6,800	16,964
Profit ratio			-2.5%	2.2%	2.7%	2.2%	4.7%
Sales and Income by Business Segment *1	Motion Control	Net sales	104,814	156,450	149,410	144,333	162,346
		Operating income	-3,169	8,980	5,824	3,248	16,444
		Operating income ratio	-3.0%	5.7%	3.9%	2.3%	10.1%
	Robotics	Net sales	57,084	83,843	101,065	110,223	122,543
		Operating income	-8,327	1,673	7,014	8,365	9,511
		Operating income ratio	-14.6%	2.0%	6.9%	7.6%	7.8%
	System Engineering	Net sales	41,498	34,349	35,520	37,263	35,327
		Operating income	5,476	2,061	1,917	1,504	-5
		Operating income ratio	13.2%	6.0%	5.4%	4.0%	-0.0%
Sales by Destination	Japan		116,197	144,754	143,019	143,456	150,101
	The Americas		29,351	38,779	43,985	51,113	58,481
	Europe		24,332	29,610	33,939	32,047	42,499
	Asia except China		53,900	82,749	85,276	81,308	108,595
	Other		930	955	890	2,456	3,892
	Overseas sales ratio		48.3%	51.2%	53.4%	53.8%	58.7%
Per Share Information (yen)	Earning - basic		-22.64	26.00	33.51	27.03	67.42
	Earning - diluted		–	–	–	25.65	63.98
	Dividends		3.0	6.0	10.0	10.0	12.00
Shareholders' equity			88,459	93,220	100,109	112,218	134,076
Shareholders' equity ratio			36.6%	35.2%	35.9%	37.1%	39.4%
ROE: Return on equity			-6.1%	7.2%	8.7%	6.4%	13.8%
Interest-bearing debt			42,235	41,439	58,612	54,684	55,528
Debt-to-equity ratio (times)			0.5	0.4	0.6	0.5	0.4
Inventories			46,200	58,066	63,800	64,325	78,364
Inventory turnover*4 (months)			2.5	2.3	2.5	2.5	2.6
Capital expenditures			4,119	6,655	9,907	15,895	16,980
Depreciation and amortization			7,840	7,057	7,606	8,114	9,214
Research and development expenses			8,493	9,724	10,398	10,731	14,033

Non-Financial Data

No. of employees (persons)	8,176	8,085	8,246	10,383	11,463
No. of employees rehired (persons) No. of regular employees and temporary contracted workers aged 60 to 64	164	199	239	246	236
People with disabilities employed (%)	1.75%	1.85%	1.65%	2.15%	2.15%
No. of non-Japanese employees in Japan (persons) Regular employees and contract employees	16	14	19	18	20
Use of parental leave program No. of females using the program/Use rate	5/100%	2/100%	5/100%	5/83%	7/100%
Parental leave program No. of males using the program (persons)	1	1	4	1	1
Average days of paid leave taken per year (No. of days/person)	8.69	12.30	12.81	12.44	12.49
CO_2 emissions from production and sales activities ($t.CO_2$)	19,053	23,688	22,086*2	22,138*2	22,770*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.

(Millions of yen)

2014	2015	2016	2017*3	2018	(Fiscal year)		
400,153	411,260	394,883	448,523	**474,638**	Net sales		
31,532	36,730	30,409	54,126	**49,766**	Operating income		
7.9%	8.9%	7.7%	12.1%	**10.5%**	Operating income ratio		
33,884	35,833	31,963	55,300	**50,844**	Ordinary income		
8.5%	8.7%	8.1%	12.3%	**10.7%**	Ordinary income ratio		
24,819	22,365	20,397	39,749	**41,164**	Prot attributable to owners of parent		
6.2%	5.4%	5.2%	8.9%	**8.7%**	Profit ratio		
188,116	187,548	172,025	212,095	**205,423**	Net sales	Motion Control	Sales and Income by Business Segment*1
21,748	22,413	22,772	41,729	**33,907**	Operating income		
11.6%	12.0%	13.2%	19.7%	**16.5%**	Operating income ratio		
135,956	154,068	139,993	163,379	**177,995**	Net sales	Robotics	
10,558	15,304	10,253	17,761	**17,298**	Operating income		
7.8%	9.9%	7.3%	10.9%	**9.7%**	Operating income ratio		
40,980	43,053	59,354	52,934	**59,463**	Net sales	System Engineering	
-768	-760	-591	-3,794	**65**	Operating income		
-1.9%	-1.8%	-1.0%	-7.2%	**0.1%**	Operating income ratio		
144,249	135,495	134,205	133,898	**154,539**	Japan		Sales by Destination
72,616	85,088	74,691	83,078	**84,908**	The Americas		
46,921	52,011	50,736	60,879	**66,576**	Europe		
132,779	134,294	131,045	166,711	**164,319**	Asia except China		
3,590	4,370	4,205	3,957	**4,295**	Other		
64.0%	67.1%	66.0%	70.1%	**67.4%**	Overseas sales ratio		
98.45	84.71	76.60	149.35	**155.86**	Earning - basic		Per Share Information (yen)
93.60	84.11	–	–	**–**	Earning - diluted		
20.00	20.00	20.00	40.00	**52.00**	Dividends		
171,388	181,281	198,513	235,865	**246,737**	Shareholders' equity		
44.1%	48.5%	51.2%	53.5%	**54.1%**	Shareholders' equity ratio		
16.3%	12.8%	10.7%	18.3%	**17.1%**	ROE: Return on equity		
52,430	48,426	36,765	32,247	**48,664**	Interest-bearing debt		
0.3	0.3	0.2	0.1	**0.2**	Debt-to-equity ratio (times)		
85,469	77,594	79,886	100,051	**111,489**	Inventories		
2.6	2.3	2.4	2.7	**2.8**	Inventory turnover*4 (months)		
36,369	16,758	14,904	19,684	**35,654**	Capital expenditures		
11,534	13,063	12,076	12,691	**14,314**	Depreciation and amortization		
15,317	16,819	17,979	19,072	**20,792**	Research and development expenses		

11,356	11,450	11,810	12,449	**13,139**	No. of employees (persons)
213	229	220	175	**165**	No. of employees rehired (persons) No. of regular employees and temporary contracted workers aged 60 to 64
2.04%	2.07%	2.20%	2.02%	**2.00%**	People with disabilities employed (%)
20	22	27	28	**28**	No. of non-Japanese employees in Japan (persons) Regular employees and contract employees
4/100%	4/100%	15/100%	17/100%	**6/100%**	Use of parental leave program No. of females using the program/Use rate
3	3	4	4	**1**	Parental leave program No. of males using the program (persons)
12.48	14.49	14.71	13.42	**16**	Average days of paid leave taken per year (No. of days/person)
20,737*2	20,811*2	22,791*2	22,308*2	**23,471***2	CO_2 emissions from production and sales activities ($t.CO_2$)

*2: Including sales bases from FY2011.
*3: 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.
*4: Inventory turnover = Year-end inventories / Net sales × 12

Financial Position and Business Performance*1

Financial Position

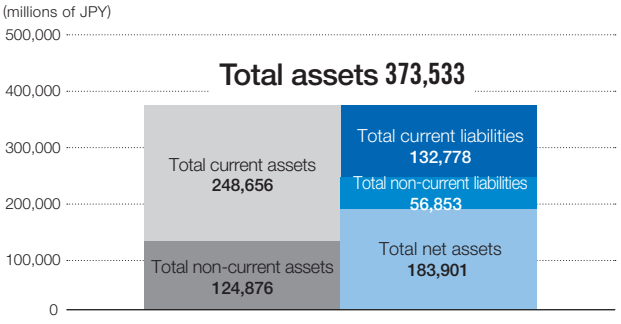
Total assets at the end of FY2018 stood at 455.9 billion yen, which is an increase by 14.7 billion yen from the end of the previous fiscal year. The increase in current assets is due to the increase in inventory assets. In addition, the investments and other assets decreased owning to the decrease in investment in securities while fixed assets increased by tangible and intangible fixed assets increase.

Total liabilities at the end of FY2018 stood at 206.2 billion yen, which is an increase by 3.5 billion yen from the end of the previous fiscal year. While short-term loans, etc. increased, notes, accounts and income tax payable decreased. Non-current liabilities increased due to increase of long-term loans payable and net defined benefit liability, etc.

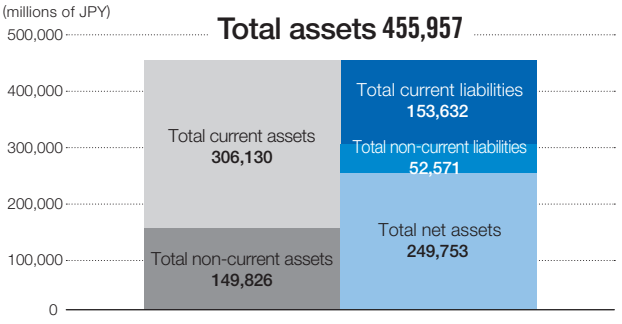
Total net assets at the end of FY2018 stood at 249.7 billion yen, which is an increase by 11.1 billion yen from the end of the previous fiscal year. Shareholders' equity increased by 17.745 billion yen due to an increase of retained earnings and buyback, etc. Accumulated other comprehensive income decreased by 6.8 billion yen, which include decrease of valuation difference on available-for-sale securities and foreign currency translation adjustment.

In the period of mid-term business plan Dash 25, the percentage of net assets expanded due to increase in stakeholders' equity by 63.7 billion yen.

Balance Sheets (The end of FY2015)



(The end of FY2018)

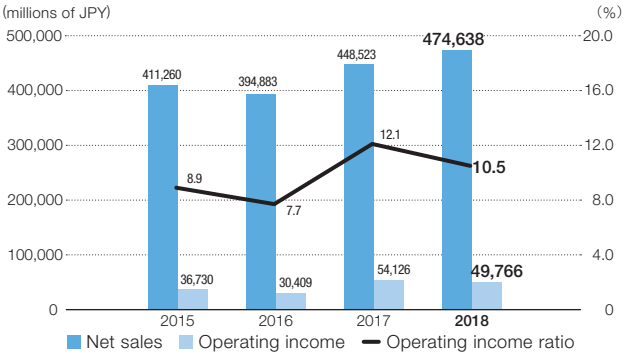


Income Statement

In the business environment of the Yaskawa Group in FY2018, high demands on sophistication and automation of production equipment were seen in the beginning of the period but a break was seen in smartphone-related demands after the middle of the period and demands on semiconductor-related capital expenditures rapidly fell. In addition, the impact of the trade friction between US and China expanded especially in China and cautious stances were seen in capital expenditures in manufacturing industry. Under such circumstances, the business performance of the Yaskawa Group was steady overall by globally capturing the automobile-related demands while being affected by a slowdown in Chinese market. This resulted in the record-high sales.

In the period of the mid-term business plan Dash 25 with the goal of establishing a highly profitable company structure, the compound average growth rate (CAGR) of sales stood at 4.9% and CAGR of operating income stood at 10.7%.

Net Sales, Operating Income and Operating Income Ratio

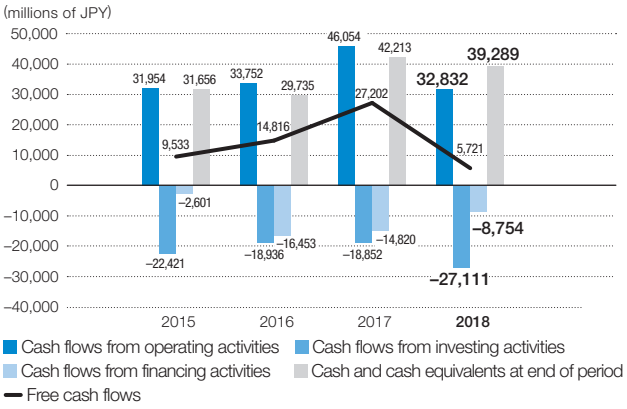


Cash Flow Status

In FY2018, net cash provided by operating activities stood at 32.8 billion yen due to record of operating income while notes and accounts receivable decreased and working capital increased due to increase in inventory assets and decrease in trade payables.

Net cash used in investing activities for FY2018 stood at 27.1 billion yen due to purchase of tangible and intangible fixed assets through expansion of global production capability and proactive capital expenditures on IT infrastructure, etc.

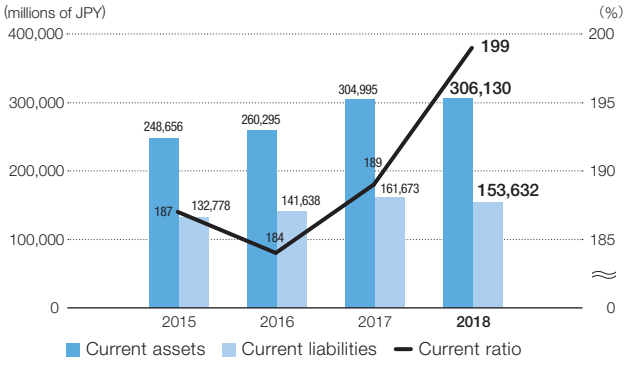
Cash Flow



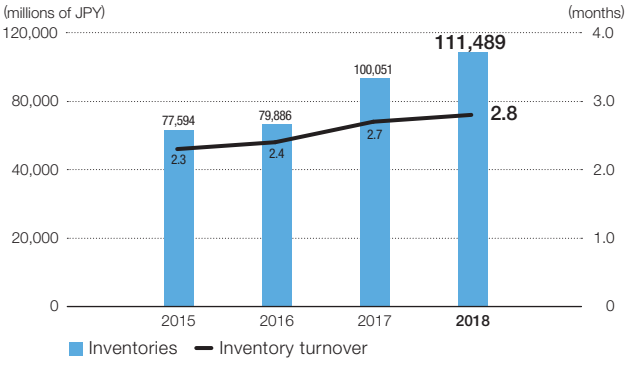
Net cash used in financing activities stood at 8.7 billion yen due to shareholder return policy such as buyback and increase of cash dividends paid.

In the period of the mid-term business plan Dash 25, the balance of cash and cash equivalents increased by 7.6 billion yen.

Current Assets, Current Liabilities and Current Ratio

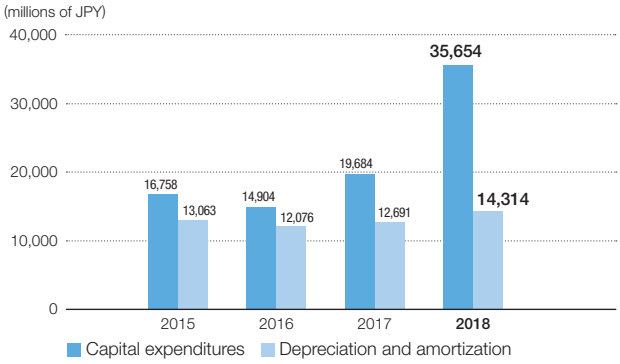


Inventories and Inventory Turnover*2

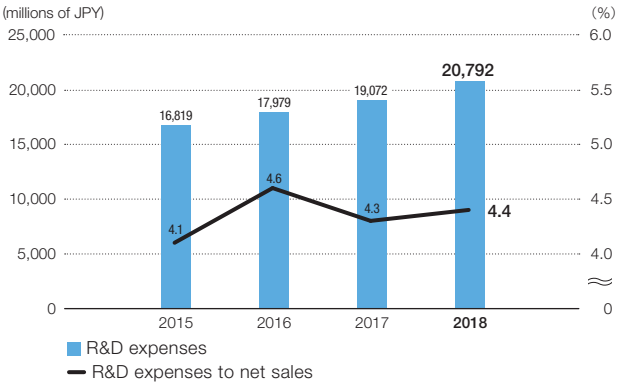


*2 Inventory turnover = Year-end inventories / Net sales × 12

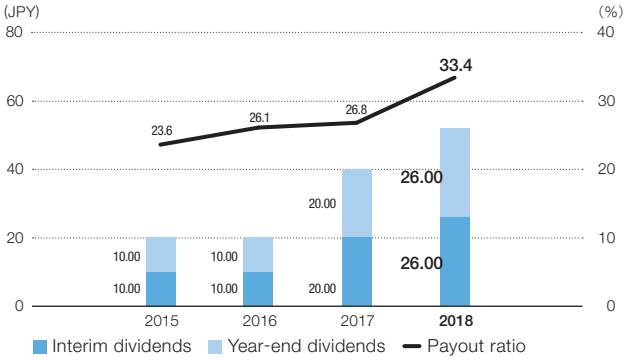
Capital Expenditures, Depreciation and Amortization



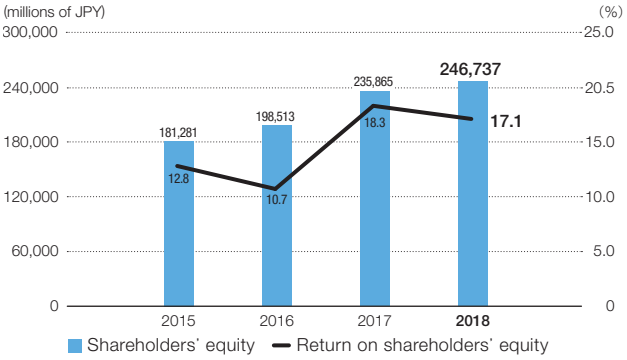
R&D Expenses and R&D Expenses to Net Sales



Dividends Per Share and Payout Ratio



Shareholders' Equity and Return on Shareholders' Equity (ROE)



*3 ROE = Profit attributable to owners of parent / Shareholders' equity (Average of beginning and end of fiscal year)

*1: 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.

The following QR codes provide access to financial and performance data for the past 11 years.

Consolidated financial statements, consolidated statements of income and consolidated statements of comprehensive income
https://www.yaskawa-global.com/ir/financial/financial-statements

Consolidated cash flow and other historical financial and performance data
https://www.yaskawa-global.com/ir/financial/highlights

Corporate Information

As of February 28, 2019

Corporate Name	YASKAWA Electric Corporation
Founded	July 16, 1915
Employees	Consolidated: 13,139 Non-consolidated: 2,817
Head Office	2-1 Kurosakishiroishi, Yahatanishi-ku, Kitakyushu 806-0004, Japan Phone +81-93-645-8801 Fax. +81-93-645-8831
Tokyo Office	New Pier Takeshiba South Tower, 1-16-1 Kaigan, Minato-ku, Tokyo 105-6891, Japan Phone +81-3-5402-4511 Fax. +81-3-5402-4580

Sales Offices	Chubu Office	Phone +81-561-36-9310 Fax. +81-561-36-9311
	Osaka Office	Phone +81-6-6346-4500 Fax. +81-6-6346-4555
	Kyushu Office	Phone +81-92-714-5331 Fax. +81-92-714-5799
Plants	Yahata-nishi Plant, Yukuhashi Plant, Iruma Plant, Nakama Plant, China (Shenyang, Changzhou, Shanghai)	
Laboratories	Corporate Research & Development Center (Kokura Plant), Tsukuba Research Laboratory	

Group Companies

Japan	
YASKAWA ELECTRIC ENGINEERING CORPORATION	Kitakyushu, Fukuoka
YASKAWA CONTROLS CO., LTD	Yukuhashi, Fukuoka
YASKAWA AUTOMATION & DRIVES CORP.	Shinagawa-ku, Tokyo
YASKAWA MOTOR CORPORATION	Kitakyushu, Fukuoka
YASKAWA MECHATREC CORPORATION	Minato-ku, Tokyo
SUEMATSU KYUKI CO., LTD.	Fukuoka, Fukuoka
YE DATA INC.	Iruma, Saitama
YASKAWA LOGISTEC CORPORATION	Kitakyushu, Fukuoka
YASKAWA MANUFACTURING CORPORATION	Kitakyushu, Fukuoka
DOEI CORPORATION	Kitakyushu, Fukuoka
YASKAWA OBVIOUS COMMUNICATIONS INC.	Kitakyushu, Fukuoka
F-TECHNO	Yukuhashi, Fukuoka
Food & Agri Mechatro Solution Inc.	Mitsuke, Niigata
Bestact Solutions Inc.	Yukuhashi, Fukuoka

The Americas	
YASKAWA AMERICA, Inc.	IL, U.S.A.
SOLECTRIA RENEWABLES, LLC	MA, U.S.A.

Europe	
YASKAWA EUROPE GmbH	Hessen, Germany
YASKAWA Europe Holding AB	Kalmar, Sweden
YASKAWA ELECTRIC UK LTD.	Scotland, U.K.
YASKAWA EUROPE TECHNOLOGY LTD.	Rosh HaAyin, Israel
THE SWITCH ENGINEERING OY	Helsinki, Finland
VIPA GmbH	Bayern, Germany
YASKAWA EUROPE ROBOTICS D.O.O.	Kočevje, Slovenia

Asia	
YASKAWA ELECTRIC (CHINA) CO., LTD.	Shanghai, China
YASKAWA ELECTRIC KOREA CORPORATION	Seowl, Korea
YASKAWA ASIA PACIFIC PTE. LTD.	Singapore
SHANGHAI YASKAWA DRIVE CO., LTD.	Shanghai, China
YASKAWA ELECTRIC TAIWAN CORPORATION	New Taipei, Taiwan
YASKAWA ELECTRIC (SHENYANG) CO., LTD.	Shenyang, China
YASKAWA SHOUGANG ROBOT CO., LTD.	Beijing, China
YASKAWA (CHINA) ROBOTICS CO., LTD.	Changzhou, China
YASKAWA INDIA PRIVATE LIMITED	Karnataka, India
YASKAWA TSUSHO CO., LTD.	Hong Kong
YASKAWA TSUSHO (SHANGHAI) CO., LTD.	Shanghai, China

YASKAWA Global Website Information

Investor Relations

https://www.yaskawa-global.com/ir

Sustainability

https://www.yaskawa-global.com/company/csr

Products & Solution

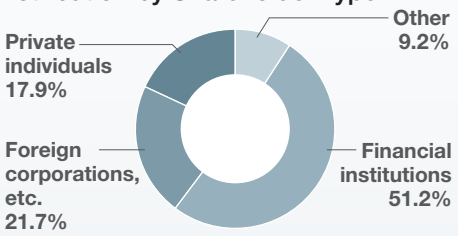
http://www.e-mechatronics.com/en/index.html

Stock Information

As of February 28, 2019

Number of Authorized Shares	560,000 thousand
Number of Shares Outstanding	266,690 thousand
Capital Stock	30,562 million yen
Number of Shareholders	85,897
Securities Code	6506 (Japan)

Share Distribution by Shareholder Type

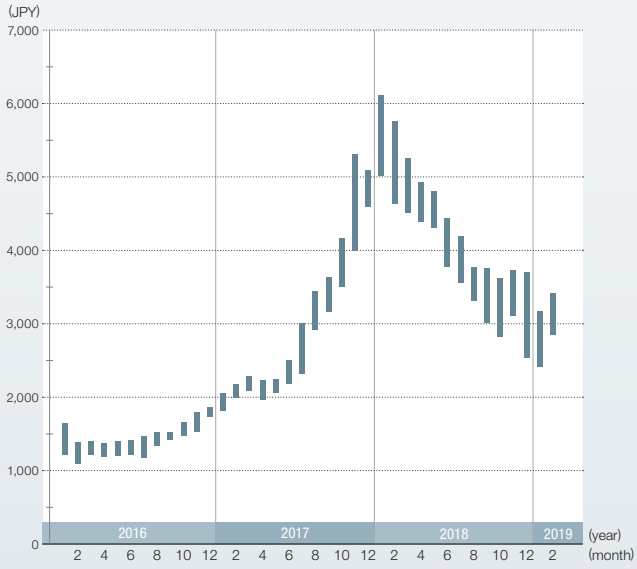


Major Shareholders

Major shareholders (Top 10 shareholders)	Number of shares (Thousands)	Shareholding ratio
The Master Trust Bank of Japan, Ltd. (Trust Account)	27,085	10.24%
Japan Trustee Services Bank, Ltd. (Trust Account)	23,415	8.85%
Mizuho Bank, Ltd. (MHBK)	8,100	3.06%
Japan Trustee Services Bank, Ltd. (Sumitomo Mitsui Trust Bank, Limited Employee Retirement Benefit Trust Account)	7,970	3.01%
Meiji Yasuda Life Insurance Company	7,774	2.94%
Japan Trustee Services Bank, Ltd. (Sumitomo Mitsui Trust Bank, Limited Retrust Account, The Bank of Fukuoka, Ltd. Employee Retirement Benefit Trust Account)	5,100	1.93%
Japan Trustee Services Bank, Ltd. (Trust Account 5)	4,548	1.72%
STATE STREET BANK WEST CLIENT-TREATY 505234	4,493	1.70%
THE DAI-ICHI LIFE INSURANCE COMPANY, LTD.	4,199	1.59%
JPMorgan Securities Japan Co., Ltd	3,975	1.50%

Note: Treasury stock is deducted in the calculation of the shareholding ratio.

Company Share Price (From January 2016 to February 2019)



Note: The prices displayed are the monthly high and low prices traded at Tokyo Stock Exchange.

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/

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