

Yokogawa Corporate Profile

YOKOGAWA

横河電機株式会社
Yokogawa Electric Corporation

Corporate Data Yokogawa Brand & Identity

Corporate Information

Company Name	Yokogawa Electric Corporation
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Founded	September 1, 1915
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Incorporated	December 1, 1920
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Paid-in Capital	43.4 billion yen
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Sales	374.2 billion yen (consolidated)
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Operating Income	31.6 billion yen (consolidated)
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Ordinary Income	34.1 billion yen (consolidated)
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Profit Attributable to Owners of Parent	19.2 billion yen (consolidated) <small>* Net income attributable to owners of parent</small>
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R&D Investment/Sales	7.3% (consolidated)
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Number of Employees	17,715 (consolidated)
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Capital Ratio	59.4% (consolidated)
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(Results of FY2020)

The Yokogawa Brand

Corporate brand (trademark)



The corporate symbol reflects our values and ideals.

It symbolizes that we are a dynamic, yet balanced corporation that provides real value.

The image is inspired by the sun, which is the main source of energy for all life on Earth, and is an affirmation of Yokogawa's commitment to benefit humankind through the development of the industrial sector.

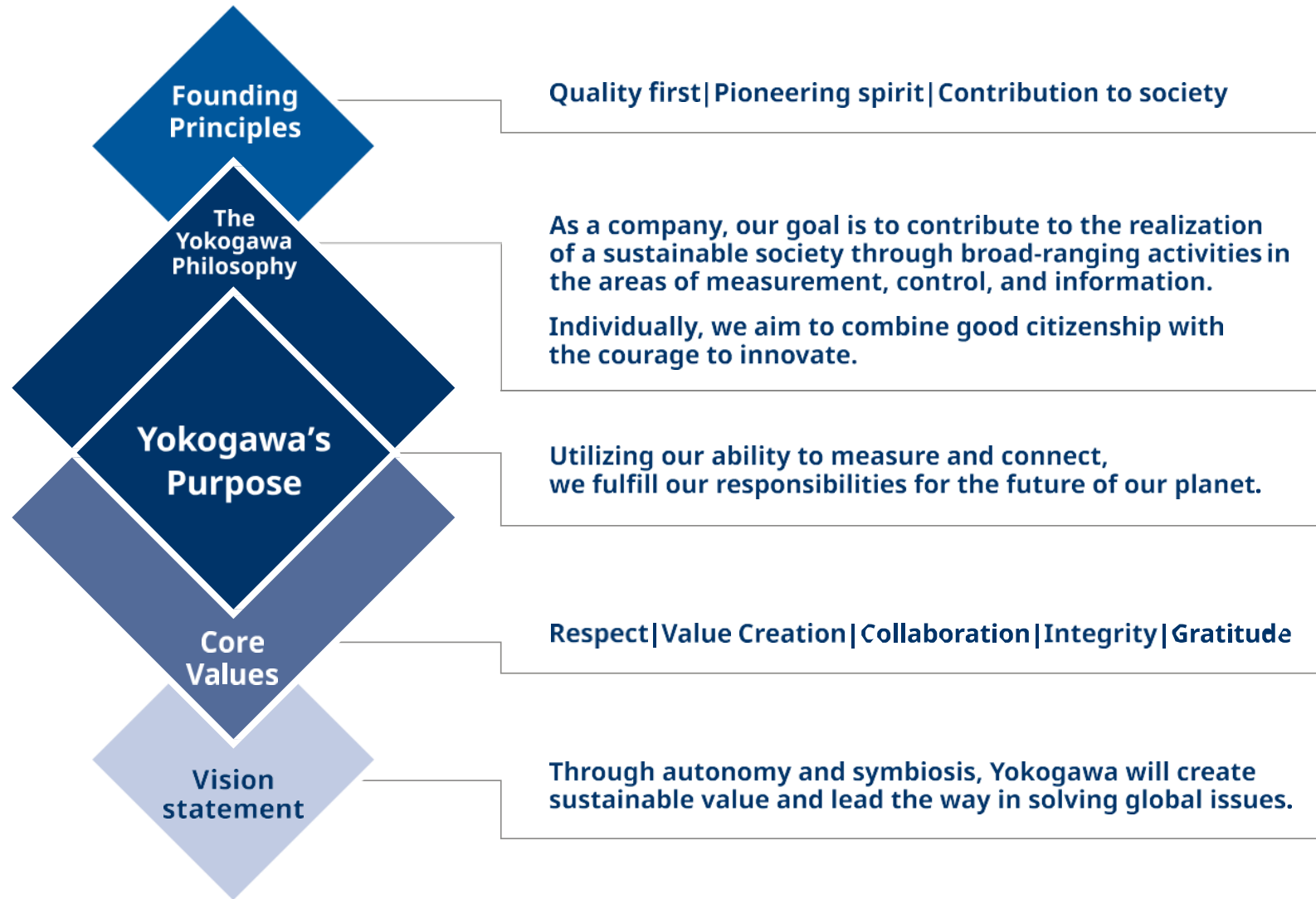
Corporate brand slogan

Co-innovating tomorrow™

"Co-innovating" conveys our determination to keep co-creating new value by producing solutions in long-term partnerships with our clients.

"tomorrow" expresses our resolve to move steadily into the future one step at a time.

Yokogawa Group Identity



Yokogawa's Raison d'etre and Vision for 10 years from Now

Yokogawa's Purpose

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 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 coexist in symbiotic harmony. This aspiration is expressed in our commitment to fulfill our responsibilities for the future of our planet.

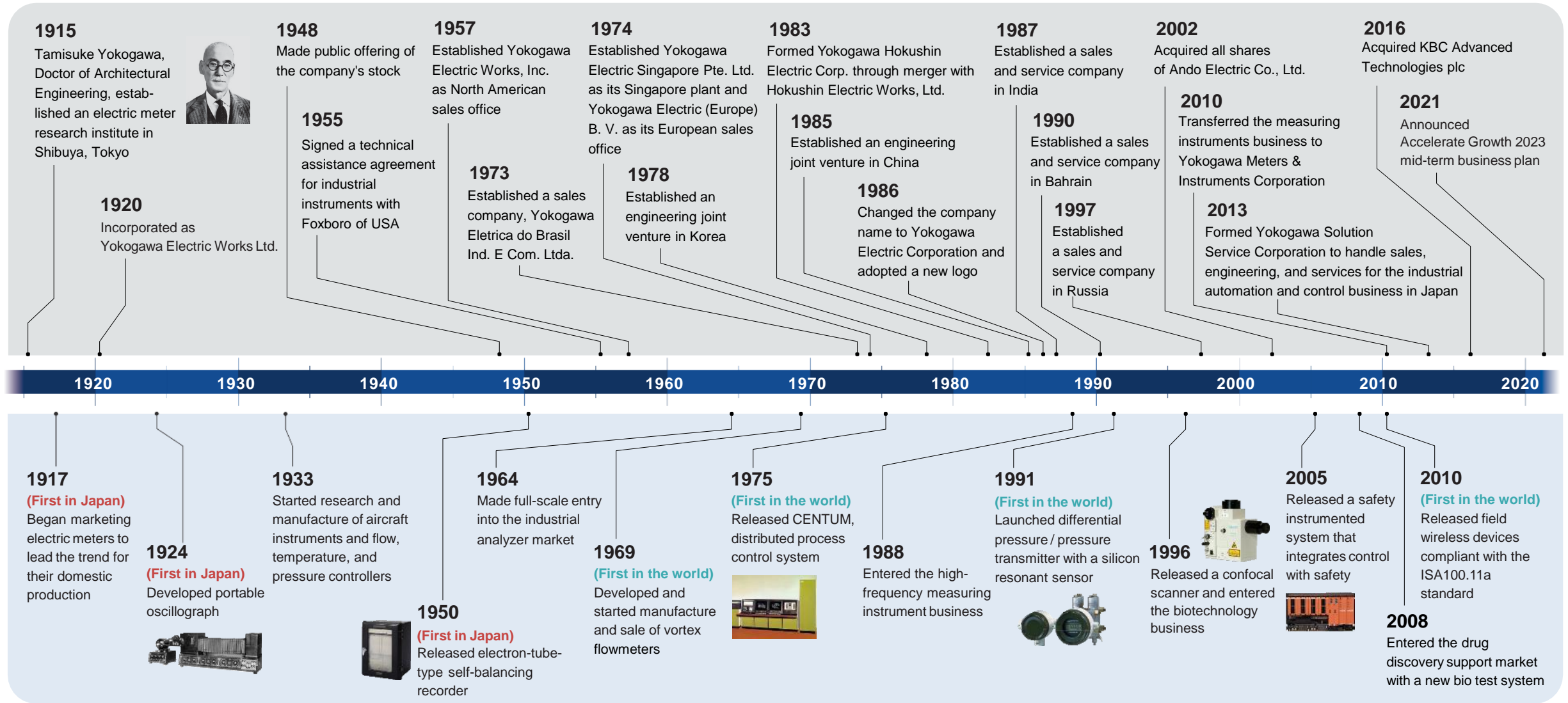
Vision statement

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

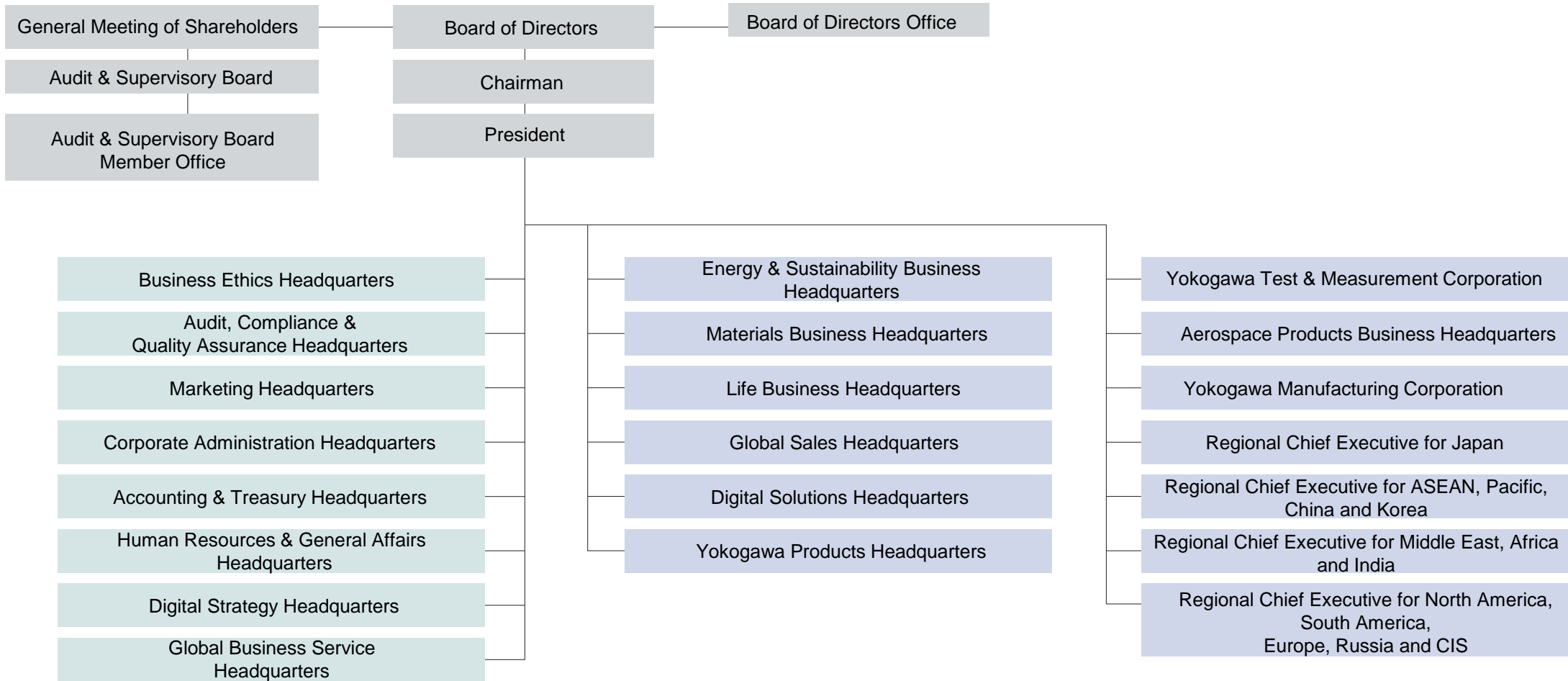
Yokogawa's vision is to bring about a symbiosis between industry and society in which these entities function autonomously, yet in a coordinated way.

By realizing this vision and continuing to create value, Yokogawa will take the initiative in addressing social issues.

History



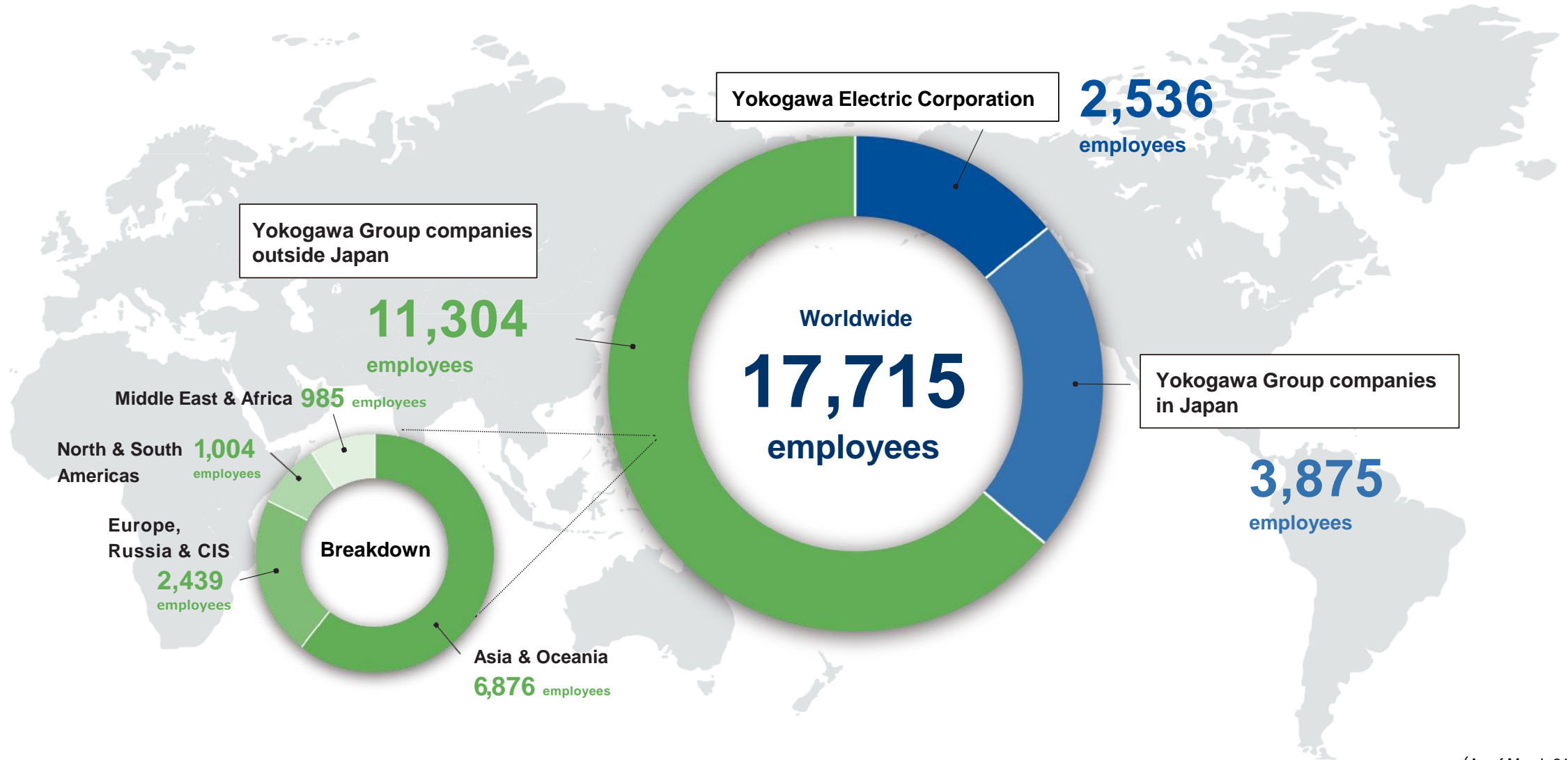
Organization of Yokogawa Headquarters



(As of April 1, 2021)

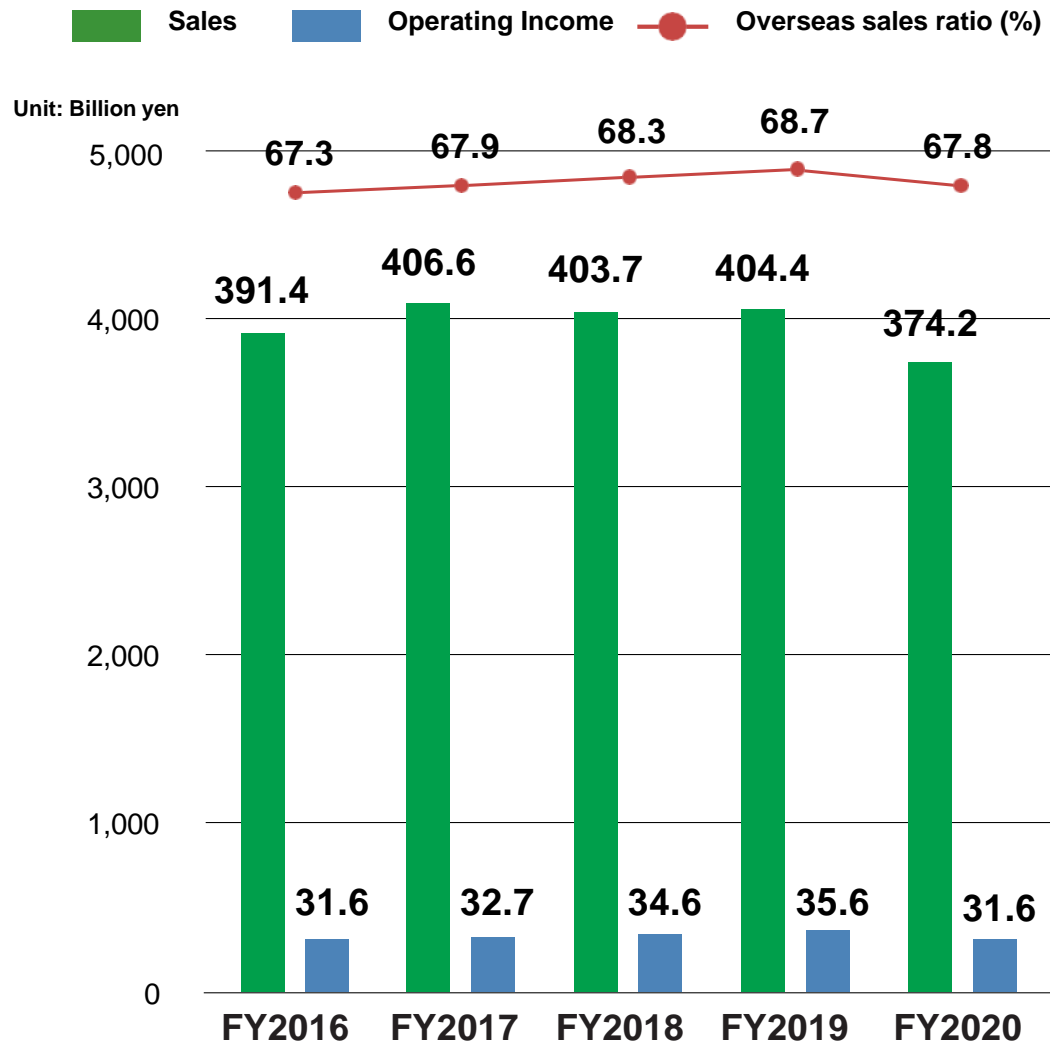
Global Business Development

Yokogawa Employees Worldwide

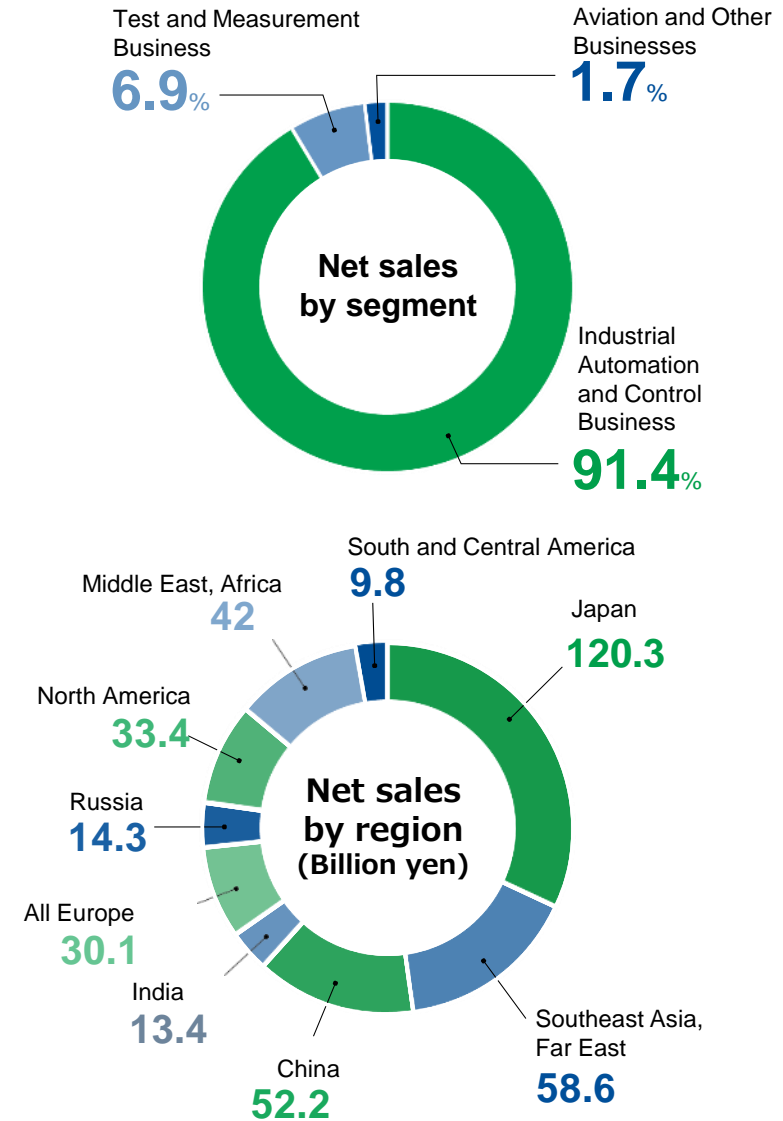


(As of March 31, 2021)

Consolidated Sales and Operating Income



*The figures are rounded to the nearest 100 million yen.



(Results of FY2020)

Worldwide Business Operations

Global network supporting business growth

Service network

Countries and sites served

 **200+**

Service sites

 **180+**

Service engineers

 **2,500+**

Manufacturing sites

 **13** countries



Subsidiaries and affiliates

11 in Japan

107 outside Japan

*Includes branches and representative offices

(As of March 31, 2021)

Providing services and solutions nationwide



Kanazawa Office



Kofu Office



Komine Office



Branch offices

9

Group companies

11

Representative offices and service offices

179



World Headquarters

(As of March 31, 2021)

Business Strategy

Overview of Long-term Business Framework and Mid-term Business Plan

2021

2023

2030

2050

Yokogawa's Purpose / The Yokogawa Philosophy

Three goals
for sustainability

Net-zero
Emissions

Well-being

Circular
Economy

Long-term business framework (including Vision statement)

Aim for growth through the provision of shared value to society

Mid-term business plan

Accelerate Growth 2023

Establish a business structure centered on addressing broad social issues to enable growth

Mid-term business plan

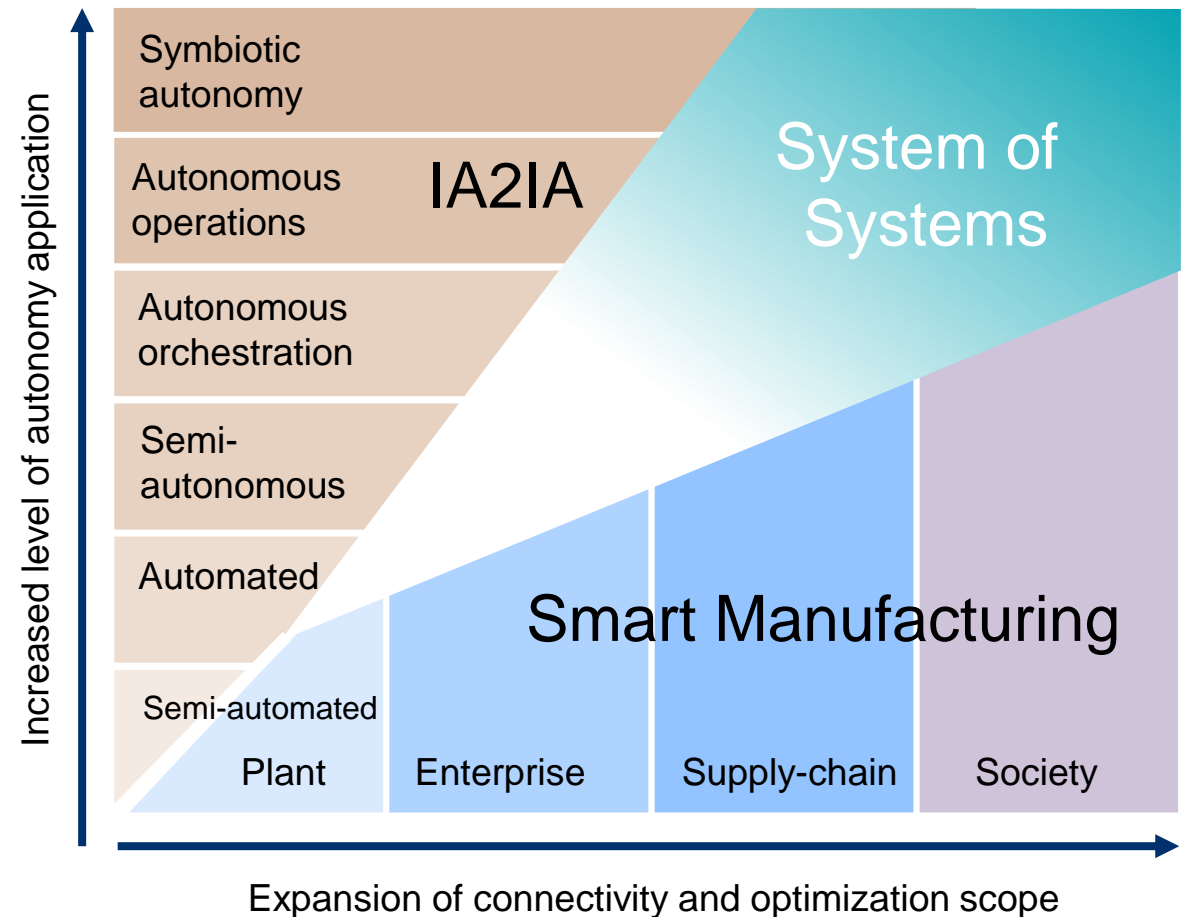
(From FY24, with roughly 3-year perspective)

Value Provision to Customers 10 years from Now

Value provided based on the system of systems concept

Today, the system of systems (SoS) concept is gaining wide acceptance. According to this concept, systems with operational and management independence work together to achieve system-wide objectives that cannot be achieved alone.

We promote connectivity and create value through overall optimization driven by integration, autonomy, and digitalization, based on two approaches: IA2IA (industrial automation to industrial autonomy), which changes the level of autonomy, and smart manufacturing, which broadens the scope of overall optimization.



IA2IA (Industrial Automation to Industrial Autonomy)

From automation to autonomy

Initiatives for Industrial Autonomy

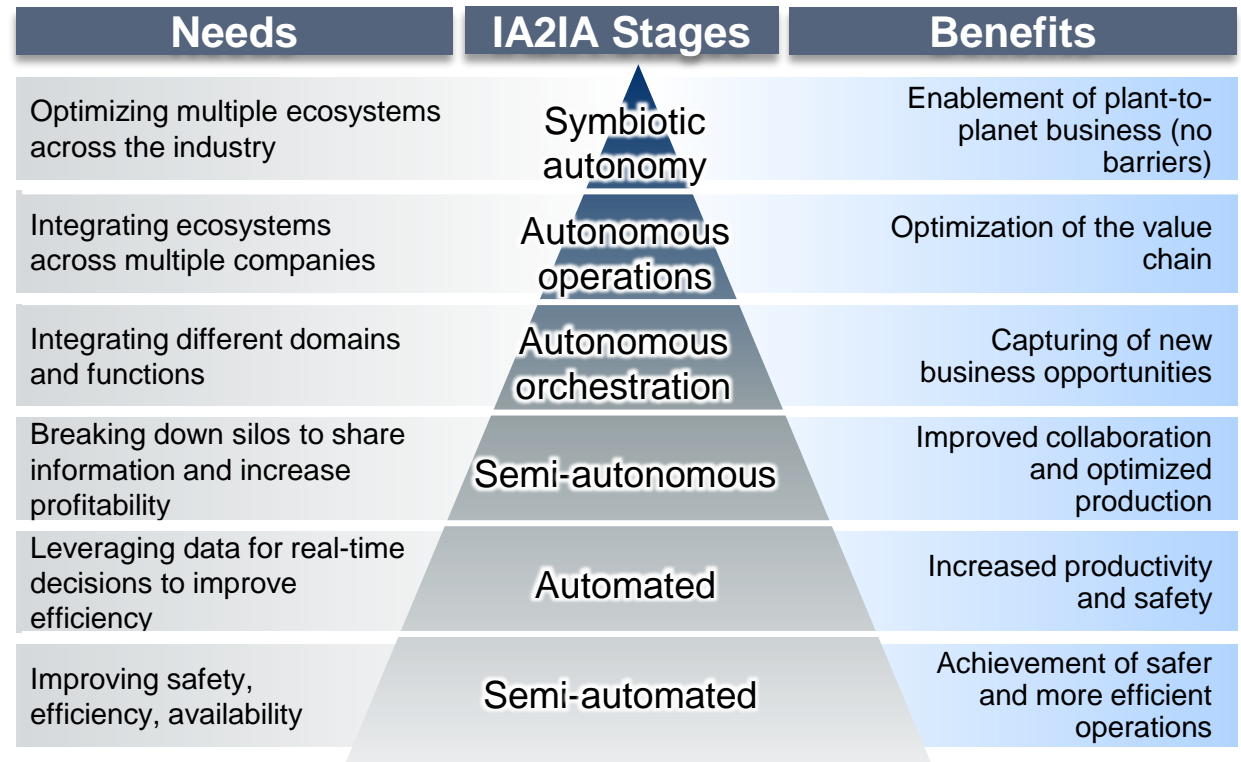
Driven by factors such as DX and the sustainable development goals (SDGs), more and more companies are taking a closer look at autonomous operations. As a new direction for its industrial automation and control business, Yokogawa has adopted the phrase industrial automation to industrial autonomy (IA2IA) to describe the transformation that it aims to achieve.



Yokogawa's definition of industrial autonomy

Plant assets and operations have learning and adaptive capabilities that allow response with minimal human interaction, empowering operators to perform higher-level optimization tasks.

Journey to Autonomous Operations



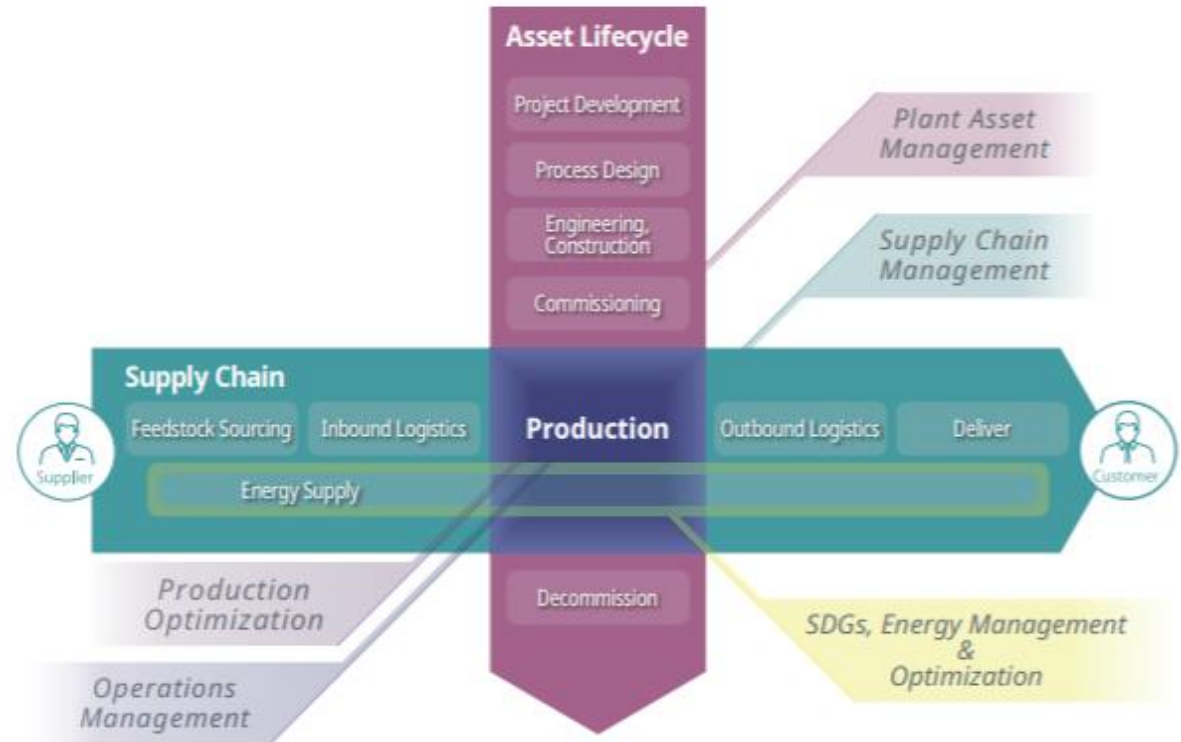
Smart Manufacturing

Helping our customers attain their business goals

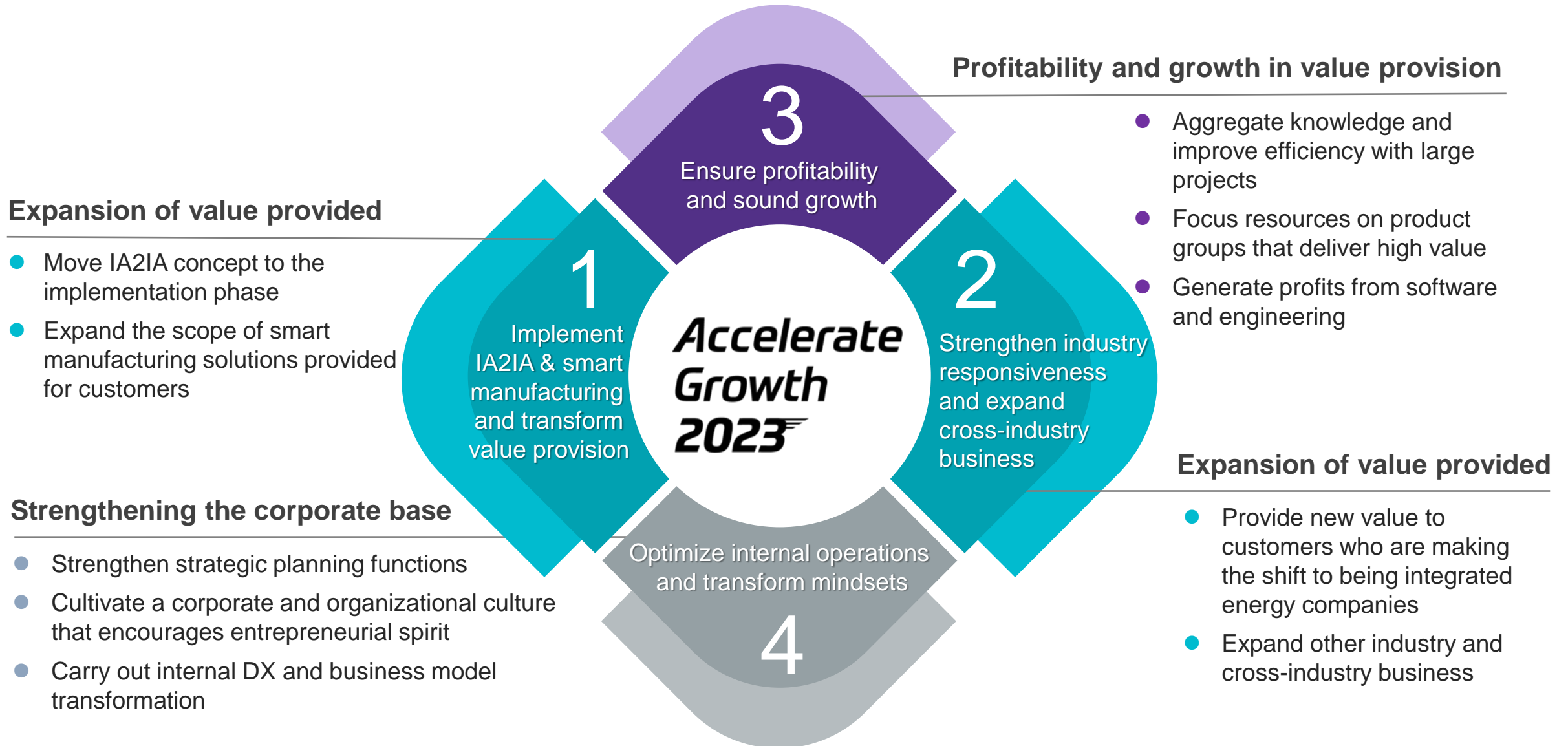
Making plants smart

With smart manufacturing solutions that utilize the latest advances in digital technology, Yokogawa is able to present its customers with solutions that optimize production, supply chains, and energy use and facilitate the management of both operations and plant assets. Our OpreX brand products, systems, consulting, and maintenance support services help our customers attain their business goals by presenting solutions that address needs throughout the value chain and in every phase of the plant lifecycle, from design to start-up, production, and maintenance.

Smart Manufacturing Business Scope



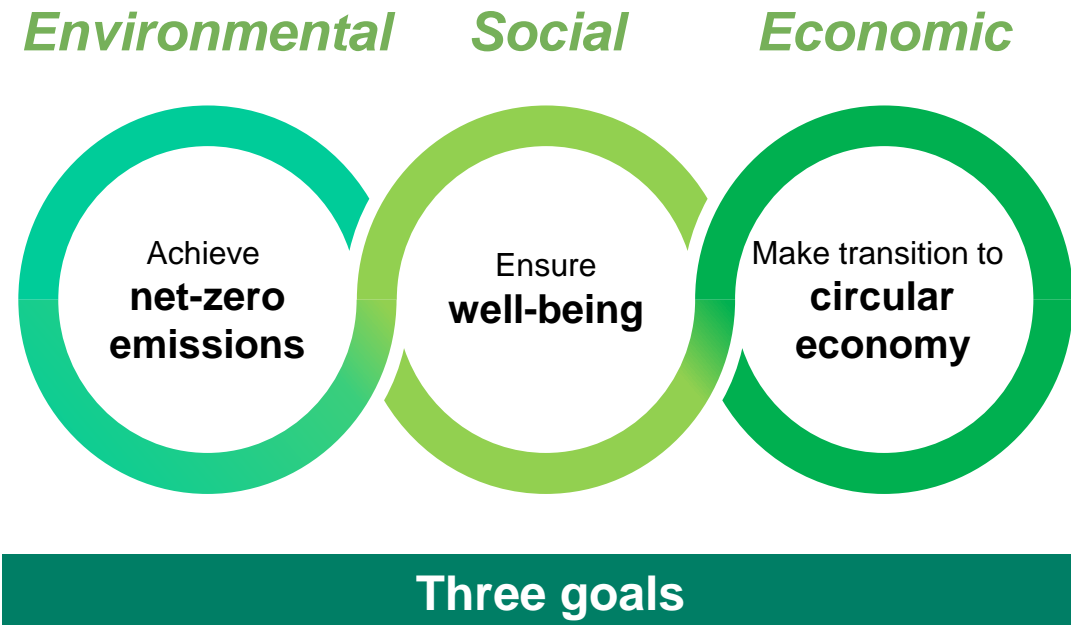
Accelerate Growth 2023: Four Basic Strategies



Three goals for sustainability

Yokogawa has set three sustainability goals for 2050.

To achieve these goals, we have identified key issues related to sustainability and have set specific targets for the short, medium, and long term.



Yokogawa will work to achieve net-zero emissions, ensure well-being, and make a transition to a circular economy by 2050, thus making the world a better place for future generations.

Six priority-based focus areas

Looking ahead to the year 2030, Yokogawa has identified in its mid-term business plan a number of businesses that will make a major contribution toward the SDGs and increase its corporate value, and has defined six focus areas where it will contribute.

We have defined indicators and targets for each focus area and are working to achieve them.

Achieving carbon neutrality



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

Improving efficiency in society & Industry



Optimizing production, enabling autonomy, and facilitating the efficient use of resources and energy through DX

Optimizing plant lifecycle & protecting environment



Supporting both the long-term optimal operation of plant assets and the reduction of their environmental footprint

Improving health & safety



Promoting life-related innovation and improving safety in plants and communities

Creating a resource-recycling ecosystem



Fostering the development of the bioeconomy and a circular economy

Creating workplaces where people can fulfill their potential



Establishing an equal opportunity workplace where employees can be treated with dignity and fulfill their potential

Business development at Yokogawa Solutions and products to be provided

Business Development

Drawing on its ability to measure and connect, Yokogawa collaborates with its customers. Making full use of the expertise in measurement, control, and information technologies that it has acquired over the years, Yokogawa addresses social issues through its business activities. To attain these goals, the company's core business of industrial automation and control business has been divided into three segments: energy and sustainability, materials, and life. Yokogawa's measuring instruments business and new businesses also significantly contribute to the advancement of industry and technology.

Energy and Sustainability Business

- 
- Oil and gas
 - Petrochemical
 - Renewable energy
 - Electricity
 - Energy management systems(EMS)
 - Energy storage

Materials Business

- 
- High performance chemicals
 - Biomass materials
 - Paper and pulp
 - Textiles
 - Steel
 - Non-ferrous metals
 - Mining
 - Mobility
 - Electrical and electronics

Life Business

- 
- Pharmaceuticals
 - Healthcare
 - Food
 - Water

Measuring Instruments Business

- 
- Energy
 - Information and communication
 - Healthcare

New Businesses, etc.

- 
- amnimo
 - Biotechnology-related business

Areas for exploration

Disaster prevention, space, and ocean

* 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 10 years from now.

Products and Other Solutions (Industrial Automation and Control)

Energy and Sustainability Business

Products and Other Solutions

OpreX is an all-encompassing brand for Yokogawa's industrial automation and control business and comprises five categories based on which Yokogawa provides products, services, and other solutions covering everything from operations to business management.

With these solutions, customers can optimize operations management, production, facility operations, supply chains, and energy use, all of which can help to transform their businesses and maximize the creation of value.



Collaborative information servers



Distributed control systems



Safety instrumented systems



Programmable logic controllers



Process analyzers
Process gas chromatographs



Field instruments
Pressure/temperature transmitters, wireless transmitters
Coriolis/magnetic/vortex/variable area flowmeters



Film/sheet thickness gauges



Data acquisition systems
Paperless recorders, data loggers



Distributed temperature sensors



IIoT wireless sensors

- **Operations management**
 - Integrated performance management
 - Automation of standard operating procedures (SOPs)
- **Production optimization**
 - Advanced process control solutions, operational optimization solutions
- **Plant asset management**
 - Facility failure prediction, facility maintenance, and management
- **Supply chain management**
 - Supply chain optimization, inventory and logistics management
- **Attaining the Sustainable Development Goals (SDGs)/energy management and optimization**
 - Energy management, continuous emission monitoring systems

Life Business



This segment's products aid in the production of biopharmaceuticals and in the conduct of cell analysis for the R&D of foods and pharmaceuticals.



Advanced control bioreactor systems



Nano-point delivery



High-throughput cytological discovery systems

Products and Other Solutions (Measuring Instruments Business , New Businesses, etc.)

Measuring Instruments Business

This segment offers a broad range of measuring instruments and services that are essential for the benchmarking and optimization of customers' products and technologies.

■ Products of Yokogawa Test & Measurement Corporation



Precision power analyzers



Scope corders



Optical time-domain reflectometers

New Businesses, etc.

Businesses in this segment include IIoT-based services and the development / commercialization of biomass materials

■ Products of annimo Inc.



Edge gateways
LTE gateways optimized for the operation of security camera networks



IoT routers
LTE routers that enable connections with a wide range of industrial devices

■ Products of Yokogawa Bio Frontier Inc.

- Biomass derived materials**
- Sulfate esterified cellulose nanofiber
 - Lignin monomer, oligomer, and polymer
 - Microalgae biostimulants



Sulfate esterified cellulose nanofiber in powder form

Yokogawa's Research Structure and Human Resources Strategy

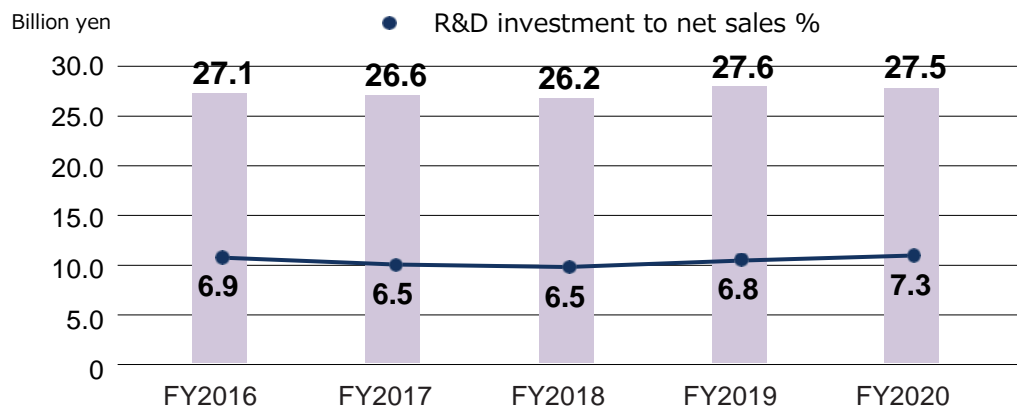
Our Approach to R&D

Basic stance and roles



R&D investment

R&D investment to net sales (%)



Yokogawa's intellectual property

	In Japan			Outside Japan			Total
	Registered	Pending	Subtotal	Registered	Pending	Subtotal	
Patents	1,888	533	2,441	1,551	805	2,356	4,797
Designs	142	8	150	332	79	411	561
Trade-marks	300	8	308	1,082	258	1,340	1,648
Total	2,330	569	2,899	2,965	1,142	4,107	7,006

(As of March 31, 2021)

Core Values

Respect

Value Creation

Collaboration

Integrity

Gratitude

**Transformation through
the strengthening of our
human resources**

- Through Yokogawa University and other means, offer training programs that will impart new skills and capabilities
- Foster awareness of the need to keep taking on new challenges
- Develop personnel with a global mindset for future management roles

**Promotion of
diversity and
inclusion**

- Create a comfortable work environment in which people feel at ease
- Globally promote diversity and inclusion

**Health and productivity
management**

- Structure a new work style that is less dependent on time and location
- Realize a safe and supportive workspace for everyone
- Encourage good physical and mental health in all employees and provide them work that is both rewarding and fulfilling

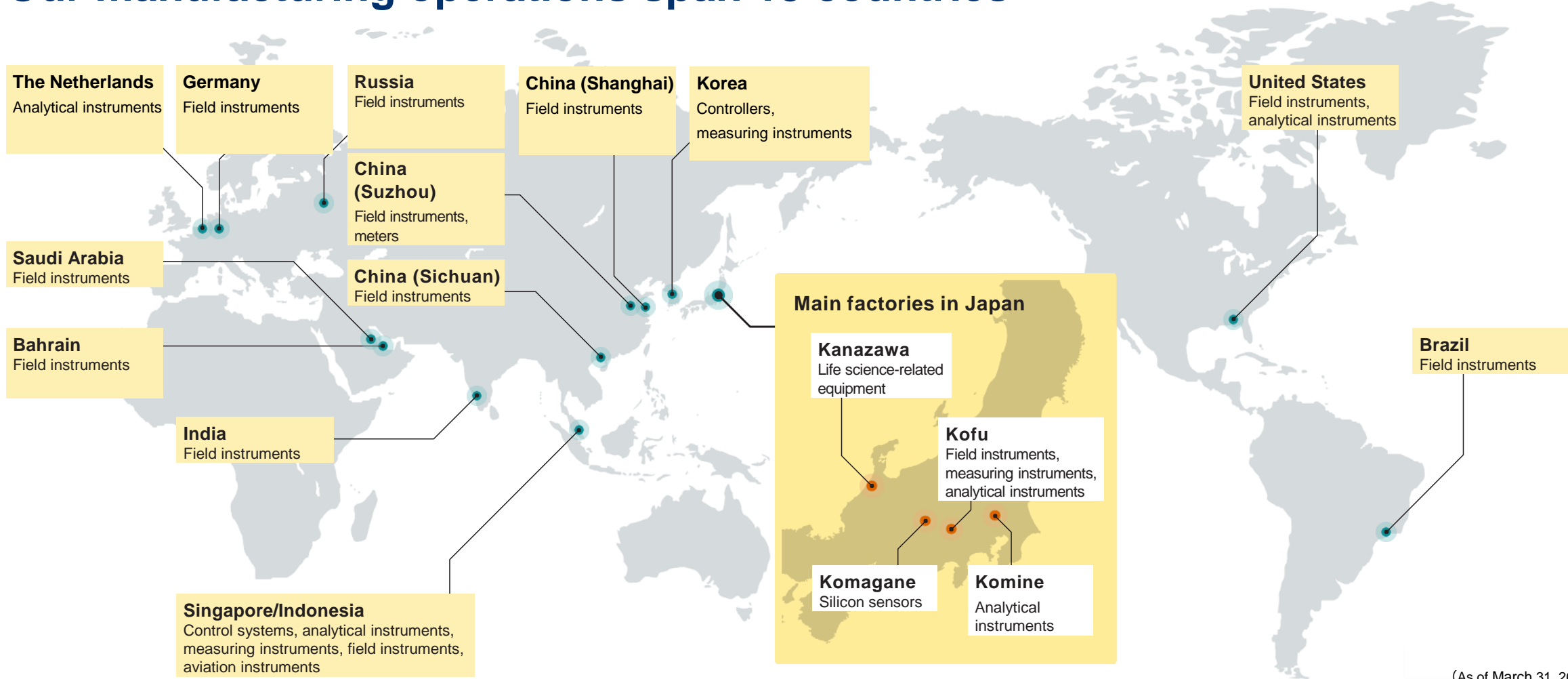
**Creation of
new value**

Co-innovating tomorrow™

Supplementary information

Manufacturing Organization

Our manufacturing operations span 13 countries



(As of March 31, 2021)

Services Anywhere - global reach, local delivery

Countries and sites served

🌐 **200+**

Service sites

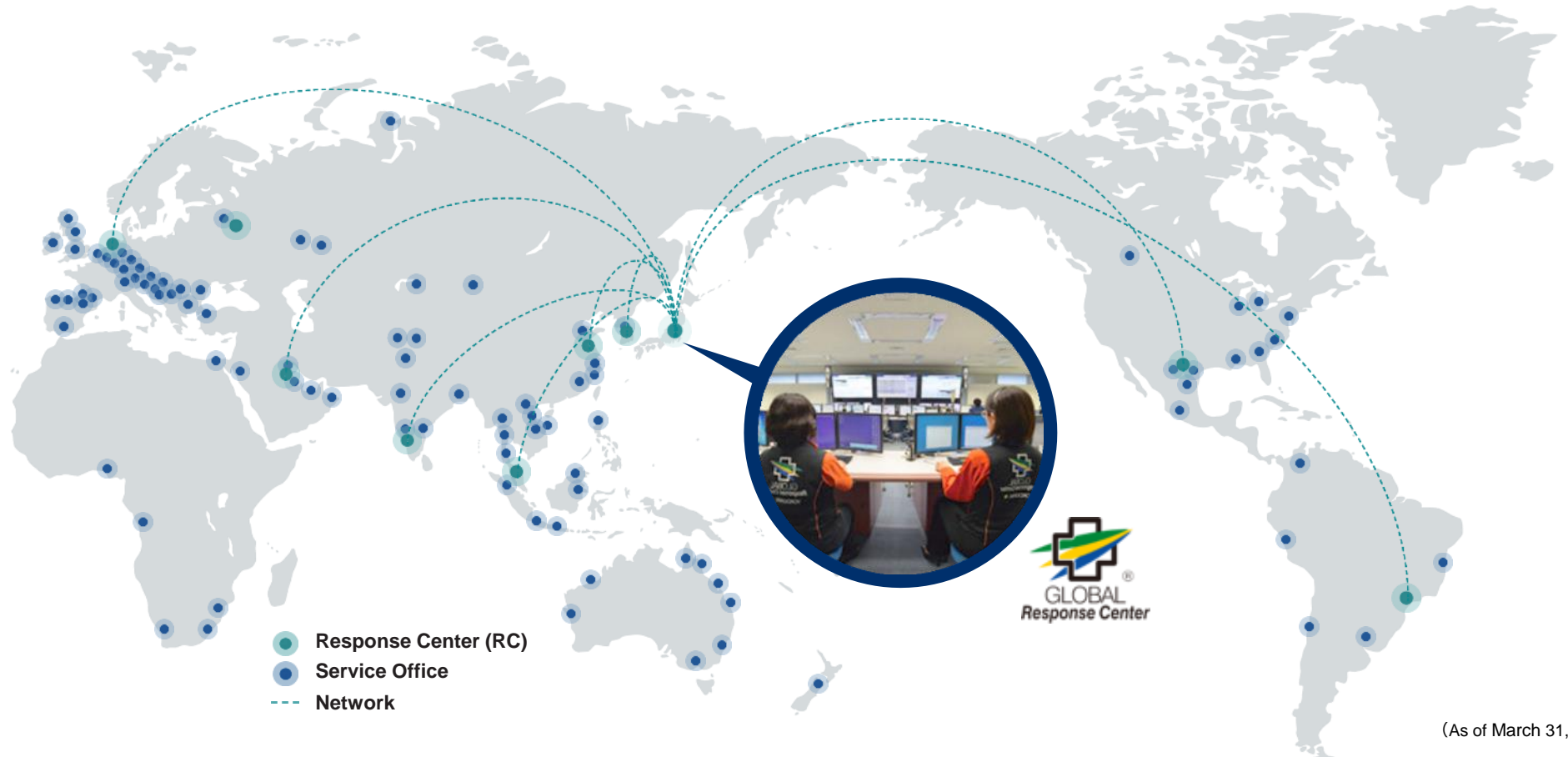
📍 **180+**

Service partners

🤝 **50+**

Service engineers

👷 **2,500+**



- Response Center (RC)
- Service Office
- Network

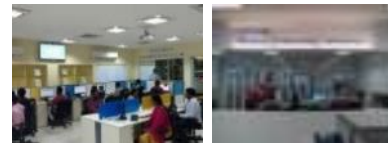
(As of March 31, 2021)

Regional Response Centers



The Netherlands Russia China Korea USA Bahrain India Singapore Brazil

Security Competence Laboratory



Security Operation Center

