

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

Representative Director,  
Chairman of the Board, President



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

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



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

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

Q

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

A

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

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

Q

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

A

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



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

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

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

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

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

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

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

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

Q

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

A

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

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

Q

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

A

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

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



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

Representative Director,  
Senior Managing Executive Officer

**Shuji Murakami**

### Review of FY2021

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

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

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

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

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

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

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

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

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

the resulting revenue from FY2021.

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

### Major Objectives of Capital Expenditures in FY2022

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

### Capital Strategy

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

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

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

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

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

\*1 Weighted Average Cost of Capital

\*2 Capital investment per employee

### Basic Policy of Balance Sheet Structure

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

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

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

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

### Basic Policy for Cash Allocation

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

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

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

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

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

### Management Innovation through YDX

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

can be formulated at the head office.

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















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

### To Our Stakeholders

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

# Progress of Sustainability Challenges and Targets (Materiality)

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

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

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

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

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

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

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

\*4 Target was revised in April 2022.

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

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

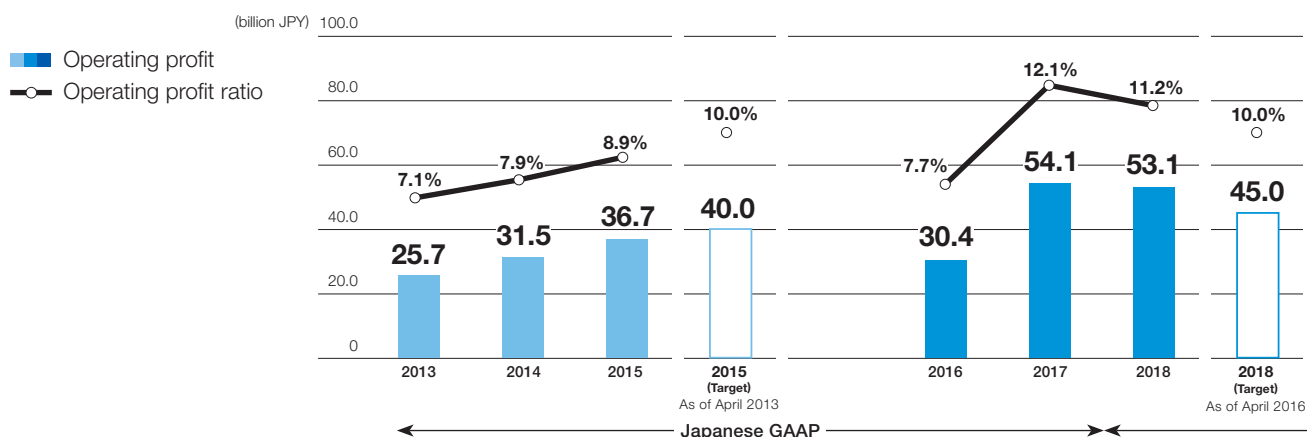
\*7 Three factories in China (Shenyang, Changzhou and Shanghai) and Yaskawa India

# Roadmap for Realizing Vision 2025

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

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

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

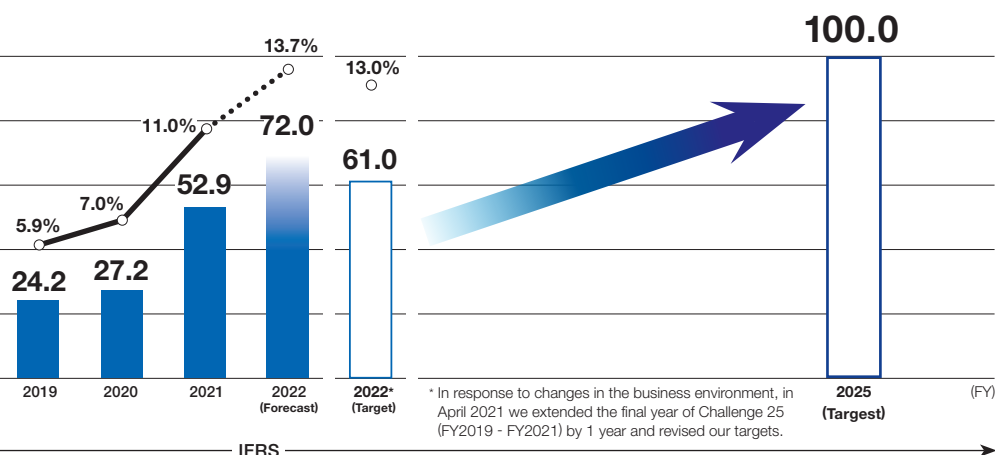


Long-term business plans	Vision 2015				Dash 25			
Mid-term business plans	Realize 100				Dash 25			
	2013	2014	2015	2015 (Target)	2016	2017	2018	2018 (Target)
Net sales / Revenue (billion JPY)	363.6	400.2	411.3	400.0	394.9	448.5	474.6	450.0
Capital expenditure, M&A (% of revenue)	70.1 billion JPY(6.0%) *Period total				70.3 billion JPY(5.3%) *Period total			
R&D investment (% of revenue)	46.2 billion JPY(3.9%) *Period total				57.8 billion JPY(4.4%) *Period total			

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

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

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



#### Vision 2025

##### Challenge 25 Plus

##### Realize 25

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

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

- Transform business model through i<sup>3</sup>-Mechatronics
- Maximize profitability in the growing market through i<sup>3</sup>-Mechatronics
- Expand new domains for building a sustainable society
- Improve management efficiency through digital and quality management

- YASKAWA Technology Center started operation (technology integration)

- Deepen open innovation to develop world's best and first products

- Built a common system to visualize global production information (production integration)

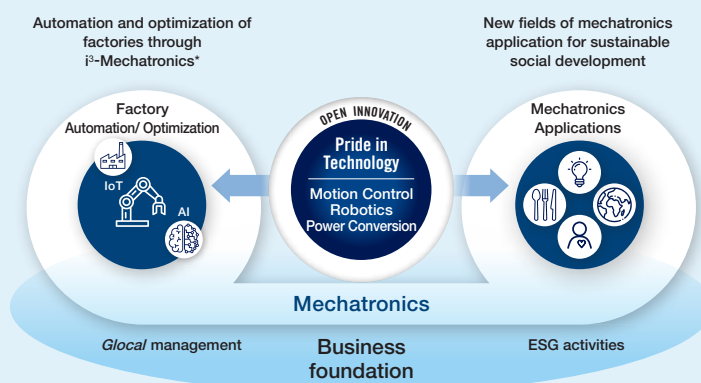
- Global production capacity expansion
- Increase productivity through global expansion of Yaskawa Solution Factory
- Strengthen in-house manufacturing and procurement of key devices

- Launched new AC servo drive "Sigma-X series"
- Launched key components to promote i<sup>3</sup>-Mechatronics solution such as YRM-X controller
- Strengthened service engineering capabilities by absorbing subsidiary (service integration)

- Accumulation of i<sup>3</sup>-Mechatronics success stories and global expansion
- Expand track record in collaboration with i<sup>3</sup>-Mechatronics CLUB

#### Vision 2025

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



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

#### Financial targets for FY2025

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

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

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

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

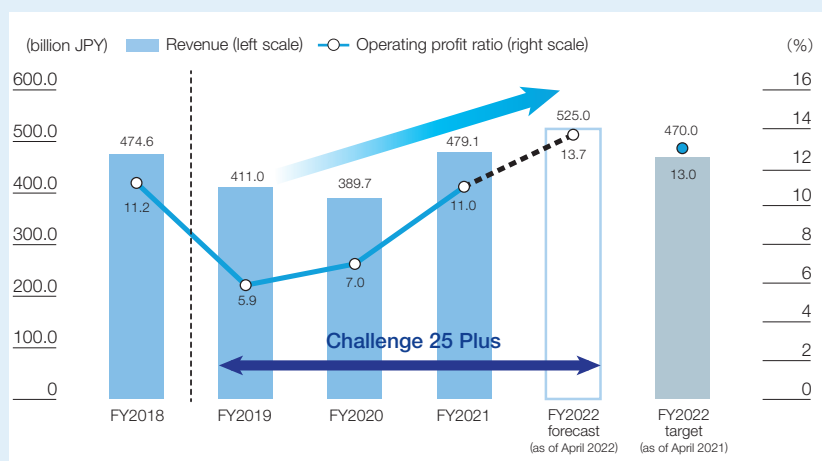
Yaskawa Group's FY2021 results set a new record for revenue. Both revenues and profits increased significantly as the normalization from COVID-19 crisis progressed globally and capital investment expanded across the manufacturing sector.

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

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

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

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



### Basic policy 1

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

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

#### Development capability

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

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

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

#### Production capability

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

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

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

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

\*3 YASKAWA Digital Transformation

#### Sales capability

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

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

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

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

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

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

#### Service

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

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



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

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

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

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

### 3C and new infrastructure market

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

### Automotive market

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

### Semiconductor production equipment market

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

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

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

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

#### Energy Saving

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

#### Clean Power

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



#### Food & Agriculture

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

#### Humatronics

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