

DKS Report 2023

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DKS Report 2023 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' 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.

* In June 2022, IIRC was integrated into ISSB, the IFRS foundation.

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 2022 (from April 1, 2022, to March 31, 2023). The data on the Industrial Accident Severity Rate (ASR) and the Industrial Accident Frequency Rate (AFR) were obtained from January to December 2022.

Reference Guidelines

International Integrated Reporting Framework by the IFRS Foundation, "Guidance for Collaborative Value Creation" by the Ministry of Economy, Trade and Industry, "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 Emissions and Transfer Volumes of Notification Substances under the PRTR Law in Fiscal 2022

Transition of the Environmental Impact at Branches and Yokkaichi Chemical Co., Ltd.

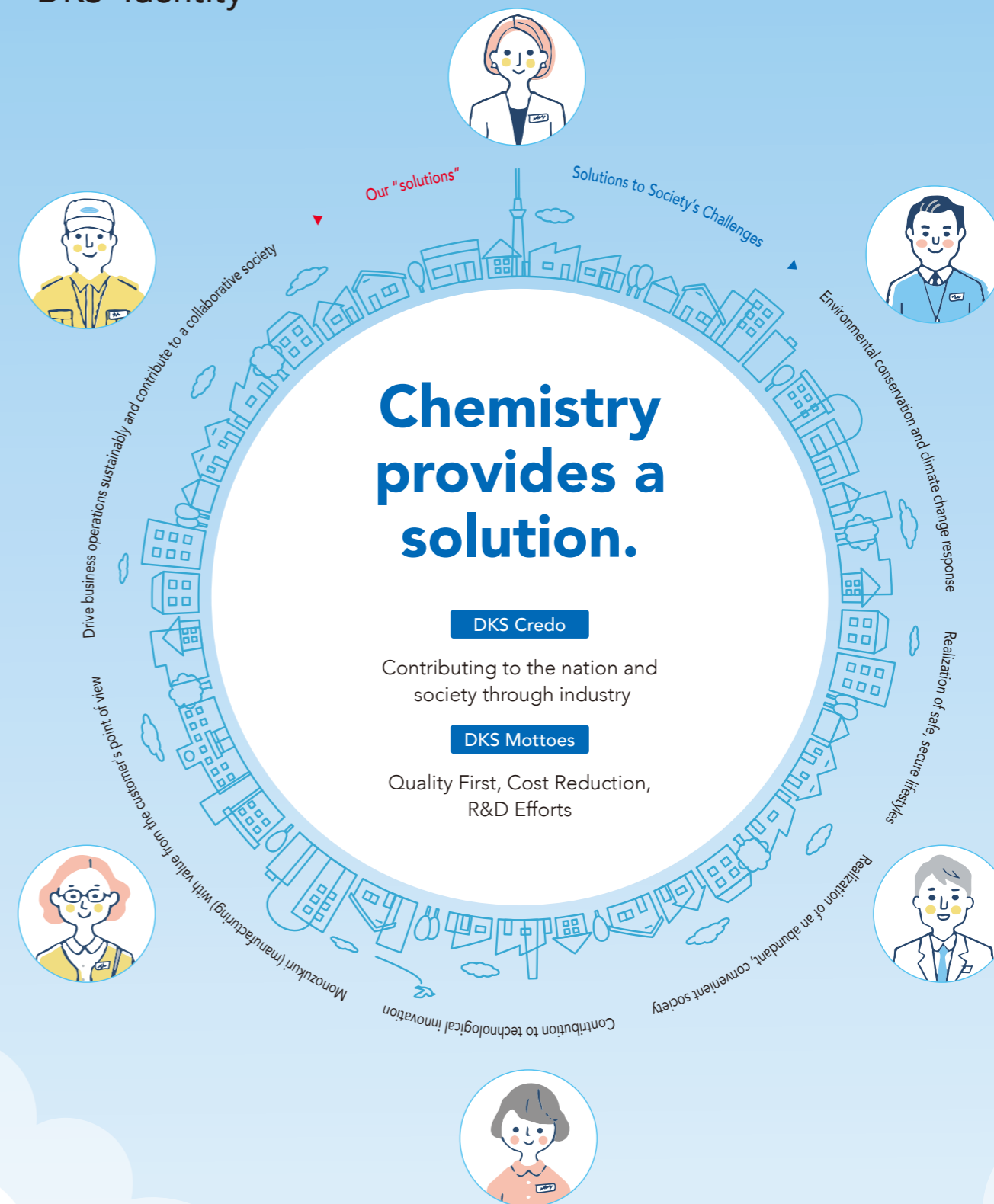
Initiatives for Sustainable Growth - Securing Safety and Disaster Prevention

[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.



DKS' Identity



DKS Group Logo

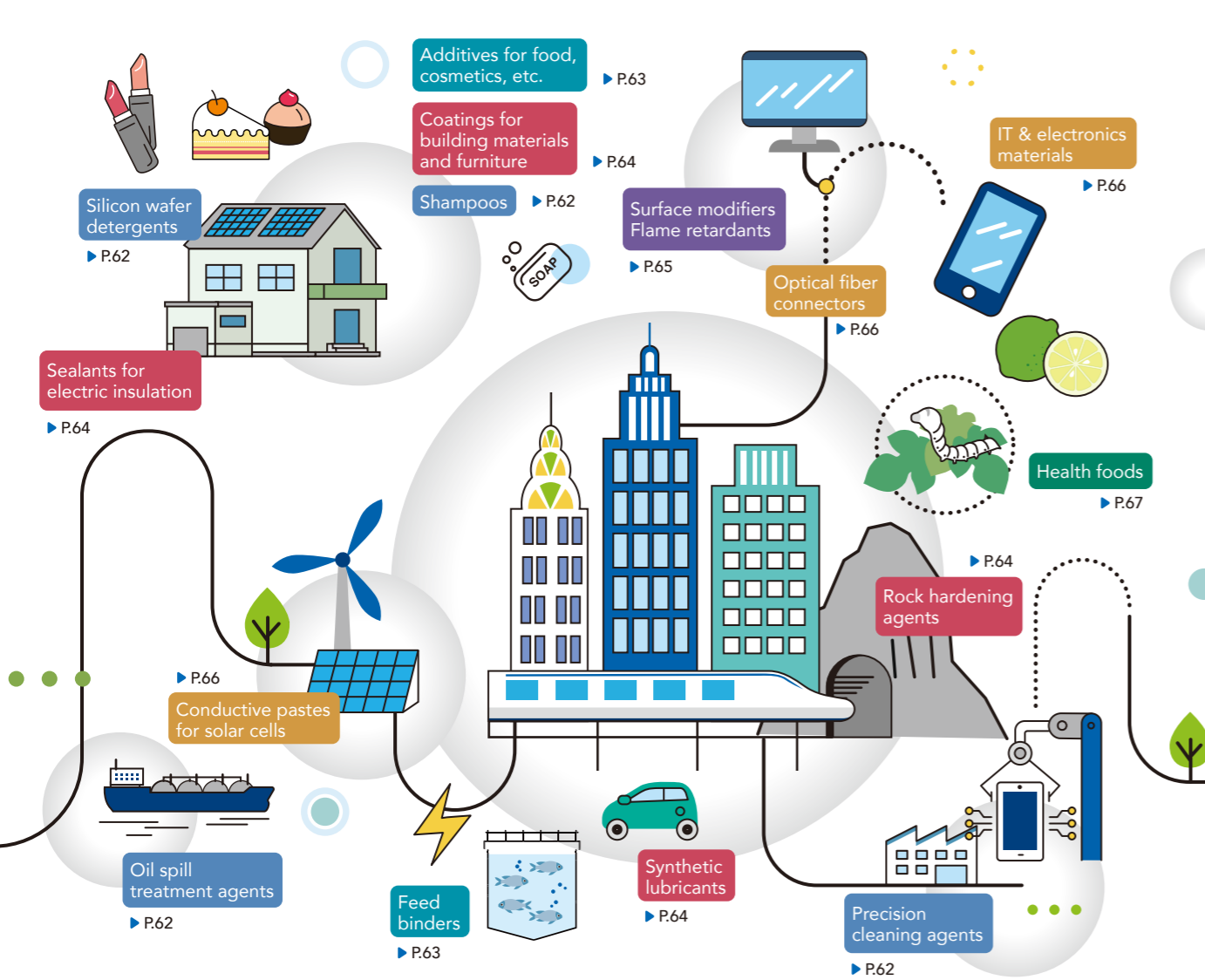


The DKS Group logo symbolizes "Act for a Leap," our step for globalization. It describes the bridge for growth toward "Challenge to 1000."

DKS' Raison D'être and Vision for 2030

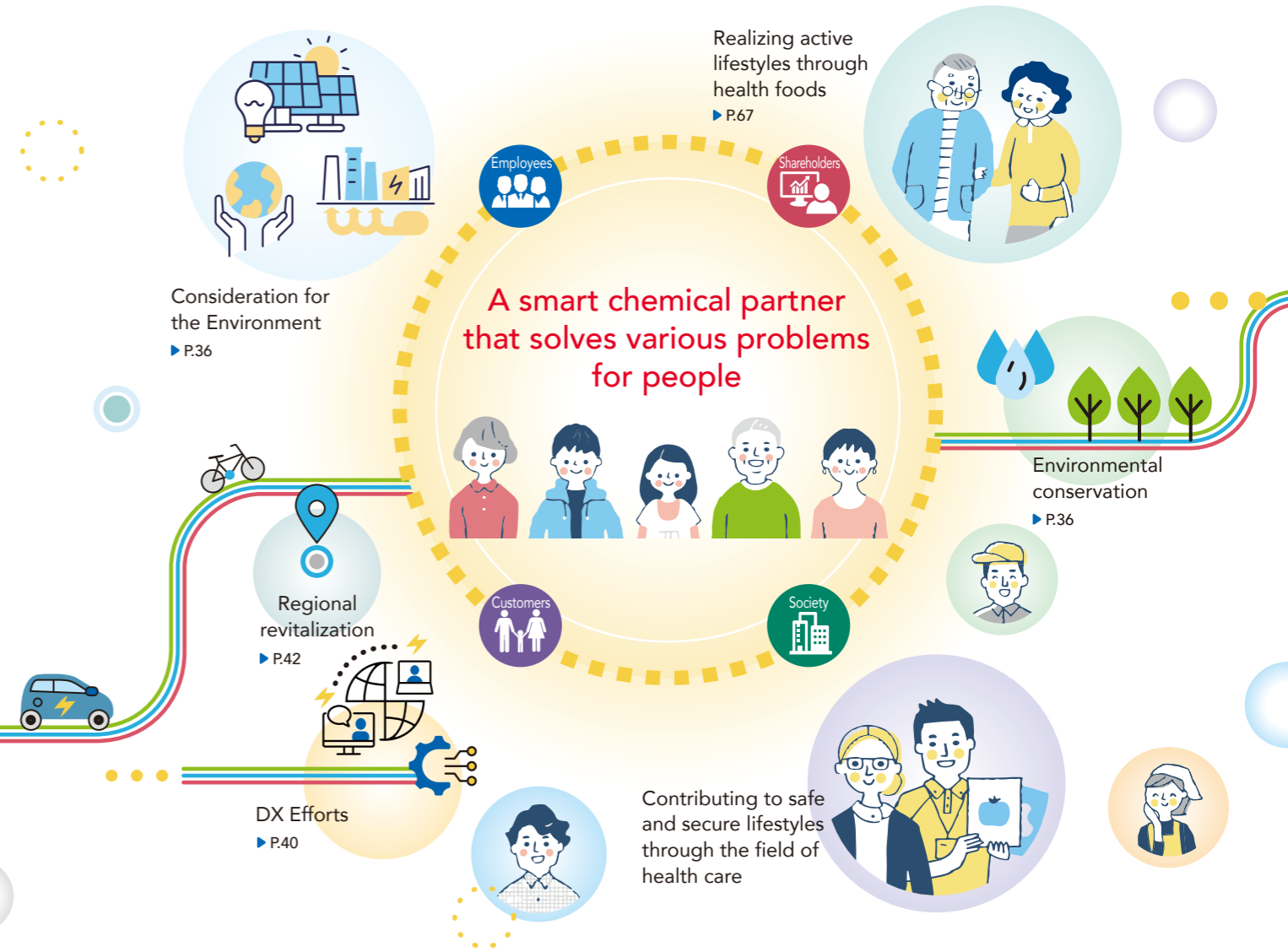
DKS Group Products Around Us

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

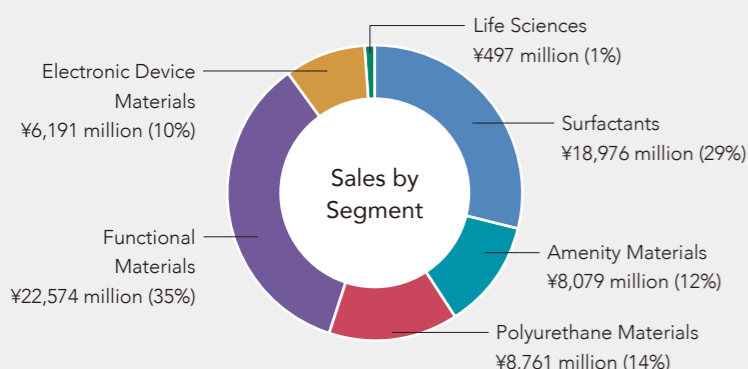


Vision for 2030

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. Environmental issues such as global warming, marine debris, biodiversity loss, and climate change are also important issues for companies to address. DKS Group aims to use the power of chemistry to be a smart chemical partner solving various problems people face.



Six Core Business Segments Net sales for the fiscal year ended March 31, 2023 ¥65.0 billion



億円未満の数字は有報P17を参照しました。ご確認ください。

Surfactants ▶ P.62

We have been providing highly functional surfactants since the Company's founding in 1909.

Amenity Materials ▶ P.63

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

Polyurethane Materials ▶ P.64

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

Functional Materials ▶ P.65

We provide products such as flame retardants, radcure resins, and waterborne polyurethanes for applications in home appliances and daily necessities.

Electronic Device Materials ▶ P.66

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

Life Sciences ▶ P.67

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

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.68), 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' business.

- **Financial capital:** Net assets as of the end of fiscal 2022 exceeded ¥38.2 billion. While maintaining a sound financial footing resting on a net D/E ratio of 0.5, we respond to future risks and opportunities from environmental changes (see p.8), and emphasize capital efficiency, including utilizing interest-bearing debt, that constantly keeps ROIC above WACC.
- **Manufactured capital:** With 14 manufacturing bases inside and outside Japan, we are leveraging our 114 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 10 years preceding the end of March 2023, we have implemented cumulative capital expenditures of ¥41,800 million, with total depreciation surpassing ¥15,400 million (see p.20).
- **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

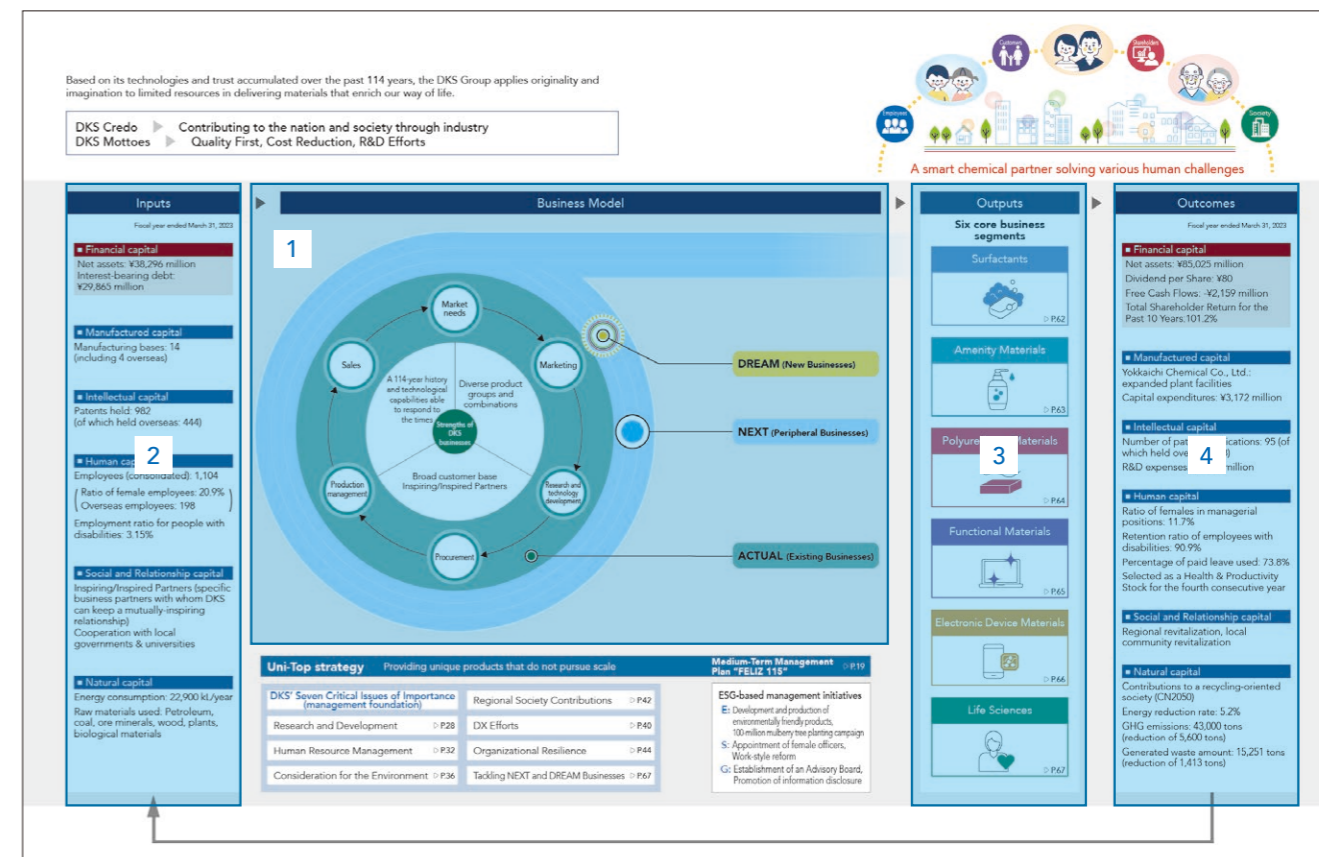
that allow us to customize the function and performance of products in line with customer requirements and to make proposals based on the ideal product combination.

- **Human capital:** Human capital is the most important business resource for DKS, and, based on the idea of valuing people, we have increased our consolidated workforce by 13%, mainly in Japan, over the past 10 years (see p.76). In order to meet increasingly diverse social needs, we aim to maintain talented human resources and diversity, and we strive to improve our human capital.
- **Social and Relationship capital:** We emphasize the improvement of our information gathering and R&D capabilities through trusting relationships built up over many years with our agencies and inspiring/inspired partners, as well as through collaboration with local governments and universities. We also aim to increase social recognition and establish our DKS brand through appropriate supply chain management and public relations activities.
- **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 to society are quite diverse, they can be grouped into six core business segments: Surfactants, Amenity Materials, Polyurethane Materials, Functional Materials, Electronic Device Materials, and the Life Sciences.

Surfactants, a core business DKS has developed for more than 100 years, are used in a wide variety of fields and account for about 29% of consolidated net sales. The Amenity Materials business provides materials and peripheral technologies necessary for a comfortable living environment, while Polyurethane Materials business provides industrial materials such as paints, adhesives, civil engineering and construction materials, and electrical insulation materials, as well as raw materials for polyurethane. Each of these businesses accounts for about 12 to 13% of consolidated net sales. The Functional Materials business provides flame retardants, antistatic agents, lubricants, antioxidants, and radiation-curable monomers and oligomers for plastic materials, which are indispensable in enhancing the functionality of rubber and plastics used in PCs, smartphones, home appliances, and housing. Over the past 10 years, this business has almost doubled in growth, accounting for over 30% of consolidated sales. The Electronic Devices business, in response to the IT society, develops and manufactures ion-conductive polymers, ionic liquids, ceramic materials, lithium-ion battery materials, and conductive pastes for solar cells (For details on each business, see p.62-67.).



4 Outcomes

The paragraphs before outline our primary value creation and returns on capital through business operations and outputs in the year ended March 31, 2023. We aim to create more value for our four stakeholders going toward 2030.

- **Financial capital:** We are targeting total assets and net sales of ¥100.0 billion, with plans for aggressive growth investments while maintaining the balance of capital and debt. Although our long-term annual TSR rate is in the double-digits, we aim to contribute to SDG 9 by leveraging future investments and technological innovation, building resilient infrastructure and facilitating sustainable industrialization, thereby boosting returns on financial capital.
- **Manufactured capital:** Although our sales volume for the fiscal year ended March 31, 2023 has plateaued at ¥3.1 billion, we will continue to expand new production capacity to achieve growth of ¥12.0 billion over five years, as planned under "FELIZ 115." In addition, SDG 12 is particularly important for a chemical manufacturer. By enhancing our manufactured capital, we aim for the efficient use and sustainable management of natural resources by reducing, recycling, and reusing waste.
- **Intellectual capital:** From the viewpoint of effective utilization and proper management of patents, the number of patents held at the end of the period slightly decreased, but the number of new registrations during the period remained high at 95 (see p.30). In 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 to over 5%, 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, thereby enhancing human capital and increasing corporate value (SDG 3). Additionally, as an outcome of efforts toward human assets, we will further promote diversity and emphasize our employee's health and higher satisfaction rates. (see p.32-35).
- **Social and Relationship 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 (see p.42) is one important activity, and we expect the establishment of effective public-private-civic partnerships will contribute to improving social value (SDG 8 and 17).
- **Natural capital:** Responding to the 2050 carbon neutral goal (CN2050) and reducing energy consumption are urgent challenges. In addition to promoting the reduction of GHG emissions and waste generation, the DKS Group will implement the Life Science business, as well as Sericulture Innovation, with initiatives in cooperation with local governments such as mulberry tree planting and the effective use of mulberry trees and silkworms. Through these initiatives, we promote environmental conservation and CO₂ reductions, contributing to environmental and energy-related issues (SDG 7 and 13).

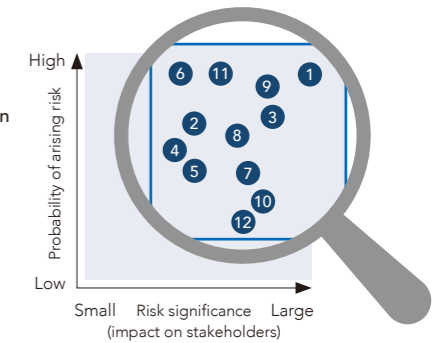
Risks and Opportunities

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.

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 material issues 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



Significant risks	Impacts from risks/Impacts on stakeholders	Responding to risks	Opportunities
1 Raw material price fluctuations (primarily naphtha)	<ul style="list-style-type: none"> Profitability changed by the rate of cost fluctuations Price negotiations necessary to maintain and improve profit margin (Sales) price negotiations Decline in market share, lost ground due to price negotiations 	<ul style="list-style-type: none"> Survey trends of raw material and market prices Survey trends of other companies Gather information from customers Implement prompt price revisions (securing profit) Introduce pricing formula linked to raw material prices Coordinate with dealers, suppliers, and customers 	<ul style="list-style-type: none"> Cost reduction Gradual decrease in costs Optimization of inventory levels Pass on prices if self-help efforts are insufficient
2 Relyance primarily on external procurement for raw materials	<ul style="list-style-type: none"> Easily impacted by raw material and market prices BCP (Business Continuity Plan) measures become necessary Inventory surpluses and shortages Restrictions on procurement, use, and manufacturing of raw materials due to changes in regulations or social conditions in each country 	<ul style="list-style-type: none"> Diversify raw material procurement sources Manufacturing systematically and procuring raw materials accordingly Coordinate with suppliers Promote business continuity plan (BCP) measures 	<ul style="list-style-type: none"> Reduce costs through procurement of low-cost raw materials Diversify raw material procurement sources Strengthen BCP measures Strengthen supply chain management
3 Environmental and human rights risks	<ul style="list-style-type: none"> Restriction of business activities due to insufficient or delayed responses to environmental and human rights issues Increase in costs due to introduction of carbon pricing 	<ul style="list-style-type: none"> Assessment of impact of climate change on business and planning of countermeasures (scenario analysis) Roll-out of initiatives based on green transformation (GX) strategy Promotion of initiatives based on The Ten Principles of the UN Global Compact 	<ul style="list-style-type: none"> Expand initiatives with awareness of society-wide sustainability (strategic GX targets) Develop products that contribute to the environment and expand their sales Respect the basic human rights, diversity, personalities, and individuality of colleagues working in the Company, and create a rewarding workplace free of discrimination and harassment
4 Large number of customers	<ul style="list-style-type: none"> Time taken and costs incurred to respond to each customer Difficulty in narrowing in on target customers 	<ul style="list-style-type: none"> Select and focus on themes Deepen market strategies (through "FELIZ 115") including revenue management 	<ul style="list-style-type: none"> Having customers in various fields makes it easier to obtain information from each industry Prioritize important themes Deepen relationships with inspiring/inspired partners
5 Product composition consists of a large variety of small-lot products	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Possessing a lineup of products that can be used in each field enables a variety of solutions to be proposed Range of options for product increases Product composition that takes profit performance into account
6 Intensified competition due to growth in emerging nations (Growth opportunities are hard to seize on a global scale)	<ul style="list-style-type: none"> Replacement by low-cost products from other companies Risks of losing competitiveness in domestic and overseas markets due to the improving technological level and productivity of neighboring countries Concerns about patent infringements overseas 	<ul style="list-style-type: none"> Promote a differentiation strategy through solution proposals, cost reductions, Japanese quality and customization Open innovation with companies, universities, etc. Strengthen the IP Department; strengthen IP asset management (investigate IP asset rights of other asset holders) 	<ul style="list-style-type: none"> Cultivate close relationships with customers and accelerating the shift towards high-profit products through solution proposals, product customization, etc. Uni-top strategy (pursue uniqueness, not scale) Intellectual property strategies
7 Strengthened laws and regulations	<ul style="list-style-type: none"> Cost and time impacts from switching to substitute products in order to comply with regulations 	<ul style="list-style-type: none"> Gather information on legal revisions Strengthen internal oversight/checking systems Reinforcement of the Company's compliance 	<ul style="list-style-type: none"> 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
8 Stricter quality controls	<ul style="list-style-type: none"> 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, automobiles, pharmaceuticals, and food 	<ul style="list-style-type: none"> Utilize PL prevention/management guidelines Acquire GMP certification Avoid liability risks through PL insurance Ensure safety in the food product field by acquiring HACCP certification Achieve CSR through core tool operations Build and operate a quality control system 	<ul style="list-style-type: none"> 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
9 Aging facilities/equipment	<ul style="list-style-type: none"> Manufacturing trouble and quality issues arising from aging equipment Rising rate of industrial accidents Decline of productivity 	<ul style="list-style-type: none"> Consider structural reforms through digital transformation (DX) Promote production system enhancements and improved production efficiency by making the Kasumi Plant a mother plant 	<ul style="list-style-type: none"> An opportunity to make business continuity decisions, enabling the beginning of a portfolio review Visualize aging factories with digital technology and improve profitability Perform regular repairs utilizing data and strengthen management of preventive maintenance
10 IT security	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Implement security literacy education for employees Create process for responding to serious incidents, such as unauthorized access Confirm costs through IT asset management 	<ul style="list-style-type: none"> Establish digital infrastructure based on digital road map Improve efficiency and profitability by promoting DX Establish a security system trusted by customers Utilize new technology, such as generative AI
11 Impact on economic activity due to the spread of infectious diseases	<ul style="list-style-type: none"> 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 reduced communication with customers 	<ul style="list-style-type: none"> Strengthen measures based on BCP Decentralize and review manufacturing and distribution bases, and decentralize inventory holding 	<ul style="list-style-type: none"> Promote work-style reform through working from home and telework Reduce fixed costs by consolidating and reducing bases Increase operational efficiency by utilizing online meetings
12 Employment diversification; changes in the human resources market	<ul style="list-style-type: none"> Intensifying competition for securing talented human resources due to a shrinking workforce Increased turnover due to job mobility Diversification of values with increase in number of foreign workers 	<ul style="list-style-type: none"> Strengthen coordination with various associations and educational institutions to help secure human resources Implement a human resources training program Promote Health and Productivity Management Promote diversity and respect human rights 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 	<ul style="list-style-type: none"> System reforms in response to societal changes Review and implement personnel system reforms Promote establishment of comfortable work environments Strengthen Health and Productivity Management

Material Issues

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 material issues, 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 material issues of challenges toward addressing these themes. In the identification of those material issues, 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.



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



Priority Themes & Focuses of SDGs

Following the principles of our Company Credo and Company Mottos, and taking into consideration the technologies and various experiences we have amassed over 114 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	Material Issues for DKS	Relevant stakeholders	DKS initiatives	KPI	Recent performance
1 Research and Development ▷ P.28	• Customer-oriented R&D framework aligned with Uni-Top strategies	Shareholders Customers	• Establishment of research centers for each customer and Advisory Committee • Strengthen initiatives with inspiring/inspired partners • Promote customer-oriented R&D	• R&D expenses to sales ratio of 5.0% or higher	• R&D expenses to sales ratio of 5.0%
	• Developing products that contribute to the environment	Customers Society	• Promote product development with lower environmental impacts, such as additives for biodegradable plastics		
	• Promoting an intellectual property strategy	Employees Shareholders	• Prompt applications for IP rights and aggressive pursuit of quick IP rights acquisition		
2 Human Resource Management ▷ P.32	• Diversity	Employees Society	• 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 • Employment initiatives for people with disabilities	• Female manager ratio of 10% or higher	• Female manager ratio of 11.7%
	• Human resource development	Employees	• Implementation of a DX human resource development program • Secure and train global human resources		
	• Empowering profitability	Employees	• Strategic staffing • Streamline productivity improvement • Performance-based personnel evaluation system		
3 Consideration for the Environment ▷ P.36	• Responding to decarbonization and reducing environmental burdens	Shareholders Society	• Green transformation (GX) initiatives • Expand use of renewable energy • Product development for moving beyond green vehicles (strengthen the battery cell business) • Promote modal shift (based on Eco Rail Mark criteria) • Study switch to non-petrochemical and renewable raw materials	• Reduce greenhouse gas (GHG) emissions (Scope 1, Scope 2) for the entire DKS Group in Japan by 30% compared to FY2013 by FY2030	• Reduction of 17.1% compared to FY2013
	• Contributing to a recycling-oriented society	Society	• Contribution to a recycling-oriented society through responsible care activities • Traceability systems (review inventory volume, product loss rates, product profit margins)	• 10% reduction in waste generation per unit (FY2030 target) • Final waste disposal rate: 0.1% or less (FY2030 target)	• 15.5% reduction in waste generation per unit
	• Appropriate management of chemical substances	Society	• Respond to more stringent legal regulations • Reduce emissions of PRTR Regulation-designated substance		• Final waste disposal rate: 0.2%
4 Contributing to a Collaborative Society ▷ P.42	• Regional revitalization	Society	• Promotion of initiatives with local governments • Industry-government-academia collaboration • Initiatives for Sericulture Innovation		
	• Co-prosperity with the supply chain	Society	• Switch to renewable resources and natural materials • Effective use of the peeled skins of sudachi (Japanese citrus) • Work to improve added value throughout the supply chain from “Tier N” to “Tier N+1”		
5 DX Efforts ▷ P.40	• Use and promote digital technology	Employees Shareholders Society	• Create a digital roadmap to 2030 • Promote cross-company DX projects • Acquire DX certification	• Update digital roadmap and implement action plan • Advance company-wide DX project theme (development system operation) • Update DX certification	• Started operation of Integrated Work Management System (library of 1,035 workflows and schedule monitoring) • Started operation of management information platform (data utilization platform and shortening of document preparation time equivalent to approx. 7,000 hours/year)
	• Cybersecurity measures	Employees Shareholders Customers	• Strengthen security measures based on Information Security Policy • Security literacy education for employees	• Review Information Security Rules and incident response flow • Provide security education to new employees • Conduct targeted attack e-mail training	• Security training by the Risk Management Control Committee • Add security training to DX training for new employees
	• Digital literacy education	Employees Shareholders Society	• Use digital tools (RPA, workflow, BI tools) • Acquire specialist skills	• Hold in-house study sessions and developer exchange meetings • Acquire relevant qualifications (Deep Learning for GENERAL (G-Certificate), Deep Learning for ENGINEER (E-Certificate), Fundamental Information Technology Engineer Examination, etc.)	• Number of DX training participants (cumulative total as of end of FY2022: 503) • Acquisition of relevant certifications (E-certified: 2, G-certified: 18) • Create guidelines for use of generative AI
6 Organizational Resilience ▷ P.44	• Thorough quality assurance system	Customers	• Global supply chain management • Food hygiene management initiatives (HACCP certification) • Initiatives towards a management system equivalent to handling pharmaceuticals		
	• Promoting occupational safety and health	Employees	• Continuous improvements through occupational safety and health management systems • Implement hands-on safety education	• Zero occupational accidents (lost time)	
	• Further deepening of corporate governance	Employees Shareholders Customers Society	• Strategies for improving medium- to long-term corporate value • Improve effectiveness of the Board of Directors and establish an appropriate remuneration scheme • Strengthening dialogue with shareholders and investors • Create a governance system in line with ESG strategies	• 10% increase in the number of dialogues compared to last year	
7 Tackling NEXT and DREAM Businesses ▷ P.64-65, 67	• Development of the Life Science business	Shareholders Customers Society	• Initiatives to extend healthy life expectancy • Establish B-to-C business • Notification of food products with functional claims • R&D to improve cognitive function	• Sales of ¥1.5 billion in 2025	
	• Development of the NEXT businesses	Shareholders Customers Society	• Open innovation • Respond to industry reorganization • Execute M&A that contributes to growth • Support diversification of consumer needs	• Sales in 2025 ① Solar cell, exhaust gas business: net sales of ¥10.0 billion ② 5G business: net sales of ¥10.0 billion	

Message from the CEO



We continue to create value as a chemical manufacturer soaring into the future

SAKAMOTO Takashi

Chairman CEO

Reflections on the first year of my chairmanship and the role I am considering as I embark on the second

We have been responding to the upheaval caused by the military conflict in Ukraine, occurring just two days after our announcement of the change of president on February 22, 2022. And now, as COVID-19 is downgraded to Class 5, we seek to 'bottom out' from an unprecedented crisis.

An unexpected situation arose that was different from the three risks anticipated in our current mid-term management plan. First, I will describe my starting point as an executive of a chemical manufacturer. Next, I will detail our strategies on how we strive to 'bottom out' and rebound from the current situation. Finally, I will discuss DKS and its future. First, my starting point. It has been one year since I retired as President in February 2022. I have been involved in the development of management plans ever since I joined DKS in 2001. The first was named "ADD21." This was followed by "CHANGE100 Stage I," "CHANGE100 Stage II," "REACT1000," and now "FELIZ 115." I continued to be in charge of planning thanks to President UETA Takehiko's decision when I joined the Company. Since I did not know anything about chemistry, he thought that my experience at financial institutions would be useful in the planning and strategy department.

The "ADD21" management plan started in 2004. Following the change of president, work began in May on creating the next plan for the remaining year of the second phase of the "DKS Rebirth Plan." I was not initially a member of the team working on the plan, but I joined in September that year. This was the first time I saw the draft put together over the previous four months. When asked for an opinion on the draft by the new president, TSUDA Akihiro, I instead replied. "I'd like some direction on creating the plan." "It's about how to make the Company better." "Quite so. But perhaps we should give three things you'd like to do to improve things as the new president." "Okay, go for it," he said. The name "ADD21" was chosen by the president, standing for "Ambitious Dream DKS." I gave my first opinion.

"I think 'ADD' is an appropriate acronym meaning to enhance and emphasize. 'Dream' is good, but how about using 'Dynamic' instead to give 'Ambitious Dynamic DKS'?" "That's good!" The name of the plan was finalized. "I'll sort through the materials we have already created and put everything in order," I said. During the next eight years of OYANAGI Masatoshi's presidency, I continued to be in charge of management planning and policy development. In all, I have been involved in the formulation of five management plans, but growth potential, which was the primary concern during the development of the first ADD21 plan, is still something I am attentive about today. For the quarter century since the 1980s, total assets remained virtually the same. Fixed assets did not change, and no capital investment was made. Our analysis pointed to this as being the cause of our sluggish performance.

DKS's total assets at the end of June 2023 exceeded ¥90 billion, 2.25 times that of the 1980s. The details of our fixed assets have changed, and they have doubled in size. To maximize profitability, we implemented capital restructuring by taking measures such as follows. We made Yokkaichi Chemical Co., Ltd. a wholly owned subsidiary, purchased 100,000 square meters of land in Kasumi in Mie Prefecture, and built a new plant. In addition, we added Ikeda Yakusou Co., Ltd. and Biococoon Laboratories, Inc., both life sciences-related companies, to our portfolio. With an eye on continued growth, we invested in the fields of electronics and information, environment and energy, and life sciences. This resulted in record profits for three consecutive years during the five-year REACT1000 plan, which started in 2015. Then came the current FELIZ 115 plan. Observing the successful results of the previous REACT1000 plan, I conceived the flow of the next plan. For the first two years, we shall reaffirm our current situation. Then, with careful preparation, steer back on track for growth starting from the third year.

We anticipated three risk factors that could cause the current five-year plan to falter. One was an increase in the price of raw materials, a rule of thumb from more than a

Message from the CEO

decade ago. Naphtha had continued to climb from ¥20,000 to ¥90,000 over three consecutive years. Second, with the lifting of zero interest rates that followed, interest rates may rise. Third, we predicted that the economy would deteriorate. Since we had consolidated our foundation for two years, the graph of our progress was an inverted L-shape. In the end, the three risks we anticipated materialized. But more than

those, the unexpected changes in geopolitical dynamics have led to an unprecedented situation. We shall overcome this crisis! I believe that this situation is a test for DKS in preparation for a better future. The key to management is to identify, determine, and forecast issues. These form our unchanging origin.

price adjustments, and reduction of non-essential expenses. We operated with the expectation of a turnaround in the April to June period of 2023, which is the 160th fiscal period of DKS. Although ultra-short-term measures are being implemented, we have not seen a turn-around on a consolidated or individual basis, and operating income is in the red. Measures from a short-term perspective are to realize

the next-generation development themes set out in the previous five-year planning period. As a long-term strategy, DKS will secure profits by bringing the electronic information and environmental energy plants in which we have already invested back on track. In parallel, we aim to turn the Life Sciences business, which is embarking on a new field, into a profitable venture, making it a core business by 2030.

Navigating this crucial period and confirming progress

We will shortly overcome the harsh realities of the new millennium, which we perceive as completely different from those of the 20th century. We will take measures to eliminate the deficit. We will support President YAMAJI and get our business infrastructure, which we built with an eye to the future, back on track.

The economy deteriorated as a result of the outbreak of the COVID-19 pandemic in January 2020. We expected a return to normal in about 2 or 3 years. Two years after the outbreak, in February 2022, we selected President YAMAJI as the next to lead. Then, on February 24, just two days after the announcement of our new president, the military conflict between Russia and Ukraine erupted. The international community thought such a thing could not happen in the 21st

century because a repeat of the tragedy of atomic bombing in the 21st century would lead to the extinction of humanity. But what could not happen, did. This is an unusual situation that cannot be resolved by economic processes. The equipment that we thought would be good for five or ten years of growth investment was turned off. The unconsolidated financial results for the year ending March 31, 2023, were the worst to date.

We set measures in terms of ultra-short and short- to long-term perspectives. At the time of the previous REACT1000 plan, the variable profit margin (profit after accounting for variable costs such as raw materials) was at the level of around 45%. In the previous fiscal year, this deteriorated to the level of 35%. As part of our swift efforts to achieve profitability on an individual basis, we are implementing the following ultra-short-term measures: 30% cut of executive salaries, pass-on of the increased raw material costs through

A chemical manufacturer soaring into the future

Living in harmony with the Earth through recycling (renewal) or a circular society.

Chemistry seemed to be an area where, unlike other industries, we could remain in perpetuity. Automobiles and electricity are important, and if we can respond to the moves of cutting-edge companies in such fields, we will survive. We believe that we can survive as a chemical manufacturer that makes the right materials for the manufacturing carried out by the user. Such a corporate structure seemed to be consistent with the value created by the six kinds of capital in the International Integrated Reporting Framework's octopus model. It is a path of value creation that uses capital to increase profits and growth. I have been paying attention to the recent spread of the framework of the Task Force on Climate-related Financial Disclosures (TCFD). There is a trend toward carbon neutrality and the reduction of climate change risk and greenhouse gas emissions to zero. In developed countries, this trend has evolved into the Taskforce on Nature-related Financial Disclosures (TNFD).

This is a shift from responding to climate change to preserving nature. The sustainability and survival of the Earth itself is beginning to be recognized as important. The question is whether a growth-oriented economy can protect the Earth and its ecosystems. The term 'Nature-Positive' had a profound impact on me. During the five years of the "REACT1000" plan, we divided our business areas into three categories: existing (ACTUAL), peripheral (NEXT), and new (DREAM). In the growth sector classified as NEXT, five plants and four divisions are in operation and are profitable. Over time, NEXT will become ACTUAL, the existing businesses. We have also emphasized second-stage NEXT development.

The question is how quickly we can create second-stage NEXT businesses even taking into account the long-term sustainability of nature. This depends on the structure and organization of President YAMAJI, who has a background in research, and his approach to resource allocation.

Our Life Sciences business comes under the category of DREAM. Biococoon Laboratories, Inc. and Ikeda Yakusou Co., Ltd. form the cornerstone of these operations. This is a new area for the Group, and we will proceed with three pillars: sales of goods held, CMO and CDMO contracted business using the facilities of both companies, and the conversion of intellectual property into cash. We believe that the more the world moves toward TCFD and TNFD frameworks, the more a balance between analog and digital is required. The connection between the two, that is, human-contrived digitization, makes sense because of its analog origin in a living organism. The Life Sciences business is indispensable as long as humans continue to live. The DKS Group has been conducting business with the principles of SDGs in mind for more than half a century. We use plant resources as recyclable and circulatable materials for our products. Carboxymethyl cellulose (CMC) is made from pulp. Cellulose nanofibers (CNF) are also plant-derived materials. Sucrose fatty acid esters (SE) are made from sugar. Of course, in the Life Sciences business, the raw materials are mulberry and other plants, spores, and insects.

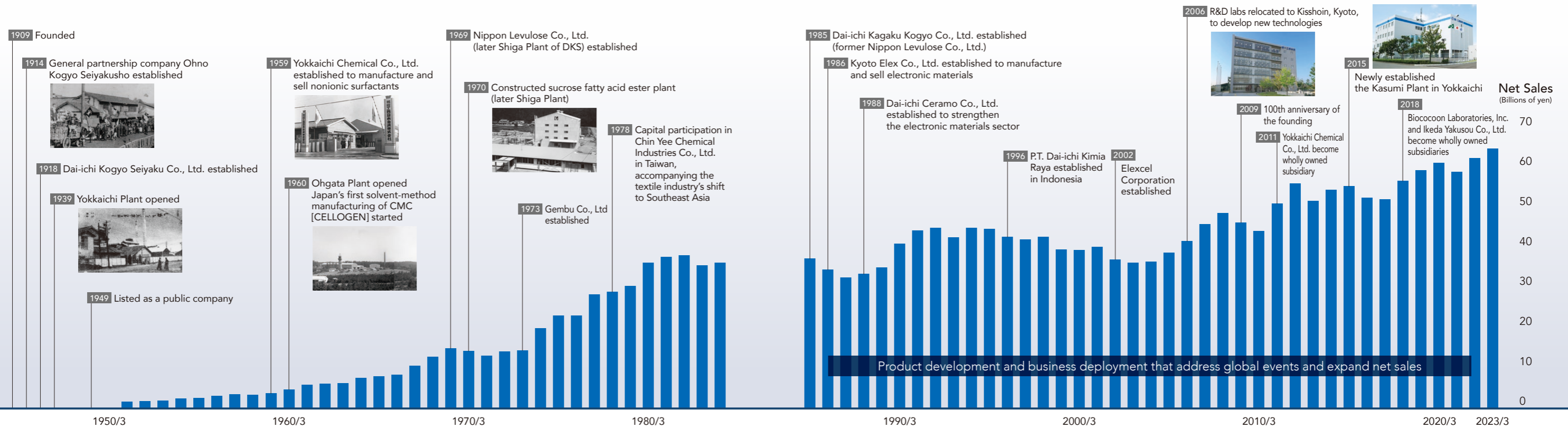
The development of our Life Sciences business is essential to the future of DKS.

We will put our management efforts into restarting the facilities that we have already invested in and further investing in facilities for the future as soon as possible, with the hope that we continue to be a company that meets the expectations of our stakeholders.

We are committed to building a Company that survives together with the Earth.



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: Seiryu, 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

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 resins
 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 RHEOCRISTA cellulose nanofibers
 2017 TRIBIO polylactic acid resin modifier
 2018 I. Japonica-Bombyx Fungus (health food) Sudachin (citrus sudachi peel extract powder)
 2021 Announcement of Naturido, a new active ingredient expected to improve cognitive function
 2022 TENCHUKASOU (health food)
 2023 Kainou Tochukasou (food with functional claims)

Development of DKS

1909s–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.

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 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. The

Company transformed its corporate structure placing emphasis on the DKS Credo and created a platform for further growth.
 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 business field of life sciences 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, this has become the foundation for building the future that our company is focusing on, together with the electronics/information and environment/energy fields.
 We completed the notification for a food with functional claims for a product using I. Japonica Bombyx Fungus, which contains Naturido. It has been reported to help with maintaining visual memory and cognitive speed.

Dai-ichi Kogyo (DKS) Spirit and DKS Mottos
 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 Mottos: "Quality First," "Cost Reduction" and "R&D Efforts."

Thoughts on Cost Reductions
 To truly promote the spirit of service as a manufacturer, we must not only manufacture quality products, but also, as our founder says, we must "make our existing quality products widely known to the public," and at the same time "distribute quality products so that the public can purchase and consume them freely and easily." Since the Company's founding, the idea of not only pursuing cost reduction, but also doing business for the benefit of the world and people, has taken root.

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.

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.

Review of the Medium-Term Management Plans

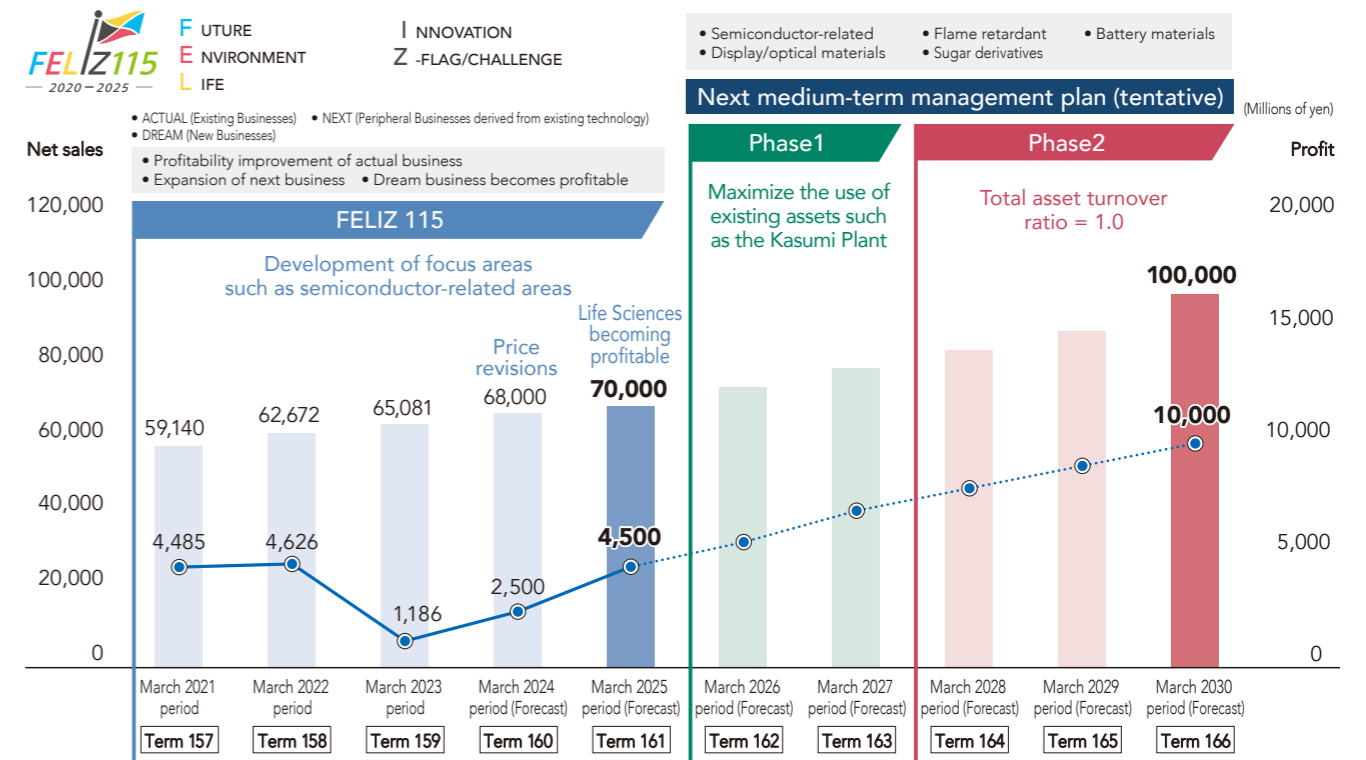
	CHANGE100 Stage I — Changing the Corporate Culture — April 2009–March 2012	CHANGE100 Stage II — Expansion along with Earnings — April 2012–March 2015	REACT1000 — Act for a Leap — April 2015–March 2020
Targeted Figures	Consolidated net sales ¥55 billion or higher Ratio of ordinary income to sales 4% or higher	Consolidated net sales ¥60 billion or higher Ratio of ordinary income to sales 5% or higher	Consolidated net sales ¥75 billion Ratio of ordinary income to sales 8.0%
Slogan	"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	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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	<p>Basic Strategies</p> <ol style="list-style-type: none"> 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 	<p>There are five priority qualitative targets for implementing the management policy.</p> <ol style="list-style-type: none"> 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 31, 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 31, 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, 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	<ul style="list-style-type: none"> • 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 	<ul style="list-style-type: none"> • 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 Co., Ltd. a wholly owned subsidiary) to expand business fields, purchased land, began preparation for a new plant 	<ul style="list-style-type: none"> • 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	<ol style="list-style-type: none"> 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"

"FELIZ 115" revision details
 (in Japanese only) https://www.dks-web.co.jp/update/n_pdf/2023061203.pdf



DKS revised its medium-term management plan "FELIZ 115" and its management targets on June 12, 2023, in consideration of the external environment surrounding the company and the market conditions in our focus areas. The main causes are the following three points. 1) Delays in passing on increases in raw material prices, 2) A decrease in sales volume due to worsening market conditions, mainly in focus fields (electronics, information, etc.) as well as a decrease in sales volume due to sluggish demand from major customers, 3) Increased manufacturing costs due to lower factory operating rates outlined above in point 2).



Outline of measures towards FY2025 goals

Improving profitability	Focus area development	Life sciences becoming profitable
<ol style="list-style-type: none"> 1) Implementation of cost pass-through for raw material and energy 2) Promotion of high value-added product development 	<ol style="list-style-type: none"> 1) Expansion of information and communication-related material sales 2) Early reaping of battery materials 3) Promotion of new development for the semiconductor market 	<ol style="list-style-type: none"> 1) Expand B-to-C sales of products such as TENCHUKASOU, Kainou Tochukasou, Sudachin, health foods 2) Realization of B-to-B results through material sales 3) Expand Ikeda Yakusou's business and acquire contract projects by taking advantage of GMP certification

Review of the Third Year

Priority Measures	Results/future goals
1 Withdraw from noncontributing businesses	<ul style="list-style-type: none"> • We implemented price revisions in response to soaring raw material prices and worked to build a profit base. • We restructured our business portfolio through collaboration with parties outside the company.
2 Realize returns on advanced business investments in the Kasumi Plant and other areas	<ul style="list-style-type: none"> • We will increase the Yokkaichi Branch Kasumi Plant operating rate, focus on early reaping of the business, and will improve profitability.
3 Accelerate alliances with partner companies and achieve rapid commercialization at the Kasumi Plant and in the Life Sciences businesses	<ul style="list-style-type: none"> • Kainou Tochukasou, which contains the useful ingredient Naturido contained in I. Japonica Bombyx Fungus, has been submitted to the Consumer Affairs Agency as a food with functional claims and has been made public.
4 Reorganize the corporate structure with an emphasis on customer orientation; shift to Company-wide organizational sales activities	<ul style="list-style-type: none"> • In order to quickly respond to the diversifying needs of our customers, we have built an organized customer support system through cross-functional collaboration. • We have progressed in building the foundation for company-wide data-drive management using DX.
5 Revise performance evaluation and remuneration systems to a system that evaluates contributions	<ul style="list-style-type: none"> • To enhance commitment to results and cultivate the foundation of "earning power," we considered introducing a goal management system for employees at or below the section manager level and conducted a trial run.
6 Establish SDGs/ESG-based management objectives; contribute to society through business activities; aim to enhance corporate value	<ul style="list-style-type: none"> • Expanded the activities of the Sustainability Committee and began strengthening human capital and human rights due diligence (initiatives to reduce human rights risks in corporate activities) in addition to climate change. • Obtained the highest rank in Development Bank of Japan Inc. (DBJ) environment ratings.
7 Continue employee happiness-based management; conduct activities to maintain the "Health & Productivity Stock" selection; create comfortable working environments	<ul style="list-style-type: none"> • Selected as a "Health & Productivity Stock" for four consecutive years. • Certified as a "White 500 Organization" for the sixth year in a row. • Certified as a "Sports Yell Company" for four consecutive years. • Received the highest rank in the DBJ Health Management Ranking Program for sixth year in a row.

Financial/Capital Strategies and Total Shareholder Return

Financial Position

As of the end of the fiscal year ended on March 31, 2023, our company's financial status was ¥85.0 billion in total assets (down 1.7% year on year), ¥38.2 billion in net assets (down 5.2% year on year), and an equity ratio of 40.4% (down 2.1 percentage points year on year.) Due to a decrease in operating cash flow, interest-bearing debt increased to ¥29.8 billion (up 7.6% year on year), resulting in a net D/E ratio of 0.54 from 0.38 in the previous period. Regarding cash flow for the fiscal year ended on March

31, 2023, since operating cash flow was ¥720 million (down 86.9% year on year), and capital investment increased by ¥1.2 billion from ¥1.9 billion in the previous period, investing cash flow was negative ¥2.8 billion, and free cash flow (FCF) was negative ¥2.1 billion. Financing cash flow was negative ¥1 billion due to share buy-back (¥1.5 billion.) As a result, the cash balance at the end of the period decreased from ¥12.1 billion in the previous period to ¥9.0 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 2012 to March 2023 are as follows. (Cumulative totals are the totals over the 10-year period from April 2013.)

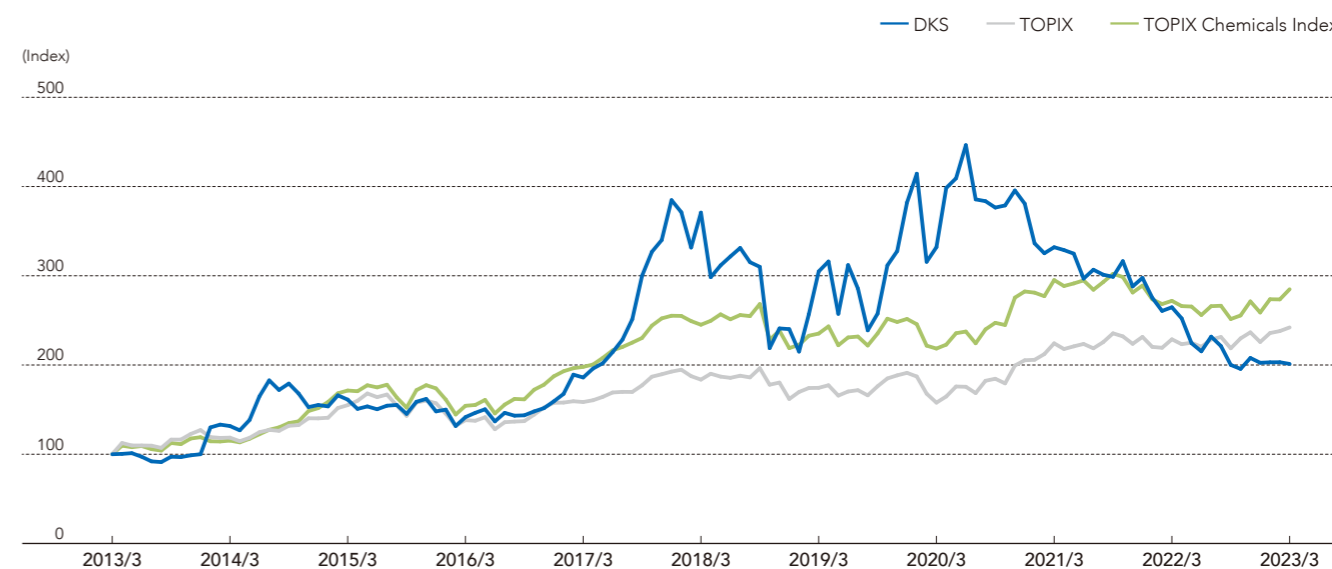
	April 2012–March 2013	April 2022–March 2023	Assessment/Comments
Net Sales	¥51.8 billion	¥65.0 billion	Updated record high with +3.8% YoY
Operating Income	¥1.75 billion	¥1.18 billion	Significant decrease of 74.4% YoY
Operating Margin	3.4%	1.8%	Significantly decreased from the 7.4% in the previous period
Net Profit	¥0.79 billion	(¥0.4 billion)	In the red due to the impairment of fixed assets
ROE	4.8%	(1.1%)	Aim for continuous capital efficiency improvement
Total Assets	¥55.4 billion	¥85.0 billion	Increase of 53.4% over 10 years due to growth investments, etc.
Net Assets	¥18.2 billion	¥38.2 billion	Increased by approximately 2.1x in 10 years
Interest-Bearing Debt	¥18.7 billion	¥29.8 billion	Increased by ¥2.1 billion from the previous fiscal year due to FCF (-¥2.1 billion)
Net D/E Ratio	0.66	0.54	Deterioration of 0.16 percentage points YoY due to an increase in borrowings, etc.

	Totals for the Past 10 Years	Assessment/Comments
Net Profit Cumulative Total	¥20.4 billion	Net profit will be negative in March 2023 for the first time since March 2009
Capital Investment Cumulative Total	¥41.8 billion	Since the fiscal year ended March 31, 2015, growth investment became more aggressive; implemented capital investment with cumulative depreciation costs exceeding ¥15.4 billion over the past 10 years
Depreciation Cost Cumulative Total	¥26.4 billion	
R&D Expenses Cumulative Total	¥26.5 billion	Proactively promoting R&D, achieving a record high of ¥3.2 billion in the fiscal year ended on March 31, 2023
FCF Cumulative Total	(¥1.0 billion)	The cumulative total is slightly negative reflecting growth investment
Dividend Cumulative Total	¥6.3 billion	Dividends per share have increased 2.3 times over the past 10 years (from ¥35 to ¥80)
Capital Increase	¥3.5 billion	Capital increase through public offering in December 2014
Share Buybacks	¥2.5 billion	Implemented share buy-back for the first time in six years (¥1.5 billion)

Total Shareholder Return for the Past 10 Years

Total shareholder return (TSR) by dividend and stock price is shown in the graph and table below. Over the past 10 years, the annual rate of return has been 7.2%, which is a mid to long-term return that exceeds the shareholder

capital cost (about 6.0-7.0%) that we assume. Unfortunately, from 2020 onwards, stock prices have been in a major adjustment phase.



Note: Share price trends including dividends (closing price data for March 31, 2013 = 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	(28.8%)	(36.8%)	(14.2%)	(48.5%)	(12.4%)	101.2%	7.2%
TOPIX	5.8%	53.4%	15.3%	31.8%	5.7%	142.1%	9.2%
TOPIX Chemicals Index	4.8%	30.4%	9.3%	16.2%	3.1%	184.9%	11.0%

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

Future Financial Strategies/Shareholder Returns

In the medium-term management plan "FELIZ 115," the goal was to maximize total assets to grow sales and achieve a total asset turnover ratio of 1.0 times by the fiscal year ending on March 31, 2025. However, harsher than expected circumstances have put pressure on the profit structure, including economic stagnation due to the spread of the novel coronavirus infection and rising raw material and energy costs triggered by Russia and Ukraine's military conflict, and this resulted a major collapse of the assumptions made when formulating the plan. Therefore, we have a revised our aim to achieve a total asset turnover ratio of 1.0 times in the second phase

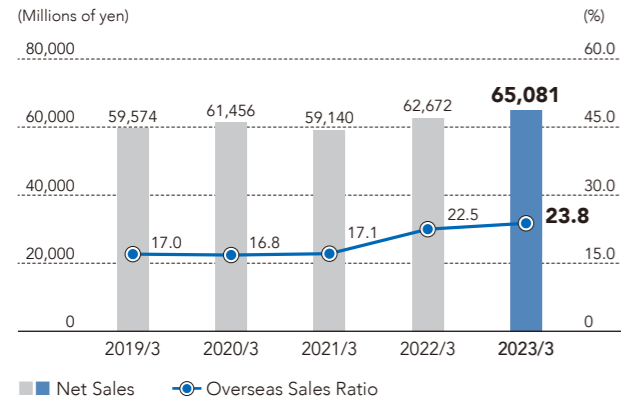
of the next medium-term plan (FY2027 to FY2029.) We will continue to be conscious of the shareholder capital cost and implement financial and capital policies that support the realization of TSR that exceeds that cost.

Regarding dividends, our company's basic policy is to maintain long-term, stable dividends to our shareholders while ensuring consistency with internal reserves necessary for future business development. We will strive to increase our corporate value by actively utilizing internal reserves for investments necessary for future business development that will strengthen our international competitiveness and lead to new growth.

Financial and Nonfinancial Highlights

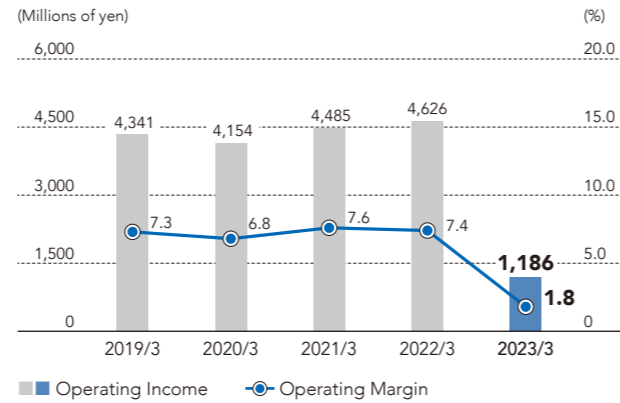
Financial Highlights

Net Sales/Overseas Sales Ratio



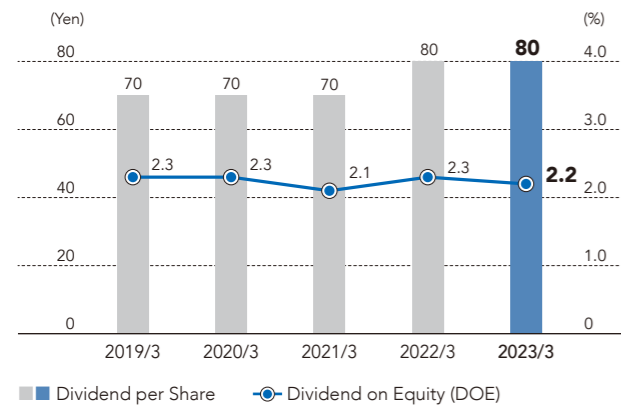
Net sales for the fiscal year ended on March 31, 2023 were ¥65,081 million (up 3.8% year on year) due to significant growth in overseas sales of flame retardants in the Functional Materials segment. The overseas sales ratio was 23.8% (up 1.3 percentage points year on year).

Operating Income/Operating Margin



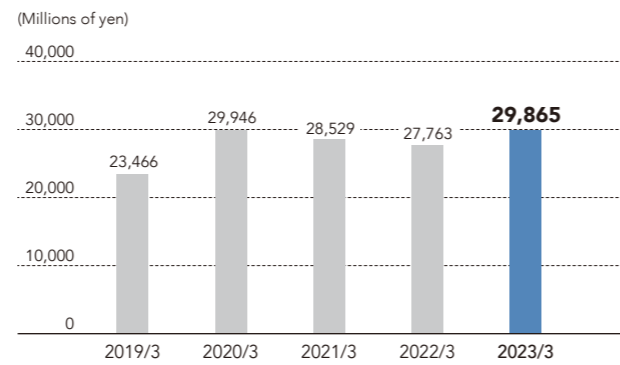
In the fiscal year ended March 31, 2023, operating income decreased mainly in the Surfactants and Functional Materials segments due to increased R&D costs for the future and soaring raw material prices that exceeded the price pass-through. Operating income amounted to ¥1,186 million (down 74.4% year on year.) The operating margin was 1.8% (down 5.6 percentage points year on year.)

Dividend per Share/Dividend on Equity (DOE)



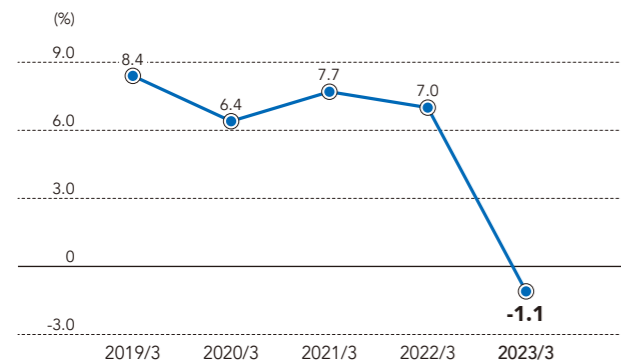
The annual dividend per share was comprehensively set at ¥80 in consideration of the Company's financial conditions, future business development, and enhanced shareholder returns.

Interest-Bearing Debt



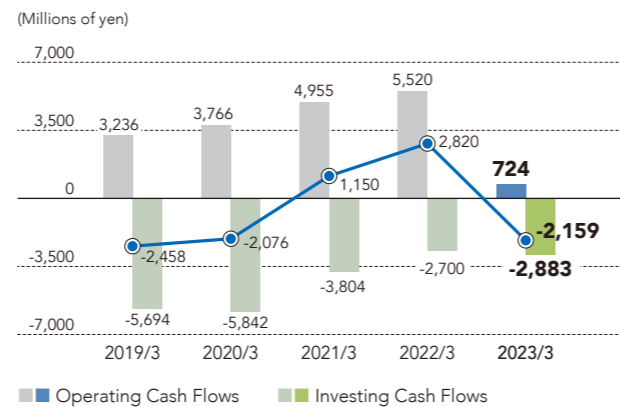
Interest-bearing debt at the end of the fiscal year ended March 31, 2023 increased by ¥2,102 million to ¥29,865 million due to an increase in long-term borrowings.

ROE



ROE fell to minus 1.1% from the previous year. Although net sales increased in response to a decrease in total capital and the total capital turnover ratio rose, ROE decreased from the previous year as the profit margin on sales turned negative due to a decrease in profits.

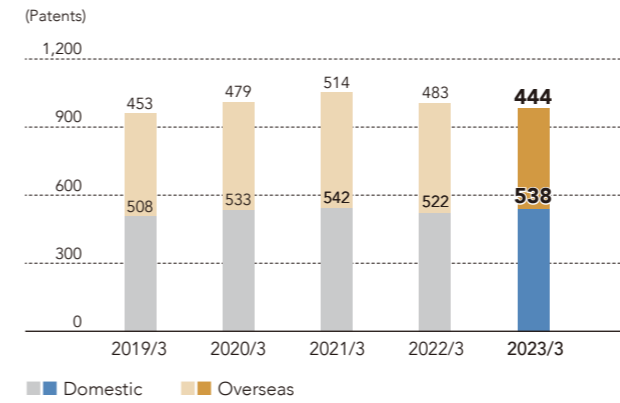
Cash Flows



For more details, see p. 20.

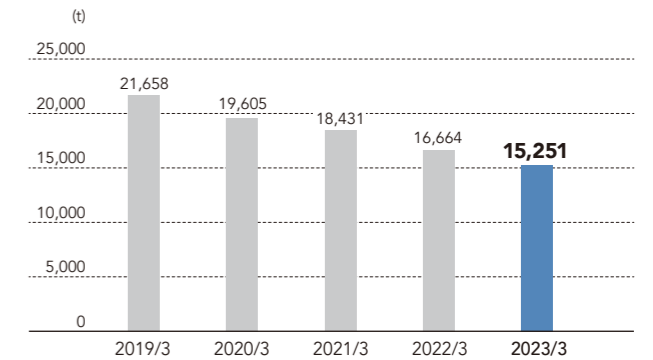
Nonfinancial Highlights (Group/Non-consolidated)

Number of Patents Held (Group)



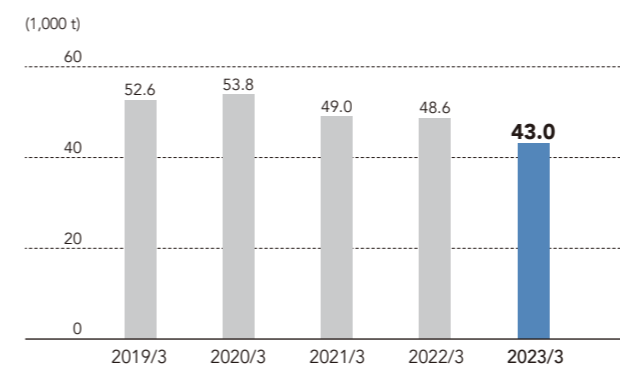
The number of patents held totaled to 982 (a decrease of 23 patents year on year). In consideration of future business development, we are actively promoting the application and acquisition of intellectual property rights based on the results of research and development.

Amount of Waste Generated (Group)



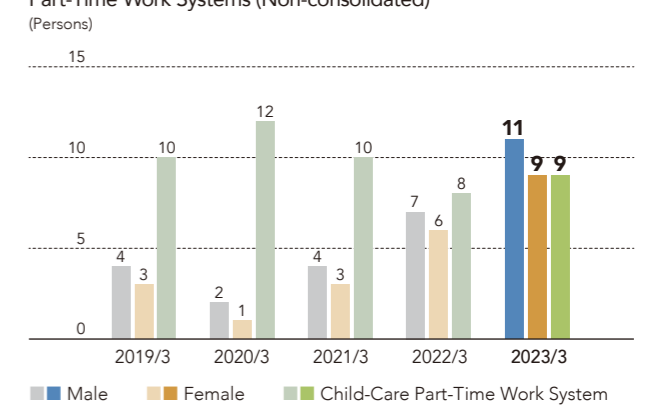
The amount of waste generated was 15,251 tons (down 1,413 tons year on year).

Greenhouse Gas Emissions (Group)



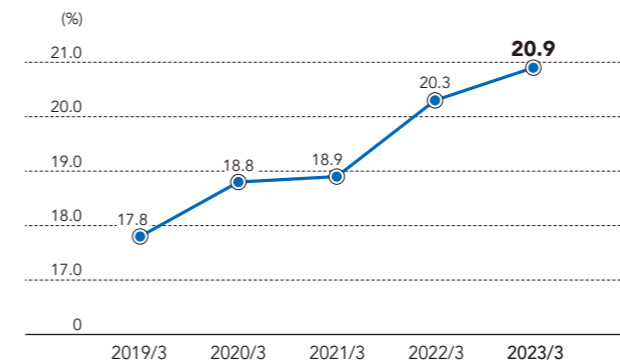
Greenhouse gas emissions totaled 43,000 tons (down 5,600 tons year on year). In order to help prevent global warming, we will continue our efforts such as those for improving our energy efficiency.

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



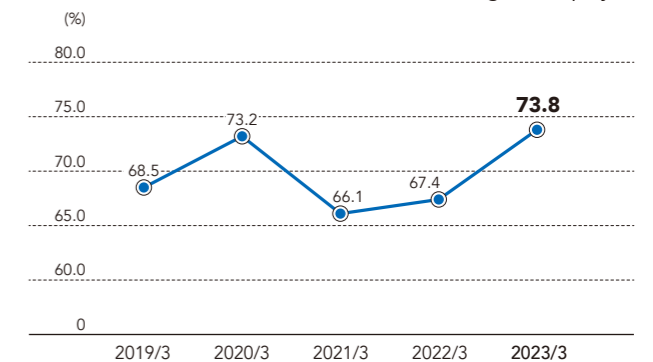
The number of employees using the child-care leave system was 20 (up 7 from the previous year). The number of employees using the child-care part-time work system was 9 (up 1 from the previous year).

Ratio of Female Employees (Non-consolidated)



The ratio of female employees to total employees was 20.9% (up 0.6 percentage points year on year). We will continue to carry out measures aimed at promoting women's active participation and advancement.

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



The percentage of paid leave used was 73.8% (up 6.4 percentage points year on year).

Message from the President



We will work as a unified group to steadily and swiftly implement the measures necessary to achieve a recovery in business performance.

YAMAJI Naoki

President COO

Environmental changes beyond expectations, and revision of the targets of the medium-term management plan “FELIZ 115”

Fiscal 2022 marked the turning point of our medium-term management plan “FELIZ 115,” which began in April 2020, and was also the year I assumed the position of President. The original plan called for the implementation of three basic approaches and seven priority measures under our Uni-Top strategy (providing unique products that do not pursue scale), with plans for business expansion starting in fiscal 2022, the third year of the plan. However, the profit structure on which the execution of the plan was premised was severely disrupted due to unexpected changes in the business environment, including a sharp rise in raw material and energy prices due to the invasion of Ukraine, in addition to the fact that the COVID-19 pandemic that started in the first year of the plan was not yet over.

The fiscal 2022 performance saw an increase in profit due to the significant growth of flame retardants for overseas markets in the Functional Materials business. However, the impact of soaring raw material prices was extremely large, resulting in a significant decrease in profit. The main reasons for the deterioration in earnings were raw material price increases that exceeded what we could pass on in prices, and also a drop in sales volume in focus areas, such as Functional Materials and Electronic Device Materials, especially from the second half of the year. These factors also caused a decline in factory utilization rates and higher labor costs, further impacting profit. To date, we have been able to reflect price increases in about 70% of our products, but we have not been able to reflect increases in energy, logistics, and other

overhead costs, so we will continue to work on correcting prices.

In response to these major changes in the environment, in June 2023, we revised the numerical targets of the Plan and set the net sales target at ¥70 billion and the operating income target at ¥4.5 billion (operating margin of 6.4%) for fiscal year ending March 31, 2025, the final year of the medium-term management plan. At the same time, we also revised the numerical targets for fiscal year ending March 31, 2030, which were estimated at the time this plan was formulated, to ¥100 billion for sales, ¥10 billion for operating income (operating margin of 10.0%), and an asset rotation ratio of 1.0.

For future performance recovery

For performance recovery, we will enhance our competitiveness by first reducing or withdrawing from unprofitable divisions as well as by correcting prices, and replacing low profit margin-products with high value-added products. In addition, we will aim to return the Life Sciences business to profitability as soon as possible, and have set a target of achieving sales of ¥1.5 billion by the end of March, 2025. Also, along with expanding B-to-C sales of existing health food products, we will strengthen B-to-B sales of ingredients by focusing on cognitive function, sleep, and other areas based on accumulated data. Furthermore, we will streamline processes at our production plants in general and reduce costs by reviewing labor and outsourcing expenses

R&D for medium- to long-term growth

To achieve medium- to long-term growth, we will invest aggressively and concentrate our management resources in three promising future markets: electronics and information, environment and energy, and life sciences. Although the global semiconductor market is expected to grow at a negative rate in 2023 compared to the previous year, large semiconductor-related capital investments are already planned in many countries. In addition, the use of energy-saving devices to address environmental issues, the use of IT in automobiles and the shift to electric vehicles (EVs) are increasing, and the semiconductor market is expected to turn to growth in 2024.

We, too, have formulated investment plans to improve existing facilities and build new facilities for semiconductor peripheral cleaners, and are already in the stage of starting

construction. In the environment and energy fields, we are increasing the speed of development to ensure the expansion of technologies that can be put to good use. Radcure resin materials in the Functional Materials segment were promising for use as substrate materials for 5G-related products, but we believe there is a high possibility that materials will change in the future due to the slow spread of 5G and the problem that the communication speed is not as fast as had been expected. In preparation for this, we will keep a close eye on the development of materials, including peripheral applications and horizontal development. In the life science field, we will continue our research and development to promote solutions to social issues by continuing to quantify new useful ingredients and look for high production conditions.

Message from the President

Establishing a Strategy Committee to discuss comprehensive company-wide strategies

Since April 2023, the Strategy Committee has held two meetings a month. Led by the Strategy Headquarters, which serves as a bridge between executive general managers and directors, and forms project teams across the Company. Currently, they are studying and reporting on 13 management issues which include overseas development strategies and human resource strategies. We have long considered overseas expansion to be an issue, but the fact is that it is quite a hurdle for a company of our size to enter the market on its own. First, we are selecting partners and regions, identifying growth areas, and narrowing our focus to technologies and products that will give us an edge over the competition.

Furthermore, with regard to correcting product prices, we used to receive reports from sales staff only on the results,

but we have changed this to a form that requires detailed reports on causes and countermeasures to explain why costs have not been passed on in prices and where the issues lie. This is based on our reconsideration of what we did in 2022: we tried to respond to the ever-rising raw material prices by raising prices on a case-by-case basis, but were unable to fully cover the costs.

In addition, detailed business plans and policies for each segment are also decided at the meetings of the Strategy Committee. Each Headquarter reports to the director when its policy is finalized, and implementation begins as soon as it is approved. By holding strategy meetings, we are building a system to promptly implement necessary measures while deepening cooperation between research, production, sales, and management.

Aiming to transform into an organization that increases development speed and encourages free thinking

DKS is a R&D-oriented company. By establishing research centers for each customer and assigning head researchers suited for each customer, we conduct research and development by setting themes for our inspiring/inspired partners customers and incorporating the expertise of outside specialists as needed. In addition, an Advisory Committee consisting of research and manufacturing experts has been established within the R&D Headquarters to provide monthly progress and status reports. However, currently the speed of development is slow, with less than half of the themes progressing as planned.

What I feel particularly in recent years, whether in research or sales, is that communication with customers in the field is decreasing. The COVID-19 pandemic has of course had an impact, but the same trend has long been observed not only at our Company but also at our customers and distributors, and it seems that the opportunity to meet directly with them and hear their honest comments is itself being lost. I believe that this weakening of interpersonal relationships is also a

factor in our sales staff's inability to flexibly negotiate price revisions as raw material prices continue to skyrocket.

I've also noticed that the younger R&D staff members are diligent in completing assigned tasks, but are less likely to present unconventional ideas. This is due to the fact that, in addition to a strengthening of the sense of vertical divisions in the organization, ideas that do not lead to immediate practical application are often dismissed by superiors, who might say "now is not the time for such research." I believe that organizational and cultural reforms are needed. We are now encouraging our researchers to increase the number of research topics, even having 15% of their research be unconventional research.

Since the R&D division is staffed by many young people, development speed will not increase unless we create a system to motivate and stimulate them through cooperation between sales and R&D. To accelerate R&D while getting new development topics, I plan to implement organizational and personnel system reforms in fiscal 2024.

We are building a system to promptly implement necessary measures while deepening company-wide cooperation.



Strengthening ESG management with an emphasis on addressing environmental issues

Environmental responsiveness on both company and business fronts

In "FELIZ 115," we set SDG/ESG management targets for each of our businesses. Although we have revised the quantitative parts, we are still working to achieve our initiatives. In particular, we recognize that complying with TCFD and preventing global warming are the most important social issues for chemical manufacturers, and we are addressing them both with our own responses and through our business.

In terms of our own environmental response, we have established material issues corresponding to our Priority theme 3: Consideration for the Environment, namely, "Responding to decarbonization and reducing environmental burdens," "Contributing to a recycling-oriented society," and "Appropriate management of chemical substances," and have set KPIs for each with a deadline of fiscal 2030, which we are working to achieve. For our business response, in the Life Sciences business, we are focusing on I. Japonica-Bombyx Fungus, a material that requires mulberry trees and silkworms as raw materials, which can contribute to the shift away from petrochemicals. As a bio-based raw material that can be converted into highly functional materials, we are advancing research with the aim of commercializing it. Petrochemicals currently account for about 80% of our raw materials, but demand for petrochemicals remains strong, and we do not think that demand will be reduced to zero in the future. Although it is difficult due to cost issues, we would like to eventually reduce the percentage to about 60.

In recent years, the components of market value have shifted from tangible to intangible assets, and disclosures related to human capital and respect for human rights have also been promoted by the working group.

Ensuring transparency of governance through an Advisory Board

We have already achieved the goal set forth in our medium-term management plan "FELIZ 115" of having at least one-third of our board members be outside directors, and we appointed one female outside director in 2022. We will continue to promote women's activities by increasing the percentage of women in management positions. We also voluntarily established an Advisory Board in June 2021 as a supplementary body to the Board of Directors. It is composed of four outside directors and two outside Audit & Supervisory Board members, plus two internal directors, namely the chairman and president, so the majority is independent directors. The Board serves as a forum for receiving advice and opinions from the outside directors on matters such as

the selection of successors and officer remuneration, and also functions as a platform for sharing information on management issues. The Advisory Board, chaired by an outside director, meets regularly to ensure transparency in governance.

In addition, every year, all directors and Audit & Supervisory Board members carry out self-evaluations regarding the effectiveness of the Board of Directors. The results are analyzed and evaluated by the outside directors and Audit & Supervisory Board members. In fiscal 2022, the results were judged to be generally appropriate, so we believe that the effectiveness of the Board of Directors is secured.

At the Board of Directors meetings, all of the outside directors are active participants. They look hard at the Company from a wide range of perspectives: research and technology, human resources, labor and human resource development, finance and accounting, IR and corporate value creation, and business operations, and they each provide detailed advice at board meetings from their respective fields of expertise. Some people argue that non-financial KPIs, such as environmental KPIs, should be introduced for executive compensation, but I believe that even if such KPIs are introduced in the future, they should be less than 10%, because management must first and foremost fulfill its management responsibility by achieving numerical results.

Motivating young employees with a balanced evaluation system

We are in the process of formulating a new personnel evaluation system, including the selection of younger employees for management positions and the establishment of an expert course, with the aim of implementing the system from April 2024. We would like to modify the existing seniority and lifetime employment system so that it can be balanced with the evaluation of mainly younger employees. With regard to salaries, we need to set the non-financial and behavioral evaluation portions higher for younger employees, otherwise the overall salary level will be reduced. In particular, since it takes three to four years for research and development to produce results, it is necessary to evaluate the process itself so that there is no sense of unfairness, since the people who were actually involved in the research may have changed departments by the time the research results are evaluated. The younger the employee, the higher the process evaluation, and the image is 50:50 with managers. For managers, we have already implemented an evaluation system based on setting goals, and we are designing a system that allows each individual to consider a career path that suits his or her aptitude, and to realize a variety of work styles.

To Our Stakeholders

Our most important task at the moment is to quickly restore our business performance. The TSE has called for improvements from companies with a P/B ratio below 1, and while we recognize the importance of increasing corporate value, our first priority is to generate stable earnings. In addition, we have identified the markets and technologies we should target for future growth, and we will bring these moves to concrete form.

Market conditions continue to deteriorate, and a rapid recovery is not expected, so we understand that this situation is causing concerns among our shareholders and other stakeholders. The entire group will work together to achieve our goals and restore our business performance while steadily implementing each of the measures set forth in our medium-term management plan "FELIZ 115." We look forward to your continued support.

Research and Development



DKS' technological strength is that we have 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, and technology is an important intellectual capital that supports our management strategies for sustainable growth. We are refining our technologies in pursuit of the concept, "chemistry provides a solution."

- Material Issues**
- Customer-oriented R&D framework aligned with Uni-Top strategies
 - Developing products that contribute to the environment
 - Promoting an intellectual property strategy

The Strengths and Advantages of DKS' 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 this philosophy, we focus on the research and technological development, particularly in high value product sectors such as electronics and information, environment and energy, and life sciences.

We have diverse and wide-ranging technologies, and we have the expertise to know how to combine technologies to create functionality and differentiation, which leads to our uniqueness.

In pursuit of a sustainable society, we are committed to adding value by leveraging our expertise in technology

integration to formulate innovative solutions. These solutions are designed to cater for the specific functions and performance criteria demanded by our customers, all within the framework of our ESG conscious management strategy.



Customer-oriented R&D framework

DKS aims to manage its business by making the most of its technology, which is subject to operational profit management.

The Advisory Committee within the R&D Headquarters is an organization made up of members with expertise in research and manufacturing. Optimal allocation of research resources and shortened R&D timeframes will contribute to generating profit by maximizing ROI from our research and technology development.

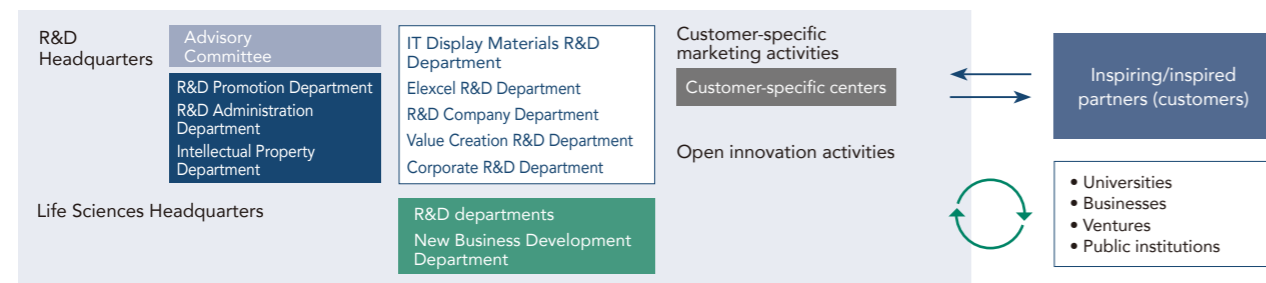
The R&D staff performs their work with a customer-centric focus while fostering partnerships with inspiring/inspired partners. As part of this effort, we have established research centers for each customer. In order to identify needs more quickly and accurately, the centers assign lead researchers to target customers to implement research themes with top priority. Cross-departmental teams are formed as needed, aiming for the shortest schedule while ensuring flexible and efficient team operations.

We are working on research and technology development of high value-added products in the fields of electronics and

information, environment and energy, and life sciences as key areas. We established a new IT Display Materials R&D Department as an organization specializing in the electronics and information fields to strengthen applied technology development together with the Elexcel R&D Department, which develops battery materials in the environment and energy field. The Life Sciences Headquarters will accelerate business development by building a system tailored to B-to-B and B-to-C.

We aim to speed up research and development by holding study sessions both inside and outside the Company that incorporate the knowledge of external experts, such as on the use of fundamental process and analysis technology and data science, thereby introducing technology through open innovation.

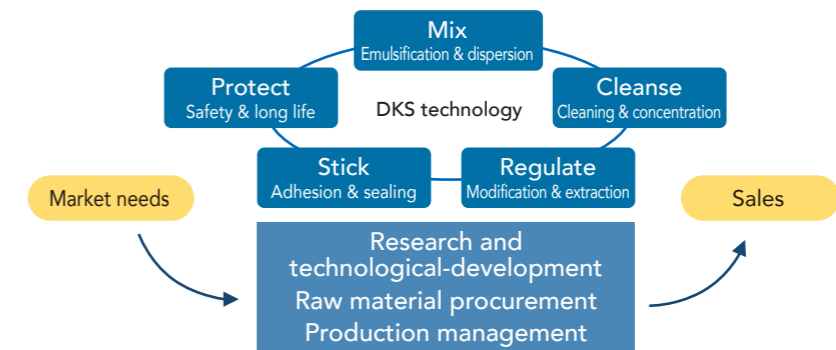
Toward the realization of a sustainable society, we contribute to value creation by continuing to combine technologies, and providing the functions and performance that our customers need based on management strategies that take ESG into consideration.



DKS Proprietary Technologies and Research and Technological-Development Strategy

DKS aims to solve social issues and provide new value to customers by creating new technologies through the hybridization and combination of various technologies, including surfactant and sugar/cellulose derivatization technologies (p.68).

Contribution to a digital society	Contribution to a decarbonized society	Contribution to a sustainable society
Electronics & Information High-speed data communication components (5G, 6G) Displays Semiconductor-related Optoelectronic components Edge devices Sensors	Environmental & Energy Electric Vehicles (EV) Battery components Solar panel components Biomaterials Environmentally-friendly resins Recycling	Life Sciences Health foods, pharmaceuticals & cosmetics Nutrition Food additives Aroma business Sericulture Innovation Upcycling



We are working to provide environmentally-friendly products and develop technologies in order to contribute and provide value to a sustainable society.

Values we deliver	Our product lineup	Technologies
Reducing CO ₂ , promoting green energy	Binder for lithium-ion batteries	Cellulose modification, battery evaluation
	Gel electrolyte polymers	Polymer function designing, battery evaluation
Limiting ozone destruction (global warming)	Conductive paste for solar cells	Organic-inorganic hybridization
Reducing the steps in manufacturing processes (energy-saving)	Solvent alternative cleaning agents	Precision cleaning agents evaluation
Extending the useful life of products	Solvent-free UV-curable materials	UV/EB curing, alkylene oxide addition
Delivering products with low environmental impacts by using renewable raw materials	Sealing materials for circuit boards	Potting, urethanization
	Cellulose nanofiber	Cellulose modification
Delivering highly biodegradable products, solving the problem of plastic waste	Sucrose fatty acid esters	Sucrose esterification
	Polylactic acid (corn derived) resin modifier	Polymer function designing
Limiting health effects, air pollution, and the like by lowering VOCs*	Reactive surfactants for waterborne coatings	Emulsion polymerization, interface / surface control
	Waterborne polyurethane resin	Urethanization, emulsification / dispersion
	Solvent-free UV-curable materials	UV/EB curing, Alkylene oxide addition
Protecting water environment, reducing water pollution	Low aquatic toxicity, easily biodegradable surfactants	Alkylene oxide function designing
	Oil spill treatment agents	Interface / surface control, emulsification / dispersion

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

TOPICS

Waterborne composite adhesive for anodes that extends the service life of high-capacity lithium-ion secondary batteries

ELEXCEL CR series



When silicon-based materials are used, lithium-ion secondary batteries degrade during charging and discharging. To solve this problem, we combined our interface control and dispersion technologies with battery manufacturing and evaluation technologies. The addition of silicon-based materials results in a negative electrode capacity of more than double and stabilizes the electrode structure even after more than 1,000 charge-discharge cycles, extending the service life of high-capacity batteries.

Phosphorus flame retardants advantageous for low-dielectric resins (telecom infrastructure and millimeter wave radar)

PQ-60



Conventional halogen flame retardants have come to be widely used for low-dielectric resins, but against the backdrop of environmental regulations, there is a strong need for non-halogen flame retardants. By combining our flame retardant and application evaluation technologies, we provide flame retardants that achieve high phosphorus content with low polarity, as well as low thermal expansion.

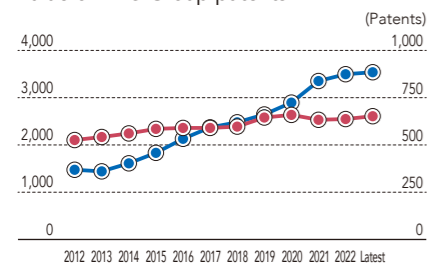
Research and Development

DKS' Intellectual Property Strategy

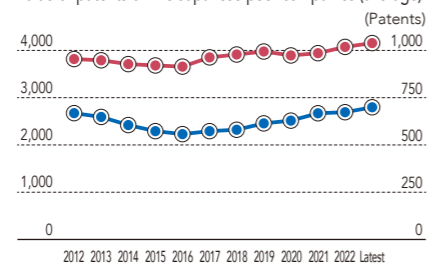
Based on the evaluation using the Patent Score provided by Patent Result Co., Ltd., it is evident that the value of the DKS Group's patents is steadily on the rise, signifying the enhancement of our technological assets. Furthermore, in contrast to other companies in our industry, we manage a

more streamlined collection of patents characterized by greater inherent worth. This strategic approach enables us to further advance our Uni-Top technology, aligning it with our customer-centric approach to drive technological competence and profitability.

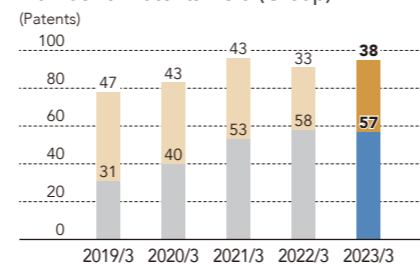
Value of DKS Group patents



Value of patents of five Japanese peer companies (average)



Number of Patents Held (Group)

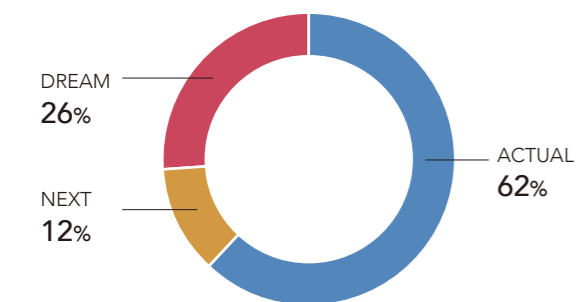


DKS Group: Rights holder score (left axis)
DKS Group: No. of active patents (right axis)

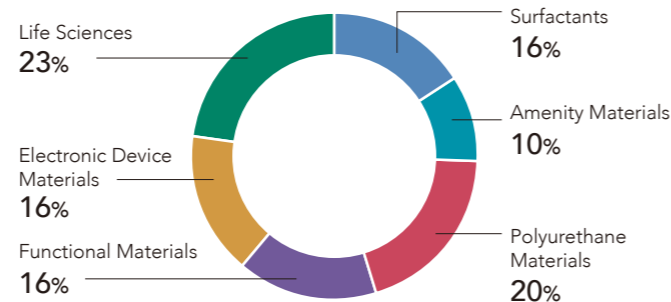
Domestic industry peers (five-company average): Rights holder score (left axis)
Domestic industry peers (five-company average): No. of active patents (right axis)

* Five domestic industry peers: Five major companies belonging to Japan Surfactant Industry Association
* Created by BizCruncher® (Patent Result Co., Ltd.)

Number of patents held by portfolio



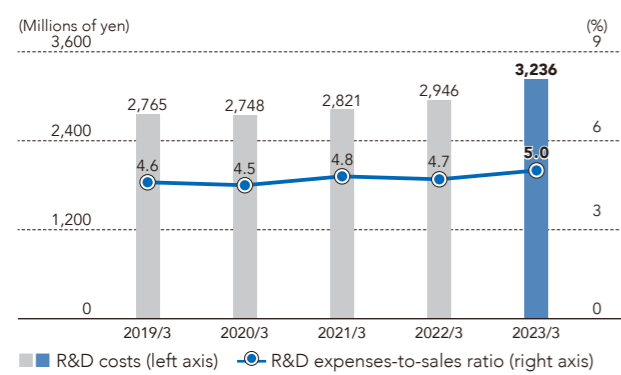
Number of domestic patent applications (last five years)



R&D Investments

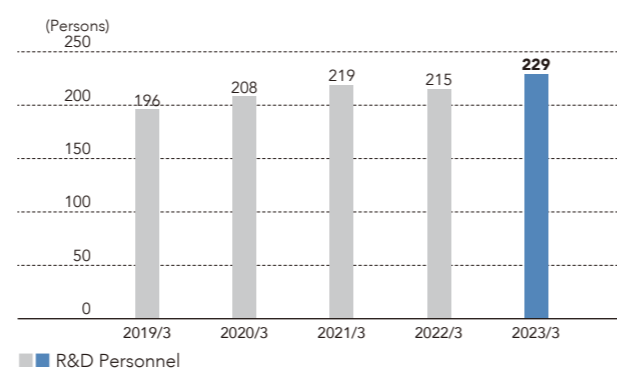
Under our medium-term management plan "FELIZ 115," which targets an R&D expenses-to-sales ratio of 5.0%, we will engage in R&D spending focused on key projects.

R&D Costs



For fiscal 2022, the result was the targeted 5.0%.

Research Personnel



The increase in R&D personnel in fiscal 2022 is due to an increase in the number of employees to accelerate the company's R&D.

Sustainability Efforts

In recent years, our emphasis in R&D has been on sustainability efforts, and having established key themes, our continued focus has been on the development of new products and processes to achieve the goals of our medium-term plan. Sustainability is an area of specialty for DKS. In the handling of intermediate chemicals, our proactive approach will contribute to sustainability in a wide range of industries.

As a result of analyzing the patents held by the DKS Group using the LexisNexis® PatentSight®¹, an externally-provided patent analysis tool, more than half were found to be related to SDGs². They were also found to be of

high technical value. We will continue to monitor the relationship between R&D activities and the SDGs through analysis using this tool.

DKS Group patents are characterized by their high contribution to SDGs 9, 12, and 13. This is made possible by our advanced technological capabilities, particularly in battery technology. We also hold many SDG-related technologies and have equal or superior technical capabilities with regards to the SDGs compared to our peers.

1. Provided by PatentSight Japan, LexisNexis Japan
2. Sustainable Development Goals adopted at the UN Summit in 2015

1) Energy conservation and decarbonization in manufacturing processes

- Improved product yield and waste reduction
- New process development
- Recycling rework/reuse (including customer collaboration)

2) Expanded use of renewable raw materials

- Waterborne polyurethane / functional polyurethane
- Surfactants
- Further use of cellulose and polysaccharide derivatives
- Food waste upcycling (collaborative theme)

3) Expansion of sugar derivative products for industrial use and their applications

- Sucrose ester derivatives
- Sugar derivatives from woody biomass

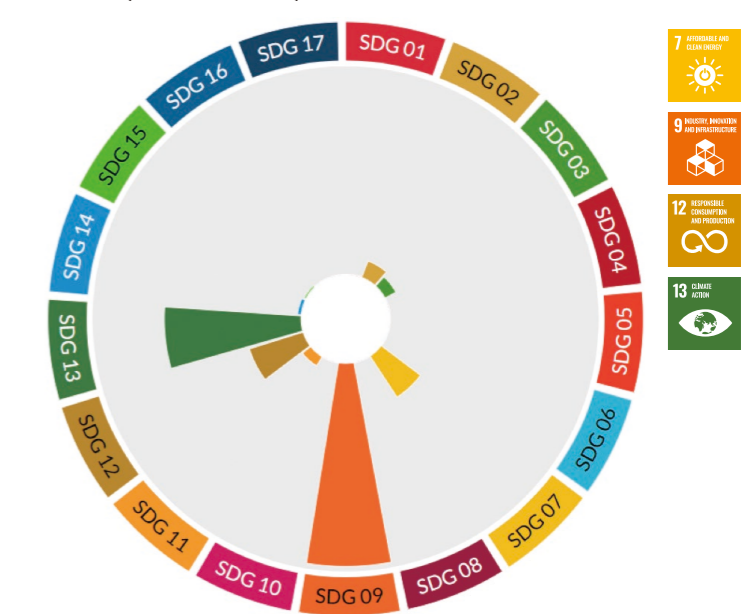
4) Expansion of additives for bioplastics

- Polylactic acid modifier, flame retardant, etc.
- Longer service life, improved physical properties

5) Natural extracts and high concentration technology

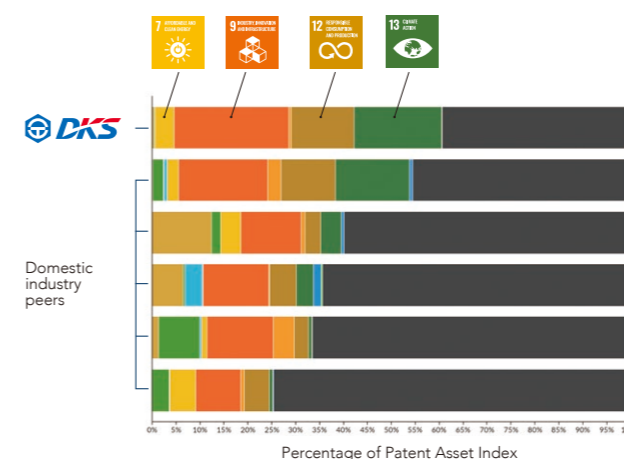
- Biococoon Laboratories, Inc. "I. Japonica-Bombyx Fungus"
- Ikeda Yakusou Co., Ltd. "Sudachin"

DKS Group's SDGs-related patents

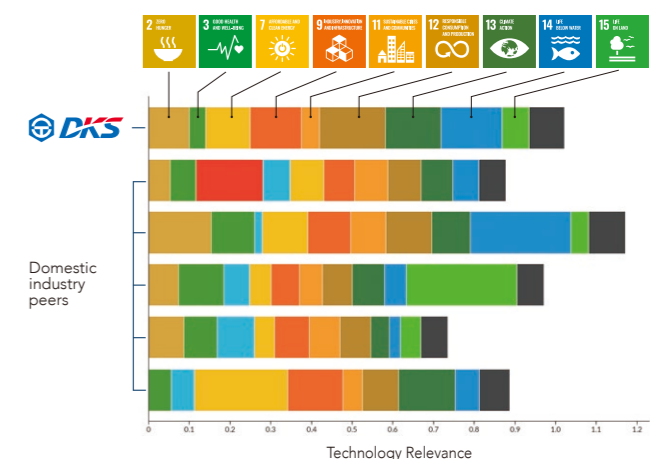


Sector: UN SDG (ID) Sector size: No. of patent families

Percentage of SDG-Related Patents



Technical Value of SDG-Related Patents



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.

Material issues

- Diversity
- Boosting human resource capabilities
- Health and Productivity Management initiatives
- Earnings power

Initiatives to Enhance Human Capital

Strategic Personnel Allocation

We are working on the appropriate allocation of personnel as a measure to utilize our human capital fully. We have launched a project to look into the optimal allocation of personnel at each site, business division, and segment and will work on optimization accordingly.

Results-oriented Personnel Evaluation System

In fiscal 2023, we fully introduced a goal management system for employees at or below manager level section. Goal management is set in a top-down manner, and one-on-one interviews are conducted to deepen mutual

understanding of the goal. In addition, in fiscal 2024, we plan to revise our overall personnel system, including performance evaluation, education, and training. Through this system revision, we are also reviewing the compensation structure to better reward employee contributions.

Target Setting for Human Capital Disclosure Items

This fiscal year, we will set medium- to long-term targets for the figures disclosed in this DKS Report to establish an effective action plan. In addition, if we identify indicators that can energize human capital, we will incorporate them flexibly as we strive for enhanced disclosure.

Promoting Diversity, Human Resource Development and Education

Human Resource Development and Education

Our Company develops human resources who can contribute to our business and customers. The three pillars of our human resource development and education programs are in-house on-the-job training, off-site education to learn technical skills and abilities, and support for self-improvement.

In recent years, we have conducted a fundamental review of the training of new employees and have implemented new methods with a view to making them ready to work immediately after joining the Company. This fiscal year, we plan to energize existing employees by providing them with voluntary business contribution training. Going forward, we will set to work on a two-pronged revamping of our education system consisting of a standardized education system and selective education system.

In addition, we continue to work on company-wide digital transformation (DX) for corporate reform that will revolutionize the way we conduct our business and operations, and we are developing human resources through our "DX Human Resource Development Program" to accelerate DX throughout the Company. By fiscal 2022, approximately 60% of our employees have received DX human resource development training. This has contributed to improving in-house technical skills, including an increase in the number of employees with E-Certification.

Annual hours of attendance in educational programs at hierarchical training courses (FY2022 Results)

	Number of attendees	Hours of attendance
Courses for employees in managerial positions	11 attendees	207 hours
Courses for employees in non-managerial positions	32 attendees	480 hours

Initiatives to Promote Diversity

Having set up an Employee Participation and Advancement Promotion Committee chaired by the top management, we are aiming to become 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, and enable them to take an active part in our Company.

Promotion of Women's Participation and Advancement
In addition to work friendly environments that allow female employees to remain at work for many years, we are maintaining employment environments that enable women to develop their careers.

We have implemented measures aimed at having 10.0% or more of managerial positions occupied by female employees. As of March 31, 2023, this figure was 11.7%.

Since fiscal 2019, we have created an environment conducive to the active participation of women at our manufacturing sites, and female employees are taking advantage of their diverse skills in various workplaces in the manufacturing sites, such as the administrative departments, Quality Control Section, and Production Section.

Gender Pay Gap

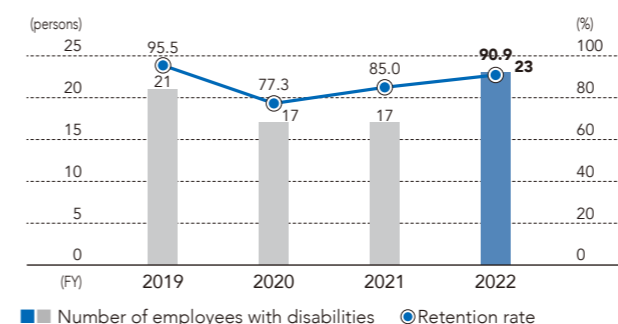
As of fiscal 2023, we have publicly announced the gender pay gap. The results are 79.3% for regular workers, 87.4% for non-regular workers, and 78.7% for all workers.

	Women	Men	Pay gap
Regular workers	6,188,104	7,808,053	79.3
Non-regular workers	2,897,330	3,315,058	87.4
All workers	5,842,776	7,419,982	78.7

Employment of People with Disabilities

DKS has been working to assign people with disabilities to workplaces that leverage their individual personalities and strengths, and they are currently working as valuable assets in various departments, such as our Personnel Department, General Affairs & Legal Department, and Digital Strategy Department. In February 2022, the DKS Challenge Center was created as a specialized task force for the employment of people with disabilities. We are working to ensure smoother collaboration by sharing the information and expertise from each business site and centralizing operations. In September of the same year, we received recognition from Kyoto prefecture for actively employing individuals with disabilities, this certification is known as "Kyoto Disability Employment Promotion Company" (commonly referred to as "Kyoto Heartful Company"), and our efforts have been well-received and acknowledged.

Number of employees with disabilities and their retention rate



Retiree Reemployment System

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

Senior Challenge Staff Employment

FY	Number of retirees	Number of reemployments	Reemployment rate
2020	15	10	66.7%
2021	8	6	75.0%
2022	9	8	88.9%

Promote Work-Style Reform

To support the balance between work and home life, we introduced a telecommuting system in fiscal 2019 and a flextime system in fiscal 2020. DKS is always aiming to improve the work-life balance of our employees.

Total overtime hours for fiscal 2022 were 124.9 hours per employee. As one of the priority measures of "FELIZ 115," we are also working to reform the personnel system to transform our corporate culture to one that reliably rewards those who contribute to the business.

FY	Annual Overtime Hours	Telecommuting Rate (Utilization Rate of Telecommuting System)*	Rate of Annual Paid Leaves Actually Taken
2020	147.9 hours per person	14.8% (59.7%)	66.1%
2021	151.1 hours per person	14.0% (62.9%)	67.4%
2022	124.9 hours per person	11.8% (62.7%)	73.8%

* Telecommuting Rate = total telecommuting days ÷ total work days × total telecommuting workers × 100
Utilization Rate of Telecommuting System = system users ÷ total employees × 100

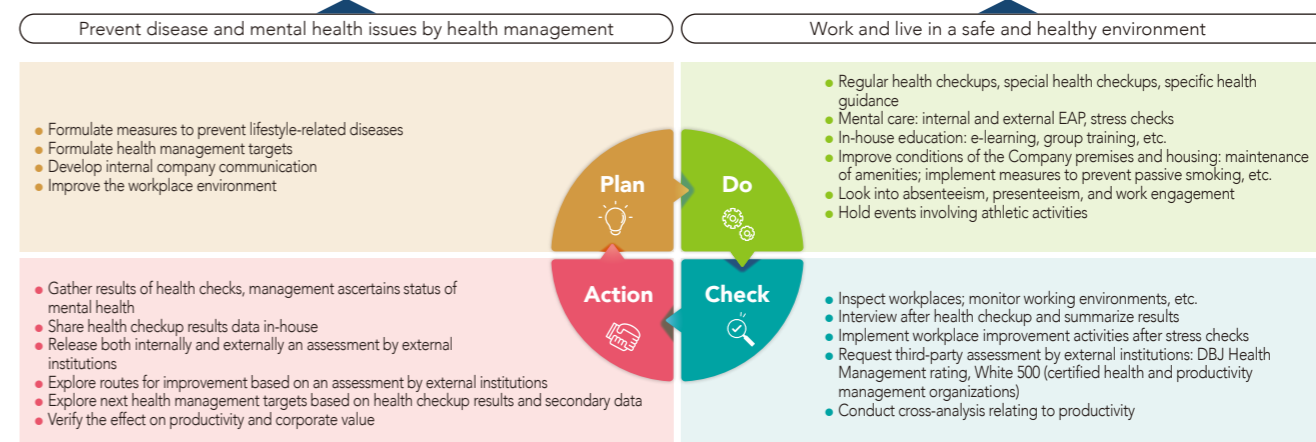
Health and Productivity Management

DKS has a proactive corporate culture toward employee health management, as evidenced by the fact that in 1919, the year after its founding, DKS began implementing health checkups on all employees. Underlying this is our corporate philosophy that people are our assets and must be nurtured and treasured. In 2017, DKS announced its

Healthy Company Declaration and began Health and Productivity Management initiatives. One of the goals of our medium-term management plan "FELIZ 115" is the improvement of employee happiness, and we are working to maintain and improve the health of our employees, which is essential to achieving this goal.

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

YAMAJI Naoki, President COO, DKS Co. Ltd.



Human Resource Management

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. Health and Productivity Management ("Kenko Keiei") is a registered trademark of the NPO Kenko Keiei.

This initiative is reported to meetings attended by officers in charge to obtain approval for plans formulated based on these results.

Efforts in Health and Productivity Management

We believe that efforts to maintain and improve the health of our employees will enhance our corporate value in the future. From a managerial perspective, DKS is striving to maintain and improve the health of its employees under its Healthy Company Declaration. We have clearly stated specific healthy actions for employees in our Employee Healthy Action Guidelines, and have established a Health and Productivity Management Promotion Committee to promote health across the Company.

Efforts to Establish Exercise Habits

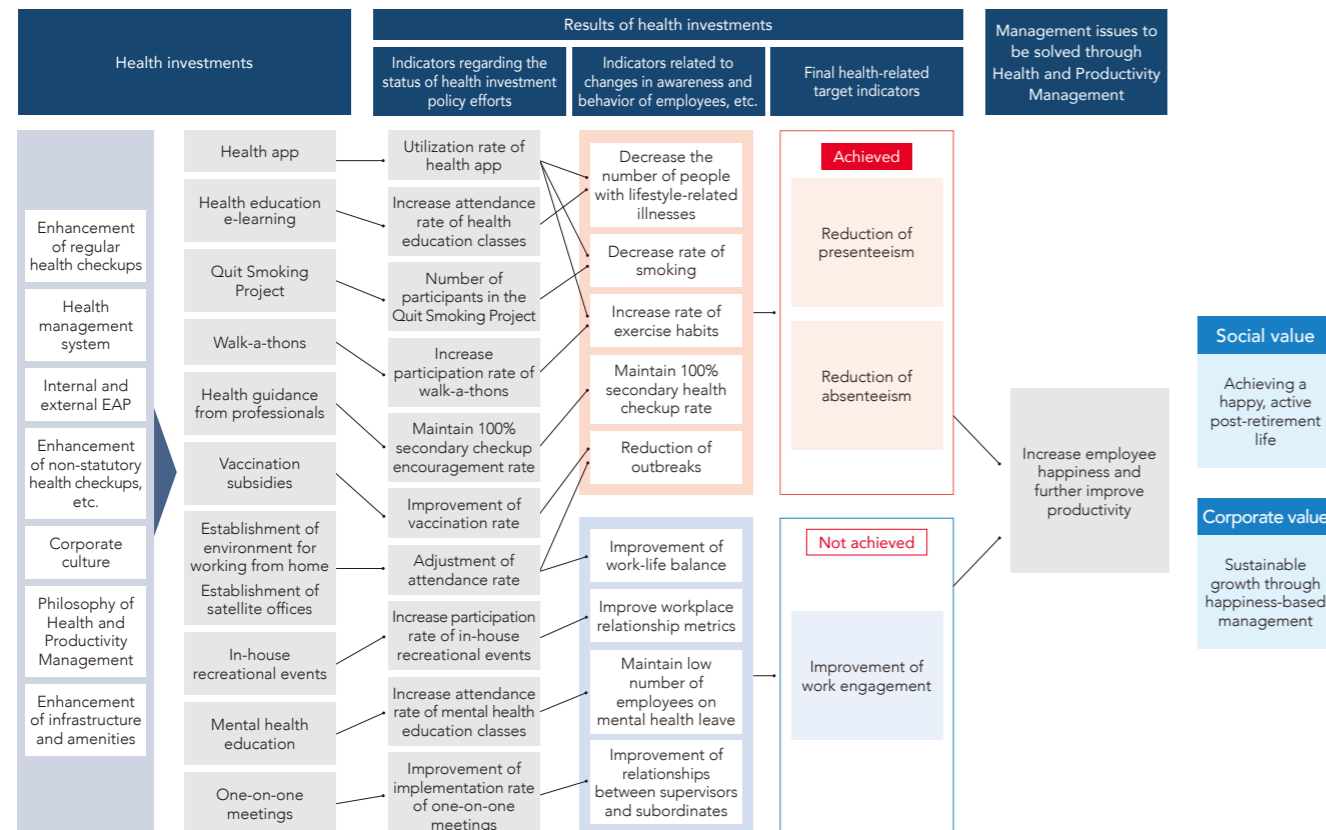
We are working to establish exercise habits by using an app that registers the number of steps taken on a daily basis. We hold company-wide walk-a-thons regularly and motivate employees by establishing rankings for each individual and department. In addition, we have implemented a system to increase physical activity during the workday, which includes radio calisthenics before work

and DKS Calisthenics (a DKS original) at 3:00 p.m., as a preventive measure against illness. As part of efforts to improve not only exercise habits but also eating habits, we encourage the use of health guidance to employees who meet the criteria for metabolic syndrome or pre-metabolic syndrome and provide support to help them make improvements (measures to prevent serious illnesses among those at high risk). In addition, we hold physical fitness seminars for older employees to help them create an environment in which they can continue to exercise. As a result of these efforts, the percentage of employees aged 40 and over with exercising habits increased from 13.6% in fiscal 2016 to 24.3% in fiscal 2022.



Practicing DKS Calisthenics

Strategy Map



DKS Trim Waist Award

After distributing DKS original measuring tape to all employees and educating them about abdominal circumference, we have employees self-report changes in their abdominal measurements over time and give out Trim Waist Awards. In addition to DKS Calisthenics, which incorporates movements focused on reducing belly fat, we also support walk-a-thons, No Snacking Day, and Teetotal Day to raise awareness of the need to reduce abdominal circumference.

Enjoy Eating Project

Our cafeterias are free for our employees and offer a well-balanced healthy menu. We also provide nutritional guidance through a health app. By taking photos of meals and registering them in the app, employees can receive nutritional guidance from the AI. Points are awarded for each meal registered, which can be redeemed for

health-related products. The app usage rate for the fiscal 2022 was 81.8%, and is being used to support employee health management.

Mental Health Measures

As a mental health measure, DKS has introduced an external Employee Assistance Program (EAP), which provides employees with counseling for their concerns via e-mail, video call, telephone, and in-person sessions. Around-the-clock counseling is available to employees and their relatives up to the second degree of kinship. In fiscal 2022, EAP services were used in 179 cases.

In addition, the participation rate of employees in hierarchical mental health training, which is conducted at milestones such as promotions, was 100%, and the participation rate of mental health education for all employees was 84.9% (both fiscal 2022 results).

Health and Productivity Management Targets

Status of three targets (KPIs and results) for sustainable corporate growth through the implementation of happiness-based management

	Targets for FY2024	FY2019	FY2020	FY2021	FY2022
Reduction of absenteeism ¹	Maintain at 2.0% or below	1.6%	0.8%	0.9%	1.0%
Reduction of presenteeism ²	Maintain at 2.0% or below	2.5%	1.3%	1.0%	1.2%
Improvement of work engagement ³	Achieve a normal distribution T-score of 51 or more	49.8	50.8	50.9	50.8

1. 2. For measurements, we aggregate data in our labor management system.

3. We use the work engagement measurement values included in the stress check service offered by Advantage Risk Management Co., Ltd. Please see the glossary p.72-73 for details on terminology

Health Management Targets

Status of four targets (KPIs and results) regarding employee health issues

	Targets for FY2024	FY2019	FY2020	FY2021	FY2022
Prevention of health issues among healthy employees: Percentage of employees who exceeded abdominal girth standards	25.0%	30.7%	31.6%	29.2%	28.8%
Prevention of aggravation among high-risk employees: Percentage of employees 40 years or older at risk for or experiencing metabolic syndrome	22.0%	26.6%	28.9%	24.7%	27.0%
Prevention and early detection of employee mental health issues: Ratio of leave taken by employees with mental health issues	Maintain at 0.20% or below	0.16%	0.00%	0.15%	0.45%
Creation of environment leading to quitting smoking: Percentage of employees who smoke	11.4%	21.5%	20.1%	20.5%	19.2%

Third-Party Review of Health and Productivity Management

In recognition of its efforts, DKS was selected for the fourth consecutive year as a "Health & Productivity Stock." Also, our affiliate Yokkaichi Chemical Co., Ltd. was certified for the third consecutive year as a "Corporation with Excellent Health Management."

Efforts in Health and Productivity Management (In Japanese only)

<https://www.dks-web.co.jp/sustainability/employee/health/index.html>

Yokkaichi Chemical's Efforts in Health and Productivity Management (In Japanese only)

<https://yg-chem.co.jp/company/health-management/>



Consideration for the Environment



The Company states its environmental and safety philosophy as “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,” and promotes responsible care activities.

For details on the responsible care activities and promotion system, see our website (in Japanese only). ▶ <https://www.dks-web.co.jp/sustainability/ecology/>

Material issues

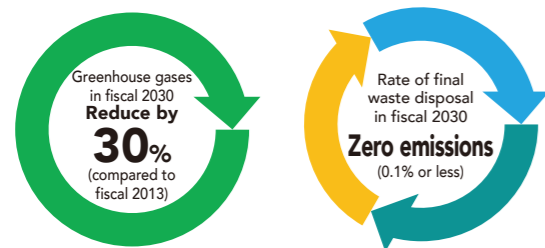
- Responding to decarbonization and reducing environmental burdens
- Contributing to a recycling-oriented society
- Appropriate management of chemical substances

Environmental Conservation Efforts

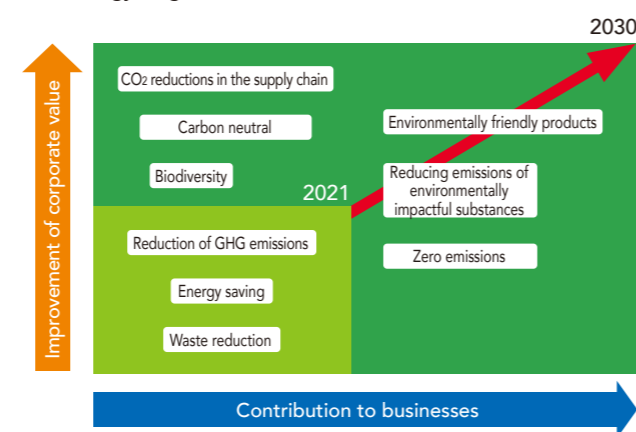
Long-Term Environmental Vision

To protect lifestyles and increase safety and comfort, DKS contributes to the realization of a sustainable society through our belief that “chemistry provides a solution.”

As we look to achieve carbon neutrality by the year 2050, we will reduce the Scope 1 and Scope 2 greenhouse gas emissions of the entire DKS Group in Japan by 30% by fiscal 2030, compared to fiscal 2013. In regard to the rate of final waste disposal, we will aim for zero emissions (0.1% or less) over the entire DKS Group in Japan by fiscal 2030.



GX Strategy Targets



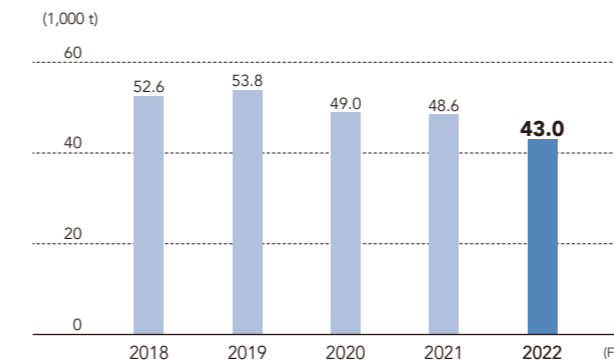
current conditions, recovered steam condensate, integrated equipment, and optimized operating hours. We also introduced energy-saving equipment such as LED lighting and high-efficiency steam traps. As for waste, we are systematically advancing efforts to recycle sludge produced at wastewater treatment plants and working to reduce the final disposal rate.

Progress with Environmental Targets

For our GX strategy targets (fiscal 2030), we set numeric targets based on the long-term environmental vision. For our medium-term environmental targets (fiscal 2024), we reviewed the progress of our GX strategy in May 2022. We significantly surpassed the targets set for greenhouse gas emissions and waste generation per unit within our GX strategy. While we have not achieved the target final waste disposal rate yet, we see yearly improvements.

Changes in Greenhouse Gas Emissions

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

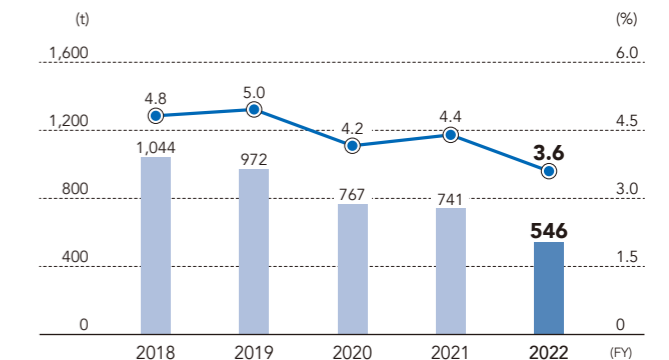


Notes:

1. Administrative departments include fuel for company-owned vehicles.
2. Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Daiichi Ceramo Co., Ltd., as well as Ikeda Yakusou Co., Ltd. as of FY2019 and Biococoon Laboratories, Inc. as of FY2020.

Changes in Final Disposal Amount and Final Disposal Rate

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



Notes:

1. The final disposal rate is the ratio of the final disposal amount to the total amount generated.
2. Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Daiichi Ceramo Co., Ltd., and Ikeda Yakusou Co., Ltd. as of FY2019.

Environmental Targets and Fiscal 2021 Results

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

Target parameter	Reference years	FY2022 targets	Medium-term environmental targets (FY2024)	GX strategy targets (FY2030)	Target scope	FY2022 results	Evaluation
Greenhouse gas emissions ¹	FY2013	6% reduction	12% reduction	30% reduction	Group	17.1% reduction	A
Energy consumption per unit ² <small>*Based on the standards of the Act on the Rational Use of Energy</small>	FY2020	2% reduction	4% reduction	10% reduction	Individual	5.1% reduction	B
					Group	5.2% reduction	B
Generated waste amount per unit ² <small>*To amount produced</small>	FY2020	2% reduction	4% reduction	10% reduction	Group	15.5% reduction	A
Rate of final waste disposal ³	-	0.1% or less	0.1% or less	0.1% or less	Individual	0.2%	C
		2.8% or less	0.5% or less	0.1% or less	Group	3.6%	D

Target parameter	Management items	FY2022 targets	FY2022 results	Evaluation	FY2023 targets
Reduction of environmental impact substance emissions	SOx emissions	Reduce emissions of environmental pollutants into the air	Down 47.4% YoY	A	Reduce emissions of environmental pollutants in the air
	NOx emissions		Down 80.5% YoY	A	
	Dust emissions		Up 17.3% YoY	C	
	Water discharge	Reduce emissions of environmental pollutants into water	Up 5.8% YoY	C	
	COD emissions		Up 30.3% YoY	D	
Proper management of chemical substances	PRTR Regulation -designated substances emissions	Reduce emissions of PRTR Regulation-designated substances	Up 41.7% YoY	D	Reduce emissions of PRTR Regulation-designated substances
Promotion of green procurement		Improve green procurement ratio for paper and stationery	70.2% (improved by 2.0 percentage points YoY)	B	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

Notes:

1. Derived from energy use in the production and administrative departments
 2. Based on the calculation method from the periodical report stipulated by the Act on the Rational Use of Energy
 3. The ratio of the final disposal amount to the generated waste amount
- ▶ Please see environmental data (p. 81–82) for details on energy, waste products, environmental impact substances, and chemicals subject to the PRTR regulation.

TOPIC

DKS has strengthened its efforts to combat climate change, including formulating a GX strategy in March 2021, establishing a Sustainability Committee in January 2022, and endorsing the TCFD recommendations in March 2022. Additionally, we have been disclosing environment-related information based on the TCFD recommendations, including announcing greenhouse gas reduction targets in May 2022 and analyzing climate change scenarios. We have been rated to a certain level by environmental rating agencies, and received the highest rating in the Development Bank of Japan (DBJ)'s Environmentally Rated Loan Program 2022. Going forward, we will continue to promote environmental management throughout the Company based on our basic philosophy regarding the environment and safety.



DKS received a rating in March 2023 from the Development Bank of Japan (DBJ) as part of the DBJ Environmentally Rated Loan Program with DKS judged to be a “company with excellent advanced environmental initiatives.”

Initiatives to Tackle Climate Change

In March 2022, DKS pledged its commitment to the Task Force on Climate Related Financial Disclosures (TCFD), based on a recognition of how important the risks and opportunities of climate change are to our business. We will promote the disclosure of information regarding the impact that climate change has on the business activities of the Company, and aim to achieve a sustainable society by striving to realize a decarbonized society throughout the entire supply chain.



Material issue
 • Responding to decarbonization and reducing environmental impact

For details on the disclosure of information related to climate change, see our company website
<https://www.dks-web.co.jp/english/sustainability/ecology/climate-change/>



1 Governance

DKS has established the Sustainability Committee, comprised of members of the Management Committee, with sustainability-related committees and meetings falling under its remit. The Sustainability Committee decides on policies, deliberates on matters to be discussed, makes decisions, and confirms the status of company activities. It also considers and promotes initiatives together with the Climate Change Working Group, the Human Capital Management Working Group, and the Human Rights Working Group which all come under the Committee. Findings and progress reports are made to the Board of Directors at least once a year with strategies, targets, and plans reviewed accordingly.

2 Strategy

Because the impact of climate change is highly likely to become apparent in the medium to long term, we are working on deepening our understanding of the major risks and opportunities related to climate change, which are expected to financially impact our business in the medium- to long-term. In regard to the evaluation of climate change risks and opportunities, we refer to the climate change scenarios of the International Energy Agency (IEA) and Intergovernmental Panel on Climate Change (IPCC) to identify the risks and opportunities that will affect our entire business. While improving our understanding of the expected risks and opportunities from a medium- to long-term perspective, we will plan and execute strategies across a timeline.

3 Risk Management

In regard to overall risk management at DKS, we systematically promote activities by periodically holding Risk Management Control Committee meetings attended by representatives of subsidiaries and each department, and headed by the executive officer in charge of risk management.

4 Indices and Targets

We have defined our long-term goals, including consolidated net sales of ¥100 billion and the reduction of greenhouse gas emissions, in a new management plan for the year 2030, called "SMART 2030 (tentative title)." The process for achieving our long-term goals involves creating a medium-term environmental plan for the years up to fiscal 2024 based on the "FELIZ 115" medium-term management plan, and working to save energy, reduce greenhouse gas emissions, and reduce waste. We have also formulated long-term green transformation (GX) strategies that aim to achieve carbon neutrality by the year 2050, and are promoting efforts for decarbonization. Yokkaichi Chemical has switched to carbon-free electricity at its Rokuromi Plant from June 2022. Chin Yee Chemical Industries in Taiwan installed 1,328 solar panels at its Guanyin Plant and began generating electricity at the end of 2022. In addition to conserving energy, we will expand the use of renewable energy and reduce greenhouse gas emissions.

Target
 Reducing the Scope 1 and Scope 2 greenhouse gas emissions of the entire DKS Group in Japan by 30% by fiscal 2030, compared to fiscal 2013

GHG emissions (Scope 1-3)
(DKS non-consolidated)

Scope / Category		FY2022 emissions (1,000 t-CO ₂ e)
Scope 1		15.3
Scope 2		12.0
Scope 3		200.7
Category 1	Purchased Goods and Services	173.3
Category 2	Capital Goods	4.7
Category 3	Fuel- and Energy-Related Activities Not Included in Scope 1 or Scope 2	12.0
Category 4	Upstream Transportation and Distribution	5.7
Category 5	Waste Generated in Operations	4.8
Category 6	Business Travel	0.1
Category 7	Employee Commuting	0.2

Scope 1 to Scope 3 emissions were calculated for DKS on a non-consolidated basis (Scope 3 is calculated for Categories 1 to 7). Of these, Scope 3 emissions accounted for the largest share at 88%, and within that Category 1 (purchased goods and services) emissions accounted for 86% of Scope 3 emissions. Going forward, we will continue to promote efforts to reduce Scope 3 emissions with a focus on Category 1 emissions.

Scenario Analysis

Impact Evaluation Based on Scenario Analysis

To assess the impact of climate change risks and opportunities on our business activities and strengthen the resilience of our business strategies toward these impacts, we conduct scenario analysis in line with the TCFD recommendations. In reference to climate change scenarios published by the IEA, IPCC and other organizations, we use a less than 1.5°C/2°C scenario for transition risks, which presupposes tighter measures such as carbon pricing, and a 4°C scenario for physical risks, which presupposes more severe disasters. In assessing the impact these scenarios would have on our business, we evaluate and rank in order

of priority the degree of impact on our business and finances and their degree of urgency for when the impact becomes apparent. As a result of the scenario analysis, we found that there would be significant impact from policy risks such as the introduction of carbon pricing, especially a significant impact from higher prices passed on to raw materials with the introduction of a carbon tax. Meanwhile, the impact on factories due to the increasing severity of disasters as a physical risk is expected to increase over the medium to long term. In preparation for the transition to a decarbonized society, we will continue to conduct scenario analysis and respond appropriately to risks and opportunities.

Classification	Risk / Opportunity	Urgency Level	Impact Level	Impact on Business	DKS Countermeasures
Transition	Increasing environmental awareness (changes in demand)	Medium Term	Medium	<ul style="list-style-type: none"> Increase in demand for products with low environmental impact Decrease in demand for petrochemical-derived products 	<ul style="list-style-type: none"> Development and wider sales of eco-friendly products Move to non-petrochemical derived and renewable raw materials Expansion of life science business centered on natural materials
Transition	Introduction of carbon pricing	Short Term	Medium	<ul style="list-style-type: none"> Greater tax burden due to introduction of carbon tax Increase in costs due to emissions trading 	<ul style="list-style-type: none"> Reductions based on GHG emissions plan Securing and utilizing appropriate credit Operation of internal carbon pricing
Transition	Development of energy saving technology	Long Term	Medium	<ul style="list-style-type: none"> Less energy consumption with introduction of new technologies Lower power generation costs with more widespread use of renewable energy 	<ul style="list-style-type: none"> Planned introduction of energy-saving equipment Expanding the use of renewable energy Conversion to new energy (hydrogen, ammonia fuel use, etc.)
Transition	Rise in raw material prices	Medium Term	High	<ul style="list-style-type: none"> Increase in procurement costs due to carbon tax passed on to raw material prices 	<ul style="list-style-type: none"> Switching to non-petrochemical derived raw materials Risk diversification from multiple purchasing channels for raw materials
Transition	Rise in fuel prices	Medium Term	Low	<ul style="list-style-type: none"> Increase in logistics costs due to carbon tax passed on to fuel prices 	<ul style="list-style-type: none"> Improving load factor in transportation Promoting modal shift
Physical	More frequent natural disasters	Medium Term	Medium	<ul style="list-style-type: none"> Higher risk of suspended operations at plants and with suppliers Higher risk of disruption to logistics network (raw material procurement, sales) 	<ul style="list-style-type: none"> Strengthening measures based on business continuity plans Multiple purchasing channels for raw materials Wider range of locations and review of manufacturing sites and logistics bases to spread out inventory holdings
Physical	Rising temperatures, rising sea levels	Long Term	Low	<ul style="list-style-type: none"> Higher risk of flood damage from rising water levels Changes in the price and quality of plant-based raw materials Higher risk of damage to employee health 	<ul style="list-style-type: none"> Strengthening measures based on business continuity plans Exploration and development of raw material alternatives Strengthening work environment and heat countermeasures

Urgency Level: Short Term (within 5 years), Medium Term (within 10 years), Long Term (within 30 years)
 Impact Level: High (At least ¥3bn impact on profits), Medium (At least ¥1bn impact on profits), Low (Less than ¥1bn impact on profits)

Initiatives for a Decarbonized Society

As a result of scenario analysis, we confirmed that there will be greater demand for products with a low impact on the environment due to increased environmental awareness. Our products and technologies give us an opportunity to expand our business by identifying new market needs for climate change countermeasures. We are mitigating

the progression of climate change related risks through products that contribute to energy-saving by shortening manufacturing processes and products that contribute to the realization of clean energy for preventing global warming. We will respond to market needs by carrying out research and development in order to contribute to society's efforts to tackle climate change.

Market needs	Value provided	DKS technologies and products
Energy and resource saving	Saving energy by shortening manufacturing processes	Solvent-free UV-curable materials
	Preventing product deterioration	Polyurethane resin sealants for electric insulation
Preventing global warming	Achieving clean energy	Binder for lithium-ion batteries, gel electrolyte polymers, conductive paste for solar cells
	Reducing greenhouse gas emissions	Environmentally friendly synthetic lubricants related to CFC regulations

DX Efforts



DX at DKS aims to increase added value, improve work efficiency, and eliminate inefficiencies. In order to realize these ideas, we are implementing reforms for client contribution, business contribution, and data-driven management, and promoting the creation of the foundation for achieving our next medium-term management plan, with the tentative title of "SMART 2030" (tentative title).

Material issues

- Utilization and promotion of digital technology
- Cybersecurity measures
- Digital literacy education

Company-wide Project

Aim of DX Project

The goal of the seven priority measures set forth in our medium-term management plan "FELIZ 115" is to reform the value chain and build a highly productive, profitable, and high-speed foundation that is free of inefficiencies, waste, and irregularities.

We launched a company-wide DX project in 2021 to bring this about with digital technology. We are pursuing the basic concept of the DX project "DX from management perspective: Reform the corporate culture from the perspectives of the customer, profit, and overall optimization." To realize this basic concept, we are working on the following three themes:

- (1) Digitalization of work
 - (1) Digitalization of work involves creating workflows for each department in a unified format in order to visualize the business operations of the entire company, and saving them in a library as a type of "expert system."
 - (2) Digital monitoring of work progress is a way of understanding schedules and progress of all work operations using the expert system stored in the library.
 - (3) Building digital data for intra-organizational activities is a platform for information needed by management across departments that essentially builds the means to view sales and consultations of each customer.
- We will promote value chain reform, which is the goal of the

medium-term management plan, by working on these three themes and tie this into the next medium-term plan for 2030.

Basic Concept of DX Project

1. DX from management perspective: Reform the corporate culture from the perspectives of the customer, profit, and overall optimization

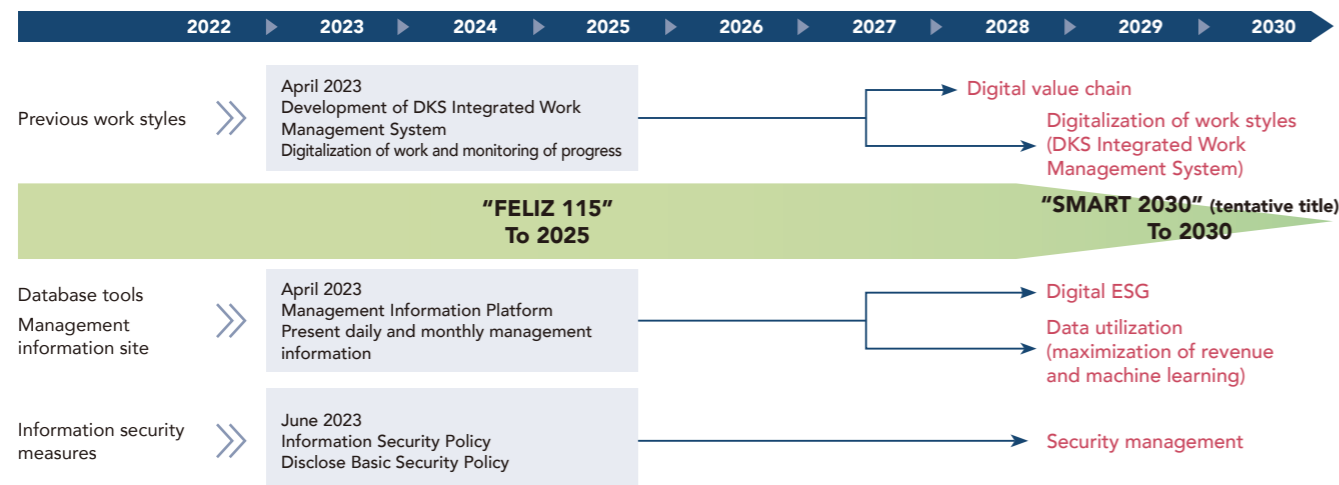
- (1) Build and digitalize a value chain in line with the essence of a fine chemical manufacturer
- (2) Digitalize solutions to the problems faced by the Company
- (3) Promote DX from the five perspectives* that management wants to focus on
 - * Perspectives of the customer, finance, work processes, human resource cultivation and reform, and SDGs
- (4) Clarify and promote the financial statement improvement effect of the themes we are working on
- (5) Minimum required investment (effective utilization of in-house human resources)

Transform into the Most Valuable Solution Provider

2. Priority of activities: Prioritize the efforts for transforming the corporate culture

- Priority 1** DX for solving company-wide issues: Promote intra-organizational activities as a companywide project consisting of members of relevant departments
- Priority 2** DX for solving unique issues faced by each Headquarters: Promote in each headquarters
- Priority 3** DX for solving unique issues faced by each department: Promote in each department

Digital Road Map for 2030



Security management

The changes to work and business brought about by digitalization create relationships with the many stakeholders that make up our value chain. The COVID-19 pandemic has also brought major changes to working styles, which led to the rapid popularization of work at home and remote work. That is why we need measures that take into account situations that cannot be addressed with conventional information security. We are promoting reviews of the envisioned flow of our countermeasures for various security risks, security training for our employees, and the measures that we should take if a major incident occurs (such as access log analysis, data recovery, and the notification of relevant parties). We have published our Information Security Policy, which is our basic policy on information security, revised our

information security rules based on the policy, and established the flow of our response to various possible incidents, thereby promoting the "defensive" part of our DX initiatives.

DX Certification

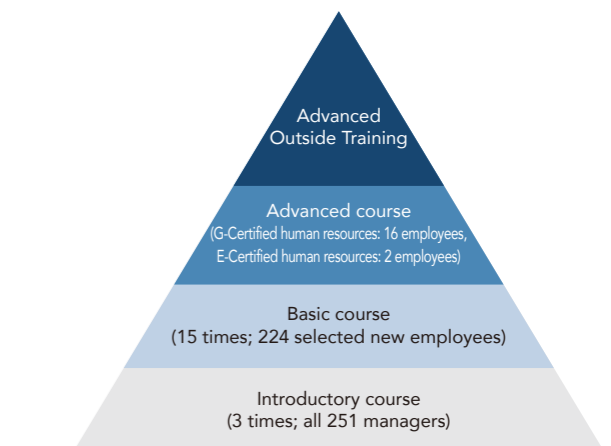
In April 2022, the Information-Technology Promotion Agency (IPA) examined and selected the Company as a DX-ready business certified by the Ministry of Economy, Trade and Industry. This recognized our efforts to adopt DX in our management foundation, including preventive maintenance of manufacturing equipment via DX and DX training for all employees. We will continue to utilize digital technologies in order to achieve the seven priority measures set forth in our medium-term management plan, "FELIZ 115."



Cultivating DX Human Resources

The Company provides a training system to enable all employees to achieve basic digital literacy and join digital platforms. The introductory course is for all managers and teaches basic knowledge on digital technologies and how organizations operate in the VUCA age. The basic course teaches the basics of programming, such as RPA, databases, and Python. We will aim for a more effective system development in the future by having the option to utilize this knowledge to perform in-house development in addition to vendor outsourcing. Many of the trainees are actively involved in the company-wide DX project. They are in charge of developing the DKS Integrated Work Management System and building a management information platform, putting what they learned in the training course to practical use. We have also prepared an advanced course for acquiring G- and E- certifications as well as mastering cloud technology to leverage advanced skills and specialist knowledge.

Training DX Human Resources



* Total recipients as of fiscal 2022

TOPIC

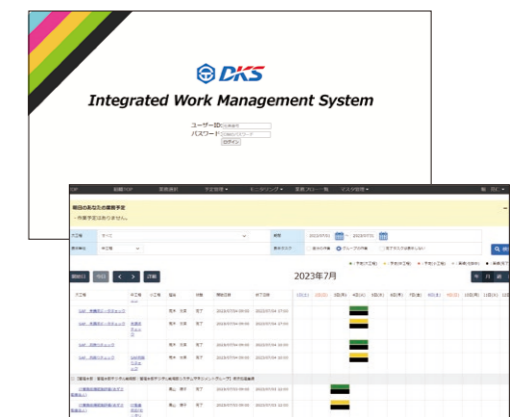
DKS Integrated Work Management System

This is a system built to carry out two of the themes of the company-wide DX project, namely (1) digitalization of work and (2) digital monitoring of work progress.

We have registered the workflow of each department as an "expert system," and the managers of each department register their plans on an annual, monthly, weekly, and daily basis.

In addition to routine work, we register non-routine cross-departmental work to provide visualization of the work plans for achieving departmental results at a glance. Managers check progress on the daily work plans in the morning and the afternoon and provide instructions for addressing any work delays.

The system went live in April 2023, and 1,035 operations have been registered. According to our evaluation, around 60% of the registered workflows have achieved the required results. Going forward, we will work on improving the remaining 40% and registering workflows that have not yet been created.



Contributing to a Collaborative Society



The population concentration in cities and regional depopulation are major social problems for Japan. In order to solve these problems, we work to promote regional revitalization through our business and promote business in alignment with the philosophy of the SDGs together with all stakeholders in our supply chain.

Material issue

- Regional revitalization
- Co-prosperity with the supply chain

Efforts for Regional Revitalization

Efforts for Sericulture Innovation

Biococoon Laboratories Inc., one of our Group companies, advocates "Sericulture Innovation" that adds the perspective of chemistry to traditional sericulture. This initiative aims to achieve a healthy long-lived society by developing together with our primary industry operators and local governments. It aims to utilize sericulture resources such as mulberry trees, silk, cocoons, silkworms, and pupae to achieve regional revitalization via farmers, whose numbers have been declining*. Furthermore, the 100-million mulberry tree planting campaign aims to create a healthy long-lived society by generating a cycle of reducing CO₂ emissions by planting trees, effectively utilizing abandoned fields and rice paddies, creating regional employment opportunities for seniors, securing stable incomes, and establishing a supply chain for I.

Japonica-Bombyx Fungus. Furthermore, we aim to expand into the cutting-edge fields of pharmaceuticals, foods, cosmetics, and other areas that are currently receiving attention, with a focus on reducing healthcare costs through the prevention of dementia and frailty. In August 2021, the Company signed a comprehensive partnership agreement with Yabu City of Hyogo Prefecture to work on regional revitalization for the goal of contributing to the SDGs through Sericulture Innovation. The agreement aims to create abundant value via the utilization of physical resources and the mutual interaction of human and intellectual resources, and promotes the development of regional industry, sericulture business including the cultivation of mulberry trees, and research into cognitive functions and dementia.

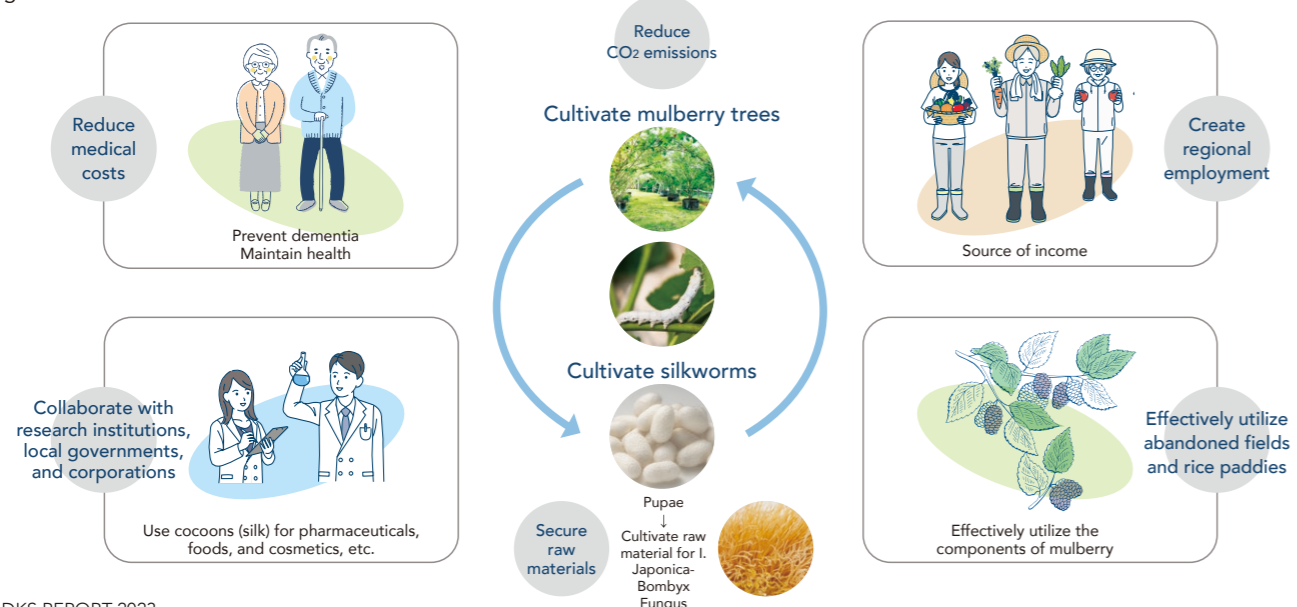
* Number of sericultural households in Japan decreased from 3,280 households in the year 2000 to 61 households in 2021. Source: The Dainippon Silk Foundation

Sericulture Innovation and Expected Effects

Description of activity		Expected effects		
Cultivate mulberry trees to feed silkworms	Silk	<ul style="list-style-type: none"> Create regional employment (income) Effectively utilize abandoned fields and rice paddies 	<ul style="list-style-type: none"> Create sense of purpose for senior generation Reduce medical costs by preventing dementia and frailty 	<ul style="list-style-type: none"> Vitalize regional community Reduce CO₂
	Pupae	<ul style="list-style-type: none"> Utilize as raw material for I. Japonica-Bombyx Fungus manufactured and sold by DKS 	<ul style="list-style-type: none"> Adopt for cutting-edge fields in the pharmaceuticals, foods, and cosmetics industries 	
Cultivate silkworms	Silk	<ul style="list-style-type: none"> Create regional employment (income) Passing down ancient Japanese sericulture techniques 	<ul style="list-style-type: none"> Revitalize the sericulture industry Create sense of purpose for senior generation 	<ul style="list-style-type: none"> Reduce medical costs by preventing dementia and aging frailty
	Pupae	<ul style="list-style-type: none"> Utilize in silk products 	<ul style="list-style-type: none"> Adopt for cutting-edge fields in the pharmaceuticals, foods, and cosmetics industries 	

* Sericulture Innovation is a registered trademark in Japan of Biococoon Laboratories Inc.

Regional Revitalization via Sericulture Innovation



Initiatives to Effectively Utilize Industrial Waste

Tokushima Prefecture considers waste a new resource and has implemented the Tokushima Prefecture Recycling Certification System, which certifies recycled products made from waste and business sites actively working on the 3Rs¹. Ikeda Yakusou, our subsidiary company located in Tokushima Prefecture, is promoting a Sudachi Innovation Business (sudachi is a Japanese citrus fruit) that thoroughly utilizes sudachi peels within its industry-government-academia collaboration with Tokushima Prefecture and Tokushima University. In March 2022, it became a Tokushima Prefecture Certified 3R Model Business Site in recognition of its work manufacturing and selling Sudachin and sudachi essential oil, which are upcycled² products that effectively utilize industrial waste



(sudachi peels after juice extraction).

In the summer of 2023, the company added essential oils made from the peels of the Japanese citrus fruits yuzu and yukou to its product lineup. It will continue to develop products based on the concept of environmentally friendly products loved by the community by utilizing unused resources that would otherwise go to waste.

1. Stands for Reduce, Reuse, and Recycle
2. Upcycling refers to transforming waste and unused items that would have been thrown away into new products

Ikeda Yakusou Receives Outstanding Innovative Technology Award at 26th Shikoku Industrial Technology Awards

In February 2022, Ikeda Yakusou received the Outstanding Innovative Technology Award at the 26th Shikoku Industrial Technology Awards, which recognize companies that have significantly contributed to developing industrial technology in the Shikoku region. The award was given for the development of the new product Sudachin (sudachi peel extract powder), a health food ingredient made utilizing Ikeda Yakusou's powdering technology and a method of extracting functional ingredients from sudachi peels developed through industry-government-academia collaboration in Tokushima Prefecture.

Co-Prosperity with the Supply Chain

As part of efforts to replace petrochemical materials with renewable resources, DKS reviews natural materials such as plants and microorganisms and transforms them into highly functional materials to meet customer needs.

Furthermore, we promote corporate activities together with all stakeholders in our supply chain to address the problem of food waste, such as our efforts for effectively utilizing the residue left over after extracting the juice of sudachi. We also promote appropriate supply chain management via our trusted relationships cultivated over long years with our dealers and inspiring/inspired partners. In October 2021, we announced our "Building Partnerships Declaration." We will aim to build new partnerships by

promoting cooperation and co-prosperity with businesses working to create value and our partners in the supply chain.

The Company states the following individual actions in this declaration:

- Contributing to efforts for regional revitalization
We aim to grow together with the region by contributing to efforts for regional revitalization.
- Assisting Health and Productivity Management
We will implement and promote Health and Productivity Management and assist our business partners in their Health and Productivity Management activities.



TOPIC

Signing of Comprehensive Technology Exchange Agreement with Kyoto Institute of Technology to Promote Comprehensive Technical Exchange and Foster Research and Technological Development

Through technical exchange with the Kyoto Institute of Technology, DKS aims to solve the challenges communities face by integrating and implementing the technologies and knowledge possessed by each party. We also hope to improve our mutual capabilities by actively exchanging engineers. As both parties are located in Kyoto, we will develop this agreement over the long term by flexibly addressing the changing times while respecting tradition.

- Technical Exchange**
- Technical consultation, technical research, and utilization of technology
 - Provision of technical and research information
 - Promotion of human resources development and exchange and development of new businesses and products
 - Collaborative research to promote evaluation, verification, etc.



Signing ceremony for comprehensive collaboration agreement between Kyoto Institute of Technology and DKS
Left: MORISAKO Kiyotaka, President of Kyoto Institute of Technology
Right: YAMAJI Naaki, President & COO of DKS

Organizational Resilience



Risk Management

- Material issues**
- Further deepening of corporate governance

Risk Management System

Recognizing that conducting proper risk management is an important management issue, Our Group established the Risk Management Control Committee, chaired by the responsible executive officer and composed of representatives of related departments and Group companies, and is methodically moving forward with activities by regularly holding committee meetings.

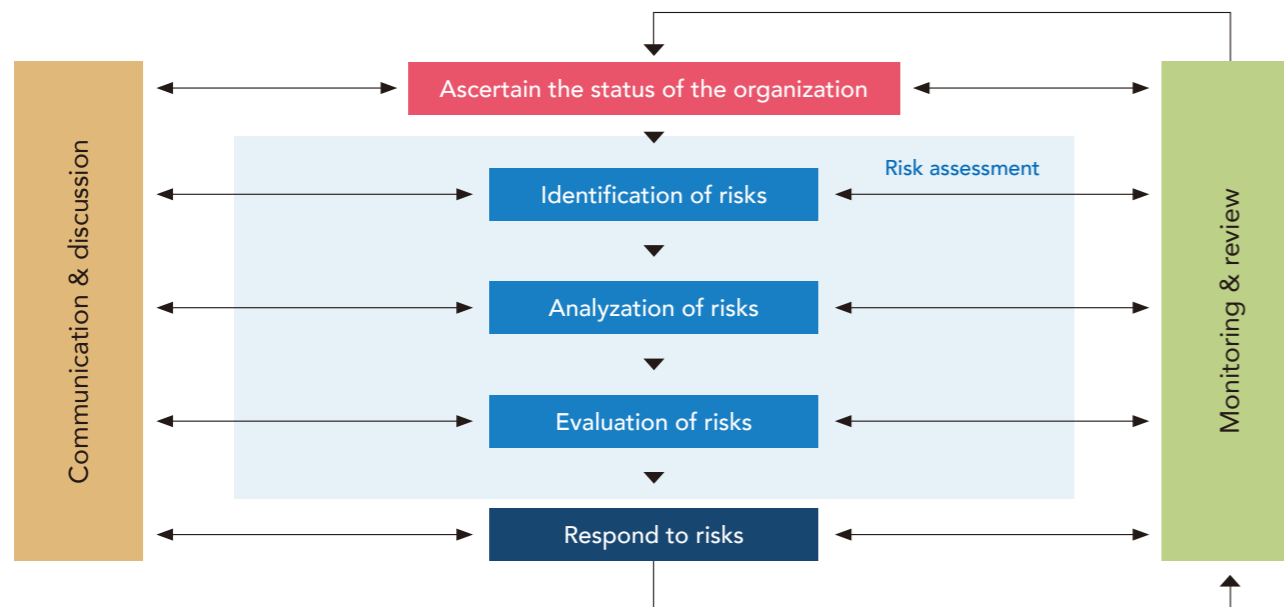
The Risk Management Control Committee operates a PDCA cycle based on our risk management system with the aim of reducing any risks that may impede the achievement of business objectives to an appropriate level. Meeting on a regular and ad hoc basis, Committee members identify, analyze, and evaluate risks by exposing new risks. A risk matrix is created based on impact and frequency of occurrence and the identified risks are ranked in terms of severity. Risks of high severity are designated as risks to be managed by the Committee, which then determines the person in charge of risk response, monitors the planning and progress of countermeasures, and conducts reviews.

At the same time, we are working to maintain and strengthen the crisis management system so that in the event of an emergency, we can promptly communicate risk information, including to all Group companies in Japan

and overseas, to ensure situational awareness and appropriate responses. To deal with potential and actualized risks, we formulated Crisis Management Regulations, Product Liability (PL) Prevention and Management Regulations, and Information Security Regulations. We manage envisioned risks, such as natural disasters, pandemics, damage from terrorist attacks and deterioration in safety, leaks and environmental pollution, accidents that cause damage to facilities and equipment or result in physical harm, harm to society from problems such as product liability, security, and information management related to intellectual property, etc., by listing these risks and linking them to main internal rules and regulations.

In fiscal 2022, we have identified and addressed new risks, such as the contingency involving Taiwan, based on the risk management system. On the other hand, as risks already managed by the Committee, we are mitigating the risks of cybersecurity and the threat of infectious diseases within this structure. In addition, to ensure that appropriate actions are taken in the event of a disaster, we review and educate employees on our earthquake BCP, conduct disaster drills envisaging earthquake scenarios, and conduct safety verification drills.

Basic Process for Risk Management



Crisis Management

Having positioned implementing countermeasures to corporate risk as a priority issue, we set Risk Management Procedures to address the prevention and mitigation of potential and manifest risks. We created basic policies and a Risk Management Manual as supplementary material for conducting Risk Management Control Committee activities and managing corporate risks, and operate the system as stipulated in the Risk Management Procedures.

In the Risk Management Manual, we establish risk management levels and stipulate that the responsible person

for the particular risk level is tasked with implementing risk management. Furthermore, for risks that impact lives and business, we are implementing and strengthening appropriate responses. There has been an upward trend in the frequency of earthquakes, water damage due to torrential rains, long heat waves, and natural disasters accompanying abnormal weather, such as massive snowstorms. To respond to the impact of these on business, we use information-sharing tools to ensure prompt information dissemination among all parties involved, enabling us to respond quickly in accordance with the management level.

	Risk Management Level	Responsible Party	Case
Level I	Understanding risk possibilities under normal operation	Plant general managers, central branch managers, branch and office managers, group company presidents	Natural disasters, terrorist attacks, civil unrest, environmental problems, accidents, information management
Level II	Risks to be coped with within plants, branches, offices and Group companies		Earthquakes (seismic intensity of 5 or more), environmental problems, accidents, nearby fires, typhoons, torrential rains, floods
Level III	Risks to be coped with within departments (including Group companies)	Headquarters executive general managers, plant general managers, group company presidents	Damage from natural disaster, environmental problems, disease outbreak, product problems
Level IV	Risks to be managed on a Company-wide basis	Head of Crisis Management Task Force (establishment of Crisis Management Task Force)	Expansion of Level II or Level III incident
Level V	Unexpected risks		

Information Security Policy

To fulfill the expectations of customers and society, DKS conducts information security based on the following policy to protect its information assets and those entrusted by its customers from accidents, disasters, crime, and other threat.

- (1) Management responsibility
We will work to improve and enhance information security under the leadership of management.
- (2) Establishment of internal systems
We will establish an organization to maintain and improve information security, and will work systematically and continuously on information security measures.
- (3) Employee engagements
Our employees will acquire the knowledge and skills required for information security and will ensure information security efforts.
- (4) Compliance with laws, regulations and contractual requirements
We will comply with all laws, regulations, codes, and contractual obligations related to information security, and meet the expectations of its customers.
- (5) Response to violations and accidents
In the event of violation of laws, regulations, contracts, or an accident related to information security, we will take appropriate action and work to prevent recurrence.

Organizational Resilience



Quality Management

To meet the needs of customers and society and earn their trust, it is essential to improve the quality of the products and services we provide. At DKS, we consider quality from the four perspectives of “design and development,” “production,” “sales,” and “customer service,” and we are working to improve quality in cooperation with our customers and suppliers.

- Material issues**
- Thorough quality assurance system
 - Promoting occupational safety and health

For details on quality and safety management, please visit our website (in Japanese only). ▶ <https://www.dks-web.co.jp/sustainability/ecology/>

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 and 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、適用される法令・規制要求事項を順守し、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。

2022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)
森 善幸

DKS Quality Assurance System

DKS promotes quality assurance activities by each department in charge of the process of product design and development, manufacturing, sales, and customer service. With the President serving as the highest authority for quality assurance, the environment, safety, and quality assurance staff have the authority to raise quality assurance issues, formulate solution and make recommendations, and are responsible for overseeing the quality management system in order to ensure quality assurance. The QA Department General Manager

oversees quality assurance in general and establishes and strengthens a quality assurance system through comprehensive coordination between other departments, and the Quality Assurance (PL) Meetings set the direction of quality assurance and quality control activities.

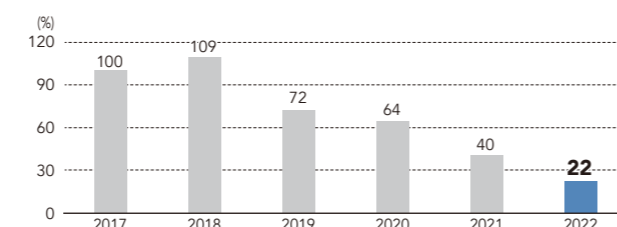
In line with diversifying customer demands and heightened requirements for product quality from a social perspective, we remain committed to working to ensure product safety and quality, as well as trying to prevent quality-related issues before they arise.

Quality Control System

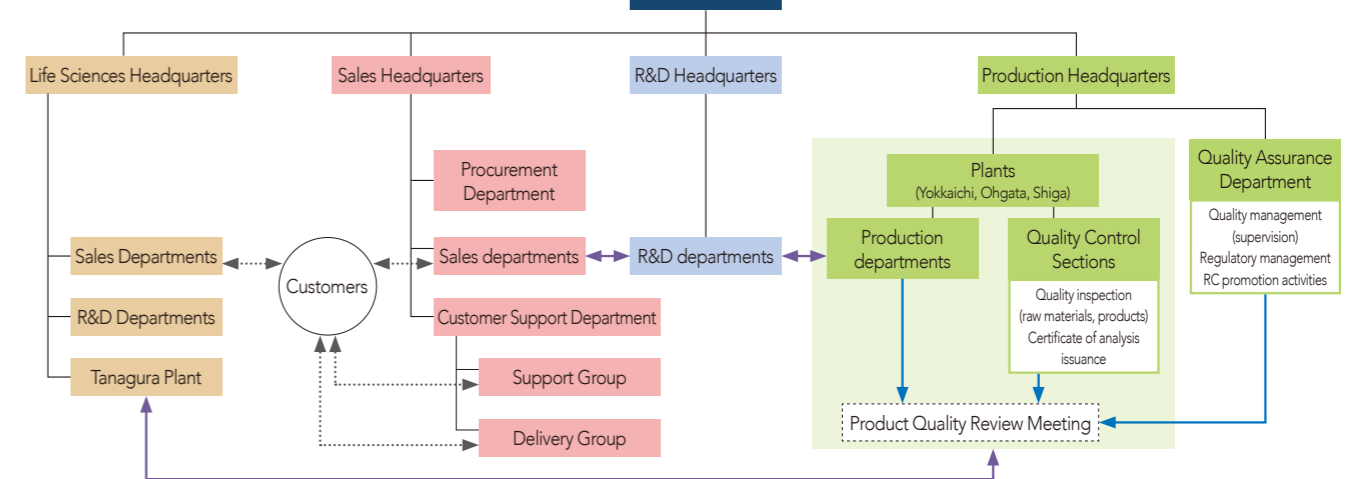
As a chemical product manufacturer, DKS uses ISO 9001 as the basic tool of our quality management system to maintain and improve quality, and provide products and services that comply with customer requirements and laws and regulations through the PDCA cycle. Furthermore, through careful daily activities (production management, corrective actions for nonconformities such as complaints and abnormalities, confirmation of effectiveness, change management, audits, education and training, etc.) and continuous review and improvement of the management system, we are working to improve customer satisfaction. In 2019, we reconstructed the customer complaint database and visualized progress throughout the Company, including cause investigations, recurrence prevention measures,

and reports to customers. In 2022, we conducted 5S activities and work condition patrols with the aim of preventing incidents in advance. As a result, the number of complaints decreased by 22% in fiscal 2022 compared to fiscal 2017.

Number of complaints (compared to FY2017)



QC System Diagram



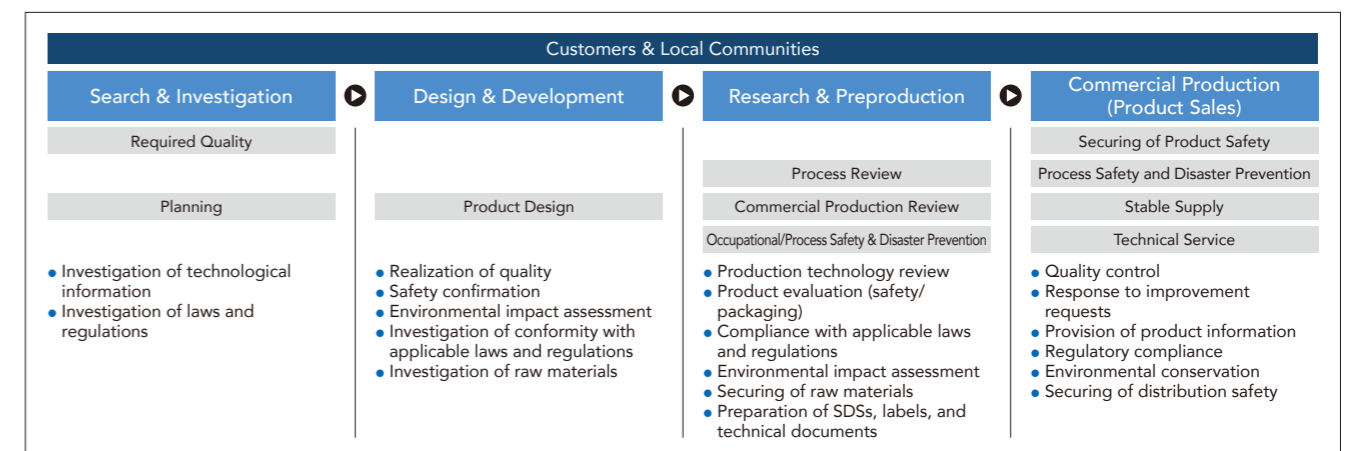
Product Safety Mechanism (chemical substance management from design development)

At each stage of product development, from research and exploration to prototyping and mass production, DKS conducts surveys of laws and regulations as well as evaluations of environmental impact, and carries out design and development with the utmost consideration for product safety. In addition, by introducing a chemical substance management system, we conduct GHS¹

classification, perform regulatory compliance checks, create multilingual SDS² and labels, investigate substances contained in items such as our products, and strive to ensure the appropriate communication of information regarding our products.

1. Globally Harmonized System (GHS) of Classification and Labeling of Chemicals
2. Safety Data Sheet (SDS): A sheet containing information on the properties and handling of chemicals when transferring or providing them to other business operators

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. An SDS provides information on items such as hazards to ensure safe handling of the product. For products exported to the US, EU, and Asian countries, we are promoting compliance with the laws and regulations of each country, issuing SDS in compliance with GHS, and displaying product labels. We are also sequentially revising SDS and labeling in line with amendments to laws such as the Chemical Substances Control Law, the Industrial Safety

and Health Act, and the Poisonous and Deleterious Substances Control Act. In addition, we are providing information on chemical substances in products by utilizing chemSHERPA (a common scheme for communicating information on chemical substances in products that can be used throughout the supply chain).

When introducing our products, we strive to maintain close communication with our customers through daily business negotiations, and provide information through product pamphlets and technical documents.

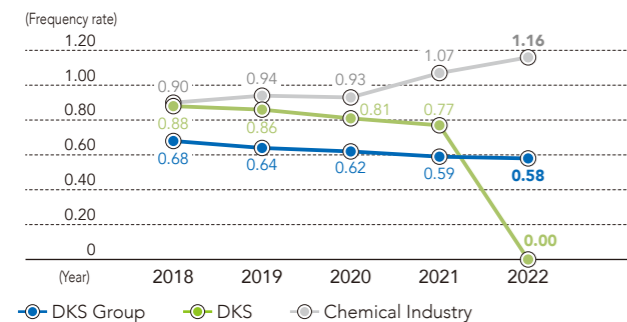
Organizational Resilience

Occupational Safety Initiatives

Continuous improvement through occupational safety and a health management system

DKS recognizes that ensuring the safety and health of our workers is the foundation of our business activities, and we have established policies in the “Environmental Conservation, Health and Safety Management Regulations.” Since August 2018, we have been working to acquire Occupational Safety and Health Management System (OSHMS) certification, and by December 2021, we obtained JIS Q 45100 certification for our three facilities: the Yokkaichi Branch, Ohgata Branch, and Shiga Branch. In order to further improve the level of occupational safety and health, we will continue to revise the OSHMS manual and related regulations, as well as create and revise manuals on health management.

Industrial Accident Frequency Rate (AFR)

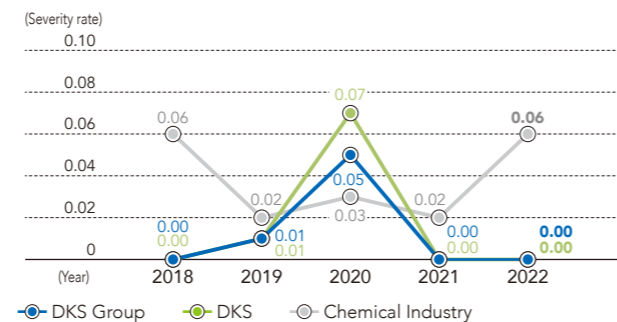


* Frequency rate = Accidents resulting in lost work time / Total working hours x 1,000,000
Numerical value indicating the frequency of victims per 1,000,000 working hours

Industrial Accident Severity Rate (ASR) and Industrial Accident Severity Rate (ASR) (January 2022-December 2022)

In 2022, the DKS Group continued to have lost workday injuries from the previous year, so the occupational accident frequency rate (lost time) remained almost unchanged. In addition to taking appropriate corrective action, we implemented thorough recurrence prevention measures. In 2023, we will further strengthen safety activities, including risk assessment, with the aim of achieving zero occupational accidents (lost time).

Industrial Accident Severity Rate (ASR)



* Severity rate = Working days lost / total working hours x 1,000
Numerical value indicating the severity of accidents per 1,000 working hours

Implement hands-on safety education

A hands-on training device was installed at the safety training center opened in February 2017 at the Yokkaichi Branch Kasumi Plant aimed to raise awareness to abnormalities and dangers. In addition, we have introduced a simulated mini-plant, which can actually be operated, so that employees can understand the basic principles of equipment and processes. Using these facilities, 90 employees got hands-on safety training in fiscal 2022.

In the future, we will continue to conduct training to convey the importance of safety knowledge and stable operations, and to raise individual safety awareness.



Mini-plant

Please refer to our website for “Initiatives for Sustainable Growth – Securing Safety and Disaster Prevention” for FY2022.

▶ <https://www.dks-web.co.jp/english/ir/report/index.html>

Food Hygiene Management Initiatives

Manufacturing Kainou Tochukasou in an HACCP certified plant in Japan

HACCP is an international food hygiene control method developed in the United States in the 1960s to ensure the safety of space food. By complying with HACCP, businesses will be able to manage the most important processes to eliminate and reduce hazards in all processes from the arrival of raw materials to product shipment, and will be able to improve safety. The Food Sanitation Act was revised in Japan, and from June 2021, hygiene management in line with HACCP has become mandatory. The Tanagura Plant has acquired the JFS-B standard,

which includes full implementation of HACCP procedures. In addition to controlling critical processes to reduce risk factors, the plant has strict controls from receiving raw materials to shipping products.

The plant manufactures the raw material for Kainou Tochukasou, the first such fungus to become a food with functional claims, meeting the ever-increasing demand for food safety and security.

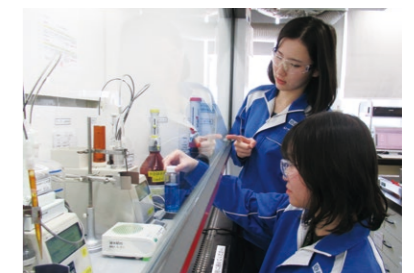
The Shiga Branch, which manufactures products such as sucrose fatty acid esters (SE), has also acquired HACCP certification.



Tanagura Plant



The Shiga Branch, which manufactures sucrose fatty acid esters (SE) and other products



Quality control

Initiatives Towards a Management System Equivalent to Pharmaceuticals

Strengths of being a GMP-certified facility

Ikeda Yakusou Co., Ltd. performs consignment work such as the powdering of items such as health foods and chemical products. Since products that come into direct contact with the human body, such as personal care products, are often required to be managed in the same manner as pharmaceuticals, the company has established a quality assurance system based on GMP certification*. In particular, the “extraction area” and “first spray drying area” have acquired GMP certification, and both manufacturing and quality are managed in accordance with GMP certification in the same way as pharmaceuticals. In addition, all production areas are equipped with the latest air conditioning equipment that maintains thorough temperature and humidity control and a clean environment. By equipping each major piece of equipment with a cleaning-in-place (CIP) function to ensure thorough and safe cleaning, we have established a cleaning system to prevent contamination. Being a GMP-certified facility has been a major advantage, which led to an increase in demand.



Ikeda Yakusou's GMP-certified plant

* GMP certification: GMP is an abbreviation for Good Manufacturing Practice, a manufacturing process control standard that ensures that products are manufactured safely and that a certain level of quality is maintained in all manufacturing processes. GMP certification is done by a third-party organization that objectively evaluates the implementation status of manufacturing and quality control in accordance with guidelines.

Organizational Resilience

Corporate Governance

- Material issues**
- Further deepening of corporate governance

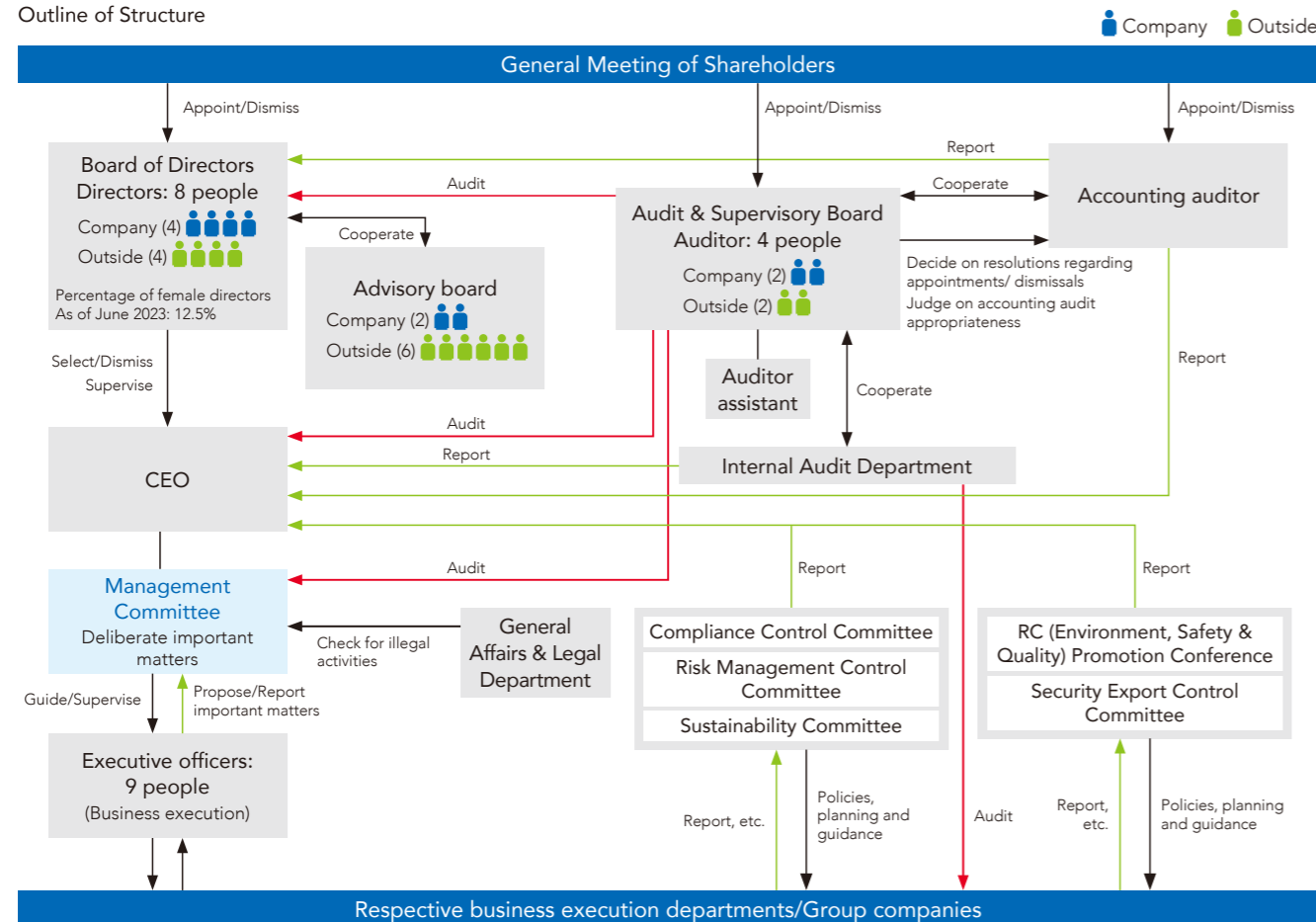
Deepening DKS' Corporate Governance and its Distinguishing Features

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.

Further Deepening of Corporate Governance

Year	Month	Details
2014	June	Appointment of independent outside director: 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	Disclosure of shareholder meeting materials over the Internet
2020	May	Online exercising of voting rights made available
	June	Partial disclosure of English-version of the notice of convocation of general meeting of shareholders
2021	May	Adoption of an online voting platform for institutional investors
	June	Establishment of an Advisory Board Appointment of independent outside directors: 3 people in total (3 of 8 directors are independent outside directors)
2022	June	Increase in the number of directors by 2, appointment of 4 independent outside directors (1 of the 4 is a woman), and disclosure of English-translation of the full summary of financial results
2023	June	2023 June Appointment of independent outside directors (1 of the 4 is a woman) 4 of 8 directors are independent outside directors

Outline of Structure



Organizational composition and roles

■ Board of Directors

To ensure the implementation of management policies, in June 2023, we reduced the number of directors by one to facilitate quick and strategic decision-making. The Board of Directors currently consists of eight directors, four of whom are outside directors. As a rule, the Board of Directors, which is chaired by the Chairman CEO, meets once a month and decides such issues as matters important for the Group.

■ Management Committee

The Management Committee, which is chaired by the President COO, is comprised of four internal directors, two fulltime Audit & Supervisory Board members, and six executive officers, and generally meets twice a month. 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. The committee also undertakes coordination and management for the whole company. 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.

■ 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. The Advisory Board is comprised of the Chairman CEO, President COO, and outside officers, and a majority of the Board's members are independent officers. An independent outside director serves as chair. By establishing an Advisory Board, we are encouraging outside officers to gain an understanding of the industry and ensuring opportunities for them to participate and provide advice.

In fiscal 2022, the Advisory Board met four times. To contribute to extensive deliberations by the Board of Directors, each director in charge provided an explanation of DKS' Green Transformation (GX) and Digital Transformation (DX) to promote a better understanding of what we are currently working on. The approach of the personnel system was also explained.

Expected Skill Matrix

To undertake proper decision making and management supervision at a higher level, the Company appoints directors and Audit & Supervisory Board members taking into consideration the balance of such factors as business-related extensive experience, performance, and expertise.

For outside directors and outside Audit & Supervisory Board members, multiple candidates with extensive experience with management, advanced expertise, and

broad knowledge and experience are appointed.

For Audit & Supervisory Board members, at least one who has experience in the finance or accounting departments or possesses equivalent experience is selected.

The following is a matrix of what we expect of our officers on the fields of skills and expertise. Up to three for each officer is listed, but not all the skills and specialized knowledge possessed by each officer is given.

Name of officer	Fields that directors and Audit & Supervisory Board members are expected to particularly contribute to						
	Corporate management	Accounting and finance	Legal affairs and risk management	Personnel and labor management Human resource development	IR and corporate value creation	Research technology, IT, and production	Business strategy and marketing
Chairman CEO	SAKAMOTO Takashi	•			•	•	
President COO	YAMAJI Naoki	•	•		•		
Senior Managing Director	OKAMOTO Osami	•				•	•
Director	SHIMIZU Shinji		•		•		•
Outside Director	TANIGUCHI Tsutomu			•	•	•	
Outside Director	OKUYAMA Kikuo			•	•	•	
Outside Director	HASHIMOTO Katsumi	•	•	•			
Outside Director	NAKANO Hideyo	•			•		
Audit & Supervisory Board Member	ONISHI Hideaki		•	•		•	
Audit & Supervisory Board Member	KAWAMURA Ichiji		•	•	•		
Outside Audit & Supervisory Board Member	TAKAHASHI Toshitada		•	•		•	
Outside Audit & Supervisory Board Member	NAKA Hideya	•	•	•			

Organizational Resilience

Reasons for Selection of Outside Directors	
Name	Reasons for selection and expected roles of contribution
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 six 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 working 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 particularly in the field of nanotechnology from his many years involved in research at university. After taking up the position of 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 Company's R&D and Life Science fields, among other subjects. The Company deems that, going forward, he will do his utmost to realize industry-academia-government collaboration and continue to contribute to sustainable growth and greater corporate value.
HASHIMOTO Katsumi	Mr. Hashimoto has extensive experience and advanced, specialized knowledge of finance and accounting from his many years as a certified public accountant. Having actively expressed his opinions regarding matters such as the management strategy at Board of Directors meetings based on his broad knowledge and experience, the Company deems that he will make useful proposals related to overall management from a broad perspective.
NAKANO Hideyo	Ms. Nakano has experience as a member of management of an investor and public relations support company, whose purpose was to develop investments, and from her many years involved in investment operations at an asset management company. In particular, she possesses specialized knowledge related to investor and public relations activities from a global market perspective. As an outside director, she plays an appropriate role in the Company's Board of Directors by actively expressing her opinions on the Company's IR field and business strategies, as well as supervising the execution of business operations. The Company deems that she can contribute to sustainable growth and greater corporate value of the Company by making uses of her extensive experience and high expertise.

Overall Efficacy of the Board of Directors

[Summary]

DKS conducts an annual evaluation of the Board of Directors to verify that the Board is functioning properly and to further strengthen its effectiveness.

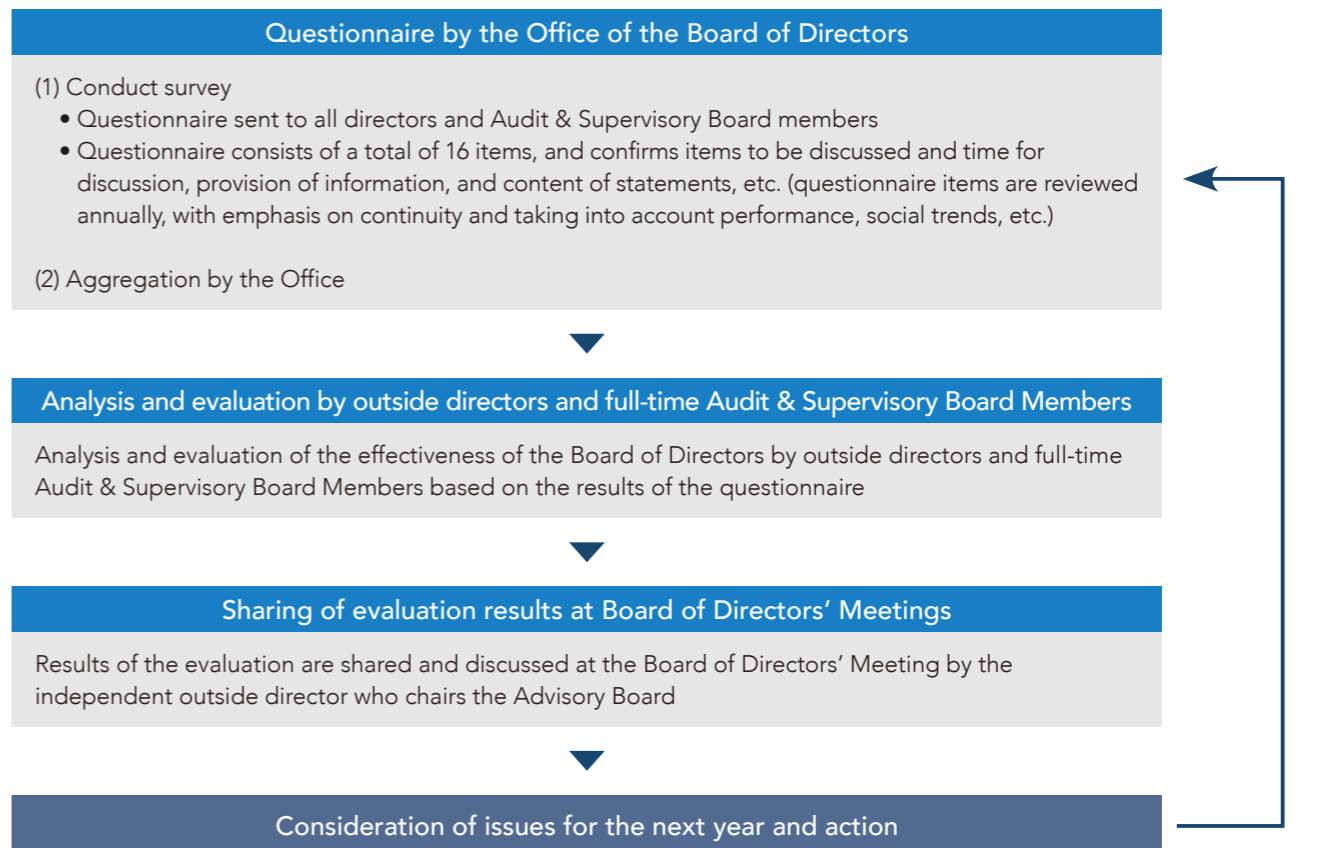
Evaluation

- (1) The Company deems that the effectiveness of the Board of Directors in fiscal 2022 was generally appropriate and that the effectiveness of the Board of Directors was ensured.
- (2) Although there were improvements in "provided material and explanations" and "reflecting advice and reporting the reflection," there was evaluated to be room for further improvements.

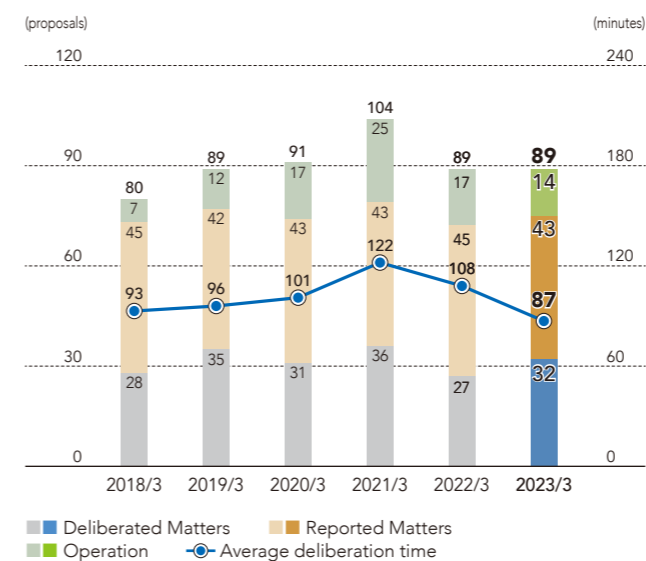
Issues and Main Future Efforts

The issues for fiscal 2023 included "thorough reporting of activity progress and findings" and "opportunities to provide information outside of the Board of Directors meetings." In response, we will reemphasize the PDCA cycle for matters to be resolved and increase opportunities for discussion between executive officers and outside officers.

Methods of Evaluating Effectiveness

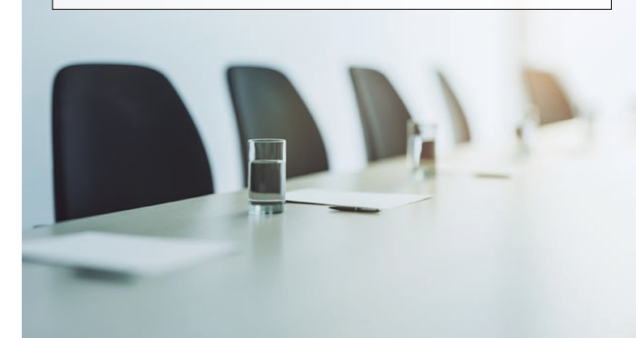


Time spent on deliberations by the Board of Directors and number of proposals



Main deliberations at the FY2022 Board of Directors meeting

- Medium-Term Management Plan "FELIZ 115"
- Growth Strategy (R&D, new businesses, and capital expenditures)
- Business Base Strategy (personnel system strategy, digital strategy, risk management, and sustainability management)



Organizational Resilience

Officer Remuneration

Remuneration decision process

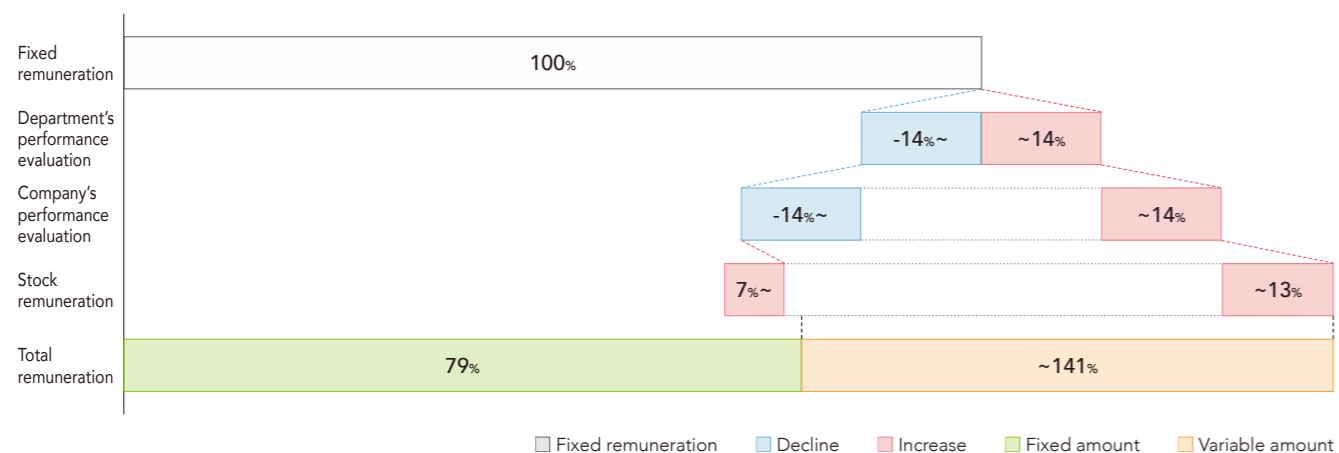
The basic policy regarding director and Audit & Supervisory Board Member remuneration involves a) appropriate compensation for execution of duties, b) remuneration that encourages actions to improve business performance and maximize corporate value, and c) remuneration that deepens value-sharing with shareholders. The following are the KPIs used to determine each type of remuneration and their weight in the amount of remuneration.

Composition of remuneration

- a. Fixed remuneration: amount set based on the size of the role of each officer and position and paid monthly.
- b. Performance-linked remuneration: monthly amount paid based on a once-a-year evaluation of the Company's performance for the previous fiscal year and twice-a-year evaluation of the department the Director is in charge of.
- c. Stock remuneration: Restricted shares are granted based on the size of the role of each officer and position.

Items		Percentage	Chairman	President	Directors	Outside Directors	Audit & Supervisory Board members
a. Fixed remuneration	-	-	●	●	●	●	●
b. Performance-linked remuneration	Department's performance evaluation	If the fixed remuneration rate is 100%, the amount of remuneration is set between -14% and +14% depending on the degree that targets for a fiscal year were achieved.	-	-	●	-	-
	Company's performance evaluation	If the fixed remuneration rate is 100%, the amount of remuneration is set between -14% and +14% depending on the degree that improvements were made to net sales and income compared to the previous fiscal year.	●	●	●	-	-
c. Stock remuneration	-	If the fixed remuneration rate is 100%, the amount of stock remuneration for one fiscal year is set at approximately 7%–13% of fixed remuneration for each position.	●	●	●	●	●

Composition of remuneration



KPI

The Company has set growth, profitability, and safety as key metrics for evaluating the Company's performance, and metrics for performance-linked compensation are consolidated net sales, consolidated ordinary income, and operating cash flow.

Remuneration amount

Officer position	Total remuneration (Millions of yen)	Total remuneration by type (Millions of yen)			Number of applicable officers (persons)
		Basic	Performance-linked	Stock-based	
Director (excluding outside directors)	273	230	18	24	7
Audit & Supervisory Board Member (excluding outside Audit & Supervisory Board Member)	43	39	-	3	2
Outside Directors	23	21	-	2	5
Outside Audit & Supervisory Board Members	8	8	-	0	3
Total	349	299	18	30	17

Notes
 1. Remuneration was also paid to one internal director, who resigned when their term expired as of the end of the 158th Ordinary General Meeting of Shareholders held on June 24, 2022.
 2. This does not include the salary of employees who concurrently serve as directors.
 3. AOKI Sunao, who retired from the position of outside director and assumed the position of Director at the end of the 158th Ordinary General Meeting of Shareholders held on June 24, 2022, is included in the above total amount and number of Directors for his term as outside director and for his term as director (excluding outside directors), respectively.
 4. HASHIMOTO Katsumi, who retired from the position of outside Audit & Supervisory Board member and assumed the position of outside director at the end of the 158th Ordinary General Meeting of Shareholders held on June 24, 2022, is included in the above total amount and number of employees for his term as outside Audit & Supervisory Board member and for his term as outside director, respectively.

Succession Plan

The succession plan for officers such as the CEO was formulated by the CEO. 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. Therefore, the succession plan is the exclusive responsibility of the CEO, who is familiar with all aspects of the Company. The CEO proposes successor candidates, and the Board of

Directors, including four independent outside directors, decides on the successor after fully deliberating the issue. 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 officers.

Cross Shareholdings

The Company holds the shares of customers and financial institutions for various purposes, including strengthening the relationship between the two entities. In addition to conducting a verification of holding the shares from a medium- to long-term perspective based on such factors as risk and return, we continue to review whether to hold the shares (appropriateness of holding the shares) taking into comprehensive consideration factors such as the purpose for holding the shares, rationality, and amount

invested. As for cross shareholdings as of March 31, 2023, it was judged appropriate to continue holding the shares based on the Board of Directors' verification of holding the shares.

Number of shares and balance sheet amount

Number of issues	24
Total amount appearing on balance sheet	¥3,623 million

Human Rights and Labor Efforts

In accordance with the Guiding Principles on Business and Human Rights set forth by the United Nations, we have established the DKS Group Human Rights Policy. DKS Group supports and respects international human rights norms, including the International Bill of Human Rights, ILO Declaration on Fundamental Principles and Rights at Work of the International Labour Organization, and the ten principles set forth by the United Nations Global Compact (UNGC).

Based on the United Nations Guiding Principles on Business and Human Rights and the Japanese

Government Guidelines on Respecting Human Rights in Responsible Supply Chains, we have established this Policy and will promote efforts to respect human rights, including human rights due diligence.



COMMUNICATION ON PROGRESS

This is our **Communication on Progress** in implementing the Ten Principles of the **United Nations Global Compact** and supporting broader UN goals.

We welcome feedback on its contents.

Discussion with Outside Directors

Challenges for DKS in Creating Long-term Value and the Role of Outside Directors



OKUYAMA Kikuo

Director

Some past and current positions

- Professor, Department of Chemical Engineering, Graduate School of Engineering of Hiroshima University
- Professor Emeritus of Hiroshima University (current)



HASHIMOTO Katsumi

Director

Some past and current positions

- Osaka Regional Taxation Bureau
- Director, Kyoto Office of KPMG AZSA LLC
- Representative, Hashimoto Accounting Office (current)

Q Please tell us about the changes at DKS since Mr. Yamaji, the new president, took office.

OKUYAMA President Yamaji set “empowering profitability” as DKS’s motto for fiscal 2023, and to realize this motto, a Strategy Committee was established under the president with the participation of internal directors and the executive general managers and general managers of each business division. The committee discusses R&D, production, and sales, and is building a system to tackle management issues in an integrated manner, and I feel that the sharing of information within the Company is progressing. Although DKS is the first company at which I have served as an outside director, I feel that President Yamaji is actively working on reforms, such as speeding up product development and improving productivity by optimizing production planning, by leveraging not only his years of R&D experience but also his experience in sales and production management. Furthermore, he is making efforts to visit our business partners, our factories and affiliated companies, as well as actively providing opportunities for dialogue with employees. Through these efforts, I hope that the DKS mottoes of “Quality First”, “Cost Reduction”, and “R&D Efforts” will spread to younger employees and motivate them to work harder.

HASHIMOTO Since 2022, the Board of Directors’ discussions have focused on how to respond to deteriorating profitability caused by the rapidly changing environment. For this reason, I believe that President Yamaji’s skills will be demonstrated starting this fiscal year. DKS is primarily a B-to-B company, and changes in customer needs are not as rapid as in B-to-C. For now, we are working steadily in the field to understand

the needs of our customers and I think all we can do is to make every effort to meet those needs. In 2021, an Advisory Board was established as a supplementary body to the Board of Directors, to which I am currently serving as its chairman. Recently, we have been discussing the progress of the medium-term management plan as well as the content and progress of the project to resolve management issues that has been underway since April.

Q The results for fiscal 2022 showed a significant decrease in profit. What do you think from the perspective of an outside director?

OKUYAMA Looking at the past three years, while net sales have increased overall in each segment, operating income has declined, and there is an urgent need to raise product prices in response to soaring raw material prices. I hope that we strengthen relationships with customers while customizing surfactants, which have supported the Company since its founding more than 100 years ago, and that surfactants continue to be a core business that generates stable earnings. In the Amenity Materials and Polyurethane Materials businesses, DKS has unique products in the fields of environmental materials and food additives, and I hope these products will attract new customers. In the Life Sciences business, we have begun B-to-C sales of supplements, but I think the issue is how to increase the number of customers who become fans of the Company and its products and continue to purchase them.

HASHIMOTO It is not uncommon for chemical manufacturers’ products to finally show results after many years, so it is very

difficult to determine when to withdraw a product. In general, many companies try to branch out and end up doing everything half-heartedly when their performance deteriorates, so I think it is good that DKS is going back to its roots and refocusing on its Surfactants business. I believe that it is precisely in times of poor performance that each and every employee, starting with the board members, needs to return to the basics, confirm the company’s strengths, and reexamine its *raison d’etre*. In particular, I would like employees to value an attitude of creativity in their work, rather than simply seeking the correct answer to a problem.

Q Director Okuyama, from your perspective as a researcher, how do you see DKS’s strengths and weaknesses in the areas of human resources and technology?



OKUYAMA DKS’s technological strength is its superior technology for manufacturing a wide variety of chemical products derived from the production of surfactants. Furthermore, DKS retains the know-how to combine these products to develop products with functions requested by customers and products that even exceed the performance of existing products, making it very superior to other companies in the same industry. In addition, DKS has a broad customer base, and its products are used in a variety of industries. By leveraging the knowledge gained from transactions in this broad range of industries, and combining it with its synthesis technologies, DKS is able to develop high-value materials. However, the Company has not been able to advance to the application stage of creating new products. In order to support this, I believe it is necessary to work on the development of new technologies while generating stable earnings in the Surfactants and other businesses. In addition, we are currently training human resources for DX by having employees participate in educational programs, but I think it is necessary to collaborate with other companies in the industry and hire new human resources who are capable of implementing DX.

Q Director Hashimoto, what role do you think you are expected to play after becoming a director from the position of Audit & Supervisory Board member? What strengths do you think you have demonstrated?

HASHIMOTO In discussions about what should be done to restore business performance, I always consider what advice

would be appropriate based on my experience as an Audit & Supervisory Board member. Both positions have the same role of supervising management, but since outside Audit & Supervisory Board members see information from accounting and operational audits, they supervise the Board of Directors and management from the outside. On the other hand, as an outside director, there is a difference in that they go in and actually supervise. Having experienced both roles, I believe I have the advantage of making objective judgements about the company’s situation.

Q With the increased emphasis on ESG, what do you feel is expected of chemical manufacturers in terms of the natural environment and society? Also, what role do you think you need to play as the impact on the chemical industry and accounting audits become more stringent year by year?

OKUYAMA DKS has introduced many environmentally friendly products, such as synthetic lubricants related to CFC regulations and conductive pastes for solar panels, and I. Japonica-Bombyx Fungus related products from the Life Sciences business are expected to contribute to the environment as a non-petrochemical raw material. In addition, the Company is also making efforts to improve the work environment for its employees, and was selected as a Health & Productivity Stock, and I believe it is a company that attracts a great deal of attention from the perspective of ESG investment. In terms of human resources, the Company has introduced a system of evaluation based on ability, an example of which is the appointment of a person in their 40s as an Executive General Manager of the Sales Headquarters. On the other hand, although there are many excellent human resources in the R&D department, there is room for improvement in the area of achieving results, such as the commercialization of new products, which I think is an issue.

HASHIMOTO I believe that, going forward, companies that are enthusiastic about ESG principles will survive. Since a chemical manufacturer’s business inevitably involves environmental impact, it is necessary to demonstrate how DKS products contribute to reducing environmental impact from the perspective of the entire product cycle, and we are now in an era in which such products must be made. Many of today’s young employees find it very rewarding to contribute to the environment, and we, as outside directors, would like to encourage this trend through advice and supervision.



Stakeholder Engagement

Communication with Stakeholders

Since the Company's founding in 1909, we have been committed to the DKS mottoes of Quality First, Cost Reduction, and R&D Efforts. Today, as interest in SDGs and ESG management grows, we always keep in mind how we can bring happiness to our employees,

shareholders, customers, and society, the four stakeholders of the Company, under our corporate credo of "Contributing to the nation and society through industry." Through continuous communication, we aim to create new value together with our stakeholders.

	Engagement with stakeholders	Means of dialogue	Department in charge
Employees	<p>We are committed to employee happiness-based management, and our most important asset is human capital. As such, we aim to secure excellent human resources and diversity based on a philosophy of valuing people. We recognize employee growth to be the driving force behind the Company's development, leading to broad improvements in corporate value. In addition, under the medium-term management plan FELIZ 115, we have set the goal of the improvement of employee happiness and are promoting health management initiatives to maintain and improve the health of our employees.</p> <p>(▷ P.32 Human Resource Management)</p>	<ul style="list-style-type: none"> ● Training for employees (on-the-job training, off-the-job training, new employee training, self-development support) ● DX human resource development program ● Health and Productivity Management initiatives (exercise habits, mental health measures, etc.) ● Publication of in-house portal site, digital in-house magazine "TUNAG," and in-house magazine "DKSCOM" ● Whistleblower hotline ● Compliance awareness survey 	<p>Human Resources Department</p> <p>General Affairs Department</p> <p>Digital Strategy Department</p> <p>Public & Investor Relations Department</p>
Shareholders	<p>We believe the proper communication of information to be a prerequisite for constructive dialogue with shareholders. The Public & Investor Relations Department plays the central role in creating opportunities for dialogue, as shown on the right.</p> <p>(▷ P.20 Financial/Capital Strategies and Total Shareholder Return)</p>	<ul style="list-style-type: none"> ● Financial results briefing sessions and small-group meetings for institutional investors and securities analysts ● Company briefing sessions for retail investors ● One-on-one meetings ● General meeting of shareholders, management briefing sessions ● Website (IR & investor information) ● DKS report (integrated report), shareholder newsletter 	<p>Public & Investor Relations Department</p> <p>General Affairs Department</p>
Customers	<p>We are a chemical materials manufacturer, known as a leader in industrial chemicals. We are working to develop technologies and products with the goal of becoming a Uni-Top, a company recognized for its distinctive uniqueness. In 2018, we entered the life science sector in earnest. Through activities such as those on the right, we strive to build long-term relationships of trust with our customers by responding to their requests.</p> <p>(▷ P.28 Research & Development)</p>	<ul style="list-style-type: none"> ● Daily sales activities ● Zenkoku Ichi-Ko Kai (exchange meeting with agencies) ● Explanation of research & technology ● Thorough quality assurance system ● Product exhibitions and product press conferences ● Website ● Company newsletter "Takuto" 	<p>Sales Department</p> <p>Department in charge of each business</p> <p>Research Department</p> <p>Production Department</p>
Society	<p>We are working to address the social issues of urban population concentration and depopulation in rural areas through regional revitalization through our business. We are also working to build new partnerships by collaborating with every partner in our supply chain to promote mutually prosperous co-existence, and together we are conducting business that is consistent with the principles of the SDGs. In addition, we are focusing efforts on local contribution activities to obtain a greater understanding of our business and to build a relationship of trust with the local communities in which our offices and plants are located.</p> <p>(▷ P.42 Contributing to a Collaborative Society)</p>	<ul style="list-style-type: none"> ● Efforts in cooperation with local governments ● Efforts for a healthy and long-lived society ● "Building Partnerships Declaration" for mutually prosperous co-existence with suppliers ● Presentations and speeches at conferences, forums, and seminars ● Factory tours ● Science seminars for local children and school visits ● Participation in and sponsorship of community events ● Community cleanup activities by employees 	<p>General Affairs Department</p> <p>Department in charge of each business</p> <p>Research Department</p> <p>Production Department</p>

Dialogue with Stakeholders (Specific Examples)

Dialogue with employees

Continuing to treat employees based on the philosophy that people are our assets and must be nurtured and treasured

We treat employees based on the corporate philosophy that people are our assets and must be nurtured and treasured. We believe that the maintenance and improvement of employee health is the foundation for their self-realization, and that the Company can grow together with employees by supporting them in this endeavor. Since maintaining and improving employee health is an important management issue for the Company, we expressed these ideas in our Healthy Company Declaration in September 2017.

Our approach to health and productivity management is to prevent illness and mental disorders through health management, to work and live in a safe and hygienic environment, and to promote specific operations in

accordance with the PDCA cycle. One key achievement in fiscal 2022 was a 0.4 point improvement in the percentage of people who exceeded standard abdominal circumference as a result of walking events implemented from a preventative perspective. With employees commenting that their awareness of health has increased, we will continue to promote the health of our employees.



Dialogue between the president and employees

Dialogue with our investors

Dialogue with institutional and retail investors: Creating value together through constructive dialogue

We strengthened the Public & Investor Relations Department and put in place a staffing structure that enhances the efficiency and credibility of IR activities. In addition to financial information, we endeavor to provide investors with high-value-added information on management strategies and issues, risks and opportunities, governance, and other non-financial information.

Every year, we hold briefing sessions and small-group meetings with institutional investors covering the full-year and first-half periods, in June and November, respectively. In fiscal 2022, 90 investors participated. In addition, in fiscal 2023, we plan to continue holding briefing sessions for retail investors,

which we began in fiscal 2022. We believe the proper communication of information to be a prerequisite for constructive dialogue. Led by the Public & Investor Relations Department, we will disclose necessary corporate information in a timely and appropriate manner, while valuing opportunities to broadly communicate with our stakeholders.



Tokyo management briefing session

Dialogue with local communities

Stimulating interest in science among children, the future leaders of our society

As part of our community contribution activities, we participate in science seminars for children and visit schools throughout Japan. In fiscal 2022, we held the Yokkaichi Children's Science Seminar in Yokkaichi City, Mie Prefecture, where a Group company's offices are located, and conducted six classes on surfactants using detergents for a total of ten students each time. In addition, in our regular school visits, employees from each plant give age-appropriate lessons aimed at increasing interest in science and motivation for learning, such as surfactant experiments at elementary schools in Niigata and Shiga prefectures, and hands-on

silkworm breeding at a kindergarten in Iwate Prefecture. We will continue to focus on community contribution activities on an ongoing basis.



A school visit (Niigata)

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


Board of Directors (as of June 23, 2023)



SAKAMOTO Takashi
Chairman CEO

Number of shares held: 41,345 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
 June 2015 Concurrently President
 April 2022 Chairman and Executive Director (current)



YAMAJI Naoki
President COO

Number of shares held: 12,419 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 Concurrently in charge of Production Control Headquarters
 April 2020 Managing Director
 April 2021 Administrative Supervisor
 April 2022 R&D Supervisor
 April 2022 President COO (current)



OKAMOTO Osami
Senior Managing Director

Number of shares held: 12,033 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
 June 2017 Director
 April 2020 Managing Director
 April 2021 Sales Supervisor
 April 2022 Senior Managing Director (current)
 R&D Supervisor


Audit & Supervisory Board (as of June 23, 2023)



ONISHI Hideaki
Audit & Supervisory Board Member

Number of shares held: 14,607 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)



KAWAMURA Ichiji
Audit & Supervisory Board Member

Number of shares held: 6,544 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
 April 2020 Production Supervisor
 April 2021 Administrative Supervisor
 April 2022 Managing Director
 Sales Supervisor
 Concurrently in charge of Tokyo Headquarters
 April 2023 Director
 June 2023 Audit & Supervisory Board Member (current)



TAKAHASHI Toshitada
Audit & Supervisory Board Member (outside)

Number of shares held: 366 shares

Career summary
 April 1982 Joined The Fuji Bank, Limited (current Mizuho Bank, Ltd.)
 April 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 Co. Ltd.
 April 2020 Director, Managing Executive Officer of UC CARD Co. Ltd.
 June 2020 Independent Outside Director Standing Audit and Supervisory Committee Member of ITmedia Inc. (current)
 Audit & Supervisory Board Member of DKS Co. Ltd. (current)



SHIMIZU Shinji
Director

Number of shares held: 3,916 shares


Career summary
 April 1992 Joined DKS Co. Ltd.
 April 2014 General Manager of Personnel & General Affairs Department, Personnel & General Affairs Division
 April 2016 General Manager of Shuang Yi Li (Tianjin) New Energy Co., Ltd.
 April 2018 Board Director of Shuang Yi Li (Tianjin) New Energy Co., Ltd.
 June 2019 General Manager of Financial Division, Financial Headquarters
 April 2020 Executive Officer
 Executive General Manager in charge of Production Headquarters
 April 2022 Administrative Supervisor
 June 2022 Director (current)



TANIGUCHI Tsutomu
Director (outside)

Number of shares held: 1,257 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-kansai 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: 295 shares

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)
 June 2017 Special Appointment Professor of Hiroshima University
 June 2021 Managing Director of Hosokawa Powder Technology Foundation
 June 2021 Director of DKS Co. Ltd. (current)
 June 2022 Auditor of Hosokawa Powder Technology Foundation (current)
 June 2022 Vice President of The Information Center of Particle Technology, Japan (current)



NAKA Hideya
Audit & Supervisory Board Member (outside)

Number of shares held: 366 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
 Executive General Manager, Hanshin Sales Headquarters, Sales Administrative Division
 December 2010 Chair of Nagoya Branch Opening Committee of Bank of Kyoto
 April 2011 General Manager of Nagoya Branch of Bank of Kyoto
 June 2013 Managing Executive Officer of Bank of Kyoto
 June 2015 General Manager of Tokyo Branch of Bank of Kyoto
 December 2015 General Manager of Tokyo Sales Department of Bank of Kyoto
 June 2019 President and CEO, Kyoto Credit Assurance Service Co., Ltd.
 June 2020 Audit & Supervisory Board Member of DKS Co. Ltd. (current)
 June 2022 Advisor of Kyoto Credit Assurance Service Co., Ltd. (current)



HASHIMOTO Katsumi
Director (outside)

Number of shares held: 366 shares

Career summary
 April 1981 Joined Osaka Regional Taxation Bureau
 October 1984 Joined Asahi Accounting, LLC. (currently KPMG AZSA LLC)
 March 1987 Registered as a certified public accountant
 May 2007 Representative Partner of Asahi Accounting, LLC. (currently 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.
 June 2022 Director of DKS Co. Ltd. (current)



NAKANO Hideyo
Director (outside)

Number of shares held: 184 shares

Career summary
 November 1991 Vice President of Cititrust and Banking Corporation
 October 1993 Senior Portfolio Manager and Head of Private Investment
 January 2000 Director and Head of Investment Division of FUNNEX Management Inc.
 March 2004 Established Trias Corporation, took up position as CEO (current)
 March 2020 External Director of OUTSOURCING Inc.
 June 2021 External Director of HOCHIKI CORPORATION (current)
 June 2022 Director of DKS Co. Ltd. (current)
 June 2023 Independent External Director (Audit & Supervisory Committee Member) of NS TOOL CO., LTD. (current)

Executive Officers (as of September 1, 2023)

Executive Officer	SAKAMOTO Mami	General Manager, Strategy Headquarters	Executive Officer	HASHIMOTO Masayuki	Executive General Manager, R&D Headquarters
Executive Officer	KATAYAMA Toshihiko	General Manager, New Business Development Department	Executive Officer	MORI Yoshiyuki	Executive General Manager, Production Headquarters
Executive Officer	NISHIGUCHI Isao	Executive General Manager, Life Science Headquarters	Executive Officer	SHUDO Takuya	President and CEO, Yokkaichi Chemical Company Limited
Executive Officer	MORISHIMA Kazuto	Executive General Manager, Administrative Headquarters	Executive Officer	SHIMIZU Koji	Vice Chairman, Chin Yee Chemical Industries Co., Ltd.
Executive Officer	KITAO Masahiro	Executive General Manager, Sales Headquarters			

Business Activities Report

Surfactants



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 coloring 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 manufacture these products with petrochemicals and oils/fats as key raw materials primarily at the Yokkaichi Branch (Kasumi Plants), the Shiga Branch, and Yokkaichi Chemical Co., Ltd.

Review of and issues related to FY2022

During the fiscal year ended March 31, 2023, net sales in this segment were generally firm.

In Japan, sales of products for IT and electronics material applications and paints and coloring material applications remained weak, while those for machinery and metal applications remained firm. Sales of products for soap and detergent applications grew substantially. Overseas, sales of products for rubber and plastic applications remained weak, but those for textile applications were firm. Going forward, we will strengthen our Uni-Top strategy and continue to focus on delivering customized products that meet customers' demand.

Issues facing this segment are as follows:

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

DKS' strengths

This segment leverages the Company's many years of experience and accumulated technologies. Typical products are widely used to enhance the performance of polymer dispersion films produced using reactive surfactants. Growth is expected in the paints and coatings field as well as adhesives, and other industrial fields. On the other hand, there are various competitors in this business, such as manufacturers of detergents, emulsifying and dispersing agents, and other chemicals both in Japan and overseas.

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 and create new added value.

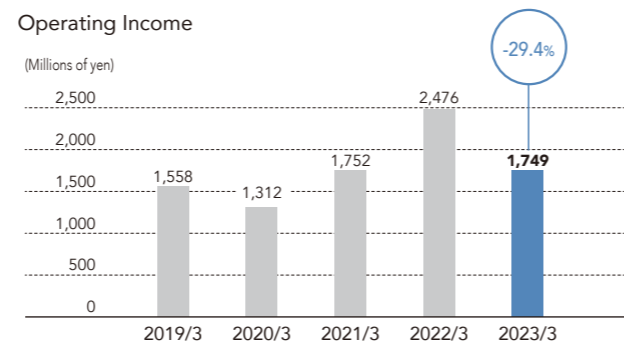
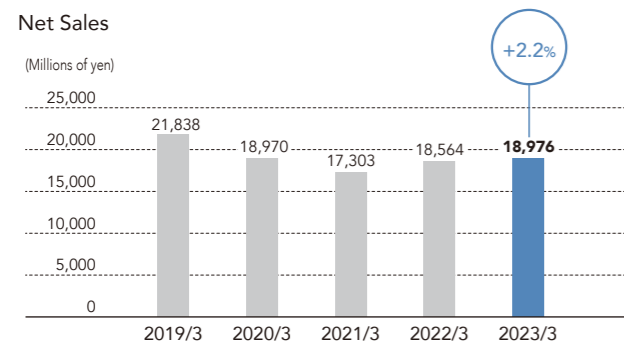
Connection with materiality

To develop products for a more environmentally conscious world, we have been working in recent years to research and develop highly-biodegradable environmentally-friendly products that do not cause water pollution, while taking into consideration their toxicity to aquatic organisms.

We are developing a reactive surfactant that, after functioning as an emulsifier for emulsion polymerization, improves the water resistance and other properties of polymer films. We will focus on market development of this product, which is Japanese technology, and work to expand the market for environmentally-friendly water-based resin products for our customers.

The connection between surfactants and materiality (p. 10) is as follows:

- Strengthening relationships with inspiring/inspired partners and targeting sales expansion for IT and electronics material applications (7. tackling NEXT and DREAM businesses)
- Building a sales framework and strengthening sales for environmentally friendly paints and coloring material applications (1. research and development)



Chemistry provides a solution.

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 demonstrate emulsifying and dispersing properties to remove dirt. Recently, however, the functions that the Company's customers require from surfactants have evolved beyond simply cleaning to more sophisticated and unique applications that reflect advances in the particular industry. The surfactant synthesis, analysis, and evaluation technologies that we have developed over our more than 110-year history has enabled the Company to provide performance and functions tailored to customer needs through our diverse product lines and combinations of these products. This technology unifies goods and wisdom, and realizes the combination of different fields and industries.



Amenity Materials



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), energy, 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.

Review of and issues related to FY2022

Net sales in this segment for the fiscal year ended March 31, 2023 were generally weak.

In Japan, sales of sucrose fatty acid esters (SE) for food applications and vinyl polymer materials for rubber and plastic applications remained strong. On the other hand, cellulose polymers (CMCs) for energy and environmental applications remained weak. Overseas, sales of SE for food and cosmetic applications remained strong.

Issues facing this business are as follows:

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

DKS' strengths

With more than 70 years of experience in CMC using pulp, and more than 50 years of experience in SE using sucrose and fatty acid esters, 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 have the distinguishing characteristic of being an edible surfactant that contributes to flavor. SEs are used as an emulsifier

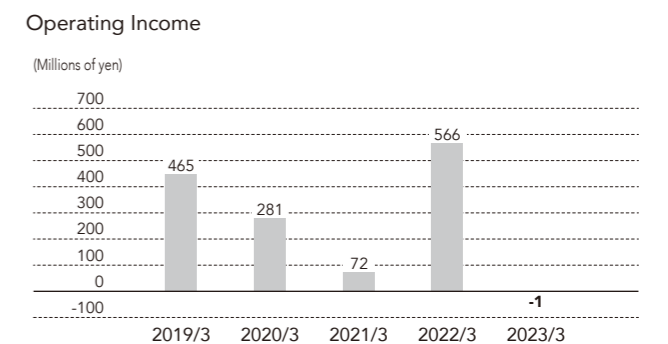
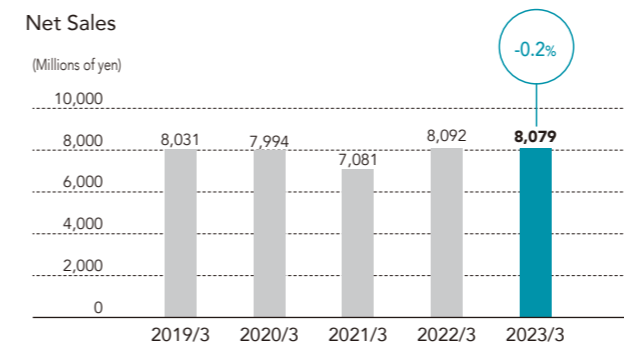
for oil/fat and cream and as a texture modifier, for example, in cookies and snack foods. In addition, we established novel cellulose technologies to produce a new material called CNF, and are pushing forward with further efforts to use biomass in advance ways.

Connection with materiality

We anticipate continued demand for good tastes and comfort in Japan and overseas, and will strive to ensure stable sales and profitability while maintaining our customer base. We will continue to unlock new customers in the growth fields of food, personal care, and energy with the aim of expanding product sales and improving lifestyle comfort by providing high-functional products.

The connection between amenity materials and materiality (p. 10) is as follows:

- Making social contributions utilizing RSPO certification (4. contributing to a collaborative society)
- Actively contributing to carbon neutrality through naturally derived raw materials (3. consideration for the environment)
- Developing solution business for the battery field (7. tackling NEXT and DREAM businesses)

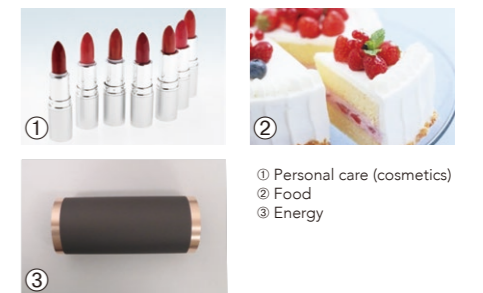


Chemistry provides a solution.

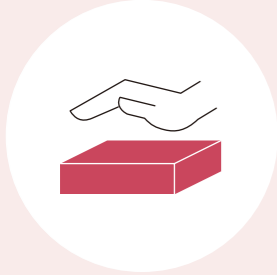
This segment targets industrial fields that place an emphasis on safety, such as food, personal care products, and pharmaceuticals, all of which are end products that are placed in the mouth, come into contact with skin, or stimulate the five senses.

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

We have also 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.



Business Activities Report



Polyurethane Materials

This segment provides a wide range of industrial materials, including paints and adhesives, and raw materials for urethane with a focus on civil engineering and construction, and electrical insulation materials. In addition, we possess technology to produce high-elasticity urethane elastomers, as well as soft/rigid urethane foam. Leveraging these technologies in a composite manner, we supply various high-functional urethane products such as sealants for electronic circuit boards, cushioning, thermal insulation, and coating materials.

Rock hardening agents used for mountain tunnel projects such as roads and railways are an essential product for upgrading infrastructure. The primary raw material for this segment is petrochemical raw materials, and the products are primarily manufactured at the Yokkaichi Branch (Kasumi Plants).

Review of and issues related to FY2022

Net sales in this segment for the fiscal year ended March 31, 2023 were generally firm.

Sales of civil engineering chemicals for public works were firm, while sales of environmentally-friendly synthetic lubricants related to CFC regulations grew significantly. Sales of functional polyurethane for applications such as construction were weak, but those for IT and electronics applications were firm.

Issues in this business segment are as follows:

1. Improving the operation rate of No.3 Plant of the Kasumi Plant
2. Promotion of new development
3. Strengthening relationships with inspiring/inspired partners

DKS' strengths

The Company's urethane materials are used in civil engineering and construction, electrical insulation materials, paints, and adhesives. With the recent diversification of electric appliances and the incorporation of IT in automobiles, electronic components are being used under increasingly severe conditions. Meanwhile, there is a need for electronic components to be lightweight, compact, and to have a long service life, all of which are challenging performance requirements. In this context, our electrical insulation materials are recognized for their superior balance of insulation,

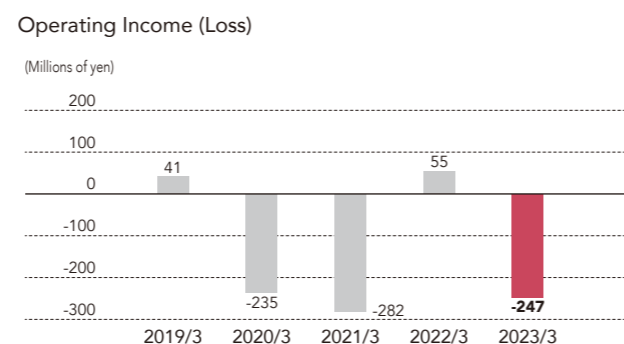
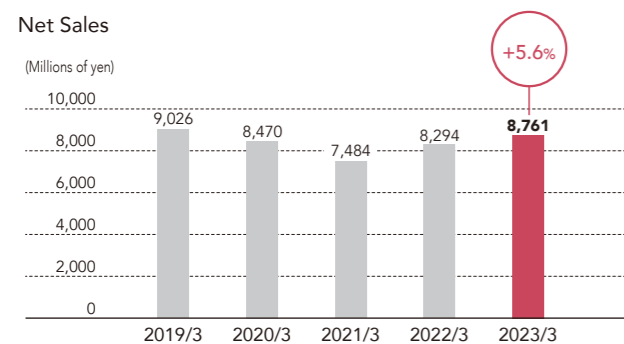
heat-resistant, and flame-retardant properties, as well as for the protection they offer against physical and chemical influences, ensuring that strength and durability are not compromised. Our products are therefore used in a wide range of applications from home appliances to transport equipment components to meet the exacting needs of customers.

Connection with materiality

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 products for IT and electronics materials manufactured at No.3 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.

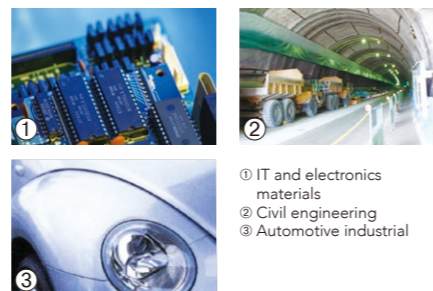
The connection between polyurethane materials and materiality (p. 10) is as follows:

- Selling rock hardening agents for the Linear Chuo Shinkansen Line (3. consideration for the environment)
- Providing polyurethane materials that can contribute to the carbon neutrality of electrical components in vehicles, home appliances, etc. (3. consideration for the environment)

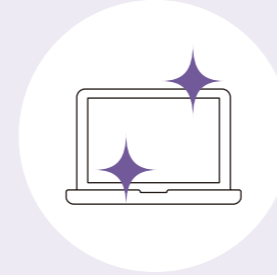


Chemistry provides a solution.

No.3 Plant, which manufactures functional polyurethane resin, commenced operations in December 2019. Against this backdrop, we have redoubled our initiatives with our inspiring/inspired partners. We are also striving to promote new development of IT and electronics material applications for the electrification of mobility components prompted by the spread of EVs. 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.



- ① IT and electronics materials
- ② Civil engineering
- ③ Automotive industrial



Functional Materials

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 applications. For example, the segment's products include plastic flame retardants, antistatic agents that control static electricity, lubricants, anticlouding agents, antioxidants, and radiation-curable monomers and oligomers that use radcure (UV- or EB-curing) technology. In recent years, radcure resin and flame retardants have been used to contribute to high-speed, large-capacity data communications (5G), which are becoming increasingly popular.

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

Review of and issues related to FY2022

Net sales in this segment for the fiscal year ended March 31, 2023 generally grew significantly.

In Japan, sales of waterborne polyurethanes for IT and electronics applications fell sharply, but sales of materials for radcure resins for IT and electronics applications grew significantly, as did sales of flame retardants for rubber and plastic applications. Overseas, sales of both flame retardants for rubber and plastics and radcure resin materials for IT and electronics material applications rose significantly. 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 No.4 Plant of the Kasumi Plant
2. Expanding earnings of the waterborne polyurethane resin business
3. Expanding earnings of the flame retardants business

DKS' strengths

Radiation-curable monomer and oligomer technology enables instantaneous drying and curing of a resin composition by irradiation with ultraviolet light (UV) or an electron beam (EB). It is used in a wide range of fields and applications, such as in resin materials for semiconductors, liquid crystal displays, and the like,

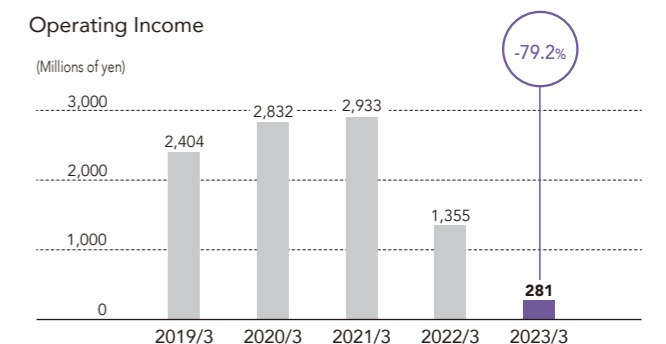
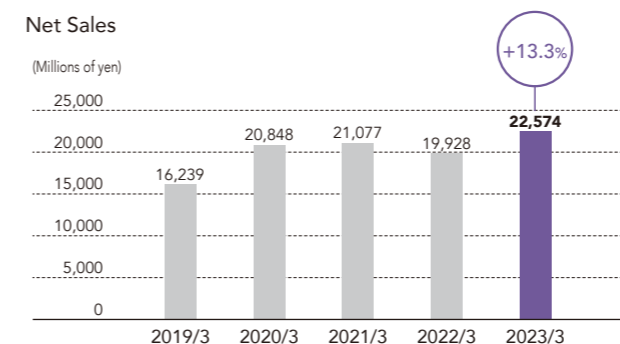
as well as in coatings for cell phones, optical fibers, and plastics, contributing to resource and energy conservation and reduction of environmental impact. Waterborne polyurethane resins are used in optical film primers, automotive applications, metal surface treatment agents, inkjet agents, and other applications that require adhesion, chemical resistance, toughness, and flexibility. Brominated flame retardants are more stable and highly flame resistant than phosphorous- or inorganic-based flame retardants when dealing with materials such as rubber and plastics.

Connection with materiality

Additionally, by further deepening initiatives with inspiring/inspired partners, we will pursue development and expanded sales of IT and electronics materials. 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.

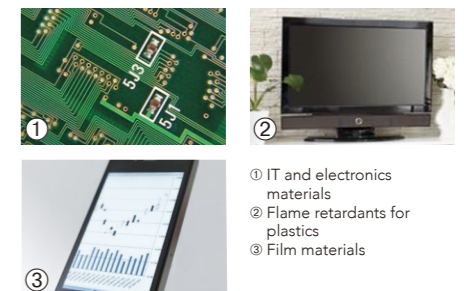
The connection between functional materials and materiality (p. 10) is as follows:

- Expanding sales of products for IT and electronics materials and securing profit (7. tackling NEXT and DREAM businesses)
- Accelerating next-generation product development with inspiring/inspired partners (7. tackling NEXT and DREAM businesses)
- Contributing to carbon neutrality (3. consideration for the environment)
- Expanding sales of biodegradable polymers (1. research and development)



Chemistry provides a solution.

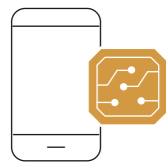
While many urethane resins are based on organic solvents, DKS is also researching and developing waterborne polyurethanes, in which the polyurethanes are dispersed in water. From the perspective of reducing emissions of volatile organic compounds (VOCs) and preventing air pollution, demand continues to increase for waterborne materials for use in adhesives, paints and coatings due to the need for non-solvents. In addition to being safe for the environment and people, these products allow high-performance finishing in a variety of applications, including paper and metal processing, as well as film processability. As such, this is a field in which we can demonstrate our strength both in Japan and overseas. While there is a need for non-solvents, there is also a growing social demand for greenhouse gas reduction and carbon neutrality. We aim to further resolve issues with our unique technologies and proposal capabilities.



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

Business Activities Report

Electronic Device Materials



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 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. (Kyoto) and Dai-ichi Ceramo Co., Ltd. (Shiga).

Review of and issues related to FY2022

Net sales in this segment for the fiscal year ended March 31, 2023 generally fell sharply.

In particular, ionic liquids for display applications and conductive pastes for solar cell applications fell sharply.

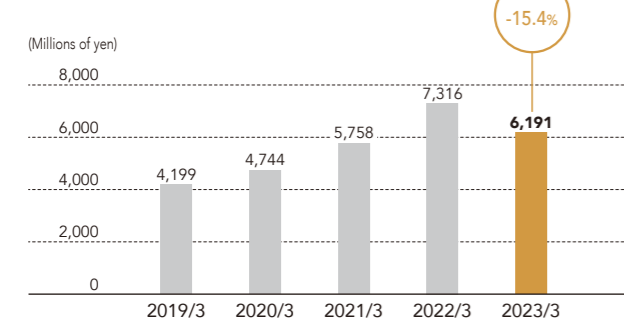
Issues facing this segment are as follows:

1. Improving profitability of products for ceramic materials applications
2. Aggressively expanding conductive pastes to solar cell market
3. Concerns for risks such as stricter environmental regulations in China, aggressive pricing by local Chinese manufacturers, and raw material supply shortages

DKS' strengths

As for compound technologies that combine high viscosity and special conditions, our advanced know-how is a strength that makes it possible to supply materials that meet the demands of customers. Conductive pastes, which are primarily made from precious metals, also include non-organic fillers and soluble binders. They provide functionality to electronic devices and components used in items such as solar cells, automobiles, and smartphones. In addition, 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 smartphones and other electronic devices, precision components for items such as watches and medical devices, and automotive and optical communication components.

Net Sales



Connection with materiality

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.

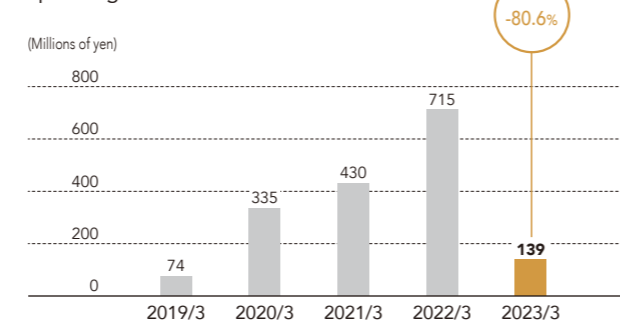
Kyoto Elex manufactures a variety of high performance conductive pastes for electronic components, solar cells, and the like. In particular, our conductive paste for heterojunction technology (HJT) high-efficiency solar cells has been well received by users. We have also established a local subsidiary in China, where the solar cell market is expected to continue to grow. Although the improvement of technological capabilities in Asian countries poses a threat, we will provide our proprietary technologies, R&D capabilities, and solid quality to drive growth.

Dai-ichi Ceramo has applied its existing compound technology for injection molding to the development of ceramic and metal powder 3D printer materials for material extrusion (MEX). Two types, a pellet type and a filament type, are available for use by a wide range of customers. After 3D modeling, relatively large metal and ceramic sintered bodies can be obtained by degreasing and sintering in the same manner as existing injection molding processes.

The connection between electronic device materials and materiality (p. 10) is as follows:

- Expanding business in the solar cell market (3. consideration for the environment)
- Supporting diversification of consumer needs (7. tackling NEXT and DREAM businesses)
- Accelerating next-generation product development through collaboration (7. tackling NEXT and DREAM businesses)

Operating Income



Chemistry provides a solution.

Graphite is the main anode material for lithium-ion secondary batteries used in mobile devices, etc. Recently, a small amount of silicon material (SiO, SiC, Si) has been added to graphite to increase capacity. Silicon material can expand up to four times during battery charging, and when it contracts during discharge, the electrode structure is destroyed and the battery deteriorates, which was an issue. We are developing adhesives that suppress this expansion and contraction and prevent battery deterioration (see p. 29).

We will contribute to the realization of a sustainable society by aiming to expand our business from small devices to EV, which is expected to be a growth field in future.



① Solar cells
② Displays
③ Lithium ion battery cells

Life Sciences



With our full-scale entry into the Life Sciences business in September 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.

Review of and issues related to FY2022

During the fiscal year ended March 31, 2023 net sales in this segment rose ¥20 million (4.4%) year on year to ¥497 million. A clinical trial on healthy subjects and those with mild cognitive impairment confirmed the effect of intake of I. Japonica Bombyx Fungus containing Naturido on cognitive function. In February 2023, we submitted notification of the functional food Kainou Tochukasou to the Consumer Affairs Agency, and launched the product in August. The contract manufacturing business for products such as pharmaceutical raw materials and health foods based on concentrating and powdering extracts from natural materials was firm.

Issues facing this business are as follows:

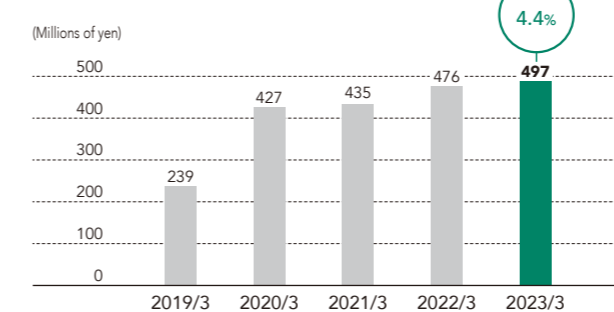
1. Establish B-to-B and B-to-C business and quickly generate earnings
2. Expand new contract manufacturing business

DKS' strengths

The manufacturing plant for Kainou Tochukasou has acquired HACCP certification, an international standard for sanitation management, and we have further enhanced quality control systems to provide customers with safe and reliable health food products. After publishing a paper in the international journal *PLOS ONE* (Neuroscience) in January 2021, we proceeded with human clinical studies and published a paper in the Japanese Journal *Brain Supplement* in September 2022.

Ikeda Yakusou manufactures and provides safe and reliable

Net Sales



products from facilities that have acquired GMP certification for pharmaceuticals. Sudachin tablets, an Ikeda Yakusou product, have been certified as a Shikoku Health Support Food (commonly referred to as "Health Four"). The company also undertakes contract manufacturing business for products related to drug substances, cosmetics and chemical products foods based on high-quality extracting and powdering technologies. Also, able to handle chemical products, Ikeda Yakusou can provide products with various levels of performance and functions that match customers' requests.

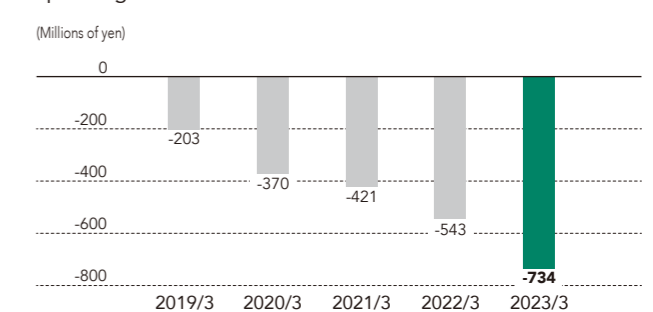
Connection with materiality

Currently, we have launched the "food with functional claims" Kainou Tochukasou in August 2023, as a product containing Naturido, an ingredient discovered from I. Japonica-Bombyx Fungus. In addition, we are taking steps to obtain "foods with functional claims" certification for Sudachin, a substance extracted from the peels of sudachi (citrus fruit) with benefits against diabetes and obesity.

The connection between life sciences and materiality (p. 10) is as follows:

- Promoting SDGs by revitalizing local communities through sericulture (Sericulture Innovation) (4. contributing to a collaborative society)
- Developing health foods and general-use food products (and later, pharmaceutical products) using Kainou Tochukasou, Naturido, and Sudachin (7. tackling NEXT and DREAM businesses)
- Establishing and promoting of B-to-C business that will be the core of new businesses (DREAM) (7. tackling NEXT and DREAM businesses)

Operating Income



Chemistry provides a solution.

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 register Sudachin as a "food with functional claims." In addition, we are establishing B-to-B and B-to-C business and quickly generating earnings for I. Japonica-Bombyx Fungus, and developing products such as general foods, soft drinks, and alcoholic beverages using Sudachin.



Kainou Tochukasou [now on sale] (I. Japonica-Bombyx Fungus)
This is the first "food with functional claims" that contains a component derived from I. Japonica-Bombyx Fungus (Naturido) as a functional ingredient. (In Japanese only)
https://dkslife.jp/kainoutouchukasou_lp01



Sudachin

Proprietary Technologies of DKS

Technical Road Map: Proprietary Technologies



Technologies are multiplied to produce new technologies

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.62

1. To make the surface smooth and even

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 polymerization² 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 group³. 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, graphene⁵), 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 force⁶ 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 and coatings, printings and 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-composites⁷ (MMT⁸, CNT⁹). 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 cells, 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

Fundamental Knowledge of Surfactants

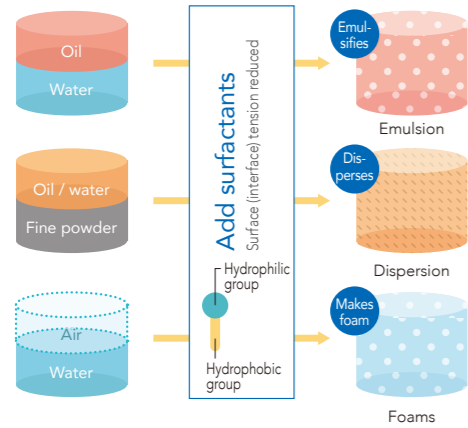
Generally, an "interface" refers to the border area between two materials of different states of solid, liquid or gas. A surface active agent, or surfactant, is a term for a chemical that exhibits functions and improves the performance of these interfaces.

Basic Structure of Surfactants

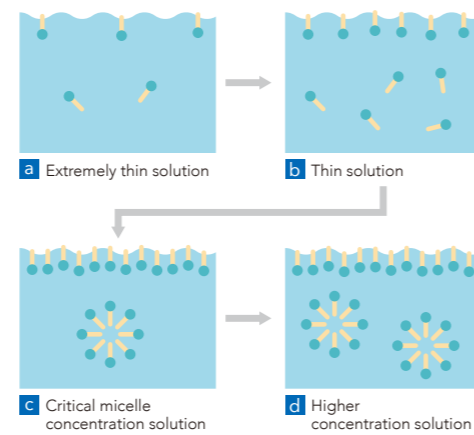
Surfactants have a unique chemical structure that has both hydrophilic (water-attracting) and hydrophobic (oil-attracting) properties. Using this structure, surfactants can achieve a variety of effects such as emulsification, dispersion, foaming, and adsorption by weakening surface tension or forming 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 molecularly 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 when dissolved 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	<ul style="list-style-type: none"> • Superb emulsifying and dispersing properties • Good foaming • Not susceptible to temperature 	▶ Laundry detergent / Shampoo / Body wash
Cationic surfactants	<ul style="list-style-type: none"> • Absorbed by textiles, etc. • Antistatic effect • Sterilizing effect 	▶ Hair conditioner / Fabric softener / Disinfectant
Amphoteric surfactants	<ul style="list-style-type: none"> • Non-irritative to the skin • Superb solubility in water • High compatibility with other surfactants 	▶ Body wash / Dishwashing liquid / Shampoo
Nonionic surfactants	<ul style="list-style-type: none"> • Easy to adjust the balance of hydrophilic and hydrophobic properties • 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 powders 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 LCDs 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 dyeing, enhances dye fastness	Makes the dyestuff gradually be absorbed by the textiles and brings about uniform dyeing.	▶ Textile processing 
Sterilizing	Removes bacteria	Negatively charged bacteria is absorbed by positively charged surfactant which destroys the bacteria cell membranes and sterilizes.	▶ Hand sanitizer 

Environmental Impact of Surfactants

Most household wastewater that contains surfactants is collected and treated at public sewage treatment facilities 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.
Carbon neutrality (CN)	Balancing greenhouse gas (GHG) emissions and absorption. The Japanese government has pledged to aim for carbon neutrality by reducing greenhouse gas emissions to net-zero by 2050.
Cellulose Nano Fibers	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.
Circular economy (CE)	A system for eliminating waste and recycling resources to reduce impact on and regenerate nature.
CNF	An abbreviation for cellulose nano fibers. *See "Cellulose Nano Fibers."
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.
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 ongoing 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 (GHG) 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.
Health & Productivity Stock	The Ministry of Economy, Trade and Industry, in collaboration with the Tokyo Stock Exchange, selects listed companies that take strategic initiatives and carry out efforts with regard to employee health from a management perspective, recognizing them as Health and Productivity Stocks. The aim is to encourage companies to take health management initiatives by introducing them as attractive companies to investors who place importance on improving corporate value from a long-term perspective.
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 spark.
Material issues	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 "material issues," and many companies are using this approach when conducting CSR activities and reporting the results in integrated reports.
Modal shift	Switching or changing from one mode of transport to another, especially to a means of transport with less impact on the environment.

Terminology	Description
Naturido	A new and useful ingredient discovered by Biococoon Laboratories, Inc. from medical fungus grown on the pupae of domestic silkworms obtained using sericulture technology.
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.
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.
Sucrose fatty acid ester	A nonionic surfactant produced from natural sucrose and fatty acids. It is also known as sugar ester (SE).
TCFD	Task Force on Climate-related Financial Disclosures. This was established by the Financial Stability Board (FSB) at the request of the G20 to consider how to handle climate-related information disclosure and the responses of financial institutions.
United Nations Global Compact	A global framework for achieving sustainable growth announced by then United Nations Secretary-General Kofi Annan at the 1999 World Economic Forum (Davos). The framework states 10 principles in the four areas of human rights, labor, the environment and anti-corruption.
Uni-Top	DKS' 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.
VUCA age	A term used to describe a world in which the future is uncertain and difficult to predict. VUCA is an acronym for Volatility, Uncertainty, Complexity, and Ambiguity, and refers to the chaotic modern environment.
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 949-3116, Japan
Area: 87,639 m²
Main products: CMC, waterborne polyurethane resins, professional detergents, polyvinylpyrrolidone

Gembu Co., Ltd.

Kyoto Elex Co., Ltd.

Biococoon Laboratories, Inc.

Tokyo Headquarters Dai-ichi Kenkou Co., Ltd.

K&D Fine Chemical Corporation

Nagoya Office

Ikedate Yakusou Co., Ltd.

Kyushu Office

Osaka Branch

Dai-ichi Ceramo Co., Ltd.

Yokkaichi Chemical Co., Ltd.

Shiga Branch
Location: 427 Gokasho Hiyoshi-cho, Higashi-ohmi, Shiga 529-1403, Japan
Area: 106,805 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 510-0051, Japan
Area: 16,303 m²
Main products: Functional chemical products

Yokkaichi Branch Kasumi Plant
Location: 1-23-5 Kasumi, Yokkaichi, Mie 510-0011, Japan
Area: 101,138 m²
Main products: Functional chemical products, urethane-related chemicals, plastic additives

Subsidiary and Affiliated Companies (Japan)

Company name	Location	Business activities	Ownership
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	100%
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	100%
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 [Partner] DOWA Electronics Materials Co., Ltd.	50.03%
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	100%
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	100%
Biococoon Laboratories, Inc.	4-3-5 Ueda, Morioka, Iwate 020-8551, Japan Phone +81-19-613-5564 Fax +81-19-613-5570	R&D regarding drugs and health care ingredients Production of foods and health care products	100%
Ikedate 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 ingredients for health food Production and sales of life sciences products, such as drugs and quasi-drugs	100%
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 [Partner] JFE Chemical Corporation	50.00%

Overseas

Sisterna B.V.

DKS (Shanghai) International Trading Co., Ltd.

Chin Yee Chemical Industries Co., Ltd.

Chin Yee Chemical Technologies (Wuxi) Co., Ltd.

P.T. Dai-ichi Kimia Raya

DDFR Corporation Ltd.

KYOTO ELEX (Suzhou) Co., Ltd.

Operation Bases (World)

Company name	Location	Business activities	Ownership
Chin Yee Chemical Industries Co., Ltd.	11F, Lidy 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	51.0%
Sisterna B.V.	Belder 30A 4704 RK Roosendaal, The Netherlands Phone:+31-165-524730	Application development and sales of sucrose fatty acid esters	94.9%
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 fatty acid esters	91.53%
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	100%
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	57.0%
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	50.0%
KYOTO ELEX (Suzhou) Co., Ltd.	1F, No.6 Building, New-Tech. Industrial Park, No.98 Hengshan Road, Suzhou New District, Jiangsu, China Phone +86-512-6871-2900 Fax 86-512-6871-2901	Production and sales of electronic materials	94.2%

Financial and Nonfinancial 11-Year Summary

Financial Data (Millions of yen)	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Net Sales	51,843	54,614	55,597	52,782	52,254	56,955	59,574	61,456	59,140	62,672	65,081
Surfactants	19,486	20,359	21,573	20,779	19,793	21,416	21,838	18,970	17,303	18,564	18,976
Amenity Materials	6,825	7,141	6,856	7,208	6,986	7,502	8,031	7,994	7,081	8,092	8,079
Polyurethane Materials	8,466	9,564	9,442	8,934	9,093	9,115	9,026	8,470	7,484	8,294	8,761
Functional Materials	9,666	10,680	11,216	11,259	12,517	14,070	16,239	20,848	21,077	19,928	22,574
Electronic Device Materials	7,398	6,868	6,508	4,600	3,862	4,850	4,199	4,744	5,758	7,316	6,191
Life Sciences	–	–	–	–	–	–	239	427	435	476	497
Overseas Sales (relative to net sales ratio %)	7,323 (14.1)	8,103 (14.8)	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)	14,076 (22.5)	15,506 (23.8)
Operating Income	1,754	2,477	2,944	3,439	3,944	5,053	4,341	4,154	4,485	4,626	1,186
Ordinary Income	1,544	2,374	2,717	3,200	3,773	4,725	4,175	3,524	4,314	4,192	1,200
Profit Attributable to Owners of Parent	797	1,336	1,782	2,198	2,489	3,351	2,581	2,014	2,563	2,492	(407)
Capital Expenditures	3,664	1,512	3,948	8,485	3,786	2,467	5,802	6,138	4,617	1,925	3,172
Depreciation	2,003	2,104	2,153	2,087	2,335	2,473	2,555	2,724	3,263	3,430	3,295
R&D Expenses	2,340	2,506	2,439	2,380	2,393	2,307	2,765	2,748	2,821	2,946	3,236
Net Cash Provided by (Used in) Operating Activities	2,477	3,553	2,322	4,197	3,750	5,017	3,236	3,766	4,955	5,520	724
Net Cash Provided by (Used in) Investing Activities	(3,548)	(1,793)	(3,229)	(7,687)	(3,336)	(1,130)	(5,694)	(5,842)	(3,804)	(2,700)	(2,883)
Cash Dividends Paid	298	298	474	528	608	710	711	711	712	814	840
Amount of Treasury Shares Acquired	0	0	0	0	1,000	1	0	0	0	0	1,500
Net Assets	18,200	19,886	26,156	26,745	28,044	31,960	33,591	34,265	37,404	40,383	38,296
Total Assets	55,416	57,570	64,420	66,057	69,046	73,976	75,906	81,736	85,033	86,469	85,025
Interest-Bearing Debt ¹	18,712	20,680	21,322	23,228	24,594	23,863	23,466	29,946	28,529	27,763	29,865
Per-Share Data (yen)²											
Net Profit	93.40	156.60	193.44	208.18	236.98	330.29	254.11	198.17	251.97	244.81	(41.87)
Net Assets	2,021.93	2,200.01	2,362.01	2,425.27	2,649.71	2,970.75	3,082.83	3,114.97	3,405.28	3,610.31	3,593.49
Cash Dividend	35.00	35.00	45.00	50.00	60.00	70.00	70.00	70.00	70.00	80.00	80.00
Major Indices											
R&D Expenses to Sales Ratio (%)	4.5	4.6	4.4	4.5	4.6	4.1	4.6	4.5	4.8	4.7	5.0
Operating Margin (%)	3.4	4.5	5.3	6.5	7.5	8.9	7.3	6.8	7.6	7.4	1.8
Return on Equity (ROE) (%)	4.8	7.4	8.2	8.7	9.5	11.8	8.4	6.4	7.7	7.0	(1.1)
Return on Assets (ROA) (%)	1.5	2.4	2.9	3.4	3.7	4.7	3.5	4.5	3.1	2.9	(0.5)
Equity Ratio (%)	31.1	32.6	38.7	38.8	38.9	40.8	41.3	38.8	40.7	42.5	40.4
Net D/E Ratio (times)	0.66	0.58	0.36	0.52	0.54	0.39	0.48	0.57	0.45	0.38	0.54
Dividend Payout Ratio (%)	37.5	22.4	23.3	24.0	25.3	21.2	27.5	35.3	27.8	32.7	–
Total Return Ratio (%)	37.5	22.4	26.7	24.1	64.6	21.2	27.6	35.4	27.8	32.7	–
Year-End Stock Price (yen) ²	250	322	387	328	427	875	3,480	3,750	3,680	2,759	1,885
PER (times)	13.4	10.3	10.0	7.9	9.0	13.2	13.7	18.9	14.6	11.3	(45.0)
PBR (times)	0.6	0.7	0.8	0.7	0.8	1.5	1.1	1.2	1.1	0.8	0.5
Dividend Yield (%)	2.8	2.2	2.3	3.1	2.8	1.6	2.0	1.9	1.9	2.9	4.2
Nonfinancial Data											
No. of Employees (consolidated) (persons)	979	969	944	982	967	976	985	1,032	1,061	1,096	1,104
No. of Employees (non-consolidated) (persons)	526	514	508	495	486	497	512	531	560	571	584
No. of Employees Outside Japan (persons)	172	170	163	219	199	213	170	177	178	197	198
Ratio of Female Employees to Total Employees (non-consolidated) (%)	14.8	16.0	15.9	17.0	17.5	17.5	17.8	18.8	18.9	20.3	20.9
No. of Employees Who Utilized the Child-Care Leave System (non-consolidated) (persons)	10	8	11	9	6	12	7	3	7	13	20
No. of Employees Who Utilized the Child-Care Part-Time Work System (non-consolidated) (persons)	11	8	9	10	13	10	10	12	10	8	9
Annual Paid Leave Rate (non-consolidated + assigned employees) (%)	62.7	63.7	61.0	64.5	62.4	67.4	68.5	73.2	66.1	67.4	73.8
No. of Patents Held (outside Japan) (patents) ³	636 (237)	668 (246)	735 (297)	763 (316)	855 (378)	924 (427)	961 (453)	1,012 (479)	1,056 (514)	1,005 (483)	982 (444)
Generated Waste Amount (tons)	14,421	12,724	13,876	13,191	17,364	20,779	21,658	19,605	18,431	16,664	15,251
CO ₂ Emissions (consolidated) (thousands of tons)	51.9	52.0	51.3	50.4	51.7	53.6	52.6	53.8	49.0	48.6	43.0

1. Lease liabilities 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 FY2016.

Consolidated Financial Statements

Consolidated Balance Sheets

		(Millions of yen)	
Assets	FY2021	FY2022	
Current assets			
Cash and deposits	12,224	9,128	
Notes receivable—trade	526	345	
Accounts receivable—trade	14,432	14,759	
Electronically recorded monetary claims—operating	1,532	2,218	
Merchandise and finished goods	11,582	13,131	
Work in process	21	16	
Raw materials and supplies	3,905	3,489	
Prepaid expenses	317	369	
Other	1,996	1,956	
Allowance for doubtful accounts	(4)	(3)	
Total current assets	46,534	45,411	
Non-current assets			
Property, plant and equipment			
Buildings and structures	30,486	30,640	
Accumulated depreciation	(16,944)	(17,805)	
Buildings and structures, net	13,541	12,834	
Machinery, equipment and vehicles	37,426	35,272	
Accumulated depreciation	(31,870)	(30,621)	
Machinery, equipment and vehicles, net	5,555	4,650	
Tools, furniture and fixtures	4,144	4,285	
Accumulated depreciation	(3,413)	(3,484)	
Tools, furniture and fixtures, net	730	800	
Land	9,638	9,748	
Leased assets	4,804	4,582	
Accumulated depreciation	(2,004)	(2,244)	
Leased assets, net	2,800	2,338	
Construction in progress	1,091	2,369	
Total property, plant and equipment	33,358	32,743	
Intangible fixed assets			
Goodwill	213	–	
Others	405	341	
Total intangible fixed assets	618	341	
Investments and other assets			
Investment securities	4,004	4,274	
Long-term loans receivable	16	14	
Long-term prepaid expenses	231	512	
Deferred tax assets	172	299	
Retirement benefit asset	1,228	1,063	
Other	310	371	
Allowance for doubtful accounts	(6)	(6)	
Total investments and other assets	5,958	6,529	
Total non-current assets	39,935	39,614	
Total assets	86,469	85,025	
Liabilities	FY2021	FY2022	
Current liabilities			
Notes and accounts payable—trade	10,204	9,972	
Electronically recorded obligations—operating	429	379	
Short-term borrowings	6,711	6,516	
Lease liabilities	558	474	
Accrued expenses	348	308	
Income taxes payable	576	232	
Accrued business office taxes	41	41	
Provision for bonuses	816	712	
Other	2,040	2,002	
Total current liabilities	21,726	20,639	
Non-current liabilities			
Corporate bonds	6,000	6,000	
Long-term borrowings	15,051	17,348	
Lease liabilities	2,551	2,131	
Deferred tax liabilities	318	196	
Retirement benefit liability	107	79	
Asset retirement obligations	74	74	
Other	255	259	
Total non-current liabilities	24,359	26,089	
Total liabilities	46,086	46,729	
Net assets	FY2021	FY2022	
Shareholders' equity			
Capital stock	8,895	8,895	
Capital surplus	7,278	7,276	
Retained earnings	20,498	19,250	
Treasury shares	(1,021)	(2,488)	
Total shareholders' equity	35,650	32,933	
Accumulated other comprehensive income			
Valuation difference on available-for-sale securities	181	467	
Foreign currency translation adjustment	507	765	
Remeasurements of defined benefit plans	427	180	
Total accumulated other comprehensive income	1,116	1,413	
Non-controlling interests	3,616	3,949	
Total net assets	40,383	38,296	
Total liabilities and net assets	86,469	85,025	

Consolidated Statements of Income

		(Millions of yen)	
	FY2021	FY2022	
Net sales	62,672	65,081	
Cost of sales	46,954	52,120	
Gross profit	15,718	12,960	
Selling, general and administrative expenses			
Selling expenses	4,173	4,198	
General and administrative expenses	6,918	7,574	
Total selling, general and administrative expenses	11,092	11,773	
Operating income	4,626	1,186	
Non-operating income			
Interest income	7	10	
Dividend income	85	105	
Share of profit of entities accounted for using equity method	55	36	
Foreign exchange gains	55	144	
Rent income	35	35	
Other	79	89	
Total non-operating income	319	421	
Non-operating expenses			
Interest expenses	188	199	
Corporate bond interest	37	37	
Inactive facility expenses	365	–	
Other	162	170	
Total non-operating expenses	753	407	
Ordinary income	4,192	1,200	
Extraordinary income			
Gain on sales of investment securities	–	50	
Reversal for provision for waste disposal costs	194	–	
Total extraordinary income	194	50	
Extraordinary losses			
Impairment losses	–	786	
Amortization of goodwill	–	137	
Loss on disposal of non-current assets	173	102	
Loss on valuation of investment securities	34	–	
Total extraordinary losses	207	1,027	
Profit before income taxes	4,179	224	
Income taxes—current	1,087	459	
Income taxes—deferred	52	(185)	
Total income taxes	1,139	274	
Profit (loss)	3,039	(49)	
Profit attributable to non-controlling interests	546	357	
Profit attributable to owners of parent	2,492	(407)	

Consolidated Statements of Comprehensive Income

		(Millions of yen)	
	FY2021	FY2022	
Profit (loss)	3,039	(49)	
Other comprehensive income			
Valuation difference on available-for-sale securities	(303)	286	
Foreign currency translation adjustment	768	356	
Remeasurements of defined benefit plans, net of tax	142	(238)	
Share of other comprehensive income of entities accounted for using equity method	50	21	
Total other comprehensive income	658	425	
Comprehensive income	3,697	375	
Comprehensive income attributable to owners of parent	2,824	(110)	
Comprehensive income attributable to non-controlling interests	872	486	

Consolidated Financial Statements

Consolidated Statements of Cash Flows

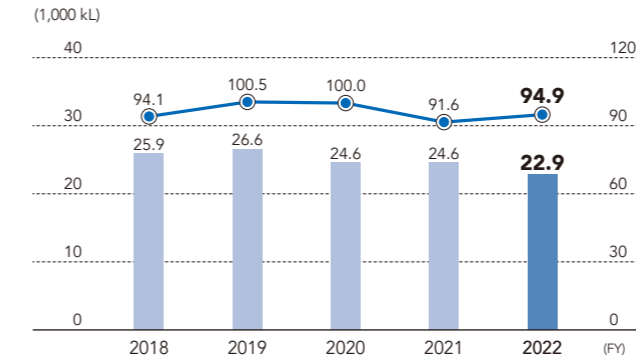
	(Millions of yen)	
	FY2021	FY2022
Cash flows from operating activities		
Profit before income taxes	4,179	224
Depreciation	3,430	3,295
Amortization of goodwill	150	213
Increase (decrease) in allowance for doubtful accounts	(9)	(2)
Increase (decrease) in retirement benefit liability	(417)	(249)
Increase (decrease) in provision for waste disposal costs	(385)	-
Interest and dividend income	(93)	(115)
Interest expenses	188	199
Corporate bond interest	37	37
Share of loss (profit) of entities accounted for using equity method	(55)	(36)
Impairment losses	-	786
Loss (gain) on disposal of property, plant and equipment	173	102
Loss (gain) on valuation of investment securities	34	-
Loss (gain) on sale of investment securities	-	(50)
Decrease (increase) in trade receivables	519	(722)
Decrease (increase) in inventories	(2,016)	(1,362)
Increase (decrease) in trade payables	744	(321)
Other	213	(442)
Subtotal	6,693	1,556
Interest and dividend income received	181	240
Interest paid	(227)	(234)
Income taxes paid	(1,127)	(838)
Net cash provided by (used in) operating activities	5,520	724
Cash flows from investing activities		
Payments into time deposits	(69)	(78)
Proceeds from withdrawal of time deposits	68	78
Purchase of property, plant and equipment	(2,661)	(2,834)
Proceeds from sales of property, plant and equipment	-	10
Purchase of investment securities	(2)	(2)
Proceeds from sales of investment securities	-	70
Collection of loans receivable	1	1
Other	(36)	(128)
Net cash provided by (used in) investing activities	(2,700)	(2,883)
Cash flows from financing activities		
Net increase (decrease) in short-term borrowings	673	174
Proceeds from long-term borrowings	4,890	7,700
Repayments of long-term borrowings	(6,595)	(5,879)
Repayments of lease liabilities	(571)	(531)
Purchase of treasury shares	(0)	(1,500)
Dividends paid	(712)	(840)
Dividends paid to non-controlling interests	(40)	(152)
Proceeds from share issuance to non-controlling shareholders	20	-
Net cash provided by (used in) financing activities	(2,336)	(1,030)
Effect of exchange rate change on cash and cash equivalents	135	89
Net increase (decrease) in cash and cash equivalents	619	(3,099)
Cash and cash equivalents at beginning of period	11,531	12,151
Cash and cash equivalents at end of period	12,151	9,051

Environmental Data

Evolution of Environmental Impact

Changes in Energy Consumption

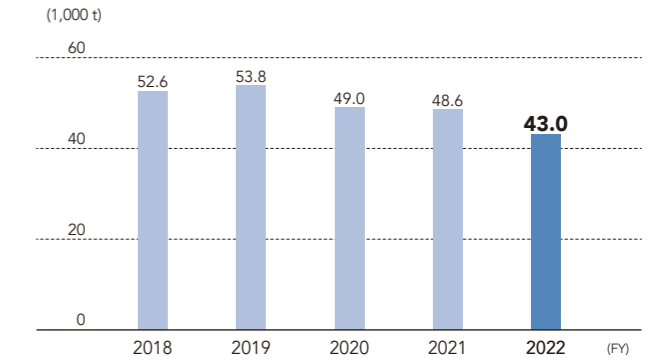
(Yokkaichi, Ohgata, Shiga, Tanagura, administrative departments, domestic subsidiaries)



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. FY2020 performance, which is the benchmark in the GX Strategy Targets (FY2030) and Medium-Term Environmental Targets (FY2024) is set at 100.
2. Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Dai-ichi Ceramo Co., Ltd., as of FY2019, Ikeda Yakusou Co., Ltd., and as of Fyzo, Biococoon Laboratories, Inc.

Changes in Greenhouse Gas Emissions

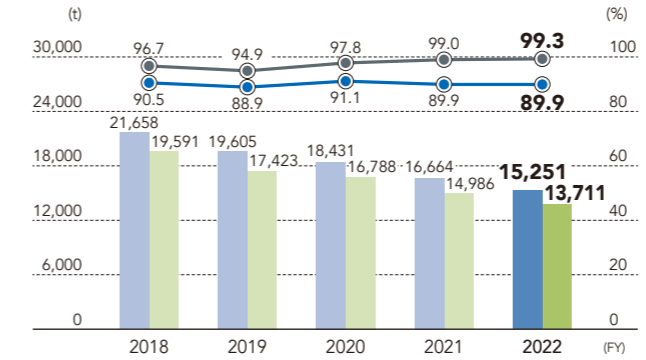
(Yokkaichi, Ohgata, Shiga, Tanagura, administrative departments, domestic subsidiaries, derived from non-energy)



Notes: 1. The administrative departments includes fuel for Company-owned vehicles.
2. Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Dai-ichi Ceramo Co., Ltd., as of FY2019, Ikeda Yakusou Co., Ltd., and as of Fyzo, Biococoon Laboratories, Inc.

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

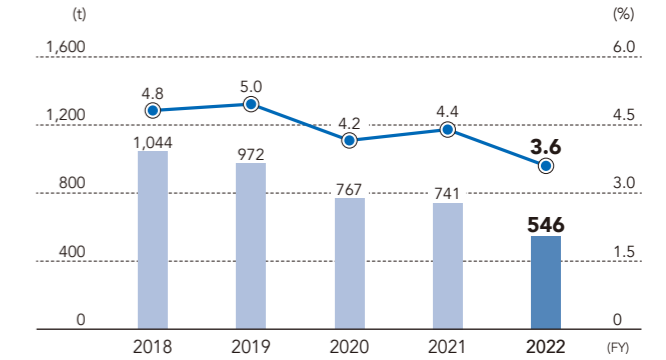
(Yokkaichi, Ohgata, Shiga, Tanagura, Kyoto, domestic subsidiaries)



Note: Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Dai-ichi Ceramo Co., Ltd., and as of FY2019, Ikeda Yakusou Co., Ltd.

Changes in Final Disposal Amount and Final Disposal Rate

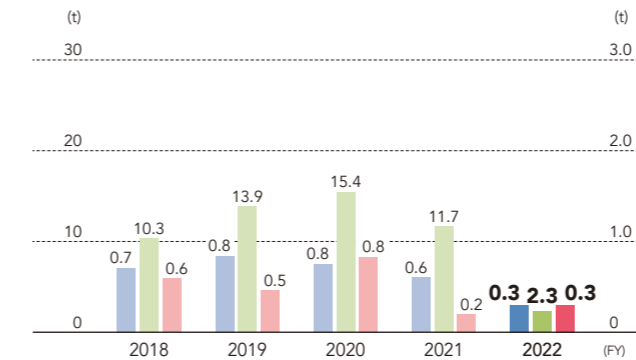
(Yokkaichi, Ohgata, Shiga, Tanagura, Kyoto, domestic subsidiaries)



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 FY2019, Ikeda Yakusou Co., Ltd.

Changes in SOx, NOx and Dust Emissions

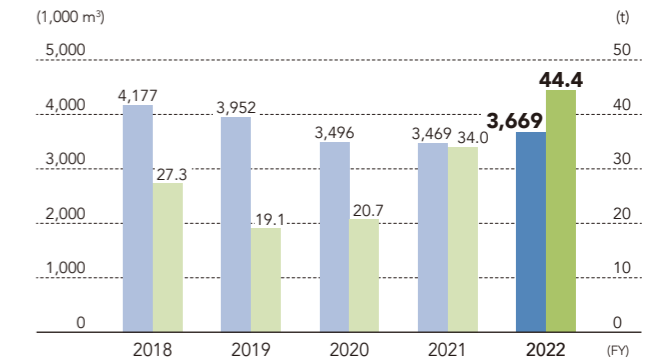
(Yokkaichi, Ohgata, Shiga)



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

Changes in Water Discharge and COD Emission Amounts

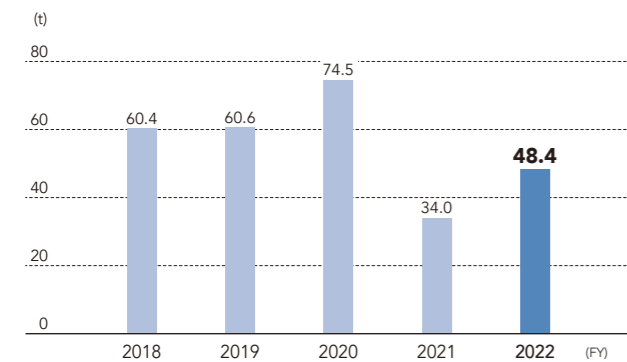
(Yokkaichi, Ohgata, Shiga, Yokkaichi Chemical Co. Ltd.)



Environmental Data / Compliance Awareness Survey Results

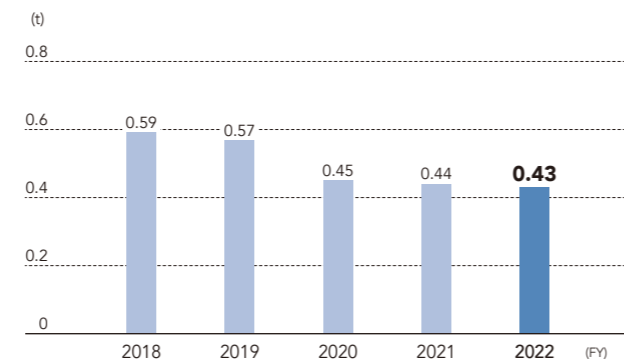
Evolution of Environmental Impact

Changes in Emissions of PRTR Regulation-Designated Substances (atmospheric emissions)
(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 FY2021 (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>

Changes in Emissions of PRTR Regulation-Designated Substances (aquatic emissions)
(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 FY2021 (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	17.4	224.9
	Global environment preservation, energy saving	5.3	56.9
	Resource recycling, resource saving, waste treatment/disposal	0.0	471.7
Upstream/downstream cost	Lowering the environmental impact in containers/packaging	0.0	3.0
Administrative cost	ISO acquisition/maintenance, greening of branch premises	0.0	37.4
R&D cost	Environmentally responsive R&D	0.0	668.6
Social activity cost	Providing support grants for environmental protection to environmental preservation groups or local communities	0.2	1.2
Environmental damage cost		0.0	0.0
Total		23.0	1,463.8

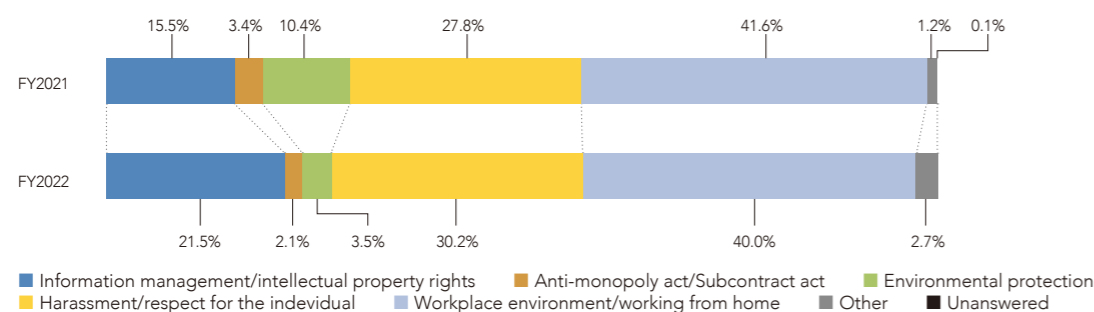
Economic Effects Generated by Environmental Protection Measures

Category	Main activities	Economic effects (Millions of yen)
Gain on sale of valuables	Gain on sale of metal scrap, waste oil and waste alkali, etc.	10.1
Cost savings through energy conservation	Electricity and fuel savings	284.6
Cost savings through resource conservation	Savings from the reduction of water and waste	40.6
Total		335.2

Compliance Awareness Survey Results

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

Target audience: DKS Group employees



Corporate Data (As of March 31, 2023)

Corporate Name	DKS Co. Ltd
Foundation	April 1909
Incorporation	August 1918
Paid-in Capital	8,895 million yen
Number of Employees	584 (consolidated: 1,104)
Total Number of Shares Outstanding	10,684,321 shares
Share Unit Number	100 shares
Number of Shareholders	6,702
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
Osaka Branch	2nd Floor, Osaka Asahi Seimei Building, 4-2-16 Korabashi, Chuo-ku, Osaka 541-0043, Japan Phone: +81-6-6229-1717 Fax: +81-6-6229-1793
Nagoya Office	11th Floor Dai Nagoya Building, 3-28-12 Meieki, Nakamura-ku, Nagoya 450-6411, Japan Phone: +81-52-856-5561 Fax: +81-50-3156-3585
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 our website for the list of major shareholders and the distribution of shareholders (in Japanese only).

▶ <https://www.dks-web.co.jp/ir/library/library04.html>

On Publishing the DKS Report 2023

This year marks the eighth report since publishing the first one in 2016. The DKS integrated annual report is an important means of communicating the value created by DKS to our stakeholders. The purpose is to provide easy-to-understand explanations of our growth strategies from now into the future from a medium- to long-term perspective.

The third year of our medium-term management plan "FELIZ 115," marks the turnaround point of the plan. It was a year of renewed awareness of the challenges facing our Company in terms of financial strength and profit structure. Revenues were up in fiscal 2022, but profit was down substantially due to soaring raw material prices, poor sales in focus areas, and other factors. In response, we revised the plan in June 2023 with numerical targets more in line with the actual conditions. To establish a new starting point for the next plan, which will begin in fiscal 2025, we must get back to the previous profit level by fiscal 2024, the final year of the plan. We will work to transition into a solid high-profit structure by having earnings power that is unaffected by external factors such as the economic environment or market conditions.

This year, there is strong demand for proactive disclosure of ESG-related information. We are conscious of value creation through non-financial means, such as addressing climate change and

decarbonization, promoting health management, and improving corporate governance. We also launched a new intellectual property strategy and introduced human capital management. We are working on an improvement plan that will be well-received by the market with the aim of improving our corporate value.

In the fiscal 2023 edition, we have maintained consistency with subsequent content based on the management policy and business strategy communicated in the Message from the President. Furthermore, for important issues, we have come up with ways to create value for the long term. As the person responsible



for issuing this report, I certify that the content is true and appropriate. Going forward, we will strive to further improve our Company's disclosure and transparency. I welcome your frank and constructive feedback.

September 2023
President COO

YAMAJI Naoki

Editor's Note

The Company's integrated annual report is now in its eighth issue. Already three years have passed under medium-term management plan "FELIZ 115" as well.

Amid global inflation and a weak outlook for economic growth, we went through a lot of trial and error to figure out how to explain the story of the value creation of DKS to stakeholders under the Uni-Top strategy, which is regarded for its uniqueness without pursuing scale. In order to tackle social issues related to climate change, respect for human rights, and human capital, we also rethought the identification of important risks, opportunities, and material issues to identify challenges for creating new corporate value. This year, we enhanced the disclosure of information on our intellectual property strategy in research and development and focused on the relationship between our technology and the creation of medium- to long-term value.

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.



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