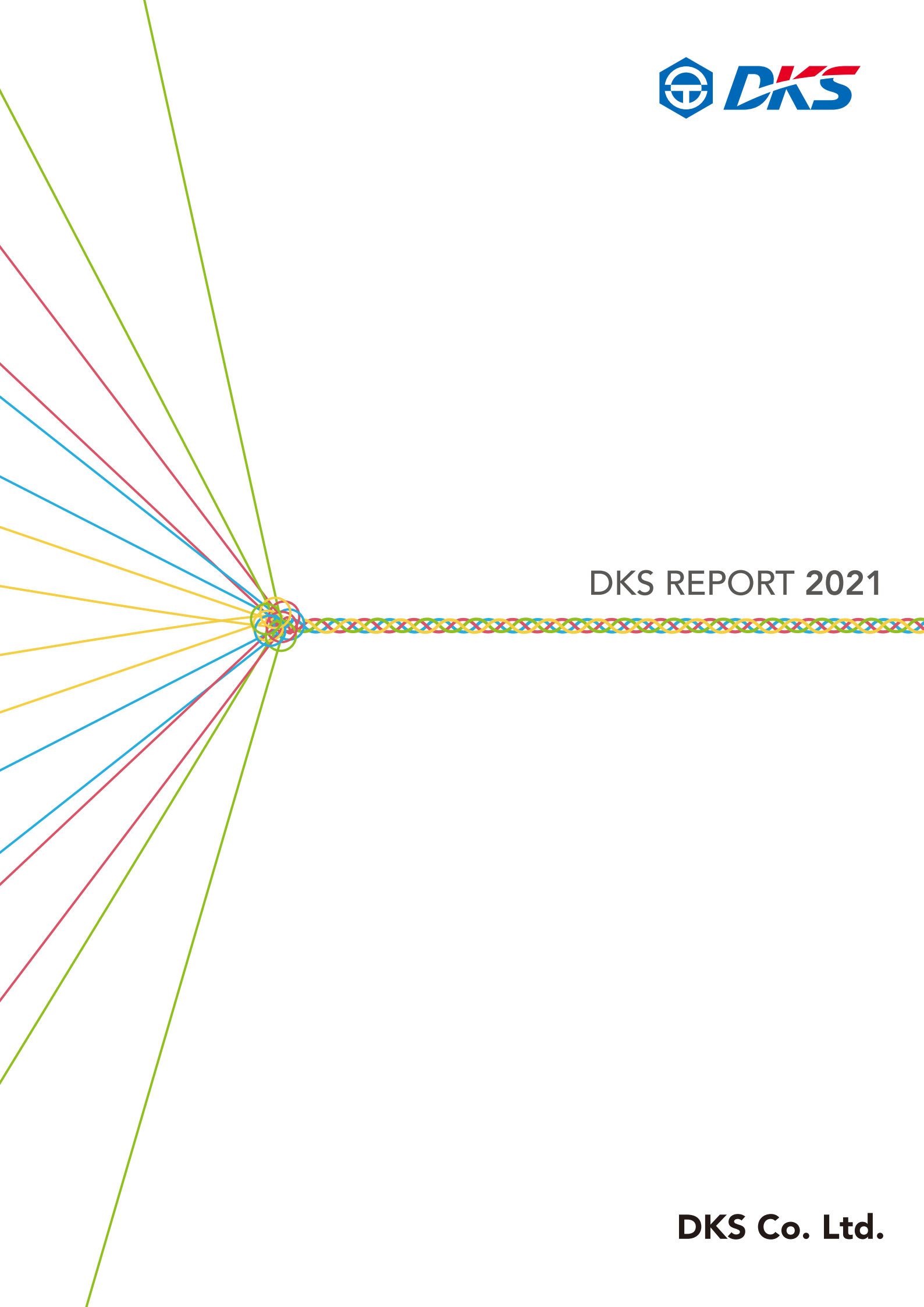


DKS REPORT 2021

DKS Co. Ltd.

CONTENTS

■ DKS Report 2021 Editorial Policy

In 2016, the DKS Group began to publish its integrated annual report (DKS Report), which added information about the Company's finances and management strategy to what had been in its Environmental and Social Report. From 2017, we referred to the International Integrated Reporting Framework promoted by the International Integrated Reporting Council (IIRC), which became part of the Value Reporting Foundation in a June 2021 merger.

We are continuously publishing an English-language edition. As our business activities become increasingly international in nature, we aim to communicate to all our stakeholders including those outside Japan. Starting with the disclosure of environmental, social and governance (ESG), and nonfinancial information associated with DKS's sustainable growth, we will also convey management's vision, business results, growth strategy, capital policy and other information.

In this Report, by visualizing those "invisible assets" that raise corporate value, we attempt to describe the Company's current conditions and its journey to the future, so as to be able to inform the readers of the creation of value across the short, medium and long terms. Looking to the future, we will use the DKS Report as a communication tool with all our stakeholders.

Please refer to our official website for detailed information about the financial and nonfinancial information of the DKS Group.

■ Organizations Covered by this Report

DKS Co. Ltd. ("DKS" or "the Company") and Group companies (collectively "the DKS Group" or "the Group")

■ Period Covered by this Report

In principle, this Report contains our activities and data during fiscal 2020 (from April 1, 2020, to March 31, 2021). The data on the Industrial Accident Severity Rate (ASR) and the Industrial Accident Frequency Rate (AFR) were obtained from January to December 2020.

■ Reference Guidelines

International Integrated Reporting Framework by the International Integrated Reporting Council (IIRC) (became part of the Value Reporting Foundation in a June 2021 merger), "Environmental Reporting Guideline 2012" by the Ministry of the Environment, "Environmental Accounting Guideline 2005" by the Ministry of the Environment, "Environmental Accounting Guideline for Chemical Industries (November 2003)" by the Japan Chemical Industry Association (JCIA)

Posted on the Website

The Emission of Notification Substances under the PRTR Law in fiscal 2020
Transition of the Environmental Impact at Branches and Yokkaichi Chemical Safety Securement and Disaster Prevention

[Forward-Looking Statements]

Statements contained in this report regarding the plans, projections and strategies of DKS that are not historical fact constitute forward-looking statements about future financial results and are subject to risks and uncertainties. As such, actual results might differ significantly from these forward-looking statements due to changes in various external environmental factors. Consequently, DKS hopes for your understanding as it does not guarantee the certainty of such forward-looking statements.

Chemistry provides a solution.

DKS Credo

Contributing to the nation and society through industry

DKS Mottoes

Quality First, Cost Reduction, R&D Efforts

DKS Group Logo

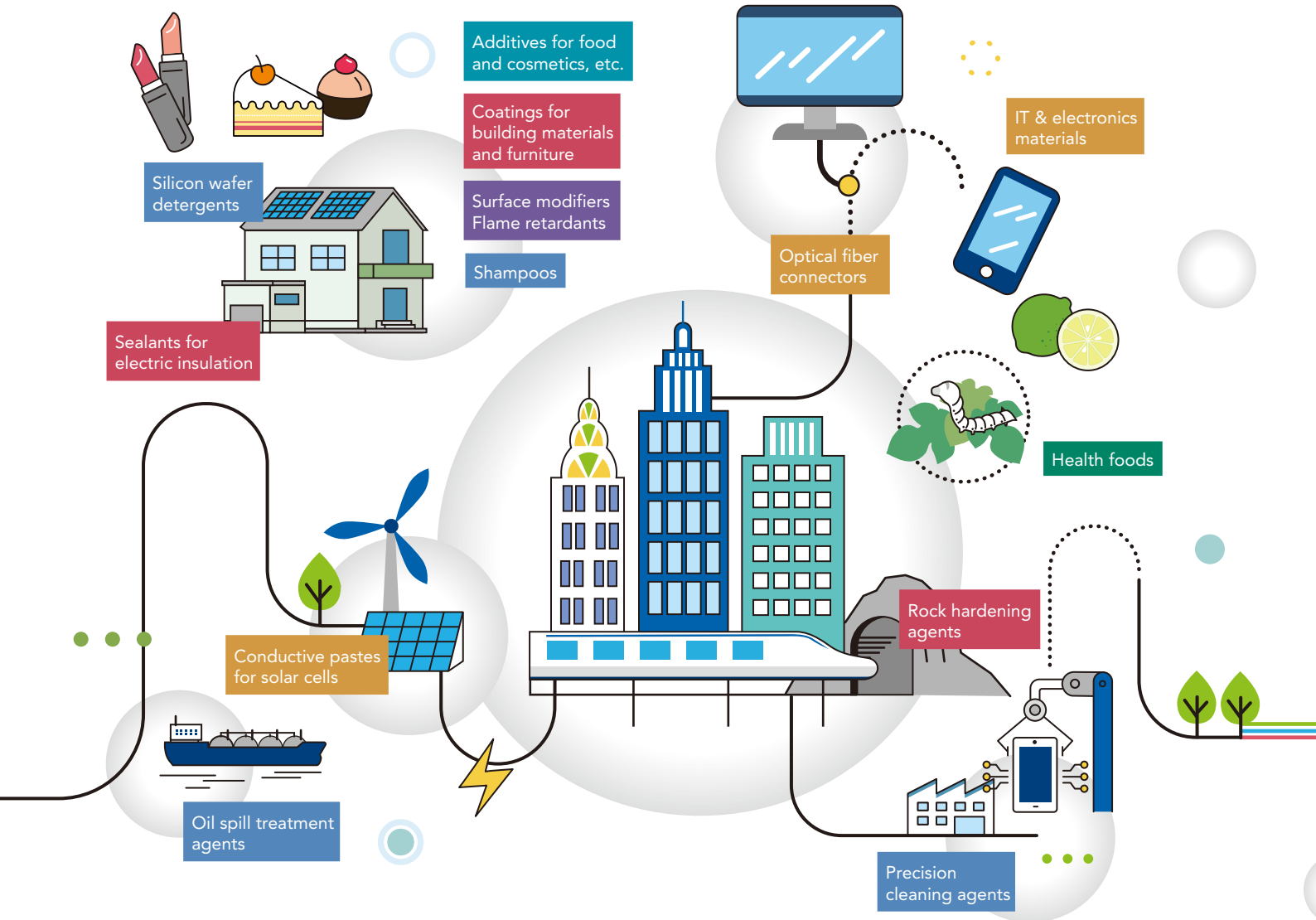
The DKS Group logo symbolizes "Act for a Leap," our step for globalization.
It describes the bridge for growth toward "Challenge to 1000."

Special Feature

The Significance of DKS —Creating Happiness through the Power of Chemistry

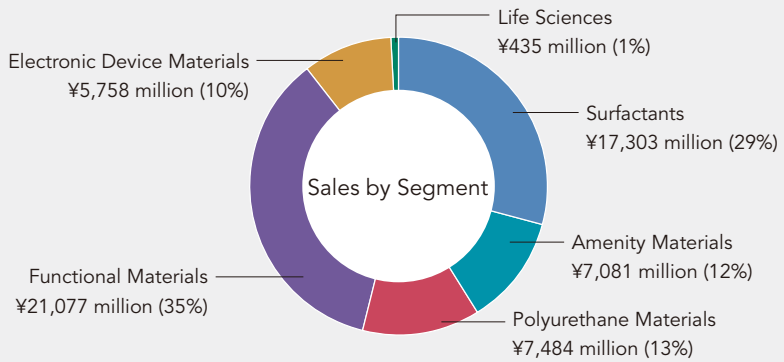
DKS Group Products Around Us

DKS Group products support a variety of products used in our daily life. Here are some examples found in society and our living environment.



Six Core Business Segments

Net sales for the fiscal year ended March 31, 2021
¥59.1 billion



Surfactants

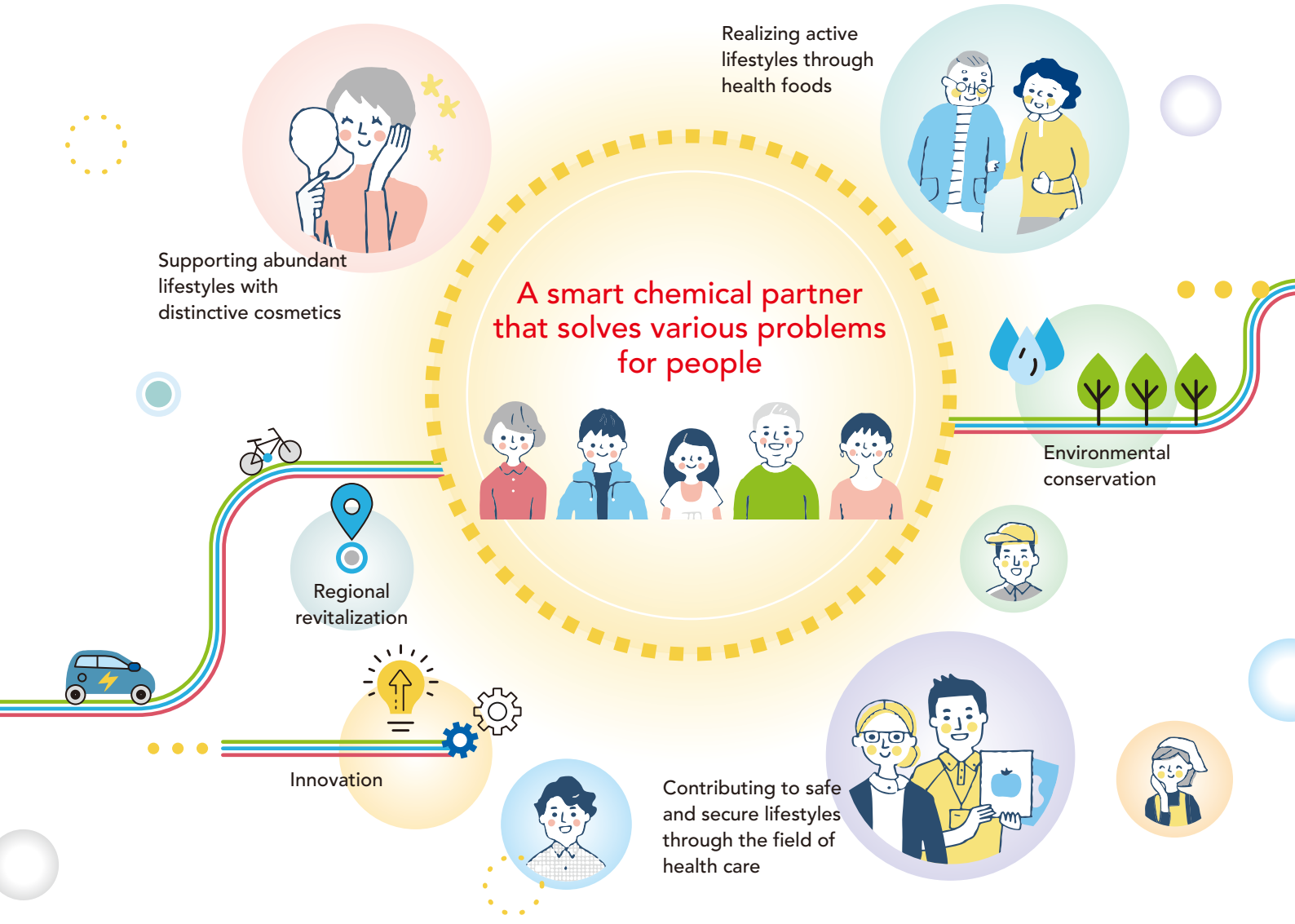
We provide highly functional surfactants since the Company's founding in 1909.

Amenity Materials

We provide materials and peripheral application technologies necessary for a comfortable living environment.

Vision for 2030

In the year 2030, Japan will be facing social challenges from major impacts to employment, health care, and social welfare from a shrinking workforce due to an aging and declining population. DKS Group aims to use the power of chemistry to be a smart chemical partner solving various problems people face.



Polyurethane Materials

We provide industrial materials and polyurethane raw materials, for example, paints, adhesives, civil engineering and construction materials, electric insulating materials.

Electronic Device Materials

We provide ceramic materials and conductive pastes for home appliances and electronics components.

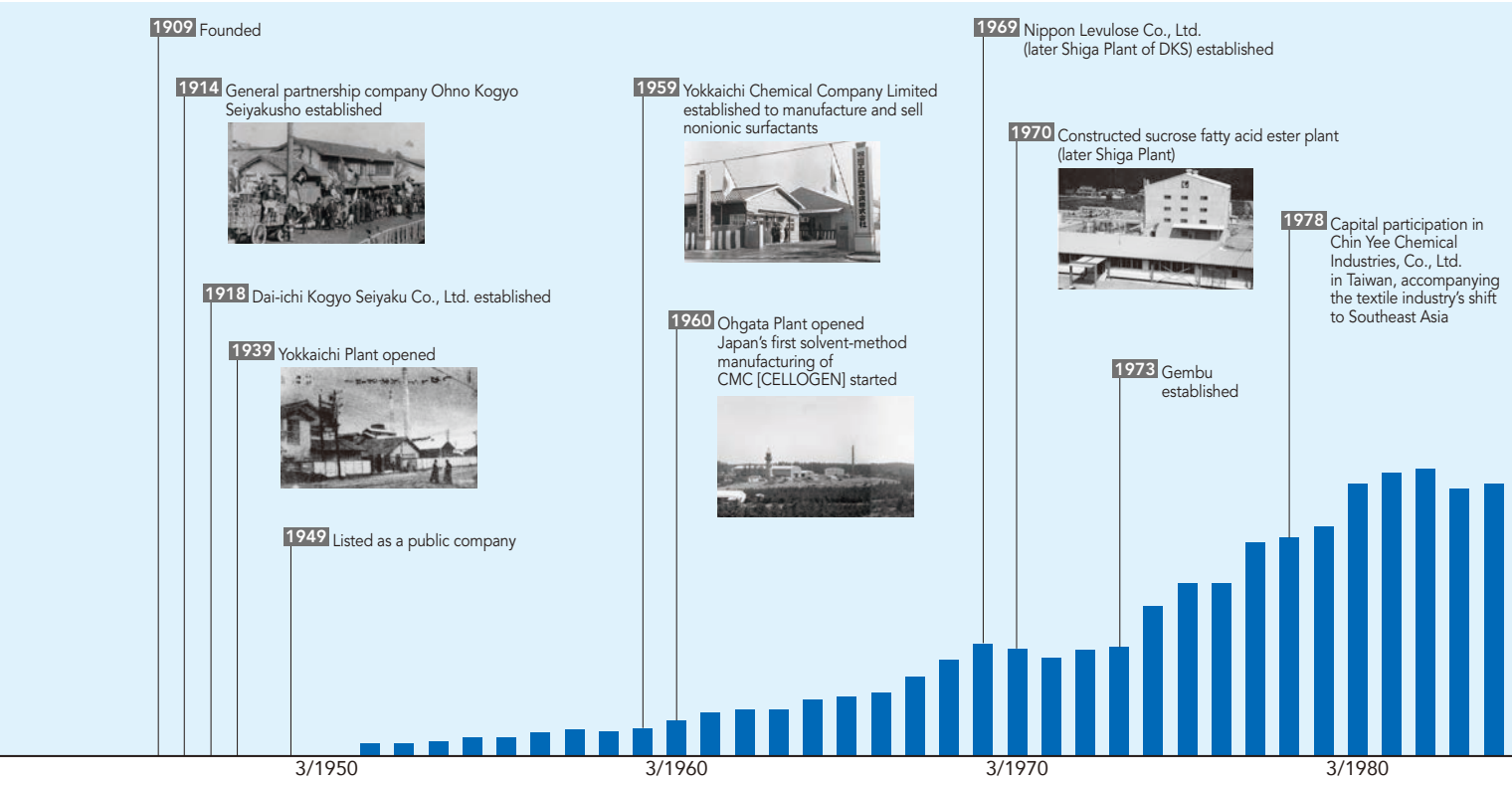
Functional Materials

We provide products that are essential to daily life and home electronics, for example, flame retardants, radcure resins, waterborne polyurethanes.

Life Sciences

We provide naturally derived health foods and technologies for extraction, concentration and powdering of natural products.

Philosophy in Practice—The History of DKS Business Development



Social changes

1900s

Rapid Growth of the Spinning Industry

With the advent of World War I, the spinning industry undergoes dramatic growth. Textile goods exceed 50% of Japanese exports.

1909 SILKREELER cocoon unwinding agent (chemical agents for spinning)
1915 Gembu Marseille Soap (industrial soap for textile)

Trademarks of the Company (from left: Seiryo, Suzaku, Byakko and Gembu)

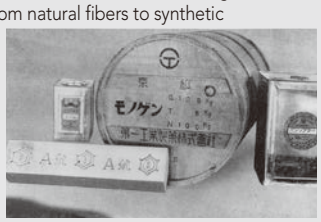
1930s–1950s

Industrial Modernization, Shift to Synthetics

Following World War I, the industry undergoes a period of modernization, during which time the textile industry sees an accelerating shift from natural fibers to synthetic alternatives.

1934 MONOGEN higher alcohol-based detergent
1950 CELLOGEN synthetic thickener

Main products of this time



Development of DKS

1909–1950s

Founded as an Oil Agent Manufacturer, Aimed to Become a Comprehensive Chemical Industry Manufacturer

Founded in 1909 based on the "Dai-ichi Kogyo Spirit," the Company developed and sold the silkworm cocoon unwinding agent, a chemical for spinning waste cocoons. The Company responded to textile industry needs by developing and selling a number of textile oil agents using sulfation and compounding technologies.

In 1915, the Company introduced the first domestically produced soap, Gembu Marseille Soap, into the textile industrial soap market, which had been completely dependent on imported soap. The Company strengthened efforts to expand into household products such as shampoo and laundry and bath soap, which provided a breakthrough contribution to business performance during wartime and postwar turmoil.

With the development of the textile industry, the Company established a position as a textile oil agent manufacturer. During this period, the Company developed the nonionic surfactant NOIGEN, the cationic surfactant CATIOGEN, and various progenitors for other surfactants, setting the stage for its rise to the top of the industry.

■ Dai-ichi Kogyo (DKS) Spirit and DKS Mottoes

The Dai-ichi Kogyo (DKS) Spirit states that "We must demonstrate the traditional spirit of the Japanese people—the Yamato spirit—in our industry, always realize coexistence and co-prosperity between ourselves and others based on the concept of service, and maintain sincerity to contribute to the prosperity of the nation, society and mankind." Sincere efforts to manifest this spirit continue to be passed down through our three Company Mottoes: "Quality First," "Cost Reduction" and "R&D Efforts."

1960s

Establishing a Foundation for Future Growth

In the 1960s, against the backdrop of intensifying price competition in industrial fields, the Company expanded the scope of and diversified its industrial products. In anticipation of the future potential of the polyurethane market—positioned as a downstream sector within the petrochemical industry—the Company commenced its polyether business. Moreover, the Company launched one business after another that would serve as a foundation for the future, including flame retardants and sucrose fatty acid esters.

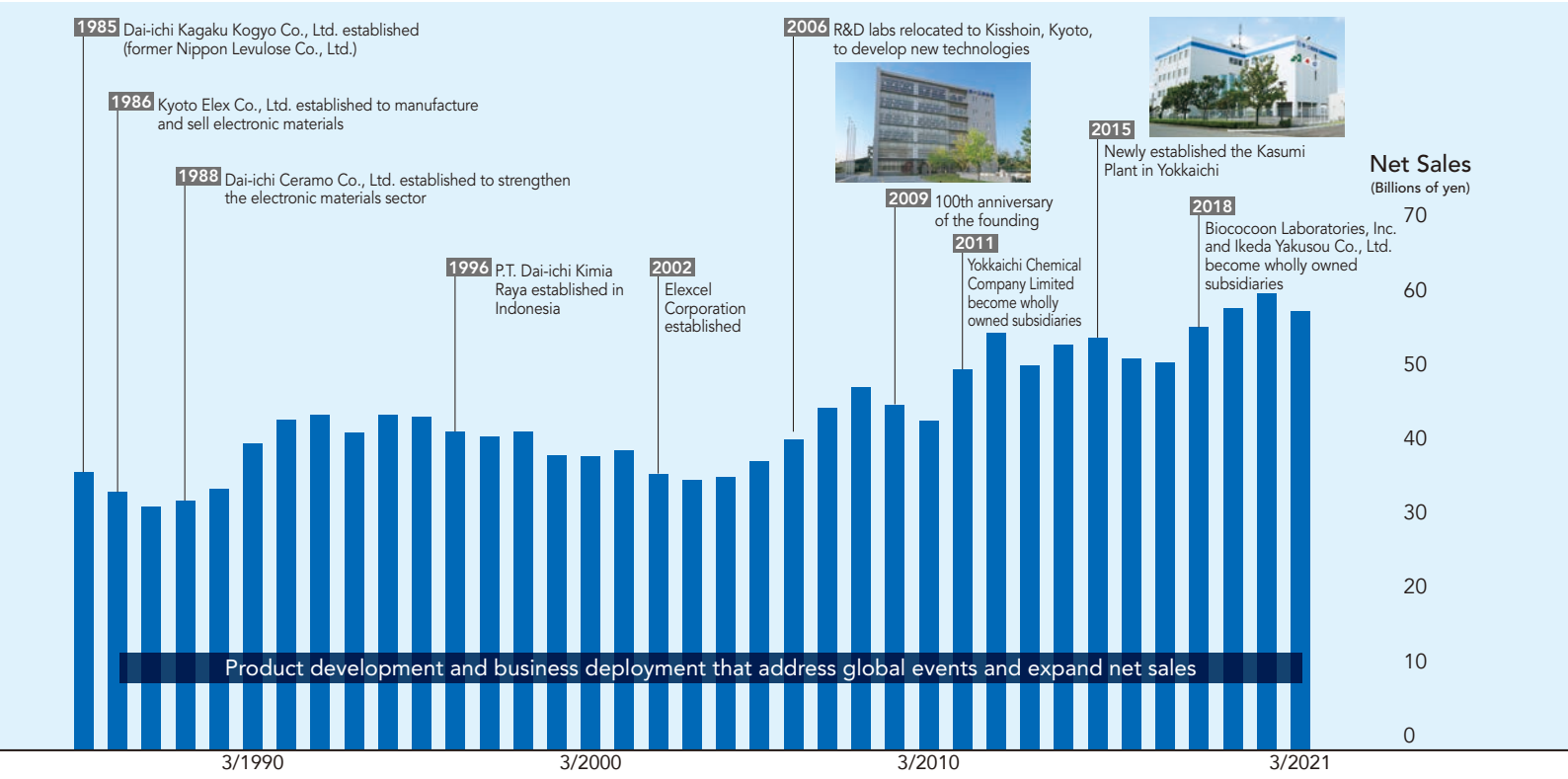
1980s–1990s

Becoming a Leading Highly Functional Chemical Products Company

In the transition to high-value-added products, the Company enhanced research and development in the priority areas of "Resources and Energy," "Electronics and IT," "Food, Pharmaceuticals and Cosmetics" and new materials. The Company developed various highly functional surfactants and polyurethane products. In aiming to become a leader in highly functional

■ Source of Original Technologies

During the post-World War I recession, the Company constructed laboratories in 1918, research incentives were stipulated in 1919 and "inventor award provisions" were enacted one after another in 1920 to encourage the creation of new products. The Company created superior new products and patents and strove to conduct research. In 2002, the Company implemented a patent incentive system ahead of other companies, contributing to the development and creation of new businesses such as the current life sciences business.



1960s–1990s

Growing Environmental and Safety Concerns Lead to High-Value-Added Materials

Following the oil shocks of the 1970s, the industry transitions to high-value-added products. In the 1990s, greater interest is placed on environmental consideration and safety, which accelerates the greater functionalization of existing materials.

1969 PYROGUARD flame retardant for plastics
1970 DK ESTER food emulsifier
1981 NEW FRONTIER UV/EB-curable monomers and oligomers
1982 SUPERFLEX waterborne polyurethane
1990 EIMFLEX polyurethane
1992 HITENOL polymerizable surfactant

2000s

Highly Functional Chemicals Sector Developments Resolve Social Issues

Japan's chemical industry begins to see the development of highly functional sectors that actively create and deliver added value to society.

2005 ELEXCEL IL ionic liquid
2013 RHEOCRYSTA cellulose nanofibers
2018 I. Japonica-Bombyx Fungus (dietary supplement)
Sudachin (citrus sudachi peel extract powder)

chemicals, the Company began collaborating with other industries as a way of addressing new needs. Moreover, the Company developed nonionic surfactants with a low environmental impact in collaboration with an overseas manufacturer.

2000s

Qualitative Change and Second Renaissance

Since 2004, the Company has constructed a business portfolio for a highly profitable structure and promoted the development and expansion of new businesses with high added value. With electronic and IT materials as the next generation of business pillars, the Company began to take steps to transition from a traditional surfactant company to a leading industrial chemical supplier. In 2009, the 100th anniversary of our founding, the Company started a six-year management plan with the aim of qualitative change and promoted the transition to a business division system, management infrastructure development and non-petrochemicals, thereby strengthening our financial position. In 2015, the Company formulated a five-year plan for new value creation, and in the same year, the new Kasumi Plant was constructed in Yokkaichi of Mie Prefecture, as a mother factory with the aim of integrating production, sales and development functions, preparing the foundation for a second renaissance.

Life Sciences Business Launched, Full-Scale Shift to DREAM Businesses

With its full-scale entry into the life sciences business in 2018, the Company acquired Biococoon Laboratories, Inc. and Ikeda Yakusou Co., Ltd. as wholly owned subsidiaries. As an initiative that links achieving healthy longevity and revitalizing communities, the life sciences business has, along with the environment/energy, and IT and electronics materials fields, become part of the foundation on which the Company is focused for creating a better future.

■ A Corporate Culture of Respect for Quality

As early as 1922, uniform product standards were developed and the division of duties clearly stated that research staff were responsible for quality checks. In 1951, a quality management committee was established to cultivate a corporate culture of respect for quality and engage in organizational development. In the 1960s, QC circles were actively developed at plants across Japan led by young engineers, and in 1974, these activities were unified, and together with research efforts DKS established a reputation as a technology company.

■ Uni-Top Strategy and Inspiring/Inspired Partners

At the Kasumi Plant, under the Uni-Top strategy (providing unique products that do not pursue scale), the Company has promoted efforts with "business partners who provide a mutual spark," whom we call inspiring/inspired partners. As the profitability of special nonionic surfactants and radcure resin materials is on the rise, they are expected to be growth drivers for achieving our numerical targets in fiscal 2024.

Value Creation Process of the DKS Group

Based on its technologies and trust accumulated over the past 112 years, the DKS Group applies originality and imagination to limited resources in delivering materials that enrich our way of life.

DKS Credo Contributing to the nation and society through industry

DKS Mottoes Quality First, Cost Reduction, R&D Efforts

Inputs

■ Financial capital

Net assets: ¥37,404 million

Interest-bearing debt: ¥28,529 million

■ Manufacturing capital

Manufacturing bases: 13
(includes three overseas)

Capital expenditures: ¥4,617 million

■ Intellectual capital

Patents held: 1,012
(of which held overseas: 479)

R&D expenses: ¥2,821 million

■ Human capital

Employees (consolidated): 1,061
(Ratio of female employees 18.9%
Overseas employees 178)

Employment ratio for people with disabilities: 2.9%

■ Social capital

Inspiring/Inspired Partners

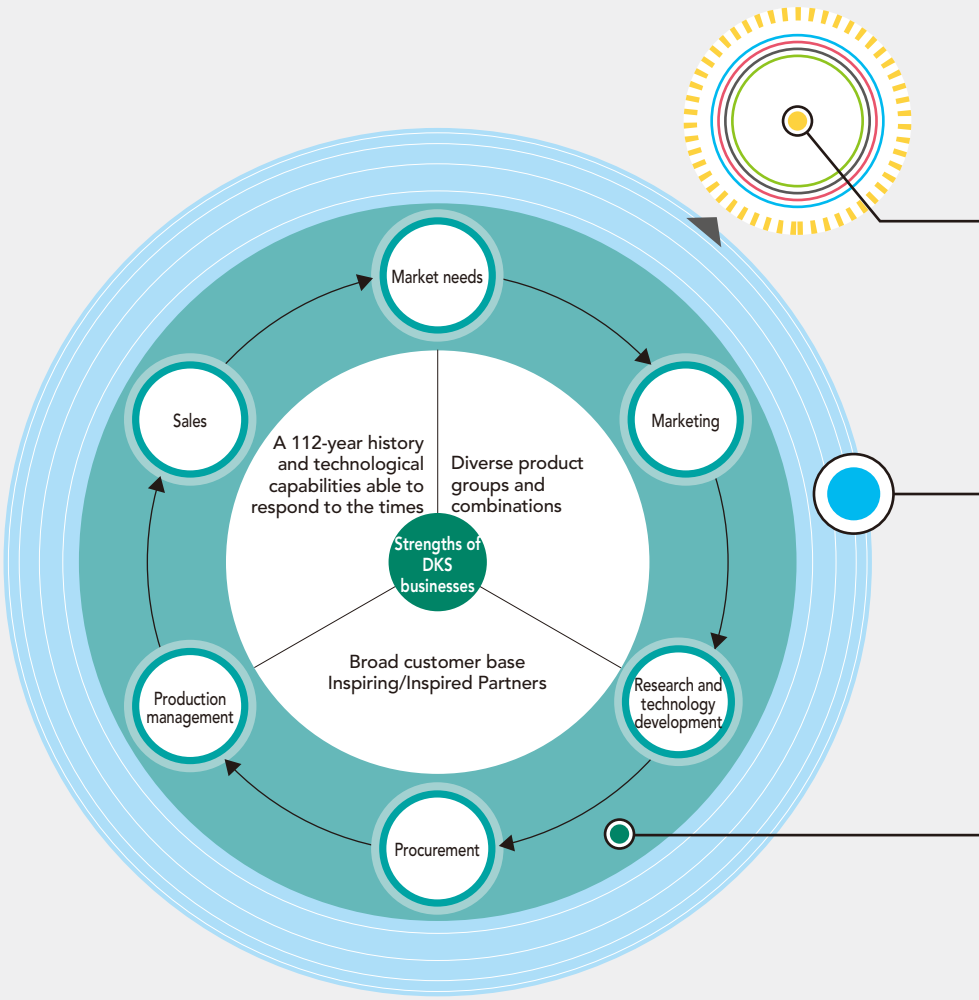
Cooperation with local municipal governments & universities

■ Natural capital

Energy consumption: 24,600 L/year

Raw materials used:
Petroleum, coal, ore minerals, wood, plants, biological materials

Integrate & WARP



Uni-Top strategy

DKS's Seven Critical Issues of Importance (management foundation)

- Quality and Safety Management ▷ P.40
- Research and Development ▷ P.32
- Human Resource Management ▷ P.42
- Consideration for the Environment ▷ P.44
- Regional Society Contributions ▷ P.39
- Organizational Resilience ▷ P.48
- Tackling NEXT and DREAM Businesses ▷ P.16

A smart chemical partner that solves various problems for people

DREAM (New Businesses)

NEXT (Peripheral Businesses)

ACTUAL (Existing Businesses)

Medium-Term Management Plan FELIZ 115 ▷ P.23

ESG-based management initiatives

E: Mitigating environmental impact of products and raw materials
100-million mulberry tree planting campaign

S: Appointment of female officers

G: Establishment of an Advisory Board

Outputs

Six core business segments

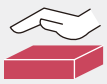
Surfactants

▷ P.34

Amenity Materials

▷ P.35

Polyurethane Materials



▷ P.36

Functional Materials

▷ P.37

Electronic Device Materials

▷ P.38

Life Sciences

▷ P.39

Outcomes

Fiscal year ended March 31, 2021

■ Financial capital

Net assets: ¥85,033 million

Total Shareholder Return for the Past 10 Years: 12.2%

ROIC (4.5%) > WACC + α

■ Manufacturing capital

Enhancement of the Yokkaichi Branch's Kasumi Plant

■ Intellectual capital

Patents held: 1,056

■ Human capital

Ratio of females in management positions: 8.8%

Retention ratio of employees with disabilities: 100%

■ Social capital

Regional revitalization, local community revitalization

■ Natural capital

Contributions to a recycling-oriented society (CN2050)

Energy reduction rate: 7.6%

Future value creation (Outcomes) & SDGs

FY2030

Total assets: ¥135.0 billion

Enhancement of the Kibi Plant

Expansion of the life sciences business

Diversity promotion
Higher rate of profit sharing with employees

Sericulture innovation

100-million mulberry tree planting campaign

Explanation of the Value Creation Process

1 Business Model

DKS strives to be a company praised for our Uni-Top strategy: providing unique products that do not pursue scale. Our business development has the fundamental value-chain cycle of: understanding customer and market needs → marketing strategies that leverage the Company's strengths → development of products (prototypes, generating orders) grounded in our R&D prowess → efficient procurement to facilitate production → appropriate production and management → sales activities with strict adherence to delivery deadlines → further understanding of market needs.

We have developed products with added value and close alignment with customer needs by leveraging expertise from our diverse technologies (see p. 30), our transactions in a broad spectrum of industrial fields, and our ability to combine rich lineups of product groups that number in the thousands.

Our existing businesses (ACTUAL) encompass a broad B-to-B customer platform, while our peripheral businesses (NEXT) utilize R&D for specific customers, in addition to specialized production plants. With our relationships with inspiring/inspired partners in particular, we have built up a partner (customer) base that anticipates the needs of (B-to-B-to-C) end-users and is able to mutually inspire and collaborate with new approaches.

Furthermore, with regard to new businesses (DREAM) that are our medium- to long-term growth areas, we will continue to invest in new growth businesses, such as in life sciences, and pursue product development that enhances QOL and contributes to society in ways that help solve issues such as the aging population and environmental conservation.

2 Inputs

The following is an overview of the various types of capital that support DKS's business.

- Financial capital: While maintaining a sound financial footing resting on a net D/E ratio of 0.5, we respond to future risks and opportunities (see p. 10) from environmental changes, and emphasize capital efficiency, including utilizing interest-bearing debt, that constantly keeps ROIC above WACC.
- Manufacturing capital: With 13 manufacturing bases inside and outside Japan, we are leveraging our 112 years of technology and experience to manufacture products of value. Furthermore, with regard to capital expenditures, we have stepped up facility upgrades and growth investments since the fiscal year ended March 2015. In the past 10 years, we have implemented cumulative capital expenditures of ¥43,800 million, with total depreciation surpassing ¥18,100 million.
- Intellectual capital: Utilizing the range of expertise accumulated since our founding, and with over 1,000 patents held, we go beyond simply providing materials through our diverse product lineup. DKS has technological capabilities that allow us to customize the function and performance of products in line with customer requirements and to make proposals based on the ideal product combination.
- Human capital: Human capital is the most important business resource for DKS, and, in order to meet the needs of an increasingly diverse society, we aim to maintain talented human resources and diversity based on the idea of valuing people. As we do so, we strive to improve our competitive advantage through human capital.
- Social capital: We have established our DKS brand with customers while promoting appropriate supply chain management and trusting relationships built up over many years with our agencies and inspiring/inspired partners.
- Natural capital: As a chemical manufacturer, we consume a variety of natural raw materials. We have devised creative approaches to using limited global resources efficiently and to contributing to a recycling-oriented economy. Through these efforts, and through continuous improvements to energy consumption and waste product management, we strive for environmental conservation and biodiversity preservation.

3 Outputs

While the products and services provided by DKS are quite diverse, they can be grouped into six core business segments. The major products in each segment are: surfactants, amenity materials, polyurethane materials, functional materials, electronic device materials, and life science products (see p. 34–39 for details).

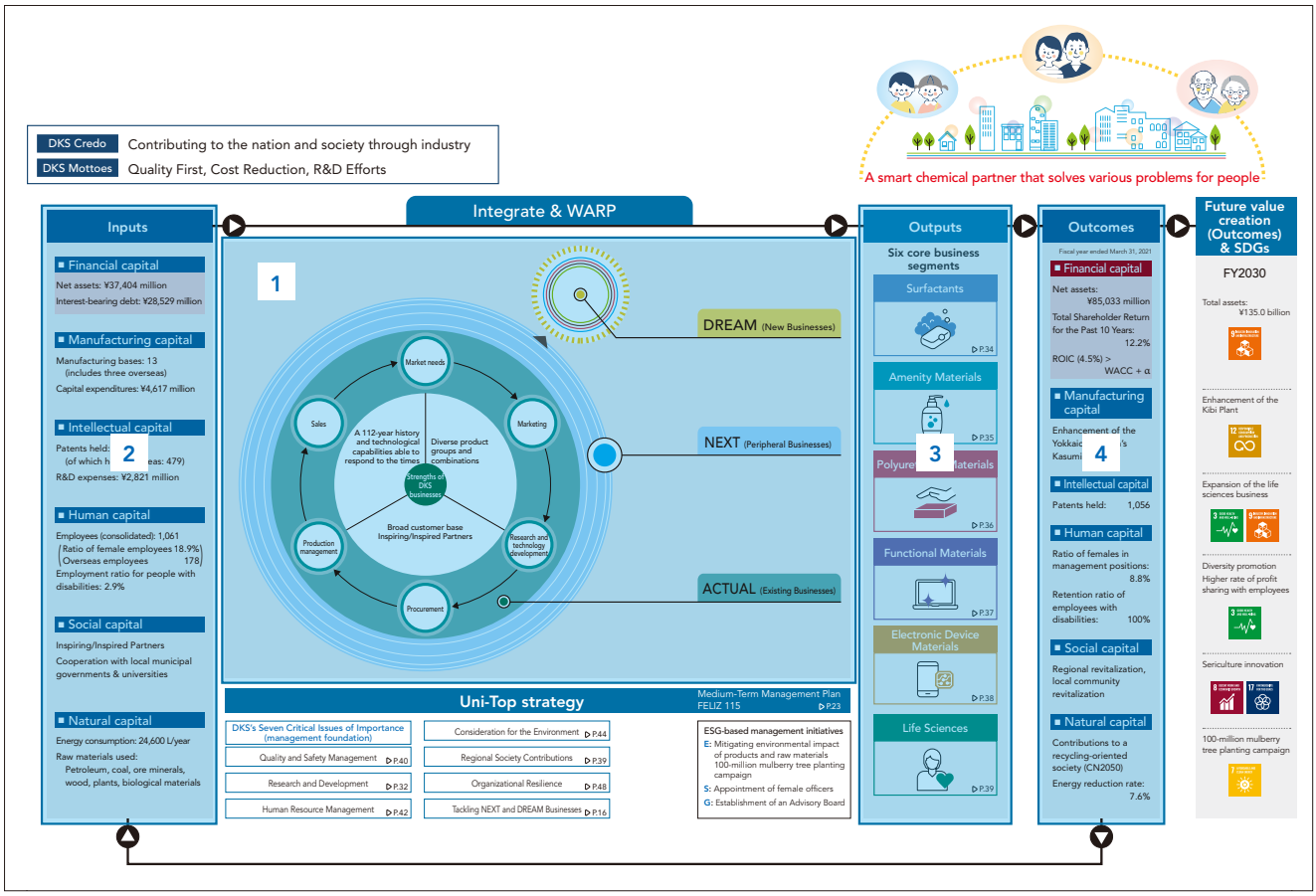
Until fiscal year 2018, we had five core business segments; however, we newly embarked on a full-fledged entry into the life sciences business by acquiring Biococoon Laboratories, Inc. and Ikeda Yakusou Co. Ltd. as wholly owned subsidiaries.

4 Outcomes

The paragraphs above outline our primary value creation and returns on capital through business operations and outputs, while the details in the following paragraphs address future value creation and SDG targets we place importance on out to 2030.

- Financial capital: We are targeting total assets and net sales of ¥135.0 billion, with plans for aggressive growth investments while maintaining the balance of capital and debt. By leveraging future technological innovation, building resilient infrastructure, and facilitating sustainable industrialization, we will contribute to SDG 9 and, in the process, strive to boost

Integrate & WARP: This phrase represents DKS's new business model, with 'integrate' referring to organic growth that fuses ACTUAL and NEXT, while 'WARP' refers to accelerated growth through entry into new DREAM fields.



returns on financial capital.

•Manufacturing capital: We will expand and enhance the Kibi Plant as a new production base, while also using it to target DREAM businesses. SDG 12 is particularly important for a chemical manufacturer. By enhancing manufacturing capital, we aim for the efficient use and sustainable management of natural resources, and a broad reduction in waste volume by preventing, reducing, recycling and reusing waste.

•Intellectual capital: As our vision for 2030, we announced as part of our medium-term management plan FELIZ 115, our goal of becoming a "technology developer pursuing progress and innovation." Through this, we will strive to boost our ratio of R&D spending to net sales from the 4% range to the 5% range, so that we can deliver products and services with new value. In the life sciences business in particular, we will support economic development and the good health and well-being of people in order to contribute to expanding the technological innovation cited in SDGs 3 and 9.

•Human capital: Based on the plans laid out in FELIZ 115, we will adopt a performance evaluation system that rewards contributions to the Company as we continue employee happiness-based management in order to help boost employee enthusiasm and satisfaction. By doing so, we aim to contribute to SDG 3. Additionally, as an outcome of efforts toward human assets, we will further promote diversity and emphasize a higher rate of profit sharing with employees.

•Social capital: We will strive for regional revitalization and local community revitalization, which are important social issues in Japan, and we would like to achieve collaborative value creation through strong ties with municipalities. Within this effort, sericulture innovation is one important activity (see p. 39). We think it possible to contribute to SDGs 8 and 17 by establishing effective public-private-civic partnerships.

•Natural capital: Responding to the 2050 carbon neutral goal (CN2050) and reducing energy consumption are urgent challenges. Also, as a form of future value creation, we will promote mulberry tree planting with municipalities as we expand our life sciences business. Increasing the number of trees and effectively utilizing mulberry trees as well as silkworms can lead to CO_2 reductions and contribute to SDG 7.

Risks and Opportunities

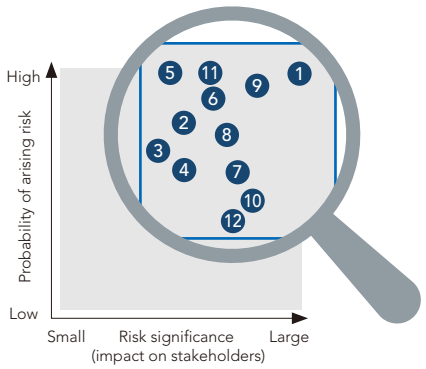
Although a risk event could damage the broad value of a company, risk might also lead to opportunities. While steadfastly avoiding and mitigating risks, DKS also identifies risks considered to be material and implements initiatives to transform them into opportunities.

Significant risks	Impacts from risks/Impacts on stakeholders	
1 Raw material price fluctuations (primarily naphtha)	• Profits influenced by cost fluctuations • Time taken for price negotiation activities to maintain the profit margin • Decline in market share, lost ground due to price negotiations (transfer to a product of another company in the same industry)	Employees, Shareholders, Customers
2 Reliance primarily on external procurement for raw materials	• Inability to control prices depending on raw material prices • BCP (Business Continuity Plan) measures become necessary • Bottlenecks, inventory risks	Employees, Customers
3 Large number of customers	• Time taken and costs incurred in customers' response • Difficulty in narrowing in on target customers	Employees, Customers
4 Product composition consists of a large variety of small-lot products	• Declining cost competitiveness due to rising production costs • Time required for response from each department (research, sales, and handling of complaints) due to the wide variety of products	Employees, Customers
5 Increasing demand for inexpensive products associated with growth in emerging nations (Global growth opportunities are hard to seize)	• Replacement by inexpensive products from other companies	Employees, Shareholders, Customers
6 Improvement in technological level and productivity in neighboring countries	• Concerns about losing competitiveness in domestic and overseas markets • Concerns about patent infringements overseas	Employees, Customers
7 Strengthened laws and regulations	• Cost and time impacts from switching to substitute products in order to comply with regulations	Employees, Customers, Society
8 Stricter quality controls	• Loss of trust from customers and society due to negligent quality control • Particular know-how needed to enter fields that require a higher level of quality control, such as energy, pharmaceuticals, and food	Employees, Customers, Society
9 Aging facilities/equipment	• Manufacturing trouble, quality issues arising from aging equipment • Rising rate of industrial accidents • Declining employee productivity	Employees, Shareholders, Customers, Society
10 IT security	• Loss of trust due to leakage of internal information • Interrupted business activity from unauthorized external access • Business delays due to IT system failure • Pressure on earnings due to rising IT system operating costs	Employees, Shareholders, Customers, Society
11 Impact on economic activity due to the spread of an infectious disease	• Interrupted business activity from employees contracting disease • Disrupted supply chain from suppliers/distributors contracting disease • Impacts on performance from delays/interruptions in product supply • Development delays due to less face-to-face interaction with customers	Employees, Shareholders, Customers, Society
12 Employment diversification; changes in the human resources market	• Intensifying competition for securing talented human resources • Rising retirement rate	Employees

Identifying Significant Risks

1	Confirmation of risks recognized in the organizational risk management system
2	Identification of risks that should be recognized at the six business segments
3	Matrix analysis based on the importance of each risk (the degree of impact on stakeholders) and the probability of risk becoming evident (possibility of negative impact due to occurrence/disclosure)
4	Extraction of significant risks from the viewpoint of materiality in the integrated annual report
5	Analysis of impact and response to those risks when they occur

Prioritization of the ①—⑫ significant risks in the table below



Responding to risks	Opportunities
• Survey of raw material price trends, including naphtha • Survey trends of other companies • Gather information from customers • Implement prompt price revisions (securing profit) • Adopt a raw materials formula (naphtha-linked pricing) • Coordinate with suppliers, agencies, and users	• If costs cannot be absorbed through our own efforts, we will pass along prices.
• Secure multiple sources for raw materials • Coordinate with suppliers • Draft BCP measures	• Fixed costs not needed; superiority arises during economic downturns • Cost reductions are possible by searching out less expensive raw materials. • Diversify raw material procurement sources • Strengthen BCP measures • Strengthen supply chain management
• Select and focus on themes • Deepen market strategies (through "FELIZ 115") including revenue management	• Information on each industry is easily obtainable due to having customers in every field. • Prioritize important themes • Deepen relationships with inspiring/inspired partners • Improve productivity through 'cluster thinking' • Improve open innovation outcomes
• Revise product composition under "FELIZ 115" • Thorough profit management for each product • Raise prices for products with a smaller contribution to earnings • Boost productivity by discontinuing products	• Possessing a lineup of products that can be used in each field enables a variety of solutions to be proposed. • Range of options for products increases • Product composition that takes profit performance into account
• Promote a differentiation strategy through solution proposals, cost reductions, Japanese quality and customization	• Halt sales of low-priced products. Accelerate the shift to highly profitable products by deepening customer relationships; proposing solutions, customizing products, etc. • Uni-top strategy (pursue uniqueness, not quantity)
• Alliance and coordination with companies, universities, etc. • Strengthen the IP Department; strengthen IP asset management (investigate IP asset rights of other asset holders)	• Intellectual property strategies
• Gather information on legal revisions • Strengthen internal oversight/checking systems • Strengthen compliance	• Should the same thing happen with another company's product, it can be regarded as an opportunity to replace it with a DKS product. • Improve market share through legally compliant product development • Improve trust through rigorous compliance practices • Promote the development and supply of environmentally and user-friendly products
• Utilize PL prevention/management guidelines • Acquire GMP certification • Use PL insurance to avoid liability risks • Ensure safety in the food product field by acquiring HACCP certification • Build and operate a quality control system	• Expand business opportunities by leverage of certification • Ability to provide customers with the value of a specialized industry • Improve the level of trust from customers and deliver the feeling of security and assurance
• Consider structural reforms through digital transformation (DX) • Promote production system enhancements and improved production efficiency by making the Kasumi Plant a mother plant.	• An opportunity to make business continuity decisions, enabling the beginning of a portfolio review • Improve the profitability of aging factories; promote DX • Strengthen management of routine repairs and preventative maintenance leveraging DX
• Strengthen compliance through employee training and appropriate measures against unauthorized access • Enhance the security of in-house systems	• Progress of DX • Ability to build an advanced information security system by promoting DX • Strengthen compliance through employee training and appropriate measures against unauthorized access • Boost the Company's level of reliability
• Promote work-style reform through working from home and telework • Review the supply chain and strengthen BCP measures	• Communicate the concepts of working from home, teleworking, and health and productivity management • Reduce fixed costs by aggregating and reducing bases
• Strengthen coordination with various associations and educational institutions to help secure human resources • Implement a human resources training program • Promote health and productivity management • Implement harassment prevention training • Promote work-style reform (develop systems for working from home, child-care leave, reemployment after life events, etc.) • Accommodate hiring of senior workers and extension of retirement	• System reforms in response to societal changes • Review and implement personnel system reforms • Improve the work environment of manufacturing sites that accommodate female workers

Materiality

ESG Basic Policy

We are confronted with a broad range of issues, from environmental problems such as global warming, resource depletion and a crisis of biodiversity to an increasing population that causes food resource and energy problems amid rapid globalization and an increasingly information-based society. We look to take on these challenges and to protect our environment and way of life while improving safety and levels of comfort. To do these things, we believe that "chemistry provides a solution" and shall contribute to the establishment of a sustainable society.

Important Issue Identification Process

At DKS, we are identifying materiality, tackling important issues from a long-term perspective in management. Based on existing social issues and our corporate philosophy, we have identified seven important themes from the two perspectives of their significance to DKS and our stakeholders. At the same time, we have specified the materiality of challenges toward addressing these themes. In the identification of that materiality, we have referenced the UN's Sustainable Development Goals (SDGs)*, ISO 26000, and other global guidelines, given the important demands the international society places on DKS as we work to advance business globally.

*At the UN Sustainable Development Summit held in September 2015, there were 17 SDGs adopted to find solutions to issues the world is facing.

Step 1 Identify the importance for the Company ▶ **Step 2** Identify the importance for stakeholders ▶ **Step 3** Draw a materiality map ▶ **Step 4** Identify the materiality

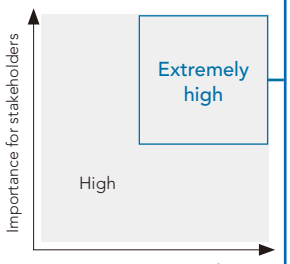
Important Issue Identification Aims

Issues for society

- Environmental issues
  Climate change, energy depletion, biodiversity, etc.
- Social issues
  Changes in social structure due to population growth, increased security risks due to technological advances and the advent of the information society, public health, food crises, elimination of disparities, etc.

Corporate Philosophy and Management Policy

- Corporate mission stated in the founding spirit and the Company Credo
- Happiness-based management



1. Quality and Safety Management
2. Research and Development
3. Human Resource Management
4. Consideration for the Environment
5. Regional Society Contributions
6. Organizational Resilience
7. Tackling NEXT and DREAM Businesses

Priority Themes & Focuses of SDGs

Following the principles of our Company Credo and Company Mottoes, and taking into consideration the technologies and various experiences we have amassed over 112 years as a chemical manufacturer, we have taken the SDGs (17 goals and 169 targets) and linked them with specific themes related to contributions that DKS can make to solving social issues. From this, we identified five SDGs to which we will dedicate particular effort.

Five focus SDGs determined from discussions in 2017:

3: Health and Productivity Management, an aging society with a declining birthrate
7: Renewable energy, environmentally conscious raw materials
9: Development and provision of industrial materials for building social infrastructure
12: Environmental pollution, natural resource depletion
17: Inspiring/Inspired Partners

Priority themes

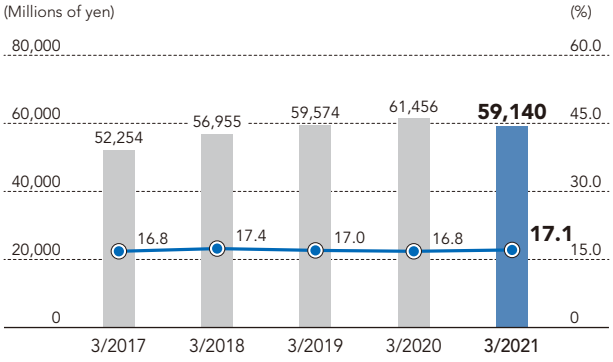
1. Quality and Safety Management ▷ P.40
2. Research and Development ▷ P.32
3. Human Resource Management ▷ P.42
4. Consideration for the Environment ▷ P.44
5. Regional Society Contributions ▷ P.39
6. Organizational Resilience ▷ P.48
7. Tackling NEXT and DREAM Businesses ▷ P.16

Materiality for DKS	DKS initiatives	Relevant stakeholders	Relevant social issues
• Providing products with high levels of safety	• Global supply chain management	Customers	• Stable supply of products
• Promoting occupational safety and health	• Continuous improvements through occupational safety and health management systems • Implement hands-on safety education	Employees	• Occupational accident prevention, stable operations
• R&D framework aligned with Uni-Top strategies	• Superior, imitation-proof craftsmanship (Uni-Top strategy) • Establish research centers for each customer, strengthen initiatives with inspiring/inspired partners	Shareholders Customers	• Commodification of products
• Developing products that contribute to the environment	• Promote product development with lower environmental impacts, such as additives for biodegradable plastics	Customers Society	• Respond to decarbonization and climate change
• Promoting an intellectual property strategy	• Prompt applications for IP rights and aggressive pursuit of quick IP rights acquisition	Employees Shareholders	• Patent infringement
• Diversity	• Provide workplaces and opportunities for the active participation of female employees • Appoint female officers and hire overseas employees • Work-style reforms • Implement personnel system reforms with an emphasis on outcomes	Employees Society	• Labor shortages of young, next-generation workers • Employees with 100-year life spans (proportion of seniors desiring to work to or beyond the age of 70 rises to 80%) • Expectations for longer health spans • Enhancement of support for childrearing
• Boosting human resource capabilities	• Secure competitive human resources (improvement of personal market value) • Secure and train global human resources	Employees	• Reduced presence of Japan as globalization progresses
• Health and Productivity Management initiatives	• Improve health awareness by adopting a health information app	Employees Society	• Response to a stressful society
• Responding to decarbonization and reducing environmental burdens	• Green transformation (GX) initiatives • Renewable energy (biomass power generation) • Product development for moving beyond green vehicles (strengthen the battery cell business) • Formulate climate change countermeasures, CN2050 plan, strategies, KPI	Shareholders Society	• Natural resource depletion (raw material procurement), global warming, appropriate treatment of waste (recycling) • Various forms of natural environment destruction and increasing environmental burdens in the 20th century
• Contributing to a recycling-oriented society	• Respond to the sharing (peer-to-peer) economy • Traceability systems (review inventory volume, product loss rates, product profit margins)	Society	• Natural resource depletion (raw material procurement), environmental problems, waste management (recycling and waste-loss DX)
• Appropriate management of chemical substances	• Respond to more stringent legal regulations	Society	• Respond to environmental conservation and environmental pollution from industrialization
• Regional revitalization	• 100-million mulberry tree planting campaign (initiative partnering with local municipal governments) • Provide community space for regional societies • Utilize the Kibi Plant (recruit regional workers, provide a workplace for healthy seniors to be actively involved)	Society	• Concentration of urban population, rural depopulation
• Appropriately securing the supply chain	• Fair trade	Society	• Child labor, inhumane labor environment
• Responding to the digitization of society	• Superior, imitation-proof craftsmanship (Uni-Top strategy) • Rebuild core technologies and know-how (standardize expert craftsmanship) • DX initiatives • Strengthen information security measures	Employees Shareholders Society	• Use of digital technology leading to a more intense competitive environment • Reduced control of online society (e.g., cyberattacks)
• Initiatives to strengthen corporate branding	• Digitize communication/PR tools • Strengthen communication/PR with individual consumers	Employees Shareholders Customers	
• Evolution of corporate governance	• Strategies for improving medium- to long-term corporate value • Improve effectiveness of the Board of Directors and establish an appropriate remuneration scheme	Employees Shareholders Customers Society	• Increasing corporate scandals • Increasing role of corporations in civil society
• Fostering DREAM businesses	• Collaborative value creation through the life sciences business • Success rate of the B-to-C business • Acquire “foods with functional claims” • R&D for improving cognitive functions	Shareholders Customers Society	• Greying society and rise in patients with dementia • Collapse of the social welfare system and health care cost reductions --> rising need for preventative medicine • Longer health spans • Regional revitalization
• Seizing opportunities for discontinuous growth	• Open innovation • Respond to industry reorganization • Execute M&A that contributes to growth	Shareholders Customers Society	• Long-term stagnation of the Japanese economy

Financial and Nonfinancial Highlights

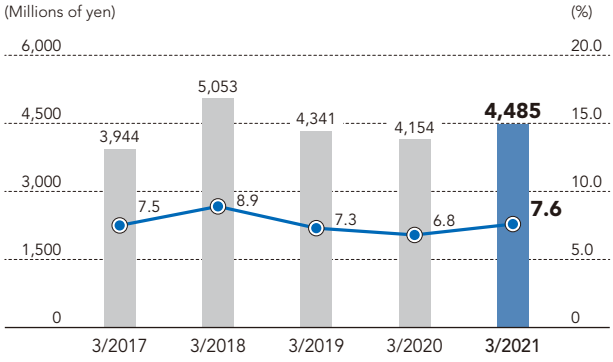
Financial Highlights (Consolidated)

Net Sales/Overseas Sales Ratio



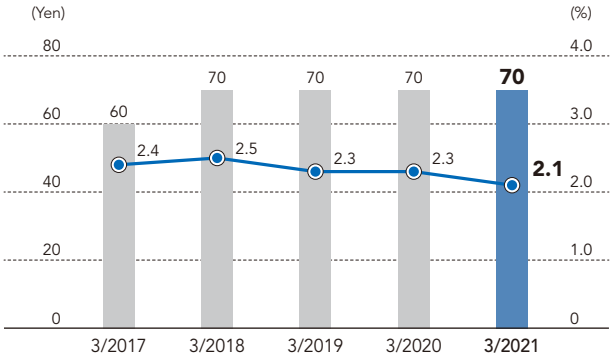
In the fiscal year ended March 2021, although there was strong growth in radiation-curable monomers and oligomers for IT and electronics applications, demand dipped in the automotive-related field due to the stay-at-home trend and restrictions on movement in order to suppress COVID-19 infections, which led to net sales of ¥59,140 million, down 3.8% year on year.
The overseas sales ratio was 17.1% (up 0.3 percentage points year on year).

Operating Income/Operating Margin



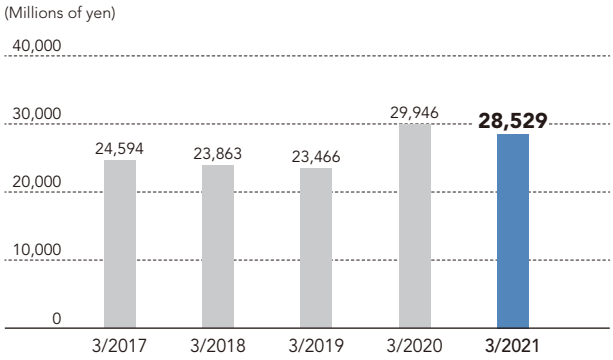
Operating income for the fiscal year ended March 2021 came to ¥4,485 million (up 8.0% year on year) due to higher revenue and sales efforts such as price revisions and sales expansion in the electronic device materials segment, as well as a decrease in operating expenses due to the stay-at-home trend and restrictions on movement. The operating margin was 7.6% (up 0.8 percentage points year on year).

Dividend per Share/Dividend on Equity (DOE)



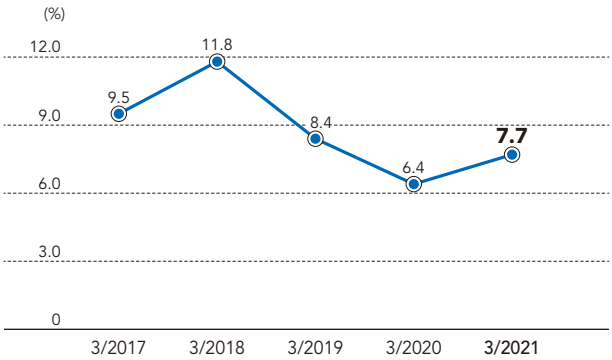
The annual dividend per share was set at ¥70 in consideration of financial conditions, future business development, and enhanced shareholder returns.

Interest-Bearing Debt



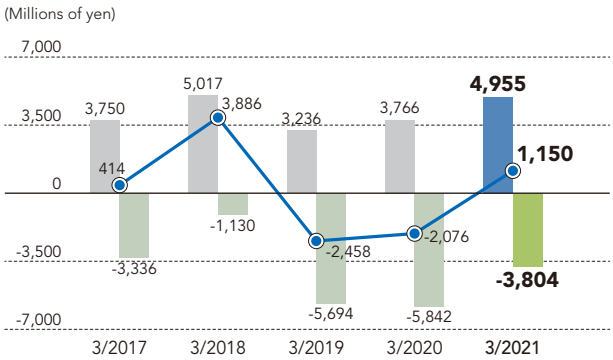
Interest-bearing debt as of March 2021 decreased by ¥1,417 million to ¥28,529 million, due to the repayment of long-term borrowings.

ROE



ROE rose from the previous fiscal year, reaching 7.7%. The capital turnover ratio dipped due to net sales falling as total capital rose; however, ROE was higher than the previous year due to the profit margin on sales rising from higher profits.

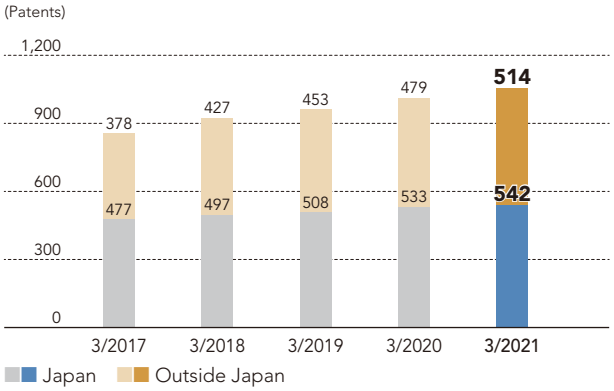
Cash Flows



▷ For more details, see p. 26.

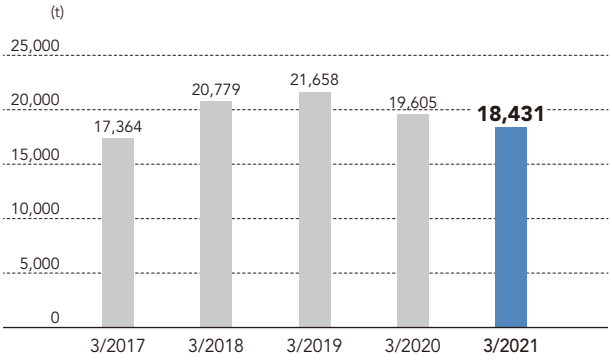
Nonfinancial Highlights (Group/Non-consolidated)

Number of Patents Held (Group)



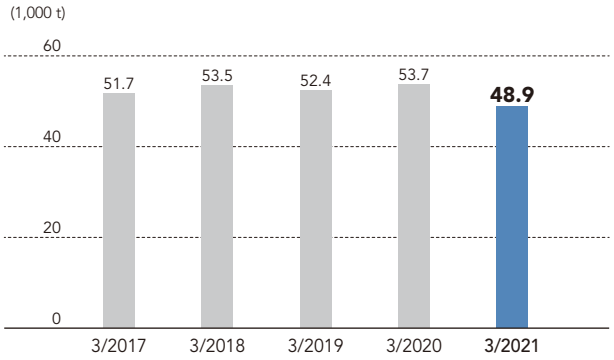
The number of patents held totaled to 1,056 (an increase of 44 patents year on year). In consideration of future business development, we are actively promoting the application and acquisition of intellectual property rights based on the results of research and development.

Amount of Waste Generated (Group)



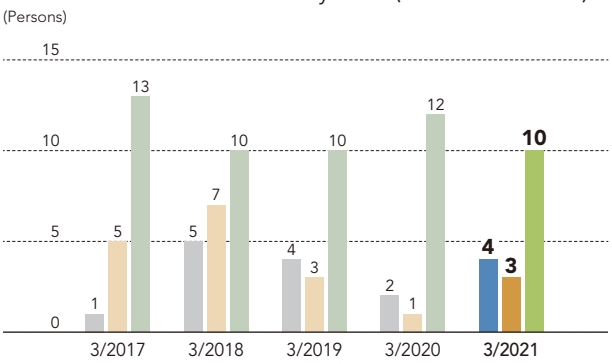
The amount of waste generated was 18,431 tons (down 1,174 tons year on year).

CO_2 Emissions (Group)



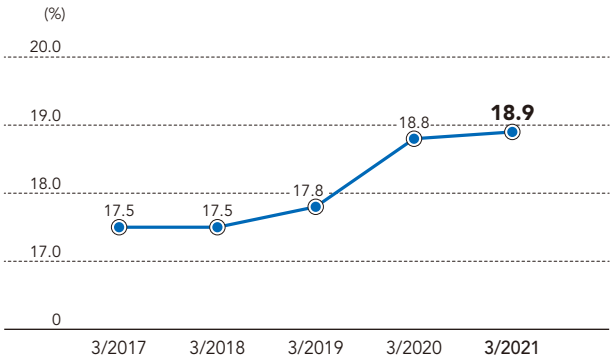
CO_2 emissions amounted to 48,900 tons (down 4,800 tons year on year). DKS will continue to work on improving energy efficiency with a focus on global warming prevention.

Number of Employees to Utilize the Child-Care Leave/ Child-Care Part-Time Work Systems (Non-consolidated)



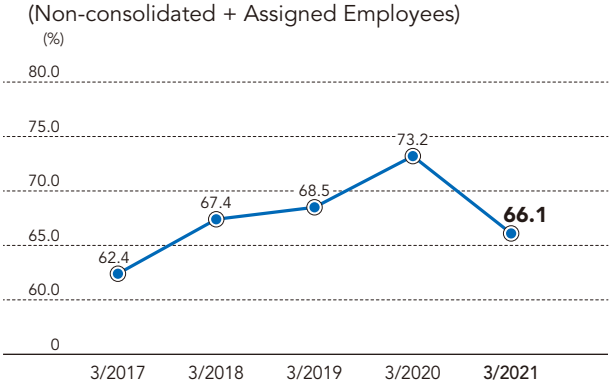
The number of employees using the child-care leave system was seven (up four from the previous year). The number of employees using the child-care part-time work system was ten (down two from the previous year).

Ratio of Female Employees (Non-consolidated)



The ratio of female employees to total employees was 18.9% (up 0.1 percentage points year on year). We will continue to carry out measures aimed at promoting women's participation and advancement.

Annual Paid Leave Rate (Non-consolidated + Assigned Employees)

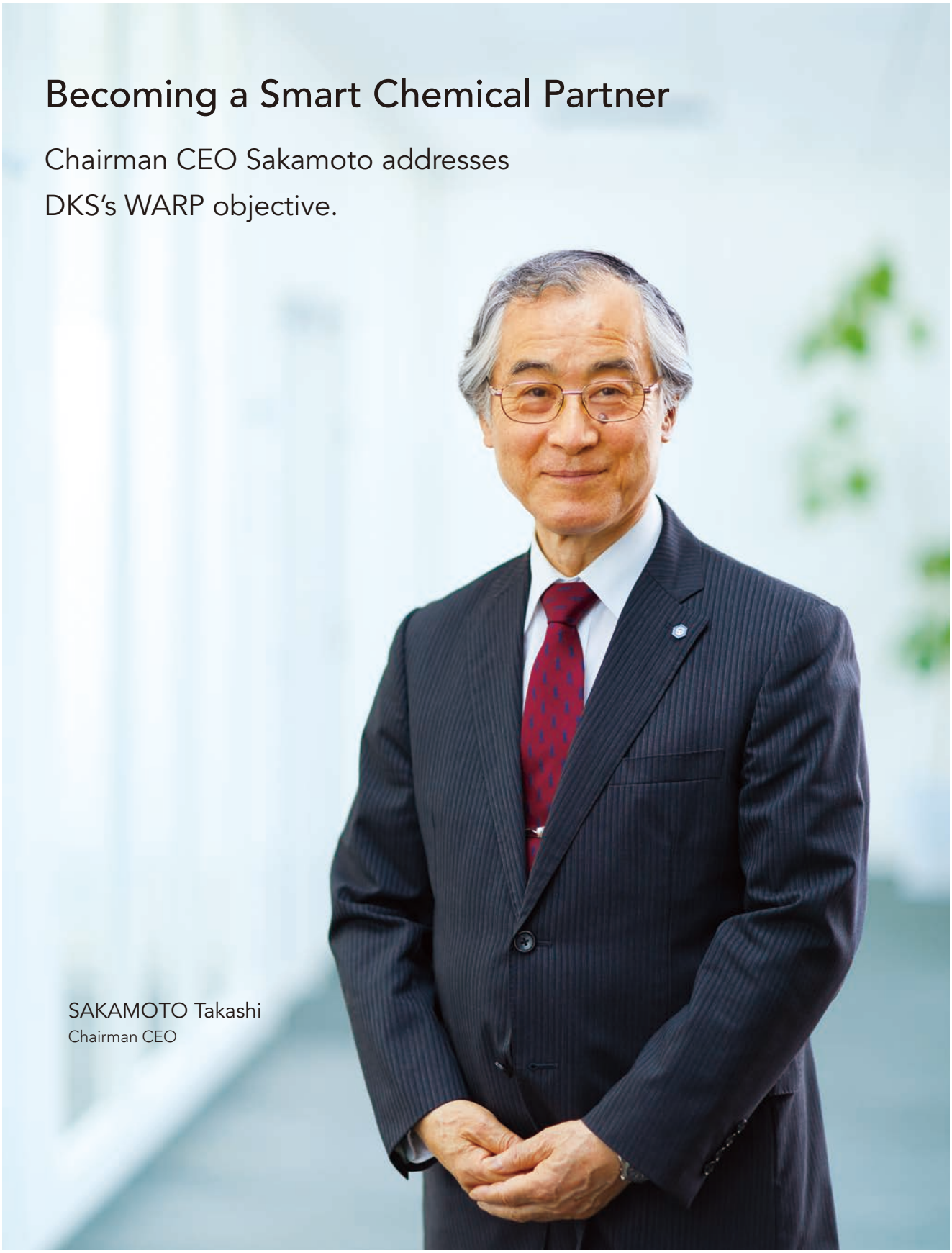


The percentage of paid leave used was 66.1% (down 7.1 percentage points year on year).

Message from the CEO

Becoming a Smart Chemical Partner

Chairman CEO Sakamoto addresses
DKS's WARP objective.



SAKAMOTO Takashi
Chairman CEO

Reflecting on FY2020 in the Wake of COVID-19

The year 2021 looks to be an historic time. The Tokyo Olympics was an international festival with mixed support given the COVID-19 pandemic. I would like to express my deepest respect to the all-out effort of the athletes and the event staff in supporting Japan, as host country, who decided to hold the Olympic games. There were many amazing displays, but I was particularly impressed by Japan's victory in mixed doubles table tennis, defeating an impregnable opponent and winning Japan's first-ever gold medal in table tennis. I was touched by the words of IOC President Thomas Bach at the closing ceremony, "Thank you, Tokyo! Thank you, Japan!" Furthermore, I was inspired by the song, *Hoshimeguri no Uta* (Star-Circling Song), at the end of the ceremony. The line "Sora-no meguri-no meate" meaning "our guide to the sky," is a reference to the North Star, which is indispensable for voyagers. I reflected on this star's importance as an unchanging "guide" for people.

A year ago, in my CEO message I said, "COVID-19 has shut down economic activity, prompting humans to think again that the source of value might be analog after all." Our Uni-Top strategy, which focuses on unique products that do not pursue scale, is a strategy that concentrates our intangible assets and boosts the value of DKS. The Olympics came to a close while COVID-19 infections reached record levels and we found ourselves in the fifth wave of the pandemic.

Meanwhile, historically unprecedented rainfall had struck the Kyushu region and areas across Japan. Reports indicate that the cause is rising ocean temperatures from global warming. As the first year of our medium-term management plan "FELIZ 115," 2020 was a year for us to ascertain the suitability of our planned initiatives.

First, I would like to look back on fiscal 2020, then second, introduce our "path to value creators," and third, our next management plan, SMART 2030. FELIZ 115 is a five-year plan with a final-year target of net sales of ¥85 billion and operating income of ¥10 billion. In the first one to two years, we laid plans to strengthen our footing, while in the third, fourth, and fifth years, we will focus on accelerating growth, including reaping results from capital investments. Last fiscal year, in the throes of COVID-19, our performance was basically in line with the plan. In terms of quantitative results, while we were close to –4% versus the same period the previous fiscal year, operating income and ordinary income outperformed our estimates from the beginning of the year. This was the result of comprehensive strength in production, sales, and R&D from our reorganization, for the first time in 12 years, into a headquarters system last fiscal year. Profitability rose in areas we refer to as ACTUAL (existing) businesses as of the end of fiscal 2015.

This was the result of concerted effort to improve profitability by focusing closely on our customers. In 5G-related projects in our NEXT (peripheral) businesses, the first year saw stagnation from U.S.-China friction, but we have information suggesting that the field will recover in the latter half of fiscal 2021. The NYSE's Dow Jones Industrial Average has been on the rise and topped $35,000. I think that the bedrock strength of U.S. companies is their national culture and character, which is different from Japan. The overseas economy, including China, Europe, and Taiwan, has also improved. Although we are still in the midst of the COVID-19 pandemic with no sign of an end, we forecast a high level of net sales and income from a business portfolio that is showing clear improvement. Risks of fluctuations in fiscal 2021 include rising prices for naphtha and related raw materials. I am confident that we can overcome this situation through the efforts that the production department has embarked on to minimize costs, as well as effort by the sales department, whose confidence is buoyed by performance results.

The Path to Value Creators: Turning Non-Financial Assets into Financial Results

I believe it is our mission to create value that makes our four groups of stakeholders surrounding the Company feel "happy" ("feliz" is the Spanish word for happy). We made a matrix that shows what kind of value we are creating using FELIZ as an acronym, starting with "F" (for future) and ending with "Z" (for Z-FLAG, connoting "challenge"). We arranged this into five slogans categorized for each stakeholder and made a 20-item list: 4 stakeholders × 5 letters (F-E-L-I-Z).

We are proceeding to arrive ahead of schedule at meeting the qualitative targets outlined in the management plan. With regard to value creation, the Octopus Model separates capital into financial and non-financial groupings. It is important to have comprehensive strength to take capital, which is considered to be non-financial and lacking in form, and make it financial capital that is tangible. Looking back on the five-year management plan's first year, which was spent entirely caught up in the turmoil of the COVID-19 pandemic, I made a declaration: we will march forward down the path to value creators. The three pillars of our year-two focus measures are, first, a new system and personnel, second, launching new businesses, and third, establishing the life sciences business.

In 2020, the year FELIZ 115 kicked off, we took the business division system that we adopted 12 years prior and transitioned it into a headquarters system with production, sales, R&D, and administration headquarters. The objective, from an overall, optimum perspective, was to drive progress for individually optimized results under the new system. The

FELIZ Matrix: Meeting the Expectations of Our Four Stakeholders

	Employees	Shareholders	Customers	Society
FUTURE	Create on your own	PBR=ROE×PER	Reciprocal partner	Humans or AI
ENVIRONMENT	Distribute according to contribution	ESG-based management	C-to-B logistics	Survival of the fittest
LIFE	Health first	Long-lived brand	Healthcare	100 years of life
INNOVATION	Lightning speed	Market capitalization above ¥50 billion	New sales models	5G life
Z-FLAG/CHALLENGE	Behavioral changes	All-time highest profit	Development-oriented	Era of happiness

production headquarters created a concise outline of production costs, which boosted their mindset toward profit-oriented plants. This mindset includes a more entrenched awareness of managing activity in a data-driven, quantitative manner. The Sales Headquarters has thoroughly transitioned from being product-centric to being customer-centric. The Administration Headquarters has started efforts to strengthen management by digital transformation (DX), green transformation (GX), and AI utilization. Additionally, in terms of human resources, we endeavored to implement personnel system reforms that reward employee contributions. We coordinated with the labor union and launched a trial run of the system in April 2021.

Also, from April 2021, the R&D headquarters adopted a new system that leads to results by carrying out on-site verification using DKS's technical map. The technical map, sorted and organized from the perspective of product portfolio management (PPM), plots DKS's fields of technology on a graph, using a scale of one to five, with "superiority" on the x-axis and "future merit" on the y-axis. Suppose, for example, that there is technology field "A." It receives a "5" if it has superiority in the chemical industry, a "3" if it is on par, and a "1" if it is inferior. After doing the same regarding its future merit, the field falls in one of the four categories in the graph. Does it fall in the category of "cash cow" or "dog"? Or, is it a "problem child" or a "star"? Based on the plot distribution, we moved to the next step.

We checked the validity of our allocation of research personnel addressing each of our current themes. When comparing the positioning indicated by "superiority" and "future merit" versus the current assignment of personnel, the executives in charge were astonished to see the weak current lineup. We also performed one more analysis. This addressed themes with superiority/future merit and relationships with future customers. We are building a research framework linked with PPM and promising customers. We are ensuring consistency with the customer-centric focus of the Sales Headquarters and tying this in with the portfolio creation targeted by the DKS Group overall. This is the new R&D system that we launched in April 2021. Similarly, we established new departments to promote the ideas of management of technology (MOT) and materials informatics (MI). Starting this fiscal year, we will cement this system in place and then work to meet our targets in years 3, 4, and 5 of our five-year management plan. This constitutes the first of 2021's three pillars.

The second pillar, which is the launch of new businesses, involves product development that listens to market needs. We narrowed down by half the themes arranged on the technical map. Next, we allocated personnel in relation to superiority, future merit, and customer-centrism. We have strengthened our relationships with customers, universities, and municipalities, which has led to early results starting to emerge from laboratories and new prototype development. Projects for research efficiency and productivity are progressing in parallel with DX activities. Going forward, further investment will be needed to meet our 2025 and 2030 targets. We are striving to raise total assets from ¥85.0 billion to ¥135.0 billion and will consider whether to pursue capital expenditures or M&A in order to increase total assets for growth. Deciding how to narrow our investment themes is a true management challenge, but also a challenge for our R&D Department as well.

The third pillar of our focus measures is establishing the life sciences business. Biococoon Laboratories, Inc. is tackling the challenge of dementia, which is a major obstacle for the human race. We have spent many years working to produce purely domestic medical fungus (*Isaria Japonica*), which we think holds possibilities for new progress in the field of cognitive neuroscience. We published a paper in January of this year in the U.S. academic journal PLOS ONE. Dr. Alois Alzheimer argued in 1906 that dementia is caused by cellular inflammation due to amyloid beta proteins. To date, major global pharmaceutical manufacturers have tried to develop treatments that prevent inflammation by eliminating amyloid beta proteins, but these efforts have ended in failure. Research fellow Dr. SUZUKI Koichi of Biococoon Laboratories has taken a broader look beyond the conventional target of nerve cells and focused on neuron-supporting glial cells. "Naturido," a newly discovered useful component from medical fungus (*Isaria Japonica*), was tested in vitro on cell cultures and showed the ability not only to promote growth of neurons, but also to suppress their glial cell inflammation and to enhance astrocyte proliferation. Furthermore, in animal trials, we confirmed that brain function improved in mice fed Naturido. The research results that Naturido influences glia-neuron interactions

appears to offer a new approach to improving brain function.

20 years ago, there were 6,500 DKS shareholders. On the stock exchange, our market capitalization was around ¥10 billion, with an unimpressive trading volume. We strove to improve our corporate strength and started publicity and PR campaigns in 2015. Our market capitalization briefly crossed ¥50 billion but recently is trending steadily around ¥35 billion. We have been calmly making structural adjustments ahead of the Tokyo Stock Exchange market segment reorganization planned for April 2022. Changes also took place with our shareholders, with the number of individual shareholders temporarily decreasing to a number around 3,100. However, after the publication of research in an international academic journal in late January of 2021, that number rose by nearly 1,000 and we now have close to 4,000 individual shareholders. My aim is to grow the net sales of the life sciences business to ¥10 billion in 2025. For our life science business, we already have a consolidated workforce of 75 personnel. We have been a B-to-B enterprise that manufactures intermediary materials as our industrial products since 1973, when DKS entered what we call our Renaissance period. The life sciences business is a B-to-C enterprise targeting individual consumers as we sell products such as "foods with functional claims" related to dementia. This is the second Renaissance period of our Company. We will strive to make this new personal-lifestyle business one-third of our overall business by 2030.

SDGs for the Millennial Capital City of Kyoto and the Steps to Move on "After COVID-19"

Ikezu, bubuzuke, ichigensan. These words express the distinctiveness of Kyoto, the millennial capital city. Kyoto has a cityscape that is extremely rare in the world. The grid structure was learned from Chang'an, the capital of the ancient Chinese T'ang dynasty, but it left Kyoto without defensive walls. I have never seen any city like it in my experience visiting 60 countries. I think of the "walls" defending wall-less Kyoto as internal walls of protective knowledge. The roundabout words and phrases in the Kyoto dialect are important barriers. *Ikezu* is sometimes translated as "mean," though that is going a bit far. *Ikezu* means to express one's true thoughts without putting them into direct words. It is similar to the phrase "black humor" in English. *Bubuzuke*. This word also appears in *rakugo* comedy sketches. It is an indirect, euphemistic way of urging consideration. This is something like offering a certain kind of food as a gentle sign that it is time for you to leave. Then, there is *ichigensan*. It is the opposite of "regular patron," and in English is like the word "stranger" (in the sense of "first-time visitor"). Kyoto has been called the city of tradition and change. In Japan, and certainly in the world, it has unique local qualities.

Kyoto's famous Kiyomizudera gave me the opportunity to see first-hand this COVID-19 pandemic. My thought was that this new coronavirus, which brought a pause to the crowds for the first time in history, was confronting us with a leap-in-the-dark moment. Sakanoue no Tamuramaro, a famous military commander of the early Heian period who is said to have built Kiyomizudera, was a man who saw the beginning of Kyoto, the millennial capital city. Wanting to know more about Tamuramaro, I went to Kiyomizudera. I was shocked at what I saw. The temple has an expansive parking area that is usually packed with hundreds of vehicles, but on this day, there was not a single one. Even when climbing the hill to the temple, I saw no one. This must have been the first time for such a phenomenon since the temple was founded. With no one in sight, I stood on the balcony of Kiyomizudera, famous for the saying in Japan, "To leap off the balcony of Kiyomizudera," meaning "to make a bold decision." I trembled from my fear of heights on the 17-meter platform

and refrained from taking my own proverbial leap off the stage. Firmly checking each step on the way down the stairs, my mind wandered to the historical events concerning Tamuramaro. His conquest of the northern Tohoku region is like our SDGs. Why did Emperor Konin appoint Tamuramaro lieutenant of the Inner Palace Guards? And why did Emperor Kanmu later order Tamuramaro to lead a military campaign on the north? I think there are three reasons and they are all linked to the SDGs. The first reason was to procure funds for moving the capital city, which was then in Nara, to Kyoto. The northern Tohoku region, including what is now Iwate prefecture, was rich in gold and silver. It was a sustainable source of capital. The second reason was to control all of Japan and develop Kyoto into a 1,000-year capital city. And, third, above all else, was governance (though in this case, through the act of conquest). These objectives were SDGs.

Biococoon Laboratories, Inc. is located in Iwate prefecture and Dr. Suzuki, founder of the laboratory, is an admirer of the famous northerner and novelist, MIYAZAWA Kenji. Miyazawa's song, *Hoshimeguri no Uta* (Star-Circling Song), was part of the Tokyo Olympics' closing ceremony. In the lyrics, Miyazawa takes children on a tour of the constellations, from Scorpio to Ursa Minor, ending with the North Star, our ever-steady guide in the night sky. He was a remarkable man of encyclopedic knowledge whose writing delved into the questions of, "What is life?" and, "What is happiness?" Some of my favorite words of his are, "The ever-incomplete is complete." We keep trying and trying but do not reach the end. The state of being incomplete is actually a kind of completion in itself. It seems to me that Miyazawa was seeking the completeness of the incomplete. A little while after the closing ceremony, I read *The Undefeated*, a book by Miyazawa's contemporary, SAWAKI Kotaro. Why do athletes devote themselves to competition? The book tells the life stories of six people, among them boxers and runners, pushing toward their boundless dreams. The book keeps asking, "What is true happiness?" At Kiyomizudera, I thought of our pursuit of FELIZ 115. And I thought further. Karl Marx has written about topics relevant to the SDGs. The three key phrases are humanism, planned economy, and national self-determination.

The objective of the SDGs is a sustainable society. In human terms, this means living a long life. The word humanism, which I came across in school as one of Marx's assertions, has at its heart *sustainability* so that humans may go on living. The "D" of SDGs is development—planned economy. Natural resources will run out at some point. We must use them conscientiously and help them last as long as possible. Then, there is "G" for governance—democratic decision making to strive toward our goals. This is precisely national self-determination and democracy. Both Tamuramaro in the 8th century and Marx in the 19th century were transcending time periods and arguing for SDGs.

At Kiyomizudera, my thoughts were of our next medium-term management plan to succeed FELIZ 115, tentatively named "SMART 2030." It is part of our steps toward moving on after the COVID-19 pandemic. The "S" in SMART stands more for "survival" than "sustainable." The "M" represents our corporate "mission" to remain for the long term. The "A" stands for "action," which is a must. The "R" stands for "reliable." And, the "T" is for "turn" because "transformation" sounds too formal and the nuance we prefer is that of "turning." For employees, this means "turning" stronger. Our Company Credo of "contributing to the nation and society through industry" and our three Company Mottoes of "Quality First," "Cost Reduction," and "R&D Efforts" are distilled into "SMART 2030." Of the three or so steps for moving on after COVID-19, the first is our approach to the tightened Corporate Governance Code of Japan. For example, the Code requires setting up corporate committees for addressing issues such as a succession plan and executive remuneration. We will carry out these projects in a manner well suited to our organization. Specifically, this means establishing an Advisory Board comprised of outside officers and myself as the DKS representative. At meetings, I listen to the input of members outside the Company on

executive remuneration. Although we have not disclosed it publicly, DKS's remuneration scheme is simple and clear. With regard to remuneration, succession plans, and the like, we emphasize an objective perspective. Every six months, succession candidates are evaluated by outside directors on a five-point scale.

The second step for moving on after COVID-19 is regional revitalization. Silkworms are the only insect living in coexistence with humans. What that means is that without humans, silkworms would not be able to proliferate. Antheraea yamamai are not this way, but humans are required in order to make silk. In the past, 3.4 million households were making silk, while today it is 350 households. We signed a comprehensive partnership agreement with Yabu City of Hyogo Prefecture, which has been designated a strategic agricultural zone. We are making effort to take concrete steps toward contributing to carbon neutrality by 2050. We will develop cooperative efforts between Iwate, Tokushima, Okayama, and other regions with large company think tanks. For this, we established a dedicated office in the Tokyo Headquarters. The third step for moving on after COVID-19 is "people." Retirement age at DKS is 60 years old, although we are not very particular about mandatory retirement. If an employee is healthy, motivated, and able to produce results, the person's age is not an issue. Since we started publicity and PR activities, there has been a major shift in the personnel joining DKS. Over and above the shift in talent and performance, there has been a change in people's countenance and posture. Last fiscal year, one-third of new young employees were keenly motivated individuals who had majored in biological science-related fields. We have informed the labor union of how much profit we share with workers. Before we distribute profit to shareholders, we first take care of employees. After that comes capital expenditures. Then, the remainder is allocated as returns to shareholders. When I explained this at the General Meeting of Shareholders, an attendee later said to me, "That was awfully bold of you to admit at the meeting!" When I asked, "How so?" the shareholder smiled and said, "Oh, it was reassuring actually."

"WARP" Speed into Becoming a Smart Chemical Partner

Tokyo is called the "Eastern Capital" because it is situated to the east of Kyoto, which was the capital city for more than 1,000 years. Tokyo is now the capital city of Japan even though there was never an official declaration of transfer from Kyoto. Similarly, there is no law stipulating Tokyo as the capital city. Emperor Meiji exited the west gate of Nijo Castle (Kyoto) and proceeded to Edo Castle (Tokyo). Although the emperor resides where the seat of government is located, the people of Kyoto still consider the emperor to be temporarily "in absentia." The imperial departure sent a tremor through Kyoto. In Japan at that time, Tokyo was the largest city, with one million people. Second was Kyoto with 350,000, then Osaka with 250,000. The imperial "visit" to Tokyo, however, led to further emigration as 100,000 people left Kyoto and lowered its population to 250,000.

The first Governor of Kyoto Prefecture, NAGATANI Nobuatsu, realized the crisis. If the exodus continued, the millennial capital city of Kyoto would fall into stagnation. Nagatani lobbied the new government with his recovery policies, which were implemented. One of those policies was for Kyoto to host Japan's first World Expo. Kyoto's Okazaki District was the location of this first international event in Japan, and also the host site for the 2019 Japan Industrial Safety and Health Exhibition. One of the attractions of the World Expo was the Miyako Odori, a dance performance (then and still now) held in April by *geisha* and *maiko* (female Japanese performers) in Kyoto's Gion district celebrating the arrival of spring. Another policy of Nagatani was to establish an institution called Seimi-kyoku, in part a transliteration of the Dutch word *chemie* for "chemistry," and Nagatani's proposal was for a Chemical Science Agency. Seimi-kyoku was the forerunner to Kyoto University, founded in 1870, and Japan's full-fledged chemical industry got its start in Kyoto. ONO Mohei, one of the founders of DKS, was a businessman who came to Kyoto from Yamagata with his sights set on this burgeoning industry.

The term "warp" is well-known in science fiction for referring to instantaneous movement. DKS launched a "WARP Force" project team in the life sciences business. We will prepare by investigating the layout of the "foods with functional claims" market and then integrate our capital resources. Then, if an opportunity presents itself, we will move at "warp" speed. I understood the meaning of the past year when I stood on the balcony of Kiyomizudera. At that temple (a calm within the COVID-19 storm) with a stone monument to Aterui, Tamuramaro's worthy opponent, I thought of chemistry. DX and the online revolution moving with it are accelerating chemistry's value creation. We will leverage our Uni-Top strategy—recognized for its uniqueness—to take DKS's corner of Japan's chemical industry that emerged from Kyoto and move it into warp speed. This is the path that DKS is following—the path to value creators.

SAKAMOTO Takashi
Chairman CEO

Review of the Medium-Term Management Plans

	CHANGE100 Stage I —Changing the Corporate Culture April 2009–March 2012	CHANGE100 Stage II —Expansion along with Earnings April 2012–March 2015	REACT1000 — Act for a Leap — April 2015–March 2020
Targeted Figures	Consolidated net sales **¥55 billion or higher** Ratio of ordinary income to sales **4% or higher**	Consolidated net sales **¥60 billion or higher** Ratio of ordinary income to sales **5% or higher**	Consolidated net sales **¥75 billion or higher** Ratio of ordinary income to sales **8.0%**
Slogan	"Each of Us Holds the Key to Success"	"Each of Us Holds the Key to Success"	"Act for a Leap"
Vision	Building a Business Structure Necessary as a Leading Industrial Chemical Company	Staying Ahead of the Times as a Leading Industrial Chemical Company	Practicing the concept of "chemistry provides a solution," we will take up the challenge of carrying out our management plan REACT1000
Management Policies	1. Securing a stable profit structure 2. Pursuing greater business efficiency 3. Developing and strengthening our foundation to realize the "technology makes the Company" concept 4. Accelerating the creation of new products 5. Enhancing compliance management 6. Improving managerial skills and human resource development	1. Expanding peripheral business fields 2. Enhancing and reinvigorating domestic production facilities 3. Accelerating the creation of new businesses 4. Pursuing cost reductions 5. Improving management capabilities and developing human resources 6. Enhancing overseas expansion and strengthening administration	1. Create new corporate value 2. Create a clear corporate image 3. Ensure more profound corporate governance 4. Maintain and increase optimal ROE levels 5. Create advantages through collaboration 6. Accelerate and enhance mother plant functions
Plan Outline	Basic Strategies 1. **Enhancing the enterprise's power (marketing clout, cost-saving ability, technical strength and organizational power)** = Heightening our corporate value 2. **Promoting selection and concentration** = Determining the withdrawal from underperforming segments based on our exit rule 3. **Optimizing the allocation of management resources** = Funneling people, goods and capital 4. **Seeking more productivity** = Seeking more profitability through the integrated business division approach 5. **Creating new businesses and strengthening cooperation with the parties concerned** = Developing inorganic materials, dispersion technology, electronics materials, etc. 6. **Focusing on priority business segments** = Promptly reaping the benefits of an existing, ongoing, highly profitable business		There are five priority qualitative targets for implementing the management policy. 1. **RETURN: pursuing profitability** = sharing returns with stakeholders (appropriate distribution of profits) 2. **EXPORT: improving overseas sales ratio** = global strategies responding to paradigm shifts (overseas sales ratio of 20%) 3. **ADVANCE: moving forward with new plant investment** = pursuing efficiency for core businesses (restructuring domestic bases) 4. **CREATE: establishing new businesses** = quickly commercializing newly developed materials (new business creation fund) 5. **TRAIN: systematic human resources training** = fostering personnel to pursue 'leaps' (coordinating with consulting companies)
Review	The initial year saw lingering impacts from the financial crisis triggered by the Lehman Brothers bankruptcy. With revenues growing over the next two years, however, DKS successfully achieved a target of the plan by recording final-fiscal-year (fiscal year ended March 2012) consolidated net sales of ¥56.2 billion. In contrast, the Company was unable to reach the plan's final-fiscal-year operating income target due to sharp demand drops and ongoing high raw materials prices.	Although DKS aimed to increase net sales from ¥56.2 billion to ¥60 billion, the fiscal year ended March 2015 (the final year of the plan) ended with net sales at ¥55.5 billion, below the target because of delays in investment to raise production in core businesses and stagnation in the solar cell field. On the other hand, DKS achieved its operating margin target given record-high operating income, ordinary income, and net income.	On the quantitative side, sales were revised downward in the third year of the plan due to an extreme slump in solar cell sales, which had been expected to grow, but the operating income target was left unchanged, and in the first half of the plan reached a record high for the third consecutive year. After that, however, rising production costs for 5G materials, which far exceeded expectations, insufficient response to soaring raw material prices, and the COVID-19 pandemic led to operating income of ¥4.1 billion in fiscal 2019, the final year of the plan, unfortunately resulting in our falling short of the targets. The 20 items in the matrix, which are qualitative elements, have all launched or are in progress. As a result, our view is that the foundation for creating the future has been laid according to plan.
Successes	• Increased business divisions' profits by instilling a profitability mind-set • Launched and promoted the Human Resources Development Project aimed at instilling an awareness of management in all departments	• Upgraded the management infrastructure (e.g., commenced introducing a new ERP system) for the future • Maintained a healthy balance sheet (increased the capital adequacy ratio) • Made new investments for growth (made Yokkaichi Chemical a wholly owned subsidiary) to expand business fields, purchased land, began preparation for a new plant	• Expanded business peripheral areas (NEXT) and efforts to create new businesses (DREAM) • Focused on business development with new capital investment and R&D expenses • Changed the balance sheet composition and increased total assets 1.3 times compared with the end of the final year of the previous plan • Brought life sciences-related Biococoon Laboratories Inc. and Ikeda Yakusou Co., Ltd. into the Group • Laid the foundation for realizing business income and profits commensurate with total assets, including up-front investment in new businesses
Issues	Improve the corporate culture to bring a profitability mind-set to the forefront Realize a balance in three areas (Balance sheet / business portfolio / human resources)	Maintain a robust and healthy balance sheet to increase earnings	1. Insufficient precision in market forecasting 2. Delays in reorganizing unprofitable businesses 3. Vague customer countermeasures (selection & concentration) 4. Negative effects of the business division system

Overview of the Medium-Term Management Plan “FELIZ 115”

About “FELIZ 115”

FELIZ115 2020–2025

F UTURE
E NVIRONMENT
L IFE
I NNOVATION
Z -FLAG/CHALLENGE

FELIZ ····· This word means happiness in Spanish. DKS chose “FELIZ” because we want to provide all stakeholders with happiness.

Each letter in the word FELIZ represents one of the five themes of our medium-term management plan in English.

115 ····· Looking ahead to the final year of this plan in 2025, this number expresses our plans for the 115th anniversary of our founding.

FELIZ Matrix: Meeting the Expectations of Our Four Stakeholders

	Employees	Shareholders	Customers	Society
FUTURE	Create on your own	PBR=ROE×PER	Reciprocal partner	Humans or AI
ENVIRONMENT	Distribute according to contribution	ESG-based management	C-to-B logistics	Survival of the fittest
LIFE	Health first	Long-lived brand	Healthcare	100 years of life
INNOVATION	Lightning speed	Market capitalization above ¥50 billion	New sales models	5G life
Z-FLAG/CHALLENGE	Behavioral changes	All-time highest profit	Development-oriented	Era of happiness

Vision for 2030

1. Highly profitable Uni-Top intermediary materials manufacturer
2. Technology developer pursuing progress and innovation
3. A company balancing corporate value and stakeholder satisfaction

Targeted Corporate Image

- As a Uni-Top company, we will conduct management while sharing happiness with our four stakeholders.
- In brief, we will be evaluated for our uniqueness and will enhance corporate value with a shared sense of excitement.

Previous medium-term management plan

Period
April 2015–March 2020

2015–2020 REACT1000

Results

(Consolidated)	Targets	March 2020 results
Net sales	**¥67.0** billion	**¥61.4** billion
Operating income	**¥6.0** billion	**¥4.1** billion
Operating margin	9.0%	6.8%
Profit	¥3.6 billion	¥2.0 billion
ROE	10.0%	6.4%
Overseas sales ratio	20.0%	16.8%

Current medium-term management plan

Period
April 2020–March 2025

FELIZ115 2020–2025

Basic Approach

1. Achieve qualitative enhancements in ACTUAL (existing) businesses, expand and reinforce NEXT (peripheral) businesses, and develop and cultivate DREAM (new) businesses.
2. Maximize the use of total assets (asset turnover ratio target of 1.0 times).
3. Establish a headquarters system; optimally allocate management resources.
   Continue employee happiness-based management with a performance evaluation system that rewards contributions.

Targets

(Consolidated)	March 2025
Net sales	**¥85.0** billion
Operating income	**¥10.0** billion
Operating margin	11.7%
Total assets	¥92.0 billion (forecast)
Asset turnover ratio	1.0 times
Capital expenditures	¥12.0 billion (five-year cumulative)
R&D expenses-to-sales ratio	5.0%
ROE	10.0% or higher

Next medium-term management plan (tentative)

Period
April 2025–March 2030

DKS 2030

Theme

Realization of a highly profitable Uni-Top company

Targets

(Consolidated)	March 2030
Net sales	**¥135.0** billion (twice that of March 2020)
Operating income	**¥18.0** billion (triple that of March 2020)

Priority Measures

Restructure management resources

Withdraw from noncontributing businesses within the first 1–2 fiscal years.

Enhance earnings power

Realize early returns on advanced business investments in the Kasumi Plant and other areas.

Strengthen the management foundation

Revise the performance evaluation and remuneration systems; establish a system corresponding to contributions.

Overview of the New Medium-Term Management Plan "FELIZ 115"

Basic Approach

1

- **ACTUAL** Qualitative enhancement
- **NEXT** Expansion, reinforcement
- **DREAM** Development, cultivation

2030 business composition

ACTUAL	NEXT	DREAM
Existing businesses	Peripheral businesses	New businesses
1/3	1/3	1/3

2

- Maximize use of total assets resulting from systematic capital expenditures
- Strengthen customer-specific marketing in parallel with product-specific management

2025 asset turnover ratio target

1.0 times
(Equivalent to annual net sales)

3

- Four headquarters: Sales, R&D, Production and Administration
- Optimal allocation of management resources
- Performance evaluation system that rewards contributions
- Continuing employee happiness-based management

Enhance corporate value by meeting the expectations of the four stakeholders surrounding the Company

Action Strategy

1 Establish ESG-based management targets in line with five of the SDGs (3, 7, 9, 12, 17); maintain our position as a top industrial chemical company.

2 Increase profits in the electronics, information, environment and energy fields; focus management resources on business development in the life sciences field.

3 Transform the marketing strategy significantly to increase the commercialization rate and shorten development periods.

SDGs/ESG-Based Management Objectives

SDGs
(Sustainable Development Goals)

- Life sciences business net sales ¥10.0 billion
- Solar cell, exhaust gas business net sales ¥10.0 billion
- 5G business net sales ¥10.0 billion

- Cooperate with local government strategic special zones
  - ▶ Proactively develop naturally derived raw materials
- Create value with inspiring/inspired partners

SUSTAINABLE DEVELOPMENT GOALS

ESG
(Environment, Social, Governance)

- **Promote the active participation of women**
  Appoint female officers
- **Create employment**
  Employ foreigners and people from other industries
- **Number of outside directors**
  One-third or more of all directors

Environment Social Governance
Guidance for Collaborative Value Creation

Priority Measures Road Map

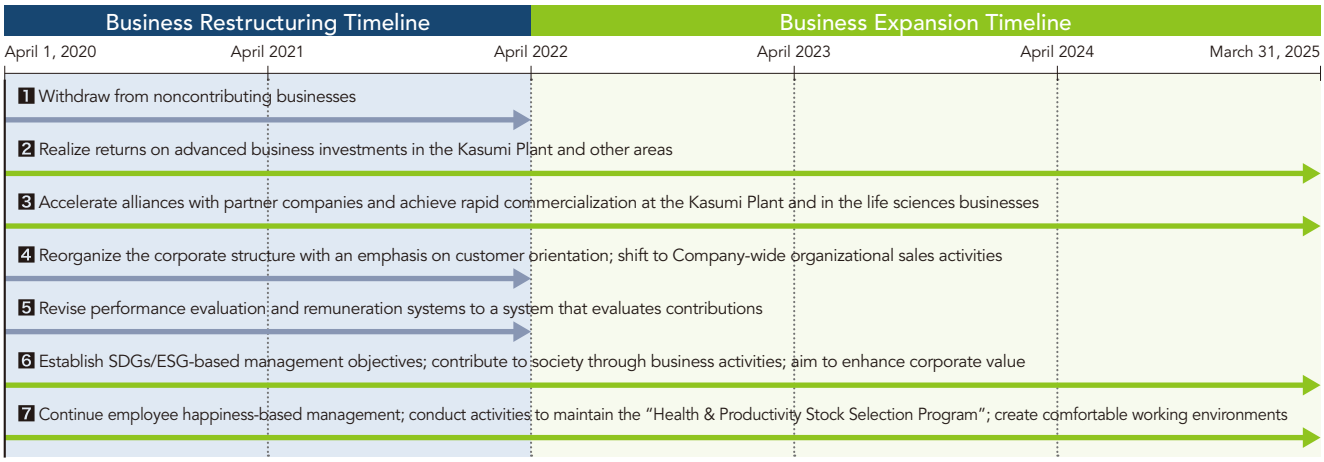
Seven Projects for Realizing "FELIZ 115"

1	Withdraw from noncontributing businesses within the first 1–2 fiscal years.	Restructure management resources	1. Project for withdrawing from noncontributing products 2. Project for increasing contributions from older plants
2	Realize early returns on advanced business investments in the Kasumi Plant and other areas.	Enhance earnings power	3. Project for creating proactive business models centered on solutions businesses 4. Project for shortening the product development period by concentrating product development 5. Project for creating profitable patterns and eliminating hidden losses
3	Revise performance evaluation and remuneration systems; establish system rewarding contributions.	Strengthen the management foundation	6. Project for eliminating work that does not contribute to customers or DKS (work-style reform) 7. Project for strengthening appropriate resource management and revising evaluation systems

Risks and Countermeasures in Planning

1	Soaring raw material prices due to changes in geopolitical dynamics and other areas	Focus efforts on passing on increases to selling prices
2	Rising interest rates	Completed funding procurement at fixed interest rates
3	Economic depression due to the spread of COVID-19	Strengthen cash conversion cycle management
4	Intensifying price competition in the 5G market	Early return on invested capital and cost reductions
5	Postponed development of NEXT/DREAM upcoming new businesses	Strengthen the R&D structure

Priority Measures



Review of the First Year

1 Carried out a portfolio review, including improvement of profitability and withdrawal from certain projects; reorganized our business structure.
Reformed the profit structure of our ACTUAL businesses.

2 Brought on line Plant #4 in the Yokkaichi Branch Kasumi Plant, enabling greater production capacity to handle strong demand.

3 Established the Life Sciences Business Headquarters (under direct supervision of the president), aiming for business on the scale of ¥10 billion in 2025.

4 In order to start and build out new businesses, we revamped our R&D framework to place priority on profitability.

5 We will reform corporate culture to more fairly assess accomplishments, aiming for an HR system that takes employee happiness into account.

6 We will strengthen IR activities with the Public & Investor Relations Department (under direct supervision of the president) and will strengthen dialogue with stakeholders.
We will establish an Operation Support Group and encourage employment of people with disabilities.
We proactively hired non-Japanese employees from Mongolia and other countries and strove to promote diversity.

7 Selected as a "2021 Health & Productivity Stock" for the second year in a row.
Certified as a "2021 Certified Health & Productivity Management Outstanding Organizations Recognition Program" for the fourth year in a row.
Certified as a "Sports Yell Company" two years in a row.
Received the highest rank four years in a row in the DBJ (Development Bank of Japan Inc.) Health Management Ranking Program.

Financial/Capital Strategies and Total Shareholder Return

Financial Position

As of the end of the fiscal year ended March 2021, the Company had total assets of ¥85.0 billion (up 4.0% year on year), net assets of ¥37.4 billion (up 9.2% year on year), an equity ratio of 40.7% (up 1.9 percentage points year on year), and interest bearing debt of ¥28.5 billion (down 4.7% year on year) due to stronger free cash flow, which improved the net D/E ratio from 0.57 in the previous fiscal year to 0.45. Cash flows provided by operating activities were ¥4.9 billion, an increase of 31.6% compared with the previous fiscal year, capital investments decreased to ¥4.6 billion from ¥6.1 billion the previous fiscal year, and cash flows used in investing activities reached ¥3.8 billion. Free cash flows were positive at ¥1.15 billion. Net cash provided by financing activities was slightly positive, totaling ¥0.25 billion, supported by sale and leaseback transactions, even as we repaid debt. As a result, our balance of cash and deposits at fiscal year-end rose ¥1.4 billion, to ¥11.5 billion.

Financial Analysis of the Past 10 Years

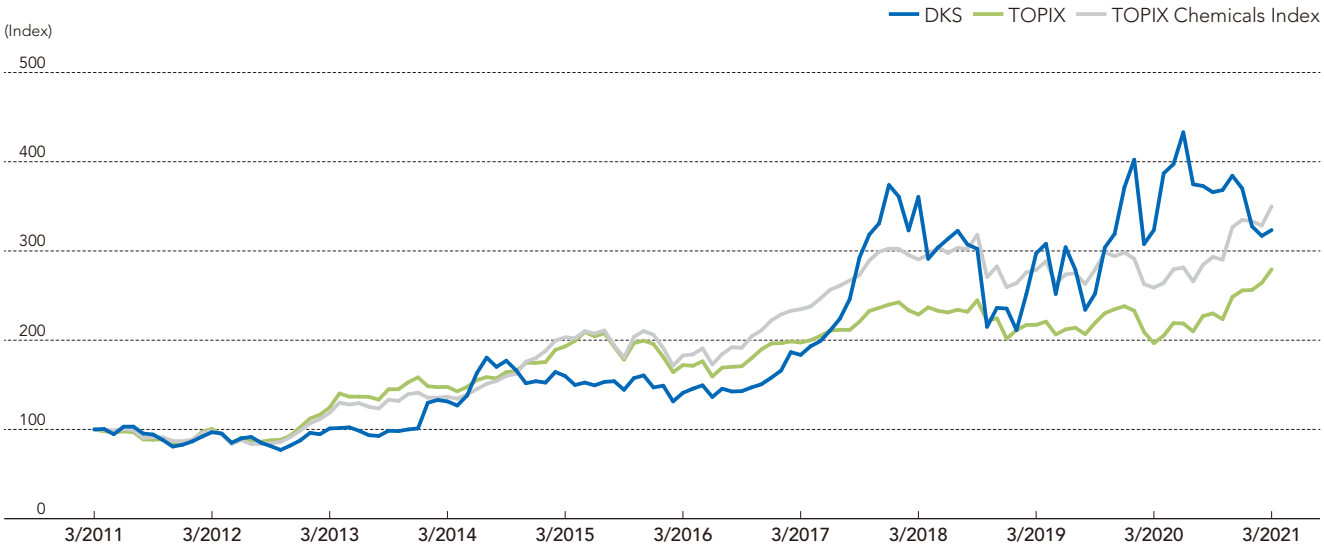
An analysis and comparison of the performance and financial results of the DKS Group for the period from April 2010 to March 2021 are as follows. (Cumulative totals are the totals over the 10-year period from April 2011.)

	April 2010–March 2011	April 2020–March 2021	Assessment/Comments
Net Sales	¥51.2 billion	¥59.1 billion	With the impact of COVID-19, down 3.8% YoY
Operating Income	¥2.73 billion	¥4.48 billion	The second-highest level in our history, in line with the forecast at the start of the fiscal year
Operating Margin	5.3%	7.6%	On an upward trajectory toward our target of double digits
Net Profit	¥1.15 billion	¥2.56 billion	Recovery of 27.2% increase YoY
ROE	7.7%	7.7%	On-going target is 10% or higher as we aim to improve our capital efficiency ratio
Total Assets	¥47.7 billion	¥85 billion	Up 71.8% over 10 years due to growth investments, etc.
Net Assets	¥16.4 billion	¥37.4 billion	Increased approximately 2.28 times due to internal reserves and two capital increases
Interest-Bearing Debt	¥14 billion	¥28.5 billion	Increased ¥14.5 billion due to aggressive capital investment
Net D/E Ratio	0.54	0.45	Stable financial foundation due to higher net assets

	Totals for the Past 10 Years	Assessment/Comments
Net Profit Cumulative Total	¥20.4 billion	Continuous profit level at or above ¥2.0 billion since the fiscal year ended March 2016
Capital Investment Cumulative Total	¥43.8 billion	Since the fiscal year ended March 2015, growth investment became more aggressive; implemented capital investment with cumulative depreciation costs exceeding ¥18.1 billion over 10 years
Depreciation Cost Cumulative Total	¥25.7 billion	
R&D Expenses Cumulative Total	¥26 billion	R&D expenses-to-sales ratio improved from 4% to 5%
FCF Cumulative Total	¥(1.4) billion	Reflecting growth investments, operating CF and investment CF trended at approximately the same level
Dividend Cumulative Total	¥5.6 billion	Dividend has doubled in the past 10 years (from ¥35 to ¥70)
Capital Increase	¥4.4 billion	Two capital increases through public offerings (March 2011, December 2014)
Share Buybacks	¥1 billion	Determined as a shareholder return policy finalized in January 2017

Total Shareholder Return for the Past 10 Years

Total shareholder return (TSR) by dividend and stock price was as follows. The share price over the past year has been basically flat due to a rapid recovery two fiscal years prior. The medium- to long-term TSR over the past five years was 16.9%, whereas the annual TSR rate was 12.5% over the past 10 years, exceeding the returns of the TOPIX and TOPIX Chemicals dividend index. These levels exceeded the shareholder capital cost (approximately 6.0–7.0%) anticipated by the Company.



Note: Share price trends including dividends (closing price data for March 31, 2011 = 100)

Future Financial Strategies/Shareholder Returns

	1 year	3 years		5 years		10 years	
		Cumulative total	Annual rate	Cumulative total	Annual rate	Cumulative total	Annual rate
DKS	0.0%	(11.1%)	(3.8%)	118.5%	16.9%	223.4%	12.5%
TOPIX	42.1%	22.1%	6.9%	62.3%	10.2%	179.4%	10.8%
TOPIX Chemicals Index	35.2%	20.5%	6.4%	91.4%	13.9%	250.0%	13.3%

Note: The annualized conversions are geometric averages of cumulative returns.

Future Financial Strategies/Shareholder Returns

In "FELIZ 115," our medium-term management plan that started last fiscal year, we are aiming to maximize the use of total assets resulting from systematic capital expenditures, while also growing net sales and achieving an asset turnover ratio of 1.0 times in the fiscal year ending March 2025. At the same time, we will need strategies that emphasize capital efficiency so that ROIC can exceed our added-value target for weighted average cost of capital (WACC). On the financial front, we intend to continue optimizing the cost of shareholders' equity and implement financial and capital policies to support TSR that exceeds this cost of equity.

In addition to our ROIC target, our financial goals include: 1) realize an ROE of 10.0% or higher in the fiscal year ending March 2025, 2) stably increase the P/B ratio by 1.0 times or more by maintaining ROE above the cost of shareholders' equity in each fiscal year of the plan, 3) ensure financial discipline while reducing the cost of capital to a reasonable level using moderate leverage and 4) achieve sustainable growth in addition to stable dividends. We will consider optimizing the cost of capital through flexible shareholder return measures that also include share buybacks. Moreover, in terms of M&A as part of growth investment, we will select investment projects for which ROIC exceeds the cost of capital and aim for a strategy emphasizing PMI (post-merger integration) that contributes to greater corporate value over the medium to long term.

Special Feature The Technology of DKS—Interview with the CTO

DKS's technological strength is that we go beyond simply providing materials and the ability to customize the function and performance of products in line with customer requirements as we make proposals based on the ideal product combination. CTO YAMAJI Naoki spoke with MIYANAGA Masayoshi, Tokyo University of Science Graduate School professor, on DKS's technological capabilities.

What Supports DKS's Technology?

Miyanaga Could you give us a concise explanation of the "technology tree," the technical road map (see p. 30) of DKS's technology?

Yamaji The trunk of our technology tree is surfactants, which most of us encounter in daily life as detergents. This is technology for binding, dispersing, and removing substances like debris, oil, dirt, and dust that do not dissolve or come off our hands with just water. This category includes combinations of technologies as well. If you look at our products for use in battery cells, for example, we have technology that derives from surfactant/interface technology that can add functionality and mix together substances that normally do not blend.

Similarly, our urethanization technology utilizes surfactant technology. For example, there are products that blend functional inorganic materials to create heat discharging properties needed for uses such as in circuit boards and around automobile sensors. There is also urethane technology for civil engineering used in material for rock hardening agents that prevent the collapse of tunnels, etc., while a quintessential flame retardation technology is flame retardant that makes plastics less flammable. Ionic liquid is used in antistatic agents for liquid crystal films. It is not an overstatement to say that all of these fundamentally come from surface chemistry, which deserves credit for the broad scope of our technology tree.

Essentially, "interface" refers to the border area between two materials with different properties. Lithium-ion batteries are a straightforward example. Surface technology is necessary to create functionality by evenly dispersing active materials and cathode materials. This employs CMC and cellulose nanofibers utilizing cellulose modification technology. These products contribute to dispersing cathode materials, anode materials, carbon, and the like. Surface technologies are what not only remove dirt, but also can be useful in many applications.

Miyanaga As a specialty chemical manufacturer, which technologies do you see as most important?

Yamaji DKS has diverse and wide-ranging technologies. Other surfactant manufacturers possess similar technologies, but I think we have the expertise to know how to combine technologies to create functionality and differentiation. We, and other companies as well, are taking pains to create functionality while utilizing various technologies. Consequently, what leads to uniqueness at DKS are the combinations of technologies that we make until we ultimately create functionality. We try to emphasize combinations that have even the slightest advantage and solve issues for the market and for customers. There are some cases in which we synthesize or formulate materials.

Miyanaga Please tell us about "open innovation initiatives," such as joint research with universities and efforts to gather information from external sources.

Yamaji We recognize that we must accelerate our technology accumulation in the life sciences field, which we need to grow in the future. Currently, while working on joint development with universities, we are proceeding to dispatch personnel to some universities. New discoveries—such as, learning that we can use a certain technology for a certain application—are vital. We have found that having researchers visit universities and discuss technologies while interacting with other companies and graduate research laboratories is extremely important and is an opportunity to transform the

We will meet all types of industry needs with our unique knowledge and technology.

YAMAJI Naoki
Managing Director, R&D Supervisor

awareness of researchers. While there are technologies born from open innovation, there are also more than a few ways in which this innovation contributes to fostering human resources.

Going forward, we would particularly like to invest in personnel in the life sciences field. Life sciences is a very wide-ranging field. Through M&A, we have already welcomed Biococoon Laboratories, Inc. and Ikeda Yakusou Co., Ltd. into the DKS Group as we aim to broaden and deepen our scope of this business field. Since hurdles are especially high for pharmaceutical products, we are first targeting the area of health supplements and subcategories of pharmaceutical products.

Keeping in mind our Company Credo of "contributing to the nation and society through industry," we think that an issue for society will be health span, focusing on how to live long, healthy lives as the greying of society progresses in the future. We believe that Biococoon Laboratories' I. Japonica-Bombyx Fungus is a start in that direction, while Ikeda Yakusou's Sudachin is also a way to contribute to solving social issues through our life sciences business.

A New Organizational Structure

Miyanaga In April 2021, DKS established a new organizational structure for R&D. What is the objective of reforming this structure?

Yamaji One of the most significant changes to our R&D framework was making the R&D Department the "R&D Company Department." The reason for newly establishing the R&D Company Department came from our belief that divisions developing products need to be fully involved in the first stages of development, continuing through to profit management. If the focus is only on gross profit, it is difficult to judge whether a product ultimately brings a net profit, or to what degree it contributes to the Company's operating income. At present, we have a visual perspective of gross profit for products that may end up in the red, but we want to pursue clarity on operating income and the future cash flow that a product can produce.

We also newly established the MOT Planning Department and MI Promotion Department. MOT (Management of Technology) aims for technology profit management in our operations. Meanwhile, MI (Materials Informatics) mainly focuses on DX and AI initiatives. To date, there have been aspects of our approach that pursued research through our researchers' experience and intuition. However, we would like to, for example, use AI to input parameters so that a computer can suggest the necessary data and then research can be efficiently performed without the involvement of researchers. In proceeding with MI initiatives, all of the data must be taught to the AI, which means that publicly available research papers, etc. are input in order to make the system capable of judgment. It looks like it will take two to three years to complete this, but we expect it to be a meaningful way to boost the efficiency of R&D.

Contributing to Society through Technological Capabilities

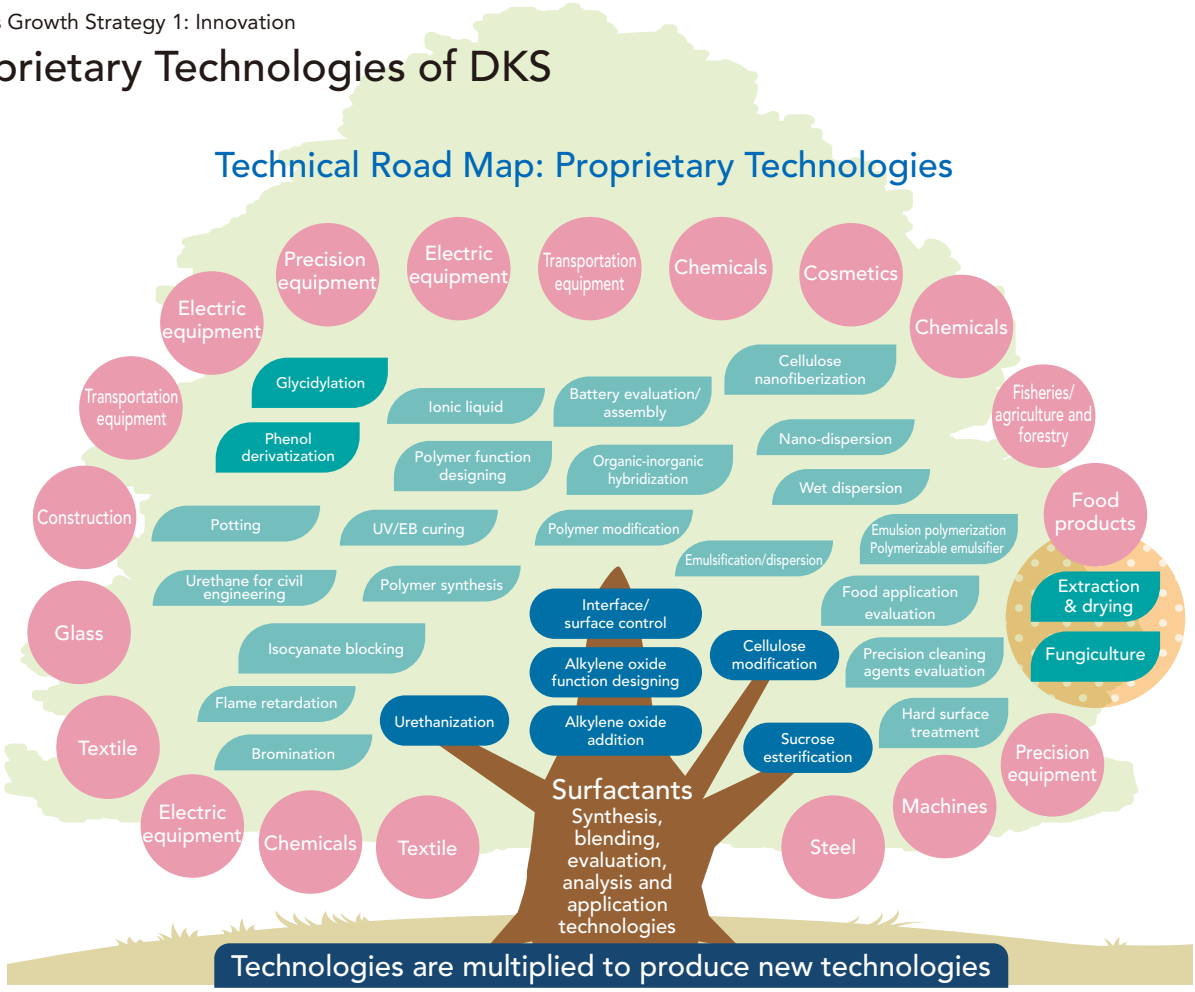
Miyanaga In pursuing R&D, please tell us about your thoughts on demands for ESG and the SDGs, in addition to the challenges you would like to undertake in your medium- to long-term growth strategies.

Yamaji First, with regard to the theme of a decarbonized society, we are pushing initiatives forward in the life sciences business. We are allying with government agencies to plant mulberry trees as a way of reusing tracts of unused farmland, with the aim of reducing CO_2, creating regional employment opportunities, productively utilizing abandoned fields, and offering meaningful activities for the elderly. This project will help with the stable procurement of raw materials for our product, I. Japonica-Bombyx Fungus, and, by engaging in sericulture in these local areas, we should also be able to contribute to carbon neutrality and regional revitalization.

With regard to medium- to long-term strategies, we are dedicated to developing electronics material-related projects, including battery cell materials. While DKS is not able to carry out large-scale development, batteries are continuing to diversify in various fields beyond automobiles. It takes approximately the same amount of battery development effort to pursue applications for automobiles as well as for other fields. We aim to promote development in areas where volumes are not huge, but where added value can be delivered. Outside of automobiles, batteries are used in increasingly diverse and familiar areas such as electronic assistive devices and mobile phones. Since each area has its own characteristics, it is difficult for major battery manufacturers to apply equal effort to all of them. We see this as a business opportunity for DKS.

MIYANAGA Masayoshi | Professor of Management of Technology, Tokyo University of Science Graduate School of Management
Background: Graduated from the Waseda University School of Law. Professional career includes working at The Nippon Credit Bank, Ltd. (now Aozora Bank, Ltd.), Schroder Investment Management (Japan) Limited (Director and Head of Asset Management Division), and Prudential Asset Management Japan Co., Ltd. (CIO in charge of Stock Investment). In 2007, graduated from the University of Tokyo Graduate Schools for Law and Politics, then in 2012, completed a Ph.D. at Waseda University Graduate School of Asia-Pacific Studies. Prof. Miyanaga has been in his current position since 2017. He is also Managing Director of World Intellectual Capital Initiative (WICI) Japan.

Proprietary Technologies of DKS



Basic Technologies

Interface/surface control technology

A variety of applications can be achieved with surfactants, for example, emulsification, dispersion, solubilization, wetting/penetration, surface/interface tension control, foaming/defoaming and surface modification. The primary applications of surfactants are emulsification and dispersion for mixing together substances that normally do not mix together. For example, although water and oils will separate after being mixed, adding a surfactant as an intermediate between water and oils enables the creation of stable emulsion. When washing dishes to which oil residue has adhered, the surfactant is first absorbed into the oil residue, where it reduces the interface tension between the oil and dishwashing liquid. Next, it enters between the oil residue and dishware via wetting/penetration. Finally, oil residue is separated from the dishware through physical force such as washing by hand. The residue is adsorbed into the micelles formed by the surfactant and then dispersed throughout the liquid, which prevents re-adherence of the residue. Moreover, improving the wettability of paint and adding various functionality (e.g., leveling,[1] water/oil repellent, antifouling, lubricity) can be included as types of technology for surface modification and interface control. For example, fluoropolymers are widely used in water- and oil-repellent agents for textiles. Our Company is working to develop PFOA (perfluorooctanoic acid)-free fluoropolymers through the synthesis of various surfactants and the use of application technology. This makes it possible to respond to needs for surface/interface control, which had been difficult to achieve using conventional surfactants. ▷See p.34

1. To smooth the surface

Alkylene oxide addition technology

This technology adds ethylene oxide (EO) and propylene oxide (PO) to raw materials of higher alcohols derived from natural sources such as coconut oil or palm oil, as well as phenols and amines.

Alkylene oxide functional design technology

Through the addition of alkylene oxide (AO), in addition to EO and PO sequencing such as random polymerization and block polymerization, this technology enables desired control for the number of added moles. This makes it possible to freely design a surfactant composition, which satisfies the required performance.

Urethanization technology

This technology synthesizes a urethane resin that is a polymer compound possessing urethane bonds in the main framework of the molecular structure. Through diverse combinations of the raw materials polyisocyanate and polyol, it is possible to change the type and length of the structural chain and to change the structure of both ends, thus creating a variety of physical properties. This makes it possible to create substances such as elastic urethane rubber and urethane elastomer, as well as soft/hard urethane foam in conjunction with foaming reaction. By utilizing these properties, these substances can be used in products such as cushioning, thermal insulation, molding and coating materials. In addition, waterborne urethane resin can be obtained by emulsifying urethane resin. Our Company's products can be broadly divided into nonreactive and reactive. Nonreactive waterborne urethane resin is an emulsion product of urethane resin. Reactive waterborne urethane resin is produced by using a blocking agent to protect the terminal isocyanate groups generated by the reaction between polyisocyanate and polyol and emulsification. Reactive waterborne urethane resin is composed of the two basic structures of a soft segment and a hard segment, and it undergoes quasi-crystallization during the resin molding process. Consequently, it combines flexibility, toughness and elasticity and possesses superior solvent resistance and adhesion. Because the material combines safety and high functionality, it is used in a wide range of processes such as film, metal, paper and textile.

Cellulose modification technology

This technology synthesizes anionic water-soluble polymers with cellulose as the main raw material. The CMC (sodium carboxymethyl cellulose) synthesized via this technology can be used in various applications by changing the length of the molecular chain and by the addition of quantities of the carboxymethyl group. CMC is easily dissolved in either cold or hot water and becomes a viscous liquid that is colorless and transparent. It has an extensive record of use as a thickening stabilizer in general, and other uses include as a binding agent for fish feed and pesticides. CMC is also known for functioning as a high-performance dispersion stabilizer. It is applied to products seeking an even higher level of functionality, for example, as a binder for lithium-ion battery cathode paste.

Sucrose esterification technology

This technology is used to obtain sucrose fatty acid esters (SEs), a non-ionic surfactant where natural sucrose is part of the hydrophilic group and higher fatty acids such as stearic acid and oleic acid are part of the lipophilic group. The high safety of SEs is recognized by international organizations (Joint FAO/WHO Expert Committee on Food Additives), and SEs are approved as a food additive in Japan since 1959. In addition to food products, SEs are used in a wide range of products such as pharmaceuticals and personal care products. Examples include emulsifiers, viscosity modifiers, anti-aging agents for starches and texture modifiers. Synthesis methods of SEs can be broadly divided into an esterification reaction method that uses fatty acid chlorides and fatty acid anhydrides, a transesterification method with lower alcohol esters of fatty acids and an enzyme method using enzymes such as lipase as the catalyst.

Cellulose nanofiberization technology

This technology is used to create the new material cellulose nanofibers (CNFs) by chemically or physically treating the naturally derived cellulose fibers to reduce the fiber width to a nano meter size. Our Company's CNFs are exceptional for their extremely fine fiber width on the single nano level. This fineness is achieved via chemical modification processing. Furthermore, by utilizing its exceptional characteristics such as viscosity behavior, emulsification and dispersion stability effect, our CNFs can be used in products such as cosmetics and general industrial products.

Emulsion polymerization technology

This technology conducts polymerization[2] by using surfactants to emulsify in water the monomers that do not dissolve in water. This enables synthesis of high molecular weight polymers that cannot be obtained via bulk polymerization or solution polymerization. Furthermore, because the polymer system is surrounded by water, it is easy to remove polymerization heat and perform stable temperature management. A polymerizable surfactant is a type of surfactant that possesses a radical polymerizable group[3]. It is used as an emulsifier for emulsion polymerization. Through copolymerization with monomers during the process of the emulsion polymerization, it improves the mechanical stability, chemical stability, freezing/thawing stability and foaming property of polymer dispersion, and improves the water resistance of the polymer film.

2. A reaction in which two or more molecular compounds having a simple structure are combined to form another compound having a large molecular weight. A molecular compound before polymerization is called a monomer.
3. The production of vinyl polymer is an important reaction and refers to addition polymerization in which the growth chain is a radical (free group).

Application Technologies

Nano-dispersion technology

This technology stably mixes immiscible substances to bring out the diverse power inherent in materials. This technology is expected to support dispersants that enable dispersion in the nano range, various dispersion methods, and applicability to a wide range of materials such as inorganic powder, organic powder and oil. Nano materials can be broadly divided into carbon materials (e.g., fullerene,[4] nano tubes, nano fibers, graphene[5]), metals (e.g., gold, silver, copper) and metal oxides (e.g., silica, titania, zirconia), all of which possess diverse characteristics. This technology disperses these nano materials into mediums such as water, organic solvents and resins. However, as the particle size of substances is reduced to nano size, the impact of the Van der Waals force[6] becomes stronger, resulting in problems such as particles being prone to agglomeration and a decrease in transparency. Interface control is required to prevent agglomeration.

Function/usage Electronic and electric equipment (touch panels for smartphones and tablet PCs), cosmetics (sunscreen), eyeglass frames, etc.

4. Carbon atom cluster
5. Hexagonal lattice carbon allotropes
6. Attractive and repulsive forces acting between molecules

Radiation curing technology

This technology instantly dries and cures coatings and paints of radiation-curable resin compounds by irradiating them with ultraviolet (UV) rays or electron beams (EBs). The technology is also called radcure (UV/EB curing). Radcure technology is used in a wide range of diverse fields due to its ability to conserve resources and energy and reduce environmental load. This technology is utilized in our urethane oligomer, and its uses include clear coatings for construction materials and furnishings; anti-rust coatings for metal; resistance materials such as semiconductors, dry film and LCD displays; coatings for items such as mobile phones, optical fibers, plastics and paper; printing ink; plate-making materials; and adhesives. Our Company's monomers are made from the raw material alcohol using EO precision-addition technology. We offer a full lineup of products with added functionality (e.g., high hardness, low viscosity, low curling).

Function/usage Adhesives, paints/coatings, printings/markings

Flame retardation technology

This technology adds/disperses compounds containing flame-retardant elements such as bromine, phosphorus, nitrogen, boron, silicon and/or antimony to/in polymer materials to make them flame-retardant by a chemical reaction and bonding resulting from it. Recently, out of consideration for the environment, attention is being placed on the use of inorganic compounds such as hydrated metal compounds (Mg hydroxide, Al hydroxide) and nano-composites[7] (MMT[8], CNT[9]). Flame retardants are broadly divided into halogenated and halogen-free products that are based on phosphorus or inorganic substances. Halogenated flame retardants have superior flame-retarding efficiency and therefore are most widely used as flame retardants for plastics. Our Company's products are brominated flame retardants that give sufficient flame retardancy with a small amount of use. Moreover, the products interfere little with the superior properties of plastic, namely, heat resistance, heat stability, UV stability, workability, mechanical strength and electrical properties. The products are capable of satisfying requirements for the flame retarding of plastics, which are increasingly diverse and have increasingly advanced functions.

Function/usage Electronic and electric equipment, OA equipment, construction products, automotive products, railway cars, textile, paper, aircraft, marine vessels, etc.

7. A general term for composite materials in which one material is atomized to a size of 1–100 nm and then kneaded into another material and diffused.
8. Montmorillonite
9. Carbon nanotubes

Ionic liquid

Generally, ionic liquid is an ion pair compound that remains in a liquid state at/below 100°C. It has no vapor pressure and is nonflammable. Because ionic liquid has high safety and ion conductivity, it is used in electrolyte applications such as lithium-ion batteries and capacitors.[10] Ionic liquid also is attracting attention as a next-generation material in the energy device field and as a green solvent that reduces environmental impact. Ionic liquid is a salt composed only of ions (anions, cations). It dissolves a variety of organic and inorganic compounds and can conduct ions.

Function/usage Reactive solvents, extraction solvents; as electrolytes, dye-sensitized solar batteries, lithium-ion batteries, electric bilayer capacitors and actuators; lubricants, dispersants and antistatic agents, etc.

10. An electronic component that stores and emits electricity (electric charge), also called a condenser. In addition, there are some electric double layer capacitors that have an order of magnitude larger capacitance than conventional capacitors.

Special Technology

Glycidylation technology

This technology belongs to Yokkaichi Chemical Co, Ltd. Via synthesis technology using glycidyl ether, which is a bifunctional aliphatic epoxy compound possessing a flexible framework in the center of the molecule, the technology generates compounds with improved flexibility, toughness and water resistance of cured materials.

Function/usage Electronic materials

Research and Development

Technology is important intellectual capital for DKS, an important foundation supporting management strategies for sustainable growth. In terms of future business development, we are actively promoting applications for and the acquisition of intellectual property rights based on the results of research and development in pursuit of the concept, "Chemistry provides a solution." We are also striving to solve social issues such as decarbonization and climate change.

The Strengths of DKS's R&D

As a leading industrial chemical manufacturer, it is our management philosophy to continue to be a prominent company that responds to the expanding chemical requirements of industries. To realize that philosophy, we are focusing on the research and development of high-value-added products, with a particular focus on products with IT and electronics-related applications, and the development of new applications for battery materials and cellulose nanofibers.

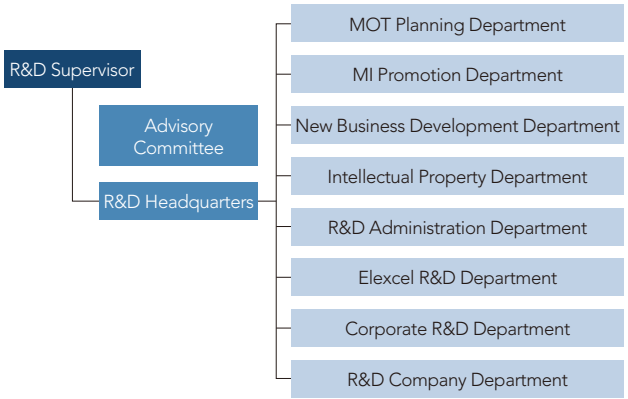
Strategies and Initiatives

As exemplified by surfactants, DKS's core technologies include synthesis and modification technologies, as well as emulsification, dispersion, and compounding technologies. By combining these technologies with specialized marketing targeting niche businesses, we have achieved an amalgam of products and knowledge that brings together disparate fields and industries.

These technology combinations will continue generating novel value for customers in environmental and energy fields, IT and electronics materials, and the life sciences field.

Furthermore, by newly establishing the MOT Planning Department, we are addressing profit management for DKS technologies as we aim for business that leverages technology. Also, by incorporating MI on the frontlines of R&D, we will pursue data-driven R&D that is more efficient and accelerated.

As a new initiative starting this fiscal year, we set up an Advisory Committee within the R&D Headquarters. In order to evaluate research themes, this committee will clarify personnel assignments and timing, market scale, competitive advantages, and technology reliability and profitability in an effort toward implementing more efficient R&D. By revising and refining plans, while also optimizing resource allocation (including staffing) in an approach that transcends research themes and organizational groups every three months, the committee will contribute to generating profit by maximizing ROI from our R&D.



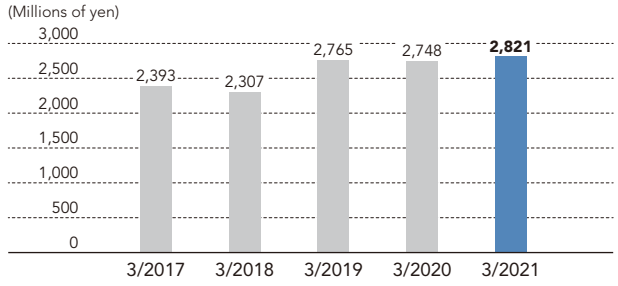
Promoting an Intellectual Property Strategy

Mindful of future business development, we actively promote the prompt filing and obtaining of intellectual property (IP) rights based on R&D results. Recently, we have been focusing on improving the quality of our patents through enhanced information retrieval functions. We will continue to respond to the globalization of our business and acquire rights securely for important domestic and foreign markets.

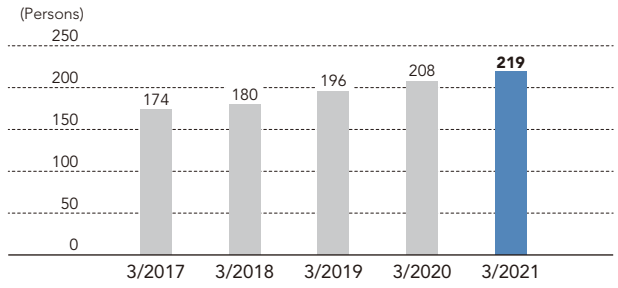
R&D Investments

Under medium-term management plan FELIZ 115, which targets an R&D expenses-to-sales ratio of 5.0% for the year ending March 31, 2025, we are engaging in R&D spending focused on key projects.

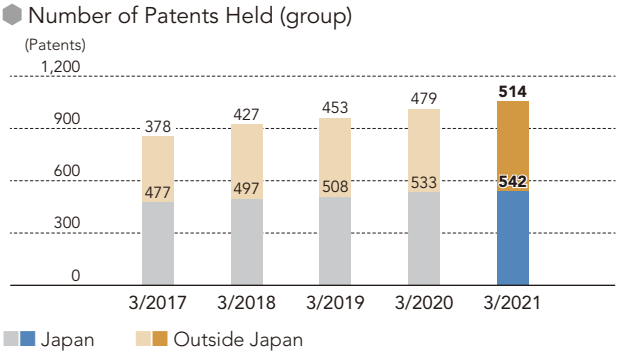
R&D Costs



Research Personnel



Number of Patents Held (group)



Stakeholder Needs and Challenges

As measures to solve social issues, DKS strives to develop technologies and deliver products that meet environmental needs, including global warming prevention, energy and resource efficiency, environmental protection, and prevention of environmental pollution.

Development of Environmentally Friendly Products

Needs & challenges	Our product lineup and technology	Value we deliver
Global warming prevention	Binder for lithium-ion batteries, gel electrolyte polymers, conductive paste for solar cells	Reducing CO_2, promoting green energy
	Alternative cleaning agents in avoiding ethane and chlorofluorocarbon solvents	Limiting ozone destruction (global warming)
Energy and resource saving	Solvent-free UV-curable materials	Reducing the steps in manufacturing processes (energy-saving)
	Polyurethane resin sealants for electric insulation	Extending the useful life of products
Consideration for the environment (Environmental protection, prevention of environmental pollution)	Low aquatic toxicity, easily biodegradable surfactants	Protecting water environment; reducing water pollution
	Cellulose nanofiber RHEOCRYSTA	Delivering products with low environmental impacts by using renewable raw materials (pulp)
	Sucrose fatty acid esters	Delivering products with low environmental impacts by using renewable raw materials (sucrose)
	Polylactic acid (corn derived) resin modifier TRIBIO	Preventing soil contamination, delivering highly biodegradable products, solving the problem of plastic waste
	Waterborne polyurethane resin dispersions	Limiting health effects, air pollution, and the like by lowering VOCs*
	Solvent-free UV-curable materials	
	Oil spill treatment agents	Preventing oil dispersion and marine pollution due to spills from shipping accidents

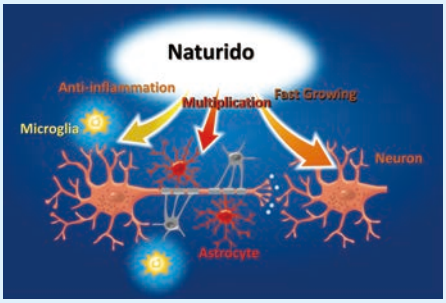
* VOC (volatile organic compounds): A general name for organic compounds that evaporate in air. Volatile organic compounds include toluene, xylene, and ethyl acetate.

Column

Discovery of "Naturido," a new useful component for improving brain function

Our Group company Biococoon Laboratories, Inc. has researched the medical fungus (*Isaria Japonica*) grown on domestic silkworms (*Bombyx mori*) obtained by utilizing sericulture technology and discovered a novel, useful component called "Naturido" that improves brain function, as noted in research results published in PLOS ONE (neuroscience), an international interdisciplinary journal.

The paper shows how Naturido not only promotes growth of neurons, but also acts on neuron-supporting glial cells, enhancing astrocyte proliferation and suppressing inflammation. Research focused on glia-neuron interaction and investigated a new strategy to improving brain function. The results indicated that Naturido is a new candidate for improving functions affected by dementia. Currently, the DKS Group is conducting clinical trials and accumulating data targeting patients with mild cognitive impairment, as well as dementia patients. Through the life sciences business, we will continue striving to solve social issues in an aging society with a declining birthrate.



Naturido and its (hypothesized) mechanism of action (image diagram)

Journal: PLOS ONE (neuroscience), an international interdisciplinary journal
Article URL: https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0245235
Manuscript title: A novel cyclic peptide (Naturido) modulates glia–neuron interactions *in vitro* and reverses ageing-related deficits in senescence-accelerated mice

Business Activities Report

Surfactants

① IT and electronics materials
② Soaps and detergents
③ Paints and coloring materials

Segment Outline

Since the Company's founding in 1909, the surfactants segment has provided core technologies that have supported DKS for more than 100 years. DKS surfactants provide high added value in a wide variety of fields and applications, including soap and detergents, IT and electronics, rubber and plastics, paints and color materials, and energy through their emulsifying, dispersing, solubilizing, penetrating, wetting, foaming and defoaming, and surface modifying functions. In recent years, we have also been promoting the development of products that are compatible with the globally increasing consideration for the environment. We currently develop and manufacture these products with petrochemicals and oils/fats as key raw materials primarily at the Yokkaichi Branch (the Chitose and Kasumi Plants), the Shiga Branch, and Yokkaichi Chemical Company Limited.

■ Business Environment

This segment is leveraged by the Company's many years of experience and accumulated technologies. The industrial fields in which the growth of reactive surfactants can be expected in the years to come include the paints and coatings field as well as adhesives. On the other hand, there are various competitors in this business, such as domestic manufacturers of detergents and emulsifying and dispersing agents. However, our abundant lineup of products has enabled us to introduce optimal products that meet customer needs, while we are able to conceive high-value-added products through our unique development approach. Going beyond simply providing materials, we work closely with customers to find solutions to their problems.

■ Initiatives

Amid the global rise in environmentalism, we have been pursuing in recent years research and development on highly biodegradable, environmentally friendly products that do not cause water pollution.

We are also striving to expand sales of products for IT and electronics material applications.

■ Strengths

The typical function of surfactants is to clean (i.e., dirt removal), which is represented in soap, a well-known item. Surfactants act on the surface of substances that do not mix, such as oil and water, and display emulsification and dispersion actions to remove dirt. Recently, however, the functions that the Company's customers require for surfactants have evolved beyond simply cleaning to more sophisticated and unique applications that reflect the advancement of the industry. The surfactant synthesis, analysis, and evaluation technology developed over our more than 110-year history has enabled the Company to provide performance and functions tailored to customer needs through our numerous product lines and combinations.

■ Achievements and Issues

During the fiscal year ended March 2021, net sales in this segment fell sharply overall.

In Japan, sales for IT and electronics applications were robust, but sales for machinery and metal applications, as well as textile applications, were sluggish, and sales for rubber and plastic applications fell sharply. Furthermore, occupancy rates declined in the hotel linen market due to the stay-at-home trend and restrictions on movement in order to suppress COVID-19 infections, leading to the sharp fall in industrial-use soap and detergent applications.

Overseas, sales for paints and color material applications were firm, but sales for textile and rubber and plastic applications were sluggish.

Going forward, we will reinforce our Uni-Top strategy and continue dedicating effort toward delivering customized products that meet customer needs.

Issues facing this segment are as follows.

① Declining earnings and lower relative value for DKS's products due to intensifying market competition in soaps and detergent applications
② Delays in developing markets for environmentally friendly products

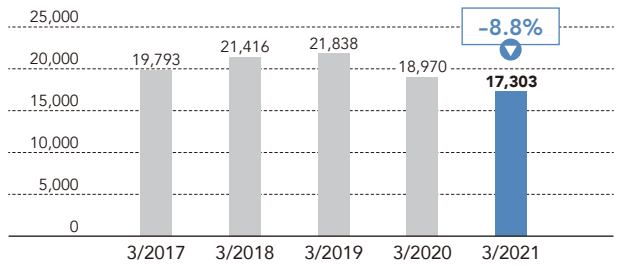
■ Growth Strategy (medium- to long-term focus businesses)

Having developed, based on Japanese technology, a reactive surfactant that, after demonstrating its function as a surfactant improves water resistance and other characteristics, the Company is focusing on expanding its market. Concrete measures include the following.

① Strengthening relationships with inspiring/inspired partners and targeting sales expansion for IT and electronics material applications
② Building a sales framework and strengthening sales for environmentally friendly paints and color material applications

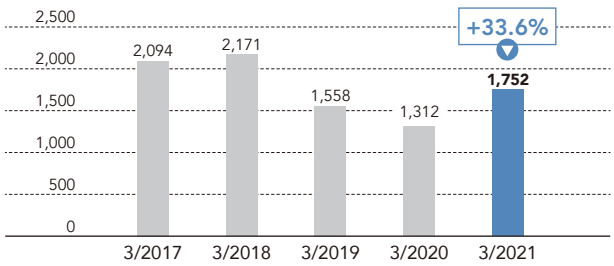
Net Sales

(Millions of yen)



Operating Income

(Millions of yen)



Amenity Materials



① Personal care (cosmetics)
② Food
③ Energy

Segment Outline

The amenity materials segment provides materials and peripheral application technologies necessary for a comfortable living environment. The Company provides materials suitable to the products of customers in a wide range of industries including foods, pharmaceuticals, personal care (cosmetics), toiletries, fisheries/livestock, textiles, pulp/paper, civil engineering, agrochemicals, and agro-materials. In particular, products made from naturally derived raw materials, such as sucrose, fatty acids, and pulp, are delivered to our way of life as safe and reliable materials.

In addition to core-technology surfactants, DKS manufactures products made from natural raw materials, including sugar and pulp, at the Ohgata and Shiga Branches.

■ Business Environment

This segment targets industrial fields that place an emphasis on safety, such as food, personal care products, and pharmaceuticals, as end products that are placed in the mouth, come into contact with skin, and stimulate the five senses.

■ Initiatives

Recently, we finely divided naturally derived cellulose fibers using nanotechnology and established technologies to produce a new material called cellulose nanofiber (CNF). Leveraging its characteristic viscosity and emulsifying, dispersing, and stabilizing properties, CNF is a noteworthy material that can be used such as in personal care and general industrial applications.

In recent years, we have been expanding into the field of energy, and our proprietary technologies include methods for manufacturing and testing water-soluble polymers for conductive pastes in lithium-ion batteries.

■ Strengths

With more than 70 years of experience in cellulose polymers (CMC) using pulp, and more than 50 years of experience in sucrose fatty acid esters (SE) using sugar, the Company has a long history in product development and is developing markets based on the basic and applied technologies accumulated to date. Among these, SEs are highly characteristic as an edible surfactant, and DKS is one of only a handful of companies worldwide producing them. SEs are used as an emulsifier for oil/fat and cream and as a texture modifier, for example, in cookies and snack foods.

■ Achievements and Issues

During the fiscal year ended March 2021, sales in this business fell sharply overall.

In Japan, sales of cellulose polymers for energy and environmental applications, as well as pharmaceutical applications, remained sluggish, while SEs for food applications also performed sluggishly.

Overseas, sales of SEs for personal care (cosmetics) applications remained sluggish, while sales for food applications fell sharply.

Issues facing this business are as follows.

① Expanding sales channels in the CNF business
② Further developing energy applications
③ Expanding into the field of high-value-added SEs

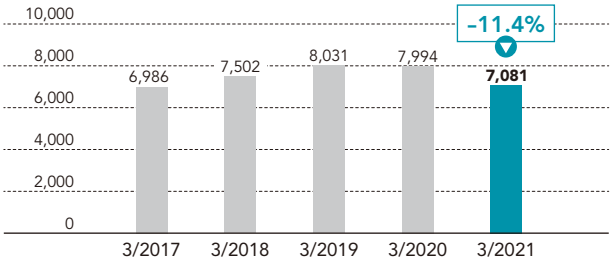
■ Growth Strategy (medium- to long-term focus businesses)

Judging from demographic trends, indications are that major Japanese market growth looks unlikely. However, while maintaining our current customer base, we will strive to secure stable sales and profitability in Japan. As growth fields, we will also continue to unlock new customers and aim to improve lifestyle comfort by expanding sales and providing highly functional products centered on, for example, overseas food and personal care applications. Concrete measures include the following.

① Building a sales framework and strengthening sales in overseas markets
② Making social contributions utilizing RSPO certification
③ Reallocating management resources by reviewing unprofitable businesses

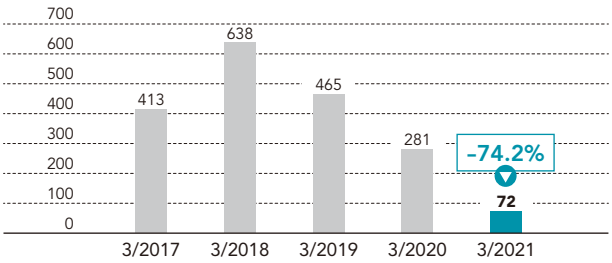
Net Sales

(Millions of yen)



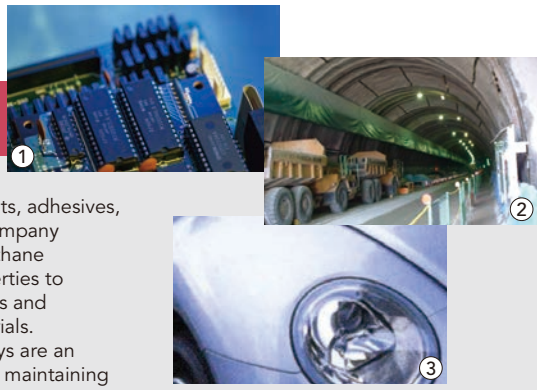
Operating Income

(Millions of yen)



Business Activities Report

Polyurethane Materials



① IT and electronics materials
② Civil engineering
③ Automotive industrial

Segment Outline

The segment provides polyurethane materials and industrial materials, including paints, adhesives, civil engineering and construction materials, and electric insulation materials. The Company possesses technologies used to manufacture high-elasticity urethane rubber and urethane elastomers as well as soft/rigid urethane foams. The Company leverages these properties to provide a variety of high-performance urethane products for a wide array of industries and applications that include cushioning, thermal insulation, molding, and painting materials.

Rock hardening agents used for mountain tunnel projects such as roads and railways are an essential product for infrastructure upgrading. The Company's products play a role in maintaining safety in environments where one misstep can put people's lives in jeopardy.

With petrochemicals as the mainstay raw materials in the segment, the products are mainly manufactured at the Yokkaichi Branch (the Chitose and Kasumi Plants).

■ Business Environment

After construction had proceeded as planned, the Kasumi Plant located in Yokkaichi, Mie Prefecture, began operations in December 2015 and serves as a mother plant that accounts for one-third of the 100,000 m^2 site area. The rock hardening agents manufactured at Plant #1 are indispensable materials for tunnel construction, including roads and railways. These products are contributing to infrastructure projects that make people's lives more convenient.

■ Initiatives

Plant #3, which manufactures functional polyurethane resin, commenced operations in December 2019. Against this backdrop, we will redouble our initiatives with our inspiring/inspired partners.

In addition, our rock hardening agents for tunnel construction have a broad array of uses that include public roads and railways while boasting a high market share based on their safety and performance. We conduct employee training at the safety training center located at the Kasumi Plant, where these products are manufactured, with the aim of generating Group-wide synergies.

Furthermore, we are also striving to promote new development of IT and electronics materials applications for the electrification of mobility components prompted by the spread of EVs.

■ Strengths

The Company's urethane materials are used mainly in paints, adhesives, civil engineering and construction, and electric insulation materials, with the overriding priority of ensuring people's safety through applications mainly for transportation equipment, civil engineering projects and electronic materials. With the recent diversification of electric appliances and the incorporation of IT in automobiles, electronic components are being used under increasingly severe conditions. Meanwhile, the need for lightweight, compact and integrated electronic components has increased, while components now need to be protected from physical and chemical effects to maintain strength and ensure durability. Lightweight, strong urethane resin plays a key role in this area. The Company's electric insulation materials, which feature a superior balance of insulation, heat-resistant, and flame-retardant properties, have a wide range of uses, from home appliance to transportation equipment components, to meet the exacting needs of customers.

■ Achievements and Issues

During the fiscal year ended March 2021, net sales in this business fell sharply overall.

Sales of functional polyurethanes for IT and electronics materials applications grew significantly, but those for construction and other applications fell sharply. Sales of civil engineering chemicals were firm, but sales of environmentally friendly synthetic lubricants related to CFC regulations dropped significantly due to the sluggishness of automobile-related fields.

Issues in this business segment are as follows.

① Improving the operation rate of Plant #3 of the Kasumi Plant
② Delays in new development
③ Strengthening relationships with inspiring/inspired partners

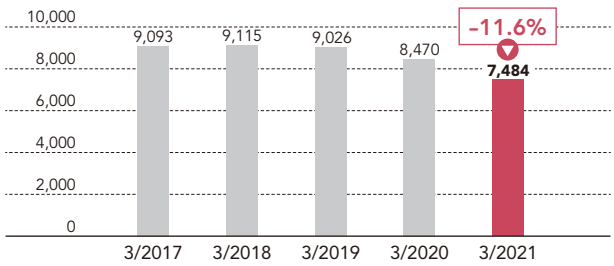
■ Growth Strategy (medium- to long-term focus businesses)

Sales growth for rock hardening agents is expected due to the progress of construction on the Linear Chuo Shinkansen Line. Additionally, by further deepening initiatives with inspiring/inspired partners, we will pursue development and expanded sales of IT and electronics materials manufactured at Plant #3. At the same time, we will accelerate activities for meeting the final fiscal year targets of the medium-term management plan ending in March 2025. Concrete measures include the following.

① Expanding automotive industrial applications
② Improving the operating rate of Plant #3 and using new development to expedite the recovery of invested capital
③ Selling rock hardening agents for the Linear Chuo Shinkansen Line
④ Reallocating management resources by reviewing unprofitable businesses

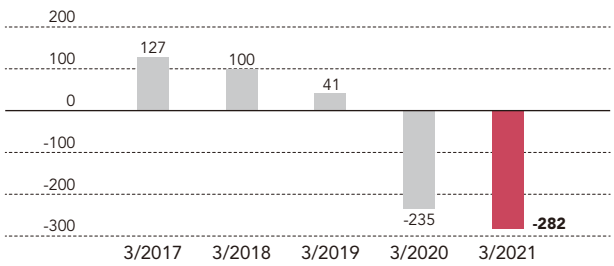
Net Sales

(Millions of yen)

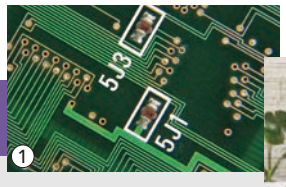


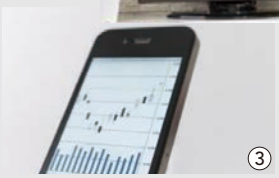
Operating Income or Loss

(Millions of yen)



Functional Materials





① IT and electronics materials
② Flame retardants for plastics
③ Film materials

Segment Outline

The functional materials segment provides technologies and materials contributing to advanced performance, including resins used in daily necessities, as well as IT and electronics materials often used in personal computers, smartphones, and home electronics. Some of the segment's products include plastic flame retardants, antistatic agents, lubricants, anticlouding agents to reduce film and resin clouding, antioxidants suppressing oxidation degradation in a variety of materials, and radiation-curable monomers and oligomers using radcure (UV- or EB-curing) technology. The waterborne polyurethanes being developed since 1973 are used in wood and plastic paints, metal and paper coating agents, film and wood adhesives, and paper/fiber binding.

These products are manufactured at the Yokkaichi Branch (the Chitose and Kasumi Plants) and the Ohgata Branch.

■ Business Environment

While many urethane resins are based on organic solvents, DKS is also researching and developing waterborne polyurethanes, in which the polyurethanes are dispersed in water, largely in reaction to rapidly growing demand for safer water systems as society places increased importance on environmental concerns. In addition to being safe for the environment and people, we believe these products are likely to see increased demand thanks to their ability to allow high-performance finishing in a variety of applications, including paper and metal processing, as well as film processability. Given the global trend away from organic solvents, this is a product group on which we are focusing our energies.

The target markets for this business show a strong potential for growth and are in areas both in Japan and overseas in which DKS can demonstrate its strengths. While competitors include electronics materials manufacturers and overseas flame-retardant manufacturers, the Company looks to secure growth through its innovative technologies and proposal capabilities.

■ Initiatives

DKS monomers are highly functional alcohol-based products using ethylene oxide (EO) addition technology, which results in low curl, low viscosity, and enhanced hardness. Our B-to-B-to-C business model focuses on a cooperative relationship with our inspiring/inspired partners to develop innovative one-of-a-kind products.

Additionally, we are building a solutions-oriented materials delivery framework for film materials.

■ Strengths

The technology used in radiation-curable monomers and oligomers is called "radcure technology", in which a resin composition such as paint is instantaneously dried and cured by irradiating it with ultraviolet light (UV) or an electron beam (EB). Radcure technology is widely used in several applications across a variety of fields to conserve resources and energy and to reduce environmental impact. Applications include the clear paint used in building materials and furniture; anti-corrosive paint for metals; resist materials for semiconductors, dry films and LCDs; and coating agents for mobile phones, optical fibers, plastics, and paper. Brominated flame retardants are more stable and highly flame resistant than phosphorous- or inorganic-based flame retardants when dealing with materials like rubber and plastics.

■ Achievements and Issues

During the fiscal year ended March 2021, net sales in this segment were generally strong.

In Japan, there was sluggishness in the sales of brominated flame retardants used in rubber and plastics applications but significant growth in sales of radiation-curable monomers and oligomers for IT and electronics applications.

Overseas, sales for radiation-curable monomers and oligomers were firm for IT and electronics materials, accompanied also by strong sales for flame retardants for rubber and plastics.

The DKS brominated flame retardant's raw material is sourced from a global bromine production site, and because the raw material price can fluctuate based on bromine market conditions, it is important for DKS to maintain proper controls on product prices.

Issues facing this business are as follows.

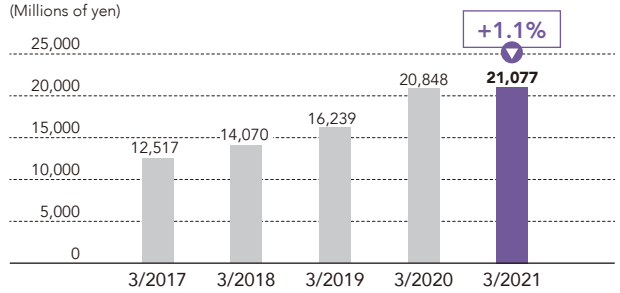
① Expediting the recovery of capital invested on Plant #4 of the Kasumi Plant
② Expanding earnings of the waterborne polyurethane resin business
③ Increasing and strengthening the supply capacity of the flame retardants business

■ Growth Strategy (medium- to long-term focus businesses)

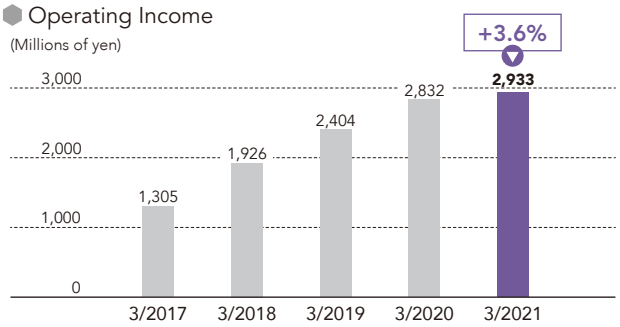
Additionally, by further deepening initiatives with inspiring/inspired partners, we will pursue development and expanded sales of IT and electronics materials manufactured at the Plant #4 of the Kasumi Plant. At the same time, we will accelerate activities for meeting the final fiscal year targets of the medium-term management plan ending in March 2025. Concrete measures include the following.

① Expanding sales of IT and electronics materials and securing profit
② Accelerating next-generation product development with inspiring/inspired partners
③ Reallocating management resources by reviewing unprofitable businesses

Net Sales



Operating Income



Business Activities Report

Electronic Device Materials

① Solar cells
② Displays
③ Lithium ion battery cells

Segment Outline

As the information society continues to advance, as evidenced by the rapid spread of the Internet and smartphones, the electronic device materials segment is focused on developing and supplying ion-conductive polymers, ionic liquids, ceramic materials and lithium-ion battery materials, as well as conductive pastes for solar cells.

We intend to further develop our innovative technologies in each area of operation, while also promoting R&D in line with the trends of the times. Mainstay products in the electronic device materials segment are produced at subsidiary companies, Kyoto Elex Co., Ltd. and Dai-ichi Ceramo Co., Ltd.

■ Business Environment

The lithium-ion batteries (LiB) used in electric vehicles generally employ lithium phosphate as an electrolyte and an organic solvent as an electrolytic solution. However, because there is a risk of organic solvents igniting, manufacturers have been careful to incorporate safety measures, including adding in flame retardants. We have developed an ionic liquid that remains in that state at 100°C and below, has no vapor pressure and is nonflammable, and because it is highly safe and has high ion conductivity, we are developing electrolyte applications for lithium-ion batteries and capacitors. These kinds of liquids are also attracting attention as next generation materials in the energy device field and as green solvents for reducing environmental impacts. Through these products and efforts, the segment is playing an important role in making all our lives safer and more comfortable.

While the improving technological capabilities of countries in Asia, including China, are a threat, we believe growth is possible by offering our proprietary technologies, R&D capabilities, and solid quality.

■ Initiatives

DKS is focused on advancing business activity at subsidiary companies using its innovative technologies. The Company's surface chemistry, which is its core technology, is used in the mixing techniques of resins and ceramic powders or organic materials and metal powders.

Furthermore, we have considered pursuing manufacturing and sales of products for solar cell applications in China, a market where further future growth is forecast in solar cells. With the objective of expanding DKS's earnings for these products in the China market, we plan to establish a local Chinese subsidiary and target the manufacture and sale of products inside China for their domestic solar cell manufacturers.

■ Strengths

DKS can conduct mixing operations under special conditions and with a high level of viscosity thanks to its detailed know-how in the process. Compound technology is one of our key strengths, allowing us to provide specific materials that meet the needs of our customers.

One example is conductive pastes, which have precious metals as the main raw material and are made with inorganic fillers and soluble binders. Conductive pastes improve functionality in the electronic devices and components used in solar cells, automobiles, smartphones, LEDs, office equipment, and medical equipment. Materials for ceramic and metal powder injection molding are used to produce small and difficult-to-process complex three-dimensional ceramics and metal parts. They often are used in electronic devices such as smartphones, precision components such as watches and medical equipment, and automotive and optical communication components. The segment also can provide powder injection molding compounds made by precisely mixing raw material powder, binder, and dispersant. Another of our strengths can be found in lithium-ion batteries, where we handle everything from materials research and development to the manufacture of prototype lithium batteries.

■ Achievements and Issues

Generally, there was significant growth in net sales in this segment in the fiscal year ended March 2021.

There was significant expansion in sales of ionic liquids for display applications and in sales of conductive pastes for solar cells. Issues facing this business are as follows.

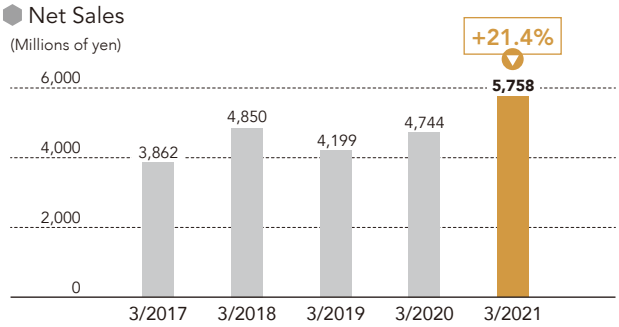
- Improving earnings of products for ceramic materials

■ Growth Strategy (medium- to long-term focus businesses)

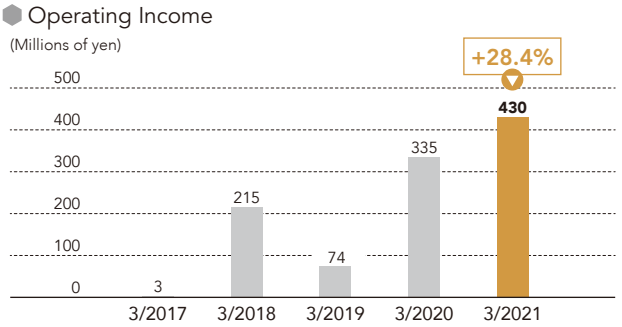
By further deepening initiatives with inspiring/inspired partners, we will accelerate activities for meeting the final fiscal year targets of the medium-term management plan ending in March 2025. Concrete measures include the following.

① Expanding earnings in the solar cell market in China
② Expanding sales and profits of ionic liquids for displays and other applications
③ Accelerating next-generation product development with inspiring/inspired partners

Net Sales



Operating Income



Life Sciences

① I. Japonica-Bombyx Fungus
② Sudachin

Segment Outline

With our full-scale entry into the life sciences business in July 2018, DKS acquired two companies, Biococoon Laboratories, Inc. and Ikeda Yakusou Co., Ltd., as wholly owned subsidiaries. Advancing research and product development with a focus on natural raw materials, extraction and high concentration technologies from natural products, and mass production technology, this segment supplies health food products that include I. Japonica-Bombyx Fungus and Sudachin (a peel extract powder made from *sudachi*, a citrus fruit). The company Biococoon Laboratories is promoting the quantification of a new substance that it is hoped will have an effect on dementia and the laboratory is proceeding with the search for high production conditions. Having established extraction and high concentration technologies from natural products, Ikeda Yakusou is also working to stabilize product quality and deliver products to customers with the priority being safety and reliability.

■ Business Environment

This business segment is accelerating not only the acquisition of HACCP and GMP certifications in the manufacture and sale of its health foods but also its initiatives, including industry-government-academia collaboration.

■ Initiatives

I. Japonica-Bombyx Fungus developed by Biococoon Laboratories, a venture company from Iwate University, is a health food that has the potential to help address the rise in dementia patients, a social issue taking hold in Japan.

Developed by making effective use of the peeled skins of *sudachi*, which is a representative and previously untapped regional resource of Tokushima Prefecture, the peel extract Sudachin arose through industry-government-academia collaboration with Tokushima University and Tokushima Prefecture. Preparations are underway to submit applications for I. Japonica-Bombyx Fungus and Sudachin as "foods with functional claims." Additionally, we are proceeding with development of general-use food products, carbonated beverages, and alcoholic products using I. Japonica-Bombyx Fungus and Sudachin.

■ Strengths

In December 2019, a new manufacturing plant for I. Japonica-Bombyx Fungus, was completed at Biococoon Laboratories in the town of Tanagura, Fukushima Prefecture. Having acquired HACCP certification, we have further enhanced our quality control systems to manufacture and provide consumers with safe and reliable health food products.

Ikeda Yakusou manufactures and provides safe and reliable products. The company also undertakes contract manufacturing business for products related to drug substances and foods based on high-quality powdering technologies. Also, able to handle chemical products, Ikeda Yakusou can provide products with various levels of performance and functions that match customers' requests.

■ Achievements and Issues

During the fiscal year ended March 2021, net sales in this business segment were generally strong.

The contract manufacturing business, such as pharmaceutical raw materials and health foods produced by concentrating and powdering extracts from natural products, remained firm.

Issues facing this business are as follows.

① Establish the B-to-C business and quickly generate earnings
② Expand new contract manufacturing business

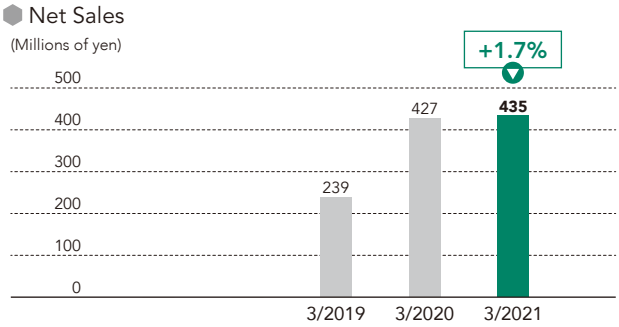
■ Growth Strategy (medium- to long-term focus businesses)

Aiming for medium- to long-term growth and early generation of earnings, we established the Life Sciences Supervisory Department (under direct supervision by the Company CEO) in April 2021. Currently, the department is taking steps to submit "foods with functional claims" applications for Naturido, discovered from I. Japonica-Bombyx Fungus, and Sudachin, a substance extracted from the peels of *sudachi* (citrus fruit) with benefits against diabetes and obesity.

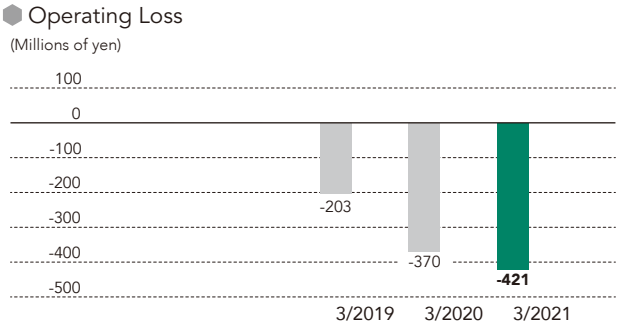
The department is also engaging in a 100-million mulberry tree planting campaign as part of efforts toward contributing to regional communities. Sericulture offers the benefits of CO_2 reduction, new regional employment opportunities for seniors seeking meaningful work and stable income, as well as a secure supply chain for materials of I. Japonica-Bombyx Fungus. These benefits contribute to a longer cycle of healthy lifespan for society. Concrete measures include the following.

① Promoting SDGs by revitalizing local communities through sericulture (Sericulture Innovation)
② Developing health foods and general-use food products (and later, pharmaceutical products) using I. Japonica-Bombyx Fungus, Naturido, and Sudachin
③ Establishing and promoting B-to-C business that will be the core of our new businesses (DREAM)

Net Sales



Operating Loss



Quality and Safety Management

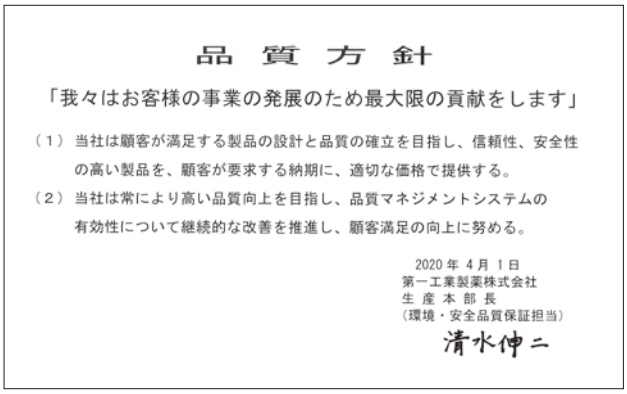
Improving the quality of products and services offered by corporations will lead to meeting the needs of customers and society, earning trust and enhancing the value provided to society and related capital. To this end, DKS views quality from four perspectives: design and development, manufacturing, sales, and customer service. We strive to improve quality in collaboration with customers and suppliers.

Quality Assurance/Quality Policy

As a chemical partner conveying the essence of high functionality for the future, we will provide customers with safer, higher-quality products that maximally contribute to the development of their business. To realize this, we engage in quality control using the PDCA cycle based on our fundamental quality assurance and quality policy in an effort to improve quality and customer satisfaction.

Fundamental Quality Assurance

1. We establish quality-related management standards for each department that cover the entire process, from product planning to customer service through design/development, manufacturing and sales. Through the appropriate operation of such standards, we strive to provide high-quality products that are safe and reliable, maintain and improve product quality and provide quality assurance for our customers.
2. To effectively bring about quality assurance functions throughout the entire Company, we establish, operate, and maintain a quality management system and promote initiatives for on-going improvements.
3. All our employees must observe this basic concept of quality assurance and carry out tasks in accordance with the Quality Assurance Management Regulations.



品　質　方　針

「我々はお客様の事業の発展のため最大限の貢献をします」

（1）当社は顧客が満足する製品の設計と品質の確立を目指し、信頼性、安全性の高い製品を、顧客が要求する納期に、適切な価格で提供する。

（2）当社は常により高い品質向上を目指し、品質マネジメントシステムの有効性について継続的な改善を推進し、顧客満足の向上に努める。

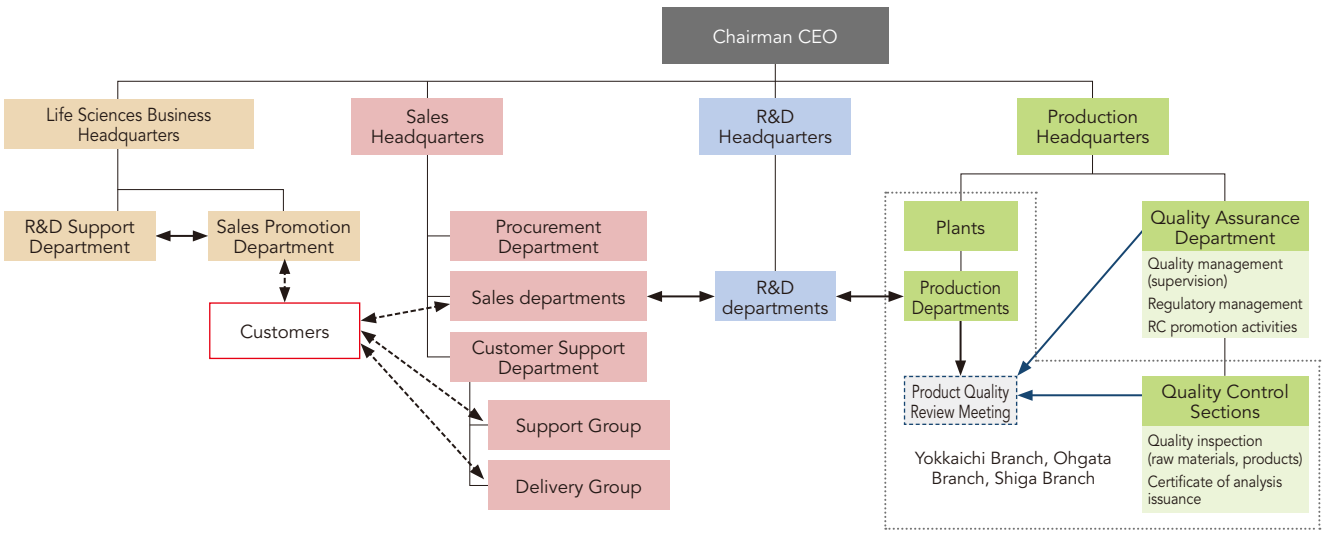
2020年4月1日
第一工業製薬株式会社
生産本部長
（環境・安全品質保証担当）
清水伸二

"DKS Quality Policy"

Quality Control System

As a chemicals manufacturer, we are committed to the maintenance and improvement of product quality using ISO 9001 as a basic tool in our quality management system. We execute PDCA cycles to provide products and services that comply with customer requirements as well as with laws and regulations. We thoroughly work on day-to-day activities such as production control, corrective measures and preventive actions relating to nonconformities (such as complaints/abnormalities), audits, change control and training, and devise improvements by conducting continuous reviews of the management system. By doing so, we aim to improve customer satisfaction.

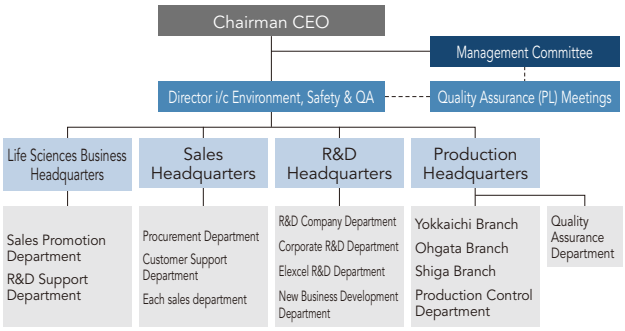
QC System Diagram



Quality Assurance System

We view QA as fundamental to our business, and as we keep our Quality Policy in mind, we continue to promote QA activities from product design/development, manufacturing and sales to customer service processes through the relevant departments of the R&D Headquarters, Production Headquarters and Sales Headquarters. With the Chairman CEO as the Chief Quality Assurance Officer, individuals appointed by the Chairman CEO as environment, safety, and quality assurance staff ensure robust quality assurance by raising quality assurance issues, holding the authority to formulate and recommend solutions, and taking on the overall responsibility for the quality management system. The QA Department General Manager takes the lead role in supervising quality assurance and in overall coordination between our departments, while attempting to establish and strengthen the QA system. Quality Assurance (PL) Meetings are convened and given the highest decision-making authority for quality assurance and quality control activities. In line with diversifying customer demands and heightened requirements for product quality from a social perspective, we remain committed to working to ensure product safety and quality, as well as trying to prevent quality-related issues before they arise.

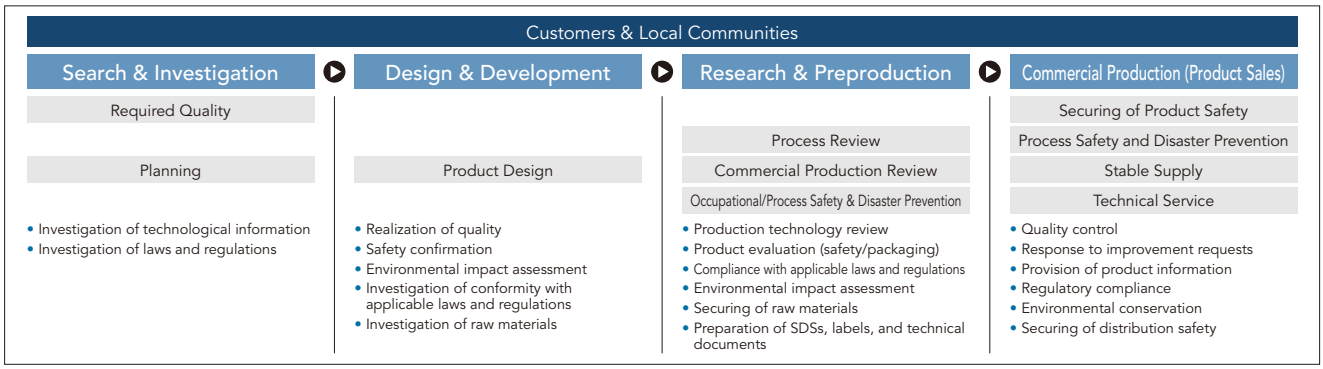
QA System Diagram



Product Safety Mechanism (chemical substance management from design development)

We have in place a product development system based on our environmental and safety philosophy, which is centered on "contributing to the sustainable development and realization of happy societies by considering human health, safety and environmental preservation throughout the lifecycle of each product, from development to scrapping." Ensuring compliance with laws and regulations related to chemical substances in Japan and overseas, we formulate chemical substance management rules, conduct the appropriate management of chemical substances, and undertake design and development that as far as possible considers the environmental impact. We are also promoting the appropriate relaying of information on the chemical substances contained in our products and information on applicable laws and regulations. We have adopted a system for organizing GHS* classification and legal regulation checks for each country, making multilingual safety data sheets (SDS) and labels, and centralizing management of material composition surveys. Using this system, we are striving to strengthen our chemical substance management.

Product Safety Mechanism



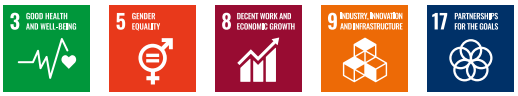
Provision of Product and Technical Information

Our products are utilized in a variety of industrial fields, and we provide product and technical information tailored to the characteristics of each product and service. We always respond to requests and inquiries from our customers quickly, adequately and in good faith. We provide information on hazardous materials to ensure safe handling, including that relative to product properties, applicable laws and regulations, transportation, handling methods and emergency measures by means of SDSs. We also use chemSHERPA (an information transfer scheme for chemicals contained within products throughout the supply chain) as a means of providing information.

We also promote product labeling and issue an SDS related to compliance with the GHS* and with local regulations for exports to the United States, Europe and Asia. We continuously update our SDSs and labeling to remain in compliance with the revised Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., and the Industrial Safety and Health Law, as well as the Poisonous and Deleterious Substances Control Law. When introducing our products, we not only focus on close communication with our customers through daily business meetings but also disseminate information through brochures and technical documents.

* Globally Harmonized System of Classification and Labeling of Chemicals

Human Resource Management



Human capital is the most important asset for DKS, and we aim to maintain talented human resources and diversity based on the idea of valuing people. We recognize the growth of employees to be the driving force for the development of the Company, leading to a wide range of enhancements in corporate value.

Respecting Human Rights and Diversity: Promoting Diversity, Human Resource Development and Education

Human Resource Philosophy Respect for Humanity

Our fundamental human resource philosophy is rooted in the idea that our people are our assets and must be nurtured and treasured.

Our basic understanding is that the growth of our people will support the growth of the Company. The employees are supposed to actively play their roles in each workplace; learn, grow and exhibit their capabilities; and try to fulfill themselves. This way, we believe that they become the power of prosperity of the Company and the source to make it eternal.

The Company also supports the maintaining and improving of employee health, which forms a cornerstone of individual employee self-fulfillment.

Human Resource Development Policies

1. Development of Professional Workers

We aim to train professional human resources who have high market value and can work on their own initiative.

1) People possessing advanced, specialized skills
2) People who recognize and achieve their roles and goals
3) People who raise and solve issues themselves
4) People who demonstrate leadership in the workplace

2. Development of Autonomous Personnel

Switch to human resources able to work on their own initiative through their own motivation

In our medium-term management plan FELIZ 115, which we launched in April 2020, we announced SDGs/ESG-based management objectives of "promoting the active participation of women" and "creating employment." As priority measures for strengthening our business foundation, we are pursuing these as part of our project for strengthening appropriate resource management and revising evaluation systems.

Work-Style Reforms

■ Work-Life Balance

DKS takes the initiative in activities supporting a balance between work and family. In terms of systems, we introduced a telecommuting system in fiscal 2019 and a flextime system in fiscal 2020, and are working to reform the personnel system to improve employee productivity and realize diverse work styles.

Promotion of Employee Participation and Advancement

Having set up an Employee Participation and Advancement Promotion Committee chaired by a senior management member, we are aiming for a human resource group capable of successfully contributing to improvements in Company performance. We are creating environments in which we can maximize the abilities of diverse employees, including women, seniors, people with disabilities, non-Japanese employees and members of the LGBT community, and enable them to take an active part in our Company.

■ Promotion of Women's Participation and Advancement

In addition to environments that facilitate female employees in working for many years, we will maintain work environments that enable women to develop their careers and implement measures aimed at having 10.0% or more of managerial positions occupied by women. As of March 31, 2021, this figure was 8.8%, and in fiscal 2020, we welcomed our first female executive officer.

Furthermore, as we ensure that all of our work environments are conducive to the active participation of females, we started hiring new female technical college graduates at manufacturing sites from fiscal 2019 and are currently continuing a steady pace of hiring.

■ Retiree Reemployment System

In reemploying all applicants as Senior Challenge Staff, we conduct *monozukuri* (manufacturing) by handing down senior employees' techniques and skills that make the best use of the experience they have accumulated over many years.

■ Employment of People with Disabilities

We believe that the most important thing about working alongside people with disabilities is that it offers diversity, which brings lessons with it. We established a dedicated organization for employees with disabilities. While we work to maximize their aptitudes and talents, we are striving to raise our ratio of employees with disabilities by creating an environment conducive to their professional participation.

Efforts to Prevent Harassment

We are trying to prevent harassment through, for example, educational programs in hierarchical training courses (including employees in managerial positions). Several persons are selected as contacts, even from outside the Personnel Department, so that anyone can easily find someone to talk to and get advice from. Moreover, whistleblower portals inside and outside the Company, as well as an external Employee Assistance Program (EAP), are in place.

Items	FY2020 Results
Annual paid leave taking rate	66.1%
Percentage of male employees taking childcare leave	57.1%
Ratio of female employees in management positions (as of March 31, 2021)	8.8%
Employment rate of people with disabilities (as of March 31, 2021)	2.9%
Retention rate of employees with disabilities (up to third year of employment)	100.0%
New graduate attrition rate (up to third year of employment)	1.4%

Human Resource Development and Education Programs

The three pillars of our human resource development and education programs are in-house on-the-job training, external education to learn skills and abilities, and support for self-development. In recent years, we have focused on enhancing our brother/sister program (a backup support system) aimed at a 0% attrition rate for new employees, while also focusing on the development of human resources able to handle digital transformation (DX) targeting the realization of disruptive innovation utilizing data and IT technologies. We have created DX learning opportunities for new employees, specially selected employees, and those who show an interest as we work to bring all staff onto our digital platform. In fiscal 2020, approximately 30% of employees received the training.

DKS is united in focusing attention on human resource training in other areas as well, including by bolstering our support for employees aiming to improve their own abilities, be it through the acquisition of qualifications, or correspondence learning (employees finishing courses with distinction have all fees covered by DKS).

Concept of Health and Productivity Management

Health and Productivity Management ("Kenko Keiei") Initiatives

We aim to bolster the Company's productivity, and thus its corporate value, by maintaining and improving the health of our employees. This initiative is reported to meetings attended by officers in charge to obtain approval for plans formulated based on these results.

Healthy Company Declaration: Regarding its employees as Company assets, DKS will strive to maintain and improve their health.

Prevent disease and mental health issues by health management	Work and live in a safe and healthy environment
• Formulate measures to prevent lifestyle-related diseases • Formulate health management targets • Develop internal company communication • Improve the workplace environment	• Regular health checkups, special health checkups, specific health guidance • Mental care: internal and external EAP, stress checks • In-house education: e-learning, group training, etc. • Improve conditions of the Company premises and housing: amenity facilities; implement measures to prevent passive smoking, etc. • Look into absenteeism and presenteeism • Hold events involving athletic activities
• Gather results of health checks, management ascertains status of mental health • Share health checkup results data in-house • Release both internally and externally an assessment by external institutions • Explore routes for improvement based on an assessment by external institutions • Explore next health management targets based on health checkup results and secondary data • Verify the effect on productivity and corporate value	• Inspect workplaces; monitor working environments, etc. • Interview after health checkup and summarize results • Implement workplace improvement activities after stress checks • Request third-party assessment by external institutions: DBJ Health Management rating, White 500 (certified health and productivity management organizations) • Conduct cross-analysis relating to productivity

Efforts in Health and Productivity Management

DKS was selected by the Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange (TSE) for the second consecutive year as a "Health & Productivity Stock." For the fourth consecutive year, DKS and subsidiaries Gembu Co., Ltd., Dai-ichi Kenkou Co., Ltd., Dai-ichi Ceramo Co., Ltd., Kyoto Elex Co., Ltd., and for the second consecutive year, Ikeda Yakusou Co., Ltd. were certified as White 500 Organizations (sponsored by METI and Nippon Kenko Kaigi). We also acquired the highest health management rating from the Development Bank of Japan Inc. (DBJ) for the fourth consecutive year. Going forward, assessments of Company efforts through the eyes of external organizations will continue to lead to further enhancements in corporate value.

2021 健康経営銘柄 Health and Productivity

DBJ健康格付 2020

Targets, Activities and Outcomes

Based on our Healthy Company Declaration, DKS strives to maintain and improve the health of its employees, and at the same time, stipulates guidelines for employee health activities and promotes Company-wide health maintenance. The employee health guidelines consist of five items aimed at improving productivity and enhancing corporate value through the maintenance and improvement of employee health. In recent years, we are strengthening initiatives to prevent smoking and efforts toward supporting the health of those not yet confronting lifestyle diseases. With regard to supporting the latter category of employees, from fiscal 2019, we started holding a walk-a-thon that uses an app that tries to encourage lasting exercise habits. In fiscal 2020, approximately 60% of employees took part. Of the participants, approximately 70% showed an inclination to continue exercising after the event. The statistic indicating the rate of regular exercise rose from 16% in fiscal 2017 to 22% in fiscal 2020.

Happiness-based management

"Employee happiness-based management" is part of the goals of "FELIZ 115," and we are pursuing the following three KPIs in order to target sustainable growth.

Health and Productivity Management Targets

DKS is pursuing the following three KPIs as we target sustainable growth by implementing employee happiness-based management

KPIs	2020	Targets for 2024
• Reduction of absenteeism[1]	0.8%	Maintain at 2.0% or below
• Reduction of presenteeism[2]	1.3%	2.0% or below
• Improvement of work engagement[3]	50	51

1, 2. Measured using DKS's own formula.
3. Deviation by stress checks
▷ Please see the glossary on p.61 for details on terminology.

With regard to employee health issues, we established the following four targets and are implementing various initiatives accordingly

Issues	2020	Targets for 2021
• Prevention of health issues among healthy employees Percentage of employees who exceeded abdominal girth standards	31.6%	28.5%
• Prevention of aggravation among high-risk employees Percentage of employees 40 years or older at risk for or experiencing metabolic syndrome	28.9%	25.0%
• Prevention and early detection of employee mental health issues Ratio of leave taken by employees with mental health issues	0%	Maintain at 0.2% or below
• Creation of environment leading to quitting smoking Percentage of employees who smoke	20.1%	17.4%

Consideration for the Environment

Natural capital is a critical common asset for chemical manufacturers, making sincere responses to various environmental problems a common global issue in the aim for economic development and conservation of the global environment. DKS will always face social issues, protect human environments and lifestyles, and contribute to the creation of a sustainable society as "chemistry provides a solution" for improving safety and comfort.

Basic Philosophy and Basic Policies for Environmental and Safety Practices

Basic Philosophy

Our basic philosophy is to contribute to society by making a company that thrives together with local communities and employees by supplying products that satisfy customers. Based on this, our environmental and safety philosophy is to contribute to the sustainable development and realization of happy societies by considering the human health, safety and environmental preservation throughout the life cycle of each product from development to scrapping.

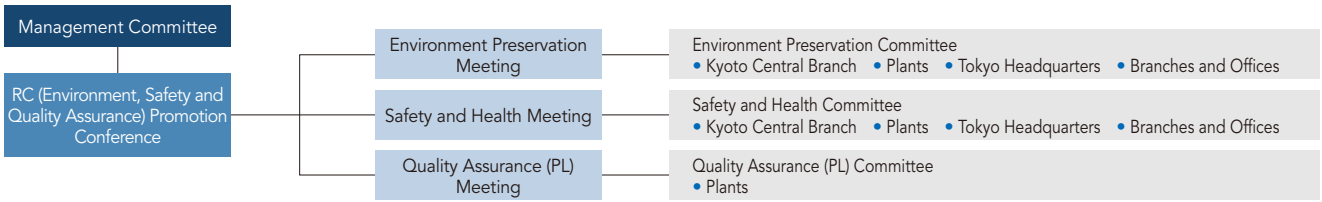
Basic Policies

1) Throughout the life cycle of each product from development to scrapping, we evaluate and minimize the impact of business activities on the environment and make our best efforts to preserve the environment.
2) We aim at accident- and disaster-free operations to secure the safety of both local communities and employees.
3) We confirm the safety of raw materials, semifinished products and final products to prevent health-related disorders of all relevant people including, but not limited to, employees, logistic/transportation workers, customers and general consumers.
4) We strive to continuously improve the safety and environment not only by strictly complying with relevant legislation and regulations but also by self-management.

Responsible Care (RC) Activity Promotion System

We set up the safety and environment philosophy, as well as basic and action policies, based on which we promote our corporate activities related to quality, safety and the environment. Such issues are discussed and decided by the RC Promotion Conference, which is the top decision-making body and is chaired by the president. The environment preservation meetings, safety and health meetings and quality assurance (PL) meetings are chaired by the quality, safety and environment personnel and joined by plant general managers and relevant department managers. In these meetings, corporate targets, action plans and results are discussed to promote RC activities. Under each of these meeting organizations is a committee to make, implement and evaluate specific action plans for continuous improvements.

RC Promotion System Diagram



Management System

For DKS, environmental conservation, process safety and disaster prevention, occupational safety and health, logistics safety, chemical and product safety, and dialogue with society are fundamental to our responsible care activities. We have acquired certification through ISO 9001, ISO 14001, and JIS Q45100, which are quality, environment, and occupational safety and health management systems that we use as tools for pursuing activities.

Our domestic production plants have acquired ISO 14001 certification and they implement periodical evaluations of strict environmental regulation adherence, while also striving for environmental conservation. We make rigorous efforts to check and understand revisions to laws and regulations on a timely basis, then to thoroughly share this information internally.

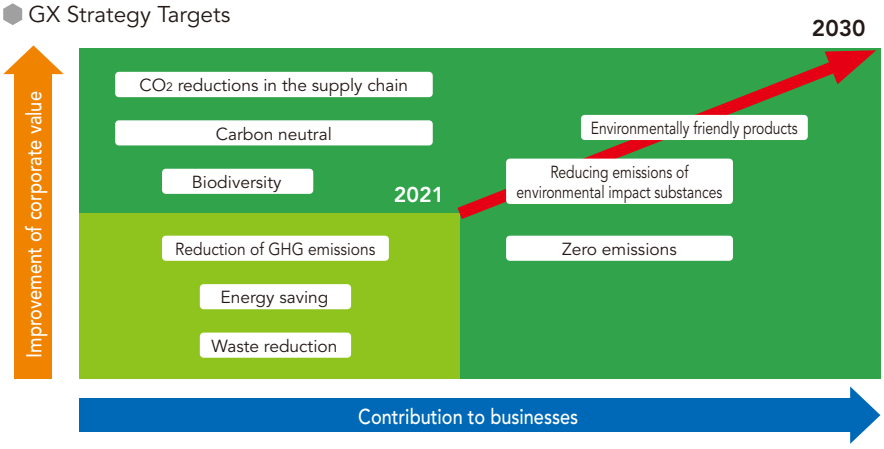
The Yokkaichi Branch obtained JIS Q45100 in September 2019, which made DKS the first chemical company to receive this certification. The Ohgata Branch followed in 2020 and plans are underway for the Shiga Branch to be certified as well. Through occupational safety and health activities based on these management systems, we will continue aiming for zero accidents and the establishment of workplaces conducive to comfortable work.

▷ Our website has information on our occupational safety and health, logistics safety, and process safety/disaster prevention efforts.
https://www.dks-web.co.jp/english/ir/report/index.html

Strategies and Initiatives

Based on the medium-term management plan FELIZ 115, we formulated a medium-term environmental plan for fiscal 2020–2024 and are striving for energy efficiency, GHG reductions, and waste product reductions. At the same time, in January 2021, we have launched a team for planning Green Transformation (GX) strategies in order to contribute to achieving a sustainable society as efforts toward decarbonization spread worldwide. With this team, we devised long-term GX strategies for moving toward carbon neutrality in 2030 and out to 2050, and we also made a road map based on these strategies. Starting in fiscal 2021, we have been shifting to a forecasting and analysis approach that is informed by these strategies. As we strengthen our current initiatives, we will also expand our targets to initiatives that take the broader society into consideration.

GX Strategy Targets



Medium-Term Environmental Plan Activity Targets and Results

Evaluation A: Significant result B: Result in line with the target C: Target unachieved D: Underperformed by a wide margin

Target parameter	Management items	Fiscal 2020 activity targets	Fiscal 2020 results	Evaluation	Fiscal 2021 activity targets
Promotion of energy saving	Energy consumption per unit[1]	Improvement of more than 1% YoY	Up 4.3% YoY (For DKS non-consolidated, down 0.5% YoY)	D	Improvement of more than 1% YoY
Reduction of GHG emissions	CO_2 emissions[2]	Reduction of more than 1% YoY	Down 9.0% YoY	A	Improvement of more than 1% YoY
Waste Reduction	Generated waste amount	Reduction of more than 1% YoY	Down 6.0% YoY	A	Improvement of more than 1% YoY
	Final disposal rate[3]	For DKS non-consolidated, maintain at or below 0.1%	0.1%	A	For DKS non-consolidated, maintain at or below 0.1% For DKS Group, at or below 3.8%[4]
	Final disposal amount	Reduce by 100 t or more in FY2024 compared with FY2019 results	Reduce by 205 t vs. FY2019 results	B	[4]
Reduction of environmental impact substance emissions	SOx emissions	Reduce emissions of environmental pollutants in the air	Down 9.9% YoY	B	Reduce emissions of environmental pollutants in the air
	NOx emissions		Up 11.1% YoY	C	
	Dust emissions		Up 81.6% YoY	D	
	Water discharge	Reduce emissions of environmental pollutants in water	Down 11.5% YoY	B	Reduce emissions of environmental pollutants in water
	COD emissions		Up 8.4% YoY	C	
Proper management of chemical substances	PRTR Regulation - designated substances emissions	Reduce emissions of PRTR Regulation-designated substances	Up 22.5% YoY	C	Reduce emissions of PRTR Regulation-designated substances
Promotion of green procurement		Improve green procurement ratio for paper and stationery	62.1%; fell by 2.3 points YoY[5]	C	Improve green procurement ratio for paper and stationery
Elimination of disasters/accidents		Achieve zero environment-related accidents	Zero accidents	B	Achieve zero environment-related accidents
		Comply with environmental laws and regulations	No legal/regulatory violations	B	Comply with environmental laws and regulations
Environmental management system		Promoting our environmental management system	Maintained	B	Promoting our environmental management system

1. Based on the calculation method from the periodical report stipulated by the Act on the Rational Use of Energy
2. Derived from energy use in the production and administrative department
3. The ratio of the final disposal amount to the generated waste amount
4. Since we achieved the Group target for final disposal amount, the fiscal 2021 target was revised to 3.8% or lower and the fiscal 2024 target was revised to 0.5% or lower.
5. In fiscal 2020, we reviewed our method for calculating the green procurement ratio and made retroactive revisions for fiscal 2019.

▷ Please see environmental data (p. 69–70) for details on energy, CO_2, waste products, environmental impact substances, and chemicals subject to the PRTR regulation.

Discussion between Outside Directors

The importance of outside directors is increasing by the year, as they work to ensure transparent, fair and objective decision-making. Two DKS outside directors exchanged their opinions on the effectiveness of DKS's corporate governance as well as the Company's growth strategies and potential.

(This conversation took place July 2021)

AOKI Sunao
Director (outside)

Career summary
- Executive Vice President and Executive Officer of Mitsubishi Heavy Industries, Ltd
- Visiting Professor of Tsinghua University in China (current)
- Honorary Fellow at St. Anne's College, University of Oxford (current)

Q: Now that "FELIZ 115" has entered its second year, what has been the progress so far, and what do you think will be necessary for meeting fiscal 2024 targets?

Taniguchi Since the first one to two years of the plan are for solidifying the foundation, the points which need improvement must be continuously worked on with the support of employees. The trial run for the Company's newly designed personnel system was launched in April this year. In this second year of the plan, it will be important to examine how to broadly roll out the new system and drum up support from employees. To date, the Company has had what could be called poor equality. An environment conducive to comfortable work for employees is important for company development and this "comfortable environment" includes freedom and the ability to work with peace of mind. At the same time, it is important to have fair evaluations and a compensation scheme based on those evaluations. I believe that being recognized for one's diligent effort would improve the quality of work for the majority of employees.

Aoki As far as the progress of FELIZ 115, the market is watching closely to see if DKS can meet the targets of net sales of ¥85 billion and income of ¥10 billion, and we are pursuing business with that sharp focus. Major initiatives for boosting income include continuously improving the weak points of the Company's existing businesses and carefully reviewing areas that are not contributing to DKS.

DKS is also moving forward with reforms to organization-wide sales activities. However, there are different levels of needs according to each customer group. The needs of people in management and core departments affect the operations of the entire company, but they do not always provide specific standards and features of the product they want. They come to us and say, "I would like to do such and such," which means, "What expertise does DKS have to make that happen?" On the other hand, procurement departments have clear details of the kinds of products they are in a quest for, due to their needs for low-prices and quick services. They give these requests not only to DKS, but to our competition as well, so even if we win the order, we cannot expect a fat margin. I feel like I have the best understanding of FELIZ 115, which expresses the CEO's ambition. Each department manager is requested to show active top-level diplomacy.

Q: What are your thoughts on employee happiness-based management?

Taniguchi There was a significant amount of debate on the Board of Directors when incorporating employee happiness-based management in the medium-term management plan. Initially, there were heated discussions in terms of "what would be the numerical targets?" and "how do we measure the degree of happiness?" Also, "Do the targets include non-financial indicators such as the utilization rate for annual paid leave, the ratio of female employees, and the hiring rate for people with disabilities?" The attrition rate at DKS is extraordinarily low. Basically, I think that the foundation of employee happiness is a system that allows everyone to enjoy their work and that helps them feel eager to come to work each day and do their best.

Aoki The key to happiness-based management is the definition of happiness, which is different for each person. A researcher, for example, may aspire to earn an award at an international symposium, while an employee of a company may only desire to work fixed hours at the office and receive a steady income. There are individual differences in happiness. However, the moments that generally make people feel the greatest happiness are when we achieve something. That is why, if the Company engages in initiatives that give employees a sense of satisfaction, it will lead to happiness-based management. I think that it is important for supervisors

TANIGUCHI
Tsutomu
Director (outside)

Career summary
Chief of the Kyoto-kami Labor Standards Inspection Office, Ministry of Health, Labour and Welfare
Chief of Tsutomu Taniguchi Labor and Social Security Attorney's Office (current)

to give their employees projects—while giving them the support needed for their achievement—with an image of what their efforts would lead to improving in the Company's performance, while also resulting in higher employee salaries.

Q: Please give us your evaluations of current ESG/SDGs initiatives of DKS.

Aoki As a manufacturer, DKS can directly contribute to lowering energy consumption and CO_2 emissions, and lowering waste that leaves our plants. I think that instilling these types of efforts throughout the Group is the most important thing. Also, I expect benefits just from updating aging facilities, creating operation plans that avoid using electricity at night, and rearranging work shifts.

Taniguchi Aside from environmental matters, I hope that we continue to place emphasis on measures to prevent occupational accidents. It is important to instill a safety mindset not only in manufacturing processes, but in the Company's management as well. In particular, since DKS has many older plants, it is essential to run them as safe, danger-free facilities by ensuring constant maintenance and tidying surroundings. I think that this type of effort will contribute to the SDGs.

Q: Japan's Corporate Governance (CG) Code has been revised. What do you think of DKS's initiatives as expectations grow for stronger governance?

Aoki With regard to the CG Code, some of its principles and content are fairly abstract and there are many items that do not clearly specify "comply," nor do they "explain" standards. So, in our most recent Corporate Governance Report, we "explain" DKS's current status with regard to 10 of the corporate governance principles. At the outset, the CG Code of Japan was based on a U.S.-styled way of thinking. As the U.S. faced scandals over fraudulent accounting, the Sarbanes-Oxley Act (SOX) was passed, after which it was adopted in Japan as J-SOX. However, the governance structure between the U.S. and Japan is different. Whereas management teams in the U.S. possess extraordinary authority, Japan's management authority is not especially strong. The issue in Japan tends rather to be with non-HQ business sites acting too much on their own, which means there is a need for governance that prevents this frontline issue.

The question is, what should outside directors do in this regard? At once- or twice-monthly Board of Directors meetings, we receive reports, but even if we ask questions or make suggestions, there is no guarantee that the information that comes back is correct. I think it is useless to simply make suggestions or rely on management monitoring functions. In my case, I think it is my responsibility to change DKS by actually going into the frontline and giving detailed advice on the mindset toward business, business models, processes, and the like. The organization will not change if we outside directors only watch and check things from the outside. Nothing happens in the conference room. The frontlines are where things happen. If we go there directly and offer guidance, that will support on-site governance.

Taniguchi The Board of Directors understands that some items in the Company's Corporate Governance Report are so-called "explanatory". There will be no development for the Company or happiness for the employees if there is no explanation of the type of governance that closely fits DKS's characteristics (that is, even with regard to the CG Code, explain DKS's individual circumstances), clarify the issues to tackle going forward, and then execute on those points. Chairman CEO Sakamoto has stated at the General Meeting of Shareholders that "employees are of utmost importance." I think that the origin of prosperity for the Company lies in enabling these cherished employees to pursue a sense of happiness. My wish is that when we reach the year 2050, we will be able to hear the words, "DKS flourished because we implemented employee happiness-based management."

Organizational Resilience

DKS has established an appropriate corporate governance system for sustainable growth and improvement of corporate value over the medium to long term and strives to ensure thorough compliance and risk management. Even if the organization becomes exposed to various changes in the outside environment and risks, to achieve sustainable growth and social contributions DKS aims to be an organization that is conscious of resilience and flexibility in addition to sustainability and growth.

DKS's Framework Supporting Sustainable Growth

The corporate philosophy around which the Company forms the basis of its actions is indicated in our Company Credo, Company Mottoes, and Code of Corporate Ethics. These are also outlined in our Declaration of Action by Officers and Employees.

With the selection of five focus SDGs Sustainable Development Goals and the promotion of health-based company management covered in our new medium-term management plan FELIZ 115, on October 1, 2020 we revised our Code of Corporate Ethics and Declaration of Action by Officers and Employees and made these known both internally and externally.

Strategies and Initiatives

Digital Society Initiatives

■ **Preventative maintenance leveraging DX**

Our project for increasing contributions from older plants is one of the priority measures of medium-term management plan FELIZ 115. The depreciation period has ended for aging plants constructed in the Showa period (1926-1989). Therefore, if these plants stay in operation and produce products continuously, it could be said that these plants have earnings power that leads to profit just by selling products.

Consequently, it is important for us to find ways to keep these fully depreciated plants operating without interruption. At the same time, the machinery and equipment (pumps, tanks, etc.) of these plants have aged and bring the risk of declining performance and breakdowns.

One form of DX at production sites is preventative maintenance we perform that discovers early signs of machinery and equipment malfunction. Since this enables preemptive measures before an incident occurs—and thereby allows us to minimize production interruptions, we are strategically implementing repairs and maintenance in parallel with our stage-one "smart" Production Headquarters changes that include profit generation through production efficiency improvements. Specifically, this includes sensors that constantly monitor machinery and equipment for sounds and vibrations during operation and help us visualize minute fluctuations that are difficult for a human technician to detect.

Using a smartphone (existing infrastructure) to gather noise data on equipment being monitored by sensors

Initiatives to Strengthen Corporate Branding

In our medium-term management plan FELIZ 115, we have set a target of 10 billion yen in annual net sales in the life sciences business.

One of our strategies for reaching this target is to strengthen corporate branding, so we are aiming to further boost corporate value and presence of DKS.

In order to increase recognition of DKS among the general public, our specific initiatives have included posting information on social media sites and other activities, such as opening limited-time pop-up shops in JR Kyoto Isetan and similar department stores. Additionally, we are collaborating with prestigious companies in Kyoto to develop original products such as general foods, soft drinks, and alcoholic beverages using the DKS Group's unique technologies and materials.

Pop-up shop in JR Kyoto Isetan

Establishing a Compliance Structure

Since the Compliance Control Committee was established in 2004, the Company has been continuously engaged in the building and maintenance of our compliance system, as well as in activities to instill compliance practices in our employees. Recognizing that compliance activities are indispensable for continuing as a sound company, we will further strengthen our activities in the years to come.

Corporate Philosophy

The corporate philosophy around which the Company forms the basis of its actions is indicated in our Company Credo, Company Mottoes, and Code of Corporate Ethics. These are also outlined in our Declaration of Action by Officers and Employees.

With the selection of five focus SDGs and the promotion of health and productivity management covered in our medium-term management plan FELIZ 115, we revised our Code of Corporate Ethics and Declaration of Action by Officers and Employees on October 1, 2020 and made these known both internally and externally.

Additionally, in order to instill our corporate philosophy among employees, we posted it in various places inside our offices and published a Compliance Manga Case Book detailing issues that tend to arise in everyday work situations. This book, which was distributed to all employees, uses an approachable (manga illustrated) format to convey its information. Furthermore, our e-learning program for all employees explains and tests participants on our corporate philosophy as part of efforts to deepen everyone's understanding of the philosophy and to offer a valuable reference for making judgments in day-to-day tasks.

Code of Corporate Ethics

To establish corporate ethics that contribute to putting the Company policies into practice, we established a six-item set of principles as the Code of Corporate Ethics and adhere to the word and spirit of all laws and regulations, as well as international rules. We also respect the culture and customs of each country and region where we practice our business activities and declare that we will act with social common sense.

Declaration of Action by Officers and Employees

Regarding the six-item set of principles established as the Code of Corporate Ethics, we broke down the content as to what kind of behavior is actually required, clearly state the guidelines for the actions of officers and employees (including seconded and contract employees, as well as temporary employees) and declare that these guidelines will be implemented as a code of conduct.

Compliance System

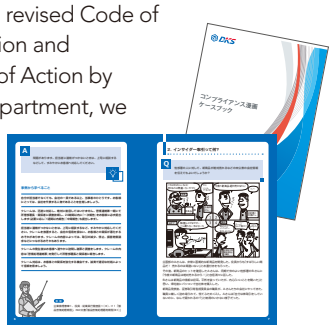
Compliance Control Committee

The Compliance Control Committee is charged with establishing and maintaining the Company's compliance system. Since its establishment in 2004, the Compliance Control Committee has been continuously engaged in building the compliance system, implementing educational activities to entrench compliance practices in our employees and conducting surveys to ensure understanding of the compliance system.

Corporate Ethics Month

The Compliance Control Committee has designated October every year to be Corporate Ethics Month and conducts activities during the month, including educational activities and the dissemination of information, centered on a particular theme.

The theme for fiscal 2020 was the revised Code of Corporate Ethics and the confirmation and implementation of the Declaration of Action by Officers and Employees. In each department, we reiterated the basics of the Code of Corporate Ethics, and department members deliberated on specific actions to take. Additionally, we gathered case studies from each department on compliance-related questions in everyday work tasks.



Compliance Manga Case Book

Whistleblower Hotlines

DKS has established whistleblower internal and external hotlines where employees can consult on and report possible violations to established laws and regulations. Instructions on using the hotlines are always available internally, such as on the Company intranet.

Compliance Awareness Survey

We conduct a Compliance Awareness Survey for all employees each December with the aim of accurately understanding the effects from activities aimed at further instilling compliance practices. Based on employee awareness of key issues, we use the results to determine initiatives for the following fiscal year.

The fiscal year ended March 2021 was the 16th consecutive year the Company has implemented the Compliance Awareness Survey.

The survey assessed respondents' understanding of the revised Code of Corporate Ethics and Declaration of Action by Officers and Employees as well as each department's achievement of these measures, and awareness of the whistleblower hotlines.

The survey posed questions about areas of policy that employees would like to see improved in the future and many requests were made reflecting current conditions regarding workplace environments and working from home.

▷ Please see the data on p. 70 for survey results.

Organizational Resilience

Strengthening Risk Management

Diverse and increasingly complex, the corporate risks surrounding the Company could result in adverse impacts on the Company itself, as well as on employees, shareholders, customers, and local communities. We position risk management as an important management issue and are taking steps to prevent potential risks and the spread of risks that have already manifested.

Risk Management System

To address the Group risks and systematically promote activities, we have established a Risk Management Control Committee that meets on a regular basis and is composed of representatives of each department, with an operating executive officer serving as the chairperson.

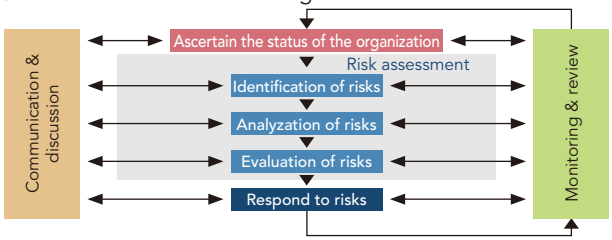
The Risk Management Control Committee's objective is to appropriately manage and set countermeasures for potential risks that may interfere with our achievement of business targets. The activities of the committee are carried out following the PDCA cycle, based on the basic process of risk assessment, risk response, monitoring, and review.

In Japan and overseas, the Company and its subsidiaries are working to maintain and strengthen crisis management systems so that we can communicate risk crisis information as soon as possible, ascertain the situation, and take appropriate measures. To deal with potential and/or evident risks, we have taken several steps, including establishing and maintaining Risk Management Procedures, Product Liability (PL) Prevention and Management Procedures, and Information Security Rules.

In fiscal 2020, we reassessed our risk management criteria and process for sharing information when an impactful event occurs, while we also extended and revised our BCP for handling earthquakes.

We utilized our e-learning platform to educate employees on the concept of business continuity management as an aspect of risk management for addressing business interruptions, which allowed us to emphasize the importance of this concept to employees.

Basic Process for Risk Management



Business Continuity Plan (BCP)

BCP is an abbreviation for Business Continuity Plan, which allows a company to maintain critical operations without suspending plans when it is affected by an unforeseen natural disaster such as an earthquake. Even if business activities are unavoidably interrupted, the BCP focuses on restarting important functions within the recovery time objective and minimizing the risks involved in interrupted operations.

We have created BCPs for a large-scale earthquake and the outbreak of a highly virulent H1N1-type influenza, and we are regularly reviewing and updating these plans.

Disaster Preparedness

There has been an increasing prevalence of natural disasters such as earthquakes and water damage from torrential rain, as well as extended heat waves and heavy snowfall accompanying abnormal weather patterns. We are proceeding to implement and strengthen appropriate measures for these types of risks to human life and business activities.

In the event of a crisis, our Risk Management Manual establishes management levels in line with the crisis, with the person in charge—according to those risk management levels—tasked with implementing risk management.

Risk Management Level	
Risk Management Level I	Understanding risk possibilities under normal operation
Risk Management Level II	Risks to be coped with within plants, branches, offices and subsidiaries
Risk Management Level III	Risks to be coped with within divisions (including subsidiaries)
Risk Management Level IV	Risks to be coped with Company-wide
Risk Management Level V	Unexpected risks

Initiatives to Prevent the Spread of COVID-19

The Risk Management Control Committee has been using our intranet and other means to inform all employees of the Company's countermeasures to COVID-19, which spread worldwide in 2020. These countermeasures focus on the policies of the central government and local municipal governments, as well as work styles that take into account the level of infections. Primary measures being implemented* are: prohibiting (in principle) overseas business trips, establishing strategies to address domestic business trips, creating standard practices for responding when someone has a confirmed infection or close-contact exposure, recommending working from home and following staggered office hours, promoting the use of our online meeting system, implementing daily infection prevention strategies (hand washing, gargling, alcohol disinfectant, face masks, etc.), carrying out temperature checks at building entrances, and setting up spray-guard partitions.

We are continuing to gather information and pursue business continuity measures during this time of the COVID-19 pandemic.

*Initiatives up to August 2021 (measures are subject to change according to the level of infections)

Strengthening Corporate Governance

Characteristics of DKS's Governance

DKS engages in business based on our Company Credo, "Contributing to the nation and society through industry," along with our three Company Mottoes—"Quality First," "Cost Reduction" and "R&D Efforts"—which embody the spirit of our founders. Our basic concept on corporate governance is to establish a management foundation able to earn and maintain the trust of society, as well as to conduct transparent and fair corporate activities that are rooted in corporate social responsibility (CSR). Consequently, we pursue higher governance as management policy and position it as one of our most important tasks.

Status of Response to Corporate Governance Code

Regarding compliance with the Corporate Governance Code, we have not implemented nine of the principles. Please refer to our Corporate Governance Report for the principles and our reasons for non-implementation.

Detailed corporate governance information

https://www2.tse.or.jp/disc/44610/140120210615449019.pdf (Japanese only)

Initiatives for Strengthening Governance

Board of Directors Diversity

Company directors possess knowledge and experience in various fields such as sales, production, research, purchasing and logistics, planning, accounting and finance, and personnel and general affairs, as well as overseas management experience. Each outside director has accumulated extensive business experience and specialized knowledge from their various backgrounds, including manufacturing companies in different industries, administrative agencies related to labor conditions and occupational health and safety, and university-level nanotechnology research. At present, the Board of Directors is not sufficiently diverse in many ways, including gender, but in the future, if such a person is recognized as qualified, he or she will be appointed as a member of the Board of Directors.

Overall Efficacy of the Board of Directors

Every year, all officers (directors and Audit & Supervisory Board Members) carry out self-evaluations based on a questionnaire prepared by the Office of the Board of Directors (Secretary Department). The Office of the Board of Directors tallies these questionnaire results, which are analyzed and evaluated by outside officers and full-time Audit & Supervisory Board Members. Last fiscal year, outside officers and full-time Audit & Supervisory Board Members made a general determination that the operation of the Board of Directors is appropriate and effective, and the evaluators provided opinions that will facilitate further elevation of this effectiveness. The Board is striving to make on-going improvements that take these opinions into account.

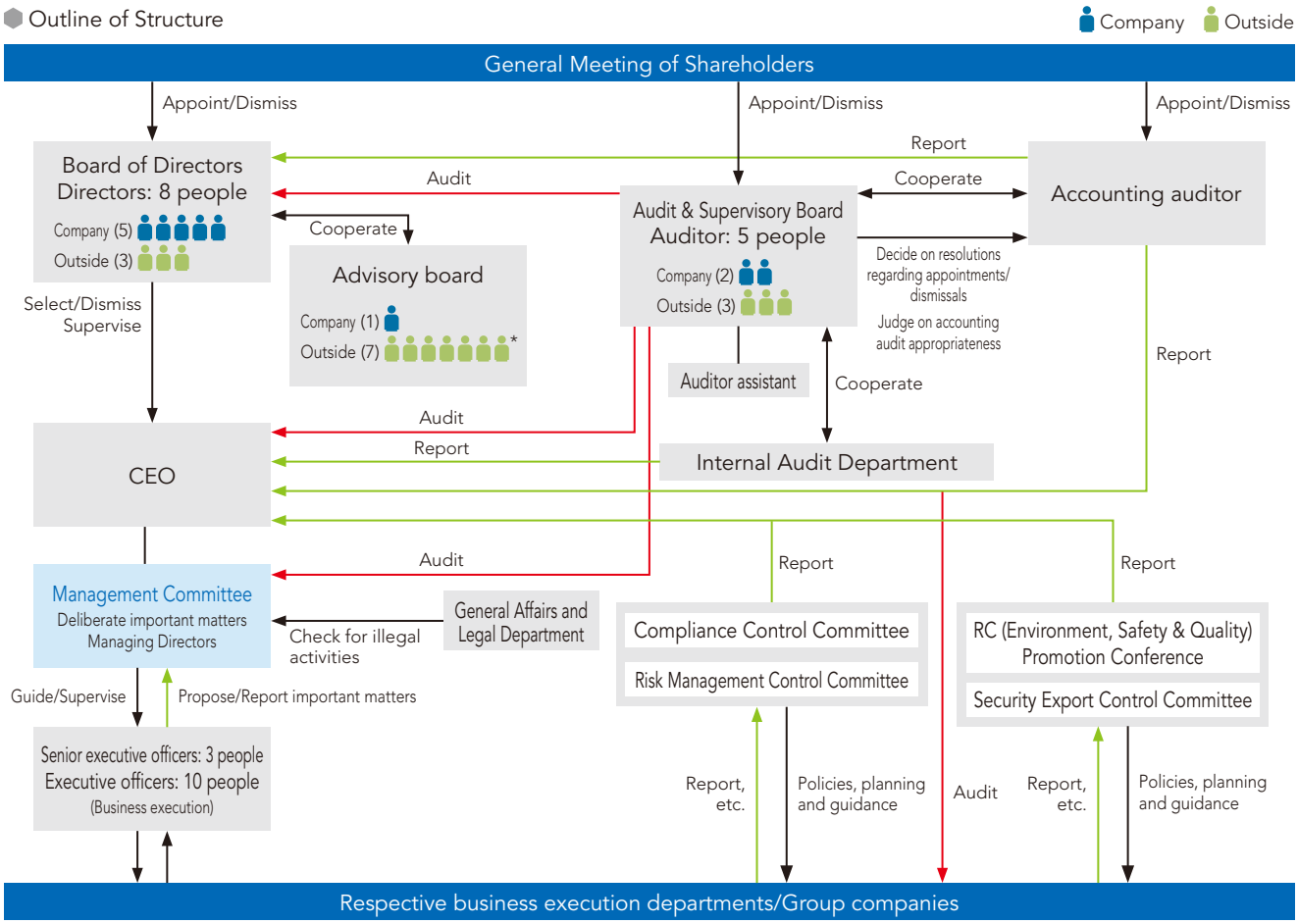
Timeline of Corporate Governance Enhancement Initiatives

Year	Month	Details
2014	June	Appointment of independent outside directors: 1 person in total Establishment of new provisions for putting Board of Directors resolutions in writing
2015	May	Establishment of an Outside Officers Committee
2017	June	Appointment of independent outside directors: 2 people in total
2018	June	General Meeting of Shareholders material made available on the internet
2020	May	Online exercising of voting rights made available
2021	May	Adoption of an online voting platform for institutional investors
2021	June	Establishment of an Advisory Board Appointment of independent outside directors: 3 people in total (3 of 8 directors are independent outside directors)

Organizational Resilience

Organizational Design and Structure

Outline of Structure



*"Outside" includes experts

Organizational composition and roles

Management Committee

Chaired by the Chairman CEO, the Management Committee is comprised of five internal directors, two full-time Audit & Supervisory Board Members, two senior executive officers, and three executive officers. The Committee reviews and considers items which need approval prior to the Board of Directors (primarily accounts, finance, and performance-related matters), as well as important resolutions and reports based on the Official Regulations of Administrative Authority and the Official Regulations of Accounting and Finance. In the process, the Committee carries out regulations and adjustments across the Company. The Management Committee meets on a regular basis (generally twice a month). In principle, matters brought before the Board of Directors are first given careful review by the Management Committee, which endeavors to check their compliance with laws, regulations, and the Articles of Incorporation, in order to facilitate rational decision making.

Matters deliberated by the Board of Directors

No. of meetings	Main details	Average time committed
12 times in total	• Accounts-related items • Executive appointments, remuneration • Segment business plans • Progress reports on medium-term management plan FELIZ 115 • Reports on corporate governance • Reports on internal control evaluations (related to financial reports) and the Internal Control Report • Reports related to evaluating the effectiveness of the Board of Directors	122 min.

Appointment and Dismissal of the CEO and the CEO Succession Plan

Regarding the appointment of the CEO, the outgoing CEO proposes a candidate for successor who shall be resolved after thorough deliberation by the Board of Directors, which includes three independent outside directors. If the CEO is not sufficiently fulfilling his role, or if there is a reason to dismiss the CEO, the Board of Directors will deliberate and resolve the dismissal.

In addition, succession planning for the CEO is the most important matter for the survival of the Company, thus it is critical to identify actual and potential capabilities of management. The succession plan is the exclusive property of the CEO, who is familiar with all aspects of the Company. DKS believes it is desirable to hear the opinions of outside officers regarding the qualities and aptitude of successors, thus our successor training committee and our Advisory Board, which include outside officers as members, provide opportunities to appropriately incorporate the advice and participation of outside directors.

Establishment of an Advisory Board

The Company voluntarily established an Advisory Board as a supplementary body with the goal of improving the fairness, objectivity, and transparency of the decision-making process of the Board of Directors.

Establishing the Advisory Board ensures appropriate opportunities for outside officers to participate in and provide advice on CEO successor selection, officer remuneration, and the like.

The Advisory Board is comprised of the Chairman CEO, six outside officers, a majority of whom are independent, and one outside expert. The Board is chaired by an independent outside director.

Role of the Advisory Board

The Board reviews, deliberates, and advises the Board of Directors on the following:

(1) Matters related to overall management
(2) Matters related to selecting director candidates, including representative directors
(3) Matters related to plans for training Company director successors
(4) Matters related to policies and procedures relevant to director remuneration
(5) Matters related to determining and revising the officer remuneration scheme and remuneration amounts
(6) Other matters deemed necessary by the Board of Directors

● Reasons for Selection of Outside Directors

Name	Reasons for selection and expected contribution to the Company
AOKI Sunao	Mr. Aoki has extensive experience and advanced, specialized knowledge from many years in management positions at Mitsubishi Heavy Industries, Ltd. Based on his seven years of professional experience serving as an outside director of the Company, he has played an appropriate role in overseeing business execution as an outside director by actively providing his opinions on the medium-term management plan and management strategies, among other subjects. The Company deems that, going forward, Mr. Aoki will continue offering appropriate supervision of the execution of Company business and will provide advice from a broad-based perspective.
TANIGUCHI Tsutomu	Mr. Taniguchi has extensive experience and advanced, specialized knowledge from serving in key positions at the Labor Standards Inspection Office. Based on his four years of professional experience serving as an outside director of the Company, he has appropriately fulfilled his role in overseeing business execution by actively providing his opinions on labor conditions and occupational safety and health, among other subjects. The Company deems that, going forward, Mr. Taniguchi will continue offering appropriate supervision and valuable advice.
OKUYAMA Kikuo	Mr. Okuyama has extensive knowledge and experience in the field of nanotechnology, particularly from his involvement in university-level research. He has also made dedicated effort toward industry-academia-government collaboration and is expected to offer valuable advice related to fields in which the Company conducts research, and in the field of life sciences. The Company deems that Mr. Okuyama will be able to leverage his experience and expertise to improve the Group's sustainable growth and corporate value.

Officer Remuneration

The basic policy regarding director and Audit & Supervisory Board Member remuneration involves a) appropriate compensation for execution of duties, b) remuneration that encourages actions to improve business performance and maximize corporate value, and c) remuneration that deepens value-sharing with shareholders.

Director Remuneration

Director remuneration consists of 1) fixed remuneration, 2) performance-linked remuneration (incentives), and 3) stock remuneration (deepens value-sharing with shareholders). For outside directors, in consideration of involvement in business execution decisions, compensation consists of 1) fixed remuneration and 3) stock remuneration.

	1) Fixed remuneration	2) Performance-linked remuneration	3) Stock remuneration
Calculation method	Monthly remuneration is set based on the size of the role tasked to each director and their position.	Company performance in the previous fiscal year is evaluated once each year, with the departments each director is in charge of evaluated twice each year; then, the amount of remuneration is calculated and increased or decreased within a certain range.	DKS introduced a transfer-restricted stock remuneration system, with decisions as to the specific allocation of monetary remuneration to be paid for the granting of transfer-restricted shares based on the size of the role tasked to each director and their position.
Scope of amount	At the 154th Ordinary General Meeting of Shareholders held on June 26, 2018, a resolution determined that monthly remuneration for directors be set at ¥30 million (¥360 million per annum, with outside director remuneration set at ¥3 million per month). This does not include the salary of employees who concurrently serve as directors.		At the 153th Ordinary General Meeting of Shareholders held on June 27, 2017, a resolution determined the amount of stock remuneration be set at ¥100 million per annum (¥6 million or less per annum for outside directors; this does not include the salary of employees who concurrently serve as directors), with 100,000 shares as the maximum number of common shares to be issued or disposed of per annum. All of the above are drawn up by the CEO and remitted and paid upon resolution by the Board of Directors.

Audit & Supervisory Board Member Remuneration

Audit & Supervisory Board Member remuneration is composed of 1) fixed remuneration and 2) stock remuneration based on the appropriateness of audits conducted and the role played in promoting shareholder interests.

	1) Fixed remuneration	2) Stock remuneration
Calculation method	An amount suitable for the role of an Audit & Supervisory Board Member entrusted by shareholders is set and paid as fixed monthly remuneration.	Regarding stock remuneration, DKS introduced a transfer-restricted stock remuneration system, and determines the amount of monetary remuneration to be paid for granting transfer-restricted shares suitable for the role of an Audit & Supervisory Board Member entrusted by shareholders.
Scope of amount	At the 141th Ordinary General Meeting of Shareholders held on June 29, 2005, a resolution set maximum compensation at ¥6 million per month (¥72 million per annum).	At the 153th Ordinary General Meeting of Shareholders held on June 27, 2017, a resolution set maximum stock compensation at ¥20 million per annum, with 20,000 shares as the total number of common shares of the Company to be issued or disposed of per annum. All the above are determined and remitted after consultation with Audit & Supervisory Board Members.

● Total Amount of Remuneration for Each Officer Position, Total Amount of Remuneration by Remuneration Type, and Number of Applicable Officers

Officer position	Total remuneration (Millions of yen)	Total remuneration by type (Millions of yen)			Number of applicable officers (persons)
		Fixed	Performance-linked	Stock-based	
Director (excluding outside directors)	252	236	(4)	20	10
Audit & Supervisory Board Member (excluding outside Audit & Supervisory Board Members)	43	39	—	3	2
Outside officers	46	42	—	3	8

Targets for indicators related to performance-linked remuneration in the fiscal year under review were to exceed consolidated net sales of ¥59.5 billion, consolidated ordinary income of ¥4.1 billion, and consolidated operating cash flow above ¥3.2 billion in fiscal 2018. In the previous fiscal year, which the performance-linked remuneration for the current fiscal year is subject to, consolidated sales increased to ¥61.4 billion and consolidated ordinary income decreased to ¥3.5 billion. In addition, consolidated operating cash flow increased by ¥3.7 billion.

Dialogue with Shareholders and Investors

Disclosing the necessary corporate information in a timely and appropriate manner, the Company attaches importance to occasions for communicating with the wide range of people concerned. While actively conducting dialogues with its many investors, the Company has been able to seize opportunities for dialogue involving stories about its creation of value. The Company arranges regular large and small meetings with investors so that the CEO can communicate with investors in his own words. In addition, with regard to explaining financial performance and business scope, the personnel in charge of IR meet directly with investors. With this integrated report serving as a tool for constructive dialogue, we are working to improve corporate value, including mutual understanding.

Frequent questions from stakeholders

Q Could you give us an overview of the medium-term management plan and your progress on it?

A In April 2020, we launched our five-year management plan, FELIZ 115. Focused on the social environment of 2030, it is a framework for transforming into a company that will persist for the next 100 years. Our Company Credo, "Contributing to the nation and society through industry" is everlasting. The medium-term management plan is positioned in order to chart a course to raising corporate value and reaching consolidated net sales of ¥100 billion. Our general review of the first year of the plan is as follows:

(1) We carried out a portfolio review, including improving profitability and withdrawing from certain projects, and we reorganized our business structure.
(2) We brought on line Plant #4 in the Yokkaichi Branch Kasumi Plant, enabling greater production capacity to handle demand.
(3) We established the Life Sciences Business Headquarters (under direct supervision of the president), aiming for life sciences business on the scale of ¥10 billion in 2025.
(4) In order to start and build out new businesses, we revamped our R&D organization to place priority on profitability.
(5) We proactively hired non-Japanese employees and strove to promote diversity.

Please see the "Investor Relations" tab on our website for details on our medium-term management plan (in Japanese only).

https://www.dks-web.co.jp/ir/strategy/index.html

Q What products are your growth drivers?

A Currently, special nonionic surfactants, rock hardening agents, radiation-curable resin materials, flame retardants, and electronic device materials are our growth drivers. Rock hardening agents are used to prevent tunnel collapse during tunnel digging, while flame retardants are used to make plastic materials and home insulation materials less flammable. Due to the increased time people are spending at home during the COVID-19 pandemic, demand has grown for antistatic agents used for liquid crystal film in TVs, personal computers, and similar devices.

Q What is your philosophy on shareholder returns?

A While keeping our dividend consistent with internal reserves necessary for future business development, our policy is to maintain a stable long-term dividend for shareholders. Additionally, we adopted a shareholder benefit program in fiscal 2019. In proportion to the number of shares held, this fiscal year's benefit program provided shareholders with I. Japonica-Bombyx Fungus and Sudachin manufactured by the DKS Group.

Please see the "Investor Relations" tab on our website for details on the (consolidated) dividend payout ratio (in Japanese only).

https://www.dks-web.co.jp/ir/library/index.html

Dialogue with Institutional Investors and Analysts

Every year, we hold briefing sessions and small-group meetings with institutional investors covering the full-year and first-half periods, in June and December respectively. In fiscal 2020, we made maximum effort to address COVID-19 and therefore reduced the size of these gatherings, which were held in a hall adjoining Tokyo Station. With the impact of the state of emergency declaration and priority measures to prevent spread of the infection, attendees were more inclined to follow stay-at-home recommendations and there were only 58 participants (which was fewer than last year).

Earnings briefing

Dialogue with Individual Shareholders and Investors

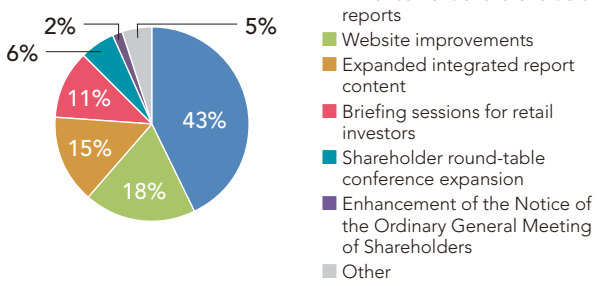
We held our 157th Ordinary General Meeting of Shareholders and management briefing at the RIHGA Royal Hotel Kyoto on Friday, June 25, 2021. Subsequently, on Friday, July 2, we held another management briefing in Tokyo. Despite the coronavirus pandemic, there were more attendees than the previous year and participants provided us with candid input.

Shareholder Survey Results

This section presents some of the results of shareholders' responses to our survey. On survey questions related to IR activities, interest was higher than last year with regard to "Website improvements" and "Briefing sessions for retail investors," due to there being an increase in the number of individual shareholders. There was also an approximate 20% increase year-on-year in the number of survey cards completed. We thank everyone for their valuable and extensive feedback.

Going forward, we will devise approaches to conveying DKS's management policies and business direction in the clearest manner possible.

What are your expectations for DKS's IR activities?



Board of Directors, Audit & Supervisory Board, and Executive Officers

Board of Directors (as of July 1, 2021)

SAKAMOTO Takashi
Chairman CEO

Number of shares held: 33,650 shares

Career summary

April	1970	Joined The Fuji Bank, Limited (current Mizuho Bank, Ltd.)
February	1991	Manager of Madrid Branch of Fuji Bank
May	1994	Manager of Nihonbashi Branch of Fuji Bank
December	1999	Managing Director of Fuji Asset Management Co., Ltd.
June	2001	Joined DKS Co. Ltd.
June	2001	Director
April	2004	Executive General Manager in charge of Corporate Planning Headquarters
June	2004	Managing Director
June	2007	Senior Managing Director
June	2011	Representative Vice President
June	2013	Chairman and Executive Director (current)
June	2015	Concurrently President (current)

URAYAMA Isamu
Representative Senior Managing Director
Production Supervisor

Number of shares held: 15,712 shares

Career summary

April	1975	Joined DKS Co. Ltd.
October	2007	General Manager of Financial Division and Assistant to Auditor
May	2008	General Manager of Accounting Department and Assistant to Auditor
June	2008	Executive General Manager in charge of Financial Headquarters
June	2009	Director
June	2016	Managing Director
April	2020	Representative Senior Managing Director (current)
April	2021	Production Supervisor (current)

YAMAJI Naoki
Managing Director
R&D Supervisor

Number of shares held: 5,500 shares

Career summary

April	1991	Joined DKS Co. Ltd.
April	2013	General Manager in charge of Planning Department, Yokkaichi Reorganization Division, Production Control Headquarters
April	2014	General Manager of COO Office
April	2015	Executive General Manager of Plastic Materials Business Division, Business Headquarters
April	2016	Concurrently in charge of Tokyo Headquarters
April	2017	Executive General Manager in charge of Corporate Planning Headquarters
June	2017	Director and in charge of Personnel & General Affairs Headquarters
April	2018	In charge of Production Control Headquarters
April	2020	Managing Director (current) Administrative Supervisor
April	2021	R&D Supervisor (current)

OKAMOTO Osami
Managing Director
Sales Supervisor in Charge of Tokyo Headquarters

Number of shares held: 7,613 shares

Career summary

April	1989	Joined DKS Co. Ltd.
April	2006	General Manager of Sales Department, Plastic Additive Materials Business Division
May	2007	General Manager of East Sales Department, Surfactants Business Division
April	2008	General Manager of Planning Office, Functional Chemicals Business Division
October	2010	Director of Yokkaichi Chemical Co., Ltd.
April	2013	General Manager of Yokkaichi Reorganization Department, Production Control Headquarters
April	2014	General Manager in charge of Management Planning Office, Corporate Planning Headquarters
April	2016	Deputy Executive General Manager in charge of Corporate Planning Headquarters
April	2017	Executive General Manager of Plastic Materials Business Division, Business Headquarters Concurrently in charge of Tokyo Headquarters (current)
June	2017	Director
April	2020	Managing Director (current) Sales Supervisor (current)

KAWAMURA Ichiji
Director
Administrative Supervisor

Number of shares held: 2,902 shares

Career summary

April	1985	Joined The Fuji Bank, Limited (current Mizuho Bank, Ltd.)
August	1995	Senior Assistant to Director of London Branch
November	2001	General Manager of Yokohama Branch
April	2002	Assistant Branch Manager, Yokohama-chuo Branch of Mizuho Bank
May	2004	Assistant Branch Manager, Seoul Branch of Mizuho Corporate Bank, Ltd.
July	2008	Deputy General Manager of Sales Department 6
April	2011	General Manager, International Corporate Sales Department
July	2013	General Manager, International Corporate Sales Department of Mizuho Bank
April	2016	Joined DKS Co. Ltd. Deputy Executive General Manager in charge of Personnel & General Affairs Headquarters
April	2017	Executive General Manager in charge of Personnel & General Affairs Headquarters
April	2018	Executive General Manager in charge of Production Control Headquarters
June	2018	Director (current)
April	2020	Production Supervisor
April	2021	Administrative Supervisor (current)

AOKI Sunao
Director (outside)

Number of shares held: 1,051 shares

Career summary

April	1972	Joined Mitsubishi Heavy Industries, Ltd.
June	2000	Director of Takasago Laboratory, Technology Department
June	2003	Director
January	2005	General Manager, Technology Department
June	2005	Representative Executive Officer
December	2005	Visiting Professor of Tsinghua University in China (current)
April	2006	Representative Managing Executive Officer of Mitsubishi Heavy Industries, Ltd.
April	2009	Executive Vice President and Executive Officer
June	2011	Vice Chief Director of Mitsubishi Research Institute, Inc.
April	2014	Special Advisor of Mitsubishi Heavy Industries, Ltd.
June	2014	Director of DKS Co. Ltd. (current)

TANIGUCHI Tsutomu
Director (outside)

Number of shares held: 669 shares

Career summary

October	1978	Labor Standard Inspector of Labor Ministry
April	2002	Chief of the Sonobe Labor Standards Inspection Office, Kyoto Labor Bureau, Ministry of Health, Labour and Welfare (former Labor Department)
April	2004	Senior Officer for Personnel Planning, General Affairs Division
April	2006	Chief of the Kyoto-minami Labor Standards Inspection Office
April	2008	Director of the General Affairs Division
April	2010	Chief of the Kyoto-shimo Labor Standards Inspection Office
April	2012	Chief of the Kyoto-kami Labor Standards Inspection Office
June	2014	Executive Director of Kyoto Labor Standards Association
June	2017	Registered as Labor and Social Security Attorney (Kyoto Labor and Social Security Attorney's Association) Chief of Tsutomu Taniguchi Labor and Social Security Attorney's Office (current) Director of DKS Co. Ltd. (current)

OKUYAMA Kikuo
Director (outside)

Number of shares held: —

Career summary

October	1990	Professor, Department of Chemical Engineering, Cluster 3, Faculty of Engineering of Hiroshima University
April	2001	Professor, Department of Chemical Engineering, Graduate School of Engineering of Hiroshima University
April	2013	Professor Emeritus, Chemical Engineering of Hiroshima University (current) Special Appointment Professor of Hiroshima University
June	2017	Managing Director of Hosokawa Powder Technology Foundation (current)
June	2021	Director of DKS Co. Ltd. (current)

Audit & Supervisory Board (as of July 1, 2021)

FUJIOKA Toshinori

Audit & Supervisory Board Member

Number of shares held: 13,141 shares

Career summary

April	1980	Joined DKS Co. Ltd.
October	2000	General Manager in charge of General Business Promotion Office, Procurement & Logistics Headquarters
July	2001	General Manager in charge of Sales Promotion Office, Sales Headquarters
October	2005	General Manager of East Supervision Department, Sales Supervision Headquarters
June	2007	Executive General Manager in charge of Personnel & General Affairs Headquarters
April	2010	President and Representative Director of Kyoto Elex Co., Ltd.
June	2011	Executive General Manager in charge of Procurement & Logistics Headquarters and President of Osaka Branch
June	2014	Director
April	2016	Executive General Manager of RHEOCRYSTA Business Division (Business Headquarters)
June	2018	Audit & Supervisory Board Member (current)

ONISHI Hideaki

Audit & Supervisory Board Member

Number of shares held: 12,989 shares

Career summary

April	1982	Joined DKS Co. Ltd.
April	2001	General Manager of Plastic Materials R&D Department, Plastic Materials Business Division
October	2005	General Manager of Synthesis R&D Supervision Department, Technological Development Headquarters
March	2006	General Manager of Plastic Additive Materials R&D Department, Technological Development Headquarters
April	2008	Deputy General Manager of Plastic Materials R&D Department, Plastic Materials Business Division
April	2009	General Manager of Plastic Materials Laboratory, Plastic Materials Business Division
June	2011	Executive General Manager in charge of R&D Headquarters
June	2014	Director
April	2017	Managing Director
June	2020	Advisor
June	2021	Audit & Supervisory Board Member (current)

TAKAHASHI Toshitada

Audit & Supervisory Board Member (outside)

Number of shares held: 71 shares

Career summary

April	1982	Joined The Fuji Bank, Limited (current Mizuho Bank, Ltd.)
May	2004	Manager of Urawa Branch of Mizuho Corporate Bank, Ltd.
November	2005	Manager of Maebashi Branch of Mizuho Corporate Bank
April	2008	Manager of Shinagawa Branch of Mizuho Corporate Bank
April	2010	Chief Auditor, Business Audit Department of Mizuho Corporate Bank
January	2011	Joined UC CARD Co., Ltd.
February	2011	Managing Executive Officer of UC CARD
April	2020	Director, Managing Executive Officer of UC CARD
June	2020	Audit & Supervisory Board Member of DKS Co. Ltd. (current)
		Director, Audit & Supervisory Board Member of ITmedia Inc. (current)

NAKA Hideya

Audit & Supervisory Board Member (outside)

Number of shares held: 71 shares

Career summary

April	1978	Joined The Bank of Kyoto, Ltd.
June	2001	Manager of Tanabe Branch of Bank of Kyoto
June	2003	Manager of Fushimi Branch of Bank of Kyoto
June	2005	Manager of Corporate Financial Department of Bank of Kyoto
June	2007	Executive Officer of Bank of Kyoto (Commissioned Executive General Manager, Hanshin Sales Headquarters, Sales Administrative Division)
December	2010	Executive Officer of Bank of Kyoto (Commissioned Chair, Nagoya Branch Opening Committee)
April	2011	Executive Officer of Bank of Kyoto (Commissioned General Manager, Nagoya Branch)
June	2013	Managing Executive Officer of Bank of Kyoto (Commissioned General Manager, Nagoya Branch)
June	2015	Managing Executive Officer of Bank of Kyoto (Commissioned General Manager, Tokyo Branch)
December	2015	Managing Executive Officer of Bank of Kyoto (Commissioned General Manager, Tokyo Sales Department)
June	2019	President and CEO, Kyoto Credit Assurance Service Co., Ltd. (current)
June	2020	Audit & Supervisory Board Member of DKS Co. Ltd. (current)

HASHIMOTO Katsumi

Audit & Supervisory Board Member (outside)

Number of shares held: 71 shares

Career summary

April	1981	Joined Osaka Regional Taxation Bureau
October	1984	Joined Asahi Accounting, LLC. (current KPMG AZSA LLC)
March	1987	Registered as a certified public accountant
May	2007	Representative Partner of Asahi Accounting, LLC. (current KPMG AZSA LLC)
July	2010	Director of Kyoto Office of KPMG AZSA LLC
June	2019	Left KPMG AZSA
July	2019	Established Hashimoto Accounting Office as a Representative (current)
June	2020	Audit & Supervisory Board Member of DKS Co. Ltd. (current)

Executive Officers (as of July 1, 2021)

Senior Executive Officer	MISAWA Hideto	Executive General Manager, Sales Headquarters
Senior Executive Officer	IWAISAKO Koichi	Supervisor of Administration/Group Companies, Sales Headquarters
Senior Executive Officer	KITADA Akira	Representative Director and Chairman, Yokkaichi Chemical Co., Ltd.
Executive Officer	SAKAMOTO Mami	Executive General Manager, Public & Investor Relations Department
Executive Officer	TAKAHARA Eiji	Executive General Manager, Life Sciences Department
Executive Officer	SHUDO Takuya	Executive General Manager, Administrative Headquarters
Executive Officer	HASHIMOTO Masayuki	Executive General Manager, R&D Headquarters
Executive Officer	SHIMIZU Shinji	Executive General Manager, Production Headquarters
Executive Officer	OWAN Jiro	General Manager, Yokkaichi Plant, Production Headquarters
Executive Officer	MORI Yoshiyuki	General Manager, Ohgata Plant, Production Headquarters
Executive Officer	WATANABE Kisou	General Manager, Shiga Plant, Production Headquarters
Executive Officer	SHIMIZU Koji	Vice Chairman, Chin Yee Chemical Industries Co., Ltd.
Executive Officer	KATAYAMA Toshihiko	President and CEO, Kyoto Elex Co., Ltd.

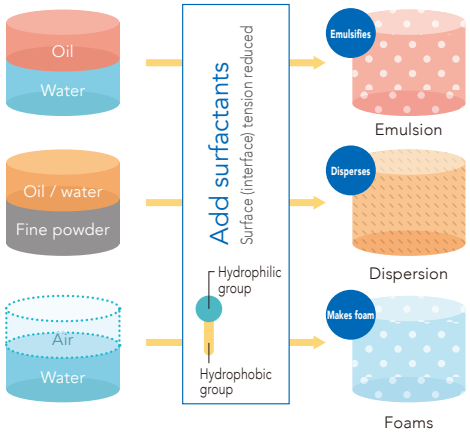
Fundamental Knowledge of Surfactants

Generally, an "interface" refers to the border area between two materials of different states of solid, liquid or gas. A surface active agent, or surfactant, is a term for a chemical that exhibits functions and improves the performance of these interfaces.

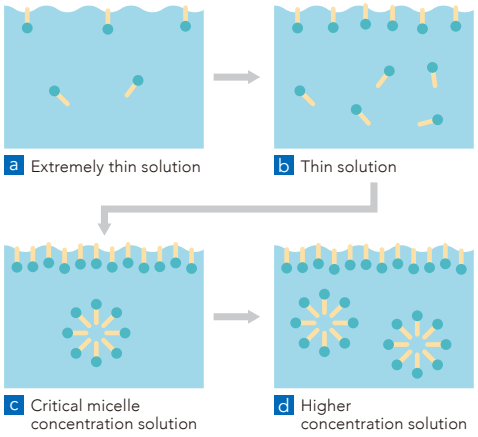
Basic Structure of Surfactants

Surfactants have a unique chemical structure that has both hydrophilic and hydrophobic properties. Using this structure, surfactants can achieve a variety of effects such as emulsification, dispersion, foaming, and adsorption by weakening surface tension or forming molecular aggregates or micelles (spheres). When surfactants are dissolved in water and the result is a low-concentration solution, their molecules can easily gather and assemble on the interface (surface) of the solution through a phenomenon called "adsorption." If the surfactant concentration is increased, the surfactants form molecular aggregates or micelles (spheres) when they reach what is called "critical micelle concentration" (see illustrations "c" and "d" below). Once micelles have formed, if you add non-water-soluble oil to the solution, the oil can be encircled (solubilized) by the micelles so that from the outside, it looks like the oil has dissolved in the water.

Functions of surfactants by reducing surface tension



Surfactant solutions



Surfactant Types

Surfactants have four main structural types based on the functions they are designed to achieve. Of these four types, three are ionic surfactants that transform into electrolytic dissociation ions (atoms or groups of atoms bearing an electrical charge) when dissolved in water, and the remaining type is nonionic surfactants, which do not form ions. The three ionic surfactants are further subdivided based on the type of ion they form in water: anionic (or negative ion) surfactants, cationic (or positive ion) surfactants, and amphoteric (containing both positive and negative ions) surfactants.

Types of surfactants	Characteristics	Main applications
Anionic surfactants	• Superb emulsifying and dispersing properties • Good foaming • Not susceptible to temperature	Laundry detergent / Shampoo / Body wash
Cationic surfactants	• Absorbed by textiles, etc. • Antistatic effect • Sterilizing effect	Hair conditioner / Fabric softener / Disinfectant
Amphoteric surfactants	• Non-irritative to the skin • Superb solubility in water • High compatibility with other surfactants	Body wash / Dishwashing liquid / Shampoo
Nonionic surfactants	• Balance of hydrophilic and hydrophobic properties easily adjustable • Superb emulsifying and solubilizing properties • Low foaming • Susceptible to temperature	Laundry detergent / Emulsifier and solubilizer / Dispersant / Metal processing oil

Main Actions and Applications

Function		Actions and effects	Applications	
Emulsifying, dispersing	Mixes incompatible substances	Mixes water and oil and makes an emulsion. Makes a uniform dispersion with fine particles floating on the water surface.	Ice cream, margarine, paints, inks	
Moistening, permeating	Makes wetting and permeation easier	Spreads agrochemicals thin and uniform on the leaf surfaces. Evenly disperses dyestuff and finishing agents on textiles and leathers.	Pesticide spraying, permeation of dyestuff and finishing agents on textiles	
Making, removing foam	Makes and/or removes foam	Takes in air bubbles in water and stabilizes. Prevents foaming.	Foam concrete, light gypsum boards	
Cleaning	Removes dirt	Moistens the surface between the fabric and the dirt, then penetrates this interface and strips away the dirt. It also emulsifies and disperses the dirt in order to remove it.	Household detergents, bath soaps, machinery and metal cleaning agents	
Softening, smoothing	Softens and smooths	Creates soft fabric with gentle feel on the skin. Improves the smoothness of yarns in the spinning and/or knitting process.	Textile finishing agents, metal processing oils	
Antistatic	Prevents static electricity	Prevents static electricity generation by making the surfaces smooth. Makes static electricity easier to escape by forming a water-absorptive coating on the surface.	Antistatic and dustproofing treatment for synthetic fibers and plastic products	
Rustproofing	Prevents rust	Adheres to the metal surface and forms a coat to prevent oxygen (air) and water from contacting the metal and causing rust.	Metal surface treatment	
Leveling, fixing	Prevents uneven dying, enhances dye fastness	Makes the dyestuff gradually be absorbed by the textiles and brings about uniform dyeing.	Textile processing	
Sterilizing	Removes bacteria	A positively charged surfactant is absorbed to negatively charged bacteria, destroys the cells and sterilizes.	Hand sanitizer	

Environmental Impact of Surfactants

Most domestic wastewater that contains surfactants is collected and treated at public sewage treatment plants and released to the environment, although some may be released directly to rivers, oceans, or land.

Because surfactants are biodegradable, even if released into the environment they eventually degrade to carbon dioxide and water by bacteria. To preserve the natural environment, products with high biodegradability are being developed and proactively used in Japan.

Glossary

Terminology	Description
Absenteeism	A situation in which, due to mental or physical distress, an employee is frequently absent from work or misses work without notice.
Antistatic agent	A compound to prevent the electrification of synthetic fibers and plastics caused by static electricity, for which a surfactant is mainly used. It is applied to the surface of target materials by spraying and lets static electricity escape.
BCP	An abbreviation for Business Continuity Plan through which, in the event of a disaster or other crisis, companies do not allow critical operations to go offline. Even if business activities are unavoidably interrupted, important functions can be restarted within the targeted recovery time, and strategic preparations for continuing business are carried out in advance to minimize the risks involved in interrupted operations.
Cash conversion cycle	A term referring to the number of days, from inventory sourcing to sales, that it takes to recover cash.
Cellulose nanofibers	Very thin nano-sized fibers prepared by detangling cellulose, which makes up the cell walls of plants. The width of the fibers is about 10 nm (nano = one billionth). They are made from wood-derived pulp, and when used in plastics and rubbers, they enhance the strength of these materials while reducing thermal expansion/contraction.
CNF	An abbreviation for cellulose nanofibers. *See "cellulose nanofibers".
Cocoon unwinding agent	An agent to spin silk yarn from silkworm cocoons.
COD emissions	COD is an abbreviation for Chemical Oxygen Demand. The value indicates the oxygen volume needed for oxidizing underwater objects and is one of the major indicators used for water quality.
Conductive paste	Paste that conducts electrical current and is used in solar cell panels.
Digital transformation (DX)	A response by companies to drastic changes in the business environment by transforming their products, services, and business models through the use of data and digital technologies, based on the needs of customers and society. The objective is to rethink work tasks, organizations, processes, and corporate culture and climate in order to secure a competitive advantage.
DuPont model	Also called the DuPont System; a method to analyze return on equity (ROE) by breaking it down to three categories using the indices below. The name refers to its use by the chemical company DuPont for financial analysis. ROE (current net income / capital stock) = Financial leverage × Asset rotation ratio × Sales profit ratio
Energy consumption per unit	A figure for expressing energy efficiency. It refers to the overall volume of energy consumption, such as electrical power and fuel, needed to produce a given unit or amount of goods. Generally, it is used as an indicator showing the progress of energy saving measures.
Fair Trade	A trade practice that makes on-going purchases of raw materials and products at fair prices in developing countries and aims to improve the lifestyles and independence of producers and laborers who are in a disadvantaged position in developing countries.
GMP	An abbreviation of Good Manufacturing Practice, which is a set of rules and a system that cover all processes from stocking raw materials, to manufacturing and shipping, and ensure consistent quality and safe manufacturing of pharmaceutical products, food products, and the like.
Green transformation (GX)	The concept of transforming the global environment by converting to non-greenhouse gas emitting green energy, such as renewable energy.
HACCP	An abbreviation for Hazard Analysis Critical Control Point, which is a hygiene approach for ensuring the safety of food products.
Inspiring/Inspired Partners	Specific business partners of DKS who intuit the needs of end users, collaboratively inspire new approaches, and provide each other with a mutual spark.
Materiality	A term that refers to how essential something is. Originally, it referred to the general rule of importance in the accounting field for items that could have major effects on financial affairs. Recently, important issues in CSR activities are also identified as "materiality," and many companies are using this approach when conducting CSR activities and reporting the results in integrated reports.

Terminology	Description
MI	An abbreviation for Materials Informatics, which is a method for using massive volumes of materials data and AI (deep learning) for the analysis and design of chemical structures and compositions expected to perform well.
MOT	An abbreviation for Management of Technology, which refers to understanding the company's technological capabilities, connecting R&D results to each product/business, and finding economic value in technology itself.
Organizational Resilience	The capacity, and initiatives related thereto, for adapting to changes in the business environment and for handling natural disasters.
PPM	An abbreviation for Product Portfolio Management, which is a method for determining investment and allocation of management resources by plotting businesses and products on a graph whose axes are market growth rate and market share.
Presenteeism	The act or state of employees coming to the office and continuing work despite dealing with some type of disease, disease symptoms, or mental/physical distress.
Resist	A protective film, or a substance used to create a protective film, against physical or chemical processing, mainly in industrial applications.
Responsible Care (RC) activities	Voluntary control activities by the companies in the chemical industry that promote the safe handling of materials in every step of the process from manufacturing to distribution, consumption and disposal. First proposed by the Chemistry Industry Association of Canada in 1985. The Japan Responsible Care Council was founded in 1995.
Rock hardening agents	Agents used to prevent structural collapse during tunnel construction for bullet trains, expressways, and the like.
ROIC	An abbreviation for Return on Invested Capital, which allows for confirming the extent to which funds (invested capital) used for business activities efficiently lead to profit for the company.
RPA	An abbreviation for Robotic Process Automation, which is technology for automating routine tasks people perform on computers.
RSPO	An abbreviation for Roundtable on Sustainable Palm Oil. Founded in 2004, a group of seven organizations, including the WWF, responding to the global increase in voices calling for sustainable palm oil that takes environmental impacts into account.
SDGs	SDGs is an abbreviation for the Sustainable Development Goals, which are international targets adopted by world leaders at a summit held at the United Nations in September 2015. The 17 SDGs contain 169 targets for achievement by 2030.
SDS	An abbreviation for Safety Data Sheets. The same materials previously were called Material Safety Data Sheets (MSDS), however, since April 2012, all have been designated as SDS as used in the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
Sharing Economy	A new economic trend and form of service referring to consumers providing or sharing vehicles, residences, furniture, clothes, and other things, as well as spaces and skills, to people who need them.
Uni-Top	DKS's business strategy, which is to "provide unique products that do not pursue scale."
VOC	An abbreviation for Volatile Organic Compounds. VOC is a general term for organic compounds that are volatile and exist in a gaseous form in the air, and the term encompasses a wide variety of compounds such as toluene, xylene and ethyl acetate.
WACC	A popular method for calculating cost of capital that weights and averages the cost of borrowing and the cost of procuring stock.
Waterborne polyurethane	Polyurethane resin is an overall term for polymer compounds possessing urethane bonds. Industrially, they result from a polyaddition reaction between polyisocyanates and polyols, and waterborne polyurethane resin results from the emulsification of this polyurethane resin.
Work engagement	A term that refers to a positive and fulfilling mental state that one has toward one's work.

Domestic/Overseas Network

Domestic Network

Headquarters/Laboratory

Ohgata Branch
Location: 230 Saigata, Ohgata-ku, Joetsu, Niigata
Area: 87,732 m²
Main products: CMC, waterborne polyurethanes, professional detergents, polyvinylpyrrolidone

Shiga Branch
Location: 427 Gokasho Hiyoshi-cho, Higashiomi, Shiga
Area: 106,813 m²
Main products: Surfactants, sucrose fatty acid esters, food additive formulations, acrylic polymers, professional detergents

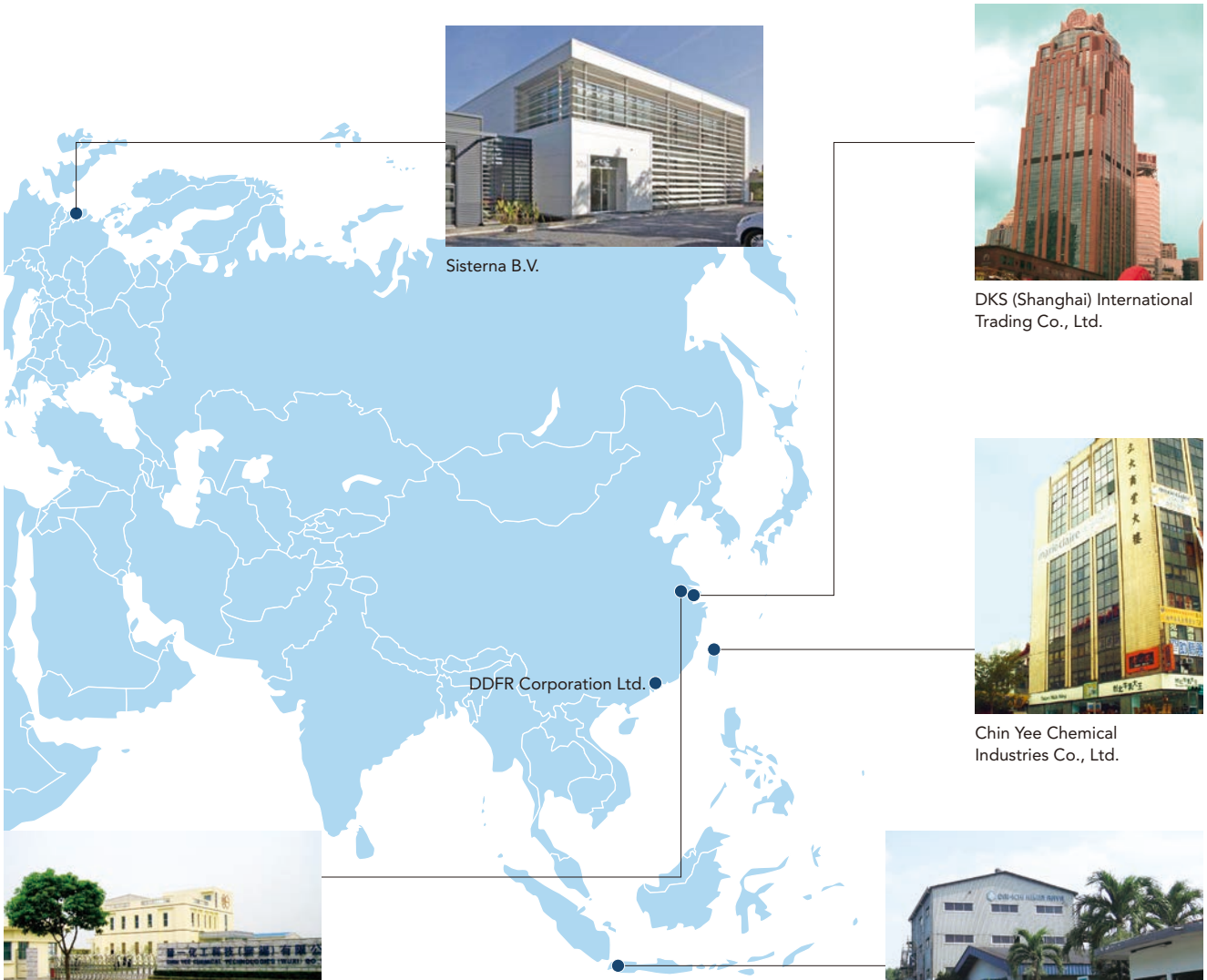
Yokkaichi Branch Chitose Plant
Location: 7 Chitose-cho, Yokkaichi, Mie
Area: 17,355 m²
Main products: Functional chemical products

Yokkaichi Branch Kasumi Plant
Location: 1-23-5 Kasumi, Yokkaichi, Mie
Area: 101,138 m²
Main products: Functional chemical products, urethane-related chemicals, plastic additives

● Subsidiary and Affiliated Companies (Japan)

Company name	Location	Business activities
Yokkaichi Chemical Co., Ltd.	2-1 Miyahigashi-cho, Yokkaichi, Mie 510-0843, Japan Phone +81-59-345-1161 Fax +81-59-345-1159	Production and sales of surfactants
Gembu Co., Ltd.	5 Ogawara-cho, Kisshoin, Minami-ku, Kyoto 601-8391, Japan Phone: +81 75 323 5740 Fax: +81 50 3153 1621	Sales of detergents, finishing agents and equipment for professional laundry Sales of industrial/professional-use deodorants
Kyoto Elex Co., Ltd.	1 Ogawara-cho, Kisshoin, Minami-ku, Kyoto 601-8391, Japan Phone +81-75-326-2883 Fax +81-75-326-2884	Production and sales of electronic materials
Dai-ichi Ceramo Co., Ltd.	432 Gokasho Hiyoshi-cho, Higashiomi, Shiga 529-1403, Japan Phone +81-748-48-5377 Fax +81-748-48-5322	Production and sales of feedstock for powder injection molding
Dai-ichi Kenkou Co., Ltd.	8th Floor, Yaesuguchi Daiei Building, 1-3-1 Kyobashi, Chuo-ku, Tokyo 104-0031, Japan Phone +81-3-3275-0583 Fax +81-3-3275-0604	Production and sales of agents for civil engineering and construction
Biococoon Laboratories, Inc.	4-3-5 Ueda, Morioka, Iwate 020-8551, Japan Phone +81-19-613-5564 Fax +81-19-613-5570	Wide-ranging research and development from pharmaceuticals to health care ingredients Production of foods as well as health care products
Ikeda Yakusou Co., Ltd.	1808-1 Nakazu, Shuzu, Ikeda-cho, Miyoshi, Tokushima 778-0020, Japan Phone +81-883-72-5320 Fax +81-883-72-5005	Production of drug substances and various ingredients used in health foods / Production and sales of life sciences products including pharmaceuticals and quasi-pharmaceutical products
K&D Fine Chemical Corporation	1 Niihamacho, Chuo-ku, Chiba, Chiba 260-0826, Japan Phone +81-43-262-2039 Fax +81-43-262-4396	Production and sales of surfactants

Overseas Network



Operation Bases (World)

Company name	Location	Business activities
Chin Yee Chemical Industries Co., Ltd.	11F, Lidye Commercial Building, 22 Nanking West Road, Taipei, Taiwan Phone +886-2-2556-9353 Fax +886-2-2558-6833	Production and sales of surfactants and plastic/electronic materials
Sisterna B.V.	Belder 30A 4704 RK Roosendaal, The Netherlands Phone:+31-165-524730	Application development and sales of sucrose esters
P.T. Dai-ichi Kimia Raya	Jl. Maligi II Lot. G-2 Kawasan Industri KIIC, Karawang Barat 41361, Jawa Barat, Indonesia Phone:+62-21-8904574 Fax:+62-21-8904576	Production and sales of textile agents, paper processing agents, plastic additives and sucrose esters
DKS (Shanghai) International Trading Co., Ltd.	Room #1104, New Town Center Building, 83 Loushanguan Road., Shanghai, P.R. China Phone +86-21-6236-8080 Fax +86-21-6236-8700	Trading
Chin Yee Chemical Technologies (Wuxi) Co., Ltd.	Plot 88-C, Wuxi National High & New Tech Industrial Development Zone, 214028, Wuxi, Jiangsu, P.R. China Phone +86-510-8520-0156 Fax +86-510-8520-4878	Production and sales of plastic materials
DDFR Corporation Ltd.	25th Floor, One Capital Place, 18 Luard Road, Wanchai, Hong Kong Phone:+852-2827-7761 Fax:+852-2824-1502	Sales of plastic additives, e.g., flame retardants

Financial and Nonfinancial 11-Year Summary

Financial Data (Millions of yen)	3/2011	3/2012	3/2013	3/2014
Net Sales	51,245	56,249	51,843	54,614
Surfactants	15,131	18,779	19,486	20,359
Amenity Materials	7,046	7,220	6,825	7,141
Polyurethane Materials	8,761	8,634	8,466	9,564
Functional Materials	11,441	10,228	9,666	10,680
Electronic Device Materials	8,863	11,386	7,398	6,868
Life Sciences				
Overseas Sales (relative to net sales ratio %)	8,748 (17.1)	8,296 (14.7)	7,323 (14.1)	8,103 (14.8)
Operating Income	2,732	2,033	1,754	2,477
Ordinary Income	2,439	1,742	1,544	2,374
Profit Attributable to Owners of Parent	1,155	165	797	1,336
Capital Expenditures	1,111	2,312	3,664	1,512
Depreciation and Amortization	1,836	2,252	2,003	2,104
R&D Expenses	2,010	2,273	2,340	2,506
Net Cash Provided by (Used in) Operating Activities	2,502	2,309	2,477	3,553
Net Cash Provided by (Used in) Investing Activities	(616)	(2,869)	(3,548)	(1,793)
Cash Dividends Paid	298	298	298	298
Amount of Treasury Shares Acquired	0	0	0	0
Net Assets	16,498	16,949	18,200	19,886
Total Assets	47,741	51,357	55,416	57,570
Interest-Bearing Debt[1]	14,098	15,700	18,712	20,680
Per-Share Data (yen)[2]				
Net Profit	146.90	19.35	93.40	156.60
Net Assets	1,839	1,889	2,022	2,200
Cash Dividend	35.00	35.00	35.00	35.00
Major Indices				
R&D Expenses to Sales Ratio (%)	3.9	4.0	4.5	4.6
Operating Margin (%)	5.3	3.6	3.4	4.5
Return on Equity (%)	7.7	1.0	4.8	7.4
Equity Ratio (%)	32.9	31.4	31.1	32.6
Net D/E Ratio (times)	0.54	0.60	0.66	0.58
Dividend Payout Ratio (%)	23.8	180.8	37.5	22.4
Total Return Ratio (%)	25.9	180.9	37.5	22.4
Year-End Stock Price (yen)[2]	1,305	1,230	1,250	1,610
PER (times)	8.9	63.6	13.4	10.3
PBR (times)	0.7	0.7	0.6	0.7
Dividend Yield (%)	2.7	2.9	2.8	2.2
Nonfinancial Data				
No. of Employees (consolidated)	861	995	979	969
No. of Employees (non-consolidated)	554	533	526	514
No. of Employees Outside Japan	221	173	172	170
Ratio of Female Employees to Total Employees (non-consolidated)	14.8	14.8	14.8	16.0
No. of Employees Who Utilized the Child-Care Leave System (non-consolidated)	6	10	10	8
No. of Employees Who Utilized the Child-Care Part-Time Work System (non-consolidated)	6	7	11	8
Annual Paid Leave Rate (non-consolidated + assigned employees) (%)	69.0	66.7	62.7	63.7
No. of Patents Held (outside Japan)[3]	–	–	636 (237)	660 (245)
Generated Waste Amount (tons)[4]	15,774	13,395	14,421	12,724
CO_2 Emissions (consolidated) (thousands of tons)[4]	57.5	49.8	51.9	52.0

1. Lease obligations not included in interest-bearing debt.
2. Per share information and period-end share price data have been retroactively adjusted to reflect the consolidation of five shares into one share implemented on October 1, 2018.
3. The collation method was amended to a legal effective date basis from fiscal 2016.
4. The carbon dioxide emission calculation method was revised in fiscal 2018 and applied retroactively from fiscal 2016.

3/2015	3/2016	3/2017	3/2018	3/2019	3/2020	3/2021
55,597	52,782	52,254	56,955	59,574	61,456	59,140
21,573	20,779	19,793	21,416	21,957	18,970	17,303
6,856	7,208	6,986	7,502	8,151	7,994	7,081
9,442	8,934	9,093	9,115	9,026	8,470	7,484
11,216	11,259	12,517	14,070	16,239	20,848	21,077
6,508	4,600	3,862	4,850	4,199	4,744	5,758
					427	435
8,743 (15.7)	9,131 (17.3)	8,794 (16.8)	9,929 (17.4)	10,139 (17.0)	10,350 (16.8)	10,135 (17.1)
2,944	3,439	3,944	5,053	4,341	4,154	4,485
2,717	3,200	3,773	4,725	4,175	3,524	4,314
1,782	2,198	2,489	3,351	2,581	2,014	2,563
3,948	8,485	3,786	2,467	5,802	6,138	4,617
2,153	2,087	2,335	2,473	2,555	2,724	3,263
2,439	2,380	2,393	2,307	2,765	2,748	2,821
2,322	4,197	3,750	5,017	3,236	3,766	4,955
(3,229)	(7,687)	(3,336)	(1,130)	(5,694)	(5,842)	(3,804)
474	528	608	710	711	711	712
0	0	1,000	1	0	0	0
26,156	26,745	28,044	31,960	33,591	34,265	37,404
64,420	66,057	69,046	73,976	75,906	81,736	85,033
21,322	23,228	24,594	23,863	23,466	29,946	28,529
193.45	208.20	237.00	330.30	254.11	198.17	251.97
2,362	2,425	2,650	2,971	3,083	3,115	3,405
45.00	50.00	60.00	70.00	70.00	70.00	70.00
4.4	4.5	4.6	4.1	4.6	4.5	4.8
5.3	6.5	7.5	8.9	7.3	6.8	7.6
8.2	8.7	9.5	11.8	8.4	6.4	7.7
38.7	38.8	38.9	40.8	41.3	38.8	40.7
0.36	0.52	0.54	0.39	0.48	0.57	0.45
23.3	24.0	25.3	21.2	27.5	35.3	27.8
26.7	24.1	64.6	21.2	27.6	35.4	27.8
1,935	1,640	2,135	4,375	3,480	3,750	3,680
10.0	7.9	9.0	13.2	13.7	18.9	14.6
0.8	0.7	0.8	1.5	1.1	1.2	1.1
2.3	3.1	2.8	1.6	2.0	1.9	1.9
944	982	967	976	985	1,032	1,061
508	495	486	497	512	531	560
163	219	199	213	170	177	178
15.9	17.0	17.5	17.5	17.8	18.8	18.9
11	9	6	12	7	3	7
9	10	13	10	10	12	10
61.0	64.5	62.4	67.4	68.5	73.2	66.1
722 (299)	822 (344)	855 (378)	924 (427)	961 (453)	1,012 (479)	1,056 (514)
13,876	13,191	17,364	20,779	21,658	19,605	18,431
51.3	50.9	51.7	53.5	52.4	53.7	48.9

Consolidated Financial Statements

Consolidated Balance Sheets

(Millions of yen)

Assets	FY2019	FY2020
Current assets		
Cash and deposits	10,336	11,595
Notes and accounts receivable—trade	16,080	15,413
Electronically recorded monetary claims	1,342	1,453
Merchandise and finished goods	9,357	8,928
Work in process	22	22
Raw materials and supplies	3,053	4,297
Prepaid expenses	275	278
Other current assets	2,139	2,022
Allowance for doubtful accounts	(12)	(13)
Total current assets	42,595	43,997
Non-current assets		
Tangible fixed assets		
Buildings and structures	28,127	30,086
Accumulated depreciation	(15,094)	(16,027)
Buildings and structures, net	13,032	14,059
Machinery, equipment and vehicles	35,537	36,470
Accumulated depreciation	(29,533)	(30,643)
Machinery, equipment and vehicles, net	6,003	5,827
Tools, furniture and fixtures	3,938	3,990
Accumulated depreciation	(3,295)	(3,354)
Tools, furniture and fixtures, net	642	635
Land	9,227	9,273
Leased assets	1,717	4,645
Accumulated depreciation	(1,046)	(1,442)
Leased assets, net	670	3,203
Construction in progress	3,697	1,318
Total tangible fixed assets	33,274	34,317
Intangible fixed assets		
Goodwill	675	363
Others	455	470
Total intangible fixed assets	1,130	833
Investments and other assets		
Investment securities	3,465	4,372
Long-term loans receivable	19	18
Long-term prepaid expenses	257	140
Deferred tax assets	122	195
Net defined benefit assets	608	841
Other assets	269	323
Allowance for doubtful accounts	(6)	(6)
Total investments and other assets	4,737	5,884
Total non-current assets	39,141	41,035
Total assets	81,736	85,033

Liabilities	FY2019	FY2020
Current liabilities		
Notes and accounts payable—trade	11,253	9,404
Electronically recorded monetary claims	133	423
Short-term loans payable	7,273	6,698
Lease obligations	236	598
Accrued expenses	310	302
Income taxes payable	702	700
Accrued business office taxes	38	41
Provision for bonuses	746	753
Provision for waste disposal costs	–	375
Other current liabilities	2,948	2,773
Total current liabilities	23,644	22,071
Non-current liabilities		
Corporate bonds	6,000	6,000
Long-term loans payable	16,672	15,831
Lease obligations	529	2,978
Deferred tax liabilities	193	305
Net defined benefit liability	111	116
Asset retirement obligations	73	73
Other non-current liabilities	246	251
Total non-current liabilities	23,826	25,556
Total liabilities	47,470	47,628

Net assets	FY2019	FY2020
Shareholders' equity		
Capital stock	8,895	8,895
Capital surplus	7,250	7,267
Retained earnings	16,882	18,733
Treasury shares	(1,051)	(1,040)
Total shareholders' equity	31,977	33,856
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	(537)	484
Foreign currency translation adjustment	11	24
Remeasurements of defined benefit plans	225	282
Total accumulated other comprehensive income	(299)	791
Non-controlling interests	2,587	2,756
Total net assets	34,265	37,404
Total liabilities and net assets	81,736	85,033

Consolidated Statements of Income

(Millions of yen)

	FY2019	FY2020
Net sales	61,456	59,140
Cost of sales	45,991	43,961
Gross profit	**15,465**	**15,179**
Selling, general and administrative expenses		
Selling expenses	4,679	4,130
General and administrative expenses	6,631	6,563
Total selling, general and administrative expenses	11,310	10,693
Operating income	**4,154**	**4,485**
Non-operating income		
Interest income	6	3
Dividend income	75	77
Share of profit of entities accounted for using equity method	62	57
Insurance income	24	1
Rent income	35	36
Other non-operating income	54	70
Total non-operating income	258	246
Non-operating expenses		
Interest expenses	200	202
Corporate bond interest	3	37
Corporate bond issuance costs	138	–
Bad debt loss	400	–
Other non-operating expenses	146	177
Total non-operating expenses	888	418
Ordinary income	**3,524**	**4,314**
Extraordinary income		
Gain on sales of investment securities	–	408
Total extraordinary income	–	408
Extraordinary losses		
Impairment loss	–	431
Provision for waste disposal costs	–	385
Loss on disposal of non-current assets	160	146
Total extraordinary losses	160	963
Profit before income taxes	3,364	3759
Income taxes—current	1,102	1090
Income taxes—deferred	(88)	(79)
Total income taxes	1,013	1,010
Profit	2,350	2,749
Profit attributable to non-controlling interests	335	185
Profit attributable to owners of parent	2,014	2,563

Consolidated Statements of Comprehensive Income

(Millions of yen)

	FY2019	FY2020
Profit	2,350	2,749
Other comprehensive income		
Valuation difference on available-for-sale securities	(565)	1,021
Foreign currency translation adjustment	24	34
Remeasurements of defined benefit plans	(47)	56
Share of other comprehensive income of entities accounted for using equity method	(9)	2
Total other comprehensive income	(597)	1,115
Comprehensive income	**1,752**	**3,864**
Comprehensive income attributable to owners of parent	1,389	3,655
Comprehensive income attributable to non-controlling interests	363	209

Consolidated Statements of Cash Flows

(Millions of yen)

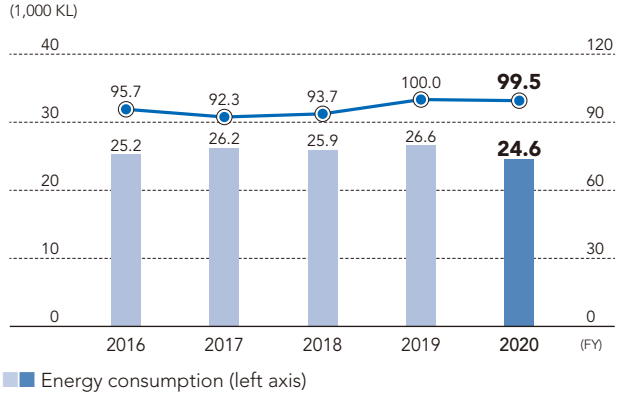
	FY2019	FY2020
Cash flows from operating activities		
Profit before income taxes	3,364	3,759
Depreciation	2,724	3,263
Amortization of goodwill	196	196
Bad debt loss	400	–
Increase (decrease) in allowance for doubtful accounts	(2)	1
Interest and dividend income	(81)	(81)
Interest expenses	200	202
Corporate bond interest	3	37
Corporate bond issuance costs	138	–
Share of loss (profit) of entities accounted for using equity method	(62)	(57)
Loss (gain) on disposal of tangible fixed assets	160	146
Impairment loss	–	431
Loss (gain) on sales of shares of subsidiaries and associates	–	(408)
Decrease (increase) in notes and accounts receivable—trade	462	560
Decrease (increase) in inventories	(467)	(770)
Increase (decrease) in notes and accounts payable—trade	(1,546)	(1,557)
Increase (decrease) in net defined benefit liability	(66)	(247)
Increase (decrease) in provision for waste disposal costs	–	385
Other cash flows from operating activities	(554)	168
Subtotal	4,866	6,030
Interest and dividend income received	95	137
Interest expenses paid	(200)	(240)
Income taxes paid	(994)	(972)
Net cash provided by (used in) operating activities	3,766	4,955
Cash flows from investing activities		
Payments into time deposits	(210)	(117)
Proceeds from withdrawal of time deposits	204	263
Purchase of tangible fixed assets	(5,538)	(4,398)
Purchase of investment securities	(32)	(502)
Proceeds from sales of investment securities	–	1,027
Payments for loans receivable	(153)	–
Collection of loans receivable	1	1
Proceeds from subsidy income	70	19
Other cash flows from investing activities	(183)	(98)
Net cash provided by (used in) investing activities	(5,842)	(3,804)
Cash flows from financing activities		
Net increase (decrease) in short-term loans payable	(245)	(75)
Proceeds from long-term loans payable	6,000	5,908
Repayments of long-term loans payable	(5,289)	(7,266)
Income from issuance of corporate bonds	5,861	–
Revenue from sale and leaseback	32	2,918
Repayments of lease obligations	(303)	(477)
Purchase of treasury shares	(0)	–
Cash dividends paid	(1,067)	(712)
Dividends paid to non-controlling interests	(42)	(40)
Net cash provided by (used in) financing activities	4,946	255
Effect of exchange rate change on cash and cash equivalents	(21)	(0)
Net increase (decrease) in cash and cash equivalents	2,847	1,405
Cash and cash equivalents at beginning of period	7,278	10,126
Cash and cash equivalents at end of period	10,126	11,531

Environmental Data

Evolution of Environmental Impact

Changes in Energy Consumption

(Yokkaichi, Ohgata, Shiga, administrative sectors, domestic subsidiaries)

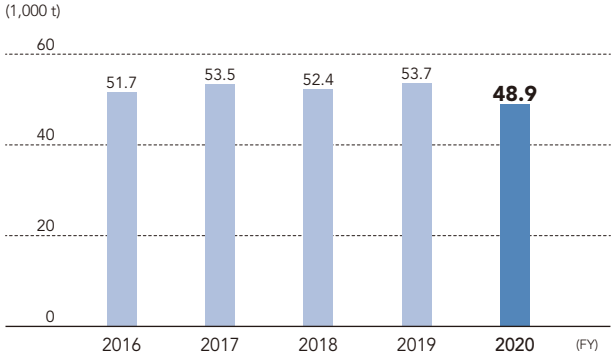


Energy consumption (left axis)
Index of energy consumption per unit (right axis)

Notes: 1. The index of energy consumption per unit is calculated for DKS non-consolidated, based on the periodical report stipulated by the Act on the Rational Use of Energy (fiscal 2019 performance—which is the benchmark in the Medium-Term Environmental Targets (FY2020–24)—is set at 100).
2. Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Dai-ichi Ceramo Co., Ltd., and as of fiscal 2019, Ikeda Yakusou Co., Ltd.

Changes in CO_2 Emissions

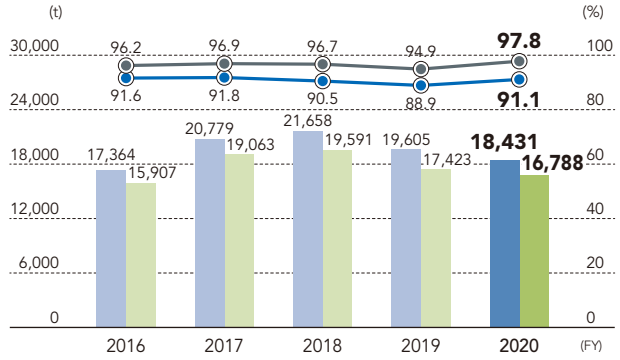
(Yokkaichi, Ohgata, Shiga, administrative sectors, domestic subsidiaries, derived from non-energy)



Notes: 1. The administrative sector includes fuel for Company-owned vehicles.
2. Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Dai-ichi Ceramo Co., Ltd., and as of fiscal 2019, Ikeda Yakusou Co., Ltd.

Changes in Generated Waste Amount, External Recycling Amount and External Recycling Rate

(Yokkaichi, Ohgata, Shiga, Kyoto, domestic subsidiaries)

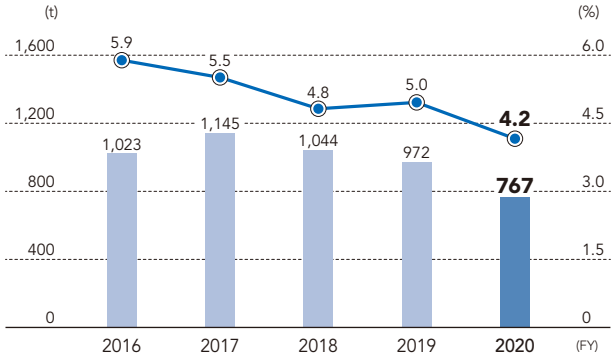


Generated waste amount (left axis)
External recycling amount (left axis)
External recycling rate (DKS DKS Group) (right axis)

Note: Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Dai-ichi Ceramo Co., Ltd., and as of fiscal 2019, Ikeda Yakusou Co., Ltd.

Changes in Final Disposal Amount and Final Disposal Rate

(Yokkaichi, Ohgata, Shiga, Kyoto, domestic subsidiaries)

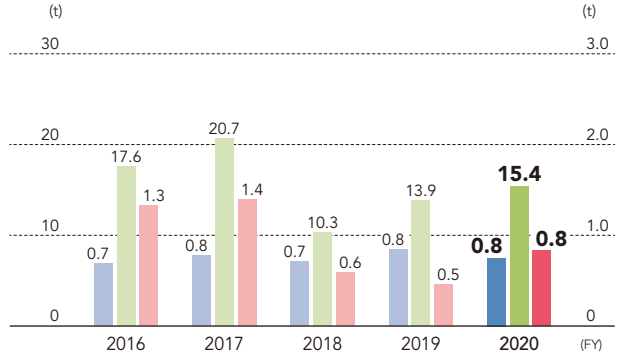


Final disposal amount (left axis)
Final disposal rate (right axis)

Notes: 1. The final disposal rate is the ratio of the final disposal amount to the generated waste amount.
2. Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Dai-ichi Ceramo Co., Ltd., and as of fiscal 2019, Ikeda Yakusou Co., Ltd.

Changes in SOx, NOx and Dust Emissions

(Yokkaichi, Ohgata, Shiga)

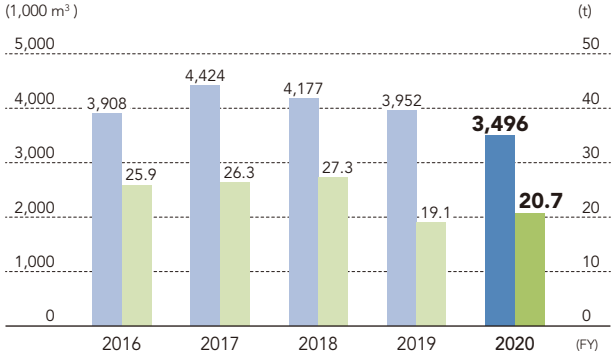


NOx emissions (left axis)
SOx emissions (right axis)
Dust emissions (right axis)

Note: Yokkaichi Chemical Co. Ltd. possesses no facilities that generate SOx, NOx or dust.

Changes in Water Discharge and COD Emission Amounts

(Yokkaichi, Ohgata, Shiga, Yokkaichi Chemical Co. Ltd.)



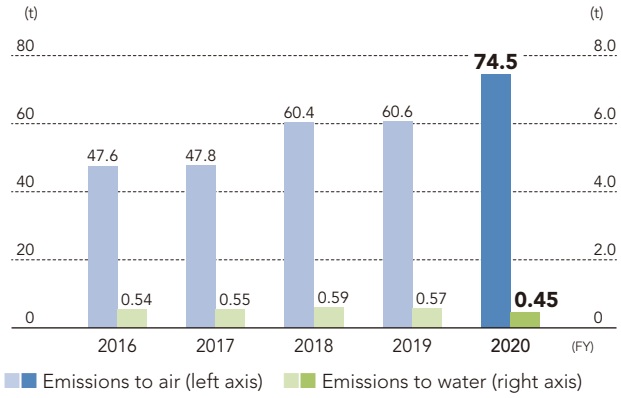
Water discharge (left axis)
COD emissions (right axis)

Environmental Data/Compliance Awareness Survey Results

Evolution of Environmental Impact

Changes in Emissions of PRTR Regulation-Designated Substances

(DKS, Yokkaichi Chemical Co. Ltd.)



Note: The numerical values show the total amount for DKS and Yokkaichi Chemical Co. Ltd.
▷ For the emission and transfer amount of notification substances under the PRTR Regulation in fiscal 2020 (among all notification coverage substances, those of which the emission or transfer amount was 0.01 tons or more), please visit our website.
https://www.dks-web.co.jp/english/ir/report/index.html

Environment Accounting

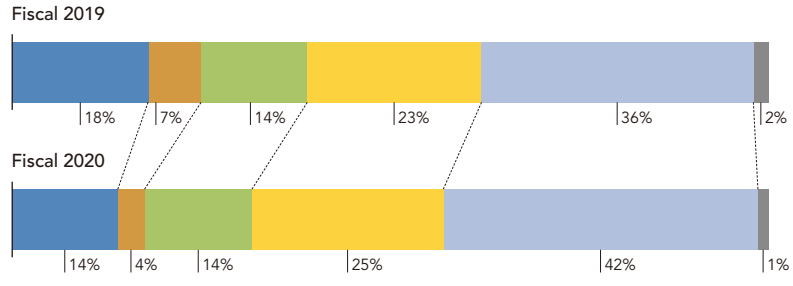
Investments and Costs of Environmental Protection Activities

Category	Main activities	Investment (Millions of yen)	Costs (Millions of yen)
Costs within the plant premises	Pollution prevention, air pollution control, water pollution prevention	57.8	257.2
	Global environment preservation, energy saving	6.9	81.6
	Resource recycling, resource saving, waste treatment/disposal	0.0	547.9
Upstream/ downstream cost	Lowering the environmental impact in containers/packaging	0.0	0.5
Administrative cost	ISO acquisition/maintenance, greening of branch premises	1.1	38.1
R&D cost	Environmentally responsive R&D	0.0	577.5
Social activity cost	Providing support grants for environmental protection to environmental preservation groups or local communities	0.2	1.1
Environmental damage cost		0.0	0.0
Total		66.0	1,503.9

Economic Effects Generated by Environmental Protection Measures

Category	Main activities	Economic effects (Millions of yen)
Sale of valuables	Gain on sale of metal scrap, waste oil and waste alkali, etc.	3.0
Energy-saving measures	Cost savings in electric power and fuels	0.4
Resource-saving activities	Cost savings through reduction of water use/ waste	0.0
Total		3.4

Compliance Awareness Survey Results



Information management/intellectual property rights
Anti-monopoly act/Subcontract act
Environmental protection
Harassment
Workplace environment/working from home
Other

Note: These results indicate responses regarding areas in which further compliance awareness activities are desired.

Corporate Data (As of March 31, 2021)

Corporate Name	DKS Co. Ltd.
Foundation	April 1909
Incorporation	August 1918
Paid-in Capital	8,895 million yen
Number of Employees	560 (consolidated: 1,061)
Total Number of Shares Outstanding	10,684,321 shares
Share Unit Number	100 shares
Number of Shareholders	3,758
Stock Listing	Tokyo Stock Exchange
Securities Code	4461
General Meeting of Shareholders	Every year in late June
Shareholder Registry Administrator	Mizuho Trust & Banking Co., Ltd.

Headquarters / Laboratory	5 Ogawara-cho, Kisshoin, Minami-ku, Kyoto 601-8391, Japan Phone: +81-75-323-5911 Fax: +81-75-326-7356
Main Branch	55 Nishishichijo Higashikubo-cho, Shimogyo-ku, Kyoto 600-8873, Japan
Tokyo Headquarters	8th Floor, Yaesuguchi Daiei Building, 1-3-1 Kyobashi, Chuo-ku, Tokyo 104-0031, Japan Phone: +81-3-3275-0561 Fax: +81-3-3275-0599
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Nagoya Office	7th Floor, Nagoya International Center Building, 1-47-1 Nagono, Nakamura-ku, Nagoya 450-0001, Japan Phone: +81-52-571-6331 Fax: +81-52-586-4539
Kyushu Office	4th Floor, Hakata Ekimae Daiichi Building, 1-2-3 Hakata-eki Minami, Hakata-ku, Fukuoka 812-0016, Japan Phone: +81-92-472-6353 Fax: +81-92-472-4989

Please refer to the website for a list of major shareholders and the distribution of shareholders (in Japanese only).
https://www.dks-web.co.jp/ir/stockholders/index.html

On Publishing the DKS Report 2021

This issue marks the sixth time that the DKS Group has published its integrated annual report since the initial report in fiscal year 2016. This is an important report that explains the value creation of DKS to all of our stakeholders, and its objective is to take a medium- to long-term perspective while providing accessible explanations of our current condition and growth strategies for the future.

As the first year of our medium-term management plan FELIZ 115, 2020 was a year for us to verify the suitability of our initiatives. We solidified our footing to face down the economic shock of COVID-19. We also reshuffled personnel to match our new R&D structure. "Feliz" means "happy" in Spanish. FELIZ 115 expresses our wish to support human happiness through chemistry. We discovered Naturido, a new, useful component that demonstrates possibilities for improving brain function from medical fungus (*Isaria Japonica*). A paper related to this research was published in a U.S. interdisciplinary journal on January 27, 2021. As we establish the life sciences business, we will focus on brand strategies deserving of the Company name.

The notion of value covered in this integrated report refers to something created in relationship with stakeholders. We have charted a path as value creators leveraging a strategic perspective focused on the future. As the CEO, I would like to put my name behind the veracity and appropriateness of the content of this report. Going forward, we will strive to further improve our Company's disclosure and transparency. I would be grateful to hear your frank and constructive feedback.

September 2021
Chairman CEO
SAKAMOTO Takashi

Editor's Note

The Company's integrated annual report is now in its sixth issue and this year marks the second year of our medium-term management plan FELIZ 115.

Amid the increasing severity of spreading COVID-19 infections, we have tried in various ways to explain to stakeholders the DKS value creation story based on our Uni-Top strategy, which strives for unique products that do not pursue scale. With the prolonged duration of the COVID-19 pandemic, we also rethought the identification of important risks, opportunities, and materiality in order to ensure value creation. For the first time, we have included a close-up look at R&D, which is positioned as a critical priority for DKS. Through an interview with the CTO, we strove to elucidate the Company's technological capabilities and strategies.

We also sought to cooperate with the production company to improve the report's appearance and structure, showcasing the content in a more enhanced way. It is our hope that this integrated report will serve to deepen dialogue with our stakeholders.

We would like to take this opportunity to express our gratitude to all parties concerned for their cooperation in the editing of this report. We also welcome frank opinions from readers as we prepare for the next fiscal year's publication.

Public & Investor Relations Department

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