

2021 Yokogawa Report

For the year ended March 31, 2021

Contents

02

Yokogawa’s Values

03 Tireless Efforts for Continuous Transformation

04 Yokogawa Group Identity

05

Yokogawa’s Sustainable Growth and Strategy

06 Message from the President and CEO

25 Sustainability Strategy

28 Special Feature: Approaches to Climate Change: Response to the TCFD

30 Digital Transformation Strategy

32 Opportunities and Risks

36 Value Creation Process

38 Yokogawa Resources

41 Special Feature: Future Co-creation Initiative: Co-creating with Outside Parties and Developing Next Generation Leaders

47

Yokogawa’s Business

48 Business Overview and New Business Structure

49 Industrial Automation and Control Business

Energy & Sustainability Business

Materials Business

Life Business

52 Special Feature: Yokogawa’s Approach to Value Providing through System of Systems (SoS)

58

Special Feature: Yokogawa Solutions for Value Creation

60 Special Feature: Yokogawa’s Biotechnology

62 Measuring Instruments Business/Aviation and Other Businesses

63

Yokogawa’s Corporate Governance

64 Strengthening Corporate Governance

● Strengthening Our Management through Initiatives That Leverage Diversity

● Contributions of the Board of Directors for Effective Management

66 Corporate Governance

74 Management Team

76

Information

77 Performance and Forecast Analysis by the Head of the Accounting & Treasury Headquarters

80 Financial Highlights

82 ESG Highlights

84 Fiscal Year 2020 in Review

86 Consolidated 11-Year Summary

88 Risks Relating to the Group’s Business

90 Financial Section

126 Corporate Data / Stock Information / Principal Subsidiaries and Affiliates

127 IR Activities

Responding to Major Comments from Shareholders and Investors in this Report

❶

Contents of the Accelerate Growth 2023 mid-term business plan and the management’s intentions

P. 6 -23

❷

Review of the previous mid-term business plan, TF 2020, and transition from the past

P. 6 to 10, 23

❸

CCC improvement

P. 18

❹

Basis for M&A activities, business withdrawals, capital expenditures, and the dividend payout ratio

P. 21

❺

Relationship between contributions to sustainability and business goals

P. 26 -27

❻

Business environment, strengths, and competitiveness

P. 9 to 11, 32 to 33, 52 to 61

❼

Business models of the Industrial Automation and Control Business

P. 55 to 57

❽

Breaking away from dependence on fossil fuel-based energy industries

P. 6 to 8, 10 to 11, 15 to 19, 25 to 29, 32 to 33, 49 to 51, 58 to 61

❾

Contributions related to COVID-19

P. 61

❿

Earnings forecast including operating profit analysis (step chart).

P. 77 to 78

⓫

Diversity and effectiveness of the Board of Directors.

P. 64 to 65

⓬

Policy of reducing cross-shareholdings

P. 73

Period covered by the Report:
Fiscal year 2020, the period from April 1, 2020 to March 31, 2021 (includes some information on fiscal year 2021)

Scope of the Report:
Yokogawa Electric Corporation and its subsidiaries and affiliates

Cautionary statement regarding forward-looking statements
Statements made in this report regarding Yokogawa’s plans, estimates, strategies, and beliefs are forward-looking statements about the future performance of Yokogawa. These statements are based on management’s assumptions and beliefs in the light of currently available information. Yokogawa cautions that a number of important factors, such as general economic conditions and exchange rates, could cause actual results to differ materially from those discussed in the forward-looking statements.

* Co-innovating tomorrow, CENTUM, CENTUM VP, ProSafe-RS, IA2IA, DP harp, DLM, CSU, CSU-W1, DTSX, eServ, CellVoyager, CIMVision, and GLOBAL Response Center are registered trademarks or trademarks of Yokogawa Electric Corporation and its subsidiaries and affiliates.

Editorial Policy

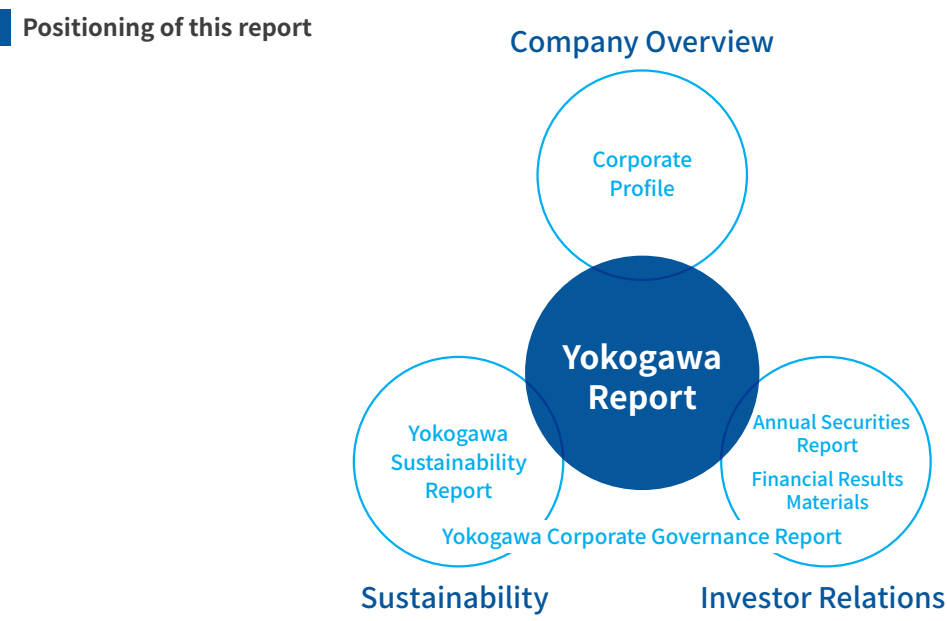
This report has been edited to provide shareholders, investors and other stakeholders with an understanding of the Yokogawa Group’s initiatives to achieve a sustainable society and enhance its mid-to-long-term corporate value in the context of Yokogawa’s value creation story.

In 2015, when the Company celebrated its 100 year anniversary, it switched from an annual report to an integrated report. This report is based on the International Integrated Reporting Framework put forward by the International Integrated Reporting Council (IIRC), in reference to the Ministry of Economy, Trade and Industry’s Guidance for Collaborative Value Creation.*¹ Since 2019, we have been editing the report by creating a structure that spans multiple organizations. We also seriously listen to the feedback we receive from external evaluation organizations, shareholders and investors and strive to improve and expand the content of our disclosures.

The goal of Yokogawa Report 2021 is to deepen people’s understanding of the Accelerate Growth 2023 mid-term business plan and the long-term business framework, and enable them to understand top management’s will and desire to achieve the plan. In addition, original content has been included to enhance the report, covering everything from business to governance, including systems of systems, biotechnology, climate change initiatives (related to the TCFD*²), DX strategy, initiatives for realizing management that leverages diversity, and ensuring the effectiveness of the board of directors. In addition, by presenting specific contributions cases of resolving environmental and social issues including COVID-19, the content and structure of the report are designed to deepen shareholders, investors and other stakeholders’ understanding of the Yokogawa Group.

We hope that this report will be a useful and valuable tool that helps readers understand the Yokogawa Group’s contributions to the realization of a sustainable society and the enhancement of corporate value.

*¹ The International Integrated Reporting Council merged with the Sustainability Accounting Standards Council (SASB) in June 2021 to form the Value Reporting Foundation (VRF).
*² TCFD: Task Force on Climate-related Financial Disclosures



Further information is available on our website:

- **Website of Yokogawa Electric Corporation:** <https://www.yokogawa.com/>
- **Investor Relations website:** <https://www.yokogawa.com/about/ir/>
- **Sustainability website:** <https://www.yokogawa.com/about/sustainability/>
- **Corporate Governance website:** <https://www.yokogawa.com/about/ir/governance/>
- **Yokogawa Report website:** <https://www.yokogawa.com/about/ir/reports/annual/>

Concept behind the cover

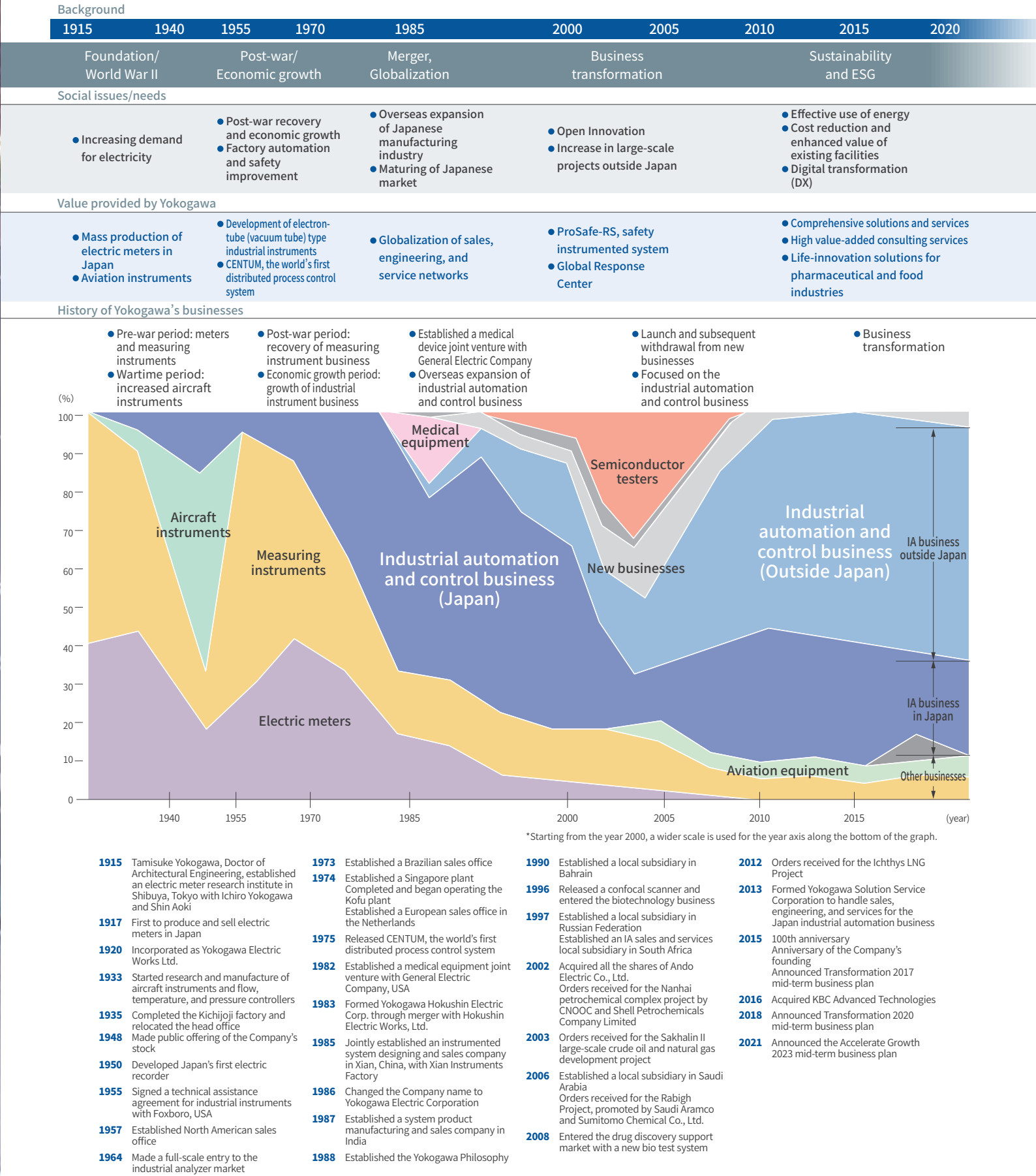
The synergy between Yokogawa’s strengths in business and its diverse partners creates an image the connection of many countries (issues, industries and companies) and the provision of value in a wide range of fields.



Yokogawa's Values

- 03 Tireless Efforts for Continuous Transformation
- 04 Yokogawa Group Identity

Tireless Efforts for Continuous Transformation



Yokogawa Group Identity

In establishing Yokogawa's Purpose, the elements that shape our identity have been organized as follows. The Yokogawa Philosophy and the underlying founding principles indicate what role Yokogawa should play in society. The Vision statement indicates where Yokogawa wishes to be ten years from now, and our shared values provide guidance for action. Based on these elements, Yokogawa's Purpose is a statement on the meaning of our existence and the intentions that lie behind the commitments we make.

Yokogawa Group Identity



Founding Principles

Upon founding the company, Tamisuke Yokogawa encouraged Ichiro Yokogawa, the future president, and Shin Aoki, the future chief engineering officer, saying, "You don't need to worry about profits. Just learn and improve our technology. You must make products that earn us the respect of our customers." These words have been passed down to us in our founding principles.

The Yokogawa Philosophy

Based on our founding principles, the Yokogawa Philosophy was formulated in 1988 as a statement on Yokogawa's mission to society that provides guidance on values and the actions that Yokogawa's people should take. When formulating Yokogawa's Purpose, we chose the phrase "sustainable society" to emphasize that we are in business to make a contribution that will be to the good of our planet.

Yokogawa's Purpose

Yokogawa's Purpose is our commitment to meet the requirements and expectations of customers, markets, and society, and expresses the meaning of our existence in society. It aims to unify and give our organization and people the strength and ambition to drive transformation.

Core Values

In keeping with our corporate culture, our shared values provide clear guidance on the actions we all should take. Actions rooted in these shared values will create new value, drive forward our contributions to society, and put us on a strong competitive footing.

Vision statement

The vision statement addresses where we wish to be as a company ten years from now, and the ideals that we should uphold, based on our long-term business framework. It was created to take the place of the vision statement announced in 2015 for the Transformation 2017 mid-term business plan.

See p. 12 and 24 for the establishment of Yokogawa's Purpose and the revision of Vision statement

Yokogawa's Sustainable Growth and Strategy

06	Message from the President & CEO
06	Review of previous mid-term business plan
10	Background to revision of long-term business framework and formulation of AG2023 mid-term business plan
12	The Yokogawa Group Identity
13	Long-term business framework
13	Value provision to customers ten years from now
15	The ideal form for our industry segments
17	AG2023 mid-term business plan
20	Key performance indicators and targets
21	Capital policy and financial strategy
22	Implementation of ESG management
23	Progress of mid-term business plan
24	Column: Employees' comment regarding the establishment of Yokogawa's Purpose and the revision of Vision statement
25	Sustainability Strategy
28	Special Feature: Approaches to Climate Change: Response to TCFD
30	Digital Transformation Strategy
32	Opportunities and Risks
36	Value Creation Process
38	Yokogawa Resources
38	Human Capital
41	Special Feature: Future Co-creation Initiative: Co-creating with Outside Parties and Developing Next Generation Leaders
42	Manufactured Capital
43	Social Capital
44	Intellectual Capital
46	Natural Capital

Message from the President & CEO

Accelerating growth for further transformation in a dramatically changing business environment based on where we wish to be as a company ten years from now

President and CEO

H. Nara

Review of previous mid-term business plan

Q Transformation 2020 (TF2020), our previous mid-term business plan, took us up until the end of fiscal year 2020. Please tell us about **any major achievements and issues** that were encountered as we sought to carry out our three basic strategies and increase our corporate value by making full use of digital technology.

A TF2020 had three basic strategies for enhancing our corporate value: Transformation of existing businesses, creation of new businesses and transformation of our business model, and improvement of productivity through Group-wide optimization. Through to the end of fiscal year 2019, our OPEX business and other focus fields were doing well; however, conditions in fiscal year 2020, the final year under the TF2020 plan, were extremely tough, with the beginning of a decline in crude oil prices and overall energy demand that impacted our customers' willingness to invest. Our business was also affected by the onset of the global COVID-19 pandemic.

Our efforts to expand the OPEX business, which is an important element of the basic strategy calling for the transformation of existing businesses, fared well in the first two years under TF2020, and growth was steady in our focus renewable energy and chemical industries. As for the creation of new businesses and transformation of our business model, we worked to firmly establish our Life Innovation Business (pharmaceutical and food industries) by doubling or tripling orders from the fiscal year 2017 level. As a result of these efforts, which included M&A, we were able to double orders and achieve steady growth. On the other hand, our transformation to a recurring business model through initiatives such as those of amnimo Inc.* is a work in progress. Regarding the strategy of improving productivity through Group-wide optimization, we achieved a certain level of success in optimizing entire supply chains and improving profitability; however, we still have issues to address in our company with regard to the improvement of productivity and reduction of costs, and we believe that we must continue to work on these issues

under the new mid-term business plan and reap the fruits of these efforts.

* A provider of services that make use of IoT and AI

Q For the implementation of the three basic strategies, it was said that we would make full use of digital technology and that **digital transformation (DX)** would be the driving force. Please tell us about **the results and the challenges** that were faced.

A First of all, through the internal DX initiative of globally introducing and putting robotic process automation (RPA) to work, we have been able to significantly reduce the workload for certain routine tasks. By focusing our resources on high-value-added operations, productivity has been improved. In addition, by making management tasks more data-driven, we have been able to quickly formulate management strategies and take action in a dramatically changing business environment, and operate more efficiently.

With regard to marketing automation, an area where it was noted* in fiscal year 2019 that we would need to accelerate our efforts, we have been using digital technology for demand creation, enabling us to discover potential demand even in regions where we have not done business before, and we expect this will lead to expansion and growth in our business. In addition, as part of an internal and external DX initiative, we are undertaking a pricing project for the visualization of data that links customers with our products and solutions. This will give us a better grasp of the actual situation so that we can optimize pricing based on the value that is delivered. By instantly plotting data on graphs, we have started to visualize information on our provision of value to customers, project profitability, and the progress that is achieved. We have not yet been able to apply this in all regions around the world, but we will continue working to eliminate individual variations and systematically move forward with our business.

See p. 39 of the 2020 Yokogawa Report.
Review of the previous mid-term business plan "TF2020"



Yokogawa's Values
Yokogawa's Sustainable Growth and Strategy
Yokogawa's Business
Yokogawa's Corporate Governance
Information

Message from the President & CEO

Themes that should continue to be pursued

- **Responding to changing customer needs “leading customer business transformation”**
Expanding needs for solutions with the themes of productivity improvement, remote control and safety and security.
→ Raise priority and implement measures to provide solutions that utilize digital technologies such as DX
- **Cost structure reform and cost efficiency improvement**
Continue to work on the measures and reap the results. Break away from the worker-proportional business style.
→ Implement measures for these challenges
- **Transformation of human resources**
The importance of innovative solutions is increasing due to the development of digital technology and changing customer needs.
→ Shift resources from existing fields to innovation fields and strengthen the capabilities of shifted human resources

Review of the previous mid-term business plan “TF2020”

Basic strategy	Transformation of existing businesses • Expansion of OPEX business • Further strengthen in target industries	Creation of new businesses and transformation of business model • Establishment of the life innovation business • Establish a recurring business model	Improvement of productivity through Group-wide optimization • Dramatic improvement in business efficiency through group-wide optimization
Achievements	• Received DX integration project order in collaboration with KBC (Middle East) • Grew our remote business (CI Server, etc.) • Signed strategic alliance agreement with SABIC • Received geothermal power plant project order and participated in demonstration of virtual power plant that utilizes industrial batteries etc. OPEX annual growth rate outside Japan Target 7~10 % ➡ Result (3.0)% Growth in target industries* (per year) Target 3~5 % ➡ Result 10% * Chemical and renewable energy industries (control orders)	• Acquired NKS corporation (expansion of validation business) • Acquired Fluid Imaging Technologies, a provider of flow imaging particle analysis solutions • Started water level meter and edge gateway business (recurring business model) etc. Life Innovation business sales Target 2~3 times* ➡ Result Approx. 2 times * Compared to FY17 result of approx. 12 billion yen	• Expanded use of global delivery centers • Optimized procurement and logistics costs • Accelerated business process outsourcing • Increased utilization of Yokogawa University etc. Cost reduction activities through the above efforts Approx. ¥6.5 billion
Issues	• Provision of DX solutions to meet customer needs for increased productivity and remote, safe, and secure operations • Breaking away from dependence on fossil-fuel energy industry • Expansion of energy supply chain business including renewable energy and storage batteries • Focus on high-growth functional chemicals sector	• Provision of solutions to increase productivity throughout pharmaceutical and food industry value chains • Expansion of use of recurring business model foundation	• Transformation of SG&A structure • Reduction of fixed costs • Achievement of further improvements in the efficiency of business processes • Transformation of human resources

strategy	Digital transformation (DX) • Create value in-house that will allow us to accelerate value delivery to our customers	Strategic investment (M&A, alliances) • Prioritize investment in the transformation of existing businesses and the creation of new businesses • Purposes include the acquisition of technologies, sales channels, products and services, customers, human resources, and know-how
Achievements	• Focused on establishing the foundation needed to provide value for customers (external DX) and create value in-house (internal DX) Internal DX • Visualized/simplified management by globally rolling out enterprise system • Sped up realization of data-driven management through use of global data lake and BI tools • Improved business efficiency by globally introducing RPA • Strengthened global security services business etc. External DX • Released Collaborative Information Server (CI Server) • Strengthened global security services business etc.	• Signed partnership agreement for biopharmaceutical business with ICQ Consultants, Corp. • Signed investment and partnership agreement with HIROTSU BIO SCIENCE INC. to expand use of N-NOSE cancer screening test service • Signed a value-added reseller contract with Cognite for analysis of plant information relevance etc. Amount of strategic investment Approx. ¥11 billion
Issues	• Transforming into a partner that promotes customers’ DX • Utilizing and enhancing DX for the realization of industrial autonomy • Accelerating internal DX to transform Yokogawa’s operations	• Enhancing product portfolio and human resources through M&A and alliances in order to establish new businesses

Q Based on customer feedback, what do we recognize as our strengths?

A The difference between us and our Western competitors is that our business has evolved from the provision of products to the supply of digital solutions that solve the issues that our customers face in their businesses. We are different in that we are able to make use of the deep domain knowledge that we have built up in our customers’ industries to present solutions and thereby contribute to their businesses. From plant start-up to actual operation, and through to the upgrade, improvement, and expansion stage, we work closely with our customers to see every project through to a successful conclusion, and they highly appreciate this.

Q Please give us a review of the key performance indicators and the targets for the TF2020 mid-term business plan.

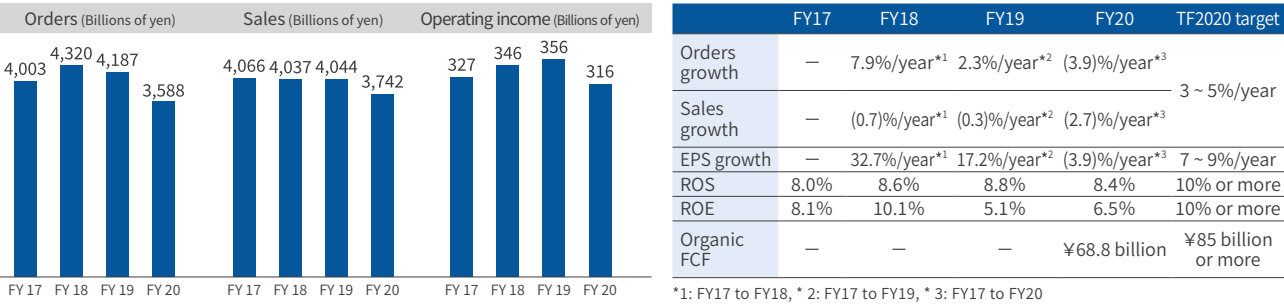
A Due to dramatic changes in our business environment caused by the spread of COVID-19 and other factors, we didn’t achieve our targets for TF2020. Under the new Accelerate Growth 2023 (AG2023) mid-term business plan that was launched this fiscal year, we will continue to work on areas where it will take time to reap results and where an ongoing effort will be required. Under AG2023,

we will structure our business to focus on solving social issues and aim to become a highly profitable company while expanding our contribution to society and the environment.

With TF2020 having come to an end, we will continue to address the following three issues under AG2023: Responding to changing customer needs, reforming our cost structure and improving cost efficiency, and transforming human resources. As for responding to changing customer needs, we will assign a higher priority to the provision of digital technology solutions that enable a digital transformation (DX), which is in keeping with our customers’ needs to improve productivity, work remotely, and enhance safety and security. With cost structure reform and cost efficiency improvement, it will be necessary to complete those measures that we have already been working on, and reap the results. For the improvement of cost efficiency, we will also implement measures to make our operations less people-dependent. Regarding the transformation of human resources, the importance of innovative solutions is increasing due to the development of digital technology and the changing needs of customers, but there are qualitative and quantitative shortages to deal with in the availability of human resources that can respond to these needs. It will be necessary to shift resources from existing fields to innovative fields and to strengthen the capabilities of the relocated human resources.

The targets were not achieved due to the dramatic changes caused by the COVID-19 pandemic.

Need to accelerate further growth to become a highly profitable company



Q In response to feedback from shareholders and investors, including that regarding stock price trends following the announcement of the financial results and the new mid-term business plan in May 2021, what initiatives will we focus on in IR activities in the future?

A In our dialogue with shareholders and investors after the financial results announcement, the candid opinion was expressed that, though we may have faced challenges such as COVID-19, our failure to achieve the targets of the previous mid-term business plan may also be attributed to poor execution.

As of May, the factory automation industry, including the semiconductor manufacturing equipment and machine tool segments, is recovering rapidly, but in the process automation industry, which is our main business field, there is a delay of about one year before any major market change is reflected in sales. However, we recognize that changes in our business environment, including this delay effect, are not the only reason why we were unable to achieve the targets. In a changing business environment, we must take full advantage of our core competencies and focus on being able to act quickly and produce results.

Regarding the stock price, we will continue to engage in

Message from the President & CEO

a dialogue with our shareholders and investors. I and the other members of the Yokogawa management team will strive to provide a deeper understanding of our businesses so that we may receive a more positive assessment. We may be seen by the capital markets as a company that is dependent on the oil and gas industries for its growth. While a rapid decline in demand for oil, gas, and other hydrocarbon energy sources is not anticipated, it will decrease over time as progress is made in the shift to

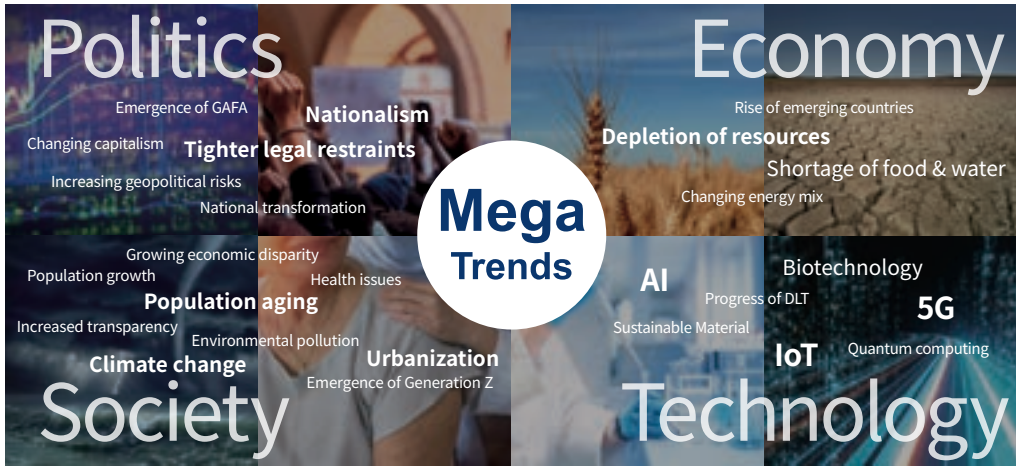
renewable energy and other cleaner energy sources. We are actually engaged in businesses in a variety of industries such as renewable energy that are directly linked with the SDGs, and we believe it is necessary to be as accurate as possible in the information that we give out about these businesses. We also believe that we must focus on providing information to capital markets and engaging with shareholders and investors so that they can understand the actual state of our businesses.

Background to revision of long-term business framework and formulation of AG2023 mid-term business plan

Q In view of changes in the business environment that are expected to impact Yokogawa's business over the next ten years, please tell us what points are particularly important, and what we should achieve.

A The starting point for this review of the long-term business framework was the consideration of where

we wish to be as a company ten years from now, based on an assessment of the dramatic changes that have taken place in our business environment since the formulation of the Transformation 2017 and Transformation 2020 mid-term business plans. As for the changes that we foresee over the next ten years, we believe that nationalism will exert an even stronger force and that there will be an increasing demand for supply chains to be confined within



Customer trends

- Shift to renewable energy (mainly energy-related companies)
- Shift to production of environmentally friendly products
- Growing need for workforce reduction/unmanned operations, progress with digital transformation (DX)
- Accelerating low-carbon investment
- Process flexibility improvement
- Efficient, sophisticated, and fast R&D

Process automation industry trends

- Maturing product markets, hardware commoditization
- Growing software and sensor markets
- Spread of new business models
- Competition with IT companies
- Threat of cyber attacks



national borders, with the resulting need for us to localize our production facilities and various functions. In terms of the economy, in addition to the aforementioned diversification to renewable energy and other energy sources, shortages of food and water and the depletion of resources are predicted. Society will most greatly be impacted by climate change, but aging populations in developed countries such as Japan and global population growth will also be pressing concerns. The most important aspect for us is technology, and it will be necessary for us to utilize and find applications for evolving digital technologies such as AI, the cloud, digital twins, and 5G.

Q Amidst such changes in the business environment, what customer trends do you perceive?

A Customers are changing their business processes and shifting to business models that emphasize sustainability, and these changes are accelerating due to the impact of COVID-19. For example, our energy-related company customers in Europe are changing from hydrocarbon-based energy companies into integrated energy companies that make use of renewable energy sources. In response to these changes, we need to actively lead the way in helping our customers transform their businesses, and not just passively act and provide support based on their requests.

Q Tell us about Yokogawa's business opportunities and how you plan to capitalize on them.

A We see the dramatic changes underway in society and advances in technology as opportunities to

create new value and take on new challenges. For example, with the aforementioned diversification of energy sources, the domain knowledge that we have cultivated in the oil and gas fields can be utilized in a variety of energy fields such as renewable energy and hydrogen. The core competencies we have cultivated in measurement, control, and information apply to a wide variety of industries, and present us opportunities to expand our business domains by making the best use of strengths that include our technologies and know-how. This was one factor for our change under AG2023 from an organization based on products and functions to one that is based on industry business segments. In particular, we will carry out DX by using not only our knowledge of the operational technology (OT) domain but also information technology (IT), and through IT/OT convergence will increase the business opportunities that are open to us.

At the same time, we are fully aware that we cannot grow as a company unless we gain the trust of our customers and they have confidence that we can work with both OT and IT. Barriers to entry into the IA business in our major market, the process automation industry, are falling, and the competitive environment is changing significantly with the market entry of IT vendors, companies with edge technologies, and the like. To take our business to a new level, we will need to speed up the transformation of our human resources and acquire the necessary knowledge, know-how, and technologies through M&A and alliances.

See p. 32 for Opportunities and Risks



Message from the President & CEO

The Yokogawa Group Identity

Q As part of the review of the long-term business framework and formulation of the AG2023 plan, we have formulated **Yokogawa's Purpose, a statement on the meaning of Yokogawa's existence, and revised the Vision statement** on where we wish to be ten years from now. Please explain the background to this and the reasons for these changes.

A The newly formulated Yokogawa's Purpose clearly states the significance of our existence to our customers and society as follows: "Utilizing our ability to measure and connect, we fulfill our responsibilities for the future of our planet." Our ability to measure and connect is a core competence that we must never lose. We wish to use this strength to find solutions to various social issues and create a future where humanity and planet Earth can co-exist in symbiotic harmony. We are committed to fulfilling our responsibilities for the future of our planet.

The Vision statement was revised to read "Through autonomy and symbiosis, we will create sustainable value and lead the way in solving global issues." As always, we closely work with our customers to meet their requirements and see all projects through to a successful conclusion, and provide long-term support of their operations over the the entire lifecycle of their plant facilities. The new Vision statement affirms our strong commitment to jointly planning a path forward to an ideal future with our customers and leading them in its implementation.

To play this leading role, both for our customers and society, we will accelerate the standardization of and the sharing of information on our best practices, and expand and develop these practices to cover a wide range of customers in various industries. By conducting business optimally, efficiently, and sustainably, we will solve social issues and increase the scale of our business.

See p. 4 for Yokogawa Group Identity

See p. 24 for Employees' comment regarding the establishment of Yokogawa's Purpose and the revision of Vision statement

Utilizing our ability to measure and connect, we fulfill our responsibilities for the future of our planet.

Measuring represents Yokogawa's origin as a company. We measure things, grasp and analyze their state, and add value through the information that is derived. *Connecting* refers to how Yokogawa not only combines valuable information, but also builds trusted relationships with customers in various industries and brings together businesses and industries, giving resonance to the value that we create.

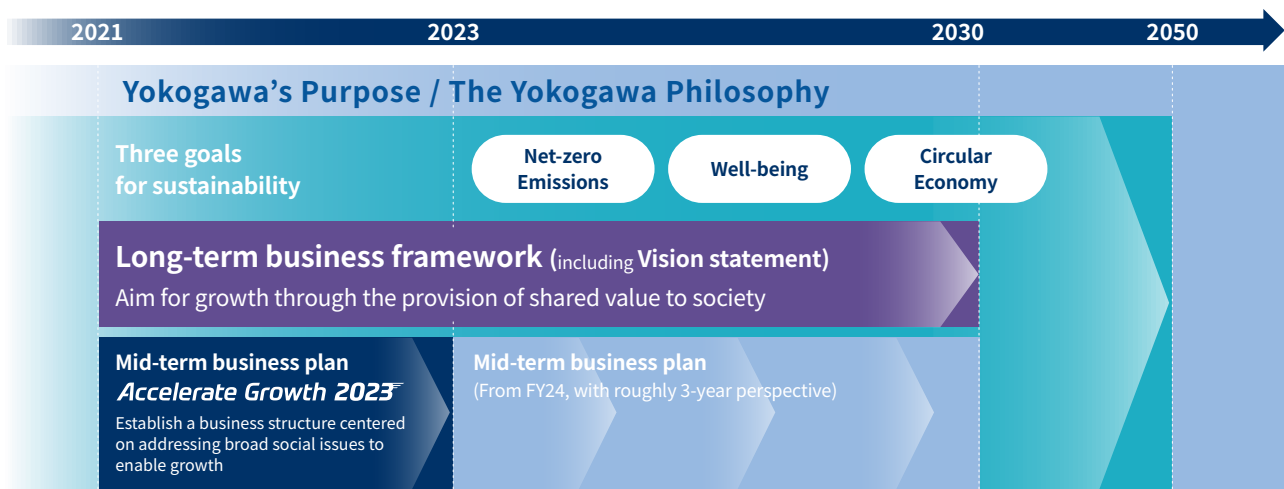
Our ability to measure and connect is a core competence that Yokogawa must never lose. We wish to use this strength to find solutions to various social issues and create a future where humanity and planet Earth can co-exist in symbiotic harmony. This aspiration is expressed in our commitment to *fulfill our responsibilities for the future of our planet*.

Through autonomy and symbiosis, Yokogawa will create sustainable value and lead the way in solving global issues.

The operational autonomy that Yokogawa aims to achieve will help to increase productivity, avoid risks, reduce workloads, and ensure worker safety. This operational autonomy will extend beyond the boundaries of individual organizations, companies, and industries.

Yokogawa's vision is to bring about a symbiosis between industry and society in which these entities function autonomously, yet in a coordinated way. By realizing this vision and continuing to create value, Yokogawa will take the initiative in addressing social issues.

Overview of long-term business framework and mid-term business plan



Long-term business framework

Value provision to customers ten years from now

Q Why does Yokogawa aspire to lead the way forward as an integrator in a world where entire societies will function as a system of systems (SoS)?

A In the world today, everything is increasingly interconnected in complex ways. It is becoming ever more important to capitalize on this interconnectiveness by engaging in co-creation. To provide value, we are focusing on the SoS concept. SoS does not simply refer to a huge collection of connected systems. Rather, an SoS is a system made up of independently operated and managed systems that work together to achieve a purpose that cannot be achieved by any one system. For example, all the elements that make up a smart city - from its energy systems and other infrastructure to the companies that conduct eco-

conomic activities, their employees, consumers, and general households - interact with and have an influence on each other. The overall optimization of such a city will not only foster efficiency, but will result in the creation of new lifestyles and new types of value. As the trend toward SoS continues to advance, Yokogawa will be able to further demonstrate its strengths in this area.

Systems can all be complex, but simply joining them together does not create or add any sort of value. To create value, there is a need for the integration knowledge, know-how, and techniques that Yokogawa has built up over the years. Utilizing these capabilities and digital technologies such as AI, robotics, and the cloud, we can provide value in a world where entire societies will function as an SoS.

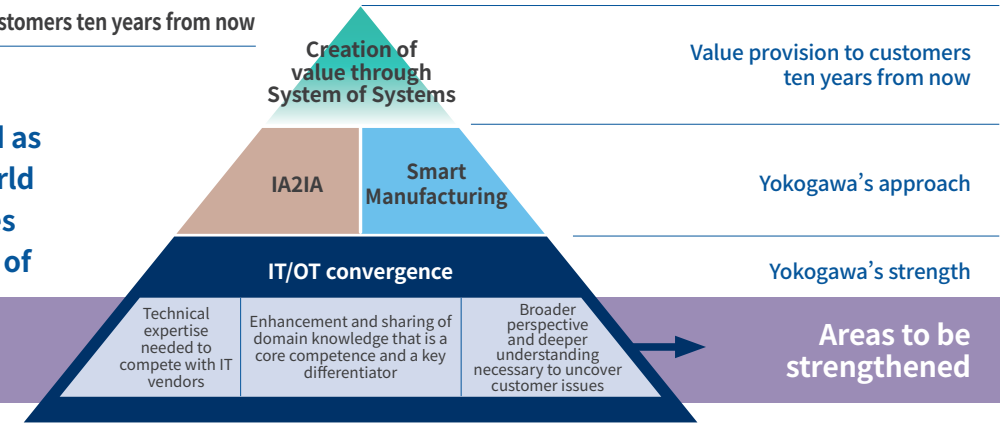
System of Systems

Everything is inter-connected in complicated ways, and the components function as independently operated and managed systems that work together to achieve a purpose that cannot be achieved by any single system.

Message from the President & CEO

To realize value provision to customers ten years from now

Yokogawa aspires to lead the way forward as an integrator in a world where entire societies function as a System of Systems.

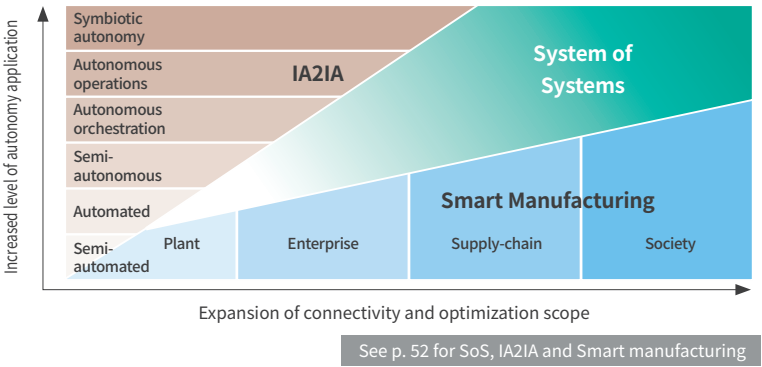


Value provided through System of Systems

Promote effective connectivity and create value through overall optimization driven by integration, autonomy, and digitalization.

Yokogawa's strengths in a connected society

- OT domain knowledge and project implementation capabilities
- A corporate culture that builds a chain of trust



Q Can you tell us about Yokogawa's IA2IA and smart manufacturing initiatives for delivering value based on the SoS concept?

A IA2IA, which stands for industrial automation to industrial autonomy, and smart manufacturing are the two elements through which we will deliver value based on the SoS concept. With IA2IA, high value will be added by proceeding in steps from semi-automation to full automation, and then from semi-autonomy to full autonomy. This trend is expected to spread to the manufacturing industry as well as the tertiary sector as the need to improve productivity grows. The status of these efforts will be determined by the progress that is achieved in data integration and the degree to which various production facilities, companies, and industries are able to operate autonomously through the use of machine learning.

Smart manufacturing expresses the scope of control. This could be the control of a specific production facility such as a plant, the optimization of operations for an entire company, or even the optimization of an entire supply chain.

Based on the SoS concept, we aim to deliver value through the twin approaches of the progressive achievement of autonomy (IA2IA) and the expansion of the connectivity and optimization scope (smart manufacturing).

Q What is the importance of IT/OT convergence?

A OT is a Yokogawa strength. It involves the use of data from sensors and other equipment to optimize the operation and control of plants. With IT/OT convergence, OT data can be analyzed in various ways by IT to derive solutions that can be fed back to the OT to improve efficiency and optimize operations. Even if you have the ability to collect large amounts of data, this optimization cannot be performed if you cannot interpret the data and pinpoint where it can be applied to optimize an actual operation. Our strengths in OT and domain knowledge can be combined with AI, digital twins, and other simulation and analysis technologies to find the answers needed for optimization.

Recently, customers have shown an increasing interest in discussing IT/OT convergence and the achievement of DX with us. We have received inquiries about how to handle, analyze, and make use of essential data from the enormous amounts of data that are generated through OT, and how to become a digital enterprise. By providing added value through IT/OT convergence to our customers, we play an important role in improving the business value of our customers, and we intend to further enhance and apply Yokogawa's strengths.

The ideal form for our industry segments

Q Please tell us about the change from an organization that is centered on products and functions to one that is based on industry business segments, and give us your thoughts on how you plan to manage these segments.

A As the first aim, we have been managing the control business with a conventional focus on products and functions, but came to the conclusion it would be better to subdivide it to focus on individual industry business segments, based on our customers' business domains. In addition, despite our also having a focus on renewable energy and the chemical industry, the capital markets have continued to perceive us as being dependent on the oil and gas industries. Therefore, with this change, we wish to make clear that we do business in a wide range of industries and that we are a company whose activities are directly linked to the SDGs.

Regarding the energy & sustainability industry business segment, since energy companies are beginning to change into integrated energy companies that handle conventional energy sources such as oil & gas as well as renewables, we decided to define this segment as energy and sustainability. The renewable energy field includes wind, solar, and geothermal power, as well as related areas such as energy storage (batteries) and the management of microgrids and other elements related to power transmission and distribution. Given concerns about the stable supply of renewable energy, we aim to optimize the entire supply chain through demand response management* and other means while utilizing our strengths and best practices. This



segment focuses on businesses that will achieve a carbon neutral society, which is in keeping with our "Three goals" for sustainability.

Regarding the materials industry business segment, we will apply the wealth of knowledge and know-how that we have cultivated through the provision of a diverse variety of complex custom solutions to the chemicals industry to develop best practices for the solution of issues that our customers face. In the materials industries such as pulp & paper, cement, mining, and non-ferrous metals, this will include the improvement of energy efficiency and the use of environmentally friendly raw materials. Amidst major changes that are underway with process and discrete manufacturing methods, this segment focuses on businesses that will facilitate the transition to a circular economy, which is one of our "Three goals."

Regarding the life segment, this will cover the water business as well as the food and pharmaceutical business-

Energy & Sustainability • Oil & gas • Petrochemicals • Renewable energy • Electric power • EMS • Energy storage	Materials • Functional chemicals • Biomass materials • Pulp & paper • Textiles • Steel • Non-ferrous metals • Mining • Mobility • Electrical/electronics	Life • Pharmaceuticals • Healthcare • Food • Water	Measuring instruments^{*1} • Energy • Info-comm • Healthcare New businesses and other^{*1, *2} • Bio-related • Aviation • New business
Areas for exploration Disaster prevention, space, and ocean			

*1: Measuring instruments business, New business and Other business need to maintain independent business operations due to the characteristics of their products and commercial distribution. They are in separate segments but share the same direction of value provision ten years from now.
*2: The contents of the "●" mark for new business and other are based on Yokogawa's activities.

Message from the President & CEO

es that were being developed by the life innovation business. This segment focuses on the achievement of well-being, which is one of our “Three goals.”

A secondary aim is to grow each of these industry business segments by clearly separating them. Under the previous organizational structure, there was a strong tendency to focus on large-scale projects in the oil and gas industries, and this was a restraint that impacted the expansion of our business in other industries. By clearly separating roles and resources, we have created a structure that enables us to further focus on expanding our businesses in different industries. We will also move beyond the production management and information areas so that our business activities cover the entire supply chain. In addition, we will focus on strengthening our ability to engage in the proposal of solutions to a variety of industries and business domains, and will develop this globally. In particular, at our Group companies outside Japan, there is still a tendency to focus on business centering on products, so we will also work to transform our human resources.

Q What are your thoughts on the expansion of our business in different industries?

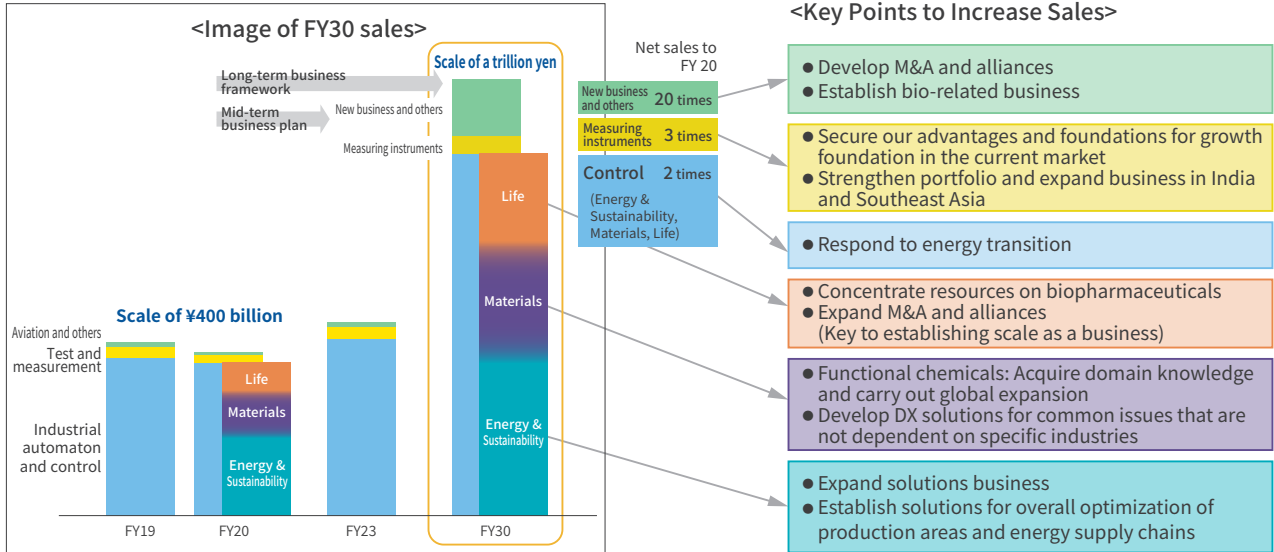
A For the expansion of business in different industries, we have focused on sharing with Group companies

outside Japan our know-how about energy conservation, asset management, security, and safety solutions as well as manufacturing execution systems (MES) and enterprise resource planning (ERP) systems. While the know-how acquired in Japan by companies like Yokogawa Solution Service Corporation has been put to use mainly in Asia, we are now planning to extend this further. It will be necessary for our companies in each region to find the best way to carry out their business, and we would like to increase the speed of our business expansion in different industries by using both approaches.

To this end, we have established a Digital Solutions headquarters with a center of excellence (CoE) function to support the control business activities of the three industry business segments. Our efforts to date to conduct proof of concept studies, standardize best practices, and promote their use in each region have not always been carried out successfully. To enhance the functions that will be required to achieve this, the four CoE functions of global deployment, system development, delivery, and services will be brought together under the Digital Solutions headquarters. A shift will be made in which this headquarters will independently examine requests for the development of new products to determine their marketability and profitability. With this new structure, we will strengthen our ability to globally develop solutions and lead the way forward in expanding our business in different industries.

See p. 30 for DX Strategy

Assumed vision of a group company with sales of a trillion-yen



Q Please tell us your thoughts on becoming a trillion-yen company by fiscal year 2030.

A In conversations between employees and management, I was able to confirm that employees strongly believe that because our company has businesses that are

directly linked to solving the SDGs, we should be able to grow further by promoting that. Considering this strong belief, and also the presence required to be recognized by society, we have decided to include the aspirational goal of becoming a trillion-yen company as one element of our vision for where we should be ten years from now.

See p. 24 for Employees' comment regarding the establishment of Yokogawa's Purpose and the revision of Vision statement

AG2023 mid-term business plan



AG2023 mid-term business plan

Q What are your thoughts on the four basic strategies of the AG2023 mid-term business plan?

A Regarding the first strategy calling for us to implement IA2IA & smart manufacturing and transform value provision, as our customers move toward autonomous operations, our growth will depend on our ability to work with them to realize the IA2IA and smart manufacturing concepts. Digitalization is also extremely important. Up until now, we have been mainly involved in projects as the main automation contractor (MAC) for instrumentation at production facilities. In the future, we will be in the position to play an overall project coordination role, covering not only OT but also the IT field as a main automation and information contractor (MAIC). We are determined to capitalize on the aforementioned increase in IT/OT convergence type projects, and this will play a direct role in the realization of IA2IA and smart manufacturing. In fact, a rising percentage of the inquiries that we receive involve MAIC projects. from customers to us is increasing. Furthermore, within such a trend, we also believe that the key point will be how we develop recurring business while using the foundation we have cultivated.

For our second strategy of strengthening industry responsiveness and expanding cross-industry business, we will accomplish this and grow our business by providing new value to customers who are in the process of becoming integrated energy companies. Such value could come through the provision of optimal energy management solutions for complex energy supply chains that make use of renewable energy and storage battery technologies. For the expansion of cross-industry business, we will aid in the solution of issues that companies commonly face in all industries. For example, across the board there is a need for solutions that save energy, facilitate remote work in safe environments to combat the spread of COVID-19, ensure security, and maximize the value of existing assets. We will grow our business by modularizing and standardizing our know-how, knowledge, and technology and expanding their application to various industries.

As for our third strategy of ensuring profitability and sound growth, we will step up our efforts to consolidate related knowledge and as a result reduce engineering costs with the large-scale systems projects that we are engaged in. Also, on the product side, costs are extremely high due to the need, for example, to make design changes when

Message from the President & CEO



parts are discontinued, and the need to maintain an inventory of spare parts. By means such as outsourcing, we can direct our resources to the development of new products and solutions that will generate greater added value. We will also keep working to ensure that we turn a profit in software and engineering.

As has been suggested by investors and shareholders, we are working to improve our cash conversion cycle (CCC) by organizing a project team that is globally standardizing business processes. Our company, which generates a high proportion of its sales in Japan and the Middle East, has a longer CCC than its competitors due to its payment terms. Not only must our sales departments strive to receive payments sooner, improvements must be carried out to make our production, development, delivery, and the entire supply chain more seamless, including shortening the lead times for the manufacturing of products and the timing of purchasing and payments. We are working to make improvements in these areas.

With the fourth strategy of optimizing internal operations and transforming mindsets, while we have been able to obtain results and expand the Group's business by giving each region a certain degree of freedom, a strengthening of the global headquarters functions is needed to optimize the Group as a whole. As a global company, I believe that we must grasp all that is being done by the functions at our subsidiaries and other organizations around the world in order to be able to steer an optimal course, and that we must leverage the strengths of our subsidiaries in each region to develop our own businesses.

In addition, more needs to be done with the strengthening of the strategic planning function that was begun under TF2020. As for human resources, we will secure the resources needed to enter new fields and businesses, and develop the infrastructure required to foster a corporate culture that encourages people to take on new challenges, and enables the effective promotion of strategies. We will

also continue our efforts to enhance internal DX and transform our business model.

See p. 30 for DX Strategy

Q Please tell us about your focus fields and strategies for the energy & sustainability, materials, and life industry business segments.

A As for the energy & sustainability segment, looking at the conventional oil and gas industries, we excel in LNG, and conditions in this particular industry remain strong. We will undertake to secure orders throughout the LNG supply chain. In the oil industry, particularly refining, we have developed solutions that can dramatically improve profitability, and our customers have a high respect for and are satisfied with our results and achievements. As best practices, we will globally deploy these solutions.

With regard to renewable energy, we envision a business that will combine the use of wind, solar, geothermal, biomass, and battery solutions to optimize power distribution and transmission. We will focus on areas where there is great room for optimization, such as microgrids and distributed energy resource management systems (DERMS). Key to this will be the implementation of control systems that can monitor power demand and eliminate losses in power supply, and software that can manage entire facilities in an integrated manner. Through M&A and investment, we will actively acquire the technologies, expertise, and know-how needed to cover the entire supply chain. In addition, Europe, Australia, the United States, Japan, South Korea, and other countries are all making progress in research and development for the practical use of hydrogen energy, and it is believed this will play an important role in achieving a carbon-neutral society. We are seeing an increase in inquiries for plans to, for example, transport liquefied hydrogen from Australia by ship and regasify it in Japan. The processes in question are quite similar to those that we cover in the LNG supply chain, so we can make use of our technologies, know-how, and expertise. We are building a project team that will pursue these opportunities, and I believe that the anticipated increase in the number of such projects will have a positive medium-term impact on orders.

In the materials segment, while chemicals has been our primary focus, we will leverage our strong relationships with customers, our extensive installed base, and DX to expand our business in this segment. In the future, technological innovations are expected that will lead to changes in raw materials and manufacturing methods, and this will be a great business opportunity for us as we have core competencies in improving yields and processes. In functional chemicals, we will leverage our know-how in production and quality control and utilize the best practices that have been established through our successes in the Japan market to expand this business outside Japan. Mining, which is experiencing a boom mainly in Chile and

Australia, presents certain environmental challenges such as facilities being at high-altitude locations that can be difficult to access, so there is an increasing need for remote monitoring and control solutions that will enhance worker safety. We will keep close track of customer needs and act on them. Furthermore, in the biomass-materials field, we are considering producing bio-based products for the market ourselves.

As for the life segment, we provide confocal scanners for the observation of phenomena in living cells and tissues, and cell-based manufacturing solutions that stabilize and improve the efficiency of cell culture processes. During the period covered by AG2023, we aim to exceed the growth that was achieved under the previous mid-term business plan. In the food and pharmaceutical industries, we received an increased number of production and MES-related inquiries mainly in Japan, but unfortunately were unable to act on all of them last fiscal year. In order not to miss out on such opportunities, we will increase our investment in human resources. In the water-related field, demand for water supply and sewerage systems and seawater desalination systems is increasing outside Japan. As I mentioned when discussing our business environment, the Life segment has a direct connection to social issues such as population growth, aging, resource depletion, and food and water shortages. Since the market is growing fastest in this area, increasing the scale of our business in the life segment is a major priority in the AG2023 plan.

And in our dialogue with shareholders and investors following the announcement of AG2023, we have received requests to show specific targets for each of the three segments, specific strategies for achieving those targets, and information on the progress that is made in their achievement. We will take special care to show this along with information on the capabilities and strengths of each segment as well as non-organic aspects such as M&A.

Q Our goal in the life business is to achieve sales growth of 16% or more, significantly exceeding market growth (2.9%). Please tell us what you aim to achieve through M&A in the biotechnology field.

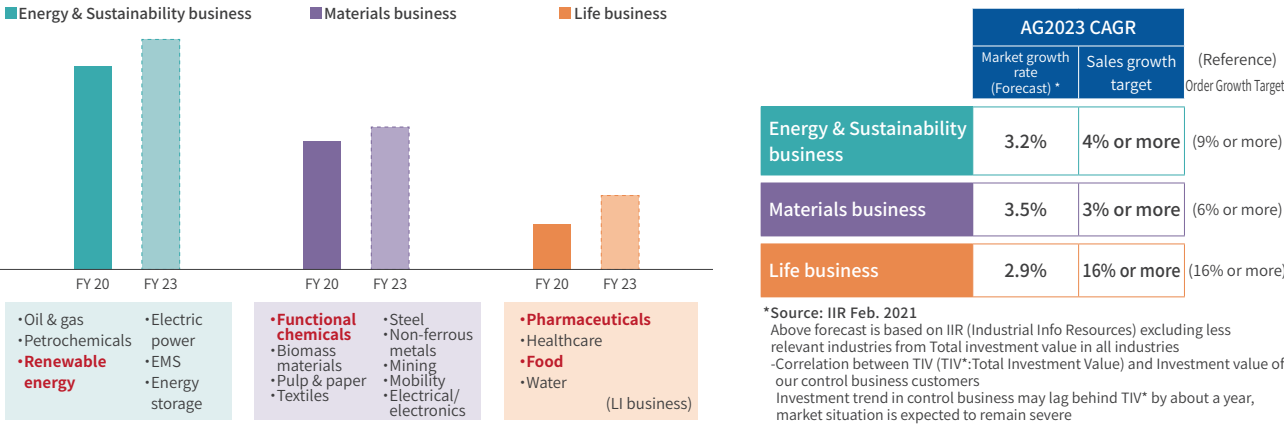
A Most recently, we have acquired a nanopipette technology for the observation of single cells, and an imaging solution for the analysis of particles suspended in liquid media. It will be important to continue acquiring technologies, but we will also look for opportunities to directly scale up our businesses by targeting companies that have established customers bases, networks, and sales channels.

Energy & Sustainability business : Targeting renewable energy, including M&A, to grow 2 ~ 3 times

Materials business : Although there are differences across industries, **functional chemicals will be the center of growth,**

Life business : Will drive growth including through bio-related M&A

[FY23 sales growth target image by business segment]



Message from the President & CEO

Key performance indicators and targets

We will allocate cash generated through our business to investments that will **increase and maximize corporate value in the medium to long term.**

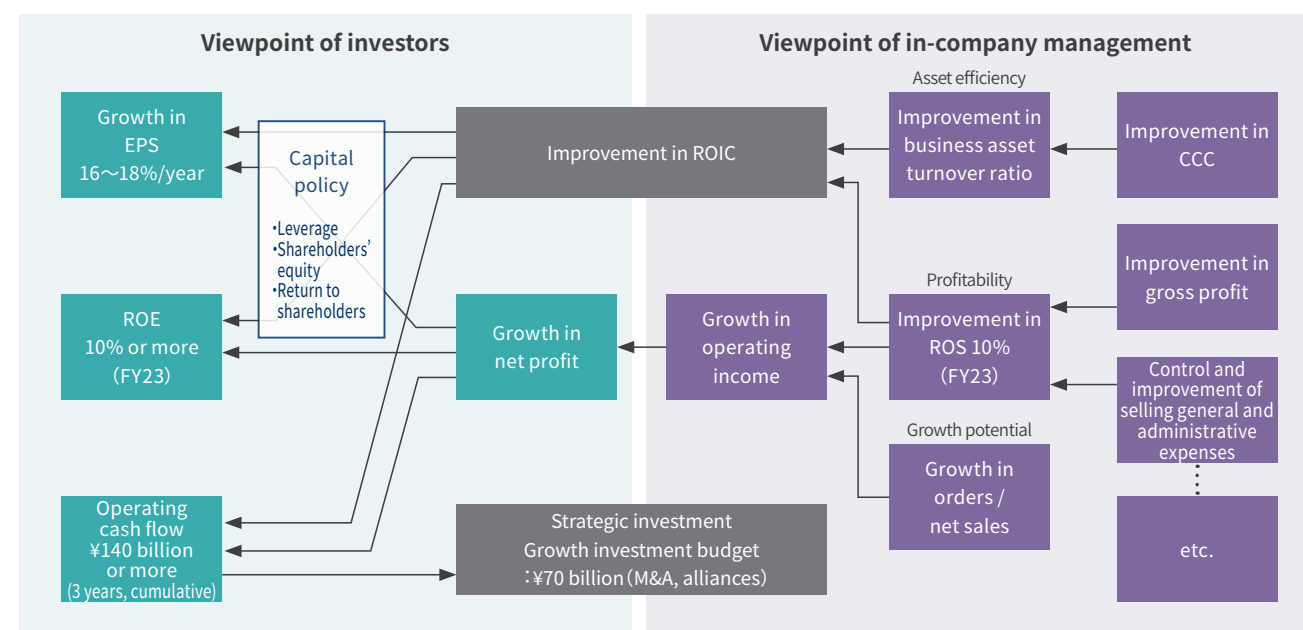
Key points

- Solve customer's on-site issues and globally expand enterprise system business
- Strengthen industry support and expand businesses that are not industry dependent
- Make improvements to ensure a sound earnings structure
- Optimize resource allocation to realize the strategy of the entire Group
- Strengthen the ability to generate cash flow creation output in the future and cumulatively

Targets

Order growth	8~10% / year	
Sales growth	4~6% / year	
EPS growth	16~18% / year	
ROS	10% (FY23)	Record high level Previous record 9.6% (FY15)
ROE	10% or more (FY23)	
Sales cash flow	¥140 billion or more (3 years cumulative)	

Main initiatives for achieving targets (KPI structure)



Q What points are you emphasizing with the key performance indicators and what are your thoughts on achieving their targets?

A We are focused on maximizing corporate and shareholder value from a medium- to long-term perspective. Orders received in fiscal year 2020 decreased significantly due to the influence of COVID-19, but we expect a recovery in fiscal year 2021, and looking ahead to fiscal year 2023 anticipate a CAGR of 8% to 10% . However, in the control business, the pace of recovery is slow and it is thought that it will take time for sales to recover, so we are aiming for a 4% to 6% CAGR over the same period. Thanks

to growth in orders and sales, we will not only achieve growth in operating income and net income, but also generate operating cash flow. On the other hand, we will need to make forward-looking investments in new businesses to increase corporate and shareholder value from a medium- to long-term perspective. As for cash, we believe that we are in a stronger financial position as a result of our efforts to improve profitability and growth. We have set the highest targets to date with our mid-term business plan, and we will be sure to implement the strategies of AG2023 and accelerate the growth of our business.

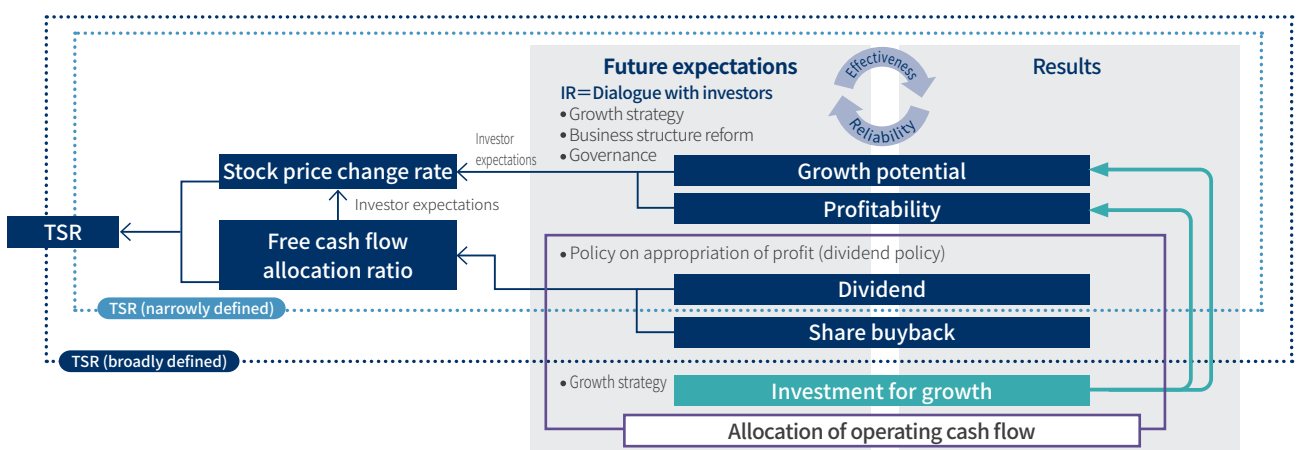
See p. 18 for the improvement in CCC

Capital policy and financial strategy

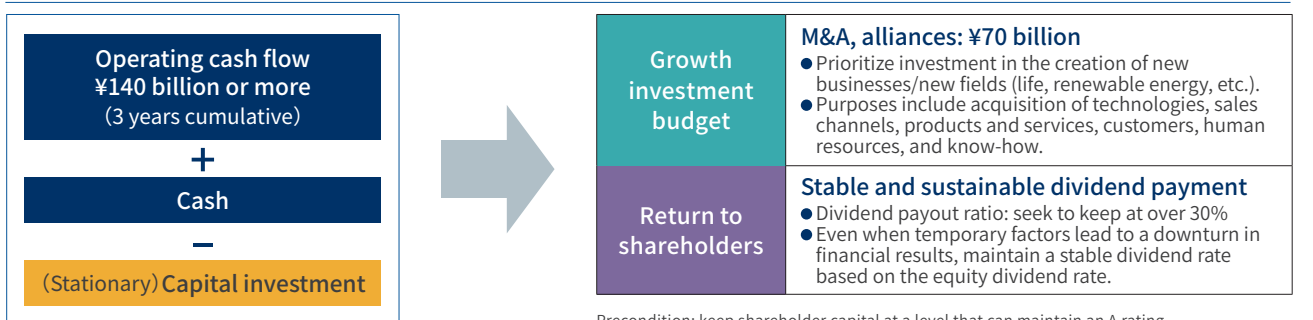
Q What are your thoughts on investment for growth and return to shareholders?

A We will strive to maximize shareholder value from a medium- to long-term perspective by achieving a total shareholder return (TSR) that exceeds the cost of shareholders equity, while at the same time improving corporate value over the medium- to long-term. Toward this end, we will prioritize allocation of the cash that is generated to investment for growth with the goal of maximizing corporate value. With regard to investment for

growth, we have established a growth investment budget (M&A/alliances) of 70 billion yen. Also, we will actively provide a return to shareholders on the premise that we maintain a certain financial base. As for return to shareholders, we intend to provide stable and sustainable dividends even if a large loss is expected due to temporary factors. We will aim to keep the dividend payout ratio at 30% or higher, but, based on the thinking laid out above, we will set it at a level in order to maintain long-term expectations for the company in the capital markets.



Allocate cash generated through our business to investments that will increase and maximize corporate value in the medium to long term.



Precondition: keep shareholder capital at a level that can maintain an A rating

Q What are your thoughts on the TSR and the cost of shareholders equity, and where do they currently stand?

A On an annual basis, the TSR during the previous TF2020 mid-term business plan fell below the weighted average cost of capital (WACC). As with the major oil companies and EPCs, one of the main factors behind this decline is the drop in stock prices due to the decline in crude oil prices caused by the spread of COVID-19. Based on the basic strategies of AG2023 that I mentioned earlier, we will accelerate business growth to improve ROIC, and eventually also ROE. In addition, with the aim of improving visualization of our business, we will actively engage in dialogue with shareholders and investors and enhance information disclosure.

Q What are your criteria for M&A and what are your thoughts on withdrawing from businesses?

A After screening for strategic consistency, we make comprehensive judgments based on quantitative indicators such as net present value (NPV) and internal rate of return (IRR), depending on the type of investment. With respect to investments in and withdrawals from new and existing businesses, we take into account factors such as the nature of the business and regional characteristics. Following extensive discussions by management, the decision is made on the condition that the IRR exceeds the hurdle rate.

Message from the President & CEO

Implementation of ESG management

What are your thoughts on ESG management?

With regard to the environmental and social aspects, we have been working on the assumption that our business itself has a direct link to the solution of social issues. As for the SDGs, we have been working to achieve the “Three goals” for sustainability based on our vision for the year 2050. In line with the review of our long-term business framework, we have defined six areas where we will work toward the achievement of mid-term sustainability targets for the year 2030. In our message in this report last fiscal year (2020), we stated as follows: “We will provide concrete information such as the quantitative economic effects to our customers and the value that we contribute to society and the environment.” Based on this, we will disclose information on our indicators, targets, and achieved progress once that information is known. In addition, in order to further improve employee awareness of how our business contributes in these areas, we will show this connection in the OKRs* for individual employees to encourage voluntary initiatives that will produce results. With regard to governance, we have continued our

efforts in this area with the appointment this fiscal year of an additional outside director, which puts outside directors in the majority on the board of directors. In addition, one of these directors is female. Furthermore, two women serve as executive officers. Also starting this fiscal year, we are disclosing information for the first time on such topics as the outside officers’ main area of expertise and experience, and are also strengthening governance with respect to diversity and inclusion. We will not be complacent, and will continue to utilize and improve existing systems and frameworks, as well as work to further diversify the board of directors and improve information disclosure. In addition, we will proceed with the creation of a global human resources system and an appraisal and compensation system for the Group, and streamline organizational responsibility and authority, and work to enhance Group governance. We will strengthen our internal control and risk management systems on a global basis, taking into account an increase in the number of subsidiaries outside Japan due to the development of new businesses and involvement in M&A.

* Objectives and key results, a method for setting and managing objectives

See p. 25 for Sustainability Strategy

See p. 64 for Special Feature: Strengthening Corporate Governance

Managing from an ESG perspective to ensure that we can continue to provide high value over the next ten years



In closing

How will you exercise leadership as President and CEO to manage and oversee progress with AG2023?

I believe that the responsibility of the management team is not only to present a long-term business framework and mid-term business plan and to achieve the numerical targets, but to also make sure that stakeholders, including shareholders, investors, and employees, fully understand their contents. On top of that, I and the other members of the management team will take the lead in improving corporate value and maximizing shareholder

value. The driver for achieving our plan is the power of our employees. In order to get where we wish to be ten years from now, every employee will need to act based on a sense of individual responsibility for the achievement of the mid-term business plan. The management team will need to provide an environment that is conducive to that. Specifically, using the OKR human resources framework to oversee the implementation of detailed action plans and monitor progress while also engaging in the observe-orient-decide-act (OODA) cycle will lead to the achievement of our plan.

Progress of mid-term business plan

Transformation2017 “TF2017” Phase1:FY2015-2017			Transformation2020 “TF2020” Phase2:FY2018-2020																																														
Vision	Establishing a foundation for growth by transforming our business structure		Creating opportunity and consolidating the foundation for growth																																														
Business environment (initially)	• Expansion of energy demand in line with growth of emerging economies • Technology innovations in oil and gas development and in manufacturing processes • ICT advancement and penetration into industrial base • Oil price volatility • Concerns over intensifying competition		• Market downturn, intensifying competition Economic slowdown beyond expectation including stagnant crude oil prices and decelerating growth in emerging countries • Declining investment by our customers CAPEX stagnation ⇔ OPEX firm growth • Our existing businesses facing an uphill struggle High dependency on energy-related business, leveling-off sales and volume • Reforming growth model Opportunities for growth brought by innovations in digital technology, SDGs, and other changes in our external environment																																														
Strategy	Focusing on customers • Develop business by pursuing strategic partnerships with customers • Expand our business with our current customer base Creating new value • ICT advances are leading to new business opportunities • Co-create value across companies and industries by improving efficiency and achieving overall optimization Becoming a highly efficient global company • Globally optimize all functions and operations • Be more profitable than our competitors The diagram illustrates the Digital Transformation process as a continuous cycle of improvement. At the center is a white circle labeled "Digital Transformation". Surrounding it are five colored segments, each representing a different aspect of the transformation, connected by a circular arrow. The segments are: 1. Orange (top): "Creation of new businesses and transformation of business model". 2. Green (top-right): "Working with customers to radically improve productivity". 3. Yellow (right): "Sustainably creating value through innovation". 4. Blue (bottom-right): "Dramatically improving business efficiency". 5. Green (bottom-left): "Improvement of productivity through Group-wide optimization". The entire cycle is labeled "Transformation of existing businesses" on the left side.																																																
KPIs and targets	<table><tr><th></th><th>Targets</th><th>Results</th></tr><tr><td>ROE</td><td>11% or more</td><td>8.1%</td></tr><tr><td>ROA</td><td>6% or more</td><td>4.8%</td></tr><tr><td>Net sales</td><td>¥440 billion</td><td>¥406.6 billion</td></tr><tr><td>Operating income</td><td>¥45 billion</td><td>¥32.7 billion</td></tr><tr><td>ROS</td><td>10.2%</td><td>8.0%</td></tr><tr><td>EPS</td><td>¥100 or more</td><td>¥80.27</td></tr><tr><td>Operating CF</td><td>¥100 billion</td><td>¥103.1 billion</td></tr></table>			Targets	Results	ROE	11% or more	8.1%	ROA	6% or more	4.8%	Net sales	¥440 billion	¥406.6 billion	Operating income	¥45 billion	¥32.7 billion	ROS	10.2%	8.0%	EPS	¥100 or more	¥80.27	Operating CF	¥100 billion	¥103.1 billion	<table><tr><th></th><th>Targets</th><th>Results</th></tr><tr><td>Growth in orders</td><td></td><td>(3.9)%/year</td></tr><tr><td>Growth in net sales</td><td>3-5%/year</td><td>(2.7)%/year</td></tr><tr><td>Growth in EPS</td><td>7-9%/year</td><td>(3.9)%/year</td></tr><tr><td>ROS</td><td>10% or more (FY2020)</td><td>8.4%</td></tr><tr><td>ROE</td><td>10% or more (FY2020)</td><td>6.5%</td></tr><tr><td>Organic FCF</td><td>¥85 billion or more (cumulative over three years)</td><td>¥68.8 billion</td></tr></table>			Targets	Results	Growth in orders		(3.9)%/year	Growth in net sales	3-5%/year	(2.7)%/year	Growth in EPS	7-9%/year	(3.9)%/year	ROS	10% or more (FY2020)	8.4%	ROE	10% or more (FY2020)	6.5%	Organic FCF	¥85 billion or more (cumulative over three years)	¥68.8 billion
	Targets	Results																																															
ROE	11% or more	8.1%																																															
ROA	6% or more	4.8%																																															
Net sales	¥440 billion	¥406.6 billion																																															
Operating income	¥45 billion	¥32.7 billion																																															
ROS	10.2%	8.0%																																															
EPS	¥100 or more	¥80.27																																															
Operating CF	¥100 billion	¥103.1 billion																																															
	Targets	Results																																															
Growth in orders		(3.9)%/year																																															
Growth in net sales	3-5%/year	(2.7)%/year																																															
Growth in EPS	7-9%/year	(3.9)%/year																																															
ROS	10% or more (FY2020)	8.4%																																															
ROE	10% or more (FY2020)	6.5%																																															
Organic FCF	¥85 billion or more (cumulative over three years)	¥68.8 billion																																															

Accelerate Growth 2023

Basic strategies



KPIs and targets

Order growth	8~10% / year
Sales growth	4~6% / year
EPS growth	16~18% / year
ROS	10% (FY23) [Record high level Previous record 9.6% (FY15)]
ROE	10% or more (FY23)
Sales cash flow	¥140 billion or more (3 years cumulative)

Column

Employees' comment regarding the establishment of Yokogawa's Purpose and the revision of Vision statement

In reviewing the long-term business framework and formulating the Accelerate Growth 2023 mid-term business plan, we have redefined what Yokogawa want to be 10 years in the future and established Yokogawa's Purpose and Vision statement. To ensure that they reflect employee opinions, we conducted an internet survey of global employees and held online roundtables with President & CEO Nara from September 2020 to February 2021. The internet survey collected 14,193 comments from 5,291 employees worldwide. Based on the keywords and key phrases that emerged from analyses of the comments, employees of 12 Group companies, including domestic and overseas affiliated companies, held online roundtables with the president & CEO. Based on the comments of the employees gathered in this way, two statements were formulated.

Some comments from the internet survey

Q1 What is Yokogawa's mission in society?

A: While never deviating from our targets (communities, end users, the environment, etc.), leverage our technologies and other means to provide solutions, and take our responsibility to support the work performed in past projects.
Yokogawa Electric Corporation

A: Using our measurement, control, and information technology, measure things in the present, to protect our customers tomorrow and in the more distant future, and in so doing care for the Earth.
Yokogawa Solution Service Corporation

A: Responsible, high-quality implementation of the largest socially valuable projects. Constant perfection of the technologies to contribute to build the society of the future.
Yokogawa Electric CIS Ltd.

A: Provide digital solutions for autonomous operations in non-hydrocarbon industries. Majority of the revenues should come from recurring as a service model. A company that embraces the eco-system of partners, alliances and takes risks for new lines of business in life innovation, electrification, smart infrastructure and renewables.
Yokogawa Corporation of America

A: To be a technology company that puts sustainability and a cleaner environment as its goals, not only providing solutions, but consultation and partnering services to create a greener future.
Yokogawa Engineering Asia Pte Ltd.

A: I hope Yokogawa will become an international multinational company that has fully realized digital transformation, with more trust more cooperation, most cost-effectiveness. After the coronavirus epidemic in China, all the companies that have survived have actively turned to make more use of online marketing measures, with big data analysis to accurately target customers. This is the future trend of globalization and a measure that has to be taken in Yokogawa, to keep up with the times. In the future, Yokogawa Electric will place less emphasis on "Electric" and just be Yokogawa.
Yokogawa China Co., Ltd.

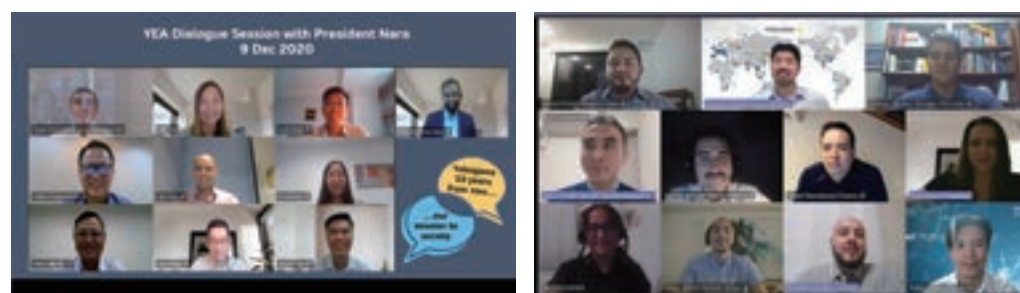
A: Traditionally we have been an automation and instrumentation company, however most of what we were selling is fast becoming a commodity. It is imperative to move up the value chain in the evolving and upcoming fields, to lead this market in order to contribute to society, sustain and improve our revenues and profits.
Yokogawa Middle East & Africa B.S.C.(c)

A: A leading company that creates value through sustainability initiatives with technology and innovative solutions that contribute in solving environmental and societal issues.
Yokogawa America do Sul Ltda.

A: I am motivated to serve society, so I want to be part of a company that works to help people develop who are able to create new products and solutions to problems, and also contribute ideas and conceptual proposals about issues that even the customer may not be aware of yet.
Yokogawa Electric Corporation

Q2 What do you want Yokogawa to be 10 years from now?

Online roundtable meetings with President & CEO Nara

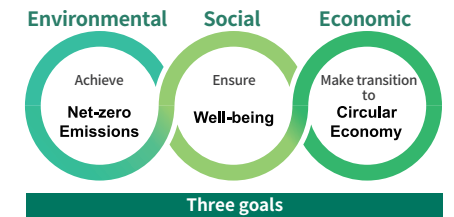


Sustainability Strategy

The "Three goals" for Sustainability

In keeping with the belief that Yokogawa's raison d'être is to present solutions that solve environmental and social issues, we have formulated Yokogawa's Purpose, a statement that reads, "Utilizing our ability to measure and connect, we fulfill our responsibilities for the future of our planet."

We have set the "Three goals", a vision for society in the year 2050, and identified priority sustainability issues that it will work to address through the achievement of short-, medium-, and long-term targets.

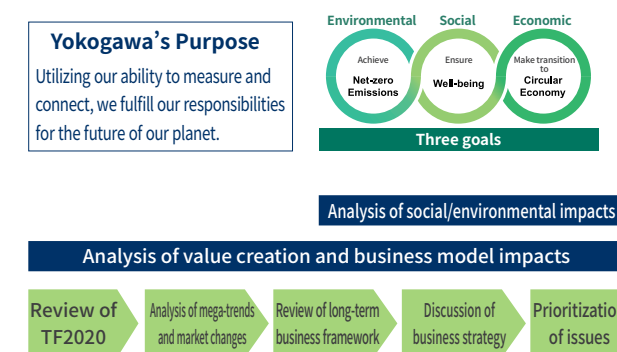


Priority Sustainability Issues

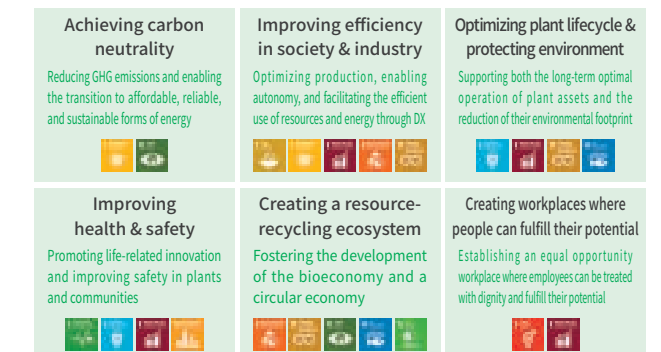
Yokogawa has a great positive impact on society and the environment by contributing to society and the environment with discovering and solving customer issues, and expanding customer economic value. These contributions to society and the environment is closely related to Yokogawa's corporate value. Accordingly, in the preparation of AG2023 mid-term business plan, we identified businesses that will significantly contribute toward the achievement of Sustainable Development Goals (SDGs) for society and the environment and enhance our corporate value, and designated six areas and defined priority issues in our business.

Please see the next page for a chart that shows how our business will contribute in these six areas.

Process for setting priority issues for contribution to SDGs



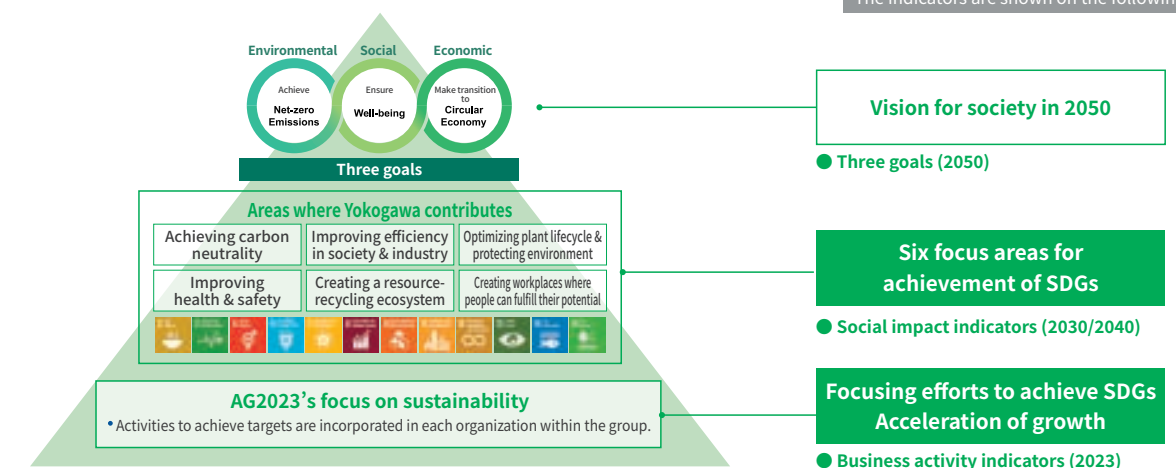
Six contribution areas and priority issues



Roadmap for Realizing the "Three goals"

Regarding the priority issues, social impact indicators for the year 2030 and business activity indicators for the year 2023 have been established. For the attainment of the "Three goals," progress will be assessed using social impact indicators, which in turn will be assessed using the business activity indicators.

The indicators are shown on the following pages.



Sustainability strategy

Six Contribution Areas and Yokogawa's Businesses

Regarding the six contribution areas, we have set business activity indicators that will be undertaken under the AG2023 plan to accelerate growth and contribute to society.

Environmental Achieve Net-zero Emissions Social Ensure Well-being Economic Make Transition to Circular Economy Three goals			Achieving carbon neutrality	Improving efficiency in society & industry	Optimizing plant lifecycle & protecting environment	Improving health & safety	Creating a resource-recycling ecosystem	Creating workplaces where people can fulfill their potential
Energy & Sustainability Business	Support renewable energy infrastructure 	Smart manufacturing business (Consultation, ERP, MES, EMS) 	Long-term optimal operation solutions of the plant  Remote services/ Asset management  Environmental equipment and analyzers 	Plant safety instrument system Plant operator training simulator 				
Materials Business	Support storage battery manufacturing 			Contributing to functional chemical and biochemical industries, Supporting efficiency improvement of the recycling businesses 				
Life Business		Value chain optimization for pharmaceutical and food customers (Consultation, ERP, MES, EMS) 		Life science business pharmaceuticals and food  Lifeline, water and sewage businesses 				
Measuring Instruments Business	Measuring instruments for renewable energy development 							
Yokogawa's business segments	GHG reduction at Yokogawa sites and in supply chain 	Internal DX promotion 	Reduction of Yokogawa's environmental footprint 	Occupational health and safety of workers at Yokogawa 	Creating a new ecosystem as a theme 	Employee well-being & engagement, people capability development for change, and promotion of diversity & inclusion 		

Social Impact Indicators

The following table shows the indicators and targets for 2030, from the social impact point of view, for six contribution areas.

Contribution area	SDGs	Indicator	FY30 (FY40) target
Achieving carbon neutrality		CO ₂ emissions control amount through customers (accum. from FY18)	1 billion t-CO ₂ (50% or more from renewable energy and new technologies)
		GHG emissions (Scope1,2) (base year FY19)	50% reduction by FY30 100% reduction by FY40
		GHG emissions (Scope3)	Targets that meet SBT requirements
Improving efficiency in society & industry		Economic value created by improving customer productivity efficiency	2 trillion yen
Optimizing plant lifecycle & protecting environment		Number of plants/factories where Yokogawa has contributed to sustainable operations	20,000 plants
Improving health & safety		Total number of people whose health & safety have been enhanced through solutions provided by Yokogawa's customers	100 million people
Creating a resource-recycling ecosystem		Status of the new businesses launched that contribute to the resource recycling system	Establishment of two or more new resource recycling system business
Creating workplaces where people can fulfill their potential		Engagement to enhance employee well-being	At a level comparable to other leading companies
		Achievements in human resource development and capacity development for transformation	Advancing employee's future skill set
		Achievement level of diversity and inclusion	Proportion of women in managerial positions 20% Enhanced diversity at senior decision-making levels

*1 SBT: Science Based Target *2 Employee's future skill set: Skills to play active role in new businesses and new areas

Business Activity Indicators

The following table shows the business activity indicators and targets for 2023. Their achievement will contribute to the achievement of the targets that have been set for the social impact indicators.

Contribution area	Focus area	SDGs	Indicator	FY23 target
Achieving carbon neutrality	Support renewable energy infrastructure		CO ₂ emissions control amount through customers (accum. from FY18)	500 million t-CO ₂
	Measuring instruments for renewable energy development		Sales growth rate of measurement instrument to renewable energy customers (base year FY20)	2.2 times
	Support storage battery manufacturing		Growth rate of number of units shipped of battery electrode thickness gauge (base year FY20)	1.5 times
	(within Yokogawa) GHG reduction at Yokogawa sites and in supply chain		GHG emissions (Scope1,2) (base year FY19)	10% reduction
Improving efficiency in society & industry			GHG emissions (Scope3)	Targets that meet SBT requirements
	Smart manufacturing business (Consultation, ERP, MES, EMS)		Order intake growth rate of smart manufacturing business (base year FY20)	1.3 times
	Value chain optimization for pharmaceutical and food customers (Consultation, ERP, MES, EMS)		Order intake growth rate of pharmaceutical and food value chain optimization business (base year FY20)	1.3 times
	(within Yokogawa) Internal DX promotion		Reduction of business operation hours by automation (base year FY18)	300,000 hours reduction
Optimizing plant lifecycle & protecting environment	Long-term optimal operation solutions of the plant		Number of life cycle support contracted plants	6,000 plants
	Remote services/ Asset management		Order growth rate of number of wireless asset health monitoring sensor units (base year FY20)	3.2 times
			Number of equipment maintenance management system contract licenses	8,000 licenses
	Environmental equipment and analyzers		Order intake growth rate of process analyzer (base year FY20)	1.3 times
Improving health & safety	(within Yokogawa) Reduction of Yokogawa's environmental footprint		Water withdrawal amount at Yokogawa sites (base year FY19)	4% reduction
	Plant safety instrument system		Number of safety instrumented systems provided	157 systems
	Plant operator training simulator		Number of plant operator training systems provided	30 systems
	Life science business pharmaceuticals and food		Sales growth rate of drug discovery development support products (base year FY20)	2.5 times
Creating a resource-recycling ecosystem	Lifeline, water and sewage businesses		Number of solutions provided for water environment improvement (excluding Japan)	90 solutions
	(within Yokogawa) Occupational health and safety of workers at Yokogawa		ISO45001 certification acquisition record	Acquisition at major companies (12 companies)
	Contributing to functional chemical and biochemical industries, Supporting efficiency improvement of the recycling businesses		Order intake growth rate for specialty & fine chemical industry (base year FY20)	1.6 times
	(within Yokogawa) Creating a new ecosystem as a theme			
Creating workplaces where people can fulfill their potential	(within Yokogawa) Employee well-being & engagement		Engagement survey score	81%
	(within Yokogawa) People capability development for change		Training hour per person	40 hour per year per person
	(within Yokogawa) Promotion of diversity & inclusion		Female manager ratio	12.5%
			Employment rate of disabled persons (Japan)	2.5%

For further information, please see our Sustainability Report (<https://www.yokogawa.com/about/sustainability/report/>).

Special Feature Approaches to Climate Change: Response to TCFD

Yokogawa is engaged in industries such as oil & gas and chemicals which has significant impact for greenhouse gas emissions. Climate change places both risks and opportunities for our business. Customers in energy industries who account for a large portion of our sales are accelerating their shift to renewable energy and expanding investment for low-carbon society. We took these market changes into consideration when we revised our long-term business framework and drafted the AG 2023 mid-term business plan.

As set out in the long-term business framework, we are focusing on the system of systems (SoS) concept and pursuing IA2IA and smart manufacturing initiatives and envision to providevalue to our customers in ten years from now.. IA2IA enable transition in plant operations from industrial automation to industrial autonomy, and smart manufacturing enhance productivity innovatively by going beyond production site to cover the entire supply chain, and linking systems throughout the value chain.

In response to changes in the business environment, Yokogawa has reconsidered its organizational structure from products and functions to industry based. Accordingly, our control business has been divided into energy & sustainability, materials, and life business segments. The energy & sustainability business segment focuses on renewable energy sectors, for which we provide a range of solutions, including measuring instruments for wind power. In the future, as complex energy supply chains make use of batteries, hydrogen, and other means for energy storage, we will also focus on an energy management business to capitalize on the rising need for solutions that ensure the supply of energy in a stable and efficient manner. In the materials business segment, we will support the biochemical industry and the recycling plastics and other materials based on the experience we have gained in the functional chemicals field, and will work to reduce CO₂ emissions by promoting the use of biomass materials. Last fiscal year, the life business segment, former life innovation business, recorded record-high sales of production solutions to its pharmaceutical and food industries,and will expand our business in the pharmaceutical, food and water industries, all of which are expected to be impacted by climate change.

For AG2023, a complete review was conducted of sustainability targets that had been set under TF2020, the previous mid-term business plan, and new sustainability targets were set for the three new business segments with the aim of making a greater contribution toward the SDGs. We have set multiple targets regarding climate change, and will prioritize efforts toward their achievement.

Disclosure of Information in line with TCFD Recommendations

Determined to proactively address the issue of climate change and prepare for the future, in February 2019 Yokogawa has expressed its support for the recommendations made by the Task Force on Climate-related Financial Disclosures (TCFD), which was established by the Financial Stability Board (FSB) to promote the disclosure of climate-related financial information.

Based on the TCFD's recommendations, and as summarized in the following table, Yokogawa is engaged in analyzing risks related to climate change, assessing their financial impact, reflecting the findings in its management strategies, and disclosing relevant information.

Governance

The Board of Directors sets basic policies for dealing with climate change, sets policies on the development of a risk and opportunity management system, monitors and supervises the effective operation of this system, and sets sustainability targets and monitors their implementation status. The board considers the impact of climate change in its discussions of business strategies and plans.

The management team, whose top decision-making body is the Management Board, takes into consideration the risks and opportunities presented by climate change when formulating business strategies and plans. The management team works to achieve the sustainability targets set out in the mid-term business plan, including targets related to climate change, and periodically progress reports to the Board of Directors.

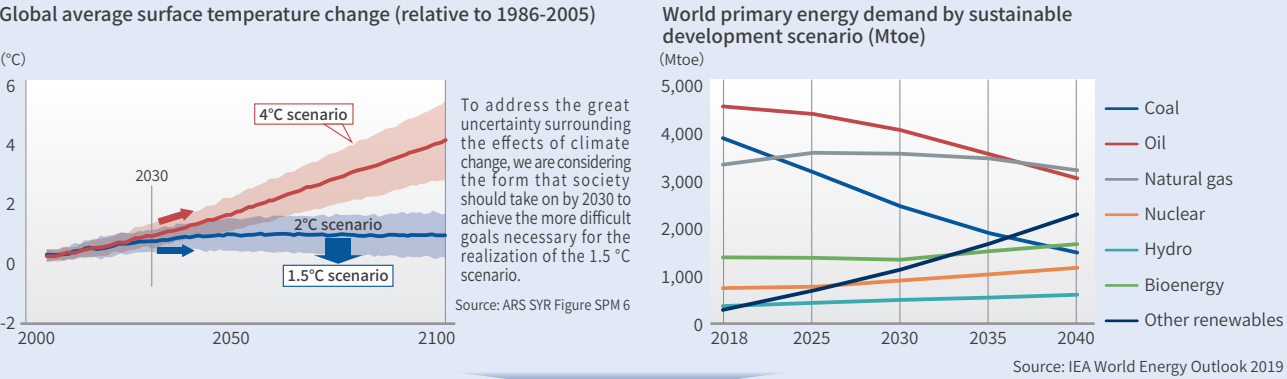
FY 2019	Review climate-related information according to the TCFD's recommendations
FY 2020	Incorporate the medium and long-term risks and opportunities of climate change into strategies
FY 2021	Implement management strategies and begin evaluation of their financial impact
FY 2022	Expand climate change governance role of Board of Directors



Strategy

Yokogawa serves for the energy, chemicals, and other manufacturing industries which has a significant impact for greenhouse gas emissions, and helps its customers in these industries to reduce emissions by providing solutions that improve the overall efficiency and achieve stableplant operations and save energy.

Under the long-term business framework, we aim to achieve growth through the provision of value that is needed by all of society, such as the value provided by responses to climate change, and in AG2023, we are working to expand our business by considering the transformation of our customers' business strategies in light of the growth of the renewable energy-related market and the issues of climate change, as a major business opportunity.



Classification	Risks and opportunities related to climate change	Direction of correspondence
Damage caused by climate change (physical risk)	Damage to business establishments and disruption to supply chains due to increased natural disasters such as floods	Build a risk management system and formulate a plan for responding to anticipated risks that could have a significant impact on the Yokogawa group
Changes caused by climate change measures (transition risk)	Customer strategies changes in response to society's demand for initiatives to deal with climate change	Based on the system of systems (SoS) concept, promote IA2IA and smart manufacturing innovations that enhance productivity for our customers.
Climate change-related business opportunities (opportunities)	Increasing need for energy transition and other solutions that address societal needs	Support development and construction of renewable energy infrastructure, provide systems for use in production of storage batteries, provide optimal energy management solutions

Achieving carbon neutrality
Reducing GHG emissions and enabling the transition to affordable, reliable, and sustainable forms of energy

- Supporting renewable energy infrastructure
- Providing measuring equipment used in the manufacture of renewable energy systems and storage batteries

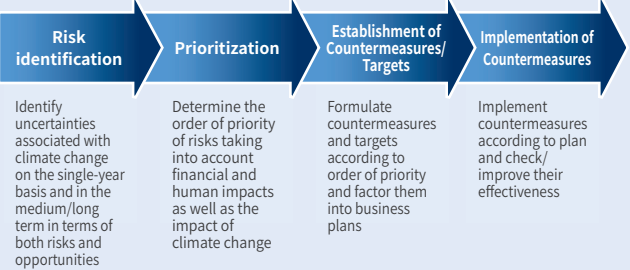
Achieving carbon neutrality at Yokogawa offices by 2040

Improving efficiency in society & industry
Optimizing production, enabling autonomy, and facilitating the efficient use of resources and energy through DX

- Offering solutions that increase productivity by connecting production sites to companies, supply chains, and society
- Providing optimal energy management solutions for visualization, supply and demand forecasting, and optimal control

Risk Management

Risks are defined as uncertainties that could affect the Yokogawa Group's corporate value, and are classified and managed based on whether they present a business opportunity or are a compliance or crisis event. Macroeconomic trends and large-scale disasters such as floods caused by climate change are assessed as common risks for all organizations, and their outcomes are incorporated into the selection of material risks with the assessment results of individual risks. Each organization evaluates the climate change risks for each years and in the medium and long-term, and implements measures to reduce the risks.



Indicators and Targets

Under AG2023, Yokogawa has designated carbon neutrality as a contribution theme for the year 2030, and work to reduce greenhouse gas emissions and facilitate the conversion to low price and reliable sustainable energy. We have set the target of achieving a one billion ton avoidance in CO₂ emissions by 2030 (cumulative from 2018). The avoidance in CO₂ emissions is calculated from the amount of renewable energy or low-carbon power generation of our customers by comparing with the CO₂ emissions from average of conventional fossil fuel plant. We have also set indicators and targets for supporting the development of renewable energy technologies and for providing systems used in the manufacture of storage batteries. In addition, we aim to achieve carbon neutrality at our business sites by 2040, and to achieve a 50% reduction of CO₂ emissions by fiscal 2030 compared to fiscal 2019.

For more information, please visit our sustainability website and see the Yokogawa Sustainability Report: <https://www.yokogawa.com/about/sustainability/>

Digital Transformation Strategy



Message from Head of Digital Strategy Headquarters



Yukihiro Funyu

Vice President,
Head of Digital Strategy Headquarters
Head of DX-Platform Center, Digital
Solutions Headquarters

We started our DX activities in April 2018 under TF2020, the previous mid-term business plan, and have been pushing forward with internal DX activities to improve employee productivity and external DX activities to expand the provision of digital services that add value for our customers. To build a foundation for DX, we have spent the past three years globalizing the operations of our IT departments, globally optimizing our application, data, and infrastructure environments, and strengthening security measures. Our internal DX initiatives have included the realization of a data-driven culture, the introduction of digital work styles, the promotion of digital factories, and the promotion of digital customer experience (CX). As for external DX, we have been actively developing cloud-based versions of Yokogawa operational technology (OT) applications and exploring ways to transform our business based on a recurring business model. In recognition of the capabilities that we have developed to promote DX, on April 1 we received Digital Transformation Certification from Japan's Ministry of Economy, Trade and Industry.

If we consider the previous three years as DX 1.0, the DX strategy that we are pursuing under the AG2023 mid-term business plan is positioned as DX 2.0. We will pick up the pace of our efforts to promote DX throughout our global organization, and this will become a use case for the further promotion of DX.

DX Policy

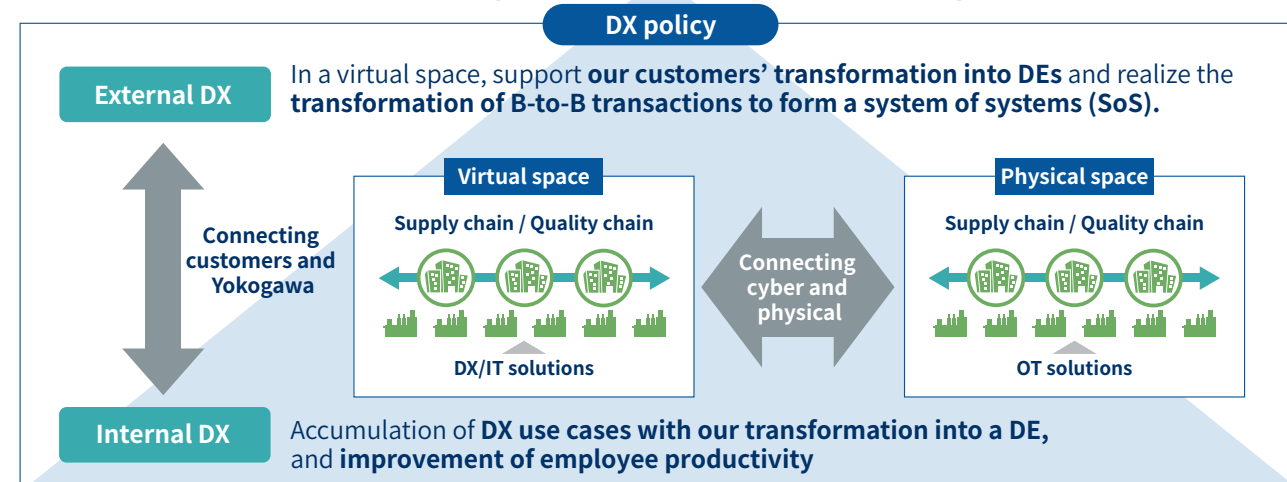
As described above, under the previous mid-term business plan our focus was on establishing the strong foundation needed to move forward with DX. Under AG2023, we will accelerate these efforts.

Utilizing our ability to measure and connect, we are promoting external DX for our customers and internal DX for Yokogawa. With the internal DX initiative, Yokogawa is committed to making itself into a use case by becoming a digital enterprise (DE), and we will enhance employee productivity by seamlessly connecting the Group's internal

processes through further digitalization. Based on the knowledge that is gained through this process, we will transform our customers into DEs and realize the transformation of B-to-B transactions to form a system of systems (SoS). We will achieve this with external DX initiatives that digitally connect customers' and Yokogawa's processes, digitally connect customers' physical and virtual spaces, and establish digital links between customers.

See p. 16 for Digital Solutions headquarters with a center of excellence function

Yokogawa's Purpose: Utilizing our ability to measure and connect, we fulfill our responsibilities for the future of our planet.

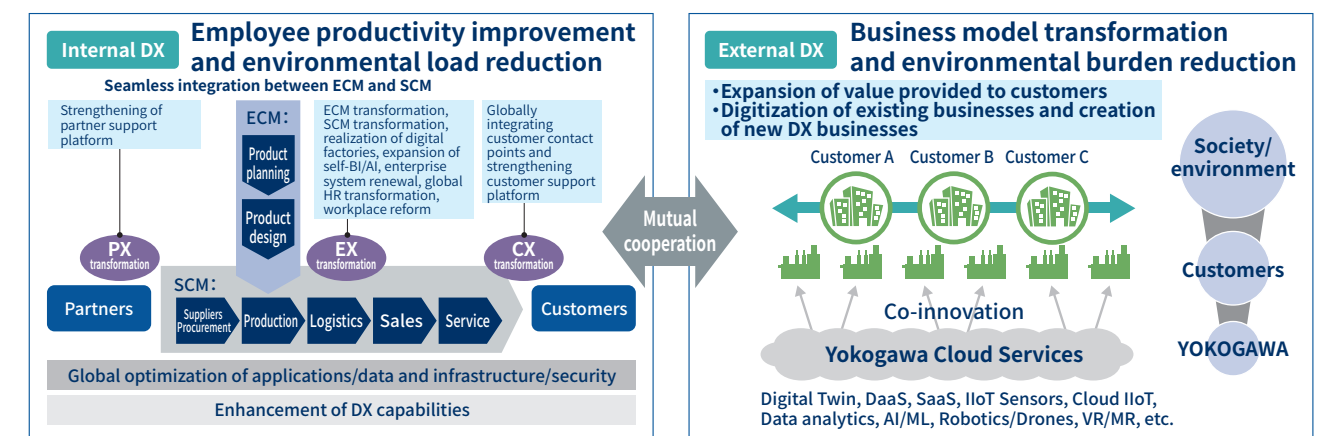


DX Strategy(FY21-FY23)

We will work toward both internal and external DX. Through internal DX, we aim to become a DE and, in so doing, improve employee productivity and reduce our environmental impact. Specifically, we will make changes to processes that will transform the customer experience (CX), employee experience (EX), and partner experience (PX). First, through the CX transformation that will provide more seamless touchpoints with customers, we aim to increase the channel digitalization rate by 10 ~ 20%. Next, we will undertake process transformation by integrating engineering chains and supply chains through the introduction of next-generation enterprise systems, and through reforms in the human resources domain, we aim to achieve a EX transformation that will improve productivity by approximately 20%. And we will implement digitalization and PX transformation

to strengthen cooperation with partner companies with the aim of increasing the channel digitalization rate by 10 ~ 20% in this area too.

With regard to external DX, we will utilize the DX knowledge that we have gained through our own DX to provide a variety of digital services that will help customers become DEs and thereby transform their business models and reduce their environmental impact. Specifically, we will utilize IIoT sensors, the cloud, IIoT, and AI/ML to develop cloud-based DX application services that will provide an environment where customers can connect digitally. This will enable us to move forward with the transformation of business models, and increase the percentage of digital service orders from the current 2% to around 5%.

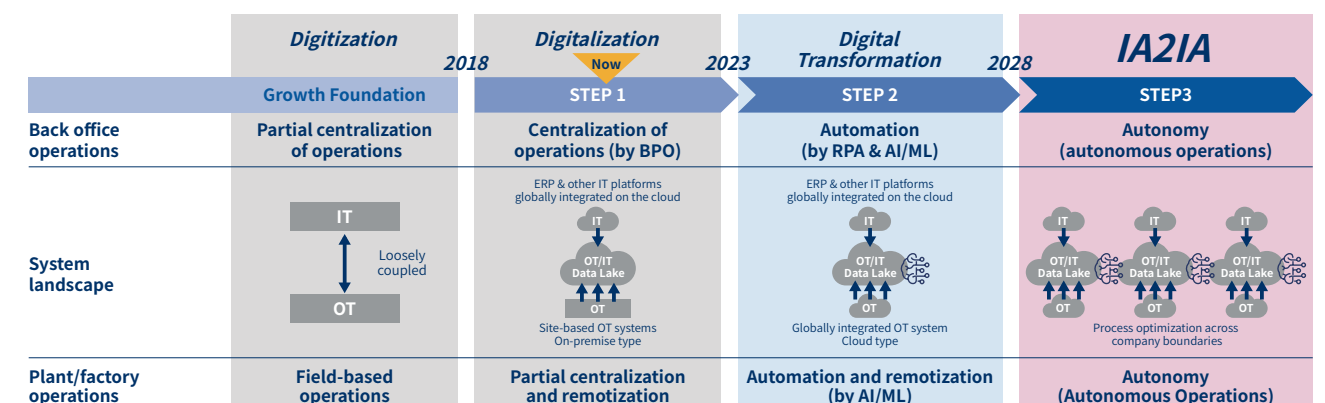


*ECM:Engineering Chain Management, SCM:Supply Chain Management

The DX Journey that Leads to IA2IA

In the real world, OT and IT are separate, and organizations, processes, systems, and data are unconnected. This is largely due to the bottom-up approach to IT/OT that has historically been taken, and it is a major obstacle to DX. Based on the thinking that

the data integration maturity level is an indication of the DX maturity level, we will propose OT/IT convergence solutions that combine the use of IT with our control and other OT technologies to contribute to digitalization and facilitate the IA2IA transition for our customers.



Opportunities and Risks

Opportunities

Megatrends in the business environment are expected to change significantly over the next 10 years from the perspectives of politics, the economy, society and technology. Regarding politics, it is expected that nationalism and legal restrictions will increase. The depletion of resources and food and water shortages are expected to impact the economy. The aging and urbanization of the population and climate change are expected to impact society, and it is expected that technology will be transformed by progress in AI, IoT, 5G and biotechnology. There are starting to be signs of an end to the COVID-19 pandemic that has been impacting the world since the fourth quarter of fiscal 2019 following the start of vaccination.

However, the number of variants of the coronavirus is increasing and it is still unclear when the COVID-19 pandemic will end. COVID-19 is highlighting political, economic and social issues and accelerating the paradigm shift. Against this backdrop, Yokogawa's customers are changing their processes and shifting to a business model that is conscious of a sustainable future. They are also aware of the importance of reducing human intervention

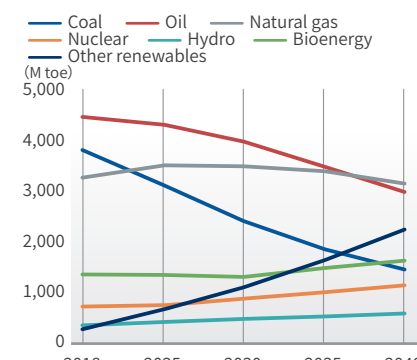
from the perspectives of safety, security and other perspectives. In addition, in the process automation industry, one of the core business areas of the control business, the market for existing products has matured and hardware is increasingly commoditized.

At the same time, the market for MES, security software, and sensors is growing, and new business models, such as subscription business models, are becoming increasingly popular. In a dramatically changing business environment, the Group believes that its three sustainability goals, net zero emissions, a circular economy, and well-being, that were established to achieve a sustainable, low-carbon, recycling-based society for future generations, will be business opportunities. As stated in the long-term business framework, in a world where system of systems (SoS) are advancing, Yokogawa will effectively leverage its strengths to connect the entire social system which is intricately linked through integration, autonomy, and digitization, to comprehensively optimize value as a pioneer group. In this way, we will seize these three business opportunities, resolve social issues and realize sustainable growth.

Major changes in macro environment



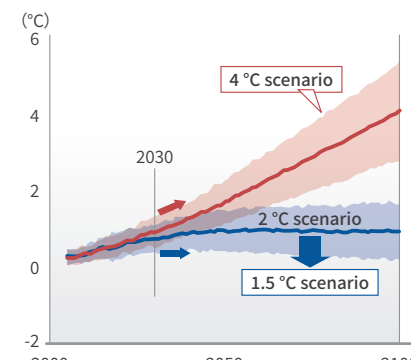
World primary energy demand by sustainable development scenario



Source: IEA World Energy Outlook 2019

•Demand for fossil fuel-derived energy will decline, and demand for renewable energy will grow dramatically.

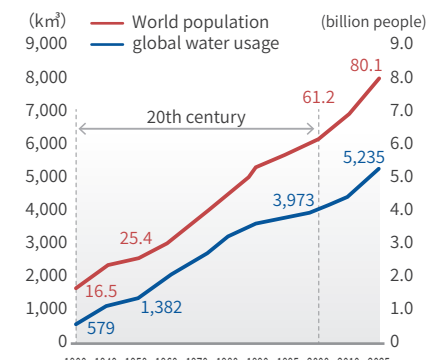
Global average surface temperature change (relative to 1986-2005)



Source: ARS SYR Figure SPM.6

•To address the great uncertainty surrounding the effects of climate change, we are considering the form that society should take on by 2030 to achieve the more difficult goals necessary for the realization of the 1.5°C scenario.

World population and global water usage



Source: UN, World Population Prospects
WORLD WATER RESOURCES AND THEIR USE a joint SHI/UNESCO project

•Water is the most important resource in a sustainable society.
•Emphasis on efficient use and continued compliance with environmental regulations

Customer trends and process automation industry trends



Customer Trends

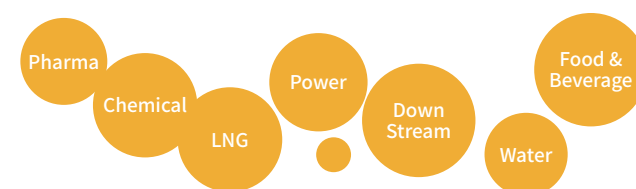
- Shift to renewable energy (mainly energy-related companies)
- Shift to the production of environmentally friendly products
- Growing need for workforce reduction/automated operations and the progress with digital transformation (DX)
- Accelerating low-carbon investment
- Process flexibility improvement
- Efficient, sophisticated, and fast R&D

Process automation industry trends

- Maturing product markets, hardware commoditization
- Growing software and sensor markets
- Spread of new business models
- Competition with IT companies
- Threat of cyber attack

Yokogawa's strengths

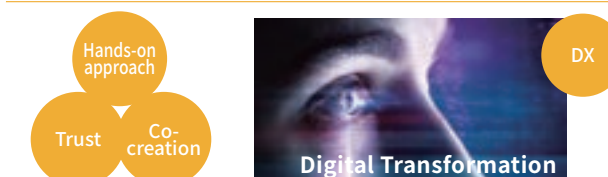
Expertise and know-how in a diverse range of industries.



Large installed base mainly in Asia and the Middle East



Problem-solving capabilities



For the long-term business framework and the AG2023 mid-term business plan, see Message from the President & CEO on p. 6.

See p. 55 for details of the control business's business model, including its strengths and competitive environment.

Opportunities and Risks

Risks

Described below are matters related to the Group’s business that are considered to be the main sources of risk and that could significantly impact investors’ decision-making. Should these risks materialize, they could impact the Group’s business activities as a whole, possibly affecting its earnings performance and financial status.

Recognizing the possibility that these risks may arise, the Group will work to avoid these risks and take appropriate measures should they occur.

Risks currently being realized: COVID-19

It is expected that the global economy will gradually recover from the slowdown caused by the COVID-19 pandemic as the percent of people vaccinated globally increases. However, the timing of the recovery is still unclear due to the impact of recent variants of the coronavirus. We expect that there to be some recovery of customers’ willingness to spend on capital expenditures due to the resumption of economic activity and the increase in fuel demand, but we also expect the intense price competition with our competitors to continue for the time being due to a decrease in capital expenditure projects. In the control business, the Group’s flagship business, we are expanding the OPEX (Operating Expenditure) business to ensure the safe and stable operation of customers’ existing facilities and improve productivity. Thus, we are not highly dependent on investment in new facilities. However, we expect that it will take time for the Group’s business performance to recover from the significant drop in orders received in fiscal 2020 due to factors such as the significant decline in customers’ willingness to spend on capital expenditures due to reduced energy demand and delays in projects’ progress due to travel restrictions caused by the COVID-19 pandemic.

Key Related Topics

- I. The risks that were the background behind the formulation and review of the long-term business framework and the AG 2023 mid-term business plan were mainly examined from perspectives evaluating political, economic, social, and technological trends (PEST), customer trends, and trends in the process automation industry. Yokogawa’s Purpose and vision statement are reflected in its strategies and other plans.
- II. On the financial front, risk scenarios are developed mainly from perspectives considering overseas and domestic economic crises, natural disasters, environmental and energy constraints, infectious diseases, and sluggish new businesses. These scenarios are utilized in the verification of safety, medium- and long-term balance sheet projections, M&A decision making, and other activities.
- III. Assuming that there will be damage caused by climate change (physical risks) mainly due to natural disasters, and that climate change will force changes (transition risks) mainly due to the decrease of businesses dependent on fossil fuel-based energy and the delayed response to climate change measure, we will accelerate our climate change initiatives, including those recommended by the TCFD.

		Key related topics		
Details of risks	Main initiatives	I	II	III
Risks relating to business deployment				
Related to changes in the external environment				
● Political or economic factors in each country	We are striving to prevent, avoid and mitigate the impact of risks related to changes in the external environment through the collection of information within the Group, contracts with external parties, and other initiatives.	○	○	
● Impact of taxation and trade restrictions		○		
● Differences in commercial practices outside Japan		○		
● Natural disasters (earthquakes, fires, floods, tsunami, etc.), social turmoil stemming from wars, riots, terrorism, infectious diseases, strikes, and other factors		○	○	○
● Cyberattacks affecting Company products, services and internal infrastructure		○		
● Incomplete understanding of regulations, sanctions, patents, etc., in countries where we operate, including those pertaining to the protection of the environment.		○	○	
*COVID-19		○	○	○
Related to markets/competitive environment				
(1) Cost competitiveness	Regarding risks related to the market and competitive environments, we are working to increase the cost competitiveness of products and services that are required by the markets and to satisfy cost reduction requests. We are also endeavoring to create new value through digital transformation in a broad array of areas, mainly among our business partners, not to speak of our own company, in order to secure competitive advantages. Moreover, we are pushing ahead with transformation of business models by, for example, seeking to establish a results-based business and a recurring business that emphasizes the offering of services. With regard to energy, initiatives to address environmental changes such as a shift in energy use from a long-term perspective are under discussion, and we are working to respond to such changes in the market environment.	○		
(2) Establishment of competitive advantages through the use of digital technologies		○		
(3) Transformation of business models to match market needs		○		
● Loss of business opportunities				
(4) Changes in the market environment due to climate change initiatives		○		○
● Loss of business opportunities, decline in corporate value				

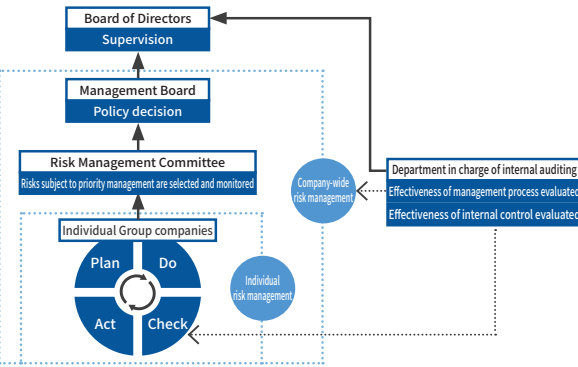
Details of risks	Main initiatives	Key related topics		
		I	II	III
Related to strategic investment	Regarding risks related to strategic investment, we are intensifying our focus on strategic growth investments, primarily for expansion into new businesses and new fields. Further, we are striving to steadily implement processes from project discovery to investment, to improve the accuracy of evaluation and verification, and to swiftly launch businesses after investment.	○	○	
● Assumed results not achieved due to unexpected environmental change		○	○	
● Assumed results not achieved due to delay in launching invested business				
Related to R&D	Regarding risks related to research and development, we are continuously pushing forward with the development of new technologies, with basic research into measurement, control and information, and the development of advanced technologies and digital technologies such as IIoT and AI as our topmost management priorities. We are strengthening initiatives to adapt to changes in international codes and standards, and to aid the realization of a sustainable society, the overarching goal of the SDGs. We are also continuing to invest in R&D for product technologies and service innovation to ensure we are able to maintain our competitiveness while seeking to understand market trends in product and service areas with growth potential.	○		
● Non-conformance with market needs and targets		○		
● Conform to requirements but no innovative technology created, assumed results not achieved		○		
● Allow other companies to take a lead related to product quality and supply		○		
Related to product quality and supply	Concerning risks related to product quality and supply, we are accumulating technology and expertise while ensuring our strict quality management system stays in place. We are also endeavoring to achieve stable procurement by routinely collecting information on market trends impacting our main electronic components and other materials we procure, and to ensure thorough management of supplier information, including quality and delivery time, as we work to diversify our supply sources and avoid excessive concentration and dependence on particular suppliers.			
● Defects inherent in products or services				
● Loss arising from a defect				
● Product supply delayed, halted				
Related to project management	Regarding risks related to project management, we are striving to prevent the occurrence of unprofitable projects through efforts including profit estimation in the process leading up to the receipt of orders, the improvement of the accuracy of profitability management until delivery time, and thorough control of production and quality.			
● Unexpected cost arises				
● Compensation liability incurred due to delayed delivery, etc.				
Risks relating to management in general				
Related to the recruitment and training of human resources	Regarding risks related to recruitment and the training of human resources, we have established the global practice of employing people with the ability to propose solutions, with project management and engineering capabilities, and with technology and knowledge regarding digital technology and new businesses, and we educate and train the people that we employ.	○		
● Unable to secure necessary human resources		○		
● Unable to complete training as planned				
Related to human rights	As for human rights-related risks, it is our established policy to respect human rights and we have expressed our support for the U.N. Global Compact and we also have other measures in place. We have established guidelines for human rights initiatives in supply chains, and we undertake activities to ensure that internationally recognized human rights are respected.*			
● Compensation liability incurred				
● Decline in corporate value				
Related to intellectual property rights	Concerning risks related to intellectual property rights, we expend every effort to protect our intellectual property rights in the process of developing our products and services, and thoroughly manage intellectual property rights to prevent our infringement of other companies’ rights.	○		
● Unable to use important technology		○		
● Compensation liability incurred		○		
● Decline in corporate value				
Related to information security	Regarding information-security-related risks, we are working to improve our information management system and providing training on the subject.	○		
● Compensation liability incurred		○		
● Decline in corporate value				
Risks related to finance, others				
Related to fluctuations in foreign exchange rates, interest rates, and stock prices	In connection with risks involved in the fluctuation of foreign exchange rates, interest rates, and stock prices, we are engaged in measures such as forex contracts to address the potential impact of foreign currency swings.		○	
● Rapid/sharp foreign exchange rate swings				
● Changes in interest earnings, impact of interest rate fluctuations on asset value			○	
● Stock price fluctuations			○	
Related to depreciation of owned assets	—			
● Decline in asset value stemming from a fall in market prices, profitability, etc.				

*Initiatives for human rights <https://www.yokogawa.com/about/sustainability/humanrights/>

System to identify and manage risks

To ensure effective risk management within the Group, we have established a Risk Management Committee chaired by the president and CEO, who is responsible for supervising all matters in relation to risk management. The department in charge of internal audits evaluates the effectiveness of the Group’s risk management process and reports important findings to the Board of Directors and the Audit & Supervisory Board members twice a year.

We identify and manage the risks posed by uncertainties that may affect the Group’s corporate value such as uncertainties in the external environment including climate change, strategies, product quality, the internal environment, health and safety, crisis management, and corporate ethics.



See p. 88 for details

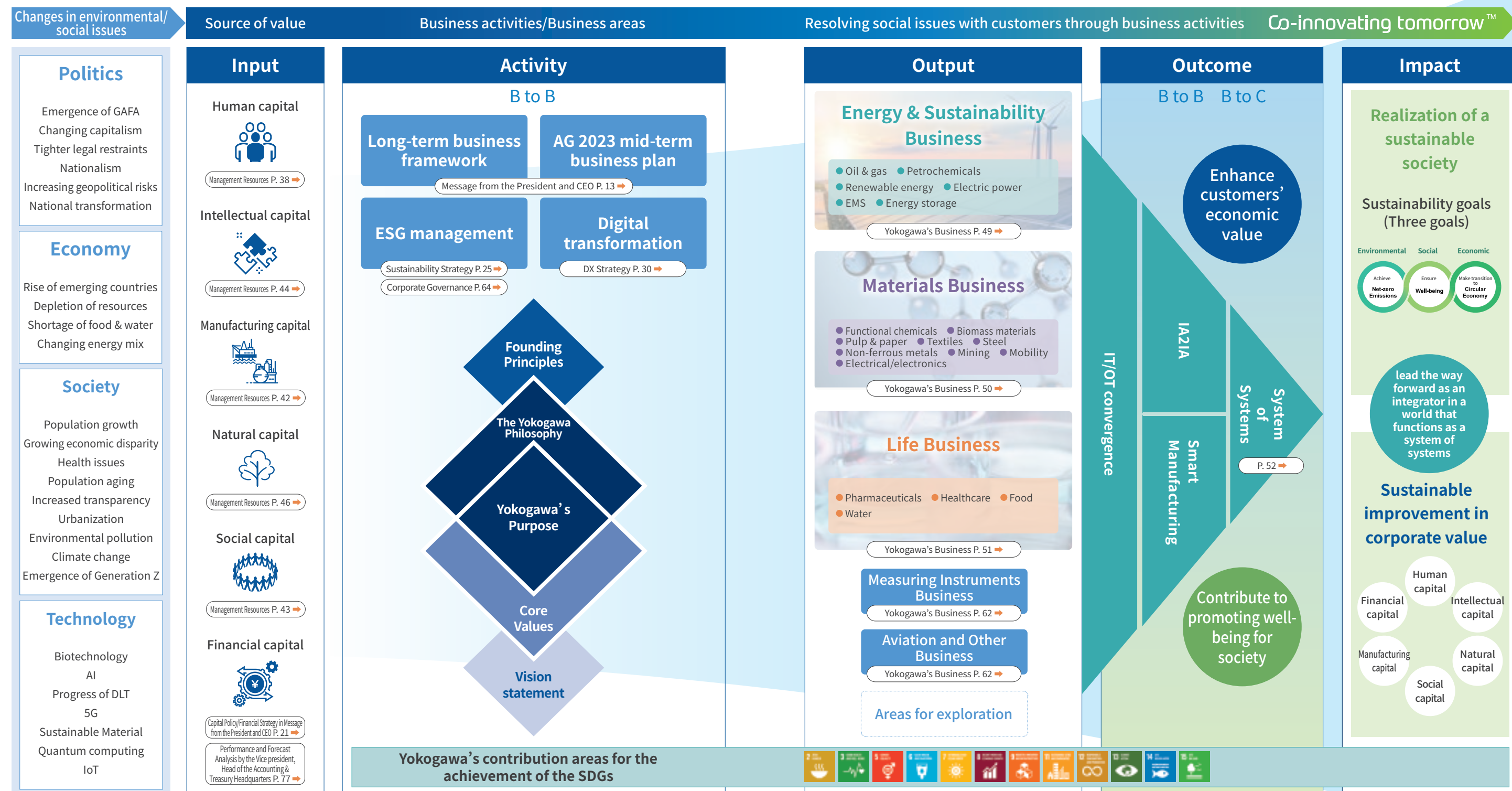
Value Creation Process

By providing value to customers, the Yokogawa Group addresses and resolves issues affecting the community, the environment, and industry in partnership with customers to contribute to society.

Co-innovating tomorrow™

Co-innovating conveys our determination to continually engage in the co-creation of value with our clients by working with them in long-term partnerships to develop solutions.

Tomorrow expresses our resolve to move steadily into the future, one step at a time. Yokogawa has established its corporate slogan, Co-innovating tomorrow, under which it will work to optimize and streamline the flow of information and things in business and society, and to solve issues for customers and society as a whole.



Yokogawa Resources

Human Capital

Yokogawa's goal is to become a trillion-yen group company by 2030. The driving force for the achievement of this goal is our own individual growth. We will positively support our employees as they boldly face the changing business environment and improve their skills and abilities.

In the period of the AG 2023 mid-term business plan, we will thoroughly implement HR strategies for the development of the targeted new fields and new businesses, execute our strategy and build infrastructure to foster a corporate culture that encourages our employees to take on new challenges. In addition, we greatly welcome the bold changes in our employees' mindsets, and we will globally implement engagement management measures.

In AG 2023, the "Think globally, execute locally," theme is a major focus. Yokogawa will provide new, leading global solution services to our customers leveraging our capabilities and making full use of integration, autonomy, and digitalization which is the collective wisdom of the whole world, and our wonderful ability to execute projects in close cooperation with customers in many countries and regions, that Yokogawa is always proud of.

The HR strategy we need to execute is the full utilization and integration of the power of all of Yokogawa employees around the world. To accomplish this, we will improve employees' skills, increase their engagement and maximize the efficiency of our global teamwork.

The Human Resources Concept that Yokogawa Aims For

- We will continue to challenge ourselves and provide new value to our customers.**
- ▶ Foster a corporate culture that is tolerant of failure and makes the most of it.
- Share the company's goals and objectives with all employees and work to achieve them.**
- ▶ Work together as a team while acting independently.
 - ▶ Increase engagement by contributing to society and business.
- Maximize the potential of the individual**
- ▶ Support independent career development while maximizing individuals' abilities and strengths
- Create a team that enables all employees to demonstrate leadership and enables diverse human resources to connect across boundaries**
- ▶ Demonstrate leadership and act beyond the boundaries of the organization.
 - ▶ Create an awareness of diversity and the acceptance of peoples' differences.



Internal project activities

Sustainability 2030 Mid-Term Targets and Human Resource Strategies

Optimizing internal operations and transforming mindsets

▶ Global integration of HR policies, HR processes, and the HR database.

No matter where our employees work in the world as a part of Yokogawa, they are always able to enjoy and appreciate the same concepts, standards and criteria laid out in HR policies as Yokogawa works to develop efficient teams and infrastructure that will be realized through the Global HR Transformation Project (GHRX). In the new HR policies, we shall ensure that all borders are eliminated as One Yokogawa.

▶ Transfer of authority to the front line management of organizations

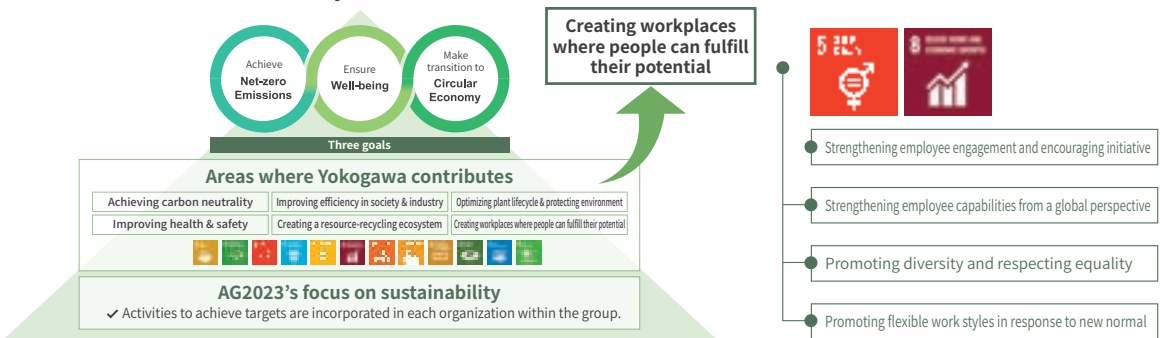
By giving authority to the mid-level leadership of business divisions and organizations, the agility of HR-related decisions can be increased. We will also strengthen HR support to enable all employees to independently design their own careers and continuously improve their knowledge and skills and expand their experiences. Our goals are to promote work styles and workplace engagement that as appropriate for the new era, work-life balances that value safety, security and health, and a better, more exciting working environment that places highly in the Great Place to Work global ranking.

▶ Increase engagement management and encourage diversity and inclusion (D&I).

We understand that improving employees' engagement is a key factor for the success of AG 2023 and our goal is to improve the regular global survey engagement KPI to 80-82%. In addition, through training and measures related to D&I, we will continue to promote the equality of the opportunities we provide, including in employees' participation in the global management of Yokogawa.

See p. 27 for the specific indicators and p. 82 for the transition.

Transformation with Sustainability



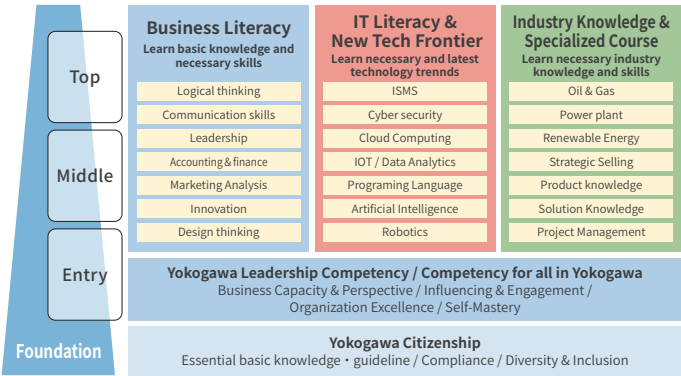
The Transformation of the Skills of Human Resource and the Improvement of Engagement

Transforming the skills of human resources

To continue to create great value for our customers and society in this changing era, we opened the in-house Yokogawa University in October 2018 to provide an environment that enables our employees to acquire specialized knowledge and skills in a wide range of fields and continue to improve themselves.

The main method for learning is e-learning programs without restrictions on time or place so that employees around the world are able to learn together. We are also working to develop instructors at each region so that instructors can be assigned to each region. We aim to transform into a company that is able to sustainably grow through the establishment of a corporate culture that enables everyone to take on challenges and learn from each other, and gives motivated employees opportunities to learn faster (to be a learning company).

Since December 2019, the Human Resources Division has led the implementation of activities such as a company-wide cross-organizational project developing next-generation leaders able to identify new business opportunities and risks by looking at things from long-term, high-altitude and essential perspectives, who are able to build new networks with customers and partners to solve social issues. (See p. 41 for details.) At the same time, we continue to expand and improve both the tangible and intangible aspects that will help us achieve the goals of AG 2023, which is centered on Yokogawa Leadership Competency. Another urgent focus is the development of highly specialized human resources capable of supporting new businesses, including the development of DX human resources



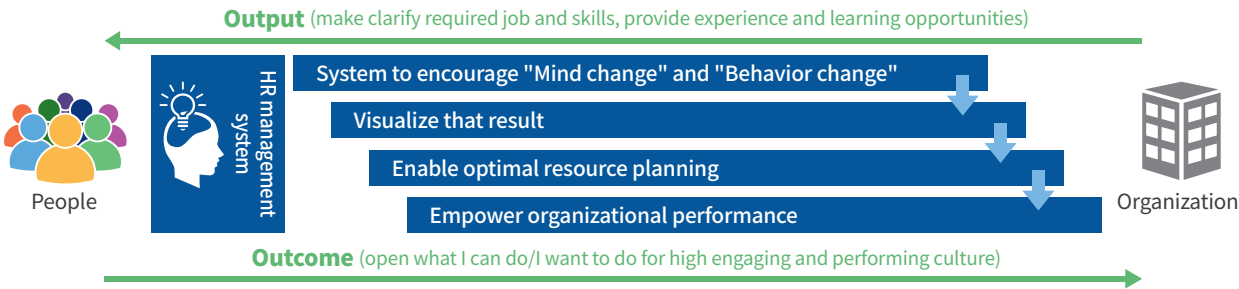
Improving employee engagement

To ensure the sustainable growth of Yokogawa, all employees must maximize the strength of their team by working together toward a common goal, and each one of them must grow in the process. Improving employee engagement is the key to achieving this goal.

Starting in fiscal 2020, we will introduce a new goal management system (Objectives and Key Results : OKR) to encourage employees to take on challenges and achieve their goals, and to globally connect Yokogawa's resources, we aim to achieve growth and enhance the corporate value of the entire group. We also regularly conduct the Global Employee Engagement Survey (GEES) of all of the employees of the Yokogawa group to understand employee engagement. Employees who share Yokogawa's Purpose, Vision, and Mission, and who are proud to be members of Yokogawa, will be able to deepen their sense of engagement and contribute to the achievement of our goals in a lively and independent way. Mental and physical health, challenging work, and good interpersonal relationships also affect employee engagement. Yokogawa is working to improve employee engagement throughout the group as it believes this is an important management issue.

Global HR Transformation Project (Renovation of the global platform for HR systems, processes, and HRIT)

- ▶ Our goal is to create an environment in which all the people working for Yokogawa and all of its organizations are equal partners that are able to grow together.
Employee: Develop with the right to learn the ability to take on new challenges
Manager: Expand discretionary authority, understand their subordinates, and develop people
Organization: Share Yokogawa's Purpose, Mission, Vision and work to develop the human resources we seek. Provide equitable experiential opportunities for all the people of Yokogawa.
- ▶ To connect the regionally optimized human resources management systems that have been established and are being used, we are building a framework and infrastructure focused on seven HR business functions (resource planning, talent management, evaluation, training, reassignment, recruitment, and compensation).
- ▶ At the same time, we are working on change management to transform the way that processes have been carried out in the past in an HR management style so that it is manager- and employee-driven. The goal is to encourage people to change their mindsets and accelerate the realization of business strategies.



Promoting Diversity and Inclusion

Yokogawa values the environment that enables us to recognize the unique characteristics of our employees, accept them for their individuality, and treat them fairly. Regardless of race, nationality, gender, religion, age, social status, or disability, we actively recruit, train, and promote human resources with diverse experiences, knowledge, sensitivity, perspectives, cultures, backgrounds, and values.

Diversification of human resources

As we expand our business globally, the ability of diverse human resources to continue to play active roles in Yokogawa is both a strength and a prerequisite for Yokogawa's growth. Since fiscal year 2020, we have held D&I training to deepen our employees' understanding of the importance of promoting D&I within Yokogawa and how unconscious prejudices affect behavior. In fiscal year 2020, more than 1,000 leaders from overseas bases attended D&I training, and in July 2021, all of our executives also attended D&I training. We are also proactively working on human rights education. In the previous fiscal year, we developed an e-learning program based on the Yokogawa group Human Rights Policy and made it available in multiple languages to enable anyone around the world to participate in the program. By promoting diversity and improving responsiveness, we hope to integrate diverse values and create new value.

Encouraging the advancement of female employee

In April 2015, we established a dedicated organization to promote diversity, and we are working to achieve the group-wide target of 9.3% of our managers being women on a non-consolidated basis and 12.5% globally by fiscal year 2023. In April 2021, two female officers were elected. In the hiring activities at Yokogawa Electric Corporation on a non-consolidated basis, our target is for at least 30% of the new graduates we hire to be women, and the long term target is to optimize the ratio of male and female employees. In April 2021, 52.5% of the new graduates joining the company were women.

Promoting the active participation of people with disabilities

Since 1992, Yokogawa has consistently and proactively hired people with disabilities. The people with disabilities that have joined the company are active in many fields, including engineering, manufacturing, sales, and administration. As of June 1, 2021, 2.4% of Yokogawa's employees in Japan identify as being a person with a disability.



Job Satisfaction and Work Style Reforms

We are implementing a variety of measures such as Yokogawa University to create a work environment that enables each one of our diverse employees to work comfortably, take on new challenges and grow. We are also striving to reform work styles and increase job satisfaction with the goal of enabling the co-creation of new value through improved productivity and increased satisfaction and growth. Regarding our facilities, as part of our workplace reforms, we will establish global learning centers and work to utilize our global assets.

Global

System: Yokogawa has formulated a system to enable employees from any country in the world to apply for open positions within the group to support the employees who are willing to take on new challenges and act independently to develop careers from a global perspective.

Activities: To improve job satisfaction at Yokogawa, we have established the Hapiwaku Project to create an environment where each unique individual can be satisfied in their work based on the idea that in both life and work, freedom is connected to responsibility and authority is connected to obligation. This project is being implemented globally to aid the development of the sources of job satisfaction: networking, freedom of choice, learning opportunities, the content of work and appreciation and respect.

Domestic

System: We support our employees ability to establish a healthy work-life balance through a flextime system that does not include core time, an hourly leave system, a teleworking system, and also by providing five consecutive days of paid leave from the day that childcare leave begins. In fiscal year 2020, we acquired Platinum Kurumin certification as a company that supports childcare. Recently, we have begun hot-desking based on the principle of enabling employees to independently select the location that are able to efficiently work.

Health Management: We will support our employees independent efforts to improve their own physical and mental health, happiness, and their satisfaction with their lives, and contribute to their ability to live fulfilling lives in our efforts to ensure the well-being of all people. In 2016, we announced our Declaration of Good Health, and since 2017, we have been certified as an Excellent Health Corporation (White 500).*

*Except 2020



Occupational Health and Safety

Yokogawa shall, in recognition that good Occupational Health and Safety (OHS) management is essential for the Group, autonomously strive to promote the health and safety of its personnel, create and maintain a suitable working environment. The Yokogawa Group has established and operates its Occupational Health and Safety Management System (OHSMS) to facilitate the continual improvement of its occupational health and safety activities and eliminate occupational accidents.

Through initiatives to eliminate and reduce potential OHS risks based on OHS hazard identification and evaluation and the regular review of these initiatives through the Group companies' internal audits, we are working to enhance the quality of occupational health and safety throughout the Group step by step. During the COVID-19 pandemic, we introduced a teleworking (telecommuting) system, one of the measures we have taken to prevent COVID-19 infections. We are also working to prevent occupational accidents related to teleworking, just as we do in traditional workplaces.

Future Co-creation Initiative: Co-creating with Outside Parties and Developing Next Generation Leaders

Scenario Planning for the Development of Adaptable Next Generation Leaders in an Era without Right Answers

COVID-19 has drastically changed people's conventional lifestyles, social systems, and values. Human resources are the key to achieving discontinuous growth by adapting to an era with no right answers where it is difficult to foresee the future. In December 2019, we launched Project Lotus, a company-wide cross-organizational activity led by the Human Resources Division, with the goal of developing next-generation leaders able to create new value and build networks with customers and partners by looking at things from an essential, long-term, bird's-eye perspective. A highly diverse team of 26 young employees from their mid-twenties to early forties selected from all of the divisions was formed to plan scenarios. We projected future scenarios for the business environment surrounding our company in 2035 and deepened our understanding of the uncertain direction of society in the future through back-casting.



Project Leader
Nobuyuki Tamaki

Scenario Ambassador
Nobuko Ouchi

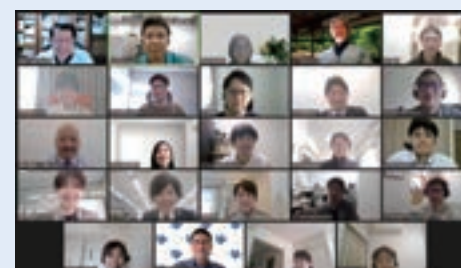
The 2035 Future Scenario Is Internally and Externally the Foundation for Dialogue and Collaboration



This scenario was created from a perspective that encompassed our customers' customers and future industry restructuring so that it could be widely used as a map for understanding not only our business environment, but the future of the entire manufacturing industry in 2035. This map also enables a dialogue between players working on social issues. Within the company, the project is also used to stimulate senior management's discussions about the future, enable a dialogue with the digitally native Generation Z employees who are highly interested in sustainability, and share future worldviews and values across generations. As scenario ambassadors, the project members engage in a dialogue with executives and experts from diverse industries about the future of the Earth and common social issues from multiple perspectives based on the future scenarios and continue to search for worldviews that resonate.

The 2035 Future Scenario by Project Lotus, derived from the combination of two critical uncertainties related to the environment and digital issues.

Launching the Future Co-creation Initiative to Build a Value Co-creation Network with Outside Parties



Dialogue on an even footing involving people from different generations and positions, creating new value, exploring future business opportunities

In April 2021, we launched the Future Co-creation Initiative, a cross-organizational virtual team under the direct control of the president to build a co-creative network with outside parties, create new value related to solutions to social issues, and develop next-generation leaders. Working toward the realization of this purpose, the scenario ambassadors will take the initiative and confront global and social issues from a long-term perspective through dialogues on an even footing, transcending generational and positional boundaries and involving management, including top executives. In addition, through dialogue with leaders in various fields outside the company and encounters with many different types of people, our intent is to create new value, explore future business opportunities, and promote the building of new networks.

Establishment of the Green Phoenix Project, a Future Co-creation Project in Collaboration with Waseda University's Institute of Governance & Sustainability

As an activity for the co-creation of the future, in cooperation with Waseda University, we will hold regular workshops in which executives from companies and organizations in diverse industries will participate to providing a forum for the facilitation of an open dialogue and the development of connections through the cross-sectoral fusion of industry, government and the academia. We aim to build a learning community that comprehensively explores common social and business issues such as sustainability, DX, and well-being from a global perspective.

Message from Dr. Joel Malen, Director, Institute of Governance & Sustainability, Waseda University

"Sustainability and human resource development are like two wheels of a cart, and the Green Phoenix Project is a groundbreaking project that powerfully turns both wheels through collaboration between business and academia. Based on future scenarios, we are openly incorporating the knowledge possessed by diverse external organizations to co-create a platform for the implementation of sustainability that is both future-oriented and practical. I believe that this approach will be a precedent for the operations of future organizations."



Yokogawa Resources

Manufactured Capital

Quality First

Since Yokogawa was founded, putting quality first has been a fundamental principle of the company. Thorough customer-focused quality management has fueled the development of Yokogawa.

Guided by this quality-first principle, the Yokogawa group independently manages quality to ensure uniform quality worldwide while responding to the changing needs of customers and society. Providing products and solutions that satisfy customers, the Yokogawa group works together to help realize a sustainable society.

Customer Satisfaction and Quality

The Yokogawa group meets its customers' expectations by providing products and solutions of uniformly high quality. The driving force behind this is our founding principle of quality-first, which we have followed faithfully for over 100 years. There are three basic elements of the Yokogawa group's quality management: Quality Assurance (QA), Quality Improvement (QI), and Quality mind (Qm). We believe that we have the ability to meet our customers' expectations and establish enduring relationships of trust only when all of these elements are engaged. The Quality First mindset is critically important in maintaining of the high quality of Yokogawa's products and services. All employees of the group understand the importance of the Quality First mindset and quality is built into every business process in accordance with the rules and approaches shared throughout the group.



VOF – The Value of Yokogawa Experienced at Our Manufacturing Sites

VOF (Value of Our Factories) is an activity undertaken by four of our group companies with the aim of reviewing and increasing the value of our factories. For the market, the effectiveness of Yokogawa's solutions and products is demonstrated by their implementation in our factories. Yokogawa is highly valued by our customers as a place where customers are able to experience the value Yokogawa provides by seeing the solutions and products implemented and operated within Yokogawa's manufacturing sites and seeing the effects of these products and solutions in factory tours. Customers, investors and analysts have visited our factories and responded favorably. They have said that the visit enabled them to better understand Yokogawa's strengths and that Yokogawa's strong commitment to quality was impressive.

Every day at our factories we manufacture products that support social infrastructure. To prevent COVID-19 infections, it has been necessary to restrict factory tours, but in April 2021 we began using video and other technology to make a new remote factory tour available. This tour as it has become established became widely known as a new method that is different from an in-person tour. Prior to remote factory tours, we work with the relevant internal departments to share the customer's current situation and issues in advance so that we can provide valuable high-quality solutions. Through VOF, Yokogawa will continue to transform its business model and deliver new value every day, working with customers to realize a sustainable society.



Yokogawa Resources

Social Capital

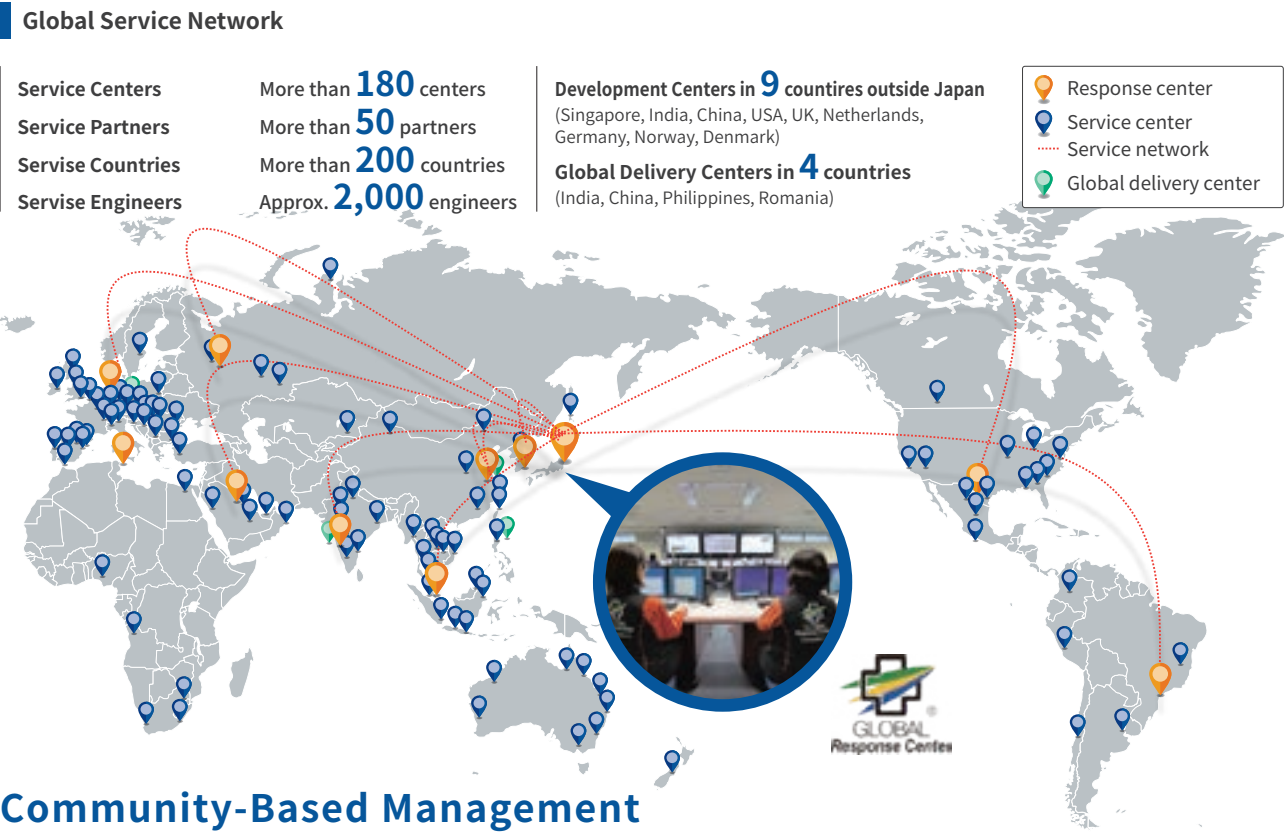
Global Service Network

The Yokogawa group puts the highest priority on safety with its provision of high-quality, highly reliable and backwards compatible systems, maintenance services, consulting, and other solutions, with the goal of benefiting society through the co-creation of value together with its customers.

Working with its customers throughout the lifecycle of their plant facilities that can be 30 years or more,

Yokogawa has developed close, trust-based relationships. This customer base is Yokogawa's most important asset, and it underpins the ongoing development of the Company's business.

On the firm foundation of this customer base, Yokogawa is expanding the scope of its solutions to include entire value and supply chains, leading to the co-creation of even more value for its customers.



Community-Based Management

As a good citizen, Yokogawa will continue to grow and develop with the local community.

•We store food and other supplies for local residents and evacuees to be used in a disaster.
In addition, a rainwater storage tank is installed in the basement of the head office and the water can be used in the event of a disaster.

•Every summer, we hold the Yokogawa Festival, which brings together employees' families, customers, business partners, and local residents.
(Due to the pandemic, the festival was not held in FY 2020 and FY 2021)
•We hold briefings for investors near our head office.

Working with Local Communities

In 2020, our corporate symbol on the Musashino headquarters was illuminated for the first time in several years. The symbol's lighting was renovated as a symbol of our determination to overcome the many difficulties that are expected to arise in the future due to the COVID-19 pandemic.

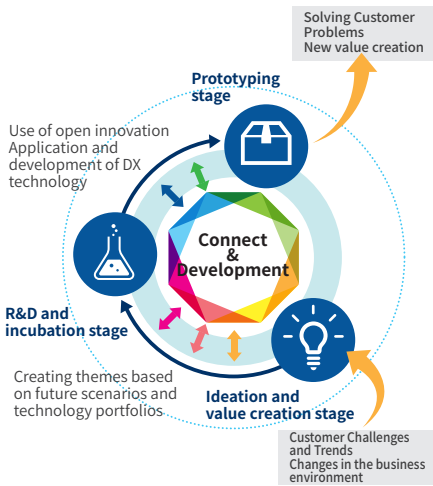
Innovation (R&D)

Yokogawa's R&D includes product development and advanced development activities that resolve issues quickly in each industry segment based on customer trends and an awareness of the current situation. It also includes innovation activities whose goal is to quickly provide new value while looking ahead to the future through co-creation with customers and partners. The business headquarters is mainly responsible for the former, while the latter is primarily the task of the Innovation Center.

R&D structure at Yokogawa



Innovation Activities



Through its innovation activities, Yokogawa is creating sustainable value for customers based on a broader perspective and a deeper understanding of customer issues. The innovation creation process consists of the three stages shown on the left. In the ideation and value creation stage, future scenarios are developed from the challenges faced by customers, customer trends, and changes in the business environment. These scenarios are then incorporated into R&D themes.

In the R&D and incubation stage, we will leverage open innovation, intellectual property, and technology marketing to build concrete services and product images, and verify the value and feasibility of research themes. We will also apply DX technology to create new value.

In the prototyping stage, we listen to customers, returning to them many times throughout the proof of concept (PoC) process to quickly and efficiently improve the completeness of the solution and create new value.

These three stages of our innovation activities enable us to identify and resolve customer issues.

Yokogawa's R&D Strategy

The basic concept of Yokogawa's R&D activities is to develop and provide more effective means of providing value to customers in the next 10 years, based on a broad perspective and a deep understanding of customer issues.

The Innovation Center conducts R&D activities on three themes.

- ▶ Energy & Sustainability Innovation
 - ▶ Life Innovation
 - ▶ Materials Innovation
- Energy & Sustainability Innovation supports optimal operations throughout the value chain of the process

The mission of the Innovation Center is twofold:

1. Contribute to customers' value creation (co-creation) through the interconnection of internal and external organizations, including customers' organizations.
2. Devise innovative scenarios and incorporate them in research and development activities to nurture future businesses.

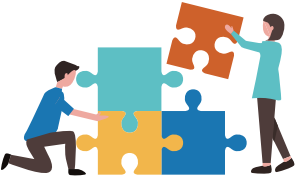


industry to enable diversifying industrial automation to achieve the greater efficiency and autonomy.

Life Innovation contributes to the rapid development of the pharmaceuticals that protect people's lives and health and to the quick establishment of multi-product, small-lot production processes.

Materials Innovation aims to realize a new recycling-oriented society by taking on new challenges in new fields.

Activities Supporting the Innovation Processes



Open innovation

Yokogawa is vigorously promoting open innovation, the use of external ideas and resources (e.g., advanced technologies, expertise, human resources), and collaboration with other parties for innovation. We are aiming to maximize the value provided to our customers by collaborating with other organizations. In pursuit of the best partners, we invest in the Nippon India Digital Innovation Fund of Funds, collaborate with universities and research institutions inside and outside Japan, and utilize venture capital matching services. These measures allow us to greatly expand our opportunities to promote co-innovation with leading startups and unicorns and quickly acquire leading-edge technologies and the most up-to-date information to support the development of new businesses. Specifically, we will leverage open innovation to focus on the transformation of existing businesses through DX and the development of new markets related to new energy, new materials, life sciences, water, the ocean, and space.

Intellectual property

Intellectual property is an essential asset in the maintenance of the high added value of products and solution services and in the provision of value to all customers. Based on this, we have developed an intellectual property strategy linked to our business and R&D strategies. We have assigned dedicated intellectual

property personnel in major countries to carry out global activities. The intellectual property created is positioned as an asset with a marketing value, and we will continue to provide unique and unrivaled products and solution services. As M&A activities become more common, we have broadened the range of our work to include intellectual property due diligence.

Intellectual property ownership		(As of March 31, 2021)					
	Japan			Outside Japan			Total
	Registered	Pending	Subtotal	Registered	Pending	Subtotal	
Patents	1,888	553	2,441	1,551	805	2,356	4,797
Designs	142	8	150	332	79	411	561
Trademarks	300	8	308	1,082	258	1,340	1,648
Total	2,330	569	2,899	2,965	1,142	4,107	7,006

International standardization activities

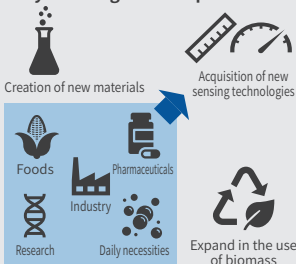
International standardization activities are one of the important R&D strategic elements of maintaining and expanding global businesses and zoom in, and we actively participate in the activities of many international standardization organizations such as the IEC and the ISO. Yokogawa prioritizes the enhancement of value for its customers and focuses on international standards that establish requirements for interoperability in telecommunication technologies and software. The Company's policy is to disclose its intellectual property if necessary or license it through licensing agreements.

Advanced Solution Topics

Development of Artificial Enzyme Design Method Using a Computational Approach

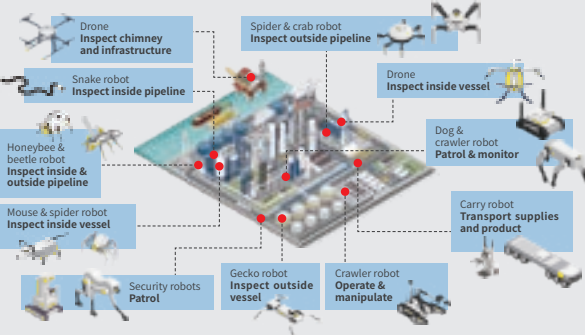
Enzymes, biomolecules that catalyze chemical reactions, are used to manufacture and process food products, as well as to improve the functionality of detergents and other daily necessities. They are also used in a wide range of medical and industrial applications, including the production of raw materials and products for pharmaceuticals and chemical products. As we face the challenge of achieving both economic growth and solving global issues, we believe that these enzymes will be the key to the future. To achieve this, it is necessary to utilize the blessings of nature and take a more detailed approach to design. We believe that the artificial design of enzymes will become a reality in light of the technological advances in many fields, including genetic engineering, synthetic biology, and computer science. Through our research and development of artificial enzyme design technologies, we are aiming to create businesses rooted in the bioeconomy, such as the development of new raw materials that had been previously unimaginable, the efficient decomposition of biomass, which is an essential part of the production of fuels and chemical products from biomass, and the development of biosensors.

Potential of New Enzymes Identified through Artificial Enzyme Design Techniques



Application of Robotics in IA2IA and Smart Manufacturing

An essential element in the realization of smart manufacturing and IA2IA (Industrial Automation to Industrial Autonomy) is the methods for automating complex tasks that are currently performed by humans in factories. Yokogawa has taken a variety of approaches to this. One approach is the application of robotics technologies. Currently, factories are designed under the assumption that humans will be doing the work, but by using robots with various designs and functions, it will become possible to gradually entrust this work done by humans to robots. As the use of robots advances, humans will be freed from tasks that are difficult and routine in high places and hazardous areas. It is also expected that robots will work with humans to increase the safety and productivity of operations in the future envisioned by Yokogawa in which robots perform many of the tasks required by factories.



Contributions toward a Sustainable Global Environment

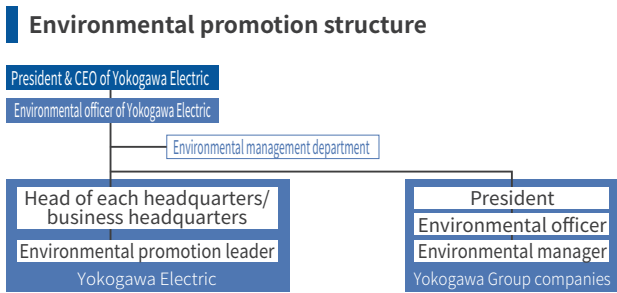
Yokogawa takes its responsibility to protect the global environment seriously and, recognizing the responsibilities we bear for future generations, we practice environmental management from a medium- to long-term perspective. We promote the efficient use of resources and the significant reduction of greenhouse gas emissions together with our customers and actively work to develop environmentally friendly products and further reduce the environmental impact of the Yokogawa Group’s operations.



See p. 27 for specific indicators and p. 82 for trends.

Environmental Promotion Structure

Group companies have established environmental targets based on the Yokogawa Group Environmental Policy and are conducting environmental activities closely linked with their business activities. To promote global environmental management, under the supervision of Yokogawa Electric’s headquarters, Group companies consider measures and review activities in cooperation with the environmental managers of the regional headquarters. The Group’s major offices and manufacturing sites around the world are ISO 14001 certified.



CDP Recognizes Yokogawa, Awarding Prestigious Double A Score for Global Climate and Water Stewardship

Yokogawa was recognized for its leadership in corporate sustainability by the CDP, a global environmental non-profit organization, securing a place on the CDP’s prestigious A List for addressing climate change and acting to protect water security – two of the three environmental categories addressed by the CDP. This is the second consecutive year that Yokogawa’s actions on water security were evaluated, and the first time we have been selected for the climate change A list. This is clear evidence of the global leadership the company has demonstrated through its setting of ambitious targets, its actions, and its transparency in its measures seeking to address climate change and water security risks.



	Three categories scored by the CDP		
	Water security	Climate change	Forests
Yokogawa	A	A	—

Yokogawa’s
Business

- 48 Business Overview and New Business Structure
- 49 Industrial Automation and Control Business
 - 49 Energy & Sustainability Business
 - 50 Materials business
 - 51 Life Business
 - 52 Special Feature: Yokogawa’s Approach to Value Providing through System of Systems (SoS)
 - 55 Business Model - Image
 - 58 Special Feature: Yokogawa Solutions for Value Creation
 - 60 Special Feature: Yokogawa’s Biotechnology
- 62 Measuring Instruments Business / Aviation and Other Businesses

Business Overview and New Business Structure

Business Overview

Industrial Automation and Control Business

The industrial automation and control business has contributed to the development of a wide range of industries with its distributed control systems for the monitoring and control of plant production facilities. Yokogawa provides complete solutions that maximize customer value over the plant life cycle and from the plant to the management level, a range of software to improve productivity, production control systems, pressure transmitters, process analyzers, programmable controllers, industrial recorders, and so on. In an age in which of remarkable progress in digital technology has made remarkably progressed and in which everything is connected in a complex ways, and in a world where systems that are independent in operation and management work together to realize objectives that cannot be achieved by the system as a whole, we will promote effective connections and create optimal overall optimal value through integration, autonomy, and digitization.

Measuring Instruments Business (formerly Test & Measurement business)

Measuring instruments, the foundational tools of industry, has been a part of Yokogawa's business since its foundation. Utilizing high-precision measurement technologies measuring physical quantities such as power, voltage, current, light, and pressure, we provide customers with total solutions, including software and services, in three priority fields (decarbonization, communications, and well-being) where technological innovation is advancing. Together with our customers, we will measure the future of the earth as a measurement partner for the realization of synergistic innovation.

Aviation and Other Businesses

Yokogawa is developing new businesses involving the provision of user-friendly industrial IoT hardware, software, and cloud solutions that will help reduce the operating burdens of service providers. Yokogawa is also engaged in the aircraft instruments business.

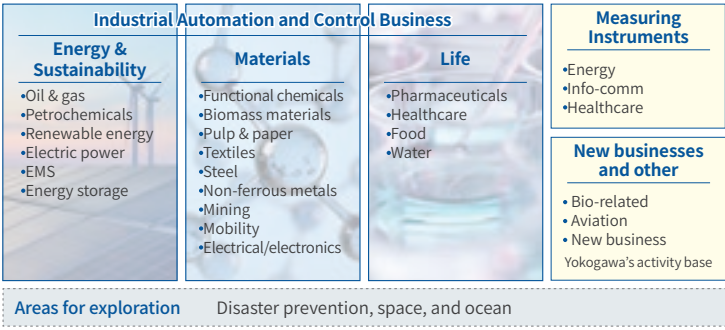
New Business Structure

To respond to changes in the business environment, Yokogawa has reorganized its organizational structure. The previous structure centered on conventional products and functions was transformed to have business segments based on industries in fiscal year 2021. This new structure is designed to enable businesses to grow in domains in which Sony can leverage the technologies, expertise, and strengths that have been refined by Yokogawa.

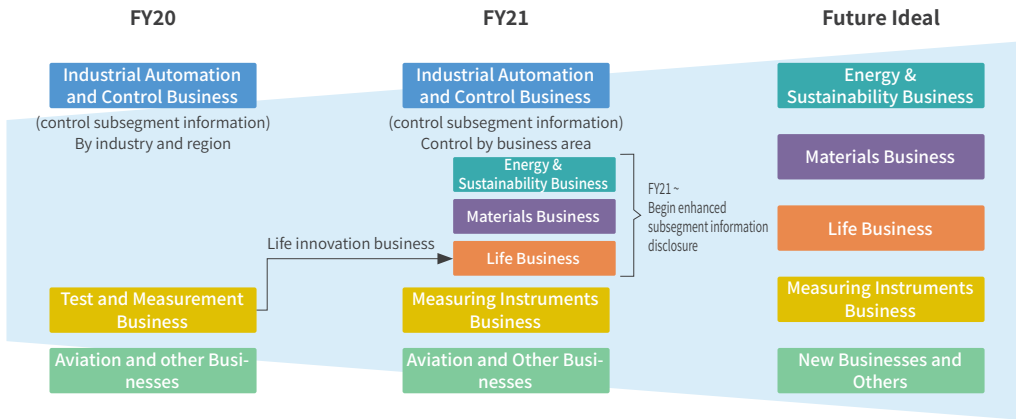
In the Industrial Automation and Control Business, to provide optimized solutions to our customers, Yokogawa is carrying out business in three industry segments: Energy & Sustainability, Materials, and Life.

The Measuring instruments, Aviation, Biotechnology-related businesses and other new businesses have been separated into different segments, but we will maintain independent business operations based on the characteristics of the products and commercial distribution, while sharing the same values in the next 10 years.

The fields of disaster prevention, space, and oceans are also areas of exploration where we will continue to examine the kinds of projects that should be undertaken, including those with great potential.

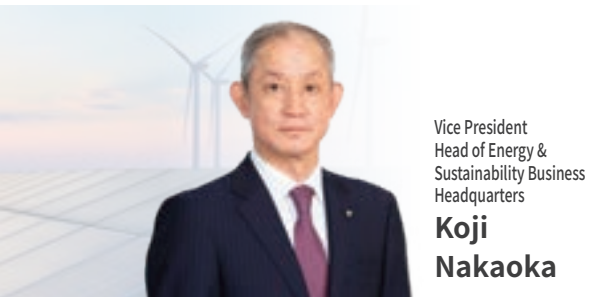


Business segment based on industry



We will strive to enhance information disclosure in order to achieve information disclosure by five segments in the future.

Industrial Automation and Control Business



Energy & Sustainability Business

The Energy & Sustainability Business focuses on the efficient use of energy, achieving a sustainable society, and protecting the environment. For our customers in the oil and gas, petrochemical, renewable energy, electric power, energy management system (EMS), and energy storage fields, Yokogawa leverages its site knowledge and strong customers relationships to support safe and optimal operations in the increasingly diversified energy supply chain, covering everything from production and supply to use, disposal, and recycling.

Business Environment and Our Vision

It is expected that global energy demand will increase significantly and that renewable energy will account for an ever rising portion of the energy mix, taking us closer to the goal of becoming a net zero society. Consequently, there will be a rising need for the stable and efficient supply of energy through complex energy supply chains that make use of storage solutions such as batteries and hydrogen. For such complex energy supply chains, Yokogawa is developing new strengths in the energy management field and will provide solutions that enable the optimal operation of the entire energy transmission and distribution infrastructure.

Our oil and gas customers are at a major turning point as they contend with a global decarbonization trend that has been picking up speed due to COVID-19, and are now actively investing in environmentally-friendly disposal and recycling technologies such as carbon capture and storage (CCS) and carbon capture, utilization and storage (CCUS) that will enable the optimal use of existing assets and improve environmental performance. Yokogawa is committed to using its deep domain knowledge to enable a transformation in its customers' business processes and achieve a digital transformation (DX) in their operations.

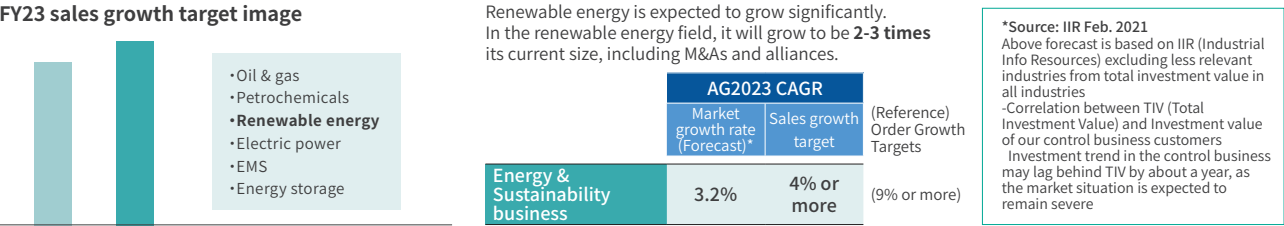
Approach with AG2023

With AG2023, we aim to expand the scope of our solutions, moving beyond production sites to cover our customers' entire value chain. For example, we will develop solutions to optimize operations on the vertical axis, covering everything from plant site operations to higher-level operations typically handled by ERP packages, and on the horizontal axis will offer solutions that cover entire supply chains as well as energy transmission and distribution infrastructure. We will offer solutions for the end-to-end optimization of processes on both axes.

We are making up-front investments to expand our business, as part of which we are actively participating in proof of concept (PoC) and pilot projects with our customers to solve issues and demonstrate results. In new business areas such as CCUS and hydrogen, we are currently investigating different business models and examining the profitability of these businesses in collaboration with end users and stakeholders in related industries. In addition, a global player in the chemical industry that highly values our track record and system integration capabilities has asked us to not only be the main automation contractor for a new plant, but to also be the vendor responsible for a much broader scope of activities, including supply chain management.

In this way, through collaboration with customers and various stakeholders, M&A, and participation in government-support schemes, we are taking action under the AG2023 plan to further accelerate the development of this business.

Sales targets by segment — Target CAGR vs. Market Growth



Energy & Sustainability Business contributions to the SDGs, targeting the Year 2030

Achieving carbon neutrality

Support renewable energy infrastructure

Improving efficiency in society & industry

Smart manufacturing business
(Consultation, ERP, MES, EMS)

Optimizing plant lifecycle & protecting the environment

Long-term optimal operation solutions for plants
Remote services/asset management
Environmental equipment and analyzers

Improving health & safety

Plant safety instrument systems
Plant operator training simulator

Creating a resource-recycling ecosystem

Creating workplaces where people can fulfill their potential

Industrial Automation and Control Business



Vice President
Head of Materials
Business Headquarters
**Takeshi
Taniguchi**

Materials Business

The materials business is helping to bring about a circular economy that offers comfort and convenience and is in harmony with the environment. For our customers in the functional chemicals, biomass materials, pulp & paper, textiles, steel, non-ferrous metals, mining, mobility, and electrical/electronics fields, we provide solutions that improve productivity, reduce environmental impact, and save energy.

Business Environment and Our Vision

As the movement toward carbon neutrality and a circular economy gathers speed around the world, the demand for technologies and solutions that will improve energy efficiency and enable recycling and the shift to sustainable materials is growing rapidly. In addition to innovations in manufacturing methods, progress is also being made in the development of materials with new functions and characteristics. For example, in the mobility sector, the trend toward connected, autonomous, shared, and electric (CASE) vehicles is creating new needs in fields such as structural materials, rechargeable batteries, adhesives, and motors. Demand for materials used in semiconductors and electronic circuits is also being driven by the widening use of 5G and IoT.

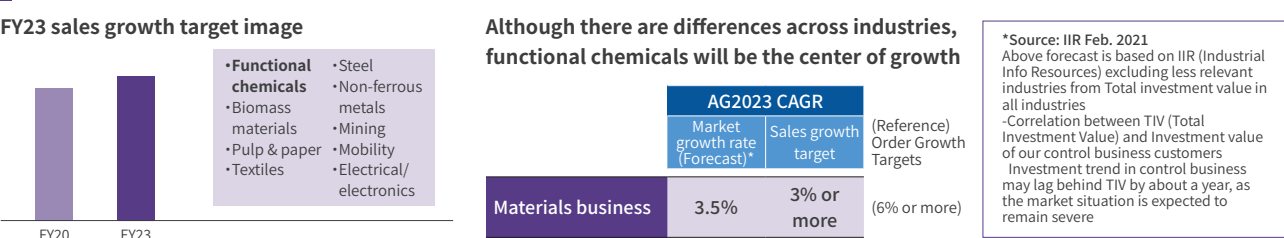
Our customers' business environment is changing rapidly, and there is an urgent need for a digital transformation in development and production through the use of IT and data. In addition to its core production-level problem-solving solutions, Yokogawa will work to understand its customers management issues and supply chain, and expand its portfolio of solutions to help solve management-level issues and achieve a recycling-oriented economy.

Approach with AG2023

Primarily in Japan, Yokogawa works closely with its customers throughout the materials sector, listening carefully to their needs and working with them to find solutions. To achieve the goals set out in the AG2023 plan, we will construct a database that incorporates the vast amount of know-how Yokogawa has built up over the years and develop a system that enables us to efficiently propose solutions to our customers. We will then enhance our ability to provide these solutions.

Outside Japan, some regions have unique industrial fields, so we will develop detailed business strategies based on a matrix of fields and countries/regions, with a focus on functional chemicals. At the same time, we will globally promote the approach of listening to our customers and working together with them to find issues and solutions, which is the basis of our solution proposal business.

Sales targets by segment — Target CAGR vs. Market Growth



Materials Business contributions to the SDGs, targeting the year 2030



Vice President
Head of Life Business
Headquarters
**Hiroshi
Nakao**

Life Business

The life business provides solutions that support people's lives and protect health and safety. In addition to its activities in the pharmaceuticals and health fields, Yokogawa is engaged in businesses that ensure everyone has access to safe water and food.

Business Environment and Our Vision

Due to the growing global population, shortages of food and water are a growing concern, and there is an urgent need for innovation in the development of production and supply systems from both quality and quantity perspectives. Pharmaceuticals is another area where demand is expected to surge. An additional factor that is expected to drive growth for the life business is the aging populations and increased investment in health and quality of life (QOL) in developed countries. The life business aims to contribute to the well-being of all people, and will leverage Yokogawa's strengths in the food and pharmaceutical industries to provide solutions that improve productivity throughout the value chain, from research and development to production and distribution. In the water sector, we will strengthen our efforts to facilitate a digital transformation (DX) by introducing analytical technology that has been acquired through our work in the genetic analysis and scientific equipment fields.

Last fiscal year, we formulated a business vision that reads as follows: "We will lead the world in advancing Bio Industrial Autonomy (BIA) and contribute to a future embracing global harmony." Taking advantage of Yokogawa's strengths in measuring, observing, and connecting things, we aim to realize BIA in the fields of pharmaceuticals, food, water, and biotechnology.

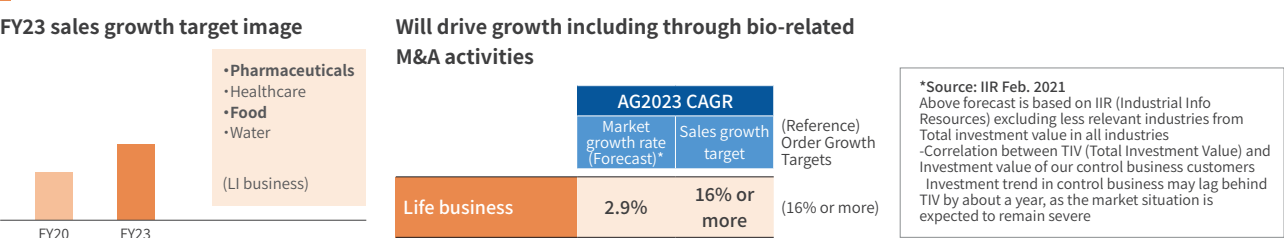
Approach with AG2023

To achieve the goals set out in AG2023, the life business will focus on implementing strategies that target the five business domains of life science, bio-process, pharmaceuticals, food, and water. In each of these business domains, it will be important to accelerate growth by targeting markets outside Japan and developing new products.

To accomplish this first goal of developing our business outside Japan, we will strengthen functions such as sales, marketing, and services, launch the international sale of products and solutions that to date have only been offered in Japan, and formulate and implement regional strategies. As for product development, we will strengthen our development function to accelerate the development of new products and enhance the functions of existing products.

At the same time, we will continue to engage in M&A and alliance activities for the acquisition of new technologies, sales channels, products, services, and human resources, with the aim of expanding our capabilities.

Sales targets by segment — Target CAGR vs. Market Growth



Life Business contributions to the SDGs, targeting the Year 2030



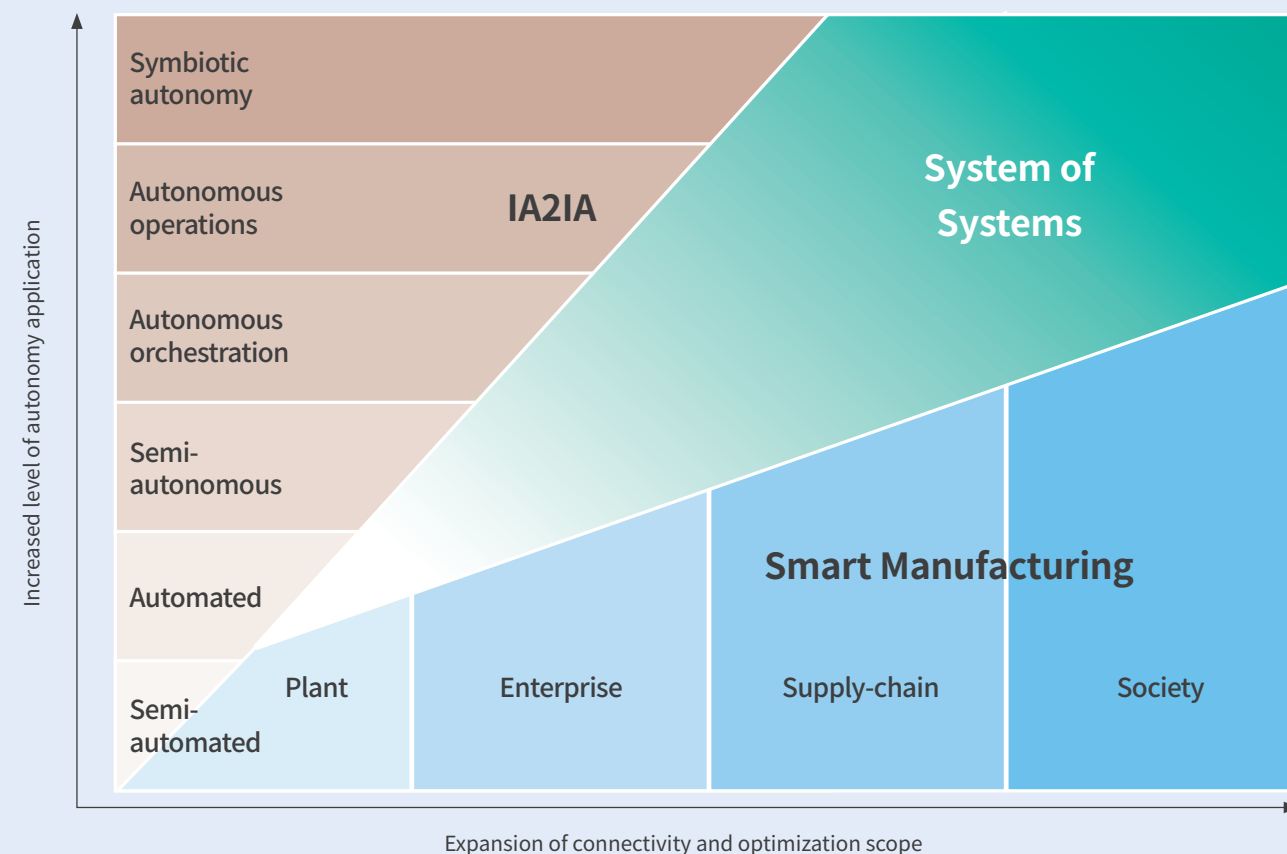
Yokogawa's Approach to Value Providing through System of Systems (SoS)

The World Interconnected in Complex Ways: System of Systems (SoS)

In the world today, everything is increasingly interconnected in complex ways, and it is becoming more important to engage in co-creation to capitalize on that inter-connectiveness. To provide value, we will focus on the system of systems (SoS) concept. To provide value based on this concept, we will pursue our IA2IA and smart manufacturing initiatives.



Global Trends in Systems of Systems



Please see below as well.

December 2020 YOKOGAWA IR DAY A VUCA World and Industry Automation (IA) revolution

<https://www.yokogawa.com/about/ir/reports/business-briefing/>

Yokogawa as a Leading Systems Integrator for SoS

An SoS is not just a huge collection of connected systems; rather, it is a system of independently operated and managed systems that work together to achieve a purpose that cannot be achieved by any one system.

A smart city is a good example. All the elements that make up a smart city – from its energy systems and other infrastructure to the companies conducting economic activities, their employees, consumers, and households – influence each other. The overall optimization of a smart city not only fosters efficiency, but results in the creation of new lifestyles and new types of value.

Moreover, within an SoS, we can create new value and increase added value for our customers by optimizing and minimizing the resources required. Yokogawa will create value by effectively promoting connectivity and overall optimization driven by integration, autonomy, and digitalization.

The SoS trend will advance in every area, but the reliability of the individual systems will be important to the overall functioning of an SoS as a social system. Taking advantage of its expertise in operational technology (OT) and its project implementation capabilities, Yokogawa aspires to become an integrator that will lead the way forward in the realization of the SoS concept.

Yokogawa's Approach to SoS IA2IA and Smart Manufacturing

IA2IA

We are promoting the evolution from industrial automation to industrial autonomy (IA2IA) by incorporating DX enablers such as robotics and blockchain technology.

With IA2IA, significant value will be added by proceeding in steps from semi-automation to full automation, and then from semi-autonomy to full autonomy. With the autonomous operation of plant processes, human intervention can be minimized or eliminated, helping prevent operator error and reducing the need for people to work in harsh environments. IA2IA is a major trend in the process industry, and it is expected to have a growing impact. With the growing need for greater productivity, this trend is expected to gain momentum within the overall manufacturing industry and tertiary sectors. There is also the possibility that we will be able to expand this business into new areas.



Smart Manufacturing

Smart manufacturing employs DX and IA2IA to progressively achieve autonomy within manufacturing sites, enterprises, and supply chains to dramatically improve productivity. While industry is moving in this direction, it is expected that the improvement of efficiency using discrete systems will soon hit a ceiling. Therefore, it will become important to augment these efforts and create value through the orchestration of these discrete systems from a broader perspective.

Through this initiative, we will first start with the production sites that permit us to capitalize on our strengths and expertise, then expand to entire enterprises and their supply chains. By expanding system connectivity across the value chain, we will exponentially increase productivity and create new value on a wholly different level.

The AG 2023 mid-term business plan sets out basic strategies including, "Implement IA2IA & smart manufacturing and transform value provision." We will progress the IA2IA concept to its execution phase and aim for the global expansion of the upper-level core system business, which is the key to Smart Manufacturing.

Next: Approach to Creating Customer Value ➡

Approach to Creating Customer Value

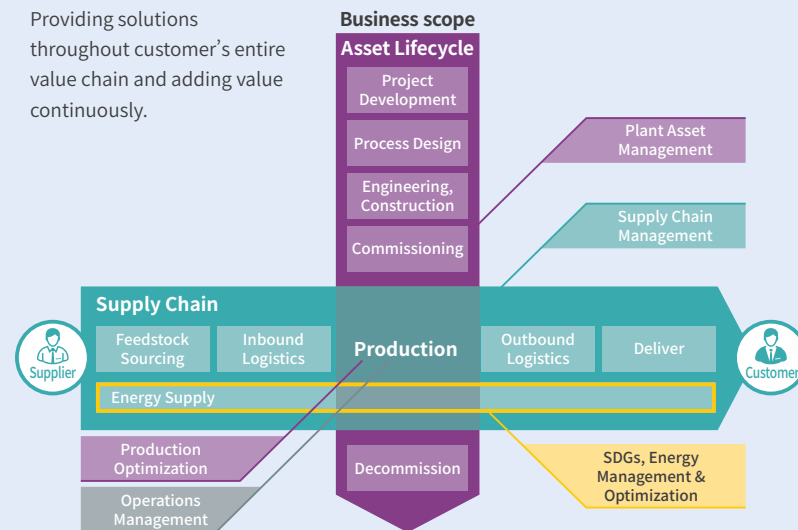
Providing solutions throughout customers' entire value chains

As our customers' partner, Yokogawa contributes to the continuous creation of value throughout the life cycle of our customers' assets by analyzing processes, identifying hidden issues, designing and implementing optimal solutions, executing operations that are secure and stable, and maintaining and improving performance.

Our solutions are the implementation of the latest information technology (IT) and operational technology (OT) that we have cultivated over the years, which is one of our strengths. This enables the visualization of issues, the optimization of processes, automation, the improvement of efficiency and the reduction of risks, which all contributes to our customers' ability to make decisions quickly and effectively throughout the entire value chain.

Smart Manufacturing

Providing solutions throughout customer's entire value chain and adding value continuously.



IT/OT Convergence as a game changer for business

The strength of our solutions is IT/OT convergence, the integration of IT and OT. Through IT/OT convergence, IT analyzes the vast amount of process data obtained using OT from various perspectives to derive methods for optimization, and feeds these solutions back to OT to achieve more optimal and efficient process operations.

In this process, even if a huge amount of data is collected, the identification of points for optimization within processes is impossible without understanding how the process works and what the meaning of the data is. Yokogawa is able to derive the best answers from vast amounts of process data using its simulation and analysis technologies, including its AI and digital twin technologies, and the combination of Yokogawa's deep domain knowledge and the OT domain knowledge cultivated over many years in the customer's industry. Yokogawa has become a key player in the creation of value for our customers' businesses through the application of IT/OT convergence solutions.

Examples of Yokogawa Solutions



Business Model - Image

Contributing to continuous value creation throughout the lifecycle of the customer's assets

Achieving Sustainable growth, with a good balance between CAPEX and OPEX businesses

Yokogawa provides solutions over a plant's entire lifecycle, which can exceed 30 years, starting from the capital investment (CAPEX) for the construction of new facilities and extending to the operational expenditures (OPEX) for existing facilities focused on the identification and resolution of issues to improve productivity and the provision of maintenance services.

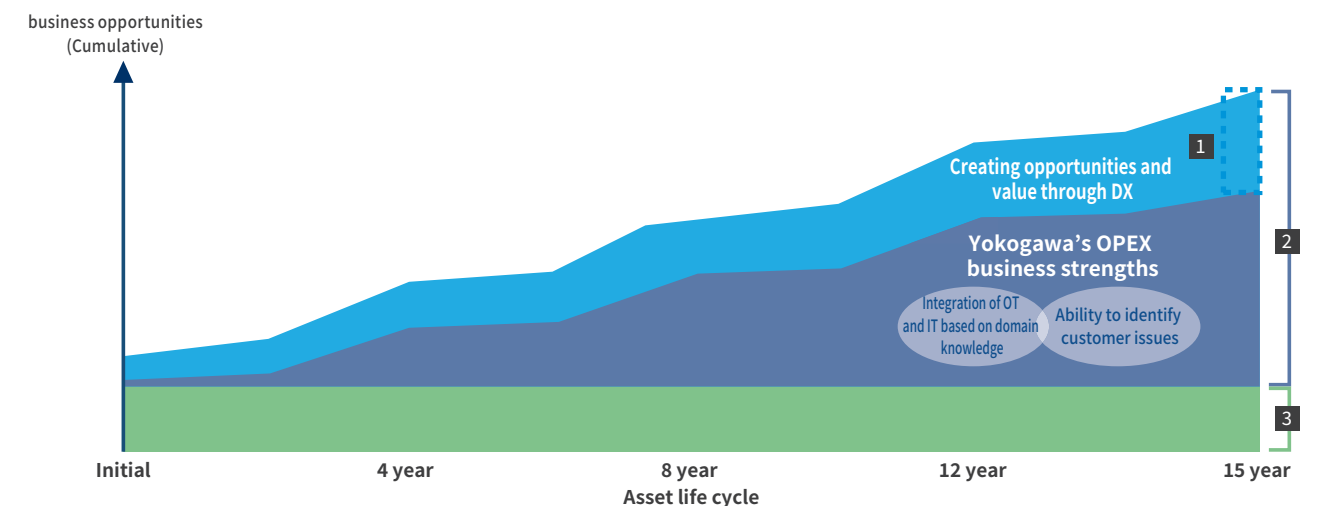
The premise of our business requires a long-term perspective, and therefore, it is crucial that we earn the trust of the people working at our customers' facilities. Based on the trust of our customers, Yokogawa achieves sustainable growth by focusing on the OPEX business and expanding CAPEX, which is the acquisition of the installed base.



※ Front End Engineering Design

Digital Transformation (DX) and Cumulative Business - Synergies expanding business opportunities

Customers are accelerating their efforts to achieve digital transformation (DX) and improve sustainability, and the opportunities for Yokogawa to provide comprehensive solutions as a customer's partner are expanding. In addition, the OPEX business, our core business, is a cumulative business providing solutions throughout the lifecycle of customer's assets, which synergistically drives our business opportunities as an integrator.



1. Creating opportunities and adding value through DX
 - DX consulting
 - ▶ Clarification of DX maturity
 - ▶ Pursuit of DX journey
 - IA2IA/smart manufacturing solutions
 - ▶ Asset management optimization
 - ▶ Remote operation
 - ▶ Energy management optimization
 - ▶ Enhanced OT-IT integrated security
 - SoS solutions
 - ▶ Supply chain optimization
 - ▶ Quality chain optimization
 - ▶ Energy chain optimization
 - ▶ CO₂ emission chain optimization

(Example of a customer in Japan's chemical industry)

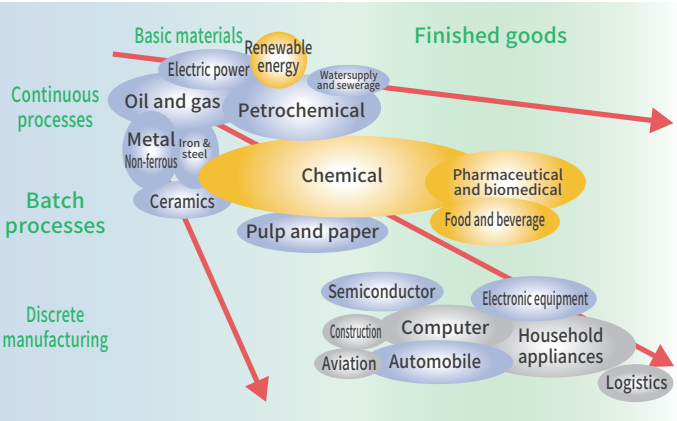
2. OPEX
 - Consulting
 - Remote monitoring and operation
 - Instrumentation replacement
 - Lifecycle services
 - Value-added solutions
 - System upgrade
 - OT security
 - Annual maintenance contract, etc.
3. CAPEX
 - Consulting
 - FEED, design, engineering, etc.

Yokogawa's strengths

Regarding its mainstay industrial automation and control business, Yokogawa has a large share of the Japanese market in a wide range of industries, including oil & gas, chemicals, electric power, iron and steel, pulp and paper, pharmaceuticals, and foods. By leveraging the expertise gained through its service of diverse industries in Japan, the Company also has gained a large share of the markets in emerging and resource-producing countries and regions, such as Russia, China, the Middle East and ASEAN countries. The percentage of sales outside Japan was approximately 70% in fiscal year 2020.

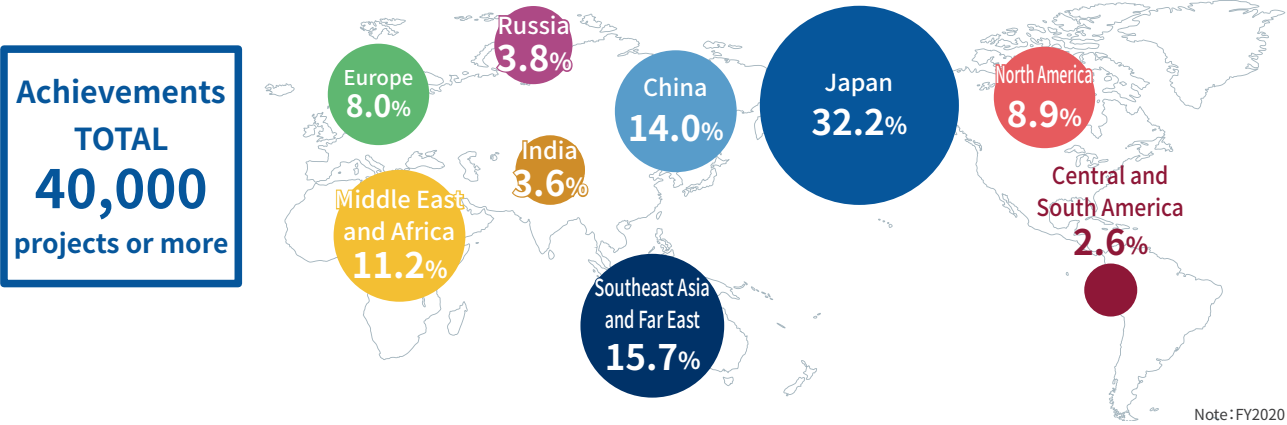
Since its first efforts 60 years ago to launch a global business, Yokogawa has realized an even geographical distribution of its operations that its competitors cannot match and has accumulated a wealth of experience through over 40,000 plant control system projects worldwide. Fully leveraging its extensive track record, the Yokogawa Group focuses on solutions that enhance the productivity of its customers' plant facilities and improve the efficiency of their maintenance operations.

Expertise and know-how in a diverse range of industries



Note: Overview of industries we serve

Large installed base and even geographical distribution unmatched by competitors



Problem-solving capabilities

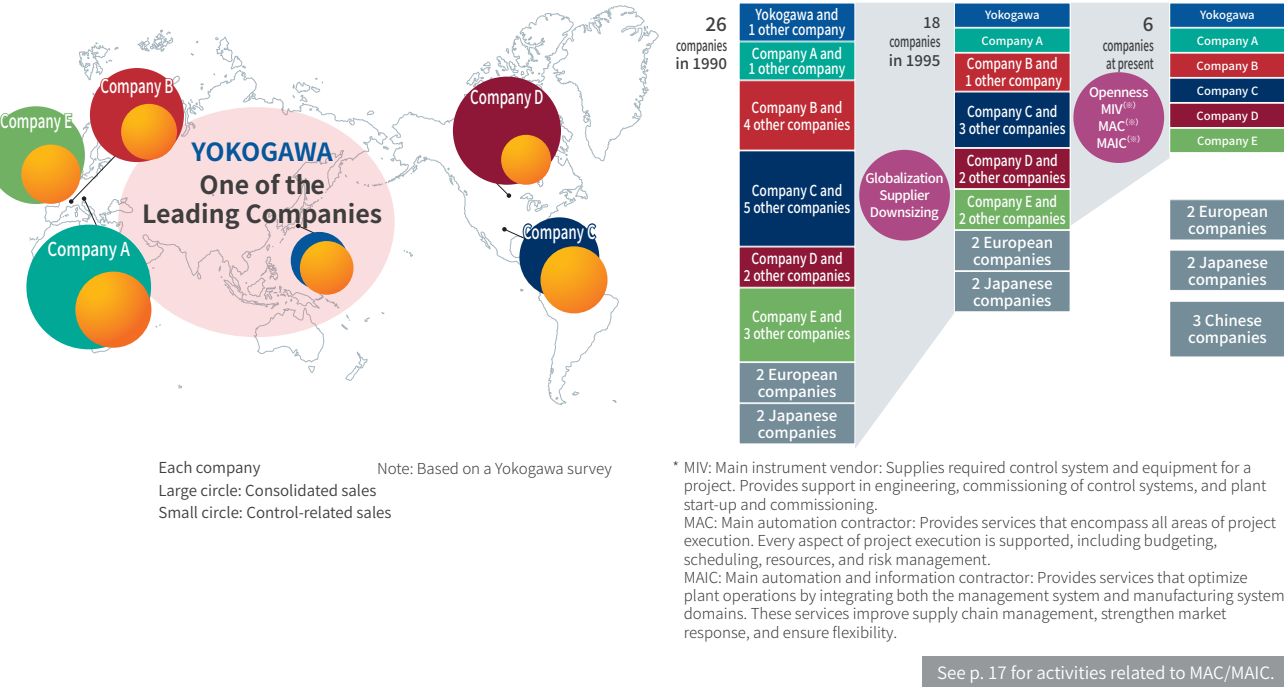
Actuality	- Professionals see for themselves the sites, objects, and situations, and localize business activities 24/7 support service
Trust	- Trust in products with the same quality, durability, and environmental resistance around the world - Ability to optimize industrial and social processes (engineering) - Perseverance and ability to complete projects
Co-creation	- Co-creation of value through communication with all levels of the customer's organization, from the shop floor to the executive suite - Possession of industry-related knowledge, knowledge of the manufacturing process and broad engineering expertise - Being good citizens, striving for harmony, and sharing our customers' dreams

Competitive environment

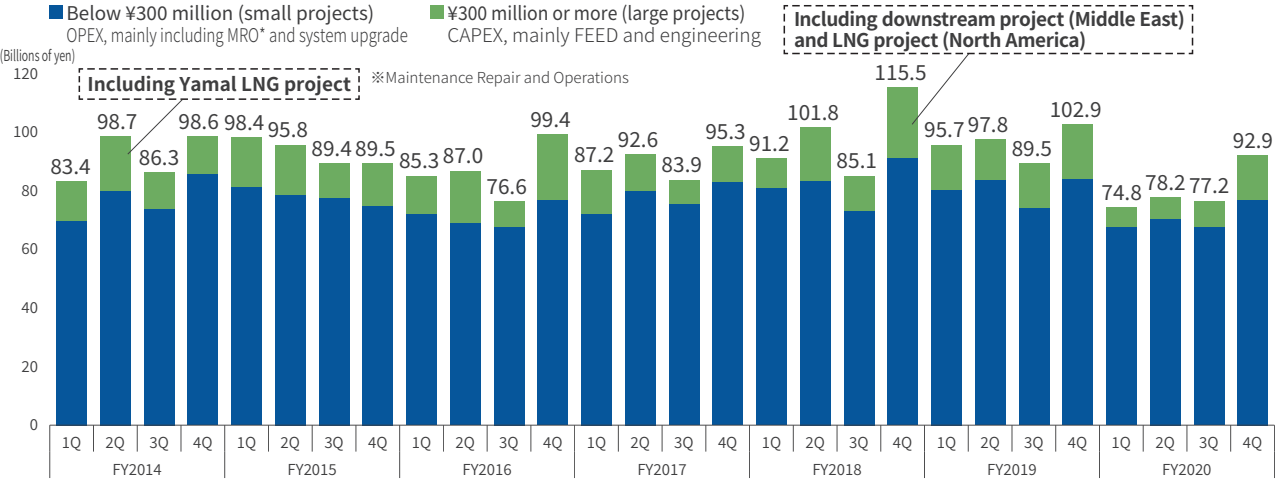
In its mainstay industrial automation and control business, in the process automation (PA) field Yokogawa competes mainly with conglomerates whose annual turnover exceeds ¥1 trillion. Of the 26 global players that were doing business in 1990, only six remain. Yokogawa has capitalized on its ability to provide comprehensive control solutions and its excellent hands-on approach to cultivate the trust of its customers and co-create value with them. Our strong problem-solving capabilities have enabled us to gain a large share of the market and build up a large installed base in Japan and in emerging and resource-producing countries and regions such as Russia, China, the Middle East, and ASEAN countries. We also have earned the trust of EPCs around the world. Thanks to our efforts to localize our operations and contribute to local economies, growing energy demand driven by population growth and the need to respond to societal and environmental issues, we are well positioned in resource-producing and emerging countries.

As the business environment is becoming more difficult due to intensifying competition not only with global competitors but also with IT companies, we aspire to lead the way forward as an integrator in a world where entire societies function as Systems of Systems (SoS) through the increased sublimation of the system integration (SI) and engineering capabilities that we have accumulated to date.

Competition against conglomerates with annual sales turnover exceeding ¥1 trillion Trusted as a manufacturer specializing in the industrial automation and control business



Large projects worth over approx. ¥300 million in the amount of each order taken account for some 10 to 15% (for reference)



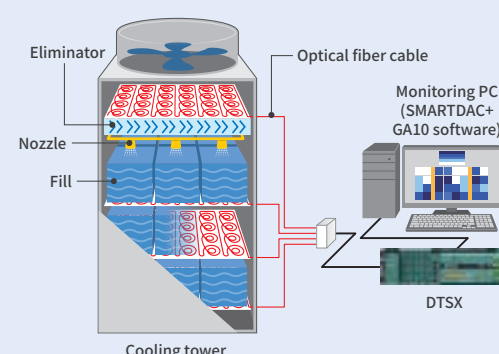
Yokogawa's Co-innovation Approach together with Diverse Customers and Industries

Yokogawa provides products such as control systems and field instruments, a portfolio of solutions based on the knowledge and expertise it has accumulated over many years in the control business. Through the visualization of the challenges commonly faced by customers in an array of industries to optimize their operations, we help customers achieve value creation and fast and effective decision making. The following are specific examples of solutions in various industries leveraging Yokogawa's Co-innovation approach.

Improvement of the Energy Efficiency of Power Plants

DTSX for Power Industry

This solution was provided to a geothermal power generation customer. Since 2020, Yokogawa has demonstrated its performance management system for cooling towers at geothermal power plants in Japan in cooperation its partner, West Japan Engineering Consultants Inc. The performance of a power plant's cooling tower is directly related to power generation efficiency, and its management is extremely important. However, due to its structure, it is difficult to clearly capture the conditions inside the tower, and effective monitoring has been an issue for many years. To address this, Yokogawa has developed a technology able to measure the temperature profile inside a cooling tower using the DTSX distributed temperature sensor and identify the locations of water balance failures and the position of clogs in the fill material in the cooling tower using a unique algorithm. This new system will enable pinpoint maintenance which had not been possible previously and will minimize power loss due to the performance deterioration of the cooling tower and aim to contribute to the reduction of customers' fuel costs and opportunity losses. This system has been jointly patented with West Japan Engineering Consultants, Inc., and we have received inquiries from institutions and customers in Japan and overseas. In the future, we plan to expand the solution globally to contribute to the improvement of the efficiency of various power generation systems, not just geothermal power generation.



Innovation in Plant Maintenance Operations

eServ for Food Production

This solution was created for a food production customer that manages multiple plants in three factories, and the equipment for each plant. As there was an enormous number of parts for the equipment, maintenance and management of equipment for the maintenance of proper operations has been one of the customer's most important management issues. The customer focused on production capacity indicators, such as achieving the planned production weight and the planned production time and examined the requirements of the equipment maintenance system to identify and resolve the causes of lost production opportunities and equipment problems. They selected Yokogawa's cloud-based eServ system because it not only had the necessary functions, but also met their requirements of an easy-to-understand system that could be operated intuitively in the field with an excellent graphic interface using iPads and QR codes.

The introduction of eServ enabled equipment information to be centralized, the clear identification of the causes of lost production opportunities, and the ability of all employees to follow up on the progress of countermeasures. In addition, the cloud system has enabled employees to use smart devices such as the iPad to easily record and check the status of malfunctions, repairs, and the replacement of parts on site. In addition, the dashboard makes an array of analyses and graphs easy and increases the robustness of maintenance operations through the regular awareness of the effects and progress of improvements. At monthly maintenance report meetings, problems are shared and discussed based on information input into the system, leading to the improvement of the skills of every employee.

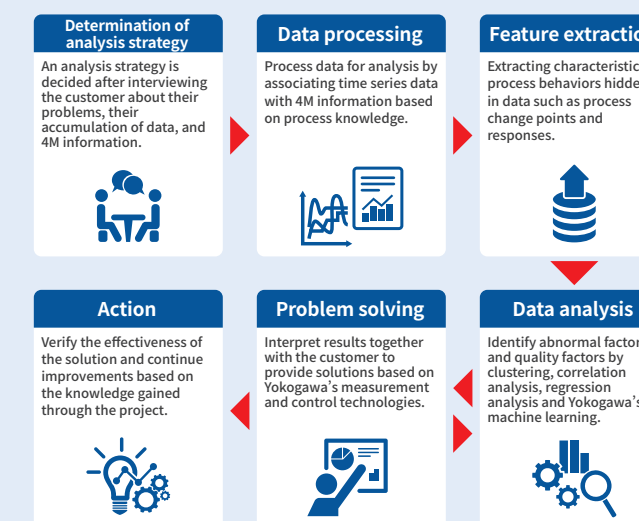
Improving and Stabilizing Product Quality Using AI Analysis and Process Informatics

Process Data Analytics Fine Chemicals

A customer producing fine chemical products had been previously able to control their plant well, but there was a need to stabilize product quality at an extremely high level to enhance competitiveness and increase value. The customer chose Yokogawa, with its proven track record in the stabilization of the quality of chemical processes in other plants, as their analysis partner.

The customer and Yokogawa collated and analyzed data using a variety of methods, incorporating the knowledge of each individual in the field. This field knowledge is often remains tacit and is not shared. Extracting this knowledge, organizing it, and sharing it explicitly in an organization is useful in analysis projects and in improvement activities. The customers organized their knowledge together with the people in the field. Yokogawa analyzed this information from an array of angles illuminated together with the customers.

As a result, several factors affecting product quality were identified, which led to improvements such as increasing the accuracy of sensors in specific necessary points, the addition of new quality control points, and the modification of control sequences. The plant is now in the process of improving its facilities and verifying the effects of the improvements.

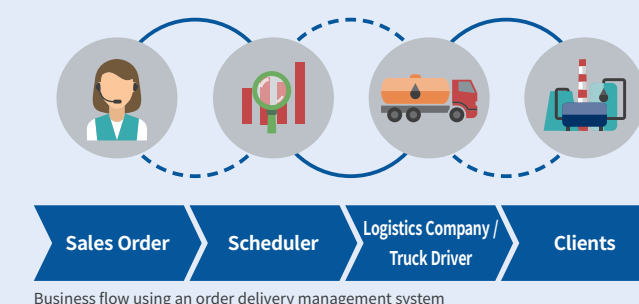


Improving Visibility Across Logistics and Supply Chain Operations Using a Digitalized Order Delivery Management Solution

An Order Delivery Management System for Chemicals

An industrial gas customer needed innovative ways to accelerate their delivery activities and make them more efficient to meet the rapid growth of demand for gasses. To resolve long-standing logistics bottlenecks, the customer decided to implement an order delivery management system together with Yokogawa. The completed solution enabled the digitalization and visualization of the customer's logistics and supply chain and a smooth transition from manual to digital operations.

Yokogawa decided to develop this system as a cloud-based application. Using DevOps methodology (development and operations), an agile development approach, the cross-organizational teams of the customer and Yokogawa were able to develop the application quickly while improving its specifications. The system developed to enable the seamless sharing of information such as the content and lead times of orders with related departments, truck drivers, and their customers, enabling cross-collaboration across organizations.



Business flow using an order delivery management system

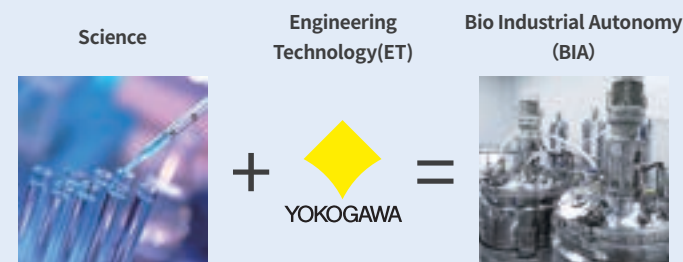
Biotechnology Challenges

The field of drug discovery research is mainly the purview of laboratories. It is believed within the pharmaceutical industry that the development of a new drug takes more than 10 years. After completing laboratory research, drug developers begin the process of researching mass production and move into production.

In drug discovery research, cutting-edge biomass technology is still at the level of science. It takes engineering technology (ET) to sublimate it to "industry."

Yokogawa has grown together with its customers' plants over the past 40 years, and the technologies, product solutions, and experience gained give Yokogawa engineering technology advantages.

In the biotechnology world, Yokogawa has launched this initiative with the goal of supporting the beginning of a new biotechnology industry through the combination of ET and science.



Example of Development

Assistance in Microbial contamination Management

Consumers' interest in food safety and security is rapidly increasing worldwide. This has resulted in the recommendation that food manufacturers adopt hazard analysis and critical control point (HACCP) systems, and the percentage of manufacturers adopting these systems is increasing. However, the number of food recalls and foodborne illnesses due to product tampering and microbial contamination has remained high. In particular, because the testing period for microbial contamination is long, it is not possible to effectively incorporate this information in the food manufacturing process, which increases harm in some cases.

■ Ultra-rapid DNA sensing to increase the safety and security of everyday life

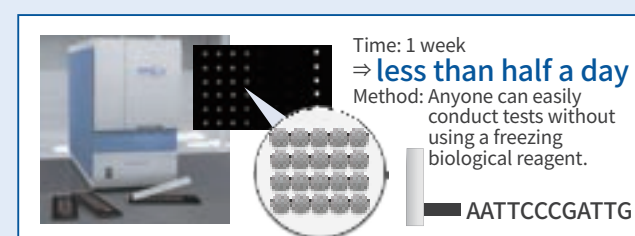
Yokogawa is a proponent of a robust genetic testing method that can be carried out with overwhelming speed and simplicity. This testing method is possible using Yokogawa's highly sensitive fluorescence measurement technology that it has developed over the years, and a newly developed non-label gene analysis device. With this technology, it is possible to rapidly detect microbial contamination in food and other products, and Yokogawa believes that this can greatly contribute to the reduction of food manufacturers' operating costs.

Yokogawa is currently developing a prototype gene analysis system that enables anyone to easily detect microorganisms in food and is conducting proof of concept experiments using foods and beverages.

■ Vision for the Future

Yokogawa's microbial test uses gene analysis as its core technology, making many gene analyses possible through the flexible design of detecting probes. The use of this technology makes it possible to instantly determine the presence of microorganisms, and it can also be applied in fields involving public health measures and the prevention of disease outbreaks.

Ultra-rapid DNA sensing



Features

Shortening of culture time
Does not require skilled labor

Applications

- Beverages in general and fermentation-related manufacturing fields
- Pharmaceutical and cosmetic manufacturing control
- Bioethanol production control
- Water quality management (water and wastewater)
- Infectious disease diagnosis
- Environmental monitoring
- QC in regenerative medicine

Life Business Contributions - Yokogawa's Life Science Business

Yokogawa's life science business supports leading-edge life science research through the development and sale of live cell imaging, high-content analysis systems, single cell units, and other products based on its core confocal scanner unit, which has more than 30 years of history and has sold more than 3,400 units worldwide.



Supporting COVID-19 research

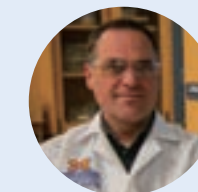
New drugs and vaccines are being developed to combat the continuing COVID-19 pandemic. Yokogawa is contributing to the research and development of COVID-19 vaccines and drugs conducted by universities and research institutes in Japan and overseas through the provision of its CellVoyager series of high-content analysis systems.

Example ① — University of Michigan (US)

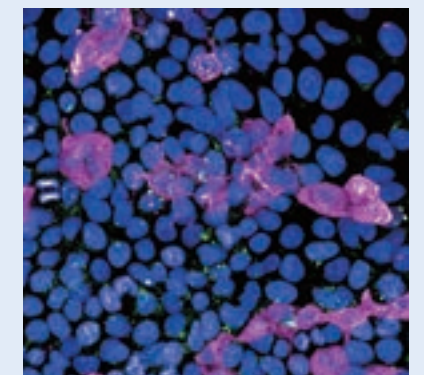
Dr. Sexton at the University of Michigan has developed a method of screening in the process of drug discovery that uses AI to analyze the morphological profiles of cells using microscopic images. CQ1, which is equipped with Yokogawa's advanced imaging technology, is being used to capture these images. In 2020, to develop an urgently needed treatment method for COVID-19, 1,425 FDA-approved compounds were screened by CQ1 for drug repurposing, and several compounds with antiviral effects were identified.¹ The study has already been published as a pre-peer review paper. As research progresses, it is expected that the elucidation of the mechanism of action of drugs will advance and that the diversion of existing drugs will be efficiently promoted.²

¹ Drug repurposing: Using a known drug's effects and side effects to explore applications in other diseases

² Mechanism of action: How a drug exerts a therapeutic effect



Dr. Jonathan
Sexton, Ph.D.



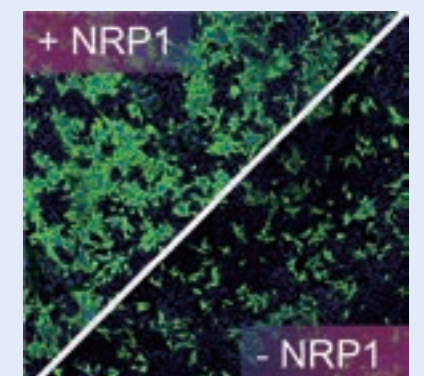
SARS-CoV-2 infected Huh-7 cells
all nuclei (Blue)/neutral lipids (green)/SARS-CoV-2 NP protein (magenta).

Example ② University of Bristol (UK)

Dr. Yamauchi's laboratory uses CQ1 to identify the mechanism of essential steps such as the virus's entry into cells, infection, and replication. His international research team discovered that Neuropilin-1 (NRP1) acts as a second receptor when the SARS-CoV-2 virus infects human cells, and his science paper was published in the scientific journal Science in November 2020. Previously, it was known that ACE2 binds to SARS-CoV-2 virus, but he discovered that NRP1 also binds directly, and that blocking this binding reduces the number of infected cells. This indicates that NRP1 may be a target for COVID-19 treatment.



Yohei Yamauchi
MD PhD



HeLa cells expressing ACE2 infected with SARS-CoV-2
all nuclei (blue)/virus infected cells (green)



Senior Vice President
Head of Aerospace
Products Business
Headquarters
President, Yokogawa
Test & Measurement
Corporation

**Masaharu
Yamazaki**

Measuring Instruments Business/ Aviation and Other Businesses

Measuring Instruments Business Business Review and Our Vision

In the measuring instruments business, we have achieved growth and improved profitability by focusing on three product fields where we are competitive. These are the optical measuring instruments field, where sales are being driven by increased investment in optical device production for the full-scale shift to 5G, the basic measuring instruments field, where global investment is up due to vehicle electrification, and field measuring instruments, where the focus is on plant maintenance applications. In the Indian market, where we anticipate future growth, we have taken steps to reinforce our business by strengthening our sales organization and establishing a power calibration laboratory.

Measures to protect the environment and the impact of COVID-19 in accelerating DX and social change are two factors that are creating new opportunities for our company. To adapt to these situations quickly, we have reorganized our operations into four areas - decarbonization, communications, well-being, and services, and are restructuring our business around these. In addition, by changing our corporate culture from a product sales orientation to one that emphasizes the provision of measurement solutions over the entire lifecycle, we will be better positioned to bring our professional knowledge and expertise to bear in the co-innovation of solutions with top business enterprises. As such, we will set high goals for our business and the contributions that we will make to society.

AG2023 Initiatives

We will focus on four areas altogether, with the first three involving industry requirements related to decarbonization, communications, and well-being, and the fourth involving the provision of lifecycle services. For decarbonization, we will develop high-precision measurement solutions for use with power conversion technologies, and develop a data solution business based on an integrated measurement software platform. For communications, we will provide optical and electrical measurement technologies and software solutions to the technologically advanced optical device/equipment and fiber optic markets. For well-being, we will expand into the medical equipment and other markets by providing pressure source and measurement solutions. In the lifecycle services area, we will develop a two-way communications platform for the provision of a measurement solution service. In addition to our activities in these four areas, we aim to grow our business in the Indian and Chinese markets.



Measuring Instruments Business contributions to the SDGs, targeting the year 2030

Achieving carbon neutrality	Improving efficiency in society & industry	Optimizing plant lifecycle & protecting environment	Improving health & safety	Creating a resource-recycling ecosystem	Creating workplaces where people can fulfill their potential
Measuring instruments for the development of renewable energy 					

Aviation and Other Businesses Business Review and Policy

The commercial aviation segment of our aviation business had been performing solidly due to an increase in demand for aircraft, but experienced a significant decline in sales in fiscal year 2020 due to the impact of COVID-19. We will continue our efforts to put this business on a solid footing and improve earnings. With biomass materials, a new field for Yokogawa, Yokogawa Bio Frontier Inc. is undertaking strategic initiatives to quickly establish this business.

Yokogawa's Corporate Governance

- 64 Strengthening Corporate Governance
 - 64 Strengthening Our Management through Initiatives That Leverage Diversity
 - 65 Contributions of the Board of Directors for Effective Management
- 66 Corporate Governance
- 74 Management Team

Special Feature

Strengthening Corporate Governance

Strengthening Our Management through Initiatives That Leverage Diversity

Based on the belief that a diverse workforce is an important company asset and a source of value creation that can enhance our corporate value over the medium- to long-term, diversity and inclusion are positioned as a pillar of Yokogawa’s management strategy. The Yokogawa Group is committed to nurturing a corporate culture that is inclusive and emphasizes diversity. At the management level, diversity is being emphasized not only in terms of gender and nationality, but also with respect to work experience and age.

Yu Dai, who currently leads a core organization for our control business, joined our company in 2015 after working as a CEO and in various other senior posts for major global players in the chemical industry, which is a focus market for our company. As a Yokogawa director since 2019, he has been contributing to the company’s management by leveraging his understanding of the customer perspective and global business experience. Since 2016, three people with business and management experience in industries different from Yokogawa’s have joined the company in officer roles, and are utilizing their diverse backgrounds and abilities to contribute to our management team’s efforts to enhance competitiveness and foster innovation.

In order to achieve sustainable growth and improve our company’s corporate value over the medium- to long-term, it is essential to develop personnel who can ascend to management roles and succeed on the global stage. To this end, Yokogawa has established a global talent management system that is now being used to systematically identify and prepare individuals for future leadership roles in the company. As such, the company is moving forward in its efforts to identify a diverse pool of human resources across the Group, strategically allocate these resources, and develop their capabilities.

Diversity in the Nomination of Candidates for Director and Audit & Supervisory Board Member and the Appointment of Company Officers

The Nomination Advisory Committee is a voluntary body that advises the Board of Directors on the nomination and appointment of company officers, and the majority of its members are outside directors. Based on their report, the Board of Directors makes decisions in a transparent fashion. The Nomination Advisory Committee prepares a diverse list of candidates based mainly on the search efforts of the outside directors and information submitted by external advisors, and updates the list of candidates every year. With an emphasis on diversity, internal candidates for corporate executive positions are selected using the Global Talent Management System, and the list of eligible candidates is updated annually through training and evaluation programs. Based on opinions and discussions in the evaluation by the Board of Directors, discussions are conducted from the viewpoint of compatibility between the diversity of management structure and appropriate scale, and candidates from this list are nominated and appointed.

See p. 72 for more information on the policy and procedures for the appointment of director candidates and audit & supervisory board member candidates, and officers.

Discussion about Diversity by the Board of Directors and Nomination Advisory Committee

In FY2020, the Nomination Advisory Committee met a total of nine times to discuss the diversity of the Board of Directors and Officers in light of future initiatives to enhance corporate value over the medium to long term. We reaffirmed the need for female directors and discussed diversity in terms of gender, nationality, and other respects, as well as diversity in terms of the experience, skills, and expertise that our company requires. In addition to required skills in finance, accounting, legal affairs, risk management, environment and social governance, we confirmed the importance of management experience in a company that conducts business on a global scale as approximately 70% of Yokogawa’s sales are outside Japan and the Yokogawa Group has companies all over the world. We also confirmed that knowledge and business experience in technology and research & development, as well as in IT and other digital fields, are important because the company aims to gain a competitive advantage by creating value through measurement, control, and information. Based on these deliberations, candidate nominations were submitted to the Board of Directors. In accordance with long-term business framework, directors and corporate auditors were elected by the General Meeting of Shareholders after the passing of a resolution by the Board of Directors, and officers were elected by the Board of Directors. The individuals elected to these positions will play an indispensable role in strengthening the competitiveness of the Yokogawa Group, achieving the goals of the Accelerate Growth 2023 plan, and ensuring sustainable growth. The major areas of expertise and work experience of the outside directors and outside corporate auditors for the current fiscal year are summarized in the table below.

Yu Dai and Kuniko Urano were elected as directors; Yasuko Takayama was elected as a Audit & Supervisory Board member; and Sajiv Ravindran Nath, Michiko Nakajima and Yoko Fujita were elected as officers.

Going forward, the entire Yokogawa Group, including all directors, Audit & Supervisory Board members, and officers, will continue to work to realize a highly diverse management system that will produce concrete results.

		Expertise and Experience of Independent Officers					
		Corporate Management/Global	Finance/Accounting	Technology/Development	Legal affairs/Risk Management	Environment/Society	IT/Digital
Outside Directors	Noritaka Uji	●		●			●
	Nobuo Seki	●		●	●		
	Shiro Sugata	●		●			
	Akira Uchida	●	●			●	
	Kuniko Urano					●	
Outside Audit & Supervisory Board Members	Yasuko Takayama				●	●	
	Makoto Ohsawa		●				
	Masaru Ono				●		



Chairman of the Board
Chairman of the Nomination
Advisory Committee

Takashi Nishijima

Contributions of the Board of Directors for Effective Management

In fiscal year 2020, the review of the long-term business framework and formulation of the AG 2023 mid-term business plan were the most important tasks for the Board of Directors, and to ensure a quality outcome, sufficient time was taken to deliberate these topics in depth.



Outside Director

Noritaka Uji

As chairman of the board, in fiscal year 2020 I made the review of the long-term business framework and the formulation of the next mid-term business plan the top priorities for the Board of Directors. At the beginning of the fiscal year, the Board of Directors met with the executive team to go over the schedule for the formulation of these plans. We set up meetings outside the official board meeting schedule for the Board of Directors to engage in in-depth discussions, in which everyone, including the outside directors, shared their views and a range of perspectives. I feel that this is a very active Board of Directors and that we are free to engage in a frank exchange of views.

As the business environment in the oil & gas field has changed significantly, the development of our business in the three new industry business segments is an extremely important strategy for our future growth. We believe that the presentation of scenarios for individual industries, as opposed to the one major segment of control, is easier for our stakeholders to understand.

In addition, looking ahead to life after the pandemic, we need to strengthen our efforts both with internal and external DX. For that, we need IT skills as well as the OT knowledge that Yokogawa already has in abundance. Therefore, it will be important to develop and make greater use of our human resources, and reform our corporate culture.

In this era of great change, we cannot just keep doing things as we always have done; with a new sense of purpose, I will put my experience in the IT field to good use, and do my best to support the company.



Outside Director

Nobuo Seki

In the engineering field, I have many years of direct experience in creating value and delivering solutions. It has been nearly 20 years since we first included CO2 reduction targets in our CSR report. The global effort in recent years to achieve the SDGs and the impact of COVID-19 have required companies and individuals to make significant changes. Under these circumstances Yokogawa established a company-wide project team, and through intensive discussions that included remote meetings of the Board of Directors, prepared and launched the new AG2023 mid-term business plan and revised the long-term business framework.

Yokogawa’s goals and strategies have been disclosed separately, but as an outside director who is familiar with the global development of businesses, I have appreciated the opportunity to participate in such high-quality discussions. Scenario planning has also been required for difficult subjects, such as whether the creation of value for a wide range of markets is in line with management policies, what technologies and capabilities are best for DX, and how organizations, functions, and human resources should evolve and interact with other organizations. We had active discussions in which everyone had a good command of the subject matter and quickly responded to each other. I will keep a close watch on things as Yokogawa makes the changes needed to get where it wishes to be.



Outside Director

Shiro Sugata

Coinciding with the drafting of the new AG2023 mid-term business plan, a review of the long-term business framework was conducted that took into consideration surveys, studies, and planning activities that all took a long-term perspective. An arrangement and schedule for planning activities set to start at the beginning of fiscal year 2020 were presented to the Board of Directors, and this was followed by a detailed reporting and discussion process that led up to an overall assessment of the direction of these activities in June 2020, a complete summarization of all activities in December 2020, and the finalization of management objectives in March 2021. Meanwhile, the progress achieved by a working group was confirmed in August 2020 and an interim report was completed in October. During this process, I emphasized the importance of the strategic investment of capital for purposes such as M&A, and the strengthening of management following any acquisition. I also stated the need for a drastic realignment of business segments and for the establishment of a new management accounting system* after such a realignment. I also focused on whether the company’s basic policies, such as its corporate philosophy, are in line with society’s needs and the societal changes that are underway, and whether they are properly understood both within and outside the company.

As the business environment continues to change rapidly, we will ensure that management is carried out in accordance with these plans, and will monitor progress, provide support, and discuss any changes that may be necessary for the company to achieve its goals.

*For the making of management decisions based on objective accounting data



Outside Director

Akira Uchida

As the result of COVID-19, it has become even more important to achieve a sustainable society. Major countries must set high targets and make decarbonization a priority issue, and investors will be evaluating the contributions that companies make toward this goal. As the oil & gas industry, a major source of business for Yokogawa, has reached a major turning point, the company has been forced to drastically review its strategy. The review of the long-term business framework that coincided with the drafting of the new mid-term business plan was an extremely important opportunity to reconsider the direction of the company’s management and its mid- to long-term strategies, and it was good that we had enough time to discuss this. The new mid-term plan aims to enhance Yokogawa’s solutions business and expand its business in industries where it can contribute toward a digital transformation (DX), and thereby realize the vision for where the company should be ten years from now. For this purpose, it will be extremely important for the company to realign its business based on industry business segments, and it will also need to integrate its sustainability and business strategies. In each of the six contribution areas where we have set medium-term sustainability targets, I am aware of the importance of clarifying business revenues based on the “creating shared value” model, and also understand the importance of having all of the company’s businesses contribute toward the “Three goals” of achieving net-zero emissions, well-being, and a circular economy by the year 2050. It will be important to support efforts to achieve this as soon as possible.

Corporate Governance

Basic Views on Corporate Governance

The Group has established a corporate philosophy, the Yokogawa Philosophy, and Standards of Business Conduct for the Yokogawa Group, and strives to ensure the appropriateness of all relationships with stakeholders, grow sustainably and increase corporate value over the medium and long terms. In addition, based on the philosophy that “a company is a public entity in society,” the Group positions the earning of the trust of all stakeholders, including shareholders, customers, business partners, employees, and society, via sound and sustainable growth, as its basic corporate management mission. To maximize its corporate value, the Group believes that efforts such as thorough compliance, appropriate risk management, and information disclosure to ensure a constructive dialogue with shareholders and other stakeholders are important. The Group formulates these Yokogawa Corporate Governance Guidelines to serve

as its basic policy for the continued improvement of corporate governance in line with the above views. The transparency of the actions of the Board of Directors and the speed of their decision-making is improved through deliberations between directors who are well versed in the Company’s business and the outside directors who maintain a high degree of independence. In addition, the Audit & Supervisory Board members, including outside Audit & Supervisory Board members, shall work to enhance the auditing of management through the strict auditing of the legality and rationality of the work carried out by directors and the validity of their decision-making processes. The Board of Directors is evaluated every year to enhance the appropriateness of the directors’ execution of their duties and to improve efficiency through the objective evaluation and analysis of the effectiveness of the Board of Directors.

<https://www.yokogawa.com/about/ir/governance/>

Continued enhancement of corporate governance

	Until FY20 Continuous enhancement			From FY21 Continuing enhancement
	2005	2010	2015	2021
Outside directors	● 1 director	● 2 directors ● 3 directors	● 4 directors	● 5 directors, comprising a majority of the board of directors (planned)
Voluntary advisory body			● Established nomination and compensation committee ● Established nomination advisory committee and compensation advisory committee	
Compensation system	● Abolished retirement bonuses for directors		● Introduced a restricted stock compensation plan (RSJ) ● Introduced a performance-linked stock compensation plan (performance share unit plan: PSU)	
Systems and policies	● Revised articles of incorporation to reduce number of directors (25→15) ● Introduced one year tenure system for directors ● Introduced takeover defense measures	● Discontinued (abolished) takeover defense measures ● Established the Company's independence standards	● Established the Yokogawa corporate governance guidelines ● Abolished the positions of senior advisor, advisor, and honorary corporate associate	
Other		● Conducted an outside evaluation of the board of directors* ● Appointed a woman as an outside Audit & Supervisory Board member ● Appointed foreign nationals as officers	● Appointed an outside director as the chairman of the Board ● Appointed a foreign national as a director	● Appointment of a female outside director (planned) ● Appointment of female officers

* Once every three years. Self-evaluation in other years

- Using and improving existing systems and frameworks
- Diversifying the board of directors, and enhancing information disclosure
- Creating global human resource system and appraisal/compensation system for Group
- Enhancing Group governance
- Strengthening internal control and risk management systems

Key Points in Corporate Governance

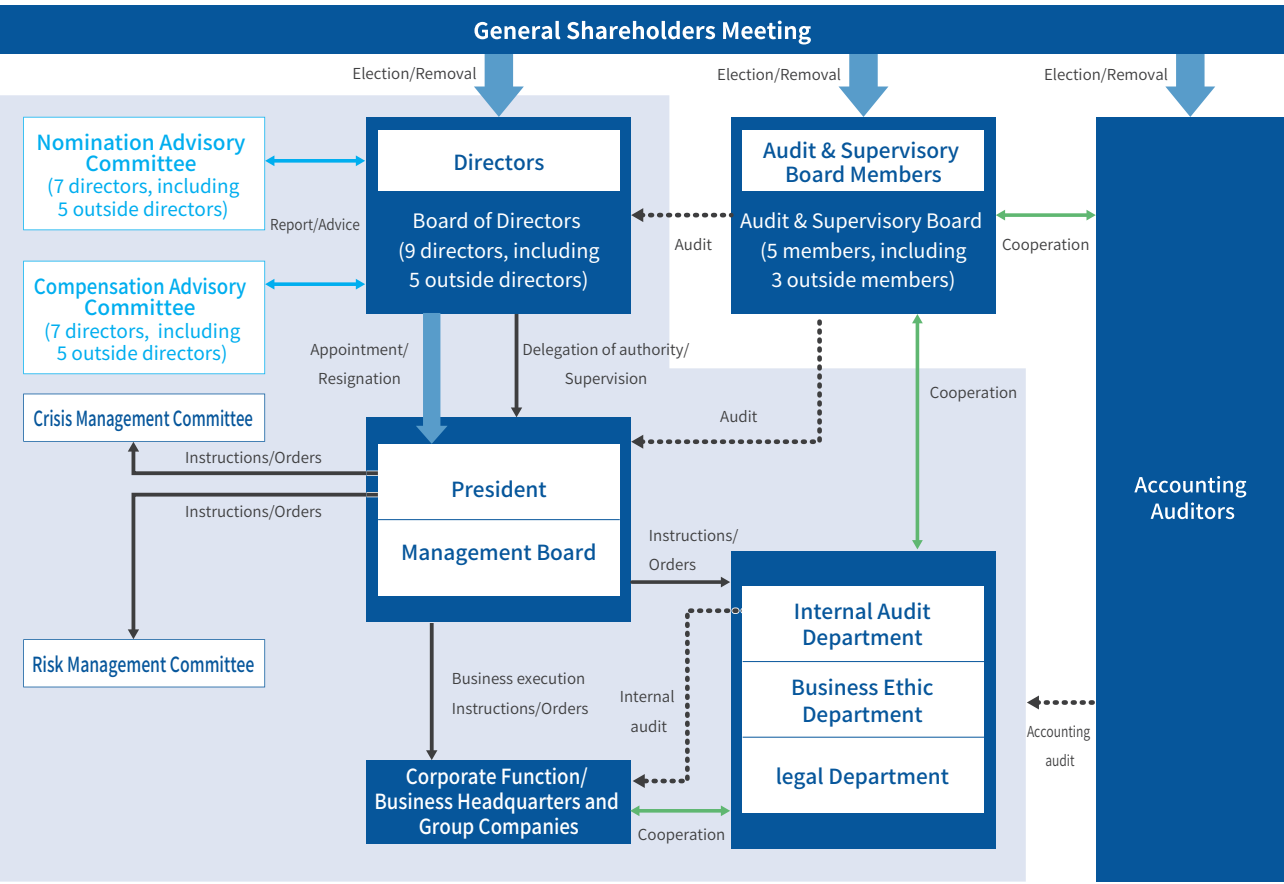
- 1 Since 2007, the Board of Directors has included multiple outside directors. Currently, there are five outside directors ensuring management objectivity and transparency.
- 2 The majority of the Board of Directors are Outside Directors.
- 3 First female member appointed director and executive officer.
- 4 To separate the execution and supervision of business, an outside director who is a non-executive director was appointed chairperson of the Board of Directors.

Corporate Governance System

The company, structured as a company with an Audit & Supervisory Board, shall invite independent outside directors and independent outside Audit & Supervisory Board members who are independent of the current management to enhance the capabilities of the Board of Directors, which supervises the directors’ execution of their duties, and the Audit & Supervisory Board, which supervises the Board of Directors. In addition, the Company shall establish both the Nomination Advisory Committee and the Compensation Advisory Committee as voluntary advisory bodies sharing their opinions when

consulted by the Board of Directors regarding the nomination of directors and the determination of their compensation, thereby supporting the Board of Directors and the Audit & Supervisory Board and further strengthening corporate governance. In addition, Audit & Supervisory Board members, including independent outside Audit & Supervisory Board members, shall work to enhance the auditing of management through strict audits of the legality and rationality of the work carried out by the directors and the validity of their decision making processes.

Summary of Corporate Governance Structure



Corporate Governance

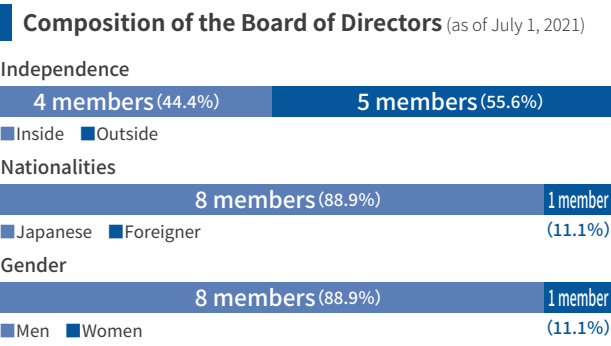
Board of Directors (Meetings in 2020: 14 times)

The Board of Directors is a decision-making body comprised of nine directors including five independent outside directors meets once a month in principle, aiming to achieve sustainable growth and increase the corporate value of the Group over the medium and long terms. To achieve these goals, the Board of Directors improves profit-earning capabilities and capital efficiency, and

determines the general direction of the Group, including corporate strategies. Also, in addition to monitoring and supervising the execution of business by management, including directors and officers, the Board of Directors develops provisions related to the directors’ execution of duties, and establishes a framework to be responsible for the supervision of the execution of business.

Examples of Agenda Items Discussed by the Board of Directors in FY2020

- Review of long-term business framework and formulation of mid-term business plan
- Sustainability Strategy
- Structure of the Board of Directors
- Activities of the Nomination Advisory Committee and the Compensation Advisory Committee
- YOKOGAWA Group Priority Management Risks
- FY2020 review of compliance with the Corporate Governance Code



Activities of Outside Directors

Name	Remarks in the Board of Directors	Attendance at Board of Directors Meetings
Noritaka Uji	Provided advice with great insight based on his wide knowledge as a corporate manager and abundant experience and extensive expertise in technology development and IT/ICT fields.	100 % (14/14 times)
Nobuo Seki	Provided advice primarily based on his wide knowledge as a corporate manager, his abundant experience in the engineering business centered on the energy industry, and his extensive expertise in global business.	100 % (14/14 times)
Shiro Sugata	Provided advice primarily based on his wide knowledge as a corporate manager, his abundant experience in the development and marketing of industrial instruments, and his extensive expertise in global business.	100 % (14/14 times)
Akira Uchida	Provided advice primarily based on his wide knowledge as a corporate manager and his broad experience in the corporate administration field centered on the Finance and Controller’s Division.	100 % (14/14 times)

Audit & Supervisory Board (Meetings in FY2020: 15 times)

The Audit & Supervisory Board is comprised of five members. Two are standing members and three are independent outside members, It meets once a month in principle. In order to ensure the sustainable growth and corporate soundness of the Group, the Audit & Supervisory Board shall make appropriate decisions and express its opinions from an independent and objective standpoint.

Also, based on laws, regulations, the Auditing Standards for Audit & Supervisory Board Members and the Rules Governing the Audit & Supervisory Board, the Audit & Supervisory Board shall receive reports from each Audit & Supervisory Board member on important matters related to audits, deliberate, and pass resolutions as necessary. In addition, the Audit & Supervisory Board members deepen their cooperation with the accounting auditor and exchange information with the accounting auditor regularly and as needed to improve the quality and efficiency of each of their audits.

In accordance with the Financial Instruments and Exchange Act, the major items to be examined in audits are addressed in the annual securities report and audit report for fiscal 2020.

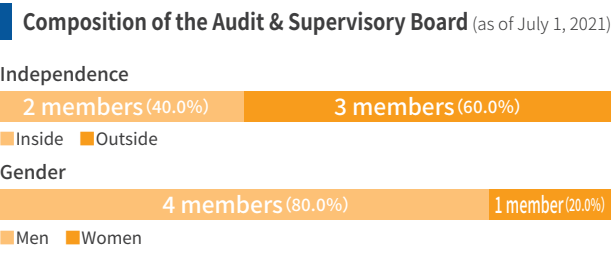
< Activities of Audit & Supervisory Board members >

Priority audit items for FY2020

- Progress of the TF 2020 mid-term business plan
- Management of subsidiaries under the regional representation system
- Establishment and operation of Yokogawa’s Internal Control System
- Response to the COVID-19 pandemic

Audit activity results in FY2020

- Audits of group subsidiaries and head office divisions
- Attending important meetings, auditing business execution and viewing important documents
- Meeting with directors, executive officers and other important employees
- Cooperation with Accounting Auditors and Internal Audit Departments
- Cooperation with Outside Directors and Group Full-time Corporate Auditors



Activities of Outside Audit & Supervisory Board Members

Name	Remarks in the Board of Directors and the Audit & Supervisory Board	Board of Directors	Audit & Supervisory Board
Yasuko Takayama	Provided advice primarily based on her extensive practical experience, including in corporate social responsibility, gained when working for a major company in the consumer market, as well as a wealth of experience as a fulltime Audit & Supervisory Board Member and as an outside executive at various companies.	100 % (14/14 times)	100% (15/15 times)
Makoto Ohsawa	Provided advice primarily based on his considerable knowledge of finance and accounting from his experience as a financial institution and management consultant.	100 % (14/14 times)	100% (15/15 times)
Masaru Ono	Provided advice leveraging his wide knowledge of corporate legal affairs and finance from his extensive business activities in economic and educational circles.	100 % (11/11 times)	100% (11/11 times)

For Audit & Supervisory Board Member, Masaru Ono, we have described his attendance of the Board of Directors meetings and Audit & Supervisory Board meetings convened since he assumed the position on June 24, 2020.

Nomination Advisory Committee (Meetings in FY2020: 9 times)

The Nomination Advisory Committee shall provide recommendations to the Board of Directors regarding subjects such as the nomination of candidate directors and Audit & Supervisory Board members, the evaluation, appointment or dismissal of the representative director and president, the appointment or dismissal of officers, proposals for dismissal of directors and Audit & Supervisory Board members following deliberations in accordance with the standards and procedures prescribed to ensure optimal placement for the Group’s sustainable growth and corporate governance from the perspective of all stakeholders. The Nomination Advisory Committee shall be comprised of three or more directors and a majority of members shall be independent outside directors. The Nomination Advisory Committee makes decisions on the items set forth below.

(1) Details of agenda items to be discussed at a meeting of the Board of Directors concerning the appointment or dismissal of officers or the representative director

(2) Establishment, amendment or abolition of necessary basic policies, regulations, procedures, etc. to enable the committee to make decisions regarding a matter stated in item (1).

(3) Other matters that the committee recognizes as important in relation to the appointment of candidates, or the dismissal of officers or the representative director stated in item (1).

Composition of the advisory committee (as of July 1, 2021)

		Nomination Advisory Committee	Compensation Advisory Committee
Outside Director	Noritaka Uji	○	◎
Outside Director	Nobuo Seki	○	○
Outside Director	Shiro Sugata	○	○
Outside Director	Akira Uchida	○	○
Outside Director	Kuniko Urano	○	○
Chairperson	Takashi Nishijima	◎	○
President and CEO	Hitoshi Nara	○	○

◎ Chairperson ○ Committee member

* The company’s Nomination Advisory Committee mainly discusses the nomination of candidate directors and Audit & Supervisory Board members and the appointment of officers.

An inside director chairs the Nomination Advisory Committee as the Committee examines both recruitment from outside the Company and also promotion and appointments from within the Company.

Moreover, outside directors comprise a majority of the Nomination Advisory Committee members, ensuring highly objective and transparent discussion.

Management Board (Meetings in 2020: 12 times)

The Board of Directors delegates decision-making related to the execution of business to the Management Board to promote swift decision-making. The Management Board meets once a month in principle and is comprised of the president and CEO, officers, and standing members of the Audit & Supervisory Board. In addition, matters regarding the resolution of the Management Board and other matters shall be reported to the Board of Directors.

Compensation Advisory Committee (Meetings in FY2020: 8 times)

The Compensation Advisory Committee makes decisions on the items set forth below to ensure that the compensation system and the compensation of directors and officers promotes the appropriate aggressive attitude toward the Group’s growth, enables the hiring and retention of excellent human talent, and fosters a common perspective held by all stakeholders.

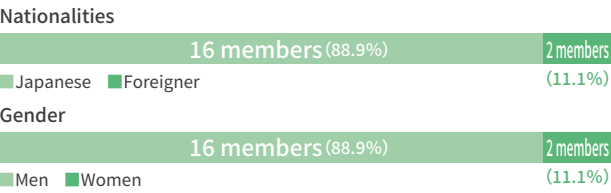
(1) Policy in relation to decisions concerning the details of compensation, etc. for directors and officers

(2) Details of compensation, etc. for each director and officer, individually

(3) Establishment, amendment or abolition of necessary basic policies, regulations, procedures, etc.to enable decisions by the committee regarding a matter stated in item (2).

(4) Other matters that the committee recognizes as important in relation to compensation, etc. pertaining to item (1) or item (2). The Compensation Advisory Committee shall be comprised of three or more directors and a majority of members shall be independent outside directors. An independent outside director shall be the chairperson of the Compensation Advisory Committee, further ensuring the objectivity and transparency.

Composition of Officers (as of July 1, 2021)



Corporate Governance

Executive Compensation and Others

At the Board of Directors meeting held on March 2, 2021, the Company resolved to establish a policy in relation to decisions concerning the details of the compensation of individual Directors. Prior to the resolution of the Board of Directors, matters to be resolved were discussed by the Compensation Advisory Committee and reported to the Board of Directors. In addition, the Board of Directors has confirmed that, regarding the compensation of individual Directors for the fiscal year under review, the method for determining the details of compensation and the content of determined compensation are consistent with the policy as resolved by the Board of Directors and that the reports of the Compensation Advisory Committee have been respected. The Board has also judged that these procedures have been in accordance with the policy. The contents of the policy relating to decisions concerning the details of the compensation of individual Directors are as follows.

(1) Basic policy

- The basic policy on the compensation of Directors shall be as follows:
- (a) A plan that promotes the sustainable, medium- and long-term improvement of corporate value
 - (b) A plan that reflects the medium- to long-term management strategy and strongly motivates the achievement of medium- to long-term management objectives
 - (c) A plan that prevents a bias toward short-term thinking
 - (d) A plan and monetary amount that secures and maintains excellent human resources
 - (e) A plan that is transparent, fair and rational for all stakeholders, decided through an appropriate process to ensure these factors

(2) Policy for determining the compensation, etc. of officers

1) Compensation of Directors
The amount of the compensation of Directors shall be determined individually within the limits approved at the General Meeting of Shareholders.¹ Compensation for Audit & Supervisory Board Members shall also be determined through discussion among the Audit & Supervisory Board Members within the limits approved at the General Meeting of Shareholders.²

¹ At the 142nd Ordinary General Meeting of Shareholders held on June 26, 2018, it was resolved that the maximum amount of compensation for Directors would be 1.6 billion yen per business year (excluding salaries for employees).

² At the 128th ordinary general meeting of shareholders held on June 25, 2004, it was resolved that the maximum amount of compensation for Corporate Auditors would be no more than 150 million yen per fiscal year.

2) Composition, roles and responsibilities of the Compensation Advisory Committee
The Compensation Advisory Committee, composed of at least three directors, the majority of whom are Outside Directors, shall be established as an advisory body to the Board of Directors with the aim of enhancing the objectivity and transparency of the process for determining the compensation

of Directors and Executive Officers.

i) Members of the Compensation Advisory Committee
The committee is composed of three or more directors, the majority of whom are outside directors.

ii) Roles and Responsibilities of the Compensation Advisory Committee
The Compensation Advisory Committee, in consultation with the Board of Directors, deliberates on the compensation system and decision-making policies regarding Directors and Executive Officers, and reports to the Board of Directors. In addition, the Compensation Advisory Committee, in accordance with the compensation system, determines the details of compensation for individual Directors and Executive Officers.

iii) Measures to ensure that the committee’s powers are properly exercised
The members of the Compensation Advisory Committee, which consists of a majority of independent Outside Directors, will elect a Chairperson, and the amounts of individual officers’ compensation are determined based on the compensation system approved by the Board of Directors, thereby ensuring decisions that conform with the aforementioned purpose.

Note: As described above, in order to increase the objectivity and transparency of the decision-making process for executive compensation, the Board of Directors entrusts the Compensation Advisory Committee to determine the details of compensation for individual Directors and Executive Officers. In addition, in the fiscal year ended March 2021, the committee discussed “Determination of performance indicators and formulas for performance-linked compensation paid in July 2020 and performance-linked compensation paid in July 2021” and “Review of benchmark companies to verify the validity of current executive compensation levels” a total of eight times. Furthermore, based on the results, the committee examined the level of executive compensation, the ratio of fixed remuneration to performance-linked compensation, and performance indicators.

(3) Composition of officers’ compensation

Compensation for internal Directors and executive officers consists of (a) basic compensation, which is a fixed component, and (b) a performance-linked component ((b)-1 annual incentive and (b)-2 medium-to long-term incentive). Directors and executive officers, excluding Outside Directors, Audit & Supervisory Board Members and non-executive Directors are given performance-linked compensation. This is because variable compensation such as performance-linked compensation is not appropriate for Outside Directors and Audit & Supervisory Board Members, who maintain positions independent from the performance of duties, and as such only fixed compensation is paid to them. This is the same for non-executive Directors. The levels of the compensation of executives are set through a comparison with companies in the same industry and of the same scale, both domestically and internationally, based on the results of surveys conducted by external organizations, and the Company’s financial condition. Compensation levels for each position are based on the 50th percentile level of peer companies. From the viewpoint of flexible management in response to changes in the environment and the

Executive category	(a) Base compensation	(b) performance-linked compensation (b)-2 including non-monetary compensation		Remarks
		(b)-1 Annual Incentive	(b)-2 Mid- to Long-Term Incentive	
Directors (excluding Outside Directors and Non-executive Directors)	○	○	○	Executive compensation and employee salaries
Outside Directors and Non-executive Directors	○	—	—	Executive compensation
Audit & Supervisory Board Members	○	—	—	Executive compensation
Outside Audit & Supervisory Board Members	○	—	—	Executive compensation
Non-Director officers	○	○	○	Employee salaries

acquisition and retention of talented management personnel, compensation levels shall generally between the 25th and 75th percentile. Compensation for personnel hired overseas may be determined individually based on a compensation benchmark analysis that takes into account the responsibilities of each position based on executive compensation survey data in that overseas region. The specific composition of compensation for officers and executive officers is shown in the table on the left according to the classification of officers.

- (a) Basic compensation**
Basic compensation shall be fixed monthly compensation and shall be determined based on the criteria established by the Compensation Advisory Committee in accordance with the roles and positions of the Directors and Executive Officers.
- (b) Performance-linked compensation**
Performance-linked compensation shall be determined by the Compensation Advisory Committee in order to raise awareness of the improvement of business performance in each fiscal year and the enhancement of corporate value in the medium term. It shall be paid in the amount or number calculated according to the degree of achievement of the target (KPI). The concept underlying performance-linked compensation is as follows.
1. Increase the ratio of performance-linked compensation to total compensation.
 2. The higher the position, the higher the ratio of performance-linked compensation to total compensation, with the ratio for the representative director set at 60%.
 3. Stock-based compensation as a percentage of total compensation shall be at least equal to other companies in the same industry or of the same scale.

(b-1) Annual incentive
The annual incentive in performance-linked compensation shall be calculated by the Compensation Advisory Committee on the basis of the company-wide performance evaluation and individual performance evaluations for a single fiscal year, and shall be paid once a year. The amount to be paid shall be designed to vary from 0% to 200%, based on a value of 100% when the performance target is achieved.

* The ratio of basic compensation to annual incentive when performance targets are achieved is designed so that the higher the position is, the higher the ratio of the annual incentive is set. The lower the position is, the lower the ratio of the annual incentive will be, with the representative director’s annual incentive being set between 0.75 and 1. The overall average including the Executive Officers is generally 1 to 0.5. This ratio may vary between 1 to 0 and 1 to 1, depending on the degree to which performance targets are achieved.

Figure1 (image)

Base compensation 1	Annual incentive 0.5 (0~1)
------------------------	----------------------------------

(b-2) Medium-to long-term incentive
Regarding the medium-to long-term incentive, at the 142nd Annual General Meeting of Shareholders convened on June 26, 2018, the Company introduced the performance share unit plan (the “PSU Plan”), a performance-based stock compensation plan, under which the Company’s shares and cash are paid in accordance with the extent to which the Company’s consolidated return on equity (ROE) target and other targets have been achieved in the final fiscal year of the medium-term business plan. Subject to the performance targets and other requirements established in advance by the Board of Directors during the period of the Medium-Term Business Plan, the Company determines the amount of compensation based on the

medium-to long-term incentive for each eligible director and executive officer by multiplying the base amount of stock compensation established by the Compensation Advisory Committee for each director and executive officer to which compensation will be paid by a coefficient established in advance by the Board of Directors in accordance with the conditions for achieving performance targets (the “payment rate”). Of the amount of compensation, 60% shall be paid in the form of shares of the Company and 40% in monetary terms. The payout rate is designed to vary from 0% to 100% depending on the degree of achievement of the performance target. Performance targets for medium-to long-term incentive are linked to the medium-term business plan, and are considered to be important indicators in terms of both corporate value and shareholder value. Accordingly, the Company shall use return on equity (ROE), which is an indicator of management efficiency. The PSU Plan establishes a clawback provision under which, in the event of material fraud accounting or a large loss, it can be requested that all or a portion of the compensation paid as compensation related to the PSU Plan be reimbursed free of charge.

* The ratio of the annual incentive and medium- to long-term incentive to basic compensation when the performance targets for the annual incentive and the medium-to long-term incentive are achieved in the fiscal year in which the medium-to long-term incentive is paid shall be set so that the higher the position, the higher the ratio to the basic compensation shall be. The highest position, the representative director, shall be from 0.75 to one, and the overall average including the executive officers shall be approximately 1 to 0.5 to 0.5. This ratio may vary from 1:0.0 to 1:1.0-0.5, depending on the degree of achievement of the performance objectives for each of the annual incentive and the medium-to long-term incentive.

Figure2 (image)

Base compensation 1	Annual incentive 0.5 (0~1)	Mid- to long-term incentive 0.5 (0~0.5)
------------------------	----------------------------------	---

Notes: 1. Based on the idea that the performance objectives that are a part of the evaluation of the entire company’s results for the individual year for the annual incentive are significant indicators for the Group to measure sustained growth, the performance objectives have been set for consolidated sales and consolidated return on sales (ROS).

Performance objectives and results in the fiscal year ended March 31, 2019, one of determinant factors for performance-linked compensation, are as follows:

Performance objectives set for the fiscal year ended Mach 31, 2020	Results in the fiscal year ended March 31, 2020	
Consolidated sales	¥420.0 billion	¥404.4 billion
Consolidated return on sales	9.5%	8.8%

Notes: 2. The Company believes the performance objectives for the medium-to long-term incentive are connected to the mid-term business plan. Among the business objectives set in TF 2020, the Company has currently chosen return on equity (ROE), an indicator showing the efficiency of management, as the performance objective based on the idea that it is a significant indicator of both an increase in corporate value and shareholder value.

Actual ROE	Payment Rate
Less than 8%	0%
From 8% to less than 11%	(Actual ROE × 100 − 8) / 3 × 25%
From 11% to less than 14%	(50 + (Actual ROE × 100 − 11) / 3 × 50)%
14% or higher	100%

* Regarding medium- to long-term incentives under the PSU Plan for the mid-term business plan, Transformation 2020, which covers the period from fiscal year 2018 to fiscal year 2020, as the actual ROE for the fiscal year ended March 31, 2021, the final fiscal year of Transformation 2020, was 6.5%, the payment rate was 0%.

Evaluation of the Board of Directors

[Summary of the fiscal year 2020 Board of Directors evaluation results]

The summary of the evaluation results is as follows:

- Composition of the Board of Directors
 - The size (number of members) is appropriate.
 - There is a good overall balance in terms of experience, skills, diversity, and the proportion of external and internal members.
 - Operation of the Board of Directors
 - Includes not only statutory matters, but also most of the agenda of the Board of Directors, including the progress of the mid-term business plan and sustainability.
 - This year, the Board of Directors held meetings online to prevent COVID-19 infections, and the online meetings were effective.
 - Contribution of the Board of Directors to the long-term business framework and mid-term business plan
 - The Board of Directors made various suggestions regarding the Transformation 2020 (TF2020) mid-term business plan, through the monitoring of the progress of the plan, and provided management with useful insights.
 - The review of the long-term business framework and the formulation of the next mid-term business plan were positioned as the most important themes for the Board of Directors for the current fiscal year, and from the review stage, the management team provided reports to meetings of the Board of Directors and at other opportunities as appropriate.
- Based on the above, we believe that the effectiveness of the Board of Directors has been ensured.

[Future efforts for improvement]

- Continue to improve discussions about the company’s major direction and medium- to long-term management strategies
 - Society is changing due to COVID-19, and it is necessary for the Board of Directors to discuss and illuminate the company’s major medium- and long-term directions, with an eye toward the post-pandemic future. At the start of the new mid-term business plan, the Board of Directors recognizes the need to monitor the strategies of each organization and their implementation to enhance the effectiveness of the plan.
- Continue to improve the quality of discussion
 - In particular, outside directors identified the improvement of the quality of proposal materials and explanations, which are important materials for discussion, and the clarification of the points of discussions as issues to be addressed. In response to this, the Chairperson of the Board of Directors will review materials and explanations in advance and provide instructions to revise them as necessary, and the President and Representative Director will lead efforts to improve proposals from management.

*This is an evaluation of the Board of Directors conducted in fiscal year 2020. Since then, we have been working to further enhance the effectiveness of the Board of Directors, such as discussing strategies for the new mid-term business plan including contribution to the accomplishment of the SDGs which is a business opportunity.

Policy and Procedures for the Appointment of Director Candidates, Audit & Supervisory Board Member Candidates, and Officers

Policy for nomination of director and Audit & Supervisory Board member candidates, and appointment of officers
The composition of the Board of Directors shall be well balanced in knowledge, experience, and capability to ensure that it effectively fulfills its roles and responsibilities, and it shall be both diverse and appropriate in size. In line with this, human resources that contribute to the improvement of corporate governance are to be nominated as director and Audit & Supervisory Board member candidates. Further, human resources familiar with the Group’s business, that contribute to the appropriate execution of business and the supervision of highly effective management and that have the experience and knowledge required for the formulation of management strategies with the goals of increasing the Company’s corporate value over the medium and long terms and contributing to correct management decisions and the supervision of highly effective management will be nominated as director candidates. Human resources that are familiar with the Group’s business, that contribute to appropriate auditing of the management of the Company and Group companies, that have knowledge of accounting, finance, legal affairs and corporate management and that contribute to the appropriate auditing of management will be nominated as Audit & Supervisory Board member candidates. Officers are appointed after the confirmation of the candidate’s sufficient experience, knowledge, etc. and that the candidate’s intent and attitude are suitable for the management of the Company.

Procedure for nomination of director and Audit & Supervisory Board member candidates, and appointment of officers
The Company has established the Nomination Advisory Committee to handle matters regarding the nomination of director candidates and Audit & Supervisory Board member candidates and the appointment of officers. The committee is an advisory body comprised of at least three directors, of whom a majority are independent outside directors based on the resolution of the Board of Directors, in order to enhance the objectivity and transparency of nominations and appointments. Matters regarding the nomination of director candidates and the appointment of officers are resolved by the Board of Directors on the basis of the recommendations of the Nomination Advisory Committee

prepared through deliberations in accordance with the prescribed standards and procedures for new appointments or reappointments. Matters regarding the nomination of Audit & Supervisory Board member candidates are resolved by the Board of Directors on the basis of recommendations of the Nomination Advisory Committee prepared through deliberations in accordance with the prescribed standards and procedures for new appointments and reappointments, after having gained the consent of the Audit & Supervisory Board.

Policy and procedure for dismissal of directors and audit & supervisory board members
The Nomination Advisory Committee has prescribed standards and procedures for the dismissal of directors and Audit & Supervisory Board members. In reference to the deliberations and recommendations of the Nomination Advisory Committee based on the dismissal standards and procedures, the Board of Directors deliberates on proposed dismissals of directors and Audit & Supervisory Board members.

Policies and procedures for evaluation, new appointment, reappointment, and dismissal of president and CEO
The Nomination Advisory Committee has also prescribed standards and procedures for the appointment, reappointment, and dismissal of the president and CEO. The president and CEO is evaluated every year, taking into account the basic evaluation criteria that include quantitative aspects including business performance. The Nomination Advisory Committee ensures the objectivity, timeliness, and transparency of processes through its recommendations on appointments, reappointments and dismissals presented to the Board of Directors following deliberation based on the prescribed standards and procedures for appointments, reappointments, and dismissals in reference to the results of evaluations and succession plans.

Policy and procedure for dismissal of officers
The dismissal of officers is also decided through resolutions of the Board of Directors based on the recommendations of the Nomination Advisory Committee in reference to the prescribed standards and procedures.

Initiatives Related to Cross-Shareholdings

Method of verifying shareholding policy and rationality (reduction efforts)

The Group shall strategically hold shares of other companies’ stock, provided the shares that are held are determined to contribute to maintenance and increase of corporate value. Regarding all cross-holding shares, the Board of Directors shall uphold a policy of keeping the minimum necessary amount of cross-holding shares and decide every year if the holding of the shares is appropriate by individually examining the purpose and economic rationale, etc. for holding each stock individual from the medium- and long-term perspectives. Any strategically held shares that are deemed to be no longer appropriate to hold as a result of the examination shall be sold with the goal of reducing the number of shares held. In the examination, the stocks held are classified into the following three categories, and transaction status, share price and dividends, and capital costs are designated to be the KPIs in the determination of the appropriateness of the holding of the stock.

- a. Business partners (for the purpose of maintaining and strengthening business transaction and partner relationships)
- b. Financial institutions (for the purpose of conducting financial transactions smoothly)
- c. Others (those which do not fall under the above categories)

Specifically, the appropriateness of holding each stock is individually assessed and determined through the process of a to d below.

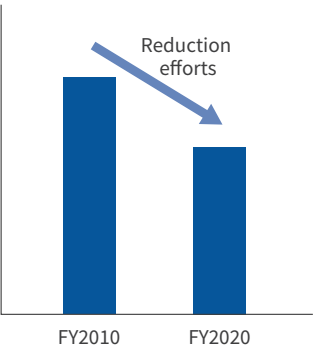
- a. Quantitative assessment of share price (market value, cost and carrying amount after impairment)
- b. Quantitative assessment of ROIC, which is calculated on the basis of market value and cost, compared with the share price assessed in a. (After-tax gross income from sales and dividend income are used in the calculation of ROIC.)
- c. Qualitative assessment of the purpose of holding, transaction results, an estimate of future transactions, and other factors for

- each share held.
- d. Assessments a to c are comprehensively evaluated from the perspectives including medium- to long-term economic value, business expansion, and the strengthening of relationships.

Voting rights

The Group shall make decisions regarding the exercise of the voting rights of strategically held shares based on sufficient examination from the standpoint of increasing the corporate value of the Company and the companies that the Company has invested in over the medium and long terms.
In the following cases in particular, the Company shall exercise their voting rights based on the careful examination of whether or not the voting rights should be exercised:

- 1) Cases where any violation of law, misconduct or anti-social behavior has occurred at the companies in which the Company has invested
- 2) Proposals that are considered to be likely to undermine the Company’s corporate value, for organizational restructuring including mergers, acquisitions or business transfers, the advantageous issuing of shares to third parties, etc.



Internal Control System

We have put an internal control system in place to ensure the appropriate operation of business by allocating business resources such as human resources, assets and funds appropriately and moving these resources in a functional

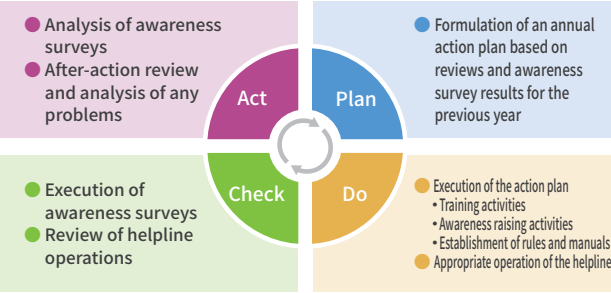
manner to increase corporate value. We aim to increase the corporate value of the entire Group the control of two aspects, the improvement of management efficiency and the prevention of scandal.

Compliance

Yokogawa places the utmost priority on compliance and conducts its business activities in compliance with relevant laws, regulations, ordinances and social norms while upholding the highest of ethical standards. Directors take the lead in the Group’s adherence to and dissemination of business ethics.
The Yokogawa Group Code of Conduct sets out the Basic Policy and Standards of Conduct, which employees should observe to realize Yokogawa’s corporate philosophy, while the Yokogawa Group Compliance Guidelines prescribe the specific actions each and every employee should take. * JEITA: Japan Electronics and Information Technology Industries Association
Yokogawa established a department responsible for business ethics that is charged with the identification and resolution of issues pertaining to the compliance system, and is strongly promoting compliance management. Yokogawa’s goals are to be healthy and open, with both a culture that encourages and enforces proper ethical conduct and a system that prevents

misconduct and scandal. In so doing, Yokogawa will meet the expectations of investors and other stakeholders.

PDCA Cycle for the Improvement of Compliance



See Yokogawa corporate governance report and Yokogawa sustainability report for the details. <https://www.yokogawa.com/about/ir/>

Management Team (As of July 1, 2021)

Directors



Chairman
Chairman of the Board

Takashi Nishijima

Date of birth: Aug. 12, 1957
Number of years since appointment as a director: 10 years



President and Chief
Executive Officer

Hitoshi Nara

Date of birth: Jan. 23, 1963
Number of years since appointment as a director: 10 years



Director, Executive Vice President
Head of Corporate Administration
Headquarters

Junichi Anabuki

Date of birth: Mar. 18, 1963
Number of years since appointment as a director: 7 years



Director, Senior Vice President
Head of Digital Solutions
Headquarters

Yu Dai

Date of birth: Feb. 25, 1963
Number of years since appointment as a director: 2 years



Leading outside director

Noritaka Uji

Date of birth: Mar. 27, 1949
Number of years since appointment as an outside director: 7 years



Outside Director

Nobuo Seki

Date of birth: Sep. 21, 1944
Number of years since appointment as an outside director: 6 years



Outside Director

Shiro Sugata

Date of birth: Nov. 17, 1949
Number of years since appointment as an outside director: 5 years



Outside Director

Akira Uchida

Date of birth: Oct. 4, 1950
Number of years since appointment as an outside director: 2 years



Outside Director

Kuniko Urano

Date of birth: Oct. 19, 1956
Number of years since appointment as an outside director: Newly elected

Audit & Supervisory Board Members



Audit & Supervisory
Board Member

Kouji Maemura

Date of birth: May 21, 1956
Number of years since appointment as a member of the Audit & Supervisory Board: 4 years



Audit & Supervisory
Board Member

Hajime Watanabe

Date of birth: Aug. 17, 1962
Number of years since appointment as a member of the Audit & Supervisory Board: 1 year



Outside Member, Audit &
Supervisory Board

Yasuko Takayama

Date of birth: Mar. 8, 1958
Number of years since appointment as a member of the Audit & Supervisory Board: 4 years



Outside Member, Audit &
Supervisory Board

Makoto Ohsawa

Date of birth: Feb. 20, 1959
Number of years since appointment as a member of the Audit & Supervisory Board: 3 years



Outside Member, Audit &
Supervisory Board

Masaru Ono

Date of birth: Jun. 1, 1953
Number of years since appointment as a member of the Audit & Supervisory Board: 1 year



Introduction of Kuniko Urano, the New Outside Director

Six years have passed since the Corporate Governance Code came into effect, and it has become a phase in which each company is required to make more substantial initiatives. Yokogawa was engaged in activities to improve its corporate governance even before the code was issued, and even now that terms like ESG management and SDGs are on everyone's lips, the company has been in the vanguard of efforts to address societal issues through the use of its proven technologies. I am honored to be elected an outside director of Yokogawa, a company that has consistently earned the trust of society and achieved outstanding results, and I am keenly aware of the gravity of my responsibilities.

I was engaged in manufacturing, logistics, human resources, public relations, and CSR for more than forty years at Komatsu Ltd., a machinery manufacturer. Over the course of my career, I have learned many valuable lessons, both on the job and outside the workplace, and have come to the realization that nothing is more important than honest and sincere communication.

As many people have pointed out, the environment in which companies conduct their businesses is often increasingly opaque and change is happening at an ever faster pace. Within this, I think it has become even more important to be able to identify risk from many different perspectives and to share them, and to not miss out on any opportunities to quickly start activities.

COVID-19 has forced companies and individuals to grapple anew with what sustainability means. Accelerating the realization of a decarbonized society and advancing DX are challenges as well as opportunities for Yokogawa to further develop its strengths. By staying objective and maintaining a mid-to long-term perspective, I intend to contribute to Yokogawa's growth and development.

Senior Vice President



Masaharu Yamazaki
Head of Aerospace Products Business Headquarters
President, Yokogawa Test & Measurement Corporation



Tsuyoshi Abe
Head of Marketing Headquarters



Shuji Mori
Chief Executive for North America,
South America, Europe, Russia and CIS

Vice President



Koji Nakaoka
Head of Energy & Sustainability
Business Headquarters, Global
Sales Headquarters



Mikio Matsui
Head of Human Resources and
General Affairs Headquarters



Yukihiro Funyu
Head of Digital Strategy
Headquarters
Head of DX-Platform Center



Kazuhiko Takeoka
Chief Executive for ASEAN, Pacific,
China and Korea
President, Yokogawa China Co., Ltd.



Kenji Hasegawa
Head of Yokogawa Products
Headquarters



Hiroshi Nakao
Head of Life Business
Headquarters



Hikaru Kikkawa
Head of Audit, Compliance and
Quality Assurance Headquarters



Hiromasa Yatsushashi
Chief Executive for Japan
President, Yokogawa Solution Service Corporation



Hiroshi Nagai
President, Yokogawa
Manufacturing Corporation



Sajiv Ravindran Nath
Chief Executive for Middle East, Africa and India
President, Yokogawa India Ltd.



Michiko Nakajima
Head of Accounting & Treasury
Headquarters

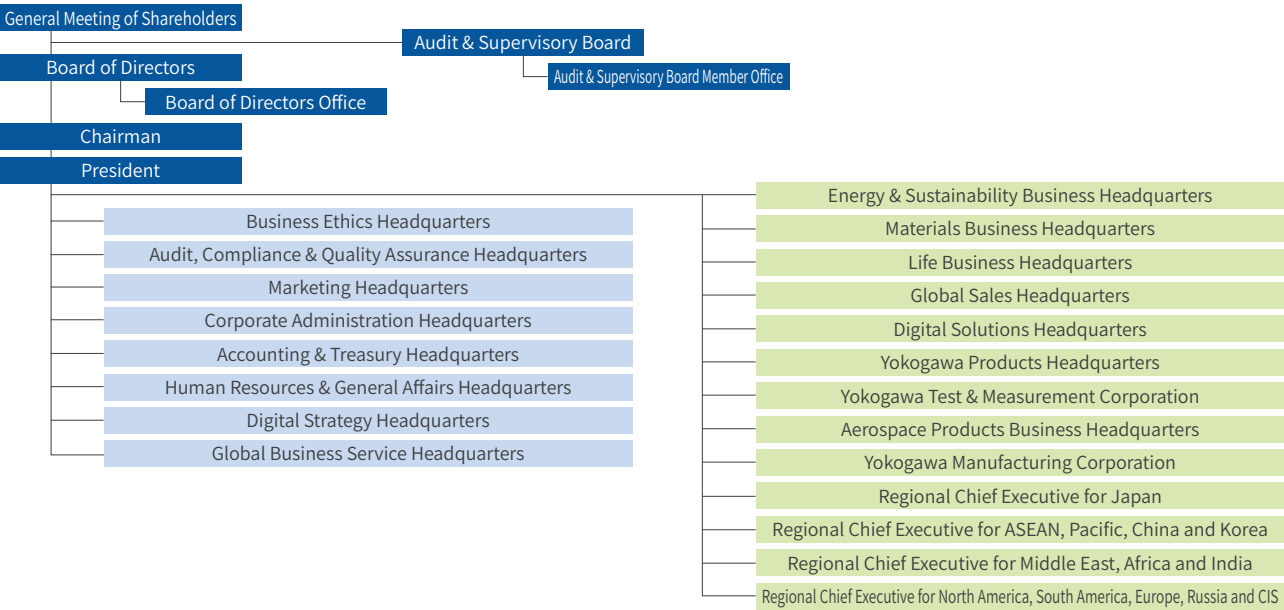


Yoko Fujita
Head of Global Business
Service Headquarters



Takeshi Taniguchi
Head of Materials Business
Headquarters

Organization Chart (as of April 1, 2021)



Information

- 77 Performance and Forecast Analysis by the Head of the Accounting & Treasury Headquarters
- 80 Financial Highlights
- 82 ESG Highlights
- 84 Fiscal Year 2020 in Review
- 86 Consolidated 11-Year Summary
- 88 Risks Relating to the Group's Business
- 90 Financial Section
- 126 Corporate Data / Stock Information / Principal Subsidiaries and Affiliates
- 127 IR Activities

Performance and Forecast Analysis by Head of Accounting & Treasury Headquarters

Review of Fiscal Year 2020 and Forecast for Fiscal Year 2021

In terms of the Yokogawa Group's earnings during the fiscal year under review, orders, net sales, and operating income declined from the previous year due to the impact of the COVID-19 pandemic, foreign exchange fluctuations, and other factors.

Orders, which are the basis of sales, were down ¥62.9 billion (15.0%) from the previous year, despite steady sales in the product-related business. Excluding the impact of the exchange rate and the transfer of a subsidiary's shares, orders came to ¥52.6 billion, down 12.7% from the previous year. Net sales decreased by ¥30.2 billion (7.5%), to ¥374.2 billion. Excluding the impact of the exchange rate and the transfer of a subsidiary's shares, net sales decreased by approximately ¥20.9 billion (5.2%) from the previous year. This was mainly due to delays in project progress due to travel restrictions and the impact of a decline in orders during the current fiscal year, as the result of COVID-19. While operating income was largely affected by a decrease in sales, activity costs were reduced due to restrictions on movement and costs were reduced through the productivity improvement measures. As a result, operating income decreased by ¥4 billion (11.2%), to ¥31.6 billion. Ordinary profit totaled ¥34.1 billion, down ¥2.2 billion (6.0%) from the previous year. Meanwhile, profit attributable to owners of parent rose ¥4.5 billion (30.9%) year on year and totaled ¥19.2 billion; this can be attributed to the recording of impairment losses for goodwill and other items in the same period of the previous fiscal year.

With regard to the consolidated earnings forecast for fiscal year 2021, it is expected that the economic slowdown and the decline in orders precipitated by COVID-19 will come to an end as more people receive the vaccine, leading

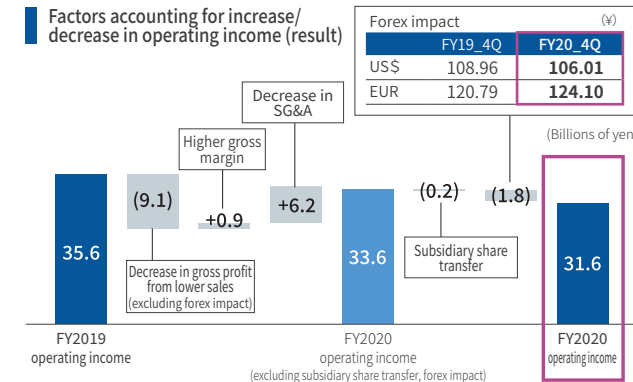
Michiko Nakajima

Vice President
Head of Accounting & Treasury
Headquarters

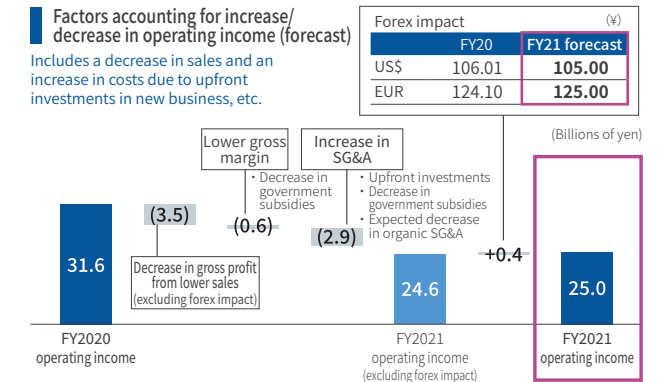
to a gradual recovery; however, a recovery in net sales is expected to take time due to the decline in orders this fiscal year and the resulting significant decrease in the order backlog. Operating income is expected to fall due to a reactionary decrease in government subsidies, an increase in expenses of upfront investments for new businesses, and the decline in sales. In addition, both ordinary profit and profit attributable to owners of parent are expected to decrease due to the decrease in operating income.

The Yokogawa Group's operating environment is changing dramatically due to a number of factors such as the transition to carbon-free energy sources, digital technology innovations, and the paradigm shifts brought on by the spread of COVID-19. We see these changes in the business environment as opportunities, and will focus on winning orders. To achieve the goals set forth in AG2023 and realize the Group's overall strategy for increasing corporate and shareholder value, we will work to improve our earnings structure and optimally allocate resources.

Factors accounting for increase/decrease in operating income (result)



Factors accounting for increase/decrease in operating income (forecast)



Review of Fiscal Year 2020 and Forecast for Fiscal Year 2021

	FY2019 Results (A)	FY2020 Results (B)	FY2021 Forecast (C)	Difference (B) - (A)	% change (B) ÷ (A) - 1	Difference (C) - (B)	% change (C) ÷ (B) - 1
Orders (Billions of yen)	418.7	355.8	380.0	(62.9)	(15.0)%	+24.2	+6.8%
Net sales (Billions of yen)	404.4	374.2	370.0	(30.2)	(7.5)%	(4.2)	(1.1)%
Operating income (Billions of yen)	35.6	31.6	25.0	(4.0)	(11.2)%	(6.6)	(20.9)%
ROS (%)	8.8	8.4	6.8	(0.4)pt	—	(1.6)pt	—
Profit attributable to owners of parent (Billions of yen)	14.7	19.2	16.0	+4.5	+30.9%	(3.2)	(16.7)%
EPS (Yen)	55.02	72.00	59.94	+16.98	+30.9%	(12.06)	(16.8)%
ROE (%)	5.1	6.5	—	+1.4pt	—	—	—
Exchange rate to 1 U.S. dollar (Yen)	108.96	106.01	105.00	(2.95)	—	(1.01)	—

*as of May 11, 2021 (Billions of yen)

Segment-by-Segment Results in Fiscal Year 2020

<Industrial Automation and Control Business>

In the industrial automation and control business, orders decreased by ¥62.8 billion year on year to ¥323.1 billion (a decrease of ¥52.8 billion excluding the impact of exchange rate and the transfer of a subsidiary's shares) due to COVID-19 and exchange rate fluctuations, and net sales decreased by ¥28.4 billion year on year to ¥342.1 billion (a decrease of ¥19.2 billion excluding the impact of exchange rate and the transfer of a subsidiary's shares). Operating income decreased by ¥2.6 billion year on year, to ¥31.5 billion (a decrease of ¥0.7 billion excluding the impact of exchange rate and the transfer of a subsidiary's shares),

mainly due to the decrease in sales.

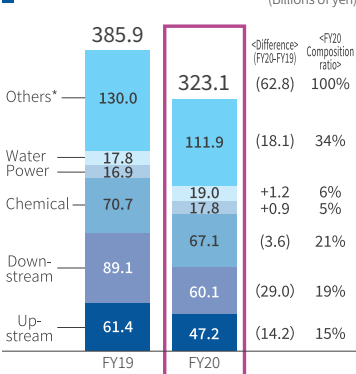
Orders and sales by region were strong in China and Central and South America, despite the severe order environment in all regions due to COVID-19 and the impact of exchange rate fluctuations. Orders from iron ore mining operations and the like in Central and South America were particularly strong.

Orders by industry declined in the energy-related sector due to the impact of COVID-19 and the absence of orders for large-scale projects in the previous year.

Orders and Net Sales by Region

	Orders	FY19 (A)	FY20 (B)	Difference (B-A)	Net Sales	FY19 (A)	FY20 (B)	Difference (B-A)
Japan		115.4	110.0	(5.4)	Japan	109.8	106.4	(3.4)
Asia		122.7	104.8	(17.9)	Asia	118.4	113.5	(4.9)
(South-eastern Asia and Far East)		62.8	49.9	(12.9)	(South-eastern Asia and Far East)	61.9	56.4	(5.5)
(China)		42.3	43.0	0.7	(China)	42.5	44.8	2.3
(India)		17.6	11.9	(5.7)	(India)	14.0	12.3	(1.7)
Europe/CIS		49.7	39.1	(10.6)	Europe/CIS	50.0	41.1	(8.9)
Middle East/Africa		56.8	37.9	(18.9)	Middle East/Africa	54.1	42.0	(12.1)
North America		32.2	20.3	(11.9)	North America	29.4	29.6	0.2
South and Central America		9.1	11.0	1.9	South and Central America	8.8	9.5	0.7
Subtotal Outside Japan		270.5	213.1	(57.4)	Subtotal Outside Japan	260.7	235.7	(25.0)
Total		385.9	323.1	(62.8)	Total	370.5	342.1	(28.4)
Exchange rate to 1 U.S. dollar		¥108.96	¥106.01	¥(2.95)	Exchange rate to 1 U.S. dollar	¥108.96	¥106.01	¥(2.95)

Orders by Industry



* "Others" includes the pharmaceutical, food, electrical & electronic, iron & steel, and pulp & paper industries.

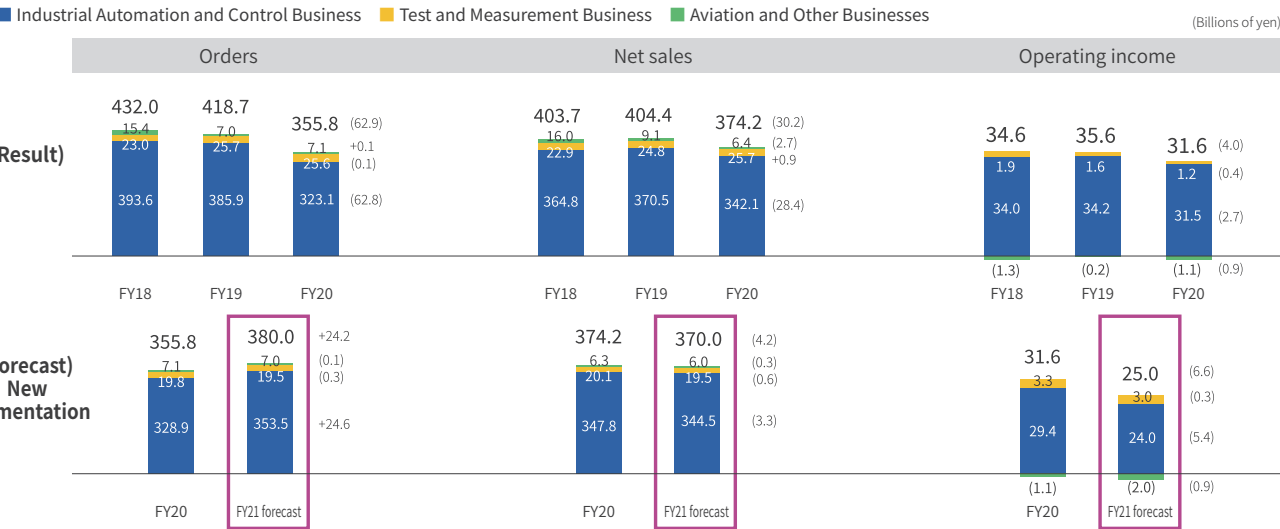
<Test and Measurement Business>

Net sales in this segment were firm, rising ¥0.9 billion year on year, to ¥25.7 billion; however, operating income dropped ¥0.4 billion year on year, to ¥1.2 billion. This was due to factors such as upfront investments in the life innovation business.

<Aviation and Other Businesses>

Net sales in this segment decreased ¥2.7 billion year on year, to ¥6.4 billion, and operating loss declined ¥0.9 billion year on year, to ¥1.1 billion, mainly attributable to sluggish demand for aviation-related equipment due to restrictions on economic activities triggered by the spread of COVID-19.

Segment-by-segment trends for orders, net sales, and operating income



* The FY20 and FY21 figures have been changed based on the new segmentation.

* Impact of changes to business segmentation (Test and Measurement Business → Industrial Automation and Control Business): orders +¥5.9 billion, net sales+¥5.7 billion, operating income ¥(2.1) billion

See p. 48 for New Business Structure

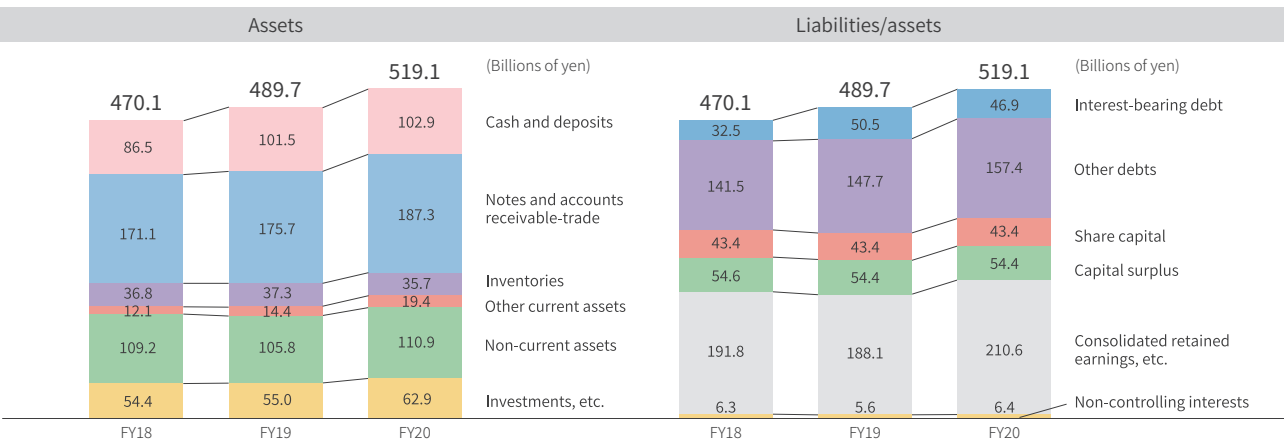
Balance Sheet

<Funding and liquidity management>

In order to implement strategic investments for growth and ensure stable business operations, the Yokogawa Group will secure the necessary liquidity and diverse funding sources for business operations while enhancing capital efficiency. We will make effective use of internal funds, mainly operating cash flow, as well as external funds, such as borrowings from financial institutions, for working capital and strategic investment funds for growth. For the raising of funds, we have concluded commitment line agreements with multiple financial institutions based on a basic policy that emphasizes safety, efficiency of financing, and control of funding costs, thereby ensuring sufficient liquidity.

<Assets, Liabilities, and Net assets>

Total assets at the end of fiscal year 2020 increased ¥29.4 billion year on year, to ¥519.1 billion, mainly due to increases in notes and accounts receivable-trade and investment securities. Compared to the end of fiscal year 2019, total liabilities rose ¥6.1 billion and totaled ¥204.3 billion, due mainly to increases in long-term borrowings and accounts payable-other. Net assets increased ¥23.3 billion from the end of fiscal year 2019 and totaled ¥314.8 billion, due mainly to the recognition of profit attributable to owners of parent. As a result, the shareholders' equity ratio was 59.4%, up 1.0 percentage points from the end of fiscal year 2019.



Cash Flow

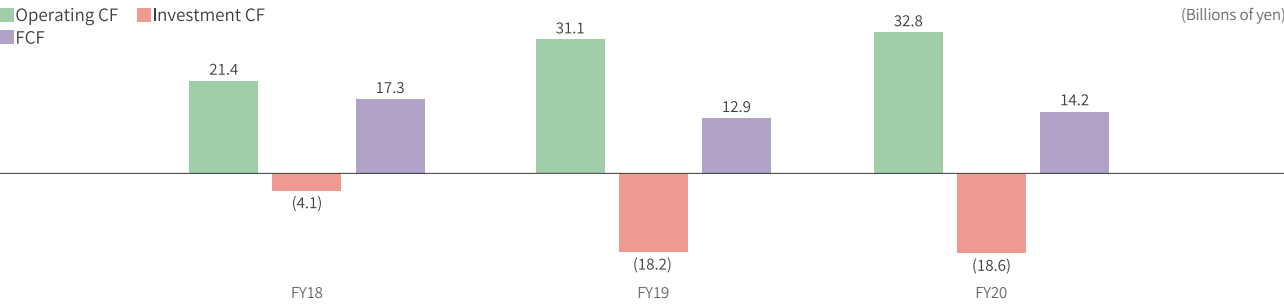
The balance of cash and cash equivalents at the end of fiscal year 2020 increased ¥1.5 billion year on year to ¥101.2 billion.

The cash flow from operating activities in the fiscal year under review was a net inflow of ¥32.8 billion, up ¥1.7 billion from the previous fiscal year, reflecting the recording of profit before income taxes and depreciation.

The cash flow from investing activities was a net outflow of ¥18.6 billion, up ¥0.4 billion from the previous fiscal year, mainly due to the purchase of property, plant and equipment. The cash flow from financing activities was a net outflow of ¥17.1 billion, compared to a net inflow of ¥4.5

billion in the previous fiscal year, mainly due to the payment of dividends and the redemption of commercial papers.

Under the AG2023 mid-term business plan, we aim for operating cash flow to total over ¥140 billion (three-year cumulative total). While prioritizing the appropriation of the generated cash to growth investments for M&A, alliance deals, and the like with the aim of maximizing our corporate value in the medium-to long-term, we will also proactively seek to improve return to shareholders in the form of increased dividend payout.



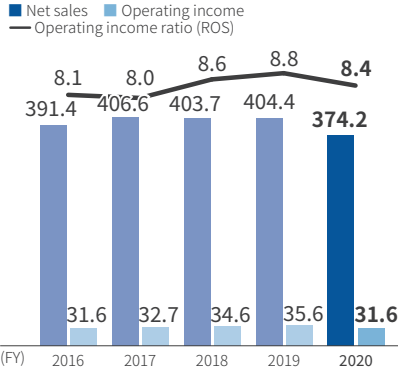
Please refer to p. 21 for detailed information on our capital policy and financial strategy.

Please also refer to the presentation materials on our financial results for the fiscal year ended March 2021. <https://www.yokogawa.com/about/ir/reports/finance/>

Financial Highlights

Earnings Efficiency

Net sales (Billions of yen)/Operating income (Billions of yen)/
Operating income ratio (ROS) (%)

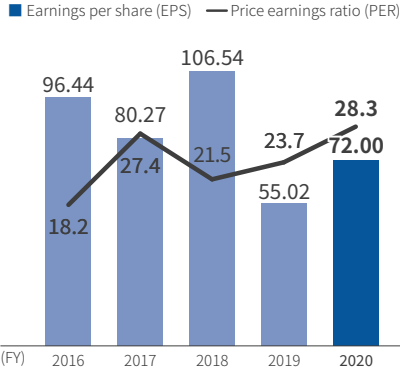


*As of March 31 each year

Due to the COVID-19 pandemic, there was a substantial decline in customers' willingness to invest due to a decline in energy demand, delays in project progress due to restrictions on movement and delays in implementing various measures, etc. As a result, net sales decreased in fiscal year 2020 due to the impact of COVID-19 and foreign exchange rates. Although operating income decreased due to lower sales, the decrease in operating income was limited by cost reduction.

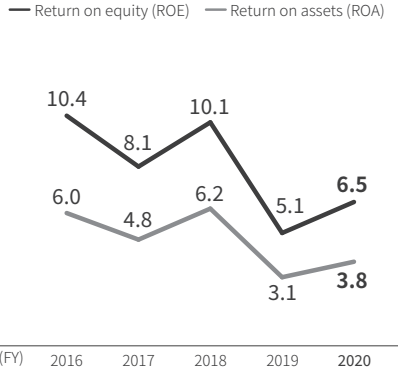
On the other hand, return on equity (ROE) improved 1.4 points, reflecting an increase in net income as a result of the absence of impairment losses and other factors in the previous fiscal year. Net income per share increased approximately ¥17, and the price-earnings ratio rose 4.6 points.

Earnings per share (EPS) (Yen)/Price earnings ratio (PER) (%)



*As of March 31 each year

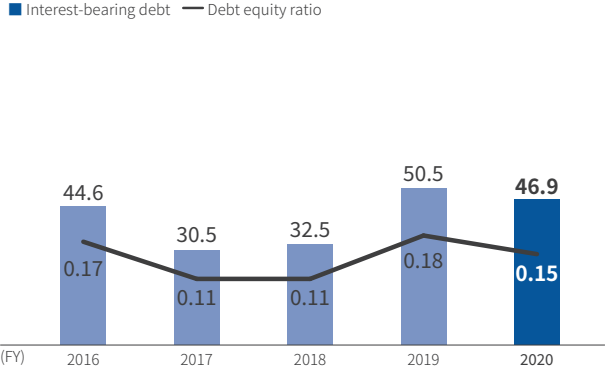
Return on equity (ROE) (%) / Return on assets (ROA) (%)



*As of March 31 each year

Distribution of Earnings

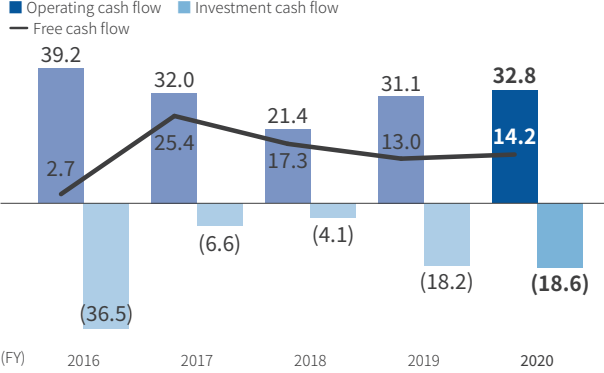
Interest-bearing debt (Billions of yen)/Debt equity ratio (Times)



*As of March 31 each year

We are working to repay interest-bearing debt and strengthen our financial base.

Cash flows (Billions of yen)



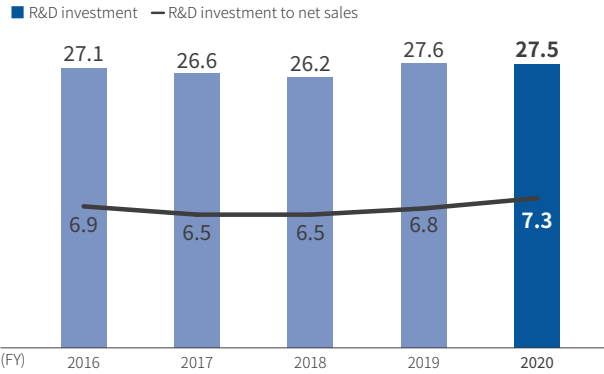
*As of March 31 each year

Operating CF, investment CF and FCF remained unchanged from the previous year.

Although the three-year cumulative target for organic FCF (FCF + strategic investment) established in TF 2020 was ¥85 billion or more, it was approximately ¥68.8 billion.

We will continue to strengthen our ability to generate cash flows by accelerating efforts to improve ROS and improve working capital efficiency.

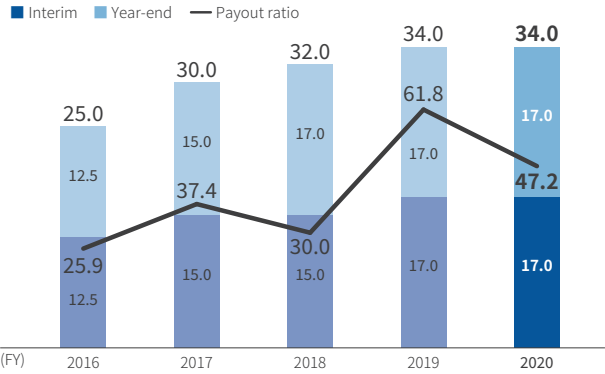
R&D investment (Billions of yen)/R&D investment to net sales (%)



*As of March 31 each year

The R&D expenditures ratio of net sales was maintained at approximately 7%, and R&D expenditures in fiscal 2020 were ¥27.5 billion.

Dividend per share (Yen)/Payout ratio (%)



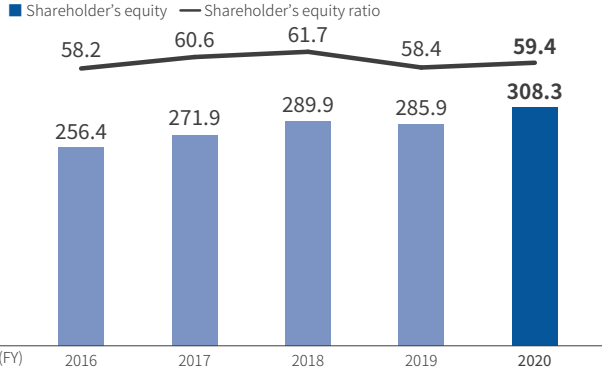
*As of March 31 each year

We will strive to secure a dividend payout ratio of 30% or more to achieve stable and continuous dividend increases.

The annual dividend for fiscal 2020 remained at a record high.

Soundness

Shareholders' equity (Billions of yen)/Shareholders' equity ratio (%)



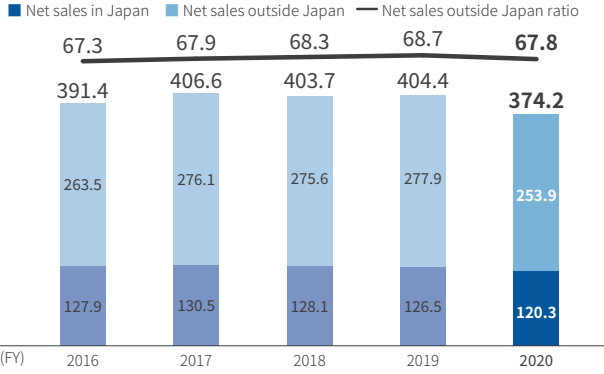
*As of March 31 each year

Shareholders' equity at the end of fiscal 2020 increased mainly due to the recording of net income attributable to owners of parent.

Our financial position continues to be strong, so that we can respond to any deterioration in business performance due to temporary factors.

*As of March 31 each year

Net sales in Japan and outside Japan (Billions of yen)/Net sales outside Japan ratio (%)



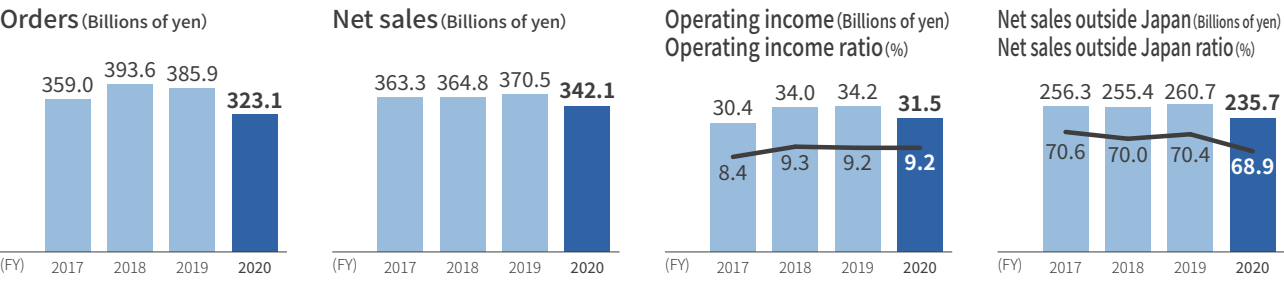
*As of March 31 each year

Overseas sales accounted for approximately 70% of net sales.

In fiscal 2020, the sales decreased both in Japan and overseas due to the impact of COVID-19 and foreign exchange rates, but we will continue to work on OPEX expansion in overseas.

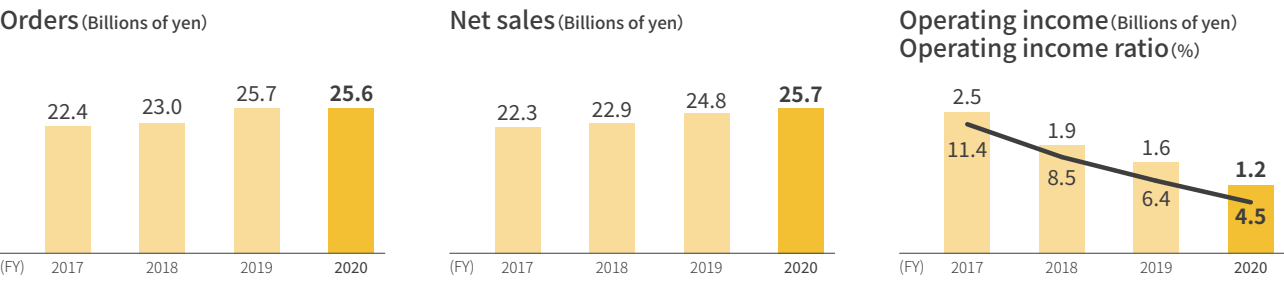
Highlights by Segment

Industrial Automation and Control Business



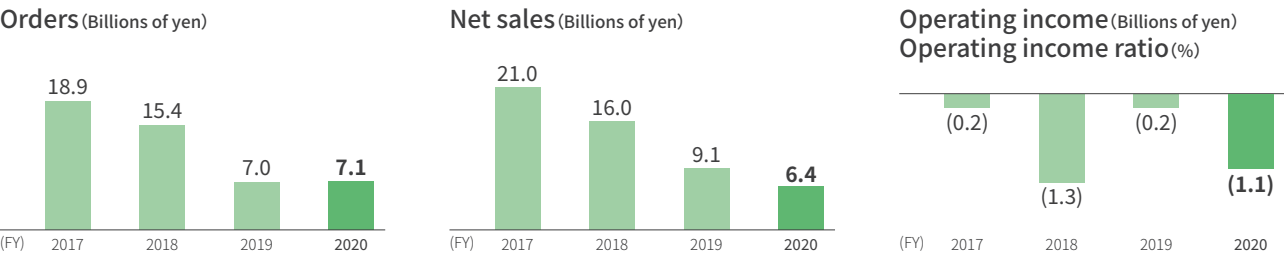
Orders, sales, and operating income decreased due to the impact of COVID-19 and foreign exchange rates.

Test and Measurement Business



While net sales remained strong, the effects of upfront investments in the Life Innovation Business, etc., led to a decrease in operating income.

Aviation and Other Businesses

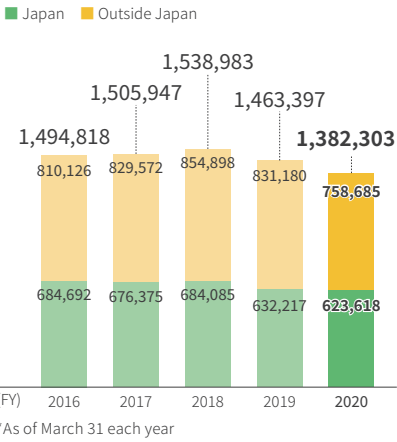


Sales and profit declined mainly due to sluggish demand for aviation-related equipment.

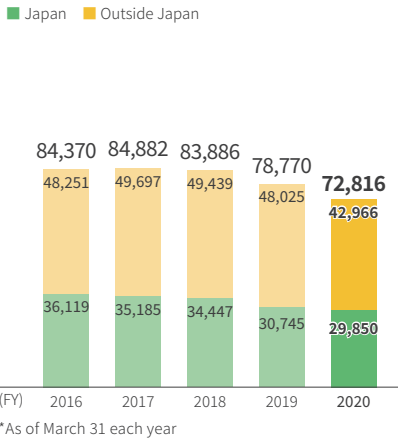
ESG Highlights

Environment

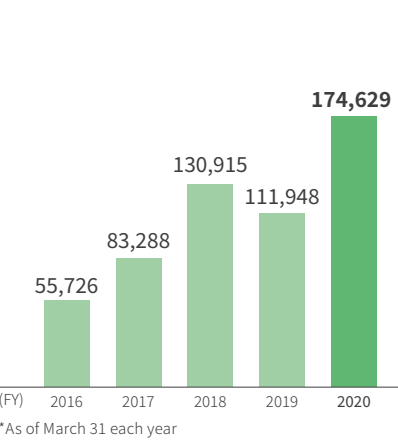
Energy usage (GJ)



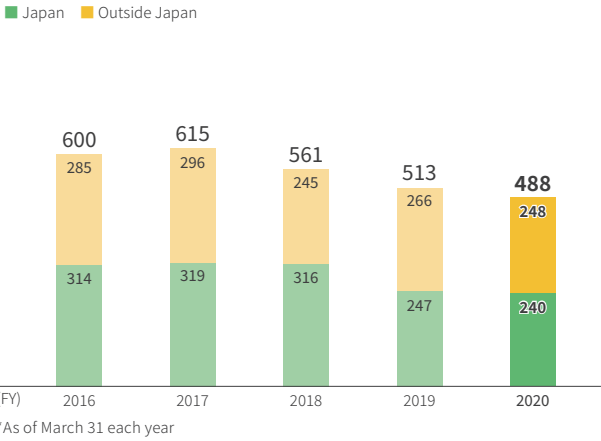
Greenhouse gas emissions (t-CO₂e)



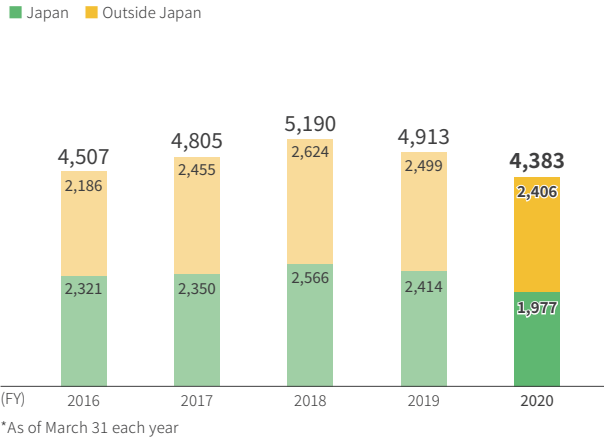
Renewable energy usage (kWh)



Water consumption (thousand m³)

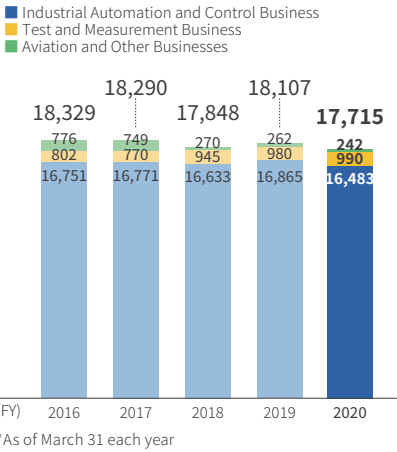


Waste emissions (Tons)

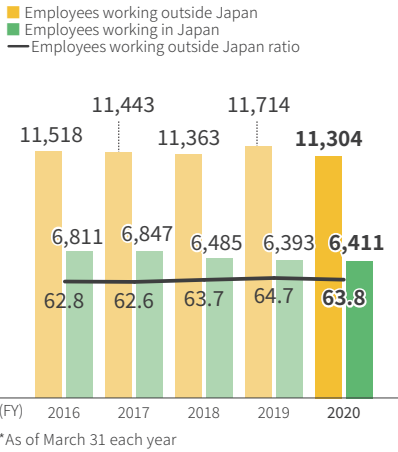


Employees

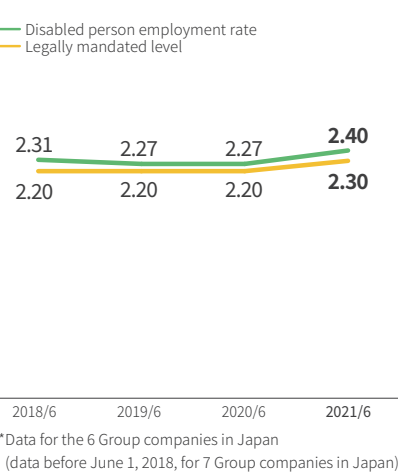
Number of employees



Employees working outside Japan ratio (%)

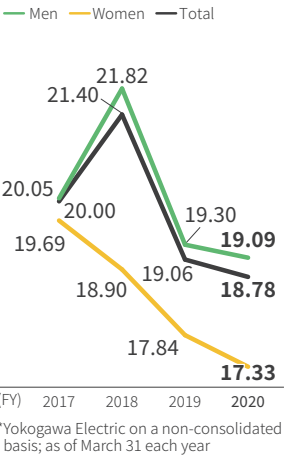


Disabled person employment rate (%)

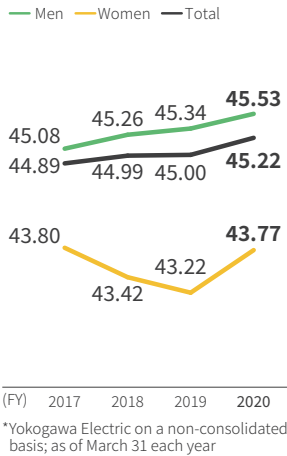


Employees

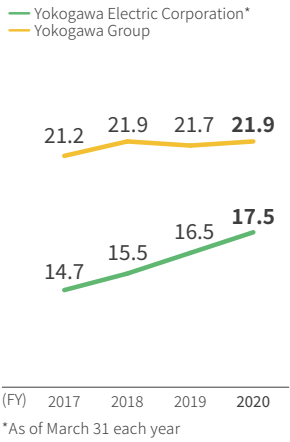
Average length of service (years)



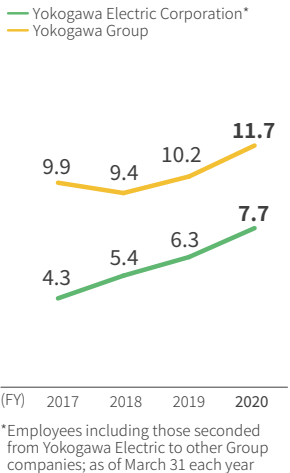
Average age (years old)



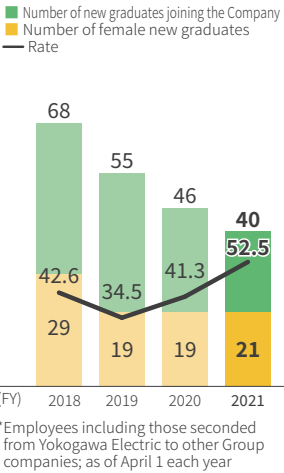
Female employees rate (%)



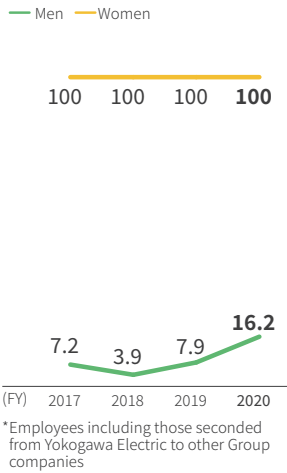
Female manager rate (%)



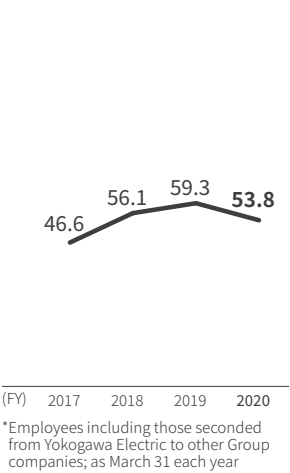
Percentage of female new graduates joining the Company (%)



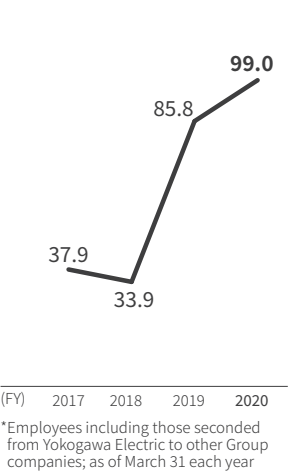
Ratio of employees with children who take childcare leave (%)



Hourly leave usage rate (%)

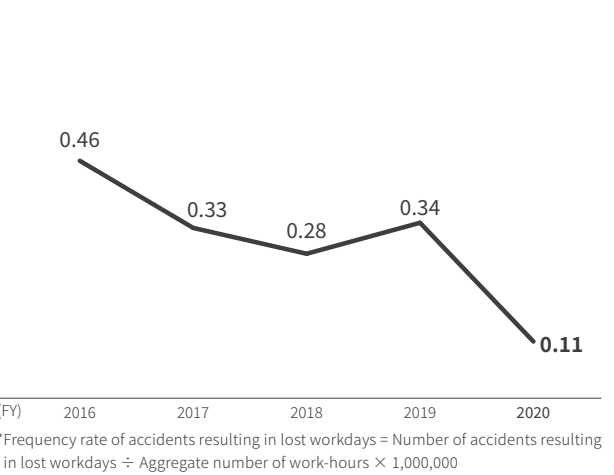


Telecommuting usage rate (%)



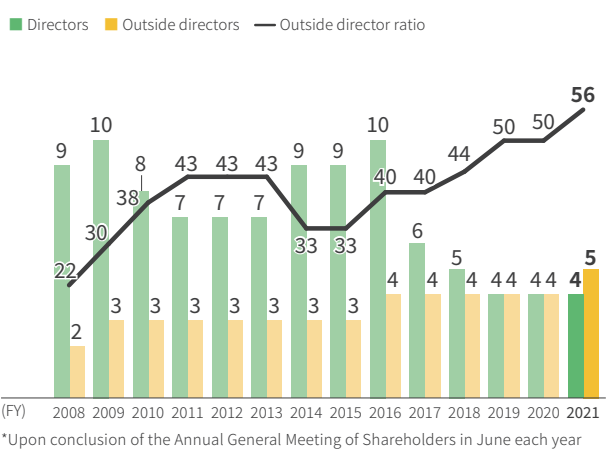
Occupational health & safety

Frequency rate of accidents resulting in lost workdays



Outside directors

Number of directors (persons) / Outside director ratio (%)



Fiscal Year 2020 in Review

* Headquartered in Musashino-shi, Tokyo

Management Topics

April 2020

- Due to the COVID-19 pandemic, measures were implemented throughout the fiscal year to prevent infection according to the situation in each country, including restrictions on coming into workplaces and the thorough leveraging of teleworking.

May 2020

- Held the financial results briefing for fiscal year 2020

June 2020

- Held the 2020 Annual General Meeting of Shareholders
- Continued to be selected to be a constituent of major ESG indexes (MSCI in June, FTSE in July, DJSI in November)

July 2020

- Selected by the Japanese Ministry of Economy, Trade and Industry for its Global Niche Top (GNT) Companies Selection 100 list in fiscal year 2020
- Established Yokogawa Innovation Switzerland GmbH as a base for the biotechnology business in Switzerland

October 2020

- Selected by the Japanese Ministry of Economy, Trade and Industry for its list of Companies Taking on the Zero-Emission Challenge

November 2020

- Listed for the first time on DJSI-World Index

December 2020

- Held Yokogawa IR Day (IA2IA briefing)
- Listed an A score for climate change and water security measures

March 2021

- Held IR briefing session (Biotechnology)
- Established Yokogawa Bio Frontier Inc. to advance the biomass materials business

April 2021

- Received Digital Transformation Certification from the Ministry of Economy, Trade and Industry



Orders Received and Products

April 2020

- One of Japan's largest wind-power plants, Wind Farm Tsugaru, using a Yokogawa control system came online



May 2020

- Developed and released CIMVision Pharmaceuticals R10.00, a manufacturing management package for pharmaceutical factories

June 2020

- Used CSU-W1 Confocal Scanner Unit for experiments on the International Space Station
- Received an order for monitoring systems for a major water transmission pipeline project in Saudi Arabia



October 2020

- Developed and released Collaborative Information Server (CIServer)

January 2021

- Received an order for a control system and integration service for Lahendong Geothermal Power Plant in Indonesia

February 2021

- Developed and released DL950 ScopeCoder

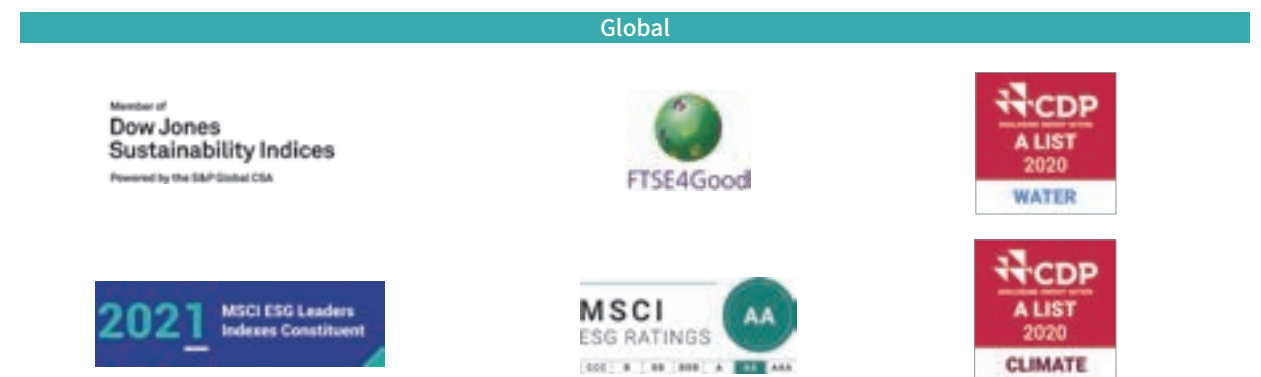


March 2021

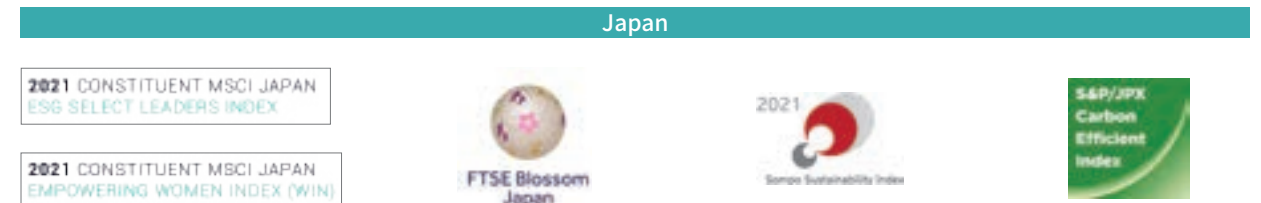
- Developed and released ZR802G Zirconia Oxygen/Humidity Analyzer, Converter

IR and ESG Topics

- Included in major ESG indexes



THE INCLUSION OF YOKOGAWA ELECTRIC CORPORATION IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF YOKOGAWA ELECTRIC CORPORATION BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.



- Yokogawa's Securities Report was mentioned in the Financial Services Agency's Best Practices Regarding the Disclosure of Narrative Information 2020

- Held Yokogawa IR DAY (IA2IA briefing) as a remote conference (December)



- Held IR briefing session (Biotechnology) as a remote conference (March)



Consolidated 11-Year Summary

	(Billions of yen)										(Millions of US dollars)	
Fiscal year	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020
Financial data												
Orders	334.1	344.1	354.5	406.0	417.1	421.1	390.7	400.3	432.0	418.7	355.8	3,214
Net sales	325.6	334.7	347.9	388.5	405.8	413.7	391.4	406.6	403.7	404.4	374.2	3,380
(Net sales outside Japan)	184.7	198.9	213.9	259.4	281.1	286.6	263.5	276.1	275.6	277.9	253.9	2,293
Cost of sales	215.1	195.4	206.6	229.3	236.6	236.9	222.3	231.3	230.6	227.9	210.0	1,897
Selling, general and administrative expenses	99.4	122.6	122.8	133.3	139.4	137.1	137.5	142.6	138.5	140.9	132.6	1,198
Operating income	11.1	16.6	18.4	25.9	29.8	39.6	31.6	32.7	34.6	35.6	31.6	285
Profit (loss) attributable to owners of parent	(6.7)	6.0	14.7	12.3	17.2	30.2	25.8	21.4	28.4	14.7	19.2	173
Capital expenditures	11.3	11.1	13.5	14.0	14.1	15.4	14.2	13.2	15.0	19.6	20.6	186
Depreciation and amortization	13.8	12.8	13.5	13.6	14.5	15.1	18.0	18.3	17.7	18.8	17.6	159
Research and development costs	29.2	27.5	25.5	25.8	25.8	25.3	27.1	26.6	26.2	27.6	27.5	248
Cash flow from operating activities	16.2	12.9	17.4	30.1	38.3	31.9	39.2	32.0	21.4	31.1	32.8	296
Cash flow from investing activities	(8.0)	(7.8)	(7.5)	(13.9)	(1.8)	(10.9)	(36.5)	(6.6)	(4.1)	(18.2)	(18.6)	(168)
Free cash flow	8.2	5.1	9.9	16.2	36.5	21.0	2.7	25.4	17.3	13.0	14.2	128
Cash flow from financing activities	(25.7)	(8.0)	(8.0)	(21.6)	(20.2)	(26.9)	6.5	(22.4)	(7.0)	4.6	(17.1)	(154)
At year-end												
Total assets	361.2	359.5	379.9	398.9	440.0	412.8	440.5	448.8	470.1	489.7	519.1	4,689
Interest-bearing debt	111.0	103.3	98.6	81.4	65.3	30.5	44.6	30.5	32.5	50.5	46.9	424
Shareholders' equity	141.7	145.7	168.4	187.3	215.5	240.4	256.4	271.9	289.9	285.9	308.3	2,785
Financial indicators												
Operating income ratio (ROS)	3.4	5.0	5.3	6.7	7.3	9.6	8.1	8.0	8.6	8.8	8.4	
Debt equity ratio (Times)	0.78	0.71	0.59	0.44	0.30	0.13	0.17	0.11	0.11	0.18	0.15	
Return on equity (ROE)	(4.5)	4.1	9.4	6.9	8.6	13.2	10.4	8.1	10.1	5.1	6.5	
Return on assets (ROA)	(1.8)	1.7	4.0	3.1	4.1	7.1	6.0	4.8	6.2	3.1	3.8	
Shareholders' equity ratio	39.2	40.5	44.3	46.9	49.0	58.3	58.2	60.6	61.7	58.4	59.4	
Per share data												
Earnings per share (EPS)	(25.98)	23.11	57.03	47.92	66.88	114.01	96.44	80.27	106.54	55.02	72.00	0.65
Cash dividends	0	5.00	10.00	12.00	12.00	25.00	25.00	30.00	32.00	34.00	34.00	0.31
Shareholders' equity	550.19	565.69	653.83	727.09	836.94	900.75	959.58	1,017.40	1,085.88	1,071.07	1,155.06	10.43
Stock information												
Stock price at the end of the term (Yen / US dollars)	634	837	946	1,667	1,295	1,163	1,752	2,198	2,291	1,303	2,038	18.41
Market capitalization (Billions of yen / Millions of US dollars)	170.3	224.8	254.1	447.8	347.9	312.4	470.6	590.4	615.4	350.0	547.5	4,945
Number of issued shares (shares)	268,624,510	268,624,510	268,624,510	268,624,510	268,624,510	268,624,510	268,624,510	268,624,510	268,624,510	268,624,510	268,624,510	—
Exchange rate information												
Average yen / US dollar exchange rate during the year	85.13	78.82	83.33	100.67	110.58	119.99	108.95	110.70	111.07	108.96	106.01	

Note: Figures are rounded down to the nearest 100 million yen.

Non-financial data*¹												
Number of employees (by segment)	19,334	19,437	19,685	19,837	19,601	18,646	18,329	18,290	17,848	18,107	17,715	
Industrial Automation and Control Business	16,159	16,672	17,188	17,669	17,593	16,724	16,751	16,771	16,633	16,865	16,483	
Test and Measurement Business	2,288	1,968	1,667	1,328	1,171	1,122	802	770	945	980	990	
Aviation and Other Businesses	887	797	830	840	837	800	776	749	270	262	242	
Environmental data												
Energy usage (GJ)		1,906,665	1,850,857	1,732,042	1,710,907	1,552,937	1,494,818	1,505,947	1,538,983	1,463,397	1,382,303	
Greenhouse gas emissions (t-CO ₂ e)		94,244	102,312	103,411	99,195	89,479	84,370	84,882	83,886	78,770	72,816	
Renewable energy usage (kWh)		89,066	96,856	86,442	85,480	68,817	55,726	83,288	130,915	111,948	174,629	
Water consumption (thousand m ³)		813	846	737	723	617	600	615	561	513	488	
Waste emissions (Tons)		6,706	6,343	5,143	6,023	4,204	4,507	4,805	5,190	4,913	4,383	
Occupational health & safety												
Frequency rate of accidents resulting in lost workdays * ²		0.29	0.32	0.39	0.53	0.38	0.46	0.33	0.28	0.34	0.11	

*1 For environmental data for fiscal year 2020, certification by Lloyd's Register Quality Assurance Limited has been obtained based on third-party assessment.

*2 Frequency rate of accidents resulting in lost workdays = Number of accidents resulting in lost workdays ÷ Aggregate number of work-hours × 1,000,000. Calculated on a calendar basis, including dispatched and contract workers, until 2014, and on the newly defined basis from 2015 onwards

Risks Relating to the Group’s Business

Described below are matters related to the Group’s business that are considered to be the main sources of risk or that could significantly affect investor decision-making. Recognizing the possibility that these risks may materialize, the Group will work to avoid these risks and take appropriate measures should they occur. However, investment decisions regarding Yokogawa’s securities should be made carefully by evaluating the matters stipulated below along with the matters discussed in other sections of this document. The risks described below include forward-looking statements that are based on judgments made by the Group at the end of fiscal year 2020 and are subject to uncertainties. Therefore, actual results may vary from the statements.

(1) Risk Relating to the Business Deployment
(Changes in the external business environment)

The scope of the Group’s activities extends not just to Japan but also to various parts of the world. Changes in external conditions in each region could adversely affect the Group’s business results and financial situation. Specifically, the following risks have been identified.

- Political or economic factors in each country where the Group operates
- Impact of taxation and trade restrictions
- Differences in commercial practices outside Japan
- Natural disasters (earthquakes, fires, floods, tsunami, etc.)
- Social turmoil stemming from wars, riots, terrorism, infectious diseases, strikes, and other factors
- Cyberattacks affecting Company products, services and internal infrastructure
- Incomplete understanding of regulations, sanctions, patents, etc., in the counties where we operate, including regulations and other matters related to the protection of the environment

The Company strives to prevent, avoid, and reduce the impact of these risks by collecting information within the Group and contracting external organizations.

COVID-19 is a risk that is currently emerging, and the Crisis Management Committee chaired by the President and CEO is sharing information, deliberating and responding to the policies and measures that have been and are being established to address the COVID-19 pandemic.

It is expected that the global economy will gradually recover from the slowdown caused by the COVID-19 pandemic as the percent of people vaccinated globally increases. However, the timing of the recovery is still unclear due to the impact of recent variants of the coronavirus. We expect that there to be some recovery of customers’ willingness to spend on capital expenditures due to the resumption of economic activity and the increase in fuel demand, but we also expect the intense price competition with our competitors to continue for the time being due to a decrease in capital expenditure projects. In the control business, the Group’s flagship business, we are expanding the OPEX (Operating Expenditure) business to ensure the safe and stable operation of customers’ existing facilities and improve productivity. Thus, we are not highly dependent on investment in new facilities. However, we expect that it will take time for the Group’s business performance to recover from to the significant drop in orders received in fiscal 2020 due to factors such as the significant decline in customers’ willingness to spend on capital expenditures due to reduced energy demand and delays in projects’ progress due to travel restrictions caused by the COVID-19 pandemic. The business environment surrounding our Group is changing dramatically due to the growing need for solutions to social issues, such as the transition in energy resources for the realization of a decarbonized society, innovation in digital technology, and the paradigm shift triggered by the COVID-19 pandemic. Seeing these changes in the business environment as an opportunity, our Group will establish a business structure centered on solving social issues for growth and aim to grow while contributing to society and the environment.

(Related to markets/competitive environment)

1) Cost competitiveness
As the Company aggressively develops its businesses, competition in construction and modernization projects is intensifying, and demand for cost reduction is intensifying. At the same time, resource-rich and emerging countries are increasingly prioritizing their own countries, and there is increasing demand for the localization of employment, services and procurement, including product production. Although the Company is working to increase its cost competitiveness, there is the risk that the Company will lose business opportunities if it cannot effectively respond to the demand in these markets that costs be reduced, including product and service costs and selling, general and administrative expenses. This could affect our Group’s business results and financial situation.

2) Establishment of competitive advantages through the use of digital technologies
There is growing demand for a dramatic increase of productivity in business processes throughout the value chain and product life cycle through the utilization of digital technologies. The Company must respond to this demand as a business and establish a competitive advantage. Recognizing this as an opportunity for business growth, the Group is working to create new value through digital transformation in a wide range of fields, not only for itself but also for its customers. If the Company is unable to keep up with new technology or meet the demands of these markets, this could lead to the loss of business opportunities, which could affect the Group’s business results and financial situation.

3) Transformation of our business model to match market needs
While changes in society and technological innovations are creating many new business models, the Group’s customers are also increasingly demanding subscription businesses and other businesses that reduce initial deployment costs and provide flexibility in operations and maintenance after deployment. The Group is also transforming its business model by working to establish performance-based compensation businesses and service-providing businesses. There is a risk that business opportunities will be lost if the Group is unable to adequately respond to the new market needs that are changing towards the future, or if it delays its efforts. This could affect the Group’s business results and financial situation.

4) Changes in market environment caused by climate change initiatives
Society’s increasing demand for action regarding climate change initiatives may affect the strategies of the Group’s customers. In the energy-related field, in which the Group’s major customers operate, it recognizes that they are studying measures to address environmental change, such as a shift of energy resources from a long-term perspective. The Group views these changes as business opportunities and is working to respond to changes in the market environment. However, if the Group is unable to respond to these changes in the customers’ environments or if its efforts are delayed, there is the risk that business opportunities may be lost or corporate value may decline. This could affect the Group’s business results and financial situation.

(Related to strategic investment)

The Group is investing mainly to acquire technologies, sales channels, products and services, customers, human resources, and expertise, while strengthening its strategic growth investments in the creation of new businesses and new fields and examining M&A and alliances as necessary. The Company is fully prepared to carry out the entire process from project discovery to investment, to improve the accuracy of evaluation and verification, and to swiftly launch businesses after investment. The Company is also working to develop and utilize the human resources that support it. However, there is the risk that the expected results will not be achieved due to unexpected changes in the environment. In addition, there is the risk that a business may not be able to start up quickly after investment if the acquired assets and opportunities are not fully utilized, and

that the expected results may not be achieved. This could affect the Group’s business results and financial situation.

(Related to R&D)
The Group regards basic research into measurement, control and information, and the development of advanced technologies and digital technologies such as the IoT and AI as its most important management issues, and is continuously promoting the development of new technologies with a view toward the future. In addition, in response to changing international standards, efforts to realize a sustainable society such as the SDGs are being strengthened. However, there is the risk that development investments will not meet future market demands and targets as planned. In this event, business opportunity losses may affect the Group’s business results and financial situation. The Company also continues to invest in R&D for product technology and service innovation to maintain its competitiveness. However, there is the risk that the Company’s R&D investments will not succeed if it fails to understand market trends regarding products and services with growth potential. In addition, there is the risk that R&D investments do not produce innovative technologies or produce the results that were expected even if they fit the market, or competitors may precede the Group in the development of the technology. In these cases, business opportunity losses may affect the Group’s business results and financial situation.

(Related to product quality and supply)
The Group provides highly reliable products and services to customers through its accumulation of technology and expertise over many years and the development of a strict quality control system. However, there is the risk that defects in the Group’s products and services may exist, and that damage may result from these defects. In this event, the Group’s business results and financial situation may be affected and the Group’s overall business activities may be affected. In addition, the Company is striving to reduce risks by constantly collecting information about market trends in major electronic parts and other products and striving to ensure stable procurement. In addition, the Company is thoroughly managing the quality and delivery dates of its suppliers and diversifying its suppliers to avoid excessive concentration and dependence on specific suppliers. However, there is the risk that the delay or suspension of product supply in the event that the procurement of electronic parts and the manufacturing of important products become difficult due to supply chain disruptions caused by changes in the external environment. If this happens, the Group’s business results and financial situation and the Group’s overall business activities, including the Group’s production activities, could be affected.

(Related to project management)
In the Group’s business, particularly in project-type businesses that provide customers with the products, engineering solution services, and products of other companies in bulk, the reliable execution of project management is a necessity. We are striving to prevent the occurrence of unprofitable projects through such efforts as profit estimation in the process leading up to the receipt of orders, the improvement of the accuracy of profitability management until delivery, and the thorough control of production and quality. However, there is the risk that we may incur unexpected costs or may be liable for compensation due to delayed delivery if there are deviations from the assumed estimates, or problems in the management of profit, production, quality, etc. This could affect the Group’s business results and financial situation.

(2) Risks relating to management in general
(Related to recruitment and training of human resources)
The Group’s growth is supported by its capable personnel, such as the human resources who support its leading-edge technologies and the engineers who ensure high product quality. In particular, the importance of human resources capable of proposing solutions, human resources with engineering and project-management abilities, and human resources with skills and knowledge related to AI, digital technologies, and the company’s new businesses is increasing.

The Group continues to globally recruit and develop human resources through education and training. However, there is the risk that we may not be able to secure and train the necessary human resources as planned. If so, the Group’s business results and financial situation may be affected as well as the effectiveness of its business operations.

(Related to human rights)
The Group’s established policy is to respect human rights and it has expressed its support for the U.N. Global Compact. Consequently, the Group is stepping up its efforts based on the human rights policy and international human rights standards set forth in the Compact. Regarding human rights initiatives in the supply chain, the Group has provided guidelines prohibiting forced labor, inhumane treatment, child labor and discrimination, and protecting appropriate wages, compliance with laws regarding work hours, and the right to organize. The Group supports internationally demanded human rights and strives to respect human rights. However, if a human rights problem occurs due to an unexpected situation, there is the risk that the Group may be liable for compensation, and there is the risk that the Group’s corporate value may decline, which could adversely affect its business results and financial situation.

(Related to intellectual property rights)
The Group has established a complete management system to protect its intellectual property rights and preventing its infringement on the rights of other companies in the course of its development of proprietary products and services. However, if intellectual property rights are infringed upon by a third party and the Group is therefore unable to make an expected profit, or if the Group is deemed to have infringed upon the intellectual property rights of another company due to a difference in viewpoint or some other reason, there is the risk that the Group will be subsequently disadvantaged by its inability to use important technology, may be liable for compensation, or its corporate value may decline, which could adversely affect the Group’s business results and financial situation.

(Related to information security)
Through its business activities, the Group acquires personal or otherwise confidential information about its customers and trading partners. It therefore establishes systems to manage this information and provides its employees with training on information security. However, in the event that information is leaked or abused due to some unforeseen circumstances, there is the risk the Group will be liable for compensation or the Group’s corporate value will decline, which could adversely affect the Group’s business results and financial situation.

(3) Risks related to finances and others
(Related to fluctuations of foreign exchange rates, interest rates, or stock prices)

The Group operates globally and uses many currencies for its business transactions and activities. The Group enters into forward exchange contracts in order to respond to fluctuations in foreign exchange rates. However, there is the risk that foreign exchange rates may swing rapidly and sharply, which may affect the Group’s business results and financial situation. There is the risk that changes of interest rates related to the Group’s assets and liabilities may impact interest earnings and asset values, which may affect the Group’s business results and financial situation. There is the risk that the prices of the stocks and other securities held by the Group may fluctuate, which may affect the Group’s business results and financial situation.

(Related to depreciation of owned assets)
There is the risk that the value of the Group’s business assets may decline due to decreased market prices or reduced profitability. If so, the Group’s business results and financial situation could be affected, including the occurrence of impairment losses.

See p. 34 for risks.➡

Financial Section

Consolidated Balance Sheet

Yokogawa Electric Corporation and its Consolidated Subsidiaries
March 31, 2021

	Millions of yen		Thousands of US dollars (Note 1)
	2021	2020	2021
ASSETS			
Current Assets:			
Cash and cash equivalents (Notes 11 and 17)	¥101,204	¥99,658	\$914,138
Receivables (Notes 11 and 17)			
Trade notes and accounts	187,266	175,687	1,691,508
Other	3,361	2,534	30,365
Less: Allowance for doubtful accounts	(3,555)	(3,673)	(32,119)
Net receivables	187,072	174,548	1,689,754
Inventories (Notes 7 and 8)	35,730	37,342	322,742
Other	21,303	17,333	192,430
Total current assets	345,311	328,882	3,119,065
Property, Plant and Equipment (Notes 9 and 10):			
Land	15,325	15,162	138,431
Buildings and structures-net	45,408	44,306	410,158
Machinery, equipment and vehicles-net	7,154	6,704	64,620
Tools, furniture and fixtures-net	6,270	5,881	56,638
Construction in progress	2,889	2,815	26,103
Right-of-use assets-net	7,405	7,929	66,894
Lease assets-net (Note 16)	124	259	1,125
Total property, plant and equipment	84,579	83,059	763,971
Investments and Other Assets:			
Investment securities (Notes 6, 11 and 17)	39,187	31,958	353,962
Investments in and advances to unconsolidated subsidiaries and affiliated companies (Note 17)	11,699	10,974	105,680
Goodwill (Note 10)	4,247	3,132	38,364
Software (Note 10)	12,779	12,525	115,434
Other intangible assets (Note 10)	9,275	7,108	83,777
Deferred tax assets (Note 14)	6,246	6,485	56,426
Other	7,935	7,524	71,674
Less: Allowance for doubtful accounts	(2,181)	(1,971)	(19,703)
Total investments and other assets	89,189	77,737	805,618
Total Assets	¥519,081	¥489,678	\$4,688,655

See notes to consolidated financial statements.

	Millions of yen		Thousands of US dollars (Note 1)
	2021	2020	2021
LIABILITIES AND EQUITY			
Current Liabilities:			
Short-term loans payable (Notes 11, 17 and 19)	¥2,841	¥1,807	\$25,669
Current portion of long-term debt (Notes 11 and 17)	4,080	14,592	36,853
Commercial papers (Notes 11 and 17)	20,000	30,000	180,652
Current portion of lease obligations (Notes 11 and 17)	2,183	2,202	19,720
Payables (Notes 11 and 17)			
Trade notes and accounts	25,147	24,358	227,145
Electronically recorded obligations-operating	9,573	9,723	86,469
Other	16,806	13,367	151,804
Income taxes payable (Note 17)	5,646	4,769	51,000
Accrued expenses	29,355	29,024	265,158
Advance received	35,317	33,382	319,009
Provision for contract loss (Notes 8 and 20)	7,419	7,606	67,018
Other	10,621	8,065	95,944
Total current liabilities	168,993	178,900	1,526,447
Long-term Liabilities:			
Long-term debt (Notes 11 and 17)	20,000	4,080	180,652
Lease obligations (Notes 11 and 17)	5,544	6,757	50,079
Liability for retirement benefits (Note 12)	4,373	4,590	39,504
Deferred tax liabilities (Note 14)	3,288	793	29,703
Other	2,110	3,084	19,065
Total long-term liabilities	35,317	19,305	319,005
Commitments and Contingent Liabilities (Notes 16, 18 and 19)			
Equity (Notes 13 and 24):			
Common stock, authorized, 600,000,000 shares; issued, 268,624,510 shares in 2021 and 2020	43,401	43,401	392,024
Capital surplus	54,392	54,386	491,302
Retained earnings	209,240	199,080	1,889,986
Treasury stock, 1,692,594 shares in 2021 and 1,690,805 shares in 2020	(1,404)	(1,400)	(12,684)
Accumulated other comprehensive income			
Net unrealized gain on available-for-sale securities	11,351	7,020	102,530
Foreign currency translation adjustments	(7,568)	(14,677)	(68,363)
Defined retirement benefit plans	(1,088)	(1,905)	(9,830)
Total	2,694	(9,562)	24,336
Non-controlling interests	6,447	5,568	58,236
Total equity	314,770	291,472	2,843,202
Total Liabilities and Equity	¥519,081	¥489,678	\$4,688,655

Consolidated Statement of Income

Yokogawa Electric Corporation and its Consolidated Subsidiaries
Year Ended March 31, 2021

	Millions of yen		Thousands of US dollars (Note 1)
	2021	2020	2021
Net Sales	¥374,206	¥404,432	\$3,380,056
Cost of Sales (Notes 15 and 20)	210,036	227,922	1,897,181
Gross profit	164,169	176,510	1,482,874
Selling, General and Administrative Expenses (Notes 15 and 20)	132,569	140,921	1,197,447
Operating income	31,599	35,588	285,427
Other Income (Expenses):			
Interest and dividend income	1,892	2,266	17,098
Interest expense	(784)	(746)	(7,086)
Loss on valuation of investment securities	(0)	(92)	(0)
Net gain on sales of investment securities and investment in affiliated companies (Note 6)	155	26	1,406
Foreign exchange gain (loss)-net	550	(1,884)	4,971
Net (loss) gain on disposal of property, plant and equipment (Note 20)	(512)	217	(4,632)
Loss on impairment of long-lived assets (Note 10)	(486)	(9,507)	(4,397)
Equity in earnings of affiliates	818	1,405	7,390
Net gain on sale of investment in a subsidiary		1,468	
Gain on sale of businesses (Note 20)		823	
Business structure improvement expense (Note 20)	(1,739)		(15,710)
Donations	(217)	(199)	(1,962)
Provision for loss from program errors (Note 20)		(3,478)	
Other-net	248	(129)	2,243
Other expenses-net	(75)	(9,829)	(677)
Income before Income Taxes	31,524	25,759	284,749
Income Taxes (Note 14):			
Current	8,807	10,125	79,551
Deferred	1,413	(775)	12,768
Total income taxes	10,220	9,349	92,319
Net income	21,303	16,409	192,429
Net income attributable to non-controlling interests	2,084	1,722	18,824
Net income attributable to owners of the parent	¥19,219	¥14,686	\$173,604
	Yen		US dollars (Note 1)
Per Share of Common Stock (Note 22):			
Basic net income	¥72.00	¥55.02	\$0.65
Cash dividends applicable to the year	34.00	34.00	0.31

See notes to consolidated financial statements.

Consolidated Statement of Comprehensive Income

Yokogawa Electric Corporation and its Consolidated Subsidiaries
Year Ended March 31, 2021

	Millions of yen		Thousands of US dollars (Note 1)
	2021	2020	2021
Net Income	¥21,303	¥16,409	\$192,429
Other Comprehensive Income (Loss) (Note 21):			
Net unrealized gain (loss) on available-for-sale securities	4,352	(2,433)	39,313
Deferred loss on derivatives under hedge accounting		(20)	
Foreign currency translation adjustments	7,388	(6,411)	66,739
Defined retirement benefit plans	785	(519)	7,092
Share of other comprehensive income (loss) in affiliates	177	(204)	1,604
Total other comprehensive income (loss)	12,704	(9,589)	114,750
Comprehensive Income	¥34,007	¥6,820	\$307,179
Total Comprehensive Income Attributable to:			
Owners of the parent	¥31,476	¥5,338	\$284,318
Non-controlling interests	2,530	1,481	22,860

See notes to consolidated financial statements.

Consolidated Statement of Changes in Equity

Yokogawa Electric Corporation and its Consolidated Subsidiaries
Year Ended March 31, 2021

	Millions of yen											
	Outstanding number of shares of common stock	Accumulated other comprehensive income									Non-controlling interests	Total equity
		Common stock	Capital surplus	Retained earnings	Treasury stock	Net unrealized gain on available-for-sale securities	Deferred gain on derivatives under hedge accounting	Foreign currency translation adjustments	Defined retirement benefit plans	Total		
Balance, April 1, 2019	266,935,361	¥43,401	¥54,602	¥193,468	¥(1,397)	¥9,431	¥20	¥(8,314)	¥(1,351)	¥(214)	¥6,290	¥296,150
Net income attributable to owners of the parent				14,686								14,686
Cash dividends, ¥34 per share				(9,075)								(9,075)
Purchase of treasury stock	(1,656)				(3)							(3)
Change in the parent's ownership interest due to transactions with non-controlling interests			(216)									(216)
Net change in the year						(2,410)	(20)	(6,363)	(553)	(9,348)	(722)	(10,070)
Balance, March 31, 2020 (April 1, 2020, as previously reported)	266,933,705	¥43,401	¥54,386	¥199,080	¥(1,400)	¥7,020		¥(14,677)	¥(1,905)	¥(9,562)	¥5,568	¥291,472
Cumulative effect of accounting change				15								15
Balance, April 1, 2020 (as restated)	266,933,705	¥43,401	¥54,386	¥199,096	¥(1,400)	¥7,020		¥(14,677)	¥(1,905)	¥(9,562)	¥5,568	¥291,488
Net income attributable to owners of the parent				19,219								19,219
Cash dividends, ¥34 per share				(9,075)								(9,075)
Purchase of treasury stock	(1,807)				(3)							(3)
Disposal of treasury stock	18				0							0
Change in the parent's ownership interest due to transactions with non-controlling interests			5									5
Net change in the year						4,330		7,109	817	12,257	878	13,135
Balance, March 31, 2021	266,931,916	¥43,401	¥54,392	¥209,240	¥(1,404)	¥11,351		¥(7,568)	¥(1,088)	¥2,694	¥6,447	¥314,770

	Thousands of US dollars (Note 1)									
	Common stock	Accumulated other comprehensive income								Total equity
		Capital surplus	Retained earnings	Treasury stock	Net unrealized gain on available-for-sale securities	Foreign currency translation adjustments	Defined retirement benefit plans	Total	Non-controlling interests	
Balance, March 31, 2020 (April 1, 2020, as previously reported)	\$392,024	\$491,251	\$1,798,214	\$(12,653)	\$63,415	\$(132,578)	\$(17,215)	\$(86,378)	\$50,298	\$2,632,757
Cumulative effect of accounting change			144							144
Balance, April 1, 2020 (as restated)	\$392,024	\$491,251	\$1,798,358	\$(12,653)	\$63,415	\$(132,578)	\$(17,215)	\$(86,378)	\$50,298	\$2,632,901
Net income attributable to owners of the parent			173,604							173,604
Cash dividends, \$0.31 per share			(81,975)							(81,975)
Purchase of treasury stock				(31)						(31)
Disposal of treasury stock				0						0
Change in the parent's ownership interest due to transactions with non-controlling interests			50							50
Net change in the year					39,115	64,214	7,384	110,714	7,937	118,652
Balance, March 31, 2021	\$392,024	\$491,302	\$1,889,986	\$(12,684)	\$102,530	\$(68,363)	\$(9,830)	\$24,336	\$58,236	\$2,843,202

See notes to consolidated financial statements.

Consolidated Statement of Cash Flows

Yokogawa Electric Corporation and its Consolidated Subsidiaries
Year Ended March 31, 2021

	Millions of yen		Thousands of US dollars (Note 1)
	2021	2020	2021
Operating Activities:			
Income before income taxes	¥31,524	¥25,759	\$284,749
Adjustments for:			
Income taxes paid	(8,278)	(10,774)	(74,773)
Depreciation and amortization	16,988	18,032	153,452
Goodwill amortization	574	759	5,188
Equity in earnings of affiliates	(818)	(1,405)	(7,390)
Net loss (gain) on disposal of property, plant and Equipment	512	(217)	4,632
Gain on sales of investment securities and investment in affiliated companies	(155)	(26)	(1,406)
Gain on sale of investment in a subsidiary		(1,468)	
Gain on sale of businesses		(823)	
Loss on impairment of long-lived assets	486	9,507	4,397
Provision for loss from program errors		3,478	
Changes in assets and liabilities:			
Increase in trade notes and accounts receivable	(5,535)	(13,039)	(49,999)
Decrease (increase) in inventories	3,037	(2,872)	27,438
Decrease in trade notes and accounts payable	(151)	(402)	(1,365)
Decrease in allowance for doubtful accounts	(337)	(433)	(3,048)
(Decrease) increase in liability for retirement benefits	(381)	678	(3,446)
Decrease in provision for loss from program errors	(2,414)	(739)	(21,812)
Other assets and liabilities	(341)	2,029	(3,081)
Other-net	(1,869)	3,092	(16,885)
Total adjustments	1,317	5,373	11,900
Net cash provided by operating activities	32,842	31,132	296,650
Investing Activities:			
Net decrease (increase) in time deposits	337	(1,192)	3,045
Purchases of property, plant and equipment	(8,689)	(9,925)	(78,490)
Proceeds from sale of property, plant and equipment	237	867	2,144
Acquisitions of intangible assets	(7,827)	(7,090)	(70,700)
Proceeds from sale of businesses		902	
Proceeds from sale of investment securities	1,563	45	14,123
Purchases of investment securities	(2,762)	(1,696)	(24,956)
Purchases of investments in subsidiaries with changes in consolidation scope	(1,284)	(1,550)	(11,604)
Purchases of investments in affiliated companies		(759)	
Proceed from sale of investments in a subsidiary with changes in consolidation scope		2,287	
Other-net	(190)	(70)	(1,724)
Net cash used in investing activities	(18,617)	(18,182)	(168,162)
Forward	¥14,224	¥12,950	\$128,487

(Continued)

Consolidated Statement of Cash Flows

	Millions of yen		Thousands of US dollars (Note 1)
	2021	2020	2021
Forward	¥14,224	¥12,950	\$128,487
Financing Activities:			
Net increase (decrease) in short-term loans payable	910	(1,615)	8,223
Net (decrease) increase in commercial papers	(10,000)	30,000	(90,326)
Proceeds from long-term debt	20,000		180,652
Repayments of long-term debt	(14,592)	(10,264)	(131,811)
Repayments of lease obligations	(2,882)	(2,790)	(26,036)
Cash dividends paid	(9,073)	(9,072)	(81,954)
Cash dividends paid to non-controlling shareholders	(1,463)	(1,316)	(13,219)
Payments from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation	(0)	(354)	(6)
Other-net	(3)	(3)	(31)
Net cash (used in) provided by financing activities	(17,105)	4,583	(154,508)
Foreign Currency Translation Adjustments on Cash and Cash Equivalents	4,426	(3,577)	39,981
Net Increase in Cash and Cash Equivalents	1,545	13,957	13,961
Cash and Cash Equivalents, Beginning of Year	99,658	85,701	900,177
Cash and Cash Equivalents, End of Year	¥101,204	¥99,658	\$914,138

See notes to consolidated financial statements.

Notes to Consolidated Financial Statements

Yokogawa Electric Corporation and its Consolidated Subsidiaries
Year Ended March 31, 2021

1. Basis of Presentation of the Consolidated Financial Statements

The accompanying consolidated financial statements have been prepared in accordance with the provisions set forth in the Japanese Financial Instruments and Exchange Act and its related accounting regulations and in accordance with accounting principles generally accepted in Japan (“Japanese GAAP”), which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards.

In preparing these consolidated financial statements, certain reclassifications and rearrangements have been made to the consolidated financial statements issued in Japan in order to present them in a form which is more familiar to readers outside Japan. In addition, certain reclassifications have been made in the 2020 consolidated financial statements to conform to the classifications used in 2021.

The consolidated financial statements are stated in Japanese yen, the currency of the country in which Yokogawa

Electric Corporation (the “Company”) is incorporated and operates. The translations of Japanese yen amounts into U.S. dollar amounts are included solely for the convenience of readers outside Japan and have been made at the rate of ¥110.71 to \$1, the approximate rate of exchange at March 31, 2021. Such translations should not be construed as representations that the Japanese yen amounts could be converted into U.S. dollars at that or any other rate.

Japanese yen figures less than a million yen and U.S. dollars figures less than a thousand dollars are rounded down to the nearest million yen and thousand dollars, except for per share data. As a result, totals in millions of yen and thousands of U.S. dollars may not add up exactly. Japanese yen figures less than a million yen as of March 31, 2021 and 2020 and for the years then ended are also rounded down to the nearest million yen, which is different from the previous disclosure.

2. Summary of Significant Accounting Policies

● **a. Consolidation** —The consolidated financial statements as of March 31, 2021 include the accounts of the Company and its 113 (109 in 2020) significant subsidiaries (together, the “Group”). Changes include i) purchases of Fluid Imaging Technologies, Inc.; ii) establishment of Yokogawa Innovation Switzerland GmbH, Yokogawa Bio Frontier Inc, and Yokogawa Slovakia s.r.o.

Under the control and influence concepts, those companies in which the Company, directly or indirectly, is able to exercise control over operations are fully consolidated, and those companies over which the Group has the ability to exercise significant influence are accounted for by the equity method.

Investments in 1 (1 in 2020) unconsolidated subsidiary and 4 (4 in 2020) affiliated companies are accounted for by the equity method.

The excess of the cost of acquisition over the fair value of the net assets of the acquired subsidiary at the date of acquisition is being amortized on a straight-line basis over a period of up to 20 years. When the amount is not material, the excess of the cost of an acquisition over the fair value of the net assets of the acquired subsidiary is charged to income at the date of acquisition.

All significant intercompany balances and transactions have been eliminated in consolidation. All material unrealized profit included in assets resulting from transactions within the Group is also eliminated.

● **b. Unification of Accounting Policies Applied to Foreign Subsidiaries for the Consolidated Financial Statements—**

Under Accounting Standards Board of Japan (“ASBJ”) Practical Issues Task Force (“PITF”) No. 18, “Practical Solution on Unification of Accounting Policies Applied to Foreign Subsidiaries for the Consolidated Financial Statements,” the accounting policies and procedures applied to a parent company and its subsidiaries for similar transactions and events under similar circumstances should in principle be unified for the preparation of the consolidated financial statements. However, financial statements prepared by foreign subsidiaries in accordance with either International Financial Reporting Standards or generally accepted accounting principles in the United States of America (Financial Accounting Standards Board Accounting Standards Codification—“FASB ASC”) tentatively may be used for the consolidation process, except for the following items which should be adjusted in the consolidation process so that net income is accounted for in accordance with Japanese GAAP unless they are not material: (1) amortization of goodwill; (2) scheduled amortization of actuarial gain or loss of pensions that has been directly recorded in equity through other comprehensive income; (3) expensing capitalized development costs of R&D; (4) cancellation of the fair value model of accounting for property, plant, and equipment and investment properties and incorporation of the cost model of accounting; and (5) recording a gain or loss through profit or loss on the sale of an investment in an equity instrument for the difference between the acquisition cost and selling price, and

recording impairment loss through profit or loss for other-than-temporary declines in the fair value of an investment in an equity instrument, where a foreign subsidiary elects to present in other comprehensive income subsequent changes in the fair value of an investment in an equity instrument.

● **c. Business Combinations**—Business combinations are accounted for using the purchase method. Acquisition-related costs, such as advisory fees or professional fees are accounted for as expenses in the periods in which the costs are incurred. If the initial accounting for a business combination is incomplete by the end of the reporting period in which the business combination occurs, an acquirer shall report in its financial statements provisional amounts for the items for which the accounting is incomplete. During the measurement period, which shall not exceed one year from the acquisition, the acquirer shall retrospectively adjust the provisional amounts recognized at the acquisition date to reflect new information obtained about facts and circumstances that existed as of the acquisition date and that would have affected the measurement of the amounts recognized as of that date. Such adjustments shall be recognized as if the accounting for the business combination had been completed at the acquisition date. The acquirer recognizes any bargain purchase gain in profit or loss immediately on the acquisition date after reassessing and confirming that all of the assets acquired and all of the liabilities assumed have been identified after a review of the procedures used in the purchase price allocation. A parent's ownership interest in a subsidiary might change if the parent purchases or sells ownership interests in its subsidiary. The carrying amount of non-controlling interest is adjusted to reflect the change in the parent's ownership interest in its subsidiary while the parent retains its controlling interest in its subsidiary. Any difference between the fair value of the consideration received or paid and the amount by which the non-controlling interest is adjusted is accounted for as capital surplus as long as the parent retains control over its subsidiary.

● **d. Cash Equivalents**—Cash equivalents are short-term investments that are readily convertible into cash and exposed to insignificant risk of changes in value. Specifically, cash equivalents represent time deposits that mature within three months of the date of placement.

● **e. Inventories**—Inventories are stated at the lower of cost or the net selling value. Cost is mainly determined by the specific identification method for finished goods and work in process, and by the average method for merchandise, raw materials and supplies.

● **f. Investment Securities**—Investment securities comprised available-for-sale securities, which are reported at fair value, with unrealized gains and losses, net of applicable taxes, reported under accumulated other comprehensive income in a separate component of equity. Costs of securities sold are calculated primarily by the moving average method.

Non-marketable available-for-sale securities are stated at cost determined by the moving-average method. For other-than-temporary declines in fair value, investment securities are reduced to net realizable value by a charge to income.

● **g. Property, Plant and Equipment**—Property, plant and equipment are stated at cost less accumulated depreciation and any impairment loss. Depreciation of property, plant and equipment is mainly calculated by the straight-line method over their estimated useful lives.

The estimated useful lives range principally from 3 to 50 years for buildings, and from 4 to 10 years for machinery and equipment. The estimated useful lives for leased assets are the terms of the respective leases.

● **h. Intangible Assets**—Intangible assets consist mainly of software, technology assets, customer-related intangible assets and goodwill. Amortization of intangible assets is mainly calculated by the straight-line method over their estimated useful lives. The estimated useful lives range principally from 5 to 10 years for software for internal use and are mainly 10 years for customer-related intangible assets and technology assets.

● **i. Leases**—Finance lease transactions are capitalized by recognizing lease assets and lease obligations in the consolidated balance sheet.

Overseas consolidated subsidiaries of the Group have applied IFRS No. 16, "Leases," from the year ended March 31, 2020. IFRS No. 16 requires a lessee to recognize right-of-use assets and lease liabilities for substantially all leases on its balance sheet together with depreciation of right-of-use assets and interest expenses on lease liabilities on its statement of income.

Depreciation of right-of-use assets is calculated by the straight-line method over shorter of their lease periods or their estimated useful lives.

● **j. Long-lived Assets**—The Group reviews its long-lived assets for impairment whenever events or changes in circumstance indicate the carrying amount of an asset or asset group may not be recoverable. An impairment loss is recognized if the carrying amount of an asset or asset group exceeds the sum of the undiscounted future cash flows expected to result from the continued use and eventual disposition of the asset or asset group. The impairment loss is measured as the amount by

which the carrying amount of the asset exceeds its recoverable amount, which is the higher of the discounted cash flows from the continued use and eventual disposition of the asset or the net selling price at disposition.

● **k. Allowance for Doubtful Accounts**—The allowance for doubtful accounts is stated in amounts considered to be appropriate based on the Group's past credit loss experience and an evaluation of potential losses in the receivables outstanding.

● **l. Provision for Contract Loss**—When it is probable that the total construction costs will exceed total construction revenue, an estimated loss on the contract should be immediately recognized by providing for a loss on such construction contracts.

● **m. Retirement and Pension Plans**—The Company and most of its consolidated subsidiaries have defined contribution plans, and some other consolidated subsidiaries have defined benefit plans for employees.

The main method used to attribute expected benefits to each period is the benefit formula basis.

Actuarial gains or losses are amortized on a straight-line basis over a period within the average remaining years of service of the employees from the following year in which they arise.

Prior service cost is amortized on a straight-line basis over a period within the average remaining years of service.

● **n. Research and Development Costs**—Research and development costs are charged to income as incurred.

● **o. Bonuses to Directors**—Bonuses to directors are accrued at the end of the year to which such bonuses are attributable.

● **p. Revenue Recognition**—The Group applied ASBJ Statement No. 29, "Accounting Standard for Revenue Recognition" and ASBJ Guidance No. 30, "Implementation Guidance on Accounting Standard for Revenue Recognition" from the beginning of the year ended March 31, 2021 as they become effective for the annual periods beginning on or after April 1, 2018. As a result, the Group recognizes revenue at the time of the transfer of promised goods or services to customers in an amount that reflects the consideration to which the Group expects to be entitled in exchange for those goods or services based on the following five steps.

Step 1: Identify the contract(s) with a customer

Step 2: Identify the performance obligations in the contract

Step 3: Determine the transaction price

Step 4: Allocate the transaction price to the performance obligations in the contract

Step 5: Recognize revenue when (or as) the entity satisfies a performance obligation

Regarding Step 4, the Group utilizes cost plus a margin approach in determining stand-alone selling prices and allocate transaction prices to performance obligations.

(1) Sales of Products

With regard to sales of products such as field instruments and others which are placed at production sites, performance obligations are determined based on each products and contract prices are used as a basis for transaction prices if one contract contains multiple products. Revenues are recognized at the time of delivery as the customers obtain control of the assets at the time of delivery and performance obligations are deemed to be satisfied at the same time. Revenues are recognized at the time of shipment if contracts satisfy requirements of Paragraph 98 of the guidance.

(2) Construction Contracts

Transactions in the forms of construction contracts including engineering are creation of assets which cannot be directed to another customer or assets with no alternative use and accompany rights to payments for the completed work. Percentage of progress regarding satisfaction of performance obligations for construction contracts is estimated and revenues are recognized based on the estimated percentage over certain period of time. The percentage of progress is determined based on a ratio of actual costs incurred against the estimated total costs to satisfy the performance obligation. Net sales recorded using this method was ¥174,929 million (U.S.\$1,580,070 thousand) for the year ended March 31, 2021. If order amounts or total construction costs to satisfy the performance obligation cannot be reliably estimated, a portion of actual costs incurred of which collection is probable is recognized as revenue. Transactions arising from maintenance services are recognized over the contract periods.

(Accounting Change)

Previously, sales of field instruments which do not include engineering were grouped based on contracts and revenues are recognized at the time deliveries of all products included in one contract have been completed. As a result of the application of new standard and guidance, revenues are recognized at the time each performance obligation is satisfied if one contract contains multiple products. Further, payments to customers such as sales rebates and others which have been recorded as selling, general and administrative expenses are deducted from sales amounts.

The Group applied the standard and the guidance as of April 1, 2020 and the cumulative effect of applying the standard and the guidance before April 1, 2020 is added to the retained earnings as of April 1, 2020 in accordance with the conditional

clause of Paragraph 84 of the Statement No. 29. The effect of this change on the consolidated financial statements is not material.

● **q. Income Taxes**—The provision for income taxes is computed based on the pretax income included in the consolidated statements of income. The asset and liability approach is used to recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the carrying amounts and the tax bases of assets and liabilities. Deferred taxes are measured by applying currently enacted income tax rates to the temporary differences.

The Company and certain domestic subsidiaries file their tax returns under the consolidated corporate tax system, which allows these companies to base tax payments on the combined profits or losses of the parent company and its wholly owned subsidiaries in Japan.

With regard to differences under the group tax sharing system established by “Act on Partial Revision of the Income Tax Act (Act No. 8, 2020)” and differences under the single tax return filing system reexamined together with transition to the group tax sharing system, the Company and certain domestic subsidiaries calculate the amounts of deferred tax assets and deferred tax liabilities based on the Income Tax Act before the revision, not applying Paragraph 44 of ASBJ Guidance No. 28, “Implementation Guidance on Tax Effect Accounting,” issued on February 16, 2018, as permitted by Paragraph 3 of the PITF No. 39 “Practical Solution on the Treatment of Tax Effect Accounting for the Transition from the Consolidated Taxation System to the Group Tax Sharing System,” issued on March 31, 2020.

● **r. Foreign Currency Transactions**—Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are translated into Japanese yen at the exchange rate as of that date. The foreign exchange gains and losses from translation are recognized in the consolidated statement of income.

● **s. Foreign Currency Financial Statements**—The balance sheet accounts of the consolidated foreign subsidiaries are translated into Japanese yen at the prevailing exchange rate as of the balance sheet date except for equity, which is translated at the historical rate. Differences arising from such translation are shown as “Foreign currency translation adjustments” under accumulated other comprehensive income in a separate component of equity. Revenue and expense accounts of consolidated foreign subsidiaries are translated into yen at the average exchange rate.

● **t. Derivatives and Hedging Activities**—The Company and certain consolidated subsidiaries use a variety of derivative financial instruments, including foreign currency forward contracts, currency options, and interest rate swaps, as a means of hedging foreign currency and interest rate risks. The Group does not enter into derivatives for trading or speculative purposes.

Derivative financial instruments and foreign currency transactions are classified and accounted for as follows: a) all derivatives other than those which qualify for hedge accounting are measured at fair value, and gains or losses are recognized in the consolidated statement of income; and b) for derivatives used for hedging purposes, if the derivatives qualify for hedge accounting because of high correlation between the hedging instruments and the hedged items, gains or losses are deferred until maturity of the hedged transactions. These amounts are shown as “Deferred gain on derivative under hedge accounting” under accumulated other comprehensive income in a separate component of equity.

Foreign currency forward contracts are utilized to hedge the foreign currency risk of trade receivables denominated in foreign currencies. If the forward contracts qualify for hedge accounting, these trade receivables are translated at the contracted rates. Interest rate swaps are utilized to hedge the interest rate risk of long-term debt. Those interest rate swaps that qualify for hedge accounting and meet specific matching criteria are not re-measured at market value, but the differential paid or received under the swap agreements is recognized and included in interest expense or income.

If the hedging relationships qualify for the application of ASBJ PITF No. 40 “Practical Solution on the Treatment of Hedge Accounting for Financial Instruments that Reference LIBOR,” the special treatment as prescribed in the PITF No. 40 is applied to those hedging relationships. The hedging relationships to which the PITF No. 40 is applied are the interest rate swaps that meet specific matching criteria.

● **u. Per Share Information**—Basic net income per share is computed by dividing net income attributable to common shareholders by the weighted-average number of common shares outstanding for the period.

Cash dividends per share presented in the accompanying consolidated statement of income are dividends applicable to the respective years including dividends to be paid after the end of the year.

● **v. New Accounting Pronouncements**—The ASBJ revised ASBJ Statement No. 29, “Accounting Standard for Revenue Recognition” on March 31, 2020 and ASBJ Guidance No. 30, “Implementation Guidance on Accounting Standard for Revenue Recognition” on March 26, 2021, which prescribe

requirements for presentation in the financial statements and notes disclosures.

The Company expects to apply the revised accounting standard and guidance from the beginning of the annual period ending March 31, 2022.

On July 4, 2019, the ASBJ issued the following accounting standards and implementation guidance:

- ASBJ Statement No. 30 “Accounting Standard for Fair Value Measurement”
- ASBJ Statement No. 9 (revised 2019) “Accounting Standard for Measurement of Inventories”
- ASBJ Statement No. 10 (revised 2019) “Accounting Standard for Financial Instruments”
- ASBJ Guidance No. 31 “Implementation Guidance on Accounting Standard for Fair Value Measurement”

On March 31, 2020, the ASBJ issued the following implementation guidance:

- ASBJ Guidance No. 19 (revised 2020) “Implementation Guidance on Disclosures about Fair Value of Financial Instruments”

The ASBJ promoted an initiative to enhance comparability of the requirements between the Japanese accounting standards and international accounting standards, primarily in

the areas of guidance on the fair values of financial instruments and their disclosures, and issued “Accounting Standard for Fair Value Measurement,” etc., considering the circumstance where the IASB and the FASB have prescribed almost the similar detailed guidance (IFRS No. 13 “Fair Value Measurement” issued by IASB and Accounting Standard Codification Topic 820 “Fair Value Measurement” issued by FASB).

The ASBJ’s fundamental policies adopted for developing the “Accounting Standard for Fair Value Measurement,” etc. are, in principle, to implement all the requirements of IFRS No. 13 from the viewpoint of enhancing the comparability of the financial statements of domestic and overseas companies by prescribing unified measurement methods, and also to prescribe exceptional treatments for individual matters so that comparability would not be impaired while the accounting practices that have conventionally been adopted in Japan are taken into account.

The Company expects to apply the accounting standards and guidances for annual periods beginning on or after April 1, 2021, and is in the process of measuring the effects of applying the accounting standard and guidance in future applicable periods.

3. Significant accounting estimates

Provision for contract loss

(1) Carrying amounts

	Millions of Yen	Thousands of US dollars
	2021	2021
Provision for contract loss	¥7,419	\$67,018

(2) Information on the significant accounting estimate

Provision for contract loss is provided when it is probable that the total construction costs will exceed total construction revenue and if the outcome of a construction contract can be estimated reliably. The amount of provision for contract loss is calculated as the excess amount (contract loss) deducted by profit or loss already recognized for the construction contract. Variation in the estimated amount of contract loss due to profitability, production and quality issues which may arise in future may have a material impact on the future consolidated financial statements.

Goodwill

(1) Carrying amounts

	Millions of Yen	Thousands of US dollars
	2021	2021
Goodwill	¥4,247	\$38,364

(2) Information on the significant accounting estimate

Goodwill is recognized if acquisition costs exceeded the amount allocated for all of the assets acquired and all of the liabilities assumed. The Group annually determines whether impairment indicators exist for its goodwill based on changes in business environment and deteriorated business results. Whenever the circumstance indicates the carrying amount of goodwill may not be recoverable, undiscounted future cash flows are estimated based on business plans. An impairment loss is recognized if the carrying amount of goodwill exceeds the sum of the undiscounted future cash flows and the book value of the goodwill is reduced to its recoverable amount. Any changes in assumptions including growth rates and discount rates used in estimation of future cash flows may have a material impact on the future consolidated financial statements.

Impairment losses of ¥163 million (\$1,477 thousand) related to Yokogawa TechInvent AS have been recognized for the year ended March 31, 2021

4. Change in Presentation

The Group applied ASBJ Statement No. 31, “Accounting Standard for Disclosure of Accounting Estimates” issued on March 31, 2020 to the annual consolidated financial statements for the

year ended March 31, 2021 and disclosed notes regarding significant accounting estimates used in preparation of the consolidated financial statements.

5. Additional Information

Accounting estimates used in the preparation of the Company’s financial statements are based on the assumption that it will take some time for recovery of sales despite the decline in orders affected by inactive economic activities caused by the

spread of COVID-19 is expected to subside and gradually recover in the year ending March 31, 2022 and thereafter due to the expected containment of COVID-19 through vaccinations.

6. Investment Securities

Investment securities as of March 31, 2021 and 2020 consisted of the following:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Non-current:			
Equity securities	¥39,187	¥31,958	\$353,962

The cost and aggregate fair values of investment securities at March 31, 2021 and 2020 were as follows:

March 31, 2021	Millions of yen			Fair value
	Cost	Unrealized gain	Unrealized loss	
Securities classified as:				
Available-for-sale:				
Equity securities	¥6,444	¥15,707	¥7	¥22,144

March 31, 2020

Securities classified as:				
Available-for-sale:				
Equity securities	¥7,750	¥10,428	¥394	¥17,784

March 31, 2021	Thousands of US dollars			Fair value
	Cost	Unrealized gain	Unrealized loss	
Securities classified as:				
Available-for-sale:				
Equity securities	\$58,214	\$141,884	\$72	\$200,026

The information for available-for-sale securities sold during the years ended March 31, 2021 and 2020 was as follows:

2021	Millions of yen		
	Proceeds	Realized gain	Realized loss
Available-for-sale:			
Equity securities	¥1,563	¥155	¥0

2020	Millions of yen		
	Proceeds	Realized gain	Realized loss
Available-for-sale:			
Equity securities	¥45	¥26	

2021	Thousands of US dollars		
	Proceeds	Realized gain	Realized loss
Available-for-sale:			
Equity securities	\$14,123	\$1,406	\$0

Impairment losses are recognized for marketable available-for-sale securities if declines in fair value are 50% or more. If declines in fair value are 30% to 50%, impairment losses may be recognized for amount deemed to be irrecoverable considering the declines are other-than-temporary. Impairment losses for non-marketable available-for-sale securities may be recognized for amount deemed to be irrecoverable if declines in fair value are 30% to 50% considering the declines are other-than-temporary.

The impairment losses on available-for-sale equity securities for the years ended March 31, 2021 and 2020, were ¥0 million (U.S.\$0 thousand) and ¥92 million, respectively.

7. Inventories

Inventories at March 31, 2021 and 2020 consisted of the following:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Merchandise and finished goods	¥14,599	¥14,297	\$131,867
Work in process	5,335	7,516	48,190
Raw materials and supplies	15,796	15,527	142,684
Total	¥35,730	¥37,342	\$322,742

8. Expected Loss on Construction Contracts

The Group recognizes an expected loss on construction contracts when it is probable that total contract costs will exceed total contract revenue. The inventory and the expected loss on construction contracts are not offset but are separately presented in the consolidated balance sheet.

The balance of inventories relating to the expected loss on construction contracts for the years ended March 31, 2021 and 2020 was as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Merchandise and finished goods	¥206	¥116	\$1,862
Work in process	90	860	818
Total	¥296	¥977	\$2,681

9. Property, Plant and Equipment

Accumulated depreciation on property, plant and equipment as of March 31, 2021 and 2020 was ¥140,419 million (U.S.\$1,268,358 thousand) and ¥133,443 million, respectively.

10. Long-lived Assets

The Group reviewed its long-lived assets for impairment as of the years ended March 31, 2021 and 2020. As a result, impairment losses of ¥486 million (U.S.\$4,397 thousand) and ¥9,507 million were recognized for the years ended March 31, 2021 and 2020, respectively.

The main components of loss on impairment of long-lived assets for the year ended March 31, 2021 were as follows:

			Millions of yen	Thousands of US dollars
Location	Use	Category	Impairment loss	
Norway	Business assets	Goodwill	¥163	\$1,477
		Other intangible assets	323	2,920
		Total	¥486	\$4,397

The Group's business assets are grouped according to management accounting classification.

The book value of business assets (goodwill, etc.) arising at the time of acquisition of shares of the Norway- based subsidiary, Yokogawa TechInvent AS, have been reduced to their respective recoverable amounts as the business results of Yokogawa TechInvent AS fell below initially forecasted business plans due to changes in their business environments. The differences between the book values and recoverable amounts have been recorded as impairment losses.

The main components of loss on impairment of long-lived assets for the year ended March 31, 2020 were as follows:

			Millions of yen
Location	Use	Category	Impairment loss
United Kingdom	Business assets	Goodwill	¥2,936
		Other intangible assets	3,674
		Software	968
		Right-of-use assets	580
		Tools, furniture and fixtures	61
United States	Business assets	Goodwill	1,016
		Other intangible assets	269
		Total	¥9,507

The Group's business assets are grouped according to management accounting classification.

The book value of business assets (goodwill, etc.) arising at the time of acquisition of shares of the UK- based subsidiary, KBC Advanced Technologies Limited and the U.S.- based subsidiary, Soteica Visual Mesa, Limited Liability Company, have been reduced to their respective recoverable amounts as the business results of these companies fell below initially forecasted business plans due to changes in their business environments. The differences between the book values and recoverable amounts have been recorded as impairment losses.

Business assets are measured at their recoverable amounts, which are value in use which is calculated by discounting future cash flows at 10%.

11. Short-term Loans, Commercial Papers, Lease Obligations and Long-term Debt

Short-term bank loans at March 31, 2021 and 2020 included bank overdrafts. The annual average interest rates on the short-term bank loans were 3.057% and 4.554% for the years ended March 31, 2021 and 2020, respectively.

The annual average interest rates on commercial papers were (0.002)% and 0.024% for the years ended March 31, 2021 and 2020, respectively.

Long-term debt as of March 31, 2021 and 2020 consisted of the following:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Loans from banks and other financial institutions	¥24,080	¥18,672	\$217,505
Lease obligations	7,727	8,960	69,800
Total	31,807	27,633	287,305
Less: Current portion	6,263	16,795	56,573
Long-term debt, less current portion	¥25,544	¥10,837	\$230,731

Annual maturities of long-term loans from banks and other financial institutions, at March 31, 2021 were as follows:

Year ending March 31	Millions of yen	Thousands of US dollars
2022	¥4,080	\$36,853
2023	Nil	Nil
2024	20,000	180,652
2025	Nil	Nil
2026 and thereafter	Nil	Nil
Total	¥24,080	\$217,505

The annual average interest rates on long-term loans (excluding current portion) from banks were 0.330% and 0.002% for the years ended March 31, 2021 and 2020.

Annual maturities of leases obligations at March 31, 2021 were as follows:

Year ending March 31	Millions of yen	Thousands of US dollars
2022	¥2,183	\$19,720
2023	2,580	23,308
2024	855	7,729
2025	678	6,129
2026 and thereafter	1,429	12,911
Total	¥7,727	\$69,800

The annual average interest rates on leases obligations (excluding current portion) were 3.214% and 3.022% for the years ended March 31, 2021 and 2020.

Collateral and secured debt at March 31, 2021 and 2020 were as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Collateral:			
Deposits	¥12	¥12	\$113
Investment securities	4	3	38
Assets in consolidated subsidiaries outside Japan*	8,548	7,038	77,219
Total	¥8,565	¥7,054	\$77,371

*“Assets in consolidated subsidiaries outside Japan” represents the aggregate amount of accounts receivable and other assets of such subsidiaries.

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Secured debt:			
Trade notes and accounts payable	¥7	¥14	\$67

The Group's interest-bearing debt includes financial covenants which require the Company to maintain certain levels of equity and income on a consolidated basis. The balance of such debt as of March 31, 2021 and 2020 was ¥20,000 million (U.S.\$180,652 thousand) and ¥14,416 million, respectively.

12. Retirement and Pension Plans

The Company and most of its consolidated subsidiaries have defined contribution plans, while some other subsidiaries have defined benefit plans. In certain circumstances, additional payments are made upon the retirement of employees.

A consolidated subsidiary participated in a multi-employer pension fund as a pension plan for its employees.

The simplified method is used to calculate defined benefit obligation for certain consolidated subsidiaries.

(a) The changes in defined benefit obligation for the years ended March 31, 2021 and 2020, were as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Balance at beginning of year	¥11,981	¥11,836	\$108,224
Current service cost	650	611	5,878
Interest cost	233	275	2,105
Actuarial (gain) loss	(82)	528	(745)
Benefits paid	(702)	(875)	(6,345)
Others	704	(394)	6,361
Balance at end of year	¥12,784	¥11,981	\$115,478

(b) The changes in plan assets for the years ended March 31, 2021 and 2020, were as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Balance at beginning of year	¥7,506	¥7,905	\$67,800
Expected return on plan assets	350	355	3,168
Actuarial gain (loss)	739	(243)	6,683
Contributions from the employer	285	610	2,579
Benefits paid	(666)	(768)	(6,024)
Others	449	(355)	4,059
Balance at end of year	¥8,664	¥7,506	\$78,265

(c) Reconciliation between the liability recorded in the consolidated balance sheet and the balances of defined benefit obligation and plan assets as of March 31, 2021 and 2020, was as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Funded defined benefit obligation	¥12,784	¥11,981	\$115,478
Plan assets	(8,664)	(7,506)	(78,265)
Total	4,119	4,475	37,212
Net liability for defined benefit obligation	¥4,119	¥4,475	\$37,212

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Liability for retirement benefits	¥4,373	¥4,590	\$39,504
Asset for retirement benefits	(253)	(115)	(2,291)
Net liability for defined benefit obligation	¥4,119	¥4,475	\$37,212

(d) The components of net periodic benefit costs for the years ended March 31, 2021 and 2020, were as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Service cost	¥650	¥611	\$5,878
Interest cost	233	275	2,105
Expected return on plan assets	(350)	(355)	(3,168)
Amortization of actuarial loss	200	78	1,813
Others	129	58	1,171
Net periodic benefit costs	¥863	¥668	\$7,799

(e) Amounts recognized in other comprehensive income (before income tax effect) in respect of defined retirement benefit plans for the years ended March 31, 2021 and 2020 were as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Actuarial gain (loss)	¥1,023	¥(693)	\$9,241

(f) Amounts recognized in accumulated other comprehensive income (before income tax effect) in respect of defined retirement benefit plans as of March 31, 2021 and 2020 were as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Unrecognized actuarial loss	¥(1,378)	¥(2,401)	\$(12,449)

(g) Plan assets as of March 31, 2021 and 2020 were as follows:

(1) Components of plan assets

Plan assets:

	2021	2020
Equity investments	23%	21%
Debt investments	49	50
Cash and cash equivalents	22	23
Others	6	6
Total	100%	100%

(2) Method of determining the expected rate of return on plan assets

The expected rate of return on plan assets is determined based on the expected long-term rates of return for the various plan asset components.

(h) Assumptions used for the years ended March 31, 2021 and 2020 were as follows:

	2021	2020
Discount rate	2.40%	2.53%
Expected rate of return on plan assets	5.02%	4.82%

(i) Payments to defined contribution plans amounted to ¥4,872 million (U.S.\$44,008 thousand) and ¥4,520 million for the years ended March 31, 2021 and 2020, respectively.

13. Equity

Japanese companies are subject to the Companies Act of Japan (the “Companies Act”). The significant provisions in the Companies Act that affect financial and accounting matters are summarized below:

- (a) Dividends
- Under the Companies Act, companies can pay dividends at any time during the fiscal year in addition to the year-end dividend upon the passing of a resolution at the shareholders’ meeting. For companies that meet certain criteria such as; (1) having a board of directors, (2) having independent auditors, (3) having an audit & supervisory board, and (4) prescribing a one-year term of service for directors (rather than the conventional two-year term) in its articles of incorporation, the board of directors may declare dividends (except for dividends in kind) at any time during the fiscal year if the company has prescribed so in its articles of incorporation.
- Semiannual interim dividends may also be paid once a year upon resolution by the board of directors if the articles of incorporation of the company so stipulates. The Companies Act provides certain limitations on the amounts available for dividends or the purchase of treasury stock. The limitation is defined as the amount available for distribution to the shareholders, but the amount of net assets after dividends must be maintained at no less than ¥3 million.
- (b) Increases / decreases and transfer of common stock, reserve and surplus
- The Companies Act requires that an amount equal to 10% of dividends must be appropriated as a legal reserve (a component of retained earnings) or as additional paid-in capital (a component of capital surplus) depending on the equity account charged upon the payment of such dividends until the aggregate amount of legal reserve and additional paid-in capital equals 25% of the common stock. Under the Companies Act, the total amount of additional paid-in capital and legal reserve may be reversed without limitation. The Companies Act also provides that common stock, legal reserve, additional paid-in capital, other capital surplus and retained earnings can be transferred among the accounts under certain conditions upon resolution of the shareholders.
- (c) Treasury stock and treasury stock acquisition rights
- The Companies Act also provides for companies to purchase treasury stock and dispose of such treasury stock by resolution of the board of directors. The amount of treasury stock purchased cannot exceed the amount available for distribution to the shareholders which is determined by a specific formula. Under the Companies Act, stock acquisition rights are presented as a separate component of equity. The Companies Act also provides that companies can purchase both treasury stock acquisition rights and treasury stock. Such treasury stock acquisition rights are presented as a separate component of equity or deducted directly from stock acquisition rights.

14. Income Taxes

The tax effects of significant temporary differences and tax loss carry-forwards that resulted in deferred tax assets and liabilities at March 31, 2021 and 2020 were as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Deferred tax assets:			
Provision for bonuses	¥3,010	¥2,949	\$27,195
Write-down of inventories	1,685	1,706	15,223
Unrealized profit of inventories	1,655	1,886	14,953
Impairment loss on investment securities	1,036	1,284	9,360
Tax loss carry-forwards (Note b)	8,879	14,881	80,207
Other	10,443	9,555	94,328
Subtotal	26,710	32,263	241,268
Less: Valuation allowance for tax loss carry-forwards (Note b)	(8,314)	(13,520)	(75,097)
Less: Valuation allowance for temporary differences	(8,515)	(7,350)	(76,921)
Total valuation allowance (Note a)	(16,830)	(20,871)	(152,019)
Total	¥9,880	¥11,392	\$89,248
Deferred tax liabilities:			
Net realized gain on available-for-sale securities	¥(4,323)	¥(2,803)	\$(39,055)
Undistributed earnings of consolidated subsidiaries outside Japan	(787)	(667)	(7,116)
Property, plant and equipment	(476)	(489)	(4,302)
Intangible assets recognized on business combination	(146)	(248)	(1,324)
Other	(1,187)	(1,491)	(10,726)
Total	¥(6,922)	¥(5,700)	\$(62,526)
Net deferred tax assets	¥2,958	¥5,691	\$26,722

- Notes:
- (a) Valuation allowance decreased by ¥4,041 million (U.S.\$36,504 thousand). Major reason is a decrease in valuation allowance for tax loss carry-forwards in relation to expiration of tax loss carry-forwards due to maturity.
- (b) The expiration of tax loss carryforwards, the related valuation allowances and the resulting net deferred tax assets as of March 31, 2021 and 2020 were as follows:

	Millions of yen						
	2021						
	One year or less	After one year through two years	After two years through three years	After three years through four years	After four years through five years	After five years	Total
Deferred tax assets relating to tax loss carry-forwards*	¥2,662	¥1,604	¥484	¥1,662	¥568	¥1,896	¥8,879
Less valuation allowance for tax loss carry-forwards	(2,491)	(1,604)	(484)	(1,570)	(558)	(1,605)	(8,314)
Net deferred tax assets relating to tax loss carry-forwards	171			92	10	290	565

Millions of yen							
2020							
	One year or less	After one year through two years	After two years through three years	After three years through four years	After four years through five years	After five years	Total
Deferred tax assets relating to tax loss carry-forwards*	¥5,529	¥3,230	¥1,850	¥491	¥1,586	¥2,192	¥14,881
Less valuation allowance for tax loss carry-forwards	(4,559)	(3,228)	(1,847)	(479)	(1,574)	(1,831)	(13,520)
Net deferred tax assets relating to tax loss carry-forwards	970	2	3	12	11	360	1,360

Thousands of US dollars							
2021							
	One year or less	After one year through two years	After two years through three years	After three years through four years	After four years through five years	After five years	Total
Deferred tax assets relating to tax loss carry-forwards*	\$24,050	\$14,495	\$4,379	\$15,018	\$5,135	\$17,129	\$80,207
Less valuation allowance for tax loss carry-forwards	(22,500)	(14,495)	(4,379)	(14,181)	(5,040)	(14,501)	(75,097)
Net deferred tax assets relating to tax loss carry-forwards	1,550			836	94	2,628	5,110

*Deferred tax assets relating to tax loss carry-forwards were calculated by applying the normal effective statutory tax rate.

A reconciliation between the normal effective statutory tax rate and the actual effective tax rate reflected in the accompanying consolidated statement of income for the years ended March 31, 2021 and 2020 was as follows:

	2021	2020
Normal effective statutory tax rate	30.6%	30.6%
Inhabitant taxes per capita	0.4	0.4
Permanent difference		
Expenses not deductible for income tax purposes	1.9	2.3
Foreign withholding taxes	1.7	1.8
Loss on impairment of long-lived assets	0.2	8.4
Changes in valuation allowance	4.9	3.1
Lower income tax rates applicable to certain consolidated subsidiaries outside Japan	(11.8)	(14.0)
Consolidation adjustments to gain on sale of investment in a subsidiary		1.3
Other-net	4.5	2.4
Actual effective tax rate	32.4%	36.3%

15. Research and Development Costs

Research and development costs were ¥27,477 million (U.S.\$248,193 thousand) and ¥27,604 million for the years ended March 31, 2021 and 2020, respectively and were included in the cost of sales and selling, general and administrative expenses in the consolidated statement of income.

16. Leases

The Group leases certain machinery, equipment and vehicles, tools, furniture and fixtures, and other assets. Right-of-use assets comprised primarily of building and structures.

17. Financial Instruments and Related Disclosures

(1) Information regarding financial instruments

(a) Group policy on financial instruments

In accordance with the Group's capital expenditure program for the industrial automation and control business and the test and measurement business, the Group uses financial instruments such as bank loans to obtain necessary funding. Cash surpluses are invested in low risk financial assets. Short-term bank loans are used to fund ongoing operations. Derivatives are used to manage exposure to financial risks as described in Note 18 and are not used for speculative purposes.

(b) Nature of the financial instruments and risk management

Receivables such as trade notes and trade accounts are exposed to customer credit risk. Those securities are mainly issued by the Group's customers and suppliers, and are managed by regularly monitoring market value and the financial position of the issuers.

Investment securities are exposed to the risk of market price fluctuations. The Group reviews its holdings of these securities, whose issuers are mainly its customers and suppliers, by regularly checking their market value and the financial position of the issuers.

Payment terms of payables such as trade notes and trade accounts are less than one year.

Long-term debt is used for capital expenditures and investments. In order to manage exposure to market risks from fluctuations in interest rates, the Group principally uses fixed-rate contracts; otherwise, interest rate swap contracts are used for variable rate loans.

Lease obligations are used for primarily capital expenditures and are exposed to liquidity risk at the time of settlement. The Group manages the risk by reviewing funding plan monthly by the group companies.

Foreign currency trade receivables and payables are exposed to market risk resulting from fluctuations in foreign currency exchange rates. Such foreign exchange risk is hedged principally by foreign currency forward contracts and range forward options.

Basic policies on derivative transactions are set out in the Group's internal guidelines. The guidelines prescribe a control policy, designate authorized departments, specify the purpose of the transactions, define the basis for selecting financial institutions, and specify the reporting route.

The fair value of financial instruments is based on the quoted price in an active market. If a quoted price is not available, other valid valuation techniques are used instead.

(2) Fair value of financial instruments

The carrying amounts in the consolidated balance sheet, fair value, and unrealized gain (loss) as of March 31, 2021 and 2020 were as detailed below. Financial instruments, whose fair value is extremely difficult to measure, are not included. Please refer to note (b) (below the following tables) on financial instruments whose fair value cannot be reliably determined.

Millions of yen			
	2021		
	Carrying amount	Fair value	Unrealized gain (loss)
Cash and cash equivalents	¥101,204	¥101,204	
Receivables-trade notes and accounts	187,266		
Less: Allowance for doubtful accounts	(3,555)		
	183,710	183,710	
Investment securities	22,275	22,275	
Total	¥307,190	¥307,190	
Short-term loans payable	¥2,841	¥2,841	
Commercial papers	20,000	20,000	
Payables-trade notes and accounts	25,147	25,147	
Electronically recorded obligations-operating	9,573	9,573	
Payables-other	16,806	16,806	
Income taxes payable	5,646	5,646	
Long-term debt	24,080	24,072	¥(7)
Lease obligations	7,727	7,808	80
Total	¥111,822	¥111,895	¥72
Derivatives	¥(501)	¥(501)	

Millions of yen			
	2020		
	Carrying amount	Fair value	Unrealized gain (loss)
Cash and cash equivalents	¥99,658	¥99,658	
Receivables-trade notes and accounts	175,687		
Less: Allowance for doubtful accounts	(3,673)		
	172,014	172,014	
Investment securities	17,791	17,791	
Total	¥289,464	¥289,464	
Short-term loans payable	¥1,807	¥1,807	
Commercial papers	30,000	30,000	
Payables-trade notes and accounts	24,358	24,358	
Electronically recorded obligations-operating	9,723	9,723	
Payables-other	13,367	13,367	
Income taxes payable	4,769	4,769	
Long-term debt	18,672	18,653	¥(19)
Lease obligations	8,960	9,414	454
Total	¥111,659	¥112,094	¥434
Derivatives	¥511	¥511	

Thousands of US dollars			
	2021		
	Carrying amount	Fair value	Unrealized gain (loss)
Cash and cash equivalents	\$914,138	\$914,138	
Receivables-trade notes and accounts	1,691,508		
Less: Allowance for doubtful accounts	(32,119)		
	1,659,388	1,659,388	
Investment securities	201,204	201,204	
Total	\$2,774,731	\$2,774,731	
Short-term loans payable	\$25,669	\$25,669	
Commercial papers	180,652	180,652	
Payables-trade notes and accounts	227,145	227,145	
Electronically recorded obligations-operating	86,469	86,469	
Payables-other	151,804	151,804	
Income taxes payable	51,000	51,000	
Long-term debt	217,505	217,433	\$(72)
Lease obligations	69,800	70,528	728
Total	\$1,010,048	\$1,010,704	\$656
Derivatives	\$(4,528)	\$(4,528)	

Notes:

(a) Fair value measurement of financial instruments

Cash and cash equivalents, trade notes and accounts receivable:

The carrying values of cash and cash equivalents, trade notes and accounts receivable less an allowance for doubtful accounts, approximate fair value because of their short maturities. Investment securities:

The fair value of equity instruments is measured at the quoted equity market price, and the fair value of debt instruments is measured at the quoted price obtained from the respective financial institution. Information on the fair value of each class of investment securities is included in Note 6.

Short-term loans payable, commercial papers, trade notes and accounts payable, electronically recorded obligations-operating, other payables and income taxes payable:

The carrying values of short-term loans payable, commercial papers, trade notes and accounts payable, electronically recorded obligations-operating, other payables, and income taxes payable approximate fair value because of their short maturities.

Long-term debt and lease obligations:

The fair values of long-term debt and lease obligations are determined by discounting cash flows related to the debt at the Group's assumed corporate borrowing rate. Long-term debt is included in the following accounts in the accompanying consolidated balance sheet: current portion of long-term debt and long-term debt. Lease obligations are included in the following accounts in the accompanying consolidated balance sheet: current portion of lease obligations and lease obligations.

Derivatives:

Information on the fair value of derivatives is included in Note 18.

(b) Financial instruments whose fair value cannot be reliably determined

Thousands of US dollars			
	Carrying amount		
	Millions of yen		
	March 31, 2021	March 31, 2020	March 31, 2021
Unlisted equity securities	¥28,611	¥25,141	\$258,439

Unlisted equity securities whose fair value cannot be reliably determined include investments in and advances to unconsolidated subsidiaries and affiliated companies.

Maturity analysis for financial assets and securities with contractual maturities

	Millions of yen		Thousands of US dollars	
	March 31, 2021		March 31, 2021	
	Due in one year or less	Due after one to five years	Due in one year or less	Due after one to five years
Cash and cash equivalents	¥101,204		\$914,138	
Receivables-trade notes and accounts	186,738	¥528	1,686,733	\$4,774
Total	¥287,942	¥528	\$2,600,872	\$4,774

18. Derivatives

Derivative transactions are used to manage foreign exchange risk and the risk of market rate fluctuations that occur in the normal course of business. The Group does not use derivatives for speculative purposes or for highly leveraged transactions.

(1) Derivative transactions to which hedge accounting was not applied at March 31, 2021 and 2020

	Millions of yen			
	2021			
	Contract amount		Fair value	Unrealized gain (loss)
	Total	Due after one year		
Forward exchange contracts				
Selling contracts				
US dollar	¥7,457		¥(378)	¥(378)
Others	1,515		(96)	(96)
Currency swaps	2,550		(26)	(26)
Total	¥11,523		¥(501)	¥(501)

	Millions of yen			
	2020			
	Contract amount		Fair value	Unrealized gain (loss)
	Total	Due after one year		
Forward exchange contracts				
Selling contracts				
US dollar	¥3,897		¥(6)	¥(6)
Others	1,573		(9)	(9)
Currency swaps	24,889		527	527
Total	¥30,361		¥511	¥511

	Thousands of US dollars			
	2021			
	Contract amount		Fair value	Unrealized gain (loss)
	Total	Due after one year		
Forward exchange contracts				
Selling contracts				
US dollar	\$67,364		\$(3,417)	\$(3,417)
Others	13,686		(872)	(872)
Currency swaps	23,040		(237)	(237)
Total	\$104,091		\$(4,528)	\$(4,528)

(2) Derivative transactions to which hedge accounting was applied at March 31, 2021 and 2020

	Hedged item	Millions of yen		
		2021		
		Contract amount		Fair value
		Total	Due after one year	
Interest rate swaps				
Pay fixed/Receive floating	Long-term debt	¥20,000	¥20,000	Note (b)

	Hedged item	Millions of yen		
		2020		
		Contract amount		Fair value
		Total	Due after one year	
Interest rate swaps				
Pay fixed/Receive floating	Long-term debt	¥8,396		Note (b)

	Hedged item	Thousands of US dollars		
		2021		
		Contract amount		Fair value
		Total	Due after one year	
Interest rate swaps				
Pay fixed/Receive floating	Long-term debt	\$180,652	\$180,652	Note (b)

- Notes:
- (a) The above interest rate swaps which qualify for hedge accounting and meet specific matching criteria are not re-measured at market value, but the differential paid or received under the swap agreements is recognized and included in interest expense or income.
- (b) The fair value of such interest rate swaps is included in that of hedged items disclosed in Note 17.

The fair value of derivative transactions is measured at the quoted price obtained from the respective financial institution. The contract or notional amounts of the derivatives shown in the above table do not represent the amounts exchanged by the parties and are not a measure of the Group's exposure to credit or market risk.

19. Commitment Line Agreements

The Company has commitment line agreements with financial institutions in order to obtain funds for stable and efficient operation.

The commitment line of credit as of March 31, 2021 and 2020 was as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Total commitment line of credit	¥45,000	¥45,000	\$406,467
Outstanding borrowings	Nil	Nil	Nil
Unused credit line	¥45,000	¥45,000	\$406,467

20. Other Notes to Consolidated Statement of Income

(1) Provision for contract loss

The following provision for contract loss was included in the cost of sales in the consolidated statement of income:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Provision for contract loss	¥(392)	¥288	\$(3,546)

(2) Selling, general and administrative expenses

The major components of selling, general and administrative expenses were as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Salaries	¥40,972	¥42,608	\$370,085
Net periodic retirement benefit costs	4,264	3,571	38,519
Provision for bonuses	5,854	5,562	52,882
Allowance for doubtful accounts	272	544	2,460
Research and development costs	27,062	26,141	244,441

(3) Net (loss) gain on disposal of property, plant and equipment

The net (loss) gain on disposal of property, plant and equipment was as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Buildings and structures	¥(455)	¥86	\$(4,111)
Machinery, equipment and vehicles	(0)	(12)	(3)
Tools, furniture and fixtures	(14)	(17)	(132)
Land	2	103	22
Other intangible assets	(45)	57	(406)
Total	¥(512)	¥217	\$(4,632)

(4) Gain on sale of businesses

Gain on sale of businesses was recognized for a transfer of resin model vortex flowmeters business.

(5) Business structure improvement expense

Business structure improvement expense was recorded for special initiatives taken by some of the consolidated subsidiaries for optimization of the Group.

(6) Provision for loss from program errors

Provision for loss from program errors was recognized to take measures and strengthen support for program errors in software provided to the customers.

21. Other Comprehensive Income (Loss)

The components of other comprehensive income (loss) for the years ended March 31, 2021 and 2020 were as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Net unrealized gain (loss) on available-for-sale securities:			
Gains (losses) arising during the year	¥6,028	¥(3,008)	\$54,456
Reclassification adjustments to profit or loss	(155)	66	(1,406)
Amount before income tax effect	5,873	(2,941)	53,049
Income tax effect	(1,520)	508	(13,736)
Total	¥4,352	¥(2,433)	\$39,313
Deferred loss on derivatives under hedge accounting:			
Gains arising during the year		¥113	
Reclassification adjustments to profit or loss		(140)	
Amount before income tax effect		(27)	
Income tax effect		6	
Total		¥(20)	
Foreign currency translation adjustments:			
Adjustments arising during the year	¥7,388	¥(6,411)	\$66,739
Reclassification adjustments to profit or loss			
Amount before income tax effect	7,388	(6,411)	66,739
Income tax effect			
Total	¥7,388	¥(6,411)	\$66,739
Defined retirement benefit plans:			
Adjustments arising during the year	¥822	¥(771)	\$7,428
Reclassification adjustments to profit or loss	200	78	1,813
Amount before income tax effect	1,023	(693)	9,241
Income tax effect	(237)	173	(2,149)
Total	¥785	¥(519)	\$7,092
Share of other comprehensive income (loss) in affiliates:			
Gains (losses) arising during the year	¥185	¥(200)	\$1,672
Reclassification adjustments to profit or loss	(7)	(3)	(68)
Total	¥177	¥(204)	\$1,604
Total other comprehensive income (loss)	¥12,704	¥(9,589)	\$114,750

22. Per Share Information

Basic net income per share (EPS) for the years ended March 31, 2021 and 2020 was as follows:

	Millions of yen Net income attributable to owners of the parent	Thousands of shares Weighted average shares	Yen	US dollars
	EPS			
2021				
Basic EPS				
Net income attributable to common shareholders	¥19,219	266,933	¥72.00	\$0.65
2020				
Basic EPS				
Net income attributable to common shareholders	¥14,686	266,934	¥55.02	\$0.50

Diluted net income per share was not disclosed because there were no dilutive securities in the years ended March 31, 2021 and 2020.

23. Supplemental Cash Flow Information

Significant non-cash transactions for the years ended March 31, 2021 and 2020 were as follows:

	Millions of yen		Thousands of US dollars
	2021	2020	2021
Lease assets	¥124	¥259	\$1,125
Right-of-use assets	7,405	7,929	66,894
Lease obligations	7,727	8,960	69,800

24. Subsequent Events

Appropriation of retained earnings

The Board of Directors proposed the following appropriation of retained earnings, at March 31, 2021, which was approved at the general meeting of the shareholders of the Company held on June 23, 2021:

	Millions of yen	Thousands of US dollars
Year-end cash dividends, ¥17.0 (US\$0.15) per share	¥4,537	\$40,988

25. Segment Information

Under ASBJ Statement No. 17, “Accounting Standard for Segment Information Disclosures,” and ASBJ Guidance No. 20, “Guidance on Accounting Standard for Segment Information Disclosures,” an entity is required to report financial and descriptive information about its reportable segments. Reportable segments are operating segments or aggregations of operating segments that meet specified criteria. Operating segments are components of an entity about which separate financial information is available and such information is evaluated regularly by the chief operating decision maker in deciding how to allocate resources and in assessing performance. Generally, segment information is required to be reported on the same basis as is used internally for evaluating operating segment performance and deciding how to allocate resources to operating segments.

(1) Description of reportable segments

The Group’s reportable segments are those for which separate financial information is available and regular evaluation by the Company’s management is being performed in order to decide how resources are allocated among the Group. The Group operates in three business segments: industrial automation and control, test and measurement, and aviation and other businesses.

The industrial automation and control business offers comprehensive solutions including field instruments such as flow meters, differential pressure/pressure transmitters, and process analyzers; control systems and programmable controllers; various types of software to enhance productivity; and services that minimize plant lifecycle costs.

The test and measurement business offers waveform measuring instruments; optical communications measuring instruments; signal generators; electric voltage, current, and power measuring instruments; LCD drivers; and confocal scanners for observation of live cells.

The aviation and other businesses segment mainly offers instruments for aviation use.

(2) Accounting methods for each reportable segment’s sales, income (loss), assets, and other items

The accounting policies for each reportable segment are consistent with those disclosed in Note 2, “Summary of Significant Accounting Policies.”

The aggregate of the income or loss for each reportable segment corresponds to the operating income or loss in the consolidated statement of income.

The assets of a reportable segment consist of receivables-trade notes and trade accounts, inventories, property, plant and equipment, and intangible assets.

(3) Information about sales, income (loss), assets and other items

	Millions of yen				
	2021				
	Reportable segment				
	Industrial automation and control	Test and measurement	Aviation and other	Eliminations/ Corporate	Consolidated
Sales to customers	¥342,134	¥25,727	¥6,343		¥374,206
Intersegment sales					
Total sales	¥342,134	¥25,727	¥6,343		¥374,206
Segment income (loss)	¥31,520	¥1,149	¥(1,069)		¥31,599
Segment assets	300,875	17,343	15,659		333,879
Depreciation and amortization	15,496	1,236	255		16,988
Loss on impairment of long-lived assets	486				486
Increase in property, plant and equipment and intangible assets	18,108	2,165	293		20,567
Amortization of goodwill	245	200	128		574
Goodwill	1,428	1,609	1,209		4,247

Millions of yen					
2020					
	Reportable segment			Eliminations/ Corporate	Consolidated
	Industrial automation and control	Test and measurement	Aviation and other		
Sales to customers	¥370,550	¥24,777	¥9,105		¥404,432
Intersegment sales					
Total sales	¥370,550	¥24,777	¥9,105		¥404,432
Segment income (loss)	¥34,159	¥1,638	¥(209)		¥35,588
Segment assets	286,037	14,041	18,776		318,855
Depreciation and amortization	16,540	1,149	341		18,032
Loss on impairment of long-lived assets	9,507				9,507
Increase in property, plant and equipment and intangible assets	17,442	2,150	1,588		21,181
Amortization of goodwill	696	63			759
Goodwill	1,738	237	1,156		3,132

Thousands of US dollars					
2021					
	Reportable segment			Eliminations/ Corporate	Consolidated
	Industrial automation and control	Test and measurement	Aviation and other		
Sales to customers	\$3,090,367	\$232,390	\$57,298		\$3,380,056
Intersegment sales					
Total sales	\$3,090,367	\$232,390	\$57,298		\$3,380,056
Segment income (loss)	\$284,708	\$10,381	\$ (9,662)		\$285,427
Segment assets	2,717,691	156,660	141,447		3,015,799
Depreciation and amortization	139,978	11,169	2,305		153,452
Loss on impairment of long-lived assets	4,397				4,397
Increase in property, plant and equipment and intangible assets	163,569	19,558	2,652		185,781
Amortization of goodwill	2,215	1,813	1,159		5,188
Goodwill	12,903	14,536	10,925		38,364

(4) Information about geographical areas
(a) Sales

Millions of yen									
2021									
Japan	Southeast Asia, Far East	China	India	Europe	Russia	North America	Middle East, Africa	Middle and South America	Total
¥120,338	¥58,641	¥52,217	¥13,415	¥30,073	¥14,293	¥33,430	¥42,013	¥9,782	¥374,206

Millions of yen									
2020									
Japan	Southeast Asia, Far East	China	India	Europe	Russia	North America	Middle East, Africa	Middle and South America	Total
¥126,467	¥66,000	¥47,310	¥15,339	¥32,599	¥19,511	¥32,705	¥55,461	¥9,039	¥404,432

Thousands of US dollars									
2021									
Japan	Southeast Asia, Far East	China	India	Europe	Russia	North America	Middle East, Africa	Middle and South America	Total
\$1,086,968	\$529,689	\$471,658	\$121,173	\$271,639	\$129,103	\$301,966	\$379,490	\$88,365	\$3,380,056

Note: Sales are categorized in each country or area based on the location of end users.

(b) Property, plant and equipment

Millions of yen									
2021									
Japan	Southeast Asia, Far East	China	India	Europe	Russia	North America	Middle East, Africa	Middle and South America	Total
¥54,020	¥10,182	¥5,343	¥1,205	¥8,504	¥621	¥2,039	¥2,293	¥367	¥84,579

Millions of yen									
2020									
Japan	Southeast Asia, Far East	China	India	Europe	Russia	North America	Middle East, Africa	Middle and South America	Total
¥53,232	¥9,810	¥4,947	¥1,160	¥8,311	¥712	¥2,106	¥2,319	¥457	¥83,059

Thousands of US dollars									
2021									
Japan	Southeast Asia, Far East	China	India	Europe	Russia	North America	Middle East, Africa	Middle and South America	Total
\$487,948	\$91,972	\$48,269	\$10,890	\$76,815	\$5,614	\$18,421	\$20,718	\$3,321	\$763,971

(5) Information about major customers

No customer accounts for 10% or more of total sales of the Group.

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of
Yokogawa Electric Corporation:

Opinion

We have audited the consolidated financial statements of Yokogawa Electric Corporation and its consolidated subsidiaries (the "Group"), which comprise the consolidated balance sheet as of March 31, 2021, and the consolidated statement of income, consolidated statement of comprehensive income, consolidated statement of changes in equity and consolidated statement of cash flows for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies, all expressed in Japanese yen.

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as of March 31, 2021, and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with accounting principles generally accepted in Japan.

Convenience Translation

Our audit also comprehended the translation of Japanese yen amounts into U.S. dollar amounts and, in our opinion, such translation has been made in accordance with the basis stated in Note 1 to the consolidated financial statements. Such U.S. dollar amounts are presented solely for the convenience of readers outside Japan.

Basis for Opinion

We conducted our audit in accordance with auditing standards generally accepted in Japan. Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Consolidated Financial Statements section of our report. We are independent of the Group in accordance with the provisions of the Code of Professional Ethics in Japan, and we have fulfilled our other ethical responsibilities as auditors. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Key Audit Matter

A key audit matter is a matter that, in our professional judgment, was of most significance in our audit of the consolidated financial statements of the current period. The matter was addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on the matter.

Estimation of the total costs of construction contracts	
Key Audit Matter Description	How the Key Audit Matter Was Addressed in the Audit
The Group sells products and provides services related to engineering, revamping and maintenance in Industrial Automation and Control business, which is the core business of the Group. As described in Note 2(p) Summary of Significant Accounting Policies "Revenue Recognition" to the consolidated financial statements, if the progress of performance obligations for construction contracts related to engineering services can be measured reasonably, the Group recognizes revenue based on the progress. Of the total net sales of 374,206 million yen for the year ended March 31, 2021, 174,929 million yen was revenue recognized in accordance with this accounting policy. In addition, as described in Note 2(l) Summary of Significant Accounting Policies "Provision for Contract Loss" to the consolidated financial statements, when it is probable that the estimated total costs of the construction contract will exceed total construction revenue, an estimated loss on the contract is provided for as a provision for contract loss. Provision for contract loss as of March 31, 2021, was 7,419 million yen. The progress towards satisfaction of performance obligation, which as described above, is used to recognize revenue for certain construction contracts that contain engineering services, is measured on the basis of the percentage of actual costs incurred up to the end of the year against the estimated total future costs. The provision for contract loss is calculated by taking the excess of estimated total costs of the construction contract above total construction revenue. Therefore, the estimation of the total costs of construction contracts has a significant impact on both revenue recognition and the calculation of the provision for contract loss. Some construction contracts have a wide scope and large scale, and others involve a high degree of complexity, such as those requiring advanced system integration. Therefore, events not expected at the beginning of the construction may occur during the construction period, and conversion costs (labor and subcontracting costs) as well as expenses related to the event could be incurred. In such instances, estimations of the total costs of a construction contract may involve a high degree of uncertainty.	Our audit procedures related to the estimation of the total costs of construction contracts that may affect both the revenue recognition of construction contracts and the calculation of the provision for contract loss included the following, among others: (1) Evaluation of internal controls We tested the design and operating effectiveness of the following internal controls over the estimation of the total costs of construction contracts. - Internal controls to monitor the progress of construction with qualitative or quantitative significance on a regular basis in order to keep track of any changes in the status after the commencement of construction and to take corrective measures in a timely manner - Internal controls to ensure the reasonableness of the estimated total costs of construction contracts at the commencement of construction and to revise such costs in a timely manner in accordance with any changes in circumstances after the construction has commenced - Internal controls to ensure the completeness of the provision for contract loss for the construction contracts of which the estimated total costs will exceed total construction revenue (2) Evaluation of the reasonableness of the estimated total costs of construction contracts We obtained the relevant documents related to controls which monitor the progress of construction contracts, selected contracts in which the estimated total costs significantly increased or are expected to increase in the future in comparison with the initial total costs estimated at the commencement of construction, and performed the following procedures on the selected construction contracts: - We assessed the reasonableness of the assumptions used by the Group by making inquiries with the personnel in charge of monitoring the progress of construction and, if necessary, the personnel in charge of the execution of certain construction contracts regarding their estimates for additional conversion costs (labor and subcontracting costs) and expenses which are required to respond to events that cause a significant increase in total construction costs.

Therefore, we determined that the estimation of the total costs of construction contracts that contain engineering services as a key audit matter in our audit, as it affects both the measurement of the progress towards satisfying performance obligation which is used to recognize revenue for certain construction contracts and the calculation of the provision for contract loss,	• We compared the estimated total costs of construction to the latest construction schedule plan, the cost calculation sheet and other related documents to evaluate their consistency. • We compared the estimated total costs of construction at the end of the year with the initial estimated total costs of construction at the commencement of construction or with the estimated total costs after the change if there was a change during the year to evaluate the accuracy of the estimated total costs of construction.
--	--

Responsibilities of Management and Audit & Supervisory Board Members and the Audit & Supervisory Board for the Consolidated Financial Statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with accounting principles generally accepted in Japan, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern in accordance with accounting principles generally accepted in Japan and using the going concern basis of accounting unless management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

Audit & Supervisory Board members and the Audit & Supervisory Board are responsible for overseeing the Directors' execution of duties relating to the design and operating effectiveness of the controls over the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Consolidated Financial Statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with auditing standards generally accepted in Japan will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with auditing standards generally accepted in Japan, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks. The procedures selected depend on the auditor's judgment. In addition, we obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain, when performing risk assessment procedures, an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate whether the overall presentation and disclosures of the consolidated financial statements are in accordance with accounting principles generally accepted in Japan, as well as the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with Audit & Supervisory Board members and the Audit & Supervisory Board regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide Audit & Supervisory Board members and the Audit & Supervisory Board with a statement that we have complied with relevant ethical requirements regarding independence, and communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with Audit & Supervisory Board members and the Audit & Supervisory Board, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

Interest Required to Be Disclosed by the Certified Public Accountants Act of Japan

Our firm and its designated engagement partners do not have any interest in the Group which is required to be disclosed pursuant to the provisions of the Certified Public Accountants Act of Japan.

Deloitte Touche Tohmatsu LLC

June 23, 2021

Corporate Data / Stock Information / Principal Subsidiaries and Affiliates

As of March 31, 2021

Corporate Data

- **Corporate Name** Yokogawa Electric Corporation
- **President and CEO** Hitoshi Nara
- **Headquarters** 2-9-32 Nakacho, Musashino-shi, Tokyo 180-8750, Japan
- **Founded** September 1, 1915
- **Incorporated** December 1, 1920
- **Paid-in Capital** 43,401 million yen
- **Number of Employees** 17,715 (consolidated)
2,536 (non-consolidated)
- **Subsidiaries and Affiliates** 107 outside Japan, 11 in Japan

Investor Information

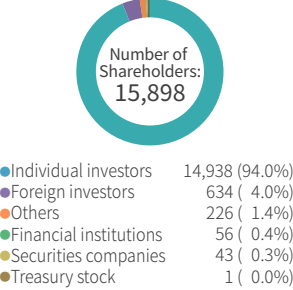
- **Number of Shares Authorized** 600,000,000
- **Number of Shares of Common Stock Issued** 268,624,510
- **Number of Shareholders** 15,898
- **Stock Exchange Listing** Tokyo Stock Exchange
- **Administrator of the Register of Shareholders** Mizuho Trust & Banking Co., Ltd. 1-2-1 Yaesu, Chuo-ku, Tokyo 103-8670, Japan
- **Annual General Meeting of Shareholders** The annual general meeting of shareholders of the Company is held in June.
- **Accounting Auditor** Deloitte Touche Tohmatsu LLC

Major Shareholders (Top 10)

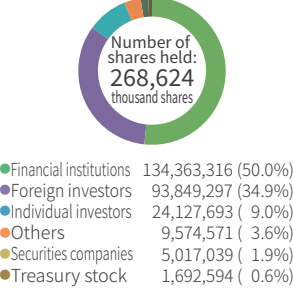
Shareholders	Number of shares held (thousand shares)	Shareholding ratio (%)
Master Trust Bank of Japan Limited (trust account)	39,247	14.7
Custdy Bank of Japan, Ltd.(trust account)	16,166	6.1
The Dai-ichi Life Insurance Company, Limited	15,697	5.9
Nippon Life Insurance Company	13,484	5.1
Retirement Benefit Trust in Mizuho Trust & Banking Co., Ltd. (Mizuho Bank, Ltd. account);	9,212	3.5
Custdy Bank of Japan, Ltd.(trust account 9)	9,092	3.4
State Street Bank and Trust Company 505223	7,794	2.9
Yokogawa Electric Employee Shareholding Program	5,495	2.1
Custdy Bank of Japan, Ltd.(trust account 7)	5,252	2.0
The Bank of New York Mellon (international) Limited 131800	4,685	1.8

Notes: 1. The Company holds 1,692 thousand shares of treasury stock.
2. The shareholding ratio is calculated after deducting treasury stock.

Shareholders by Category



Shareholding by Category



Principal Subsidiaries and Affiliates

North America

- **United States** Yokogawa Corporation of America
Yokogawa Fluid Imaging Technologies, Inc
- **Canada** Yokogawa Canada, Inc.
- **Mexico** Yokogawa de Mexico, S.A. de C.V.

South America

- **Brazil** Yokogawa America do Sul Ltda.
- **Colombia** Yokogawa Colombia S.A.S

Europe

- **Netherlands** Yokogawa Europe B.V.
- **Austria** Yokogawa GesmbH, Central East Europe
- **Slovakia** Yokogawa Slovakia s.r.o
- **Czech Republic** Yokogawa Czech Republic s.r.o
- **Belgium** Yokogawa Belgium N.V./S.A.
- **France** Yokogawa France S.A.S.
- **Germany** Yokogawa Deutschland GmbH
- **Hungary** Yokogawa Hungaria Kft.
- **Italy** Yokogawa Italia S.r.l.
- **Poland** Yokogawa Polska Sp. z o.o.

Spain

Yokogawa Iberia S.A.

Turkey

Yokogawa Turkey Industrial Automation Solutions A.S.

United Kingdom

Yokogawa United Kingdom Limited

Norway

Yokogawa TechInvent AS

CIS

- **Russia** Yokogawa Electric CIS Ltd.
- **Kazakhstan** Yokogawa Electric Kazakhstan Ltd.
- **Ukraine** Yokogawa Electric Ukraine Ltd.

Middle East

- **Bahrain** Yokogawa Middle East & Africa B.S.C. (c)
- **Saudi Arabia** Yokogawa Saudi Arabia Ltd.
- **United Arab Emirates** Yokogawa Engineering Middle East & Africa FZE
- **Oman** Yokogawa Oman Limited Liability Company

Africa

- **South Africa** Yokogawa South Africa (Pty) Ltd.
- **Nigeria** Yokogawa Nigeria Limited

Oceania

- **Australia** Yokogawa Australia Pty. Ltd.
- **New Zealand** Yokogawa New Zealand Limited

Asia

- **Singapore** Yokogawa Electric International Pte. Ltd.
Yokogawa Engineering Asia Pte. Ltd.
- **Indonesia** P.T. Yokogawa Indonesia
- **Malaysia** Yokogawa Electric (Malaysia) Sdn. Bhd.
- **Philippines** Yokogawa Philippines Inc.
- **Thailand** Yokogawa (Thailand) Ltd.
- **Vietnam** Yokogawa Vietnam Company Ltd.
- **India** Yokogawa India Ltd.
- **China** Yokogawa China Co., Ltd.
- **Korea** Yokogawa Electric Korea Co., Ltd.
- **Taiwan** Yokogawa Taiwan Corporation

Japan

- Yokogawa Electric Corporation
- Yokogawa Solution Service Corporation
- Yokogawa Test & Measurement Corporation
- Yokogawa Bio Frontier Inc.

etc.

IR Activities

Fiscal year 2021 is an important year in which the company will accelerate its transformation under AG2023 and the long-term business framework and prepare the way for further growth. We seek to increase transparency by making fair, timely, and appropriate disclosures of important information on management policies, business strategies, and financial results, thereby maintaining and strengthening relationships based on trust with all stakeholders, including shareholders and investors. Through these activities, we help stakeholders gain a better understanding of the company.

We will also appropriately provide feedback from investors and other stakeholders to Yokogawa’s management to ensure sustainable growth and enhance corporate value over the medium to long term.



Michiko Nakajima

Vice President
Head of Accounting & Treasury
Headquarters

Major Activities

Major Initiatives	FY2020	Objectives	Contents
For analysts and investors			
Financial results briefings	4 times	Understanding of financial results and management policies and strategies	Quarterly financial results briefings *1 (presentation by the president and the director in charge of IR in the 1st, 2nd and 4th quarters, and presentation by the director in charge of IR in the 3rd quarter)
Meetings with president	7 times (about 30)		Meetings with analysts and investors in Japan and overseas *1,2 (including small meetings)
Meetings with IR staff	Approximately 300		Meetings with analysts and investors in Japan and overseas *1,2 (Approximately 220 in Japan and 80 overseas)
Business briefings/IR DAY /Sustainability meetings	2times		Sustainability initiatives (2019), Industrial automation to industrial autonomy *2 (2020), Bio economy initiatives *2 (2021) briefings (explanations by directors in charge and members of management team)
Tours of customer/ Yokogawa plants	— *3	Understanding of business	Tour of JXTG's Mizushima oil refinery (2018), tour of Singapore office (2018), tours of Suzhou (China) factory and a customer's pharmaceutical plant (2019), and tours of Kofu factory (2013 to 2019)
For individual investors			
IR information e-mail service	13 times	Understanding of efforts to enhance corporate value over medium to long term	Disclosure of information on financial results briefings, business briefings, website updates, etc.
Corporate briefings	— *3		Holding of regular corporate briefings to promote dialogue

*1) Use of teleconferencing *2: Use of remote tools *3: Not implemented in FY2020 due to COVID-19

Evaluations from outside the company

Evaluations related to IR activities		
Designation as “Excellent Integrated Report” and “Highly Improved Integrated Report” (Government Pension Investment Fund)	Excellent Integrated Report (for 3 consecutive years from FY2017 to FY2019) Highly Improved Integrated Report (FY2017 and FY2018)	
Commendation of Annual Securities Report as “Best Practice in Disclosure of Descriptive Information” (Financial Services Agency)	Listed in 5. “Management’s Analysis of Financial Position, Operating Results and Cash Flow (MD & A)” (2) Analysis and Review of Cash Flow Status (FY2020)	
IR Award (Japan Investor Relations Association)	IR Special Award (FY2019)	
Internet IR Commendation Award (Daiwa Investor Relations Co., Ltd.)	Excellence Award (FY2013 to FY2015, FY2018 to FY2020)	
All Japanese Listed Companies’ Website Ranking (Nikko Investors Relations Co., Ltd.)	Overall ranking : AAA (FY2016 to FY2020 (5 consecutive years)) Overall ranking : AA (FY2013 and FY2015) Overall ranking : A (FY2014)	
Gomez IR Site Ranking (BroadBand Security, Inc.)	Silver Award (FY2019 and FY2020) Bronze award (2013 to 2018 (6 consecutive years))	

Editing Team	Accounting & Treasury Headquarters	Michiko Nakajima (Editor-in-chief/Officer in charge)
	Investor Relations Department	Hirohiko Nakatani (Managing editor), Mariko Yasuda
	Investor Relations Section	Toshitaka Kobayashi (Deputy managing editor), Hirotaka Tomonou (Associate Editor), Tsuneo Kowata, Yuki Tabata, Miki Noda
Corporate Administration Headquarters, Sustainability Promotion Department		Takashi Hara, Masumi Yoshidu
Marketing Headquarters, Brand Promotion Department, Integrated Communications Center		Toshiro Tsuda

Yokogawa Electric Corporation

IR Department, Accounting & Treasury Headquarters
2-9-32 Nakacho, Musashino-shi, Tokyo 180-8750, Japan
Phone: +81-422-52-6845 Facsimile: +81-422-55-1202

<https://www.yokogawa.com/>

