

— **President Nara's Overview of Strategies** —





Aspiring for growth in our businesses and the realization of a sustainable society

through long-term trust-based relationships with our customers



President and CEO

Basic Strategies for Transformation 2020 Mid-term Business Plan

Under the Transformation 2020 (TF2020) plan, which was launched in fiscal year 2018, the Company aims to create growth opportunities and consolidate its foundation for growth, and thereby make progress toward the goals set out in the Company's long-term business framework. The TF2020 plan describes as follows what kind of company Yokogawa should strive to become:

A company that seeks to build a sustainable society by using its core measurement, control, and information technologies and pursuing digital technology innovation and co-innovation with its customers that enhances the productivity of business processes in a wide range of industries. To realize this aim, Yokogawa is now working on achieving the three transformations that were described in the TF2020 plan. With us now in the second year of this plan, I would like to take the opportunity to explain the goals of these three transformations, review the results that were achieved in fiscal year 2018, and describe the initiatives that Yokogawa will undertake next to achieve the goals of TF2020.

The first of the three transformations is the transformation of existing businesses. The industrial automation and control business accounts for about 90% of Yokogawa's net sales. In recent years, business growth has been led by large-scale facility construction projects related to LNG and other energy resources mainly in emerging markets and resource-rich countries. However, capital investment in new plants is subject to uncertainties since decisions and project trends associated with such investment are susceptible to external factors including changes in crude oil prices, and such large-scale investments can have a significant financial impact on our business. Therefore, under TF2020, Yokogawa seeks to

build a robust management foundation by shifting to a business portfolio that is not heavily dependent on new large-scale facility construction projects. Taking advantage of its wealth of experience gained through over 40,000 plant control system projects worldwide, the Company will focus on improving the productivity of customers' existing plant facilities by offering solutions that improve the efficiency of maintenance and operations. By doing so, Yokogawa will build resilience that can withstand any changes in the external environment.

The second transformation is the creation of new businesses and transformation of our business model. Yokogawa seeks to create value by applying its core measurement and control technologies in areas other than the energy field. With the goal of resolving social issues, the life innovation business targets the pharmaceutical, food, and bioeconomy sectors to support people's health and enrich lives. These are defined as focus areas in the Company's long-term business framework. In recent years we have witnessed an increase in pharmaceutical products that are developed and produced using biotechnology. Among our initiatives is the development of cell-based manufacturing solutions based on Yokogawa measurement and predictive control technologies that improve the efficiency of the cell culture process and thereby support the development and production of antibody medicines. Investment in the pharmaceutical sector is largely focused on the development of new drugs. Yokogawa's approach of using its technologies to enhance productivity both fulfills the medical needs of patients suffering from diseases for which no effective treatment is yet available and contributes to the pharmaceutical industry, and is consistent with the Company's goal of promoting well-being.

Moreover, Yokogawa will transform its business model of simply selling products and services by engaging in a results-based business that can reduce customers' initial investments and a recurring business that emphasizes the offering of services.

The third transformation is the improvement of productivity through Group-wide optimization. Yokogawa will make use of robotic process automation (RPA) and other digital technologies that improve efficiency and transform its internal business processes. The Company will speed up its efforts to enhance the effectiveness of these reforms.

In support of these three strategies, Yokogawa is promoting digital transformation (DX) both in and outside the company. We will help our customers run their businesses more efficiently by utilizing the data obtained through the use of information technology (IT) and leveraging the expertise acquired in using operational technology (OT) at their production sites, and will explore ways to create new value by integrating OT and IT. By making full use of digital technology, we will enhance our competitiveness.



Review of Fiscal Year 2018 and Future Initiatives

A year has passed since the start of TF2020. During this time, customers' expectations of Yokogawa have gradually shown signs of change. For example, there is a growing demand for localization primarily in emerging markets, as it creates local jobs and contributes to regional economic growth. Further, there is a greater expectation that we will help to address social issues by, for example, reducing customers' environmental footprint. These changing needs bode well for Yokogawa's business.

With respect to Yokogawa's goal of transforming existing businesses , the Company is deepening its relationships with customers in the industrial automation and control business, and has been capitalizing on its installed base to make steady advances with the OPEX business¹  mainly outside Japan. Orders have increased in regions such as Southeast Asia, Europe, and India, mainly in the service business. In addition, the CAPEX business², which leads to future OPEX businesses, has grown significantly. We are engaged in new large-scale CAPEX projects in the oil & gas industries' upstream (development and production) and downstream (refining, transportation, and sales) sectors, primarily in the Middle East. To expand our solutions business, Yokogawa units such as KBC Advanced Technologies (a subsidiary with expertise in the consulting business) will need to step up their efforts to integrate advanced process control (APC), energy management systems (EMS), and other Yokogawa solutions, and speedily expand their business in Asia.

*1: Business focused on solving issues to improve productivity at existing plants and on providing maintenance services at these facilities.

*2: Business related to capital investment in new plants.

With respect to the Company's goal of further strengthening in target industries , strong investment in the chemical sector has led to an increase in orders primarily outside Japan, in markets such as India and China. Yokogawa will continue to provide new solutions to its existing customers while attracting new customers in China and other regions. Regarding the goal of cultivating the renewable energy business, the Company needs to accelerate its efforts by expanding its portfolio through collaboration with other companies having the requisite know-how.

At the heart of Yokogawa's value creation process is the advantage of close relationships with customers that the Company has worked with for 30 years or longer, over the entire lifecycle of the products that have been installed at their plants. Based on the strong trust that has been established with these customers, Yokogawa has been able to gain access to data on their site operations to identify destabilizing factors in individual processes and propose solutions. In addition to its strengths in providing high-quality and highly-functional tools and services that are indispensable to operations and maintenance, Yokogawa has made dramatic advances in its ability to resolve issues for its customers by such means as using

insights from field data to enhance productivity, and this is due in part to the Company's 2016 acquisition of KBC Advanced Technologies. We believe the promising results for fiscal year 2018 are a reflection of our customers' positive evaluation of what we have accomplished thus far.

With respect to Yokogawa's goal of creating new businesses and transforming its business model , the Company is taking on new challenges in such fields as drug discovery support as part of its life innovation business. To succeed in such new businesses, it is crucial that the Company recruit personnel with the requisite expertise. In December 2018, Yokogawa welcomed into its fold NKS Corporation, a company that specializes in the validation of facilities used in the production of pharmaceuticals, medical equipment, and foods. The Company also expanded its resources by such means as recruiting mid-career personnel with a deep knowledge of these fields. Due in part to these initiatives, sales were up 40% from fiscal year 2017, with the largest increases being recorded in Japan, China, and Europe. It is particularly noteworthy that Yokogawa's bio solution business centering on confocal scanners set new records for both orders and sales. The Company will leverage its experience and track record in a wide range of industries in Japan to further accelerate its business expansion while investing in the development of solutions for cell-based manufacturing and other new products in the pharmaceutical and food industries, which require high levels of safety and efficiency.

In addition to the initiatives described above, in November 2018 Yokogawa acquired a stake in AlgaEnergy, a Spanish company that produces microalgae for use in biostimulant products that promote plant growth, and this company's development of additional commercial applications in such fields as foods, cosmetics, and pharmaceuticals is highly anticipated. AlgaEnergy's production facilities are located next to a thermal power plant. The microalgae perform photosynthesis using the CO₂ generated by the power plant—a perfect illustration of how a circular economy operates. The bioeconomy is a field that Yokogawa will pursue on a long-term basis. Using this strategic partnership with AlgaEnergy as a model, Yokogawa will continue to develop applications in which customers in the manufacturing sector can reduce their environmental footprint by reusing CO₂ and other environmentally hazardous substances to produce bio resources. While Yokogawa has made a good start with this new collaboration, the Company needs to speed up its efforts.

In addition, as part of its business model transformation, Yokogawa launched amnimo Inc. in May 2018 to study and develop new ways to add value by leveraging its IIoT architecture. The Company will take advantage of IIoT technology to strengthen its alliances with customers and partner corporations in a diverse range of fields and co-create new value.

Regarding the improvement of productivity through Group-wide optimization , Yokogawa has made steady progress in initiatives as both a resource supplier and investor, in line with a basic policy that calls for the generation of resources to be used as capital for investment in future growth. Specifically, as part of its effort to optimize the Group's structure, the Company has utilized RPA to automate over 60 operations and improve productivity. To optimize its cost structure, Yokogawa is utilizing digital technology to reduce costs. Examples include making greater use of a global delivery center (formerly called a central engineering center) in India. At the same time, the Company is investing in new businesses such as bioeconomy and life innovation. Furthermore, to give employees the specialized knowledge and skills needed to transform Yokogawa, the Company continues to provide training through such initiatives as the establishment of Yokogawa University, a corporate institution that focuses on e-learning.

Digital transformation  (DX) is the driving force for the value creation that will be needed to tackle the three transformations of TF2020. As part of its DX initiatives, in April of this year Yokogawa launched a new organization, the Digital Enterprise Business Headquarters, to present a blueprint for transformation. With the ultimate goal of integrating OT and IT, the new organization first undertook the standardization and cloud migration of the IT infrastructure of over 110 Group companies, thereby eliminating one-third of approximately 600 applications and optimizing IT infrastructure globally. To create value for its customers, Yokogawa worked to utilize its IIoT architecture and enhance security services, and these initiatives have yielded promising results for the future. The Company will continue to invest in DX, which serves as a driving force for all transformations.

See p. 28 for details



Yokogawa's Future and its Commitment (Mission Statement)

As the newly appointed president, I believe my mission is to accelerate the pace of the transformations and achieve the targets defined under TF2020, so that we can become an even more profitable company and prepare the way for the next stage of growth.

When Yokogawa's businesses are examined from a global perspective, it is clear that the Company's key customers outside Japan are in the LNG, petrochemical,

and energy sectors. In Japan, the Company participates in projects with a broad range of customers in the manufacturing sector, and provides them solutions that are tailored to the requirements of a changing business environment. As Yokogawa has transitioned to a solutions-business model in the Japanese market over the past five to six years, it has accumulated expertise and know-how through a broad-ranging collaboration with other companies. The knowledge and networks that the Company has built up in Japan also hold great significance for its customers outside Japan. An analysis of Yokogawa's businesses by product/service, region, and industry reveals that the Indian and Chinese markets, and the chemical industry and renewable energy sector, have great potential. With respect to products and services, Yokogawa will promote services related to recurring businesses and win contracts at a faster pace.

In terms of new businesses, Yokogawa needs to speed up the development of solutions for cell-based manufacturing and single-cell analysis. To pursue these new areas, we must recruit personnel who have the required knowledge and expertise. In addition to its efforts in recruitment and employee training, the Company will continue, as in the previous year, to focus on M&A and collaboration and invest in growth areas.

With respect to DX, which serves as a driving force for transformation, value creation within the Company is directly linked to new value for customers. Yokogawa will step up its efforts to both enhance operational efficiency at the Company and deliver value to its customers.



Yokogawa was well aware of the difficult business environment that it faced when it launched the TF2020 plan, and I believe now that the need is ever greater for us to speed up our efforts and vigorously implement transformation.

I joined Yokogawa because I was inspired by the role that the Company plays in providing rock-solid support to industry and society. Yokogawa remains committed to a corporate philosophy that reads As a company, our goal is to contribute to society through broad-ranging activities in the areas of measurement, control, and information. Individually, we aim to combine good citizenship with the courage to innovate, and seeks always to build stronger bonds of trust with society. Yokogawa is well positioned not only to gather and accumulate data but also to make full use thereof. As we transition toward an era in which new value is created through the use of data, I believe the Company can leverage its unique position to establish economic and environmental partnerships and contribute to the development of society and industry. In the chemical industry, for example, inconsistencies in the supply of raw materials is having an impact on quality. When quality-related issues arise, we can identify the causes and propose solutions by reviewing all operational processes from raw material supply to shipping. With its track record in offering control systems, sensors, and analysis software, among other products, Yokogawa has the capability in a steadily evolving business environment to identify issues that customers themselves may be unaware of and to provide solutions that enhance product quality, ensure stable operations, and reduce environmental impact, and in so doing contributes to society.

In addition, Yokogawa has the advantage of long-term customer relationships. It is important for the Company to recognize that it is well positioned to contribute to society, and to step up its efforts to enhance the capabilities of its personnel and utilize its technologies.

In January 2019, Yokogawa made it onto the Global 100 Most Sustainable Corporations in the World Index and was rated highly for its clean revenue and innovation



capacity. In addition to having a strong track record in helping customers improve productivity and safety at their manufacturing sites, Yokogawa has been commended by parties outside the Company for its contributions in reducing CO₂ emissions and its bioeconomy initiatives for the realization of a circular economy.

In March 2019, Yokogawa announced its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). This represents Yokogawa's firm determination to confront climate change issues and prepare for the future. Yokogawa will endeavor to earn the strong confidence of its customers to both produce profits and make progress toward the achievement of the United Nations' Sustainable Development Goals (SDGs), including the reduction of our environmental footprint, and in so doing will contribute to sustainability and the growth potential of society.

While conducting business in Southeast Asia and other locations around the world, I have come to see how much our customers appreciate the Yokogawa approach to seeing everything through to a successful completion and making customers the first priority. The Company's proven track record in establishing successful long-term relationships with customers based on an enduring corporate culture will no doubt remain a competitive advantage even in turbulent times.

My vision for Yokogawa is to be recognized as a company where employees can thrive and enjoy their work and be trusted and respected by society and customers. I believe we have the mission to remain committed to the principles that we have inherited from our predecessors. To accomplish all this, we will continue to achieve growth by supporting our customers' businesses and contributing to society.

Detailed review and action plan



Transformation of existing businesses

Industrial automation and control business: Expansion of OPEX business

Business centering on installed base has steadily expanded, while accelerated effort is needed to expand the solutions business

Strategy

- Expand the solutions business in Japan and KBC's consulting business to other regions and industries.
- Utilize data obtained from a rich installed base to optimize the service business.

Target

- OPEX growth outside Japan: **7 to 10% per year**

*FY17 result: approx. 70 billion yen

*OPEX business divided into overseas and domestic categories, and overseas category further divided into (1) maintenance and operations and (2) solutions segments

Main activities

- Launched and strengthened OpreX™ brand
- Signed global reseller license agreement with Chevron for PETRO planning software
- Expanded scope of lifecycle services

Results

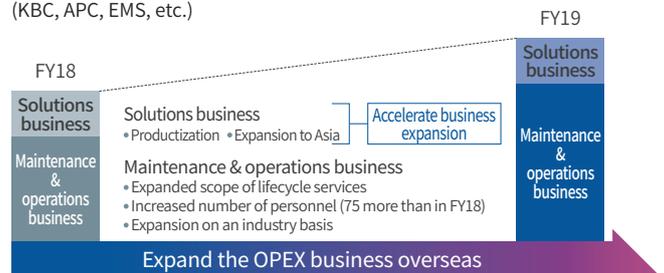
FY18 OPEX growth rate outside Japan: 8.3%

- Steady expansion primarily in the service business in Southeast Asia, Europe, India, etc.

Action plan

Further integration of existing solutions

(KBC, APC, EMS, etc.)



Transformation of existing businesses

Industrial automation and control business: Further strengthen in target industries

Investment remains strong in chemical industry / Need to pick up pace of efforts to develop renewable energy business

Strategy

- Expand bulk chemical and specialty chemical businesses outside Japan.
- Develop new renewable energy markets.

Target

- Growth: **3 to 5% per year**

*Control orders in chemical and renewable energy industries

*FY17 result: approx. 40 billion yen

Main activities

- Boosted sales to fertilizer industry (USA, China, ASEAN).
- Developed new customers in specialty chemicals industry
- Established new company in Norway to meet anticipated demand in upstream and renewable energy sectors

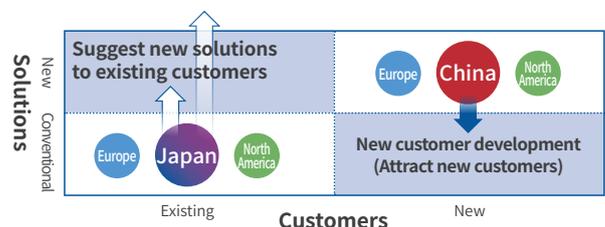
Results

Targeted growth in FY18: 8.1%

- Growth focusing on chemical industry (India and China)
- Growth in renewable energy industry, for biomass power generation, etc.

Action plan

Chemical : Expand business targeting overseas operations of Japanese companies (North America & Europe)



Renewable energy : Portfolio expansion through collaboration with other companies with expertise

Transformation of existing businesses

Measurement business, aviation and other businesses

Measurement business

- Focus on competitive/unique products (maximizing capital efficiency).
- Target new growing markets.

Aviation and other businesses

- Transferred the shares of Yokogawa Denshikiki Co., Ltd., which specialized mainly in the marine navigation equipment business (end of December 2018).
- Focusing resources on transformation of aviation-related business (improving profitability).



Creation of new businesses Life innovation business

While Yokogawa has started up and is making good progress in developing this business, the Company needs to accelerate these efforts.

Strategy

- Expand businesses based on existing businesses and new technologies and products currently under development.
- Expand solutions portfolio by actively utilizing external resources and M&A.

Target

- Increase sales **2 to 3 times by FY20 (compared to FY17)**

*FY17 result: approx. 12 billion yen

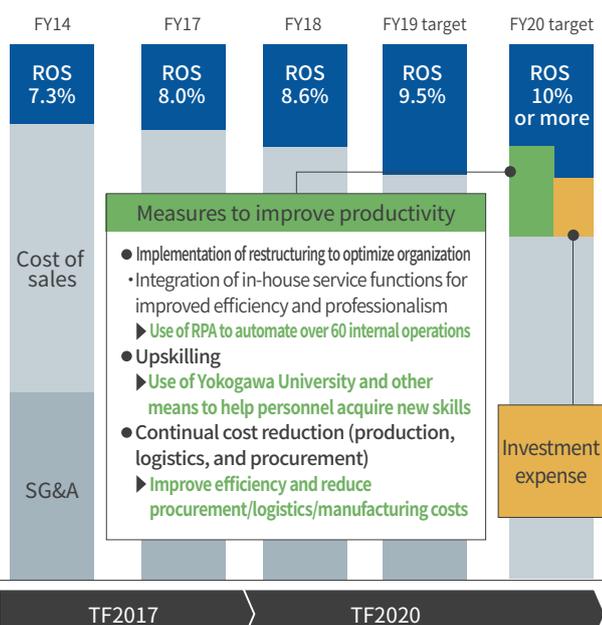
Main activities

- Bioreactors: Accelerated development and commercialization
- Increased headcount (including mid-career recruitment)
- Acquired NKS Corporation (expansion of validation business)
- Capital participation in AlgaEnergy (Spain)



Improvement of productivity through Group-wide optimization

Activities to establish a firm foundation for growth by improving productivity are going well. Speed up implementation of measures to optimize organization through restructuring.



Continued transformation to improve profitability

Vision

- Radically improve productivity across the entire value chain, from the basic research of pharmaceuticals and foods to logistics and services.

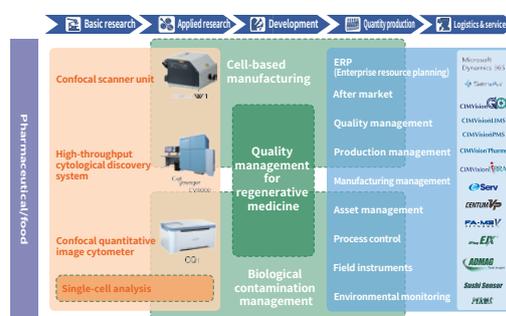
Results

FY18 sales up approx. **1.4** times year on year

- Expanded our business in food and pharmaceutical industries (Japan, China, and Europe)
- Investments (including M&A): Approx. 3 billion yen

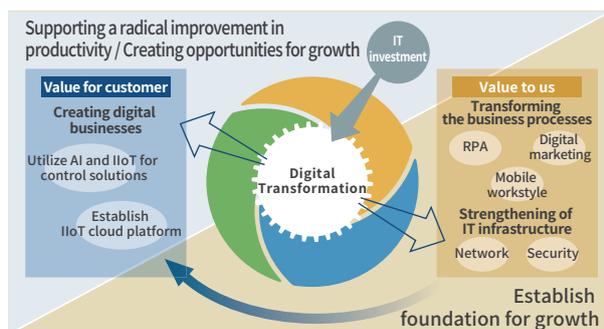
Action plan

Aim to increase sales in food/pharmaceutical industries in Japan.



Digital transformation (DX)

Create value in-house that will allow us to deliver more value to our customers.



Goals

Value for Yokogawa

Value for customer

Review and action plan

- Moving forward with global optimization of IT applications (plan to reduce number of apps by 1/3)
- Completed installation for IT infrastructure globally
- Progress being made in implementing hybrid cloud IT infrastructure
- Progress being made with automation of internal operations using RPA.
- Preparations underway for establishment of global data lake and introduction of BI tools to realize data-driven management
- Launched Digital Enterprise Business HQ to expand delivery of DX services to customers
- Launched IIoT introduction support service business (recurring type)
- Expanded line-up of plant data-driven service products.
- Strengthened security services business.

