

Contents

Who We Are

- 1 DKS' Identity
- 2 DKS' Raison D'etre and Vision for 2030
- 4 Value Creation Process of the DKS Group
- 6 Explanation of the Value Creation Process
- 8 Risks and Opportunities
- 10 Material Issues

What Sort of Value Has DKS Been Creating?

- 12 Message from the CEO
- **16** Philosophy in Practice—The History of DKS Business Development
- 18 Review of the Medium-Term Management Plans
- 19 Overview of the Medium-Term Management Plan "FELIZ 115"
- 20 Financial and Nonfinancial Highlights
- 22 Financial/Capital Strategies and Total Shareholder Return

What Sort of Value Will DKS Create?

- 24 Message from the President
- 28 Special Feature

Tradition to Change Chemistry into Happiness and Innovation as a 100-year-old Company Contribution of DKS to renewable energy

- 30 Research and Development
- 32 Quality Management
- 36 Human Resource Management
- 40 Consideration for the Environment
- 42 TCFD Efforts
- 44 Contributing to a Collaborative Society

Value Creation Innovation

- 46 Organizational Resilience
- 55 Message from an Outside Director
- **56** Dialogue with Shareholders and Investors
- 57 Life Sciences Sidebar
- 58 Board of Directors, Audit & Supervisory Board, and Executive Officers

Initiatives by Business

60 Business Activities Report

Data Section

- 66 Proprietary Technologies of DKS
- **68** Fundamental Knowledge of Surfactants
- **70** Glossary
- 72 Domestic/Overseas Network
- 74 Financial and Nonfinancial 11-Year Summary
- **76** Consolidated Financial Statements
- 79 Environmental Data/Compliance Awareness Survey Results
- **81** Corporate Data/On Publishing the DKS Report 2022/ Editor's Note

DKS Report 2022 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 2021 (from April 1, 2021, to March 31, 2022). The data on the Industrial Accident Severity Rate (ASR) and the Industrial Accident Frequency Rate (AFR) were obtained from January to December 2021.

■ Reference Guidelines

International Integrated Reporting Framework by the IFRS Foundation (Value Reporting Foundation merged with the IFRS Foundation in July 2022), "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 2021

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

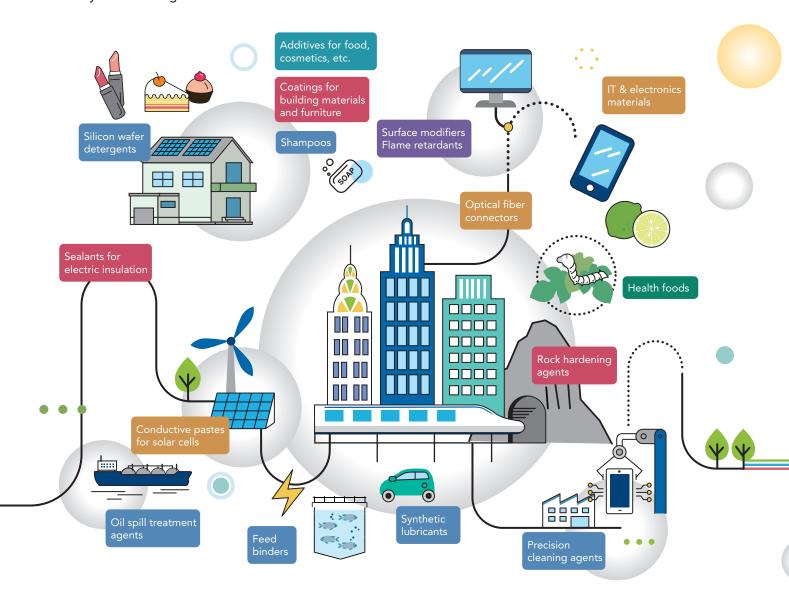


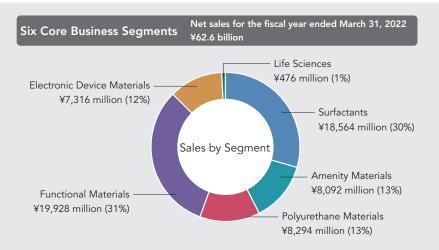
The DKS Group logo symbolizes "Act for a Leap," our step for globalization. It describes the bridge for growth toward "Challenge to 1000."

DKS' Raison D'etre 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.





Surfactants

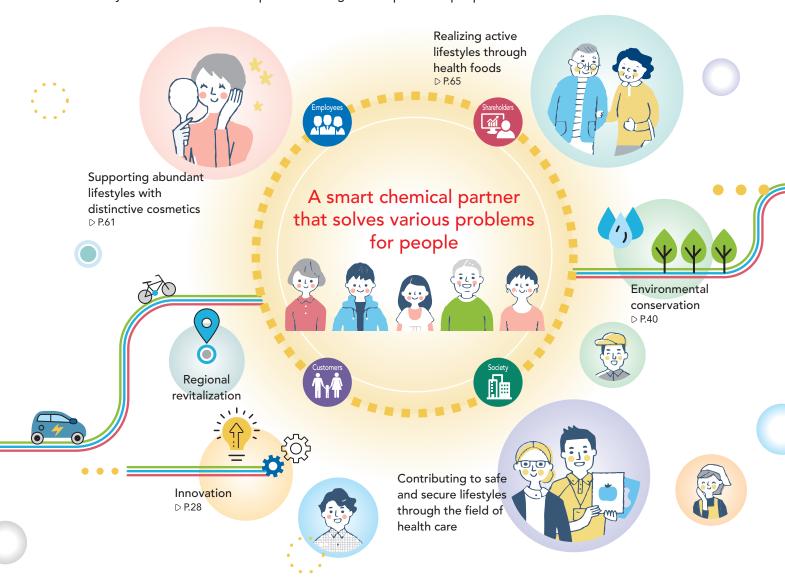
We have been providing highly functional surfactants since the Company's founding in 1909.

Amenity Materials

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

Vision for 2030

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



Polyurethane Materials

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

Functional Materials

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

Electronic Device Materials

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

Life Sciences

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

Value Creation Process of the DKS Group

Based on its technologies and trust accumulated over the past 113 years, the DKS Group applies originality and imagination to limited resources in delivering materials that enrich our way of life.

DKS Credo ▶ Contributing to the nation and society through industry DKS Mottoes ▶ Quality First, Cost Reduction, R&D Efforts

Inputs

Fiscal year ended March 31, 2022

■ Financial capital

Net assets: ¥40,383 million Interest-bearing debt: ¥27,763 million

Manufactured capital

Manufacturing bases: 14 (includes 4 overseas)

■ Intellectual capital

Patents held: 1,005 (of which held overseas: 483)

Human capital

Employees (consolidated): 1,096
/ Ratio of female employees: 20.3%

Overseas employees: 197

Employment ratio for people with

disabilities: 2.57%

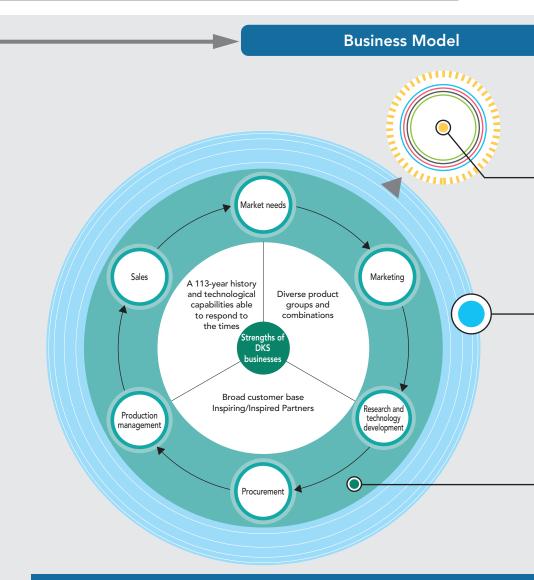
■ Social and Relationship capital

Inspiring/Inspired Partners (specific business partners with whom DKS can keep a mutually-inspiring relationship)

Cooperation with local governments & universities

■ Natural capital

Energy consumption: 24,600 kL/year Raw materials used: Petroleum, coal, ore minerals, wood, plants, biological materials



Uni-Top strategy

Providing unique products that do not pursue scale

DKS' Seven Critical Issues of Impor (management foundation)	tance	Consideration for the Environment	⊳ P.40
Quality Management	⊳ P.32	Regional Society Contributions	⊳ P.44
Research and Development	⊳ P.30	Organizational Resilience	⊳ P.46
Human Resource Management	⊳ P.36	Tackling NEXT and DREAM Businesses	⊳ P.57



Outputs

Six core business segments

Surfactants



D P.60

Amenity Materials



⊳ P.61

NEXT (Peripheral Businesses)

ACTUAL (Existing Businesses)

DREAM (New Businesses)

Polyurethane Materials



D P.62

Functional Materials



Electronic Device Materials

Life Sciences

⊳ P.63

D P.64

D P.65

Medium-Term Management Plan "FELIZ 115"

ESG-based management

- E: Mitigating environmental impact of products and raw materials 100-million mulberry tree planting campaign
- S: Appointment of female officers
- G: Establishment of an Advisory Board

Outcomes

Fiscal year ended March 31, 2022

Financial capital

Net assets: ¥86,469 million Dividend per Share: ¥80 Free Cash Flows: ¥2,820 million Total Shareholder Return for the Past 10 Years:10.5%

ROIC (4.6%) >WACC + α

■ Manufactured capital

Yokkaichi Chemical Co., Ltd.: expanded plant facilities

Kyoto Elex Co., Ltd.: started operation

of new plant in China

Capital expenditures: ¥1,925 million

■ Intellectual capital

Number of patent applications: 91 (of which held overseas: 33) R&D expenses: ¥2,946 million

■ Human capital

Ratio of females in managerial positions: 9.1%

Retention ratio of employees with disabilities: 85%

Percentage of paid leave used: 67.4% Selected as a Health & Productivity Stock for the third consecutive year

■ Social and Relationship capital

Regional revitalization, local community revitalization

■ Natural capital

Contributions to a recycling-oriented society (CN2050)

Energy reduction rate: 9.1% GHG emissions: 48,500 tons (reduction of 400 tons)

Generated waste amount: 16,662 tons

(reduction of 1,769 tons)



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 \rightarrow marketing strategies that leverage the Company's strengths \rightarrow development of products (prototypes, generating orders) grounded in our R&D prowess \rightarrow efficient procurement to facilitate production \rightarrow appropriate production and management \rightarrow sales activities with strict adherence to delivery deadlines \rightarrow 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. 66), 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 2021 exceeded ¥40.0 billion for the first time. 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 113 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 2022, we have implemented cumulative capital expenditures of ¥42,300 million, with total depreciation surpassing ¥17,200 million (see p.22).
- •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

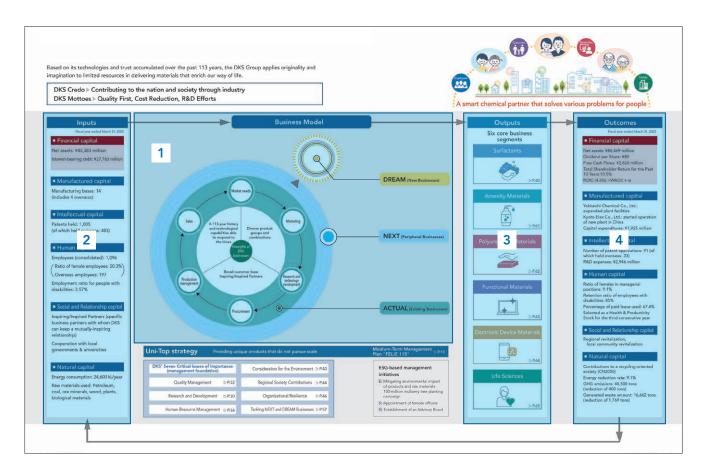
that allow us to customize the function and performance of products in line with customer requirements and to make proposals based on the ideal product combination.

- •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 10%, mainly in Japan, over the past 10 years (see p.74). 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, namely: Surfactants, Amenity Materials, Polyurethane Materials, Functional Materials, Electronic Device Materials, and the Life Sciences business, which was newly added in fiscal 2019.

Surfactants, a product group DKS has developed for more than 100 years, are used in a wide variety of fields and account for about 30% of consolidated net sales. Amenity Materials provide materials and peripheral technologies necessary for a comfortable living environment, while Polyurethane Materials provide 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 account for about 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 ion-conductive polymers, ionic liquids, ceramic materials, lithium-ion battery materials, and conductive pastes for solar cells, which are manufactured by two affiliated companies. (For details on each business, see p.60-65.)



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, 2022. We aim to create more value for our four stakeholders going toward 2030.

- •Financial capital: We are targeting total assets and net sales of ¥135.0 billion, with plans for aggressive growth investments while maintaining the balance of capital and debt. 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, 2022 has plateaued at ¥1.9 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 91 (see p.31). 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 from the 4% range to the 5% range, so that we can deliver products and

services with new value. In the Life Sciences business in particular, we will support economic development and the good health and well-being of people in order to contribute to expanding the technological innovation cited in SDGs 3 and 9.

- •Human capital: Based on the plans laid out in "FELIZ 115," we will adopt a performance evaluation system that rewards contributions to the Company as we continue employee happiness-based management in order to help boost employee enthusiasm and satisfaction, 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.37).
- •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 is one important activity (see p.44), 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

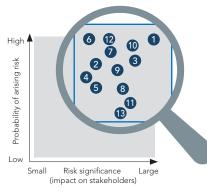
Although a risk event could damage the broad value of a company, risk might also lead to opportunities. While steadfastly avoiding and mitigating risks, DKS also identifies risks considered to be material and implements initiatives to transform them into opportunities.

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

Identifying Significant Risks

- Confirmation of risks recognized in the organizational risk management system
 Identification of risks that should be recognized at the six business segments
- 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 1-13 significant risks in the table below



Responding to risks	Opportunities
 Survey of raw material price trends, including naphtha Survey trends of other companies Gather information from customers Implement prompt price revisions (securing profit) Adopt a raw materials formula (naphtha-linked pricing) Coordinate with suppliers, agencies, and customers 	Cost reduction Inventory adjustment If costs cannot be absorbed through our own efforts, we will pass along prices
 Secure multiple sources for raw materials Coordinate with suppliers Draft BCP measures 	Fixed costs not needed; superiority arises during economic downturns Cost reductions are possible by searching out less expensive raw materials Diversify raw material procurement sources Strengthen BCP measures Strengthen supply chain management
 Formulation and observance of numerical environmental targets (GX strategic targets) by the Company itself, and their observance Response to climate change and promotion of information disclosure through scenario analysis based on TCFD recommendations Promotion of respect for human rights based on The Ten Principles of the UN Global Compact 	Formulation and implementation of green transformation (GX) strategy with a view to carbon neutrality by 2050 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
 Select and focus on themes Deepen market strategies (through "FELIZ 115") including revenue management 	Information on each industry is easily obtainable due to having customers in every field Prioritize important themes Deepen relationships with inspiring/inspired partners Improve open innovation outcomes
 Revise product composition under "FELIZ 115" Thorough profit management for each product Raise prices for products with a smaller contribution to earnings Boost productivity by discontinuing products 	Possessing a lineup of products that can be used in each field enables a variety of solutions to be proposed Range of options for products increases Product composition that takes profit performance into account
 Promote a differentiation strategy through solution proposals, cost reductions, Japanese quality and customization 	Halt sales of low-priced products. Accelerate the shift to highly profitable products by deepening customer relationships; proposing solutions, customizing products, etc. Uni-top strategy (pursue uniqueness, not scale)
 Alliance and coordination with companies, universities, etc. Strengthen the IP Department; strengthen IP asset management (investigate IP asset rights of other asset holders) 	Intellectual property strategies
 Gather information on legal revisions Strengthen internal oversight/checking systems Reinforcement of compliance 	Should the same thing happen with another company's product, it can be regarded as an opportunity to replace it with a DKS product Improve market share through legally compliant product development Improve trust through rigorous compliance practices Promote the development and supply of environmentally and user-friendly products
 Utilize PL prevention/management guidelines Acquire GMP certification Use PL insurance to avoid liability risks Ensure safety in the food product field by acquiring HACCP certification Build and operate a quality control system 	Expand business opportunities by leverage of certification Ability to provide customers with the value of a specialized industry Improve the level of trust from customers and deliver the feeling of security and assurance
 Consider structural reforms through digital transformation (DX) Promote production system enhancements and improved production efficiency by making the Kasumi Plant a mother plant 	An opportunity to make business continuity decisions, enabling the beginning of a portfolio review Improve the profitability of aging factories; promote DX Strengthen management of routine repairs and preventative maintenance leveraging DX
 Strengthen compliance through employee training and appropriate measures against unauthorized access Enhance the security of in-house systems 	Progress of DX (efforts for digitization based on the "Digital Roadmap") Ability to build an advanced information security system by promoting DX
 Promote work-style reform through working from home and telework Review the supply chain and strengthen BCP measures 	Improve the environment for working from home and teleworking Reduce fixed costs by aggregating and reducing bases
Strengthen coordination with various associations and educational institutions to help secure human resources Implement a human resources training program Promote Health and Productivity Management Implement harassment prevention training Promote work-style reform (develop systems for working from home, child-care leave, reemployment after life events, etc.) Accommodate hiring of senior workers and extension of retirement	System reforms in response to societal changes Review and implement personnel system reforms Improve the work environment of manufacturing sites that accommodate female workers 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.

Step 1 Identify the importance for the Company

Step 2 Identify the importance for stakeholders

Step 3 Draw a material issues map

Identify the material issues

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
- Happiness-based management

1 Quality Management 2 Research and Importance to stakeholders Development Extremely 3 Human Resource high Management Consideration for the Environment High 5 Contributing to a Collaborative Society 6 Organizational Resilience Importance to DKS Tackling NEXT and DREAM Businesses

Priority Themes & Focuses of SDGs

Following the principles of our Company Credo and Company Mottoes, and taking into consideration the technologies and various experiences we have amassed over 113 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













Tackling NEXT and DREAM Businesses

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Material Issues for DKS	Relevant stakeholders	DKS initiatives	KPI
 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)
 R&D framework aligned with Uni-Top strategies 	Shareholders Customers	Establishment of research centers for each customer Strengthen initiatives with inspiring/inspired partners	R&D expenses to sales ratio of 5.0% or higher
 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	
• 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 ration of 10% or higher
Human resource development	Employees	Implementation of a DX human resource development program Secure and train global human resources	
Health and Productivity Management initiatives	Employees Society	Improve health awareness by adopting a health information app Efforts to establish exercise habits (DKS Calisthenics)	Percentage of employees who exceed abdominal girth standards: 25.0% Percentage of employees at risk for or experiencing metabolic syndrome: 22.0% Reduction of absenteeism to 2.0% or less Improvement of work engagement and achievement of a normalized score of 51 (both targets for FY2024)
Responding to decarbonization and reducing environmental burdens	Shareholders Society	Green transformation (GX) initiatives Renewable energy (biomass power generation) Product development for moving beyond green vehicles (strengthen the battery cell business) Formulate climate change countermeasures, CN2050 plan, strategies, KPI Initiatives for TCFD	Reduce greenhouse gas (GHG) emissions (Scope 1, Scope 2) for the entire DKS Group in Japan by 30% compared to FY2013 by FY2030
 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)
 Appropriate management of chemical substances 	Society	Respond to more stringent legal regulations Reduce emissions of PRTR Regulation-designated substance	• Final waste disposal rate of 0.1% or less (FY2030 target)
 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"	
 Responding to the digitization of society 	Employees Shareholders Society	Superior, imitation-proof craftsmanship (Uni-Top strategy) Rebuild core technologies and know-how (standardize expert craftsmanship) Acquisition of DX Certification Strengthen information security measures, cybersecurity response	
 Digitization of information dissemination 	Employees Shareholders Customers	Digitize communication/PR tools Strengthen communication/PR with individual consumers Acquisition of new customers through web marketing	
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
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 ¥10.0 billion yen in 2025
Development of the NEXT businesses	Shareholders Customers Society	Open innovation Respond to industry reorganization Execute M&A that contributes to growth	Sales in 2025 Solar cell, exhaust gas business: net sales of ¥10.0 billion SG business: net sales of ¥10.0 billion

SAKAMOTO Takashi

Chairman CEO

Continuing to Pursue Happiness-Based Management under the New Management Structure

Three Elements of Happiness-Based Management

I am pleased to share with you my thoughts as CEO as we look back on 2021 and on how I formulated a new management structure for 2022. The second year of our medium-term management plan "FELIZ 115" was a year all DKS employees should be proud of, as we received much recognition. We were blessed with consecutive selection as a Health & Productivity Stock by the Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange (TSE), as a White 500 Organization, and as a Sports Yell Company. We also received the Minister of Economy, Trade and Industry Award from the 100nen Keiei no Kai. Now I will explain the three elements which form the axis of happiness-based management using the word "Tenchijin" meaning "Heaven (ten), Earth (chi), and People (jin), the three elements that make up the world." In my concluding remarks, I will speak on the future.

Heaven (ten) - Awareness of the Environment Surrounding DKS

First, I would like to share my thoughts about the first element of management, Heaven (ten) – awareness of the environment surrounding DKS. There are two current issues the future of which we cannot foresee even at this time. These are the spread of COVID-19 and the military conflict in Ukraine, events which were considered unthinkable in the 21st century. Many assumed the medical advances of the 20th century would have prevented such a pandemic. Or that humanity learned its lesson about apocalyptic global conflicts after witnessing the atomic bombing of Hiroshima and Nagasaki. Unfortunately, this was not the case. These events were brought about by biological competition for survival and the self-righteousness of those in power. Both phenomena have exposed the weaknesses of humankind, and I consider them to be warnings that our species must keep in mind if we want to continue living on this earth.

The invention of the steam locomotive, the discovery of electricity, the advent of computers, and the use of artificial intelligence — these were all part of the Industrial Revolution. Now in the 21st century, we seem to have entered a completely different dimension that some call "Society 5.0." Speaking of technology, the era of hardware and analog has shifted to one of software and digital. Such disparities have been spurred on for a while. Is this really what we want? I believe that COVID-19 and the conflict in Ukraine called a halt to this shift and disparities. Look at our human origins. It is a fine balance between hardware and software, of analog and digital. One could call it the "equilibrium between the value and price" of a commodity. The conflict in Ukraine has illustrated the economic principle of supply and demand. This 21st century is a Nouvelle Renaissance, a return to humanity.

Toshishun is a Chinese folk story rewritten by AKUTAGAWA Ryunosuke, a novelist active in the Taisho period in Japan.

One evening in the city of Luoyang, capital of the ancient Chinese Tang Dynasty, a young man named Toshishun laments his failed business venture that left him penniless. An old hermit appears to him asking, "What do you wish for?" "Money," he replies. And his wish is granted. But his venture loses a second time. Again, the hermit asks the defeated young man leaning against the wall, and again his wish for money is granted. He succeeds for a time, then loses everything. Upon the third time, Toshishun's wish is to become the hermit's disciple. When I was in the first grade of elementary school, our teacher told us this story using kamishibai (a form of storytelling using sets of illustrated boards displayed in a miniature stage-like device). And ever since, I have felt the yearning to become a hermit. I have about 150 books on the subject of hermits from China, Japan, and other countries in my collection. It is very human to chase after pipe dreams. Toshishun endured harsh ascetic practices imposed by the hermit, such as burning and whipping. His final task was to remain silent no matter what. He saw his old mother being tortured by demons. He closed his eyes, unable to endure the sight. She gasped: "Stay silent!" "Mother!" At his own voice, Toshishun found himself standing in front of the wall of Luoyang. The hermit told him that, had he not cried out, he would have killed Toshishun himself. He admonished Toshishun never to lose his humanity. Humans are mysterious beings. The Arabs pursued alchemy, trying and failing to create gold. This was the beginning of chemistry, the chasing after a dream. In China, they sought the elixir of eternal youth. COVID-19 and the conflict in Ukraine pose the same question for those who live in the 21st century today: If we lose sight of our human principles, will we be able to survive?

Earth (chi) – DKS' Situation

On April 11, 2001, the day of my induction interview, DKS was at rock bottom. After my interview, one top manager said something that struck me: "I want you to save the Company." I will write about this in the next section, *People*. For a quarter of a century since 1980, total assets and net sales of DKS had stagnated at around 40 billion yen. The losses from

Japan's burst bubble economy were weighing heavily on the Company. One senior finance executive, bowing his head, said a few heavy words I will never forget: "Please create a success story for our employees." My first six months in DKS began with shaking hands with the labor union, followed by a tour of factory sites. During that time, I wrote down 108 notes

Message from the CEO

of ideas in my memo pad. Summarized into three points: First, make capital investments for growth, aiming for a total asset turnover ratio of 1.0. Second, set the profit target for investment to ROIC \geq WACC (the return on investment is to be greater than or equal to the average cost of capital). Third, enter into the medical and health care fields, as the "S" in DKS stands for seiyaku (pharmaceuticals in Japanese).

I was convinced that realizing these three goals would create a success story for our employees. My 108 notes are the origin of these three elements of management. I can mention five things in particular that we have implemented and shaped over the past 20 years. (1) In December 2001, we entered into an exclusive product sales agreement with BASF, a world-leading conglomerate. (2) We made Yokkaichi Chemical Co., Ltd., a wholly owned subsidiary in 2011 from a 33% share when I first joined DKS. (3) In 2012, we purchased 100,000 square meters of land from BASF in Kasumi, Yokkaichi City. (4) We built a factory on the land in Kasumi, which became one of our five business sites to date. (5) We welcomed Biococoon Laboratories, Inc. in Iwate Prefecture and Ikeda Yakusou Co., Ltd. in Tokushima Prefecture into the Group and started manufacturing and sales in the Life Science business and contract manufacturing organization for pharmaceuticals (CMO/CDMO).

Three sacred treasures have been handed down from generation to generation in DKS' 113-year history. Our Company Credo: "Contributing to the nation and society through industry." Our Company Motto: "Quality First, Cost Reduction, and R&D Efforts." And our Company Song, written by DOI Bansui, one of Japan's leading lyricists of the

time. It expresses the Dai-ichi Kogyo (DKS) Spirit in four verses, concluding with the words, "Enhance brightness of culture." It is comparable to Johnson & Johnson's "Our Credo." Our philosophy which we have upheld since our founding, is like an early version of the 17 SDGs of the United Nations and ESGs today.

When I joined the Company, I read the Company's 30-, 50-, and 80-year histories, and in the 80-year history there is mention of a temporary improvement in earnings due to the bubble economy. By the time of printing, the bubble had burst, and DKS suffered huge losses. The moral of the story is to stay out of anything other than the core businesses.

In the fall of that year, we had to release the 26,000 m² of land for our headquarters, factory, and laboratory that had already been decided to be sold off. Over the past 20 years, we have regained about ten times the amount of land we gave up. During the previous five-year management plan, "REACT1000," we achieved record profits four times. The equity ratio, which was not even in the low 20% range when we hit rock bottom, improved to 43%. I declare now that our path to stability and development as a chemical manufacturer is not about expanding company scale. It is about becoming Uni-Top — a company valued for its uniqueness. For this purpose, we must (1) combine existing and new technological fields, (2) expand contract manufacturing related to pharmaceutical Good Manufacturing Practices (GMP), and (3) expand product sales and R&D in the Life Sciences business, which is the theme of humanity. These three steps also go hand in hand with TCFD and climate change risk management.

People (jin)— Encounters at DKS

I would like to note my thoughts on the personnel affairs accompanying the new management structure introduced this April. Throughout my career, I have held the belief that there are two options: let people work in their fields of expertise, or challenge them in a new field. I have been pondering this for 21 years since I joined DKS. As the current medium-term management plan "FELIZ 115" comes to completion, how shall we lay the foundation for the next management plan? We have, however, laid the grounds for those who do take on the challenge. We have taken note of the experience and career paths required for management through personnel changes for each employee. Since the time when Yokkaichi Chemical Co., Ltd. became a wholly owned subsidiary, we have had current President Yamaji involved in strategy and planning to learn the essentials of management. At the beginning of the current plan, the division system was changed to a headquarters system. We expect the officers in charge of sales, R&D, and administration to think and act in innovative ways. We have assigned a skilled professional to our Production Headquarters whom we have welcomed as our "secret weapon."

When I first arrived at the Company on June 11, 2001, two months after my hiring interview, three people of DKS,

including one retiree, gave me the starting point. The first person was the finance executive I mentioned previously, an accounting specialist, who gazed at me sharply and implored me to give his employees a success story that would break a quarter century of stagnation. The second person explained the philosophy of the Management Quality Award, which was the basic principle of all of the 108 notes of ideas I jotted down over my first six months. The third person was our Company's own walking encyclopedia. She has served under successive presidents and knows DKS like the back of her hand. She has an orderly and accurate memory of DKS' history, our relationships with those with whom we do business and other organizations, and everything else. I am deeply grateful for all the rich encounters I have had both inside and outside the Company.

Now I will mention another three mentors in particular by name, if I may. First, Mr. UETA Takehiko, the President of DKS at the time I was hired. He hired me as the Company's first full-time officer. Although I had experience in asset management and had knowledge of companies in the 33 industry sectors of the TSE, I was a complete stranger to the chemical business. Despite this, Mr. Ueta entrusted me with our strategic department, then known as the Corporate Planning Headquarters. This was the department that had



The second year of the "FELIZ 115" management plan was a year of gaining recognition, in which all our employees can take pride.

been creating management plans since I joined the Company: "ADD21" in 2004, "CHANGE100 Stage I & II" from 2009 to 2014, "REACT1000" in 2015, and the "FELIZ 115" plan in 2020. I was charged with creating the principles, policies, environmental awareness, strategies, tactics, and numerical targets of these management plans. Our balance sheets, income statements, and cash flow statements make the success of these plans clear.

The second mentor I would like to mention is Mr. Yamauchi, our investor. Since he was publicly announced as our second largest shareholder, I will intentionally introduce him by his real name. As our major shareholder, I met with him three times to explain general information about the Company.

The collapse of Lehman Brothers occurred in the year prior to April 1, 2009, our 100th anniversary. Taking this opportunity, we conceived a management plan to achieve a V-shaped recovery, called "CHANGE100." At that time, the stock-related indices were 8.0 PER and 0.6 PBR, which were undervalued and incongruent with profit levels. It was only after March 8, 2011, when DKS made its first public offering in 50 years, that the Company seemed to attract Mr. Yamauchi's interest. Suddenly, he became our second largest

shareholder. When I met him, he said to me, "You will carry out your plan." I took that as encouragement. I am immensely grateful to him for discovering our Company's stock and holding it for the medium term.

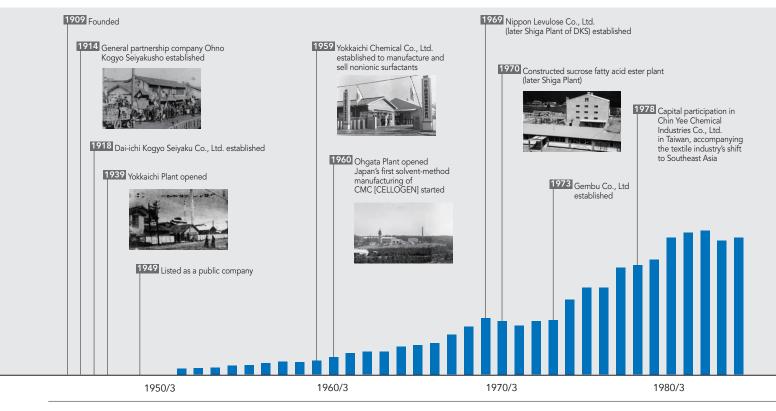
And the third mentor of mention is Dr. SUZUKI Koichi, founder of Biococoon Laboratories, Inc. I was once talking to the person in charge of underwriting securities for public offerings about my hobby of studying hermits. "I know a 21st century hermit you'd like to meet," he said. That hermit was Dr. Suzuki. He had been searching for a drug for dementia and identified a substance extracted from a medical fungus grown on the pupae of domestic silkworms, which had partially recovered the brain cell functions of senescenceaccelerated mice. A gentleman dedicated to his work, Dr. Suzuki had founded a university-launched startup. Since our Company's founding was also triggered by surfactants related to silkworms, we hit it off at our first meeting. And just like that, the influential life science company which we had been searching for joined the Group. Unfortunately, he was later taken from us by a disease that had gone undetected for too long. He left us with what would become a core business of the DKS Group.

In Conclusion

Who has loved DKS as much as they have? To this day, I am grateful for my comrades and all their support behind the scenes. I spoke of the past, present, and future, of the three elements of Heaven, Earth, and People ("tenchijin"). I am reminded of prophetic thinkers Jacques Attali and Naomi Klein as I contemplate three milestone years: 2045, the Singularity, when artificial intelligence will surpass humans; 2047, when humanity's global food supply will reach its limit; and 2050, the year of carbon neutrality and zero GHG emissions target. Our Company has been pursuing the same principles that later became the basis of SDGs, ESG, and TCFD since its foundation in the Meiji era. "Survival through uniqueness," linking Company Credo, Company Motto, and Company Song, is what Uni-Top means. August 2022, the eighth month, was a summer of heartfelt thoughts. Eight is

considered a lucky number in Japan, because the shape of the Kanji character spreads widely at the bottom like a pine tree, symbolizing growth, as the green of the pines. August is also a month of the growth of green leaves. The month August was named after Emperor Augustus, who built the glory of Rome. What kind of company will we have grown into for our 125th anniversary? Our resilience (endurance) is being put to the test in the midst of uncertainty (COVID-19, the Ukraine conflict). Under the new management structure, we will continue to pursue happiness-based management.

Philosophy in Practice—The History of DKS Business Development



Social changes

1900s

Rapid Growth of the Spinning Industry

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

1909 SILKREELER cocoon unwinding agent (chemical agents for spinning)

1915 Gembu Marseille Soap (industrial soap for textile)









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

1930s-1950s

Industrial Modernization, Shift to Synthetics

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

1934 MONOGEN higher alcohol-based detergent 1950 CELLOGEN synthetic thickener



Main products of this time

Development of DKS

1909–1950s

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

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

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

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

Dai-ichi Kogyo (DKS) Spirit and DKS Mottoes

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

1960s

Establishing a Foundation for Future Growth

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

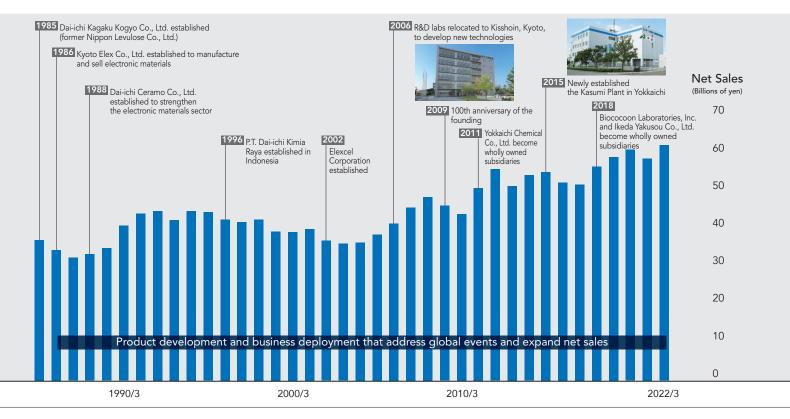
1980s-1990s

Becoming a Leading Highly Functional Chemical Products Company

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

■ Source of Original Technologies

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



1960s-1990s

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

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

1969 PYROGUARD flame retardant for plastics

1970 DK ESTER food emulsifier

1981 NEW FRONTIER UV/EB-curable monomers and oligomers

1982 SUPERFLEX waterborne polyurethane

1990 EIMFLEX polyurethane 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 RHEOCRYSTA 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)

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-

■ 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.

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, the Life Sciences business has, along with the environment and energy, and IT and electronics materials fields, become part of the foundation on which the Company is focused for creating a better future.

- The Uni-Top strategy is a strategy to provide unique products without pursuing scale, aiming to be a company that is top rated in terms of uniqueness.
- DKS calls business partners who provide each other with spark "inspiring/inspired partners," with whom we promote initiatives.

Review of the Medium-Term Management Plans

	CHANGE100 Stage I —Changing the Corporate Culture	CHANGE100 Stage II —Expansion along with Earnings	REACT1000 — Act for a Leap —
	April 2009–March 2012	April 2012–March 2015	April 2015–March 2020
Targeted Figures	Consolidated net sales ¥55 billion or higher Ratio of ordinary income to sales 4% or higher	Consolidated net sales ¥60 billion or higher Ratio of ordinary income to sales 5% or higher	Consolidated net sales ¥75 billion or higher Ratio of ordinary income to sales 8.0%
Slogan	"Each of Us Holds the Key to Success"	"Each of Us Holds the Key to Success"	"Act for a Leap"
Vision	Building a Business Structure Necessary as a Leading Industrial Chemical Company	Staying Ahead of the Times as a Leading Industrial Chemical Company	Practicing the concept of "chemistry provides a solution," we will take up the challenge of carrying out our management plan REACT1000
Management Policies	1. Securing a stable profit structure 2. Pursuing greater business efficiency 3. Developing and strengthening our foundation to realize the "technology makes the Company" concept 4. Accelerating the creation of new products 5. Enhancing compliance management 6. Improving managerial skills and human resource development	Expanding peripheral business fields Enhancing and reinvigorating domestic production facilities Accelerating the creation of new businesses Pursuing cost reductions Improving management capabilities and developing human resources Enhancing overseas expansion and strengthening administration	1. Create new corporate value 2. Create a clear corporate image 3. Ensure more profound corporate governance 4. Maintain and increase optimal ROE levels 5. Create advantages through collaboration 6. Accelerate and enhance mother plant functions
	Enhancing the enterprise's power (matechnical strength and organizational value Promoting selection and concentrations.)	power) = Heightening our corporate on = Determining the withdrawal from	There are five priority qualitative targets for implementing the management policy. 1. RETURN: pursuing profitability = sharing returns with stakeholders (appropriate distribution of profits) 2. EXPORT: improving overseas sales ratio = global strategies responding to paradigm shifts (overseas
Plan Outline 3. Optimizing the allocation of management resource goods and capital 4. Seeking more productivity = Seeking more profital business division approach 5. Creating new businesses and strengthening coope concerned = Developing inorganic materials, disperent electronics materials, etc. 6. Focusing on priority business segments = Promptle existing, ongoing, highly profitable business		ment resources = Funneling people, more profitability through the integrated hening cooperation with the parties aterials, dispersion technology, hts = Promptly reaping the benefits of an	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 recordhigh 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	Increased business divisions' profits by instilling a profitability mind-set Launched and promoted the Human Resources Development Project aimed at instilling an awareness of management in all departments	Upgraded the management infrastructure (e.g., commenced introducing a new ERP system) for the future Maintained a healthy balance sheet (increased the capital adequacy ratio) Made new investments for growth (made Yokkaichi Chemical Co., Ltd. a wholly owned subsidiary) to expand business fields, purchased land, began preparation for a new plant	Expanded business peripheral areas (NEXT) and efforts to create new businesses (DREAM) Focused on business development with new capital investment and R&D expenses Changed the balance sheet composition and increased total assets 1.3 times compared with the end of the final year of the previous plan Brought life sciences-related Biococoon Laboratories Inc. and Ikeda Yakusou Co., Ltd. into the Group Laid the foundation for realizing business income and profits commensurate with total assets, including up-front investment in new businesses
Issues	Improve the corporate culture to bring a profitability mind-set to the forefront Realize a balance in three areas (Balance sheet / business portfolio / human resources)	Maintain a robust and healthy balance sheet to increase earnings	Insufficient precision in market forecasting Delays in reorganizing unprofitable businesses Vague customer countermeasures (selection & concentration)

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



Z-FLAG/CHALLENGE

Previous medium-term management plan April 2015-March 2020 ACT 1000 (Consolidated) Net sales ¥67.0 billion ¥61.4 billion Operating income ¥6.0 billion ¥4.1 billion 9.0% Operating margin 6.8% Profit ¥3.6 billion ¥2.0 billion 10.0% 6.4% Overseas sales ratio 20.0% 16.8% FELIZ This word means happiness in Spanish. DKS chose "FELIZ" because we want to provide all stakeholders with happiness. Each letter in the word FELIZ represents one of the five themes of our medium-term management plan in English.

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



10.0% or higher

Next medium-term management plan (tentative) Period April 2025–March 2030 Theme Realization of a highly profitable Uni-Top company Targets (Consolidated) Net sales Y135.0 billion (twice that of March 2020) Operating income Y18.0 billion (triple that of March 2020)

Priority Measures

Restructure management resources Withdraw from noncontributing businesses within the first 1–2 fiscal years. Enhance earnings power

ROE

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

Strengthen the management foundation

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

Priority Measures

Busir	ness Restructuring Timeli	ne	Business Ex	pansion Timeline	
April 1, 2020	April 2021	April 2022	April 2023	April 2023	March 31, 2025
1 Withdraw from	n noncontributing businesses				
2 Realize returns	on advanced business investme	ents in the Kasumi Plant and other a	areas		
3 Accelerate allia	ances with partner companies ar	nd achieve rapid commercialization	at the Kasumi Plant and in the Life	e Sciences businesses	
4 Reorganize the	e corporate structure with an em	phasis on customer orientation; shi	ift to Company-wide organizationa	al sales activities	
5 Revise perform	nance evaluation and remunerat	ion systems to a system that evalua	ates contributions		
6 Establish SDGs	s/ESG-based management obje	ctives; contribute to society throug	h business activities; aim to enhan	ce corporate value	
7 Continue emp	loyee happiness-based manage	ment; conduct activities to maintain	n the "Health & Productivity Stock	" selection; create comfortable w	orking environments

Review of the Second Year

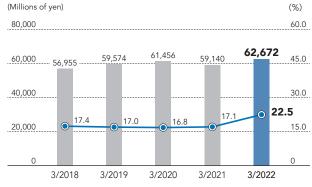
- In addition to moving forward with various measures, such as revising prices, we accelerated the review of our business portfolio.
 - We dramatically improved the profitability of "ACTUAL" businesses (existing businesses) and reinforced the foundation that supports profit.
- 2 •The state of operation at all plants in the Yokkaichi Branch Kasumi Plant is making it possible to increase production to match customer
- We announced our full entry into the Life Sciences business (introduction of new brand "TENCHUKASOU" and launch of our own EC website).
 - Ikeda Yakusou Co., Ltd.'s "Sudachin" (tablet type) was approved for the Shikoku Health Support Food (Healthy Four) system.
- •In order to start and build out new businesses, we revamped our R&D framework to place priority on profitability.
- We will reform our corporate culture so that contributions to corporate earnings are fairly evaluated and aim to create an HR system that takes into consideration the happiness of employees.

- In addition to actively undertaking investor relations activities, centered on the Public & Investor Relations Department, which is directly under the president, we expanded dialogue with stakeholders.
 - We created a system to draw out abilities as much as possible while respecting individuality by establishing the DKS Challenge Center, the purpose of which is to centralize the information and awareness of employing people with disabilities.
 - We established a Sustainability Committee, strengthened our climate change-related initiatives, and expressed our support for TCFD recommendations.
- **7** •Selected as a "Health & Productivity Stock" for three consecutive years.
 - •Certified as a "White 500 Organization" for the fifth year in a row.
 - •Certified as a "Sports Yell Company" three consecutive years.
 - Received the highest rank in the DBJ (Development Bank of Japan Inc.) Health Management Ranking Program for five years in a row.

Financial and Nonfinancial Highlights

Financial Highlights (Consolidated)

Net Sales/Overseas Sales Ratio



Net Sales Overseas Sales Ratio

In the fiscal year ended March 31, 2022, although sales of radcure resin materials in the Functional Materials segment slumped greatly, sales of conductive pastes for solar cells in the Electronic Device Materials segment dramatically expanded, leading to sales of ¥62,672 million, up 6.0% year on year. The overseas sales ratio was 22.5% (up 5.4 percentage points year on year).

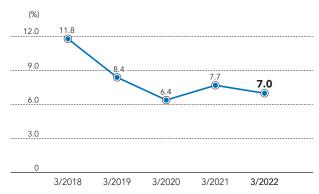
Dividend per Share/Dividend on Equity (DOE)



Dividend per Share -Dividend on Equity (DOE)

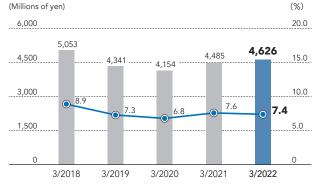
The annual dividend per share was comprehensively set at ¥80 in consideration of the Company's financial conditions, future business development, and enhanced shareholder returns.

ROE



ROE decreased from the previous fiscal year, reaching 7.0%. The capital turnover rate rose due to net sales increasing as total capital rose; however, ROE was lower than the previous year due to the profit margin on sales dropping from lower profits.

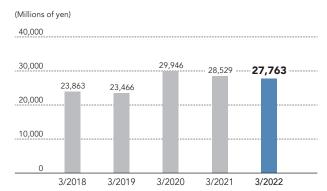
Operating Income/Operating Margin



Operating Income Operating Margin

Operating income for the fiscal year ended March 31, 2022, came to ¥4,626 million (up 3.1% year on year) due to sales efforts such as significant price revisions in the Surfactants segment and companywide endeavors to reduce costs, despite increased R&D expenses for the future. The operating margin was 7.4% (down 0.2 percentage points year on year).

Interest-Bearing Debt



Interest-bearing debt as of March 31, 2022, decreased by \$766 million to \$27,763 million, due to the repayment of long-term borrowings.

Cash Flows

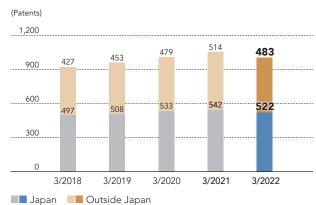
(Millions of yen) 7,000 5,520 4,955 3,500 ○ 3,886 3 236 2.820 1.150 -1,130 -2,076 -2,458 -3,500 -2.700 -3,804 -5.694 5,842 -7,000 3/2018 3/2019 3/2020 3/2021 Operating Cash Flows Investing Cash Flows

→ Free Cash Flows

> For more details, see p. 22.

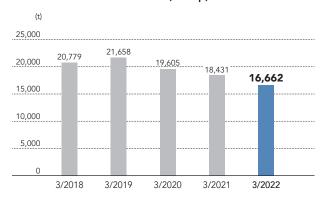
Nonfinancial Highlights (Group/Non-consolidated)

Number of Patents Held (Group)



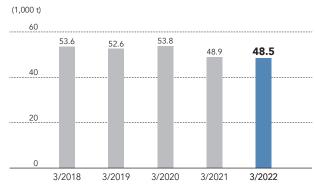
The number of patents held totaled to 1,005 (a decrease of 51 patents year on year). In consideration of future business development, we are actively promoting the application and acquisition of intellectual property rights based on the results of research and development.

Amount of Waste Generated (Group)



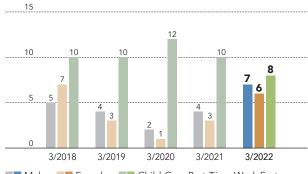
The amount of waste generated was 16,662 tons (down 1,769 tons year on year).

Geenhouse Gas Emissions (Group)



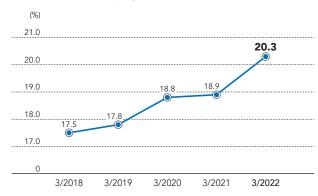
Greenhouse gas emissions totaled 48,500 tons (down 400 tons year on year). In order to help prevent global warming, we will continue our efforts such as those for improving our energy efficiency.

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



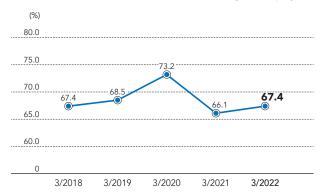
Male Female Child-Care Part-Time Work System
The number of employees using the child-care leave system was 13
(up 6 from the previous year). The number of employees using the child-care part-time work system was 8 (down 2 from the previous year).

Ratio of Female Employees (Non-consolidated)



The ratio of female employees to total employees was 20.3% (up 1.4 percentage points year on year). We will continue to carry out measures aimed at promoting women's participation and advancement.

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



The percentage of paid leave used was 67.4% (up 1.3 percentage points year on year).

Financial/Capital Strategies and Total Shareholder Return

Financial Position

As of the end of the fiscal year ended March 31, 2022, the Company had total assets of ¥86.4 billion (up 1.7% year on year), net assets of ¥40.3 billion (up 8.0% year on year), and an equity ratio of 42.5% (up 1.8 percentage points year on year). Interest bearing debt was ¥27.7 billion (down 2.7% year on year) due to stronger free cash flow, which improved the net D/E ratio from 0.45 in the previous fiscal year to 0.38, further improving financial stability. Cash flows provided by operating activities were ¥5.5 billion, an increase of 11.4%

compared with the previous fiscal year, and the highest level in our history. Capital investments decreased to ¥1.9 billion from ¥4.6 billion, and cash flows used in investing activities were negative \pm 2.7 billion. Free cash flows were positive at \pm 2.8 billion. Net cash provided by financing activities totaled negative \pm 2.3 billion yen, as we repaid debt and paid dividends. As a result, our balance of cash and deposits at fiscal year-end rose \pm 0.6 billion, to \pm 12.1 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 2011 to March 2022 are as follows. (Cumulative totals are the totals over the 10-year period from April 2012.)

	April 2011–March 2012	April 2021–March 2022	Assessment/Comments
Net Sales	¥56.2 billion	¥62.6 billion	Up 6.0% YoY, the highest level in our history
Operating Income	¥2.03 billion	¥4.62 billion	Up only 3.1% YoY
Operating Margin	3.6 %	7.4 %	Continue efforts for improvement toward our target of double digits
Net Profit	¥0.16 billion	¥2.49 billion	Level comparable with the previous fiscal year, so aim for further improvement
ROE	1.0%	7.0% On-going target is 10% or higher as we aim to impose capital efficiency ratio	
Total Assets	¥51.3 billion	¥86.4 billion	Up 71.8% over 10 years due to growth investments, etc.
Net Assets	¥16.9 billion	¥40.3 billion	Exceeded ¥40.0 billion to increase approximately 2.4 times over 10 years
Interest-Bearing Debt	¥15.7 billion	¥27.7 billion	Reduced from the previous fiscal year due to free cash flow (¥2.82 billion)
Net D/E Ratio	0.60	0.38	Stable financial foundation due to higher net assets

	Totals for the Past 10 Years	Assessment/Comments
Net Profit Cumulative Total	¥21.6 billion	Continuous profit level at or above ¥2.0 billion since the fiscal year ended March 31, 2016
Capital Investment Cumulative Total	¥42.3 billion	Since the fiscal year ended March 31, 2015, growth investment became more aggressive; implemented capital
Depreciation Cost Cumulative Total	¥25.1 billion	investment with cumulative depreciation costs exceeding ¥17.2 billion over the past 10 years
R&D Expenses Cumulative Total	¥25.6 billion	R&D expenses for the previous fiscal year reached our highest level in history, at ¥2.94 billion
FCF Cumulative Total	¥0.03 billion	Reflecting growth investments, operating CF and investment CF trended at approximately the same level
Dividend Cumulative Total	¥5.76 billion	Dividends per share have increased 2.3 times over the past 10 years (from 35 yen to 80 yen)
Capital Increase	¥3.5 billion	Capital increase through public offering in December 2014
Share Buybacks	¥1.0 billion	Determined as a shareholder return policy finalized in January 2017

Total Shareholder Return for the Past 10 Years

Total shareholder return (TSR) by dividend and stock price is shown in the graph and table below. The stock price over the past year has seen a substantial correction. The medium- to long-term TSR over the past five years was 7.9% annually, whereas the annual TSR rate was 10.5% over the past 10

years, which is comparable with the returns of the TOPIX and TOPIX Chemicals total return index. These levels exceeded the shareholder capital cost (approximately 6.0–7.0%) anticipated by the Company.



Note: Share price trends including dividends (closing price data for March 31, 2012 = 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	(22.9%)	(14.4%)	(5.0%)	46.1%	7.9%	171.9%	10.5%
TOPIX	2.0%	31.2%	9.5%	44.3%	7.6%	183.3%	11.0%
TOPIX Chemicals Index	(7.9%)	15.6%	5.0%	37.3%	6.6%	227.3%	12.6%

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

Future Financial Strategies/Shareholder Returns

In "FELIZ 115," our medium-term management plan that started in April 2020, we are aiming to maximize the use of total assets resulting from systematic capital expenditures, while also growing net sales and achieving an asset turnover ratio of 1.0 times in the fiscal year ending March 31, 2025. At the same time, we will need strategies that emphasize capital efficiency so that ROIC can exceed our added-value target for weighted average cost of capital (WACC). On the financial front, we intend to continue recognizing the cost of shareholders' equity and implement financial and capital policies to support TSR that exceeds this cost of equity.

In addition to our ROIC target, our financial goals include:1) realize an ROE of 10.0% or higher in the fiscal year ending March 31, 2025, 2) stably increase the P/B ratio by

1.0 times or more by maintaining ROE above the cost of shareholders' equity in each fiscal year of the plan, 3) ensure financial discipline while reducing the cost of capital to a reasonable level using moderate leverage, and 4) achieve sustainable growth in addition to stable dividends. We will consider optimizing the cost of capital through flexible shareholder return measures that also include share buybacks.

Moreover, in terms of M&A as part of growth investment, we will select investment projects for which ROIC exceeds the cost of capital and aim for a strategy emphasizing postmerger integration (PMI) that contributes to greater corporate value over the medium- to long-term.

Message from the President



To ensure DKS' sustainable growth, differentiating between what we treasure and what we need to change

Encountering DKS and my career after joining the Company

My journey to entering DKS started when I was studying agricultural biochemistry in college. One day my professor asked me, "How would you like to do chemistry research at DKS? What you're studying now is basically the same in terms of both being chemistry." Actually, one of his former classmates had become an officer at DKS. It was a fortunate encounter. At the time, I was studying something a bit different from the petrochemistry done at DKS, namely, the functions of various substances extracted from plants and other biological sources, which is more similar to what we do today in our Life Sciences business.

For about 17 years after joining the Company, I was researching waterborne urethane resin, which can be applied or processed to metals, plastics, paper, and fibers to express their functions. Although I say "research," our basic style was to accompany our sales staff to listen to customers' requests and develop products. I developed products by repeatedly submitting samples, having them evaluated, and making improvements, with the spirit to "meet the customers' needs before our competitors do." This spirit remains unchanged today.

My next transfers came with a series of unexpected events. In 2008, I was transferred from the R&D department, where I had worked for many years, to the Business Planning

Department of Kyoto Headquarters. There, I was given the opportunity to participate in major projects that I would seldom experience, such as the acquisition of Yokkaichi Chemical Co., Ltd. and the purchase of land in the Kasumi area. Looking back, it is no exaggeration to say that these experiences had a great impact on my life at DKS. Afterward, during the two years from 2015 to 2017, I experienced the sales department as the General Manager of the Plastic Materials Business Division, where I worked on reforming the existing structure. Next, in April 2017, I was appointed as Executive General Manager in charge of Corporate Planning Headquarters and in April 2020, I was given the responsibility as Administrative Supervisor, which involved looking at the business from a Company-wide perspective. In particular, in the area of human resources, we started to build a new personnel system that rewards employees who produce results, and I had many face-to-face discussions with the people involved. In April 2021, I began to focus on the restructure of our R&D system as the R&D Supervisor, and in April 2022, I was appointed President. I cherished the wishes and thoughts of my predecessor, Chairman Sakamoto as he passed the baton to me and I turned over a new leaf.

DKS culture and strengths, challenges and solutions

I have always believed that R&D at a manufacturing company must have a bit of playfulness and free thinking in order to meet the demands of customers. I think that organization should be as flat as possible regardless of positions in order to improve openness within a company. At DKS, for a long time, we have often referred to our supervisors by their names without their job titles, which is rare in Japan. Casually calling coworkers by name creates an atmosphere of friendliness where it is easier to conversate, even about trivial things. One of our organizational strengths is the ease of voicing suggestions and opinions, not just from the top down, but also from the bottom up.

In recent years, DKS has been making a conscious effort to be thoroughly customer-oriented. When customers are seeking solutions to their problems or new functions, the most important thing for us to do is to get close to the customer, listen carefully to their requests, and make proposals in a timely manner. We must never impose our own technology on the customer, nor insist on a closed-innovation approach, which leads to missed opportunities. If it becomes difficult to solve a problem with a single technology or product, we must immediately change our mindset and play

things by ear by combining some of our many proprietary technologies. Searching for a way to achieve the end result envisioned by the customer is what "customer-orientated" means. First, one must get to know one's customer. We have to at least have an idea of their focus areas and where they're heading to, before the conversation can really begin.

This is where our "customer account record" comes in. We have been working on gathering all kinds of customer information, centered on our inspiring/inspired partners, such as who are the key players? what are their focus areas and specialty technologies? what kind of press releases have they put out? By making this information accessible to all parties concerned at all times, we have created a system that allows us to speedily make proposals in accordance with the customer's business strategy and medium-term management plan.

In addition, we have established research centers for each customer so that members of the sales and R&D departments can work in unison. The role of these customer research centers is to organize teams of researchers across organizational boundaries in response to customer requests, and to produce results in a short-term, intensive manner. We have just begun this project starting with our inspiring/

Message from the President

inspired partners, and I hope that the leaders of this project will proceed with flexible attitudes and ideas that can respond to changing circumstances.

In Japan, there is a tradition called *uchimizu* of sprinkling water on gardens and streets for cooling and cleansing on hot summer days. In Kyoto in particular, we have an unspoken rule of not sprinkling any water on our neighbor's territory out

of respect for them. This consideration should not be mistaken for "only minding one's own business." In order to deal with customers successfully, it is necessary to always think and act as if it is "one's own business." The actions of our employees are gradually changing, especially among younger people.

Standardize invisible assets through DX

In this day and age, human resources, non-financial information, and intangible assets are of great importance. A little while ago, technology and customer information were attributed to individuals, and as soon as someone retired or was transferred away, the accumulation of such information could be reduced to zero. "Learn as much as you can from him before he's gone!" was something I used to hear a lot from my supervisors and superiors. In this digitized society, it is essential to standardize information, technology, and knowhow as much as possible.

We have been trying to visualize intangible assets for some time. Our efforts to visualize factory data through DX have advanced considerably over the past few years. R&D and sales members have started working on this in earnest since last year. The same goes for the aforementioned "customer account record." In recent years, we have hired more midcareer workers as well as new graduates. Even those who aren't experts can get a good start from these visualizations, because they make all the information easily accessible. I feel that setting up such a system is important for speedy development of human resources that are fit to be businesspeople.

The next step in developing human resources and aiming

for higher goals is to create a corporate culture that encourages people to take on challenges with optimism and a sense of fulfillment and motivation. In other words, we need to foster a culture that makes "other people's business" into "my own business." Take, for instance, an impromptu, unstructured meeting. There are some people who do not speak up, perhaps out of shyness. If someone else takes on a central role in the discussion, others will quickly pull back and say, "I'll just leave it up to this person." Even in team projects, most of the burden falls on the person who expresses their opinions and is capable of carrying out the task, making it difficult to achieve results as a team. This is where the team leader's managerial skills come into play. By creating an environment that makes it easy for each team member to express their opinions and by setting up a system that allows them to do so spontaneously, everything becomes "my own business." A good manager also gives positive recognition to those who take on challenges, even if they fail. I believe that the introduction of such a personnel and compensation system is also very important for human resource development, and we are now considering its implementation.

Sustainability initiatives cannot wait

We have set forth ESG-based management objectives in our medium-term management plan "FELIZ 115." The first is "Environment (E)." Amid growing global demand to address climate change and decarbonization, we announced our support for the TCFD recommendations at the end of March of this year and disclosed our climate-related financial information in May. Activities such as buying renewable energy and reducing greenhouse gas (GHG) emissions are already underway, mainly at our factory plants.

Many raw materials are now petrochemical-related. As for renewable raw materials, there are some we have been handling for a while, such as carboxymethyl cellulose and cellulose nanofibers derived from pulp, and sucrose fatty acid esters made from sugar. In the business field, our product lineup includes environmentally friendly synthetic lubricants related to CFC regulations, conductive pastes for solar panels, and modifiers for polylactic acid resin (a typical biodegradable resin) and we expect demand for these products to keep increasing. Furthermore, I. Japonica-Bombyx Fungus that we are focusing on in the Life Sciences business requires mulberry

trees and silkworms as raw materials. We aim to achieve early results as this will truly be a de-petrochemicalization business.

Next is "Society (S)." In particular, we are focusing on Health and Productivity Management. Business expansion depends on the health of employees and their families. Each year, the Ministry of Economy, Trade and Industry, in collaboration with the Tokyo Stock Exchange, selects from among its listed companies those that consider employee health management from a managerial perspective and engage in it strategically as "Health & Productivity Stocks." In 2022, for three consecutive years, DKS has been selected as one of the "Health & Productivity Stocks." We were ranked 7th overall among participating companies and 1st in the chemical sector. Within DKS, we are implementing various initiatives to maintain the health of our employees, including the introduction of a health app to raise health awareness and our original "DKS Calisthenics," which is set at 3:00 p.m. every day as the exercise hour for all employees, and walk-athons in which employees compete over the number of steps they walked during the period. As a result, each employee's

Making "other people's business" into "my own business"



health awareness has increased, and the health checkup rate is almost 100%, with almost all employees subject to re-examination undergoing the re-checkup.

Lastly, we have "Governance (G)." We have increased the ratio of outside directors to more than one-third, and this year we welcomed our first female outside director. The Corporate Governance Code has required us to ensure the diversity of the Board of Directors for several years, and I believe that we were fortunate to find someone with such

excellent qualifications. I have also heard her statement that she would like to create a structure that will enable us to compete on the global stage, based on a firm understanding of our Company's strengths and weaknesses. With the addition of diverse human resources to management, we can expect to break the bounds of our existing frameworks into becoming a new type of company.

Toward the spread of integrated thinking management

This is the seventh year since we started producing the DKS Report, our integrated report, and we realize that it cannot be produced without integrated thinking. The question is how well integrated thinking is spread to employees, which is quite a difficult task in terms of balancing so-called social value and economic value. We have been using the DKS Report within the Company in training sessions for new employees and management workshops, and to show for management the direction DKS should be taking, but there are still challenges to be overcome as far as its permeation into the total workforce. I feel that further management efforts are needed to deeply instill the targets (matrix), customer-orientated ideas, and profit-oriented perspective of the medium-term management plan "FELIZ 115."

In April of this year, we introduced TUNAG, a digital in-house newsletter. Employees can easily view it anytime via PC or smartphone for easy access to information concerning the direction the DKS is headed, management concepts, financial results, systems, organizations, people, and anything related the Company. The ultimate goal is to deepen interactive communication, improve work engagement, and to strengthen the organization itself.

I have been sending out messages in the digital newsletter twice a month about what I am currently thinking, what kind of action I desire from employees, and a wide range of topics from the difficult topics to hobbies. I especially want young

employee readership. I happily look forward to seeing the number of views and comments enabled by this digital media. I also comment on employee posts. This newsletter allows employees who rarely get to meet in person to easily interact, and to be exposed to opinions that otherwise have no space to be expressed. Over the past couple years during the COVID-19 pandemic, there have been very few opportunities for employees to get together to know each other in person. It has become difficult to obtain information within the Company, which used to spread from senior employees to junior employees, from supervisors to subordinates, and from casual conversations among peers. I plan to keep actively posting my own thoughts on this platform and I hope that many employees will feel free to connect with each other in both directions.

Finally, for DKS to grow sustainably, we must share integrated thinking and ensure that everyone understands our goals, strategies, performance, and evaluations. The second-year goal of "FELIZ 115," to review the business portfolio and change the profit structure, was achieved qualitatively. While responding to current challenges such as geopolitical risks and high raw material prices, the entire Company is determined to make a united push toward achieving our goals for fiscal 2025, the final year of the "FELIZ 115" plan.

Special Feature

Tradition to Change Chemistry into Happiness and

Contribution of DKS to renewable energy

As the world shifts to renewable energy with the aim of realizing a decarbonized society, the demand for solar cells used in solar power generation is increasing. DKS will utilize its and its group companies' unique technologies to promote high efficiency solar cells and contribute to the fight against global warming.

Material issue

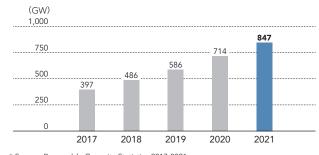
 Development of Environmentally Friendly Products

Global Expansion of Solar Power Generation

Renewable energy is attracting increasing attention as a countermeasure against global warming, and solar power generation in particular is driving growth in the amount of power generated by renewable energy as a whole. In 2021, the world's solar power generation capacity reached 847GW,

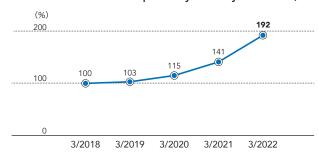
an increase of about 19% from the previous year. This accounts for approximately 28% of all renewable energy generation, surpassing wind power generation (approximately 27%).

Global solar capacity trends



^{*} Source: Renewable Capacity Statistics 2017-2021 (International Renewable Energy Agency)

Performance trends over the past five years of Kyoto Elex Co., Ltd.

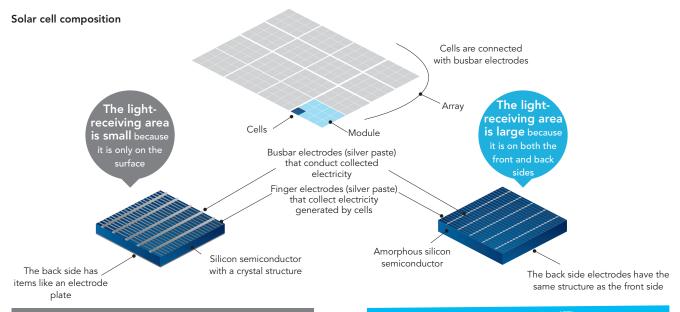


^{*} Since sales are not disclosed, FY3/18 is assumed to be 100, and the growth rate until FY3/22 is shown

Heterojunction (HJT) Type Realizes Highly Efficient Solar Power Generation

A solar cell is an energy conversion device that absorbs the light energy of the sun and converts it directly into electricity. Improving the conversion efficiency of incident light energy to electrical energy has become an issue. The current

mainstream PERC (current type) has a conversion efficiency of 20-23%, which is already approaching the theoretical efficiency limit, and no significant improvement in those characteristics can be expected in the future.



Current (PERC) type

Next generation (HJT) type

Innovation as a 100-year-old Company

The next-generation HJT type was developed, and the conversion efficiency has been improved to 24%. The HJT type has electrodes on both sides, and because the absorption rate of light energy can be increased, conversion efficiency can be greatly increased even more. In addition, the HJT type has the advantage of reducing the amount of

silicon material used and the cost by reducing the manufacturing process and using silicon semiconductors with an amorphous structure to make the silicon semiconductors thinner. Therefore, domestic and foreign cell manufacturers and module manufacturers are paying attention to the introduction of the HJT type.

Refining our Technology to Maintain our Top Share in the World, and Continue to Respond to Strong Demand

Kyoto Elex Co., Ltd., an affiliated company of DKS, manufactures resin-curing silver paste for HJT solar cells. This silver paste is used in the cell, which is the smallest unit that makes up a solar module, for busbar electrodes that carry collected electricity and finger electrodes that collect generated electricity. In cooperation with material manufacturers, we have achieved high conductivity and low volume resistivity of silver paste from both the conductive powder "silver powder" and "resin/organic synthesis," and our market share is currently number 1 in the world for HJT solar cells. Aiming to further expand market share, we have expanded the light-receiving area on the cell to increase

conversion efficiency, and we have provided good fine line printability and high adhesiveness to solder and silicon semiconductors. We are proceeding with development aimed at improving user productivity and reducing usage and costs.

We will continue to achieve higher quality silver paste and focus on developing unrivaled products. In addition, as China is the main market, by establishing a factory plant in China, we will improve customer satisfaction in terms of delivery and cost for solar cell manufacturers in China, and prepare a system that can meet the demand for solar power generation around the world.

Contributing to user productivity improvement

Contributing to improved user productivity through the excellent material properties of resin-curing silver paste and optimized printing conditions

1st generation

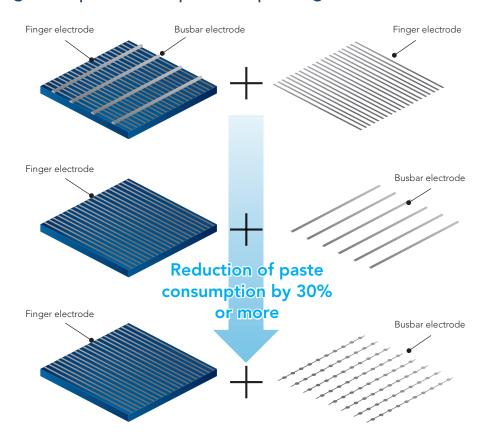
Requires double printings of finger electrodes to obtain the desired properties

2nd generation

- Improved paste properties can provide the required performance with a single finger electrode printing.
- Busbar electrode strength has been improved, making the reduction of line width possible.

3rd generation

- Further improvement of paste properties enables the thinning of finger electrodes.
- Busbar electrode strength is also improved, and the silver paste can be reduced with a hollow pattern.



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

- 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 that philosophy, we are focusing on the research and development of high-value-added products, with a particular focus on products with IT and electronic applications, and the development of new

applications for battery cell materials and cellulose nanofibers.

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. We continue to blend technologies with advantages to make combinations that provide the functions and performance that our customers need.

Establishment of R&D Framework Aligned with Uni-Top Strategies

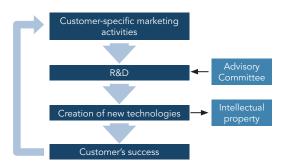
In 2021, we established the MOT Planning Department to address profit management for DKS technologies as we aim for business that leverages technology.

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

The R&D staff performs their work with a customer-centric focus while fostering partnerships with inspiring/inspired partners

These efforts will add value to our customers' products and lead to sales of Uni-Top products.

Conceptual diagram of customer-specific marketing and R&D



Development of Environmentally Friendly Products

As measures to solve social issues, DKS strives to develop technologies and deliver products that meet environmental needs.

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

Customer-Oriented R&D Strategies

At DKS, we are establishing research centers for each customer. In order to identify needs more quickly and accurately, our research centers assign head researchers suited for each inspiring/inspired partners customer and set research themes. In order to expedite R&D, we form cross-departmental teams as needed, conduct flexible and efficient organizational management according to schedules, and incorporate the knowledge of outside experts to capture changes in

technology and materials through open innovation, both within and outside the Company.

Under our medium-term management plan, which targets an R&D expenses-to-sales ratio of 5.0% for the fiscal year ending March 31, 2025, we will continue to engage in R&D spending focused on key projects.

Promoting DX in R&D

We have the expertise to know how to combine diverse and wide-ranging technologies to create functionality and differentiation, which leads to uniqueness and predominance at DKS. We also view the intuition and experience of our researchers as important intellectual property, and we are building a system to incorporate these into MI (Materials

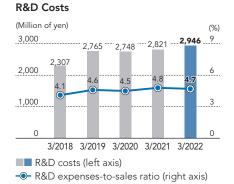
Informatics) which integrates DX and AI. Our goal is to make efficient research possible for every member of the research team by teaching AI all kinds of data, including research papers, so that employees can use AI to input parameters and a computer can suggest the necessary data.

Promoting an Intellectual Property Strategy

In consideration of future business development, we aggressively pursue prompt applications for and acquisition of IP rights based on our R&D results. Recently, we have enhanced our information search function and focused on

improving the quality of our patents. In response to the globalization of our business, we will continue with our policy of ensuring the acquisition of rights in important markets in Japan and overseas.

R&D Investments



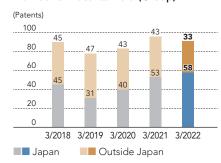
The target for R&D expenses-to-sales ratio is 5.0% but it was 4.7% for FY2021.

Research Personnel



The decrease in research personnel in FY2021 is due to the decrease in temporary employees.

Number of Patents Held (Group)



Column

Polylactic acid resin modifier "TRIBIO" won the 72nd Industrial Technology Award from the Osaka Industrial Research Association

In recent years, marine and soil pollution caused by microplastics and other substances has become a serious problem worldwide. Polylactic acid is attracting attention as an environmentally friendly material as it is highly biodegradable and manufactured from renewable plant-derived raw materials. However, the difficulty of maintaining transparency and heat resistance in the final product has hindered its widespread use. DKS created the "TRIBIO" series of polylactic acid resin modifiers to solve these problems, and was awarded the 72nd Industrial Technology Award sponsored by the Osaka Industry Research Association. This award is given to engineers who have made significant contributions to industrial research, invention, and the advancement and improvement of field technology. We will continue to develop environmentally friendly products with an awareness of the SDGs.

Quality Management





In order 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

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

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

生 産 本 郷 長 (環境・安全品質保証担当) 森 善幸

DKS Quality Policy

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 service. With the president as the highest quality assurance officer, the environment, safety, and quality assurance staff are responsible for raising quality assurance issues, formulating and recommending solutions, and 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.

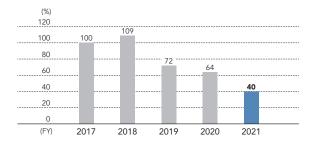
In line with diversifying customer demands and heightened requirements for product quality from a social perspective, we remain committed to working to ensure product safety and quality, as well as trying to prevent quality-related issues before they arise.

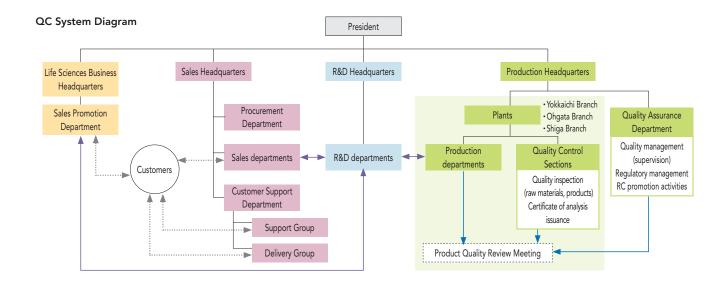
Quality Control System

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 by rotating 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 April 2019, we reconstructed the customer complaint database and visualized progress throughout the Company, including cause investigations, recurrence prevention measures, and reports to customers. By analyzing the causes and thoroughly preventing recurrence, in fiscal 2021, we

reduced the number of complaints to 40% of fiscal 2017.

Number of complaints (compared to FY2017)





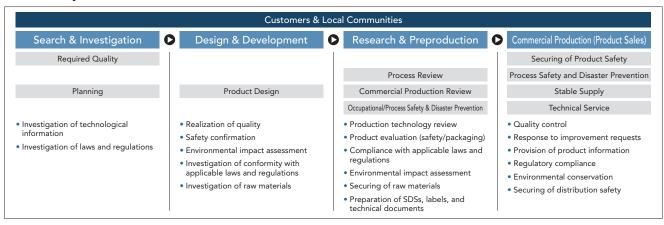
Product Safety Mechanism (chemical substance management from design development)

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, check laws and regulations, create multilingual SDS² and labels,

investigate substances contained in items such as our products, and are promoting the appropriate communication of information about our products.

- 1. Globally Harmonized System (GHS) of Classification and Labeling of Chemicals
- 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, issuance of SDS in compliance with GHS, and the display of product labels. We are also sequentially revising SDS and labeling in line with revisions to 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.

Quality Management

Occupational Safety Initiatives

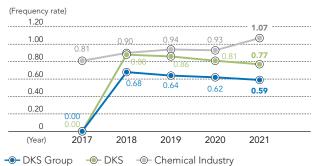
Continuous improvement through occupational safety and a health management system

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 following the Yokkaichi Branch and the Ohgata Branch, the Shiga Branch acquired JIS Q 45100 certification in December 2021. 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) and Industrial Accident Severity Rate (ASR) (January 2021-December 2021)

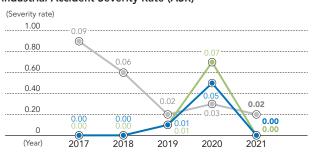
In 2021, the DKS Group continued to have lost workday injuries from the previous year, so the occupational accident frequency rate (lost time) remained almost unchanged. In addition to taking appropriate corrective action, we implemented thorough recurrence prevention measures. In 2022, we will further strengthen safety activities, including risk assessment, with the aim of achieving zero occupational accidents (lost time).

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)



- DKS Group - DKS - Chemical Industry

* 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 to increase sensitivity 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, 54 employees got hands-on safety training in fiscal 2021.

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.



▷ Please refer to our website for "Initiatives for Sustainable Growth – Securing Safety and Disaster Prevention" for FY2021. https://www.dks-web.co.jp/english/ir/report/index.html

Food Hygiene Management Initiatives

Manufacturing TENCHUKASOU 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. Currently, many countries are making HACCP mandatory. The Food Sanitation Act was revised in Japan, and from June 2021, hygiene management in line with HACCP has become mandatory. 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 Tanagura Plant of Biococoon Laboratories, Inc. is JFS-B certified, a food safety standard, and also HACCP-certified. At the same plant, we produce the raw material for the health food TENCHUKASOU, which is produced in Japan. In particular, we thoroughly managed the sterilization process, which is an important item in HACCP.

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



Biococoon Laboratories, Inc.



The Shiga Branch, which manufactures products such as sucrose fatty acid esters (SE)



State of quality control

Initiatives Towards a Management System Equivalent to Pharmaceuticals

Strengths of being a GMP-certified plant

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," "first spray drying area," and the "pulverization 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 plant has been a major advantage, which led to an increase in demand.

In addition, in the Life Sciences business, we are aiming to obtain GMP certification for a plant to be constructed in Okayama Prefecture, and we are planning to manufacture

pharmaceutical formulations as well as healthcare products, etc., which are being researched and developed by the DKS Group.

* 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 quidelines.



Ikeda Yakusou's GMP-certified plant

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

Promoting Diversity, Human Resource Development and Education

Human Resource Development and Education

At DKS, we develop 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, external education to learn skills and abilities, and support for self-development.

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. In addition, we have been working 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 2021, approximately 60% of our employees have received DX human resource development training.

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

Annual hours of attendance in educational programs at hierarchical training courses (FY2021 Results)

	Number of attendees	Hours of attendance
Courses for employees in managerial positions	187 attendees	972 hours
Courses for employees in non-managerial positions	46 attendees	2,145 hours

DX human resource development training (FY2021 Results)

	.	•
	Number of attendees	Hours of attendance
New employees	30 attendees	3,375 hours
Selected employees	60 attendees	6,750 hours

Self-development (FY2021 Results)

G-Certified*	8 attendees
Financial assistance for correspondence learning	40 cases

*G-Certificate: A certification exam sponsored by the Japan Deep Learning Association. The exam is designed to determine whether a person has basic knowledge of deep learning and the ability and knowledge to determine and implement an appropriate policy for its use.

Initiatives to Promote Diversity

Having set up an Employee Participation and Advancement Promotion Committee chaired by a senior management member, 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.

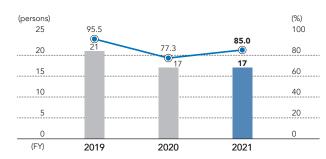
We have implemented measures aimed at having 10.0% or more of managerial positions occupied by female employees. As of March 31, 2022, this figure was 9.1%.

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. In March 2022, the Shiga Plant obtained certification from Shiga Prefecture as a "Company Promoting Women's Active Participation."

■ 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 workplace 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 have centralized the management and operation of the employment of people with disabilities, which was previously conducted separately at each business site, to address comprehensive issues related to this purpose. The employment rate of people with disabilities at DKS at the end of fiscal 2021 was 2.57%, and we have achieved a high retention rate by creating an environment that maximizes the aptitude and abilities of each individual.

Number of employed persons 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

comer enumerige cum improfitions						
FY	Number of retirees	Number of reemployments	Reemployment rate			
2019	4	4	100.0%			
2020	15	10	66.7%			
2021	8	6	75.0%			

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 the year remained around 150 hours, and in fiscal 2021 was 151.1 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
2019	151.0 hours per person	0.6% (20.3%)	73.2%
2020	147.9 hours per person	14.8% (59.7%)	66.1%
2021	151.1 hours per person	14.0% (62.9%)	67.4%

^{*} Telecommuting Rate = total telecommuting days \div total work days \times total telecommuting workers $\times\,100$

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.

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

Concept of Health and Productivity Management

Health and Productivity Management ("Kenko Keiei") Initiatives

We aim to bolster the Company's productivity, and thus its corporate value, by maintaining and improving the health of our employees.

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

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

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.

Human Resource Management

■ 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 teams per office. In addition, we have created a system to increase the amount of physical activity during the workday by setting a time for radio calisthenics before work and DKS Calisthenics (a DKS original) at 3:00 p.m. as a preventive measure against outbreaks of illnesses among able-bodied employees. 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 24.4% in fiscal 2021, and accordingly, the percentage of employees aged 40 and over maintaining an appropriate weight improved from 69.0% in fiscal 2016 to 72.1% in fiscal 2021.



Practicing DKS Calisthenics

■ 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.

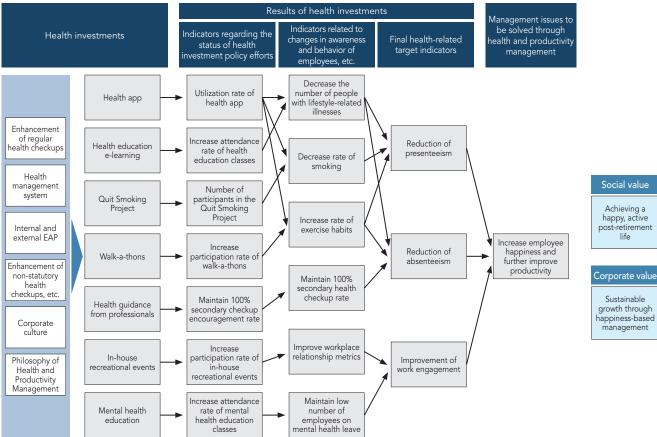
■ Enjoy Eating Project

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 their meals and registering them in the app, employees can receive nutritional guidance from the Al. Points are awarded for each meal registered, which can be redeemed for health-related products. The app was used by 70.0% of employees in fiscal 2021, and is being used to help them manage their health.

■ 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. Around-the-clock counseling is available to employees and their relatives up to

Strategy Map



the second degree of kinship, and is available in Japanese as well as English, Chinese, Korean, and Portuguese. In fiscal 2021, our counseling service was used in 262 cases. In addition, the participation rate of employees in hierarchical

mental health training, which is conducted at milestones such as promotions, was 100% in fiscal 2021, and the participation rate of mental health education for all employees was 87.9% in the same period.

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
Reduction of absenteeism ¹	Maintain at 2.0% or below	1.6%	0.8%	0.9%
Reduction of presenteeism ²	Maintain at 2.0% or below	2.5%	1.3%	1.0%
Improvement of work engagement ³	Achieve a normalized score of 51 or more	49.8	50.8	50.9

^{1. 2.} Measured using DKS' own formula.

Please see the glossary on p.70-71 for details on terminology.

Health Management Targets

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

	Targets for FY2024	FY2019	FY2020	FY2021
Prevention of health issues among healthy employees: Percentage of employees who exceeded abdominal girth standards	25.0%	30.7%	31.6%	29.2%
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%
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%
Creation of environment leading to quitting smoking: Percentage of employees who smoke	11.4%	21.5%	20.1%	20.5%

Third-Party Review of Health and Productivity Management

In recognition of its efforts, DKS was selected by the Ministry of Economy, Trade and Industry (METI) and the Tokyo Stock Exchange (TSE) for the third consecutive year as a "Health & Productivity Stock." For the fifth consecutive year, DKS and subsidiaries Gembu Co., Ltd., Dai-ichi Kenkou Co., Ltd., Daiichi Ceramo Co., Ltd., Kyoto Elex Co., Ltd., and for the third consecutive year, Ikeda Yakusou Co., Ltd. were certified as White 500 Organizations. We also acquired the highest health management rating from the Development Bank of Japan Inc. (DBJ) for the fifth consecutive year. On March 9, 2022, Yokkaichi Chemical Co., Ltd. was certified for the second consecutive year as a "Corporation with Excellent Health Management" by the Nippon Kenko Kaigi (Japan Health Council), a system designed by the Ministry of Economy, Trade and Industry to recognize large corporations, small and medium-sized companies, and other corporations that practice particularly excellent health management based on initiatives that meet local health issues and health promotion efforts promoted by the Nippon Kenko Kaigi.

Going forward, assessments of Company efforts through

the eyes of external organizations will continue to lead to further enhancements in corporate value.

•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/









^{3.} Scoring by stress checks

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.

Material issues

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

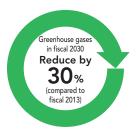
For details on the responsible care activities and promotion system, see our website (in Japanese only). https://www.dks-web.co.jp/sustainability/ecology/

Environmental Conservation Efforts

Long-Term Environmental Vision

In order to protect lifestyles and increase safety and comfort, DKS contributes to the realization of a sustainable society based on the idea 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.



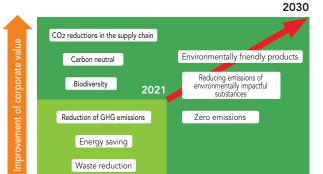


Initiatives Based on GX Strategy

In March 2021, the Company devised green transformation (GX) strategies for moving toward carbon neutrality in 2030 and out to 2050. Starting in fiscal 2021, we have been shifting to a forecasting and analysis approach that is informed by these strategies. As we strengthen our current initiatives, we will also expand our targets to initiatives that take the sustainability of broader society into consideration.

Our main initiatives in fiscal 2021 were improving the efficiency of production processes, adopting energy-saving equipment, energy usage visualization, and effectively utilizing waste. At the Shiga Branch, we improved the efficiency of production processes by adopting high-efficiency steam drain traps and collecting heat exhaust from processes. At the Yokkaichi Branch, we promoted energy-saving by identifying inefficiencies via energy usage visualization. At the Ohgata Branch, we strived to reduce waste and identified waste that can be recycled as useful resources via business matching with other industries.

GX Strategy Targets



Contribution to businesses

Progress with Environmental Targets

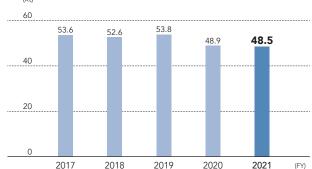
For our GX strategy targets (fiscal 2030), we set numeric targets based on the long-term environmental vision. For our medium-term environmental targets (fiscal 2024), we reviewed the progress of our GX strategy in May 2022. We changed the greenhouse gas emissions and energy consumption per unit from an evaluation compared to the previous fiscal year to an evaluation compared to reference years.

Our results for fiscal 2021 are indicated in the table on page 41. In fiscal 2021, our production increased by 10.8% year on year, which led to increased greenhouse gas emissions, but the promotion of energy-saving improved our results by 0.7 points year on year, achieving a 6.7% reduction compared to fiscal 2013. Energy consumption per unit dramatically decreased by 9.1%, thanks to our GX initiatives. The rate of final waste disposal dropped 3.4% year on year, but we were unable to meet our target rate of final disposal because the amount of waste decreased by 9.6% year on year. We will continue to promote improvements to our rate of final disposal as we strive to reduce final disposal with a focus on the recycling of sludge.

For details on our environmental data, see p. 79–80. For details on our TCFD efforts, see p. 42–43.

Changes in Greenhouse Gas Emissions

(Yokkaichi, Ohgata, Shiga, administrative departments, domestic subsidiaries, derived from non-energy) (kt) 60



Notes: 1. Administrative departments include fuel of company-owned vehicles.

 $2.\ Subsidiary\ companies\ include\ Yokkaichi\ Chemical\ Co.,\ Ltd.,\ Kyoto\ Elex\ Co.,$ Ltd., Daiichi Ceramo Co., Ltd., and as of FY2019, Ikeda Yakusou Co., Ltd.

Changes in Final Disposal Amount and Final Disposal Rate

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



■■ Final disposal amount (left axis)

- Final disposal rate (right axis)

Notes: 1. The final disposal rate is the ratio of the final disposal amount to the generated waste amount.

2. Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Daiichi Ceramo Co., Ltd., and as of FY2019, Ikeda Yakusou Co., Ltd.

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	FY2021 targets	Medium-term environmental targets (FY2024)	GX strategy targets (FY2030)	Target scope	FY2021 results	Evaluation
Greenhouse gas emissions ¹	FY2013	3% reduction	12% reduction	30% reduction	Group	6.7% reduction	В
Energy consumption per unit ²					Individual	8.4% reduction	А
*Based on the standards of the Act on the Rational Use of Energy	FY2020	2020 1% reduction 4% reduction 10% reducti	10% reduction	Group	9.1% reduction	А	
Generated waste amount per unit *To amount produced	FY2020	1% reduction	4% reduction	10% reduction	Group	18.4% reduction	А
Rate of final waste	_	0.1% or less	0.1% or less	0.1% or less	Individual	0.1%	В
disposal ³	_	3.8% or less	0.5% or less	0.1% or less	Group	4.4%	D

Target parameter	Management items	FY2021 targets	FY2021 results	Evaluation	FY2022 targets
	SOx emissions	Reduce emissions of	Down 15.2% YoY	Α	
Reduction of	NOx emissions	environmental	Down 24.0% YoY	Α	Reduce emissions of environmental pollutants in the air
environmental impact	Dust emissions	pollutants into the air	Down 70.7% YoY	А	environmentar ponatarito in tire un
substance emissions	Water discharge	Reduce emissions of	Down 0.8% YoY	В	Reduce emissions of
	COD emissions	environmental pollutants into water	Up 64.7% YoY	D	environmental pollutants in water
Proper management of chemical substances			Down 54.0% YoY	А	Reduce emissions of PRTR Regulation-designated substances
Promotion of green procurement		Improve green procurement ratio for paper and stationery	64.8% (improved by 5.8 points YoY)	В	Improve green procurement ratio for paper and stationery
Elimination of disasters/accidents		Achieve zero environment-related accidents	Zero accidents	В	Achieve zero environment-related accidents
		Comply with environmental laws and regulations	No legal/regulatory violations	В	Comply with environmental laws and regulations
Environmental management system		Promoting our environmental management system	Maintained	В	Promoting our environmental management system

^{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 $% \left\{ 1,2,...,2,...\right\}$

Please see environmental data (p. 79–80) for details on energy, waste products, environmental impact substances, and chemicals subject to the PRTR regulation.

TCFD Efforts

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 (in Japanese only).



https://www.dks-web. co.jp/sustainability/ ecology/pdf/climate_ change2022.pdf



At DKS, we have a Sustainability Committee that debates and makes decisions on important issues such as medium- to long-term targets for reducing greenhouse gas (GHG) emissions, and a system for ensuring appropriate reporting to the Board of Directors and supervision by the Board of Directors. In order to ensure that the Sustainability Committee appropriately evaluates and manages our business risks and opportunities related to climate change and promotes administration, the committee is made up of the Executive General Managers of the Sales Headquarters, Production Headquarters, R&D Headquarters, and Public & Investor Relations Department, and headed by the Executive General Manager of the Administrative Headquarters, who receives instructions from the Administrative Supervisor. The executive officers in charge submit findings and make progress reports at least once a year at Board of Directors meetings, and review strategies, targets, and plans accordingly.

Consortium



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 have referred 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.



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 an executive officer in charge of risk management.



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 We have defined our long-term goals, including consolidated net sales of ¥135 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 "FELIX 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. In the future, we will work to identify the Scope 3 greenhouse gas emissions of our supply chain, quickly disclose this information, and strive to reduce our emissions.







Scenario Analysis

Presuppositions

Climate change scenarios Less than 2 °C scenario, 4 °C scenario

Reference scenarios IEA World Energy Outlook, IPCC RCP scenarios

Timelines for analysis 2030, 2050

We categorize risks and opportunities related to climate change as transition risks, physical risks, transition opportunities, and physical opportunities, and have created a scenario matrix upon considering the level of occurrence and impact of each risk and opportunity.

Impact Evaluation Based on Scenario Analysis

Based on a scenario analysis, we have conducted an evaluation of the impact to our supply chain of scenarios with high importance.

Category of climate change impact	Positioning in value chain	Scenario	Timeline	Details	Impact on the Company	Countermeasures taken by the Company
Transition	Impact on demand for products and services	Changes to demand toward decarbonization	2030 to 2050	Sales and profit may greatly decline if demand for petrochemical derived products declines	Business with a high ratio of petrochemical derived materials may gradually decline	Consider switching to non-petrochemical derived materials and renewable materials to transition to low-carbon products Promote the expansion of the Life Sciences business, which focuses on natural materials
Transition	Impact on demand for products and services	Increased costs due to carbon pricing	2030 to 2050	Emission credit trading may increase as a measure for reducing GHG emissions and lead to higher transaction prices	Operating income in 2030 may decrease by several percentage points	Promote the acquisition of appropriate emission credits ahead of a future where demand for emission credits will expand
Transition	Impact on procurement	Increased taxes with a carbon tax on raw materials	2030 to 2050	The procurement price of materials may increase due to a carbon tax on materials derived from petrochemicals	The profitability of businesses which focus on materials derived from petrochemicals may gradually decline	Have decarbonization and the transition to non- petrochemical materials lead to new business opportunities for developing products and expanding sales
Physical	Direct impacts on business operation	Increased damage to company sites due to intensifying natural disasters	2050	Business site disasters (mainly flooding) caused by abnormal weather may cause business operations to stop	May cause damage to approximately 10% of our total plant assets in Japan	Use hazard maps to identify possible flood damage and consider measures for mitigating flood damage and dispersing manufacturing sites if there is thought to be a high chance of business operations being stopped

Efforts after Scenario Analysis

Upon conducting a scenario analysis, we reaffirmed that it is possible to reduce impact on our supply chains by appropriately responding to climate change risks.

Our products and technologies give us an opportunity to expand our business by identifying new market needs for climate change countermeasures. We will meet market needs by promoting research and development for contributing to society's efforts for climate change countermeasures and mitigating the progression of climate change related risks, such as with products that contribute to energy-saving by shortening manufacturing processes and products that contribute to the realization of clean energy for preventing global warming.

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	Alternative cleaning agents avoiding ethane and chlorofluorocarbon solvents	

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 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. The Company will also

reduce medical costs by preventing dementia and aging frailty, and expand into promising applications for cutting-edge fields in the pharmaceuticals, foods, and cosmetics industries.

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.

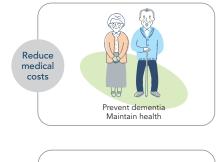
* Number of sericultural households in Japan decreased from 3,280 households in the year 2000 to 61 households in 2021 Source: The Dainippon Silk Foundation

Sericulture Innovation and Expected Effects

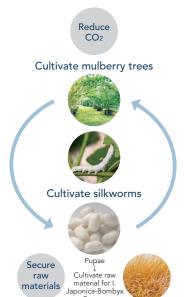
Description of a	activity	Expected effects				
Cultivate mulberry trees to feed silkworms		Create regional employment (income)	 Create sense of purpose for senior generation 	Vitalize regional community		
		Effectively utilize abandoned fields and rice paddies	 Reduce medical costs by preventing dementia and frailty 	• Reduce CO2		
		Create regional employment (income)	Revitalize the sericulture industry	 Reduce medical costs by preventing dementia and aging frailty 		
Cultivate silkworr	ns	Passing down ancient Japanese sericulture techniques	Create sense of purpose for senior generation			
Cocoons are utilized for Silk		Utilize in silk products	 Adopt for cutting-edge fields in the pharmaceuticals, foods, and cosmetics industries 			
various purposes	Pupae	Utilize as raw material for I. Jap	ponica-Bombyx Fungus manufactured and sold by DKS			

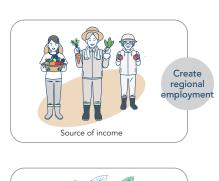
 $^{^{\}star}$ Sericulture Innovation is a registered trademark of Biococoon Laboratories Inc.

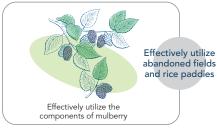
Regional Revitalization via Sericulture Innovation





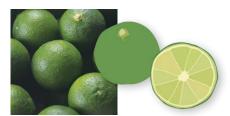






Sudachin, Achieving Effective Utilization of Sudachi Peel, a Local Specialty of Tokushima Prefecture

The increase in lifestyle diseases greatly affects health spans and it is important to prevent or treat them at an early stage. Research in Tokushima Prefecture has demonstrated that the sudachitin, which is contained in the peel extract of sudachi (a citrus fruit), can help against diabetes and obesity. Our Group company Ikeda Yakusou Co., Ltd. has developed a powder called Sudachin extracted from sudachi peel. We have expectations for Sudachin as a regional specialty that can contribute to extending health spans via the utilization of regional resources.



Sudachin Certified by Shikoku as a Health Support Food

Sudachi is a citrus fruit cultivated in Tokushima Prefecture, which is used as the raw material for juices and sauces, but the majority of sudachi peel is discarded as industrial waste after juice extraction. Ikeda Yakusou aims to effectively utilize sudachi peel to promote the development and production/sales of sudachi peel related products such as sudachi peel extract and sudachi oil.

In September 2021, Sudachin, a sudachi peel extract from Ikeda Yakusou, was certified by the "Healthy Four*" health support food accreditation system of the Shikoku region. This enables the company to claim the existence of scientific grounds regarding the safety and functionality of food on its packaging. The next step for improving brand recognition is to submit an application to certify Sudachin as a food with functional claims to the Consumer Affairs Agency.

* "Healthy Four" health support food accreditation system of Shikoku region: A unique food claim system aiming to develop the food industry in Shikoku region, which certifies foods manufactured in Shikoku or foods containing functional materials manufactured in Shikoku.

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 Health and Productivity Management and assist awareness building/enlightenment activities and the Health and Productivity Management of our business partners.

Column

DKS Enters Comprehensive Partnership Agreement with Shiga University, Aiming to Utilize Data Science in Business Promotion and Value Creation

In the "FELIZ 115" medium-term management plan, DKS actively promotes various efforts for DX. In May 2022, the Company entered a comprehensive partnership agreement with Shiga University, which forms the largest education and research site in Japan in the field of data science. Shiga University pioneers efforts for contributing to the resolution of social issues via the utilization of Big Data.

By entering a partnership with Shiga University, DKS aims to utilize data science to promote industry-academia collaboration. We will accelerate the realization of business promotion and value creation by cultivating young researchers into data science human resources and solving problems via joint research that utilizes Big Data.

DX Efforts (See p.46)



DKS Enters Comprehensive Partnership Agreement with Shiga University Left: TAKEMURA Akimichi, Dean at Shiga University; Right: YAMAJI Naoki, President and COO of DKS

Organizational Resilience







DX Efforts

Material issues

- Responding to the digitization of society
- Digitizing information offerings

Digital Transformation (DX) at DKS

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."

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 age of VUCA. 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.

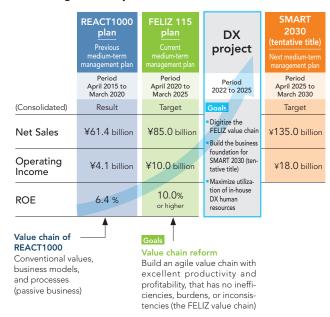


^{*}Total recipients as of fiscal 2021

Company-Wide DX Project

The goal of the seven projects outlined in the "FELIZ 115" medium-term management plan (see p.19) is to reform the value chain and build a foundation to improve profit via increased productivity. In order to achieve this via digital technologies, we will launch a company-wide DX project to promote efforts based on three themes: (1) Digitization of work, (2) Digital monitoring of work progress, and (3) Building digital data for intra-organizational activities. Many of the recipients of DX training will participate in this project and will be in charge of developing the DKS Integrated Work Management System, which will also function as an opportunity to put this knowledge into practice.

Positioning of DX Project



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 digitize a value chain in line with the essence of a fine chemical manufacturer
 - (2) Digitize 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 to promote
 - (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

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, DX training for all

employees, and the establishment of the MI Promotion Department in the R&D Headquarters. We will continue to utilize digital technologies in order to achieve the priority measures for realizing the medium-term management plan.



Digitizing the Transmission of Information

As part of our efforts to digitize our sales activities, we have launched the DKS Online e-commerce website (https://www.dks-web.co.jp/product/onlineshop/). As a dedicated online shop for corporations and education and research institutes, the website will create opportunities for interacting with customers in a wider variety of fields than before.

Furthermore, as part of our new Life Sciences business, we are deploying a dedicated e-commerce website (https://tenchukasou.jp/), promotion activities on social media, and Web marketing.

TENCHUKASOU | 100 YEARS OF LIFE (In Japanese only) https://tenchukasou.jp/

DKS Online (In Japanese only) https://www.dks-web.co.jp/product/onlineshop/





TENCHUKASOU

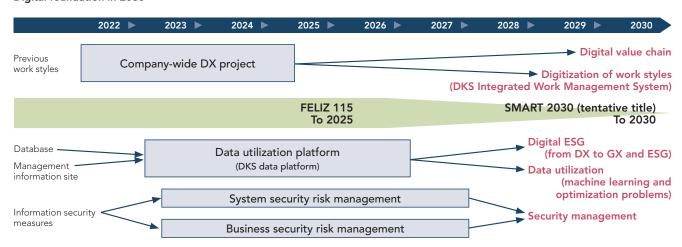
Cybersecurity Measures and Digital Roadmap

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 our countermeasures for various cybersecurity risks, cybersecurity

training for our employees, and the measures that we should take if a major incident occurs (incident response measures including data recovery, access log analysis, and the notification of relevant parties).

We promote digitization based on a digital roadmap that depicts the future digital foundation of DKS in the year 2030, including both "offensive" business reforms via DX and "defensive" cybersecurity measures.

SMART 2030 (tentative title) digital roadmap Digital foundation in 2030



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, we established the Risk Management Control Committee, chaired by the responsible executive officer and composed of representatives of related departments and Group companies, and are methodically moving forward with activities by regularly holding committee meetings.

The purpose of the committee is to appropriately manage and implement responses to risk that could hinder achieving business objectives by running through the PDCA cycle, a basic risk management process (risk assessment, risk response, monitoring, and review).

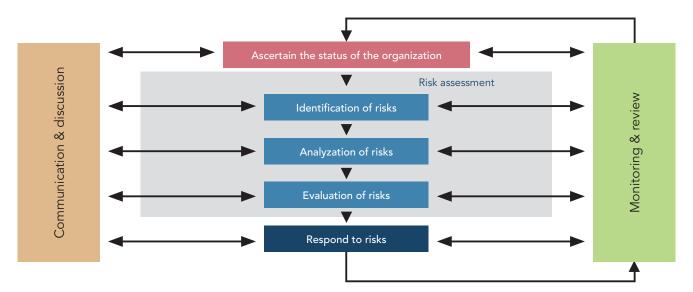
In addition, we are working to maintain and strengthen the crisis management system so that when there is an emergency, we can promptly communicate information on risks, including to domestic and overseas Group companies, ascertain conditions, and appropriately respond. To deal with potential risks and/or risks that have already manifested themselves, we formulated Risk Management Procedures, Product Liability (PL) Prevention and Management Procedures, and Information Security Rules. 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 creating a list of these risks as actual reference examples and linking them to main in-house rules.

In fiscal 2021, based on revised risk management criteria, we identified and analyzed risks, selected ones based on an evaluation, and ranked their importance using a table based on degree of impact and frequency. For selected risks, the responsible party develops a response proposal, regularly checks, evaluates, and monitors the status of the response, and works to keep the risk within the tolerable range.

In addition, we worked to not only develop a business continuity plan in the case of an earthquake, an item that Group companies have not yet created, but also strengthen risk management. We also continue to conduct drills for earthquakes using a safety confirmation system.

Basic Process for Risk Management



Crisis Management

Having positioned implementing countermeasures to corporate risk as a priority issue, we set Risk Management Procedures to respond to potential risks and/or risks that have already manifested themselves. 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

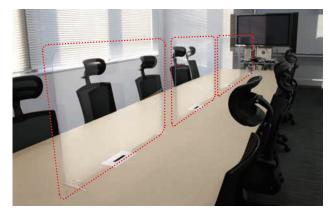
for the particular risk level is tasked with implementing risk management. Furthermore, for risks that impact lives and business, we are implementing and strengthening appropriate responses. There has been an upward trend in the frequency of earthquakes, water damage due to torrential rains, long heat waves, and natural disasters accompanying abnormal weather, such as massive snowstorms. To respond to the impact of these on business, we can promptly implement measures depending on the risk level by quickly sharing information with related parties using relevant tools.

Risk Management Level		Responsible Party	Case	
Level I	Understanding risk possibilities under normal operation	Plant general managers, central branch managers,	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	branch and office managers, group company presidents	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, environ- mental problems, disease outbreak, product problems	
Level IV	Risks to be coped with Company-wide	Head of Crisis Manage- ment Task Force (establish-	Expansion of Level II or Level III incident	
Level V	Unexpected risks	ment of Crisis Management Task Force)		

Response to the COVID-19

To prevent the spread of COVID-19, we recommend employees work from home, commute during non-peak times, and use our online meeting system. In addition to these company-wide measures, we are strengthening responses depending on the state of infections in the particular region. We also prevent the spread of infections by

creating a manual in case a person becomes infected or has been in close contact with an infected person, smoothly identifying people who have been in close contact with an infected person, and restricting movement. As of now (June 2022), we have not had an outbreak, and there has been no impact on business continuity.



Plastic partitions installed in conference rooms



Taking temperatures and disinfecting at entrance to Ohgata Branch

Organizational Resilience

Corporate Governance

Material issues

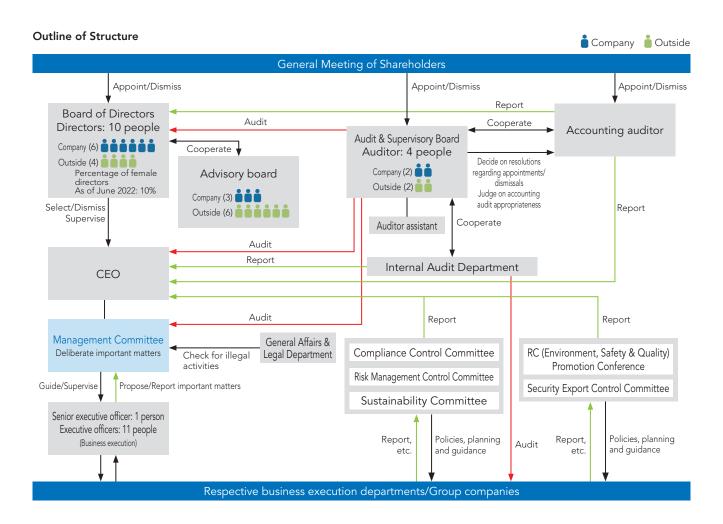
• Further deepening of corporate governance

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			
May		Online exercising of voting rights made available			
2020	June	Partial disclosure of English-version of the notice of convocation of general meeting of shareholders			
	May	Adoption of an online voting platform for institutional investors			
2021	June	Establishment of an Advisory Board Appointment of independent outside directors: 3 people in total (3 of 8 directors are independent outside directors)			
2022	June	Increase in the number of directors by two, appointment of four independent outside directors (one of the four is a woman), and disclosure of English-translation of the full summary of financial results			



Organizational composition and roles

Board of Directors

To strengthen the management system, we added two directors to the Board of Directors in June 2022. The Board of Directors currently consists of ten 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 six internal directors, two full-time Audit & Supervisory Board members, one senior executive officer, and four 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 2021, the Advisory Board met three times. To contribute to extensive deliberations by the Board of Directors, each director in charge provided an explanation of the details and issues related to R&D and sales activities, which promotes an understanding of the unique aspects of the industry. As for the next management structure plans, there was an explanation of ideas about promoting young employees and diverse composition of officers.

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.

		Fields that di	rectors and Auc	lit & Supervisor	y Board membe	ers are expected	d to particularly	contribute to
Name of officer		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							
Managing Director	KAWAMURA Ichiji							
Director	SHIMIZU Shinji							
Director	AOKI Sunao							
Outside Director	TANIGUCHI Tsutomu							
Outside Director	OKUYAMA Kikuo							
Outside Director	HASHIMOTO Katsumi							
Outside Director	NAKANO Hideyo							
Audit & Supervisory Board Member	FUJIOKA Toshinori		•	•	•			
Audit & Supervisory Board Member	ONISHI Hideaki		•	•			•	
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 five 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 find his many years as a certified public accountant. After taking up the position of outside Audit & Supervise Board member of the Company, he has played an appropriate role in strengthening the management supersistent function and further evolution of the governance system. Having actively expressed his opinions regard matters such as the management strategy at Board of Directors meetings based on his broad knowledge experience, the Company deems that, he will make useful proposals related to overall management from 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. 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

Every year, all officers (directors and Audit & Supervisory Board Members) carry out self-evaluations based on a questionnaire prepared by the Office of the Board of Directors (Secretary Department). The Office of the Board of Directors tallies these questionnaire results, which are analyzed and evaluated by outside officers and full-time Audit & Supervisory Board Members. For fiscal 2021, officers completed a questionnaire on twelve topics, including time spent deliberating matters requiring deliberation, the provision of information, and content of comments. Based on this evaluation, the Board of Directors is judged to have been generally effective in fiscal 2021.

Evaluating initiatives to solve previous fiscal year's issues

Although there were improvements in "provided material and explanations" and "provision of information during the deliberation process," there is room for further improvements. The evaluation was also that it is still necessary to make improvements to "reflecting advice and reporting the reflection."

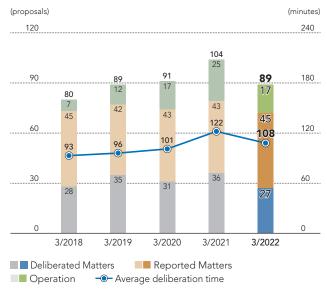
FY2021 improvement issues and FY2022 initiatives

Issues for fiscal 2021 were "improving the provision of material" and "improving the quality of discussions." In response, material will be provided earlier and efforts will be made to prepare material from a customer and management perspective.

Main deliberations at the FY2021 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)

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



Officer Remuneration

Remuneration decision process

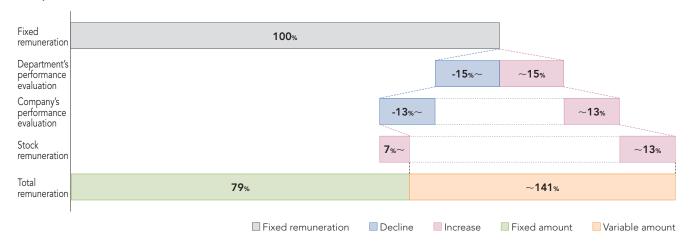
The basic policy regarding director and Audit & Supervisory Board Member remuneration involves a) appropriate compensation for execution of duties, b) remuneration that encourages actions to improve business performance and maximize corporate value, and c) remuneration that deepens value-sharing with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

ltem	S	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 -15% and +15% 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 -13% and +13% 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.

Organizational Resilience

Remuneration amount

	Total remuneration	Total remur	Number of		
Officer position	(Millions of yen)	Fixed	Performance- linked	Stock-based	applicable officers (persons)
Director (excluding outside directors)	239	197	20	21	6
Audit & Supervisory Board Member (excluding outside Audit & Supervisory Board Member)	43	39	-	3	3
Outside Directors	34	31	-	3	4
Outside Audit & Supervisory Board Members	11	10	-	1	3
Total	329	279	20	29	16

Note. Remuneration was also paid to one internal director, one outside director, and one internal Audit & Supervisory Board member who resigned when their term expired as of the end of the 157th Ordinary General Meeting of Shareholders held on June 25, 2021.

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, 2022, 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	¥3,208 million

Joining the U.N. Global Compact and Contributing to a Sustainable Society

As a smart chemical partner that solves people's various issues, the Company confronts numerous social issues, including responding to climate change, respecting diversity and human rights, strengthening governance, and implementing energy-related initiatives. Through our support of the U.N. Global Compact, we are contributing to the realization of a sustainable society by adhering to the ten principles in the four fields of human rights, labor, environment, and corruption prevention.



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.

Message from an Outside Director

Utilizing my Expertise to Contribute to the Sustainable Growth of DKS and Improved Corporate Value

NAKANO Hideyo

Outside Director

Career summary

After working as Senior Portfolio Manager and Head of Private Investment at Cititrust and Banking Corporation and Director and Head of Investment Division at FuNNeX Asset Management Inc., established Trias Corporation as CEO. External Director of OUTSOURCING Inc. and HOCHIKI CORPORATION.

Involved in investment work at asset management companies for many years, and as the head of a company that provides IR and PR assistance for the goal of developing long-term investment, has expert knowledge regarding IR and PR activities from a global perspective.



Role as Outside Director

I have been in charge of asset management at financial institutions for a long time, with a focus on those overseas, and currently support the IR activities of multiple listed companies in Japan. From this standpoint, I consider the act of objectively viewing a company from the point-of-view of the stakeholders to be an important value to have, as the commitment toward its legal compliance and governance is extremely important for each company.

When seen from an outside perspective, DKS is a company that has a wide range of technical elements which makes it difficult to recognize what its strengths are. I myself am in progress of slowly deepening my understanding of DKS by visiting work sites and receiving opportunities to listen to the voices of employees working on the front lines of the business.

In terms of business scale, I believe that it is difficult for a chemicals manufacturer in Japan to compete with global manufacturers. For DKS to survive in the chemicals industry, I am convinced that, more than anything else, the Company must continue to achieve the creation of value that customers will choose, in addition to pursuing expertise.

Growing Human Resources via "FELIZ 115"

In regard to the "FELIZ 115" medium-term management plan, I believe that the Company is steadily moving forward with what must be done to achieve the Uni-Top strategy, which focuses on unique products that do not pursue scale. I am particularly pleased to see those in their 20s and 30s at the Company are starting to become aware that they are

building the business foundation for the next generation.

DKS is also enthusiastic about efforts for Health and Productivity Management, and as I understand it, this is not only for outside evaluations, but the employees themselves understand the importance of promoting these initiatives. I believe that such human resources autonomy will become a strength of the next generation at DKS.

Effectiveness of Governance at DKS

As an outside director, in order to ensure the effectiveness of governance, we must engage in constructive discussion at Board of Director meetings based on an appropriate understanding of the business promoted by those on the executive side. That is why I plan to proactively participate in the Management Committees and Board of Directors meetings at Group companies.

Although I have only participated in a few Board of Directors meetings at DKS so far, I have the impression that all the directors including auditors are engaged in free and open discussion, and communication is excellent. However, despite the wide range of opinions brought up, I think that we need to take a closer look at whether those opinions are actually contributing to enhancing the functions of the Board of Directors.

I believe that it is important for outside directors to understand and love the business while expressing objective opinions at an appropriate distance from those on the executive side. I hope that I can contribute to building a better governance system and achieving sustainable growth for DKS, while improving the corporate value of the Company.

Dialogue with Shareholders and Investors

To have constructive dialogues with shareholders, the Company considers it important to properly communicate information, a precondition for such dialogue. With the Public & Investor Relations Department playing a central role, we not only properly disclose necessary corporate information in a time manner, but also value venues where we can communicate with a broad range of related parties.

Material issues

Initiatives to strengthen corporate branding

Frequent questions from stakeholders

Could you give us an overview of the medium-term management plan and your progress during the second year?

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

- (1) We dramatically improved the profitability of "ACTUAL" businesses (existing businesses) and reinforced the foundation that supports profits.
- (2) It is now possible to increase production to match customer demand on account of the state of operation at all plants in the Yokkaichi Branch Kasumi Plant.
- (3) We announced our full entry into the Life Sciences business (introduction of new brand TENCHUKASOU and launch of our own EC website) and won Shikoku Health Support Food (Healthy Four) system approval for Ikeda Yakusou Co., Ltd.'s Sudachin (tablet type).
- (4) We established a Sustainability Committee, strengthened climate change-related initiatives, and announced support for TCFD recommendations.
- (5) We were selected as a Health & Productivity Stock for the third consecutive year and designated one of the White 500 for the fifth consecutive year.
- * Please see our website for details on our medium-term management plan (in Japanese only).
- https://www.dks-web.co.jp/ir/strategy/

Oculd you explain the fall in the stock price?

A The decline was probably because there was no improvement in the operation rates for the No. 3 and No. 4 Plants of the Kasumi Plant, located in Mie Prefecture. Although efforts were made to improve profitability of the Surfactants business, earnings were weighed down by the rise in the prices of raw materials and energy. In response to this, we will develop products to increase operation rates, continue to improve profitability, secure a reliable supply of raw materials, and quickly pass on price changes.

On the other hand, on February 22, 2022, we raised the per share dividend ¥10 and expect to pay an annual dividend of ¥80 per share. We also announced the acquisition of treasury shares on June 24, 2022.

Could you tell us about the expansion of the Life Sciences business?

A First, we must quickly increase sales. To do that, we will enhance corporate recognition through aggressive advertising activities (ads and publicity) for the health food products, I. Japonica-Bombyx Fungus and Sudachin. It is also important that we acquire evidence to obtain "foods with functional claims" certification. Possessing a quality advantage due to the safety of and peace of mind provided by Japanese products, we aim to increase sales by differentiating our products from those of other companies.

Further details of the two products discussed above can be found on the following webpages (in Japanese only).

- ◆ I. Japonica-Bombyx Fungus https://www.dks-web.co.jp/product/cordyceps/index.html
- **○** Sudachin https://www.ikeda-yakusou.co.jp/shop.html
- * Please see the Life Sciences section on p. 57

Constructive Dialogue with Shareholders

We reinforced the Public & Investor Relations Department and created a personnel system that increases the efficiency and trust of investor relation activities. For not only financial information but also non-financial information, such as management strategies, issues, risks and opportunities, and governance, we are trying to communicate information that offers high value added to shareholders. Based on the policy of "disclosing information regarding safety, environment, and society in addition to that of the Company's management policies and new products through a variety of means," indicated in the Declaration of Action by Officers and Employees, we strive to communicate information by holding briefings for institutional and individual shareholders.

Dialogue with Institutional Investors and Analysts

Every year, we hold briefing sessions and small-group meetings with institutional investors covering the full-year and first-half periods, in June and December respectively. In fiscal 2021, we thoroughly implemented COVID-19 preventive

measures and held our own Web meeting. Despite greater awareness of restrictions on movement for various reasons, including the announcement of a state of emergency in some areas and semi-state of emergency in other areas, eighty people, which is greater than the number of for the previous year, took part in the meeting.

In addition, we held our first briefing session for retail investors. Despite the small number of attendees due to poor weather, we recieved numerous questions from those who attended.

Dialogue with Individual Shareholders and Investors

We held our 158th Ordinary General Meeting of Shareholders and management briefing at the RIHGA Royal Hotel Kyoto on Friday, June 24, 2022. Subsequently, on Tuesday, July 5, we held another management briefing in Tokyo. Despite the coronavirus pandemic, there were more attendees than the previous year and participants provided us candid input.

Life Sciences Sidebar

Life Sciences business launched to solve social issues

Question

Life Sciences business launched to solve social issues

DKS launched business in 1909 after developing a cocoon unwinding agent that removes blemishes from cocoons, the raw material for silk thread. We subsequently withdrew from the home product business in 1973 and transformed ourselves into a B-to-B business specializing in industrial chemicals. Why are we launching a life sciences business now? The impetus for launching the business was the addition of Biococoon Laboratories Inc., to the Group in 2018 which discovered a new useful component "Naturido" from medical fungus grown on domestic silkworms. Naturido is a new useful component that is expected to contribute to longer healthy lives for people at a time of a hundred-year life spans. We launched the new B-to-C business with the commercialization of I. Japonica Bombyx Fungus, which embodies our hopes, as the new brand TENCHUKASOU.

Question

Can you provide details regarding the introduction of TENCHUKASOU?

The name, logo, and brand color of TENCHUKASOU was decided upon when we updated the previous product by doubling the volume of Naturido and making it into a tablet that is easy to take. The packaging was also renewed at the same time. The name TENCHUKASOU includes various meanings. The Kanji characters used when writing the



Cocoon tearoom



TAKAHARA Eiji Executive Officer Executive General Manager, Life Sciences Department

The brand book created to facilitate communication of the Life Sciences business is also used for raising brand recognition for the Company.

product name in Japanese include "sky" and "bugs," which are elements in the Kanji character for "silkworm." The product name also includes the Kanji character for "flower," which represents our hope that the lives of people blossom like flowers starting with middle age. In addition, because the Kanji character for sky has the meaning of "top," the name includes the worldview of becoming the market leader.

This is the first time in fifty years that the Company launched a B-to-C business, and it is necessary to conduct corporate branding to properly inform people about not only



Launch event for TENCHUKASOU

TENCHUKASOU but also DKS. Therefore, we are raising recognition of both by fostering the brand image of health food made by a chemical manufacturer with a history of 113 years in Kyoto.

Question

What is the concept behind the branding?

The branding for DKS is based on the keywords "from Kyoto" and "the essence of Kyoto." One such effort was creating a "cocoon tearoom" made from Japanese silk. In the tearoom, visitors can enjoy mulberry tea and tea made from I. Japonica-Bombyx Fungus, and let their minds contemplate the history of the Company, which started with chemistry technology related to silkworms. While maintaining the traditional parts, we are taking on the challenge of new endeavors. A wonderful aspect of Kyoto-based companies is that they are grounded in the ancient flow of time, and we expressed the character of this type of company into the package design. While we first introduced TENCHUKASOU, we have also developed products in collaboration with Kyoto-based companies and artisans, which include Kyo ame (candy drops made in Kyoto) and craft coffee. At the March launch event for TENCHUKASOU, we invited numerous parties, including members of the media and press and quests with connections to Kyoto. This became an opportunity to link it to our B-to-C strategy, too.





Collaborative products with TENCHUKASOU

Initiatives to Strengthen Corporate Branding

In the medium-term management plan "FELIZ 115," we include the target of generating ¥10.0 billion in annual sales for the Life Sciences business. One element of the strategy to achieve this target is to strengthen corporate branding, and we are aiming to further raise the corporate value and recognition of the Company.

As for concrete initiatives, we are communicating information through radio and social media and operating limited-time stores at department stores, such as JR Kyoto

Isetan, to raise recognition of the Company among the general population. In addition to original products developed in cooperation with famous Kyoto-based companies, we are moving forward with the development of other products, including general food products, soft drinks, and alcoholic beverages, by leveraging the Group's unique technology and materials.

Board of Directors, Audit & Supervisory Board, and Executive

Board of Directors (as of July 1, 2022)



SAKAMOTO Takashi Chairman CEO

Number of shares held:

 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.

2001 Director 2004 Executive General Manager in charge of Corporate Planning

Headquarters

2004 Managing Director
2007 Senior Managing Director
2011 Representative Vice President
2013 Chairman and Executive Director

2015 Concurrently President

2022 Chairman and Executive Director (current)



YAMAJI Naoki President COO

Number of shares held:

OKUYAMA

Number of shares held:

Kikuo

111 shares

Director (outside)

Career summary
April 1991 Joined DKS Co. Ltd.

Soline DASO vol.
 Garage of Planning Department, Yokkaichi Reorganization Division, Production Control Headquarters
 2014 General Manager of COO Office
 2015 Executive General Manager of Plastic Materials Business Division,

Business Headquarters

2016 Concurrently in charge of Tokyo Headquarters
2017 Executive General Manager in charge of Corporate Planning

Headquarters 2017 Director and in charge of Personnel & General Affairs Headquarters 2018 Concurrently in charge of Production Control Headquarters 2020 Managing Director

Administrative Supervisor

2021 R&D Supervisor 2022 President COO (current)



OKAMOTO Osami

Senior Managing Director R&D Supervisor

Number of shares held:

Career summary
April 1989 Joined DKS Co. Ltd.

1989 Joineá DKS Co. Ltd
2006 General Manager of Sales Department, Plastic Additive Materials
Business Division
2007 General Manager of East Sales Department, Surfactants Business Division
2007 General Manager of Planning Office, Functional Chemicals Business Division
2010 Director of Yokkaichi Chemical Co., Ltd.
2013 General Manager of Yokkaichi Reorganization Department,
Production Control Headquarters
2014 General Manager in charge of Management Planning Office,
Corporate Planning Headquarters
2016 Deputy Executive General Manager in charge of Corporate
Planning Headquarters

Planning Headquarters

2017 Executive General Manager of Plastic Materials Business Division, Business Headquarters

Concurrently in charge of Tokyo Headquarters

April

Sales Supervisor 2022 Senior Managing Director (current) R&D Supervisor (current)



TANIGUCHI Tsutomu Director (outside)

Number of shares held:

Career summary

1978 Labor Standard Inspector of Labor Ministry

2002 Chief of the Sonobe Labor Standards Inspection Office, Kyoto 2002 Chief of the Sonobe Labor Standards Inspection Office, Kyoto Labor Bureau, Ministry of Health, Labour and Welfare (former Labor Department)
2004 Senior Officer for Personnel Planning, General Affairs Division 2005 Chief of the Kyoto-minami Labor Standards Inspection Office 2008 Director of the General Affairs Division

AUMD . Urrector of the General Affairs Division
2010 Chief of the Kyoto-shimo Labor Standards Inspection Office
2012 Chief of the Kyoto-kami Labor Standards Inspection Office
2014 Executive Director of Kyoto Labor Standards Association
2017 Registered as Labor and Social Security Attomey (Kyoto Labor and
Social Security Attomey's Association)
Chief of Tautomu Taniguchi Labor and Social Security
Attorney's Office (current)

Attorney's Office (current) Director of DKS Co. Ltd. (current)

Career summary
October 1990 Professor, Department of Chemical Engineering, Cluster 3, Faculty

of Engineering of Hiroshima University
2001 Professor, Department of Chemical Engineering, Graduate School
of Engineering of Hiroshima University
2013 Professor Emeritus, Chemical Engineering of Hiroshima University

(current)
Special Appointment Professor of Hiroshima University
2017 Managing Director of Hosokawa Powder Technology Foundation
2021 Director of DKS Co. Ltd. (current)
2022 Auditor of Hosokawa Powder Technology Foundation (current)



HASHIMOTO Katsumi

Director (outside)

Number of shares held: 182 shares

Career summary
April 1981 Joined Osaka Regional Taxation Bureau

1981 Joined Osaka Kegional Taxation Bureau
1984 Joined Asahi Accounting, LLC. (currently KPMG AZSA LLC)
1987 Registered as a certified public accountant
2007 Representative Partner of Asahi Accounting, LLC. (currently KPMG
AZSA LLC)
2010 Director of Kyoto Office of KPMG AZSA LLC
2019 Left KPMG AZSA
1019 Established Machinete Accounting Office on a Parameter.

2019 Established Hashimoto Accounting Office as a Representative

2019 Outside Audit & Supervisory Board Member of Bankers Holding (current)

2020 Audit & Supervisory Board Member of DKS Co. Ltd.
2021 External Audit & Supervisory Board Member of Pacific Porter, Inc

(current) 2022 Director of DKS Co. Ltd. (current)

Audit & Supervisory Board (as of July 1, 2022)



FUJIOKA Toshinori Audit & Supervisory Board

Number of shares held:

 Career summary

 April
 1980 Joined DKS Co. Ltd.

 October
 2000 General Manager in charge of General Business Promotion Office, Procurement & Logistics Headquarters

2001 General Manager in charge of Sales Promotion Office, Sales Headquarters

neadquarters
2005 General Manager of East Supervision Department, Sales
Supervision Headquarters
2007 Executive General Manager in charge of Personnel & General

Affairs Headquarters 2010 President and Representative Director of Kyoto Elex Co., Ltd.

2011 Executive General Manager in charge of Procurement & Logistics Headquarters and President of Osaka Branch

2014 Director
2016 Executive General Manager of RHEOCRYSTA Business Division

(Business Headquarters)

2018 Audit & Supervisory Board Member (current)



ONISHI Hideaki Audit & Supervisory Board

Number of shares held:

1982 Joined DKS Co. Ltd.
2001 General Manager of Plastic Materials R&D Department, Plastic Materials Business Division

Materials Business Division

2005 General Manager of Synthesis R&D Supervision Department,
Technological Development Headquarters

2006 General Manager of Plastic Additive Materials R&D Department,
Technological Development Headquarters

2008 Deputy General Manager of Plastic Materials R&D Department,
Plastic Materials Business Division

Plastic Materials Business Division 2009 General Manager of Plastic Materials Laboratory, Plastic Materials April

2011 Executive General Manager in charge of R&D Headquarters

2014 Director 2017 Managing Director

2020 Advisor 2021 Audit & Supervisory Board Member (current)



TAKAHASHI Toshitada Audit & Supervisory Board Member (outside)

Number of shares held:

Career summary
April 1982 Joined The Fuji Bank, Limited (current Mizuho Bank, Ltd.)
May 2004 Manager of Urawa Branch of Mizuho Corporate Bank, Ltd.
November 2005 Manager of Maebashi Branch of Mizuho Corporate Bank
April 2008 Manager of Shinagawa Branch of Mizuho Corporate Bank
April 2010 Chief Auditor, Business Audit Department of Mizuho Corporate

2010 Chief Auditor, business Audit Department of Mizuho Corpors Bank
2011 Joined UC CARD Co., Ltd.
2011 Managing Executive Officer of UC CARD Co. Ltd.
2020 Director, Managing Executive Officer of UC CARD Co. Ltd.
2020 Audit & Supervisory Board Member of DKS Co., Ltd. (current) Director, Audit & Supervisory Board Member of ITmedia Inc.

Officers



KAWAMURA Ichiji Managing Director

Sales Supervisor in Charge of Tokyo Headquarters

Number of shares held:

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, (Sokohama-chuo Branch of Mizuho Bank

May 2004 Assistant Branch Manager, (Sokohama-chuo Branch of Mizuho Bank

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 2013 General Manager, International Corporate Sales Department of Mizuho Bank
2016 Joined DKS Co. Ltd.
2016 Joined DKS Co. Ltd.
2016 Deputy Executive General Manager in charge of Personnel & General Affairs Headquarters
2017 Executive General Manager in charge of Personnel & General April

April

Affairs Headquarters
2018 Executive General Manager in charge of Production Control Headquarters April

June April April April 2018 Executive General Manager III C 2018 Director 2020 Production Supervisor 2021 Administrative Supervisor 2022 Managing Director (current)

Sales Supervisor (current)
Concurrently in charge of Tokyo Headquarters (current)



Hideyo Director (outside)

Number of shares held:



SHIMIZU Shinji Director

Number of shares held:

Administrative Supervisor

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 Headquarter

April 2020 Executive Officer

Exercise General Manager in charge of Equipment Managery

емесиtive Officer
Executive General Manager in charge of Production Headquarters
2022 Administrative Supervisor (current)
2022 Director (current)



AOKI Sunao

Director Production Supervisor

Number of shares held:

Career summary

April 1972 Joined Mitsubishi Heavy Industries, Ltd.

June 2000 Director of Takasago Laboratory, Technology Department

June 2003 Director

January 2005 General Manager, Technology Department

June 2005 Representative Executive Officer

December 2005 Visiting Professor of Tsinghua University in China (current)

April 2006 Representative Managing Executive Officer of Mitsubishi Heavy Industries, Ltd.

April 2006 Representative Managing Executive Officer of Mitsubishi need Industries, Ltd.

April 2009 Executive Vice President and Executive Officer

June 2011 Vice Chief Director of Mitsubishi Research Institute, Inc.

April 2014 Special Advisor of Mitsubishi Heavy Industries, Ltd.

June 2014 Director of DisCo. Ltd. (current)

September 2018 Advisory professor of Tsinghua University in China (current)

June 2022 Production Supervisor of DKS Co. Ltd. (current)



NAKANO

Career summary
November 1991 Vice President of Critirust and Banking Corporation
October 1993 Senior Portfolio Manager and Head of Private Investment
January 2000 Director and Head of Investment Division of FuNNeX Asset
Management Inc.
March 2004 CEO of Trias Corporation (current)
March 2005 External Director of CUTSOURCING Inc. (current)
July 2021 External Director of HOCHIRI CORPORATION (current)
July 2022 Director of DKS Co. Ltd. (current)



Executive Officers (as of July 1, 2022)

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



NAKA Hideya Audit & Supervisory Board Member (outside)

Number of shares held: 182 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 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 2015 General Manager of Tokyo Branch of Bank of Kyoto
December 2015 General Manager of Tokyo Branch of Bank of Kyoto
June 2019 President and CEO, Kyoto Gredit Assurance Service Co, Ltd.
June 2020 Audrit & Supervisory Board Member of DKS Co. Ltd. (current)
June 2022 Advisor of Kyoto Credit Assurance Service Co., Ltd.

Business Activities Report



Surfactants

Segment Outline

Since the Company's founding in 1909, the Surfactants segment has provided core technologies that have supported DKS for more than 100 years. DKS surfactants provide high added value in a wide variety of fields and applications, including soap and detergents, IT and electronics, rubber and plastics, paints and 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 develop and manufacture these products with petrochemicals and oils/fats as key raw materials primarily at the Yokkaichi Branch (the Chitose and Kasumi Plants), the Shiga Branch, and Yokkaichi Chemical Co., Ltd.



① IT and electronics materials ② Soaps and detergents

3 Paints and coloring materials

Review of and issues related to FY2021

During the fiscal year ended March 31, 2022, net sales in this segment were generally firm.

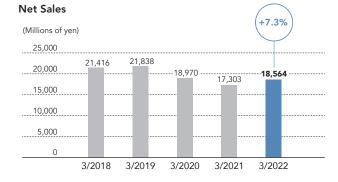
In Japan, sales of both products for rubber and plastic applications and products for civil engineering and construction applications fell, but those for IT and electronics material applications, and paints and coloring material applications were firm. Sales of products for soap and detergent applications grew significantly. Overseas, sales of products for textile applications and rubber and plastic 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
- Delays in developing markets for environmentally friendly products

■ DKS' strengths

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



■ Main products and uses

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.

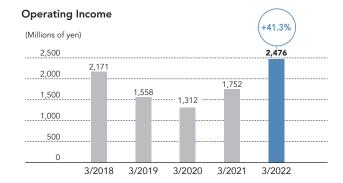
Connection between material issues and ES

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.

Having developed a reactive surfactant that not only functions as a surfactant but also offers such other subsequent benefits as improving water resistance, the Company is focusing on expanding the market for this product, which is based on Japanese technology.

Material issues (p.10) are connected to ES in the following ways:

- 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 (4. consideration for the environment)





Amenity Materials

Segment Outline

The Amenity Materials segment provides materials and peripheral application technologies necessary for a comfortable living environment. The Company provides materials suitable to the products of customers in a wide range of industries including foods, pharmaceuticals, personal care (cosmetics), 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.



① Personal care (cosmetics) ② Food

③ Energy

Review of and issues related to FY2021

During the fiscal year ended March 31, 2022, net sales in this segment grew significantly.

In Japan, although sales of cellulose polymers (CMC) for food applications were weak, those for pharmaceutical applications were firm, and those for energy and environmental applications grew significantly. Furthermore, despite weak sales of sucrose fatty acid esters for personal care (cosmetics) applications, those for food applications were strong. Overseas, sales of SEs for personal care (cosmetics) applications were firm, and those for food applications grew significantly.

Issues facing this business are as follows:

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

■ DKS' strengths

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

Main products and uses This segment targets industrial fiel

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.

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

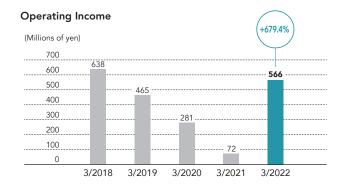
Connection between material issues and ES

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

Material issues (p.10) are connected to ES in the following ways:

- Making social contributions utilizing RSPO certification (5. contribution to a co-production society)
- Actively contributing to carbon neutrality through naturally derived raw materials (4. consideration for the environment)
- Developing solution business for the battery field (7. tackling NEXT and DREAM businesses)





Business Activities Report



Polyurethane Materials

Segment Outline

The segment provides polyurethane materials and industrial materials, including paints, adhesives, civil engineering and construction materials, and electric insulation materials. The Company possesses technologies used to manufacture high-elasticity urethane rubber and urethane elastomers as well as soft/rigid urethane foams. Leveraging these technologies, we supply various high-functional polyurethane products, such as cushioning, thermal insulation, and molding 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 (Chitose and Kasumi Plants).



① IT and electronics materials ② Civil engineering

3 Automotive industrial

Review of and issues related to FY2021

During the fiscal year ended March 31, 2022, net sales in this segment grew significantly.

Sales of civil engineering chemicals for public works were firm while those of environmentally friendly synthetic lubricants related to CFC regulations grew significantly because of the recovery in automobile-related fields. Sales of functional polyurethanes for applications such as construction were weak, but those of functional polyurethanes for IT and electronics material 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. Delays in new development
- ${\it 3. Strengthening relationships with inspiring/inspired partners}\\$

DKS' strengths

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



Main products and uses

No.3 Plant, which manufactures functional polyurethane resin, commenced operations in December 2019. Against this backdrop, we will redouble our initiatives with our inspiring/inspired partners. In addition, our rock hardening agents for tunnel construction have a broad array of uses that include public roads and railways while boasting a high market share based on their safety and performance. We 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.

Connection between material issues and ES

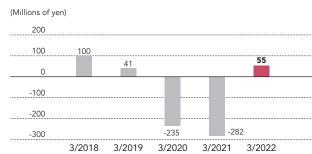
Sales growth for rock hardening agents is expected due to the progress of construction on the Linear Chuo Shinkansen Line. Additionally, by further deepening initiatives with inspiring/inspired partners, we will pursue development and expanded sales of products for IT and electronics materials manufactured 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.

Material issues (p.10) are connected to ES in the following ways:

- Selling rock hardening agents for the Linear Chuo Shinkansen Line (4. consideration for the environment)
- Expanding the use of urethan materials in vehicles that are incorporating a larger number of electrical components due to the introduction of green vehicles and EVs (4. consideration for the environment)

Operating Income or Loss





Functional Materials

Segment Outline

The Functional Materials segment provides technologies and materials contributing to advanced performance, including resins used in daily necessities, as well as IT and electronics materials often used in personal computers, smartphones, and home 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. The waterborne polyurethanes that we have been developing since 1973 are used in wood and plastic paints, metal and paper coating agents, film and wood adhesives, and paper/fiber binding.

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



① IT and electronics materials ② Flame retardants for plastics

3 Film materials

(3)

■ Review of and issues related to FY2021

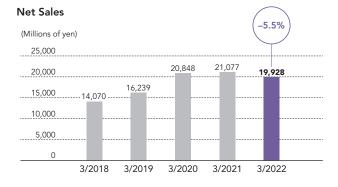
During the fiscal year ended March 31, 2022, net sales in this segment were generally weak.

In Japan, sales of waterborne polyurethane resin for textile applications and IT and electronics material applications were firm, but sales of radcure resin materials for IT and electronics material applications fell sharply. 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. Increasing and strengthening the supply capacity of the flame retardants business

■ DKS' strengths

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



Main products and uses

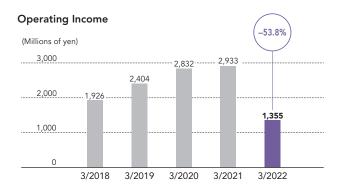
While many urethane resins are based on organic solvents, DKS is also researching and developing waterborne polyurethanes, in which the polyurethanes are dispersed in water, largely in reaction to rapidly growing demand for safer water systems as society places increased importance on environmental concerns. In addition to being safe for the environment and people, we believe these products are likely to see increased demand thanks to their ability to allow high-performance finishing in a variety of applications, including paper and metal processing, as well as film processability. Given the global trend away from organic solvents, this is a product group on which we are focusing our energies. This market has strong growth potential and is one in which we can demonstrate our strengths both in Japan and overseas. Competitors include material companies that handle electronics materials and overseas flame retardant companies, but we aim to increase our market shares by utilizing our technology and proposal capabilities.

Connection between material issues and ES

Additionally, by further deepening initiatives with inspiring/inspired partners, we will pursue development and expanded sales of IT and electronics materials manufactured at the No.4 Plant of the Kasumi Plant. At the same time, we will accelerate activities for meeting the final fiscal year targets of the medium-term management plan ending in March 2025.

Material issues (p.10) are connected to ES in the following ways:

- 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)
- Expanding sales of biodegradable polymers (4. consideration for the environment)



Business Activities Report



Electronic Device Materials

Segment Outline

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

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



Review of and issues related to FY2021

During the fiscal year ended March 31, 2022, net sales in this segment increased significantly overall.

While sales of ionic liquids for display applications were weak, sales of conductive pastes for solar cells rose significantly.

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
- Concerns for risks such as stricter environmental regulations, lockdowns due to COVID-19 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 difficultto-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. As for lithium-ion batteries, another of our strengths is that we are able to handle all stages from material research and development to the manufacturing of prototype lithium batteries.

Net Sales (Millions of yen) 8,000 7,316 6,000 4,850 4,199 4,744 2,000 0 3/2018 3/2019 3/2020 3/2021 3/2022

Main products and uses

② Displays

3 Lithium ion battery cells

The lithium-ion batteries (LiB) used in electric vehicles generally employ lithium phosphate as an electrolyte and an organic solvent as an electrolytic solution. However, because there is a risk of organic solvents igniting, manufacturers have been careful to incorporate safety measures, including adding in flame retardants. We are developing ionic liquids that are liquid at 100 and below and have no vapor pressure, and thus are nonflammable. Because they are highly safe and have high ion conductivity, we are developing electrolyte applications for lithium-ion batteries and capacitors.

These kinds of liquids are also attracting attention as next generation materials in the energy device field and as green solvents that have less of an environmental impact. As described, this segment plays a role in creating a safe, pleasant life for all.

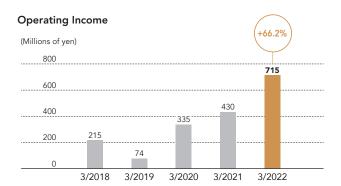
Connection between material issues and ES

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

Furthermore, we have established a subsidiary in China, a country expected to see growth in its solar cell market, and launched sales of products to solar cell manufacturers in the country. While the growing technological capabilities of countries in Asia, including China, are a threat, growth is possible by offering our proprietary technologies, R&D capabilities, and solid quality.

Material issues (p.10) are connected to ES in the following ways:

- Expanding business in China, which boasts a solar cell market (4. consideration for the environment)
- Accelerating next-generation product development with inspiring/inspired partners (7. tackling NEXT and DREAM businesses)





Life Sciences

Segment Outline

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.



① TENCHUKASOU (I. Japonica-Bombyx Fungus) ② Sudachin

Review of and issues related to FY2021

During the fiscal year ended March 31, 2022, net sales in this segment rose ¥41 million (9.6%) year on year to ¥476 million.

In addition to the contract manufacturing business for products such as pharmaceutical raw materials and health foods based on concentrating and powdering extracts from natural materials, the

- I. Japonica-Bombyx Fungus business was firm. Issues facing this business are as follows:
- 1. Establish the B-to-C business and quickly generate earnings
- 2. Expand new contract manufacturing business

■ DKS' strengths

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

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

The tablet Sudachin, made with citrus sudachi peel extract powder, was certified as a Shikoku Health Support Food (commonly referred to as "Health Four").

We will acquire more evidence and develop highly-reliable "food with functional claims" (preparing to submit applications).

Main products and uses

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

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

Connection between material issues and ES

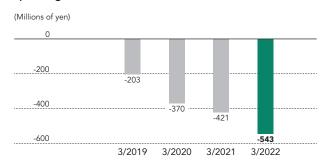
Currently, the department is taking steps to obtain "foods with functional claims" certification for Naturido, discovered from I. Japonica-Bombyx Fungus, and Sudachin, a substance extracted from the peels of sudachi (citrus fruit) with benefits against diabetes and obesity.

Material issues (p.10) are connected to ES in the following ways:

- Promoting SDGs by revitalizing local communities through sericulture (Sericulture Innovation) (5. contribution to a co-production society)
- Developing health foods and general-use food products (and later, pharmaceutical products) using TENCHUKASOU, 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)

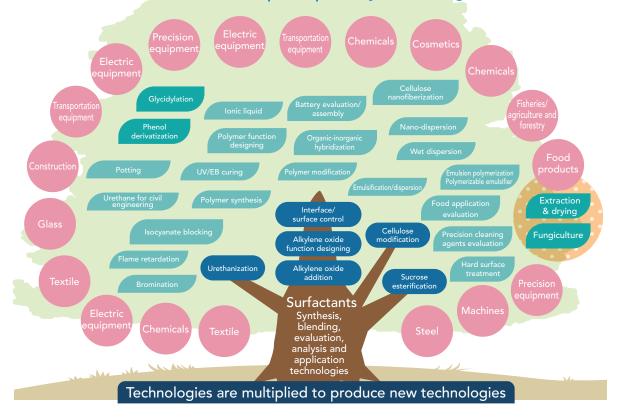


Operating Loss



Proprietary Technologies of DKS

Technical Road Map: Proprietary 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.60

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 nonionic 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, graphene 5), metals (e.g., gold, silver, copper) and metal oxides (e.g., silica, titania, zirconia), all of which possess diverse characteristics. This technology disperses these nano materials into mediums such as water, organic solvents and resins. However, as the particle size of substances is reduced to nano size, the impact of the Van der Waals 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
- 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 flameretardant elements such as bromine, phosphorus, nitrogen, boron, silicon and/or antimony to/in polymer materials to make them flameretardant 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 flameretarding 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.

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 lonic 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

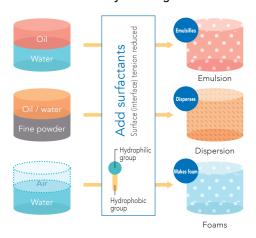
Generally, an "interface" refers to the border area between two materials of different states of solid, liquid or gas. A surface active agent, or surfactant, is a term for a chemical that exhibits functions and improves the performance of these interfaces.

Basic Structure of Surfactants

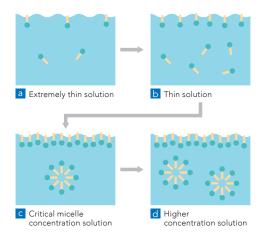
Surfactants have a unique chemical structure that has both hydrophilic and hydrophobic properties. Using this structure, surfactants can achieve a variety of effects such as emulsification, dispersion, foaming, and adsorption by weakening surface tension or forming molecular aggregates or micelles (spheres). When surfactants are dissolved in water and the result is a low-concentration solution, their molecules can easily gather and assemble on the interface (surface) of

the solution through a phenomenon called "adsorption." If the surfactant concentration is increased, the surfactants form molecular aggregates or micelles (spheres) when they reach what is called "critical micelle concentration" (see illustrations "c" and "d" below). Once micelles have formed, if you add non-water-soluble oil to the solution, the oil can be encircled (solubilized) by the micelles so that from the outside, it looks like the oil has dissolved in the water.

Functions of surfactants by reducing surface tension



Surfactant solutions



Surfactant Types

Surfactants have four main structural types based on the functions they are 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	Superb emulsifying and dispersing propertiesGood foamingNot susceptible to temperature	0	Laundry detergent / Shampoo / Body wash
Cationic surfactants	Absorbed by textiles, etc.Antistatic effectSterilizing effect	0	Hair conditioner / Fabric softener / Disinfectant
Amphoteric surfactants	Non-irritative to the skinSuperb solubility in waterHigh compatibility with other surfactants	0	Body wash / Dishwashing liquid / Shampoo
Nonionic surfactants	 Balance of hydrophilic and hydrophobic properties easily adjustable Superb emulsifying and solubilizing properties Low foaming Susceptible to temperature 	0	Laundry detergent / Emulsifier and solubilizer / Dispersant / Metal processing oil

Main Actions and Applications

Fund	ction	Actions and effects		Applio	cations
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.	0	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.	0	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.	0	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.	0	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.	0	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.	0	Antistatic and dustproofing treatment for synthetic fibers and plastic products	
Rustproofing	Prevents rust	Adheres to the metal surface and forms a coat to prevent oxygen (air) and water from contacting the metal and causing rust.	0	Metal surface treatment	
Leveling, fixing	Prevents uneven dying, enhances dye fastness	Makes the dyestuff gradually be absorbed by the textiles and brings about uniform dyeing.	0	Textile processing	
Sterilizing	Removes bacteria	Negatively charged bacteria is absorbed by positively changed surfactant which destroys the bacteria cell membranes and sterilizes.	0	Hand sanitizer	

Environmental Impact of Surfactants

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

Because surfactants are biodegradable, even if released into the environment they eventually degrade to carbon

dioxide and water by bacteria. To preserve the natural environment, products with high biodegradability are being developed and proactively used in Japan.

Glossary

Terminology	Description
Absenteeism	A situation in which, due to mental or physical distress, an employee is frequently absent from work or misses work without notice.
Antistatic agent	A compound to prevent the electrification of synthetic fibers and plastics caused by static electricity, for which a surfactant is mainly used. It is applied to the surface of target materials by spraying and lets static electricity escape.
ВСР	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	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.
Cash conversion cycle	A term referring to the number of days, from inventory sourcing to sales, that it takes to recover cash.
Cellulose nanofibers	Very thin nano-sized fibers prepared by detangling cellulose, which makes up the cell walls of plants. The width of the fibers is about 10 nm (nano = one billionth). They are made from wood-derived pulp, and when used in plastics and rubbers, they enhance the strength of these materials while reducing thermal expansion/contraction.
CNF	An abbreviation for cellulose nanofibers. *See "cellulose nanofibers."
Cocoon unwinding agent	An agent to spin silk yarn from silkworm cocoons.
COD emissions	COD is an abbreviation for Chemical Oxygen Demand. The value indicates the oxygen volume needed for oxidizing underwater objects and is one of the major indicators used for water quality.
Conductive paste	Paste that conducts electrical current and is used in solar cell panels.
Digital transformation (DX)	A response by companies to drastic changes in the business environment by transforming their products, services, and business models through the use of data and digital technologies, based on the needs of customers and society. The objective is to rethink work tasks, organizations, processes, and corporate culture and climate in order to secure a competitive advantage.
DuPont model	Also called the DuPont System; a method to analyze return on equity (ROE) by breaking it down to three categories using the indices below. The name refers to its use by the chemical company DuPont for financial analysis. ROE (current net income / capital stock) = Financial leverage × Asset rotation ratio × Sales profit ratio
Energy consumption per unit	A figure for expressing energy efficiency. It refers to the overall volume of energy consumption, such as electrical power and fuel, needed to produce a given unit or amount of goods. Generally, it is used as an indicator showing the progress of energy saving measures.
Fair Trade	A trade practice that makes on-going purchases of raw materials and products at fair prices in developing countries and aims to improve the lifestyles and independence of producers and laborers who are in a disadvantaged position in developing countries.
GMP	An abbreviation of Good Manufacturing Practice, which is a set of rules and a system that cover all processes from stocking raw materials, to manufacturing and shipping, and ensure consistent quality and safe manufacturing of pharmaceutical products, food products, and the like.
Green transformation (GX) The concept of transforming the global environment by converting to non-greenhous emitting green energy, such as renewable energy.	
HACCP	An abbreviation for Hazard Analysis Critical Control Point, which is a hygiene approach for ensuring the safety of food products.
Inspiring/Inspired Partners Specific business partners of DKS who intuit the needs of end users, collaboratively 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.
MI	An abbreviation for Materials Informatics, which is a method for using massive volumes of materials data and AI (deep learning) for the analysis and design of chemical structures and compositions expected to perform well.

Terminology	Description
МОТ	An abbreviation for Management of Technology, which refers to understanding the company's technological capabilities, connecting R&D results to each product/business, and finding economic value in technology itself.
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.
SDGs	SDGs is an abbreviation for the Sustainable Development Goals, which are international targets adopted by world leaders at a summit held at the United Nations in September 2015. The 17 SDGs contain 169 targets for achievement by 2030.
SDS	An abbreviation for Safety Data Sheets. The same materials previously were called Material Safety Data Sheets (MSDS), however, since April 2012, all have been designated as SDS as used in the United Nations' Globally Harmonized System of Classification and Labelling of Chemicals (GHS).
Sharing Economy	A new economic trend and form of service referring to consumers providing or sharing vehicles, residences, furniture, clothes, and other things, as well as spaces and skills, to people who need them.
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.
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.
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.

Domestic/Overseas Network

Domestic Network



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	50.0%
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%
lkeda 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	50.0%

Main products: Functional chemical products

Main products: Functional chemical products,

urethane-related chemicals, plastic additives

Overseas



Operation Bases (World)

Company name	Location	Business activities	Ownership
Chin Yee Chemical Industries Co., Ltd.	11F, Lidye Commercial Building, 22 Nanking West Road, Taipei, Taiwan Phone +886-2-2556-9353 Fax +886-2-2558-6833	Production and sales of surfactants and plastic/electronic materials	50.0%
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	100.0%
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	50.0%
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	44.75%

Financial and Nonfinancial 11-Year Summary

Financial Data (Millions of yen)	FY2011	FY2012	FY2013	FY2014	
Net Sales	56,249	51,843	54,614	55,597	
Surfactants	18,779	19,486	20,359	21,573	
Amenity Materials	7,220	6,825	7,141	6,856	
Polyurethane Materials	8,634	8,466	9,564	9,442	
Functional Materials	10,228	9,666	10,680	11,216	
Electronic Device Materials	11,386	7,398	6,868	6,508	
Life Sciences					
Overseas Sales	8,296	7,323	8,103	8,743	
(relative to net sales ratio %)	(14.7)	(14.1)	(14.8)	(15.7)	
Operating Income	2,033	1,754	2,477	2,944	
Ordinary Income	1,742	1,544	2,374	2,717	
Profit Attributable to Owners of Parent	165	797	1,336	1,782	
Capital Expenditures	2,312	3,664	1,512	3,948	
Depreciation	2,252	2,003	2,104	2,153	
R&D Expenses	2,273	2,340	2,506	2,439	
Net Cash Provided by (Used in) Operating Activities	2,309	2,477	3,553	2,322	
Net Cash Provided by (Used in) Investing Activities	(2,869)	(3,548)	(1,793)	(3,229)	
Cash Dividends Paid	298	298	298	474	
Amount of Treasury Shares Acquired	0	0	0	0	
Net Assets	16,949	18,200	19,886	26,156	
Total Assets	51,357	55,416	57,570	64,420	
Interest-Bearing Debt ¹	15,700	18,712	20,680	21,322	
Per-Share Data (yen) ²					
Net Profit	3.87	18.68	31.32	38.69	
Net Assets	377.77	404.39	440.00	472.40	
Cash Dividend	35.00	35.00	35.00	45.00	
Major Indices					
R&D Expenses to Sales Ratio (%)	4.0	4.5	4.6	4.4	
Operating Margin (%)	3.6	3.4	4.5	5.3	
Return on Equity (%)	1.0	4.8	7.4	8.2	
Equity Ratio (%)	31.4	31.1	32.6	38.7	
Net D/E Ratio (times)	0.60	0.66	0.58	0.36	
Dividend Payout Ratio (%)	180.8	37.5	22.4	23.3	
Total Return Ratio (%)	180.9	37.5	22.4	26.7	
Year-End Stock Price (yen) ²	246	250	322	387	
PER (times)	63.6	13.4	10.3	10.0	
PBR (times)	0.7	0.6	0.7	0.8	
Dividend Yield (%)	2.9	2.8	2.2	2.3	
Nonfinancial Data					
No. of Employees (consolidated) (persons)	995	979	969	944	
No. of Employees (non-consolidated) (persons)	533	526	514	508	
No. of Employees Outside Japan (persons)	173	172	170	163	
Ratio of Female Employees to Total Employees (non-consolidated) (%)	14.8	14.8	16.0	15.9	
No. of Employees Who Utilized the Child-Care Leave System (non-consolidated) (persons)	10	10	8	11	
No. of Employees Who Utilized the Child-Care Part-Time Work System (non-consolidated) (persons)	7	11	8	9	
Annual Paid Leave Rate (non-consolidated + assigned employees) (%)	66.7	62.7	63.7	61.0	
No. of Patents Held (outside Japan) (patents) ³	_	636 (237)	668 (246)	735 (297)	
Generated Waste Amount (tons)	13,395	14,421	12,724	13,876	
CO ₂ Emissions (consolidated) (thousands of tons) ⁴	49.8	51.9	52.0	51.3	
1 Losso liabilities not included in interest bassing debt	-				

^{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.
4. The carbon dioxide emission calculation method was revised in FY2018 and applied retroactively from FY2016.

FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
52,782	52,254	56,955	59,574	61,456	59,140	62,672
20,779	19,793	21,416	21,838	18,970	17,303	18,564
7,208	6,986	7,502	8,031	7,994	7,081	8,092
8,934	9,093	9,115	9,026	8,470	7,484	8,294
11,259	12,517	14,070	16,239	20,848	21,077	19,928
4,600	3,862	4,850	4,199	4,744	5,758	7,316
,	,	•	239	427	435	476
9,131	8,794	9,929	10,139	10,350	10,135	14,076
(17.3)	(16.8)	(17.4)	(17.0)	(16.8)	(17.1)	(22.5)
3,439	3,944	5,053	4,341	4,154	4,485	4,626
3,200	3,773	4,725	4,175	3,524	4,314	4,192
2,198	2,489	3,351	2,581	2,014	2,563	2,492
8,485	3,786	2,467	5,802	6,138	4,617	1,925
2,087	2,335	2,473	2,555	2,724	3,263	3,430
2,380	2,393	2,307	2,765	2,748	2,821	2,946
4,197	3,750	5,017	3,236	3,766	4,955	5,520
(7,687)	(3,336)	(1,130)	(5,694)	(5,842)	(3,804)	(2,700)
528	608	710	711	711	712	814
0	1,000	1	0	0	0	0
26,745	28,044	31,960	33,591	34,265	37,404	40,383
66,057	69,046	73,976	75,906	81,736	85,033	86,469
23,228	24,594	23,863	23,466	29,946	28,529	27,763
20,220	21,071	20,000	23, 100	27,710	20,027	21,100
	47.40		05444	400.47	054.07	044.04
41.64	47.40	66.06	254.11	198.17	251.97	244.81
485.05	529.94	594.15	3,082.83	3,114.97	3,405.28	3,610.31
50.00	60.00	70.00	70.00	70.00	70.00	80.00
4.5	4.6	4.1	4.6	4.5	4.8	4.7
6.5	7.5	8.9	7.3	6.8	7.6	7.4
8.7	9.5	11.8	8.4	6.4	7.7	7.0
38.8	38.9	40.8	41.3	38.8	40.7	42.5
0.52	0.54	0.39	0.48	0.57	0.45	0.38
24.0	25.3	21.2	27.5	35.3	27.8	32.7
24.1	64.6	21.2	27.6	35.4	27.8	32.7
328	427	875	3,480	3,750	3,680	2,759
7.9	9.0	13.2	13.7	18.9	14.6	11.3
0.7	0.8	1.5	1.1	1.2	1.1	0.8
3.1	2.8	1.6	2.0	1.9	1.9	2.9
			2.0			2.7
982	967	976	985	1,032	1,061	1,096
495	486	497	512	531	560	571
219	199	213	170	177	178	197
17.0	17.5	17.5	17.8	18.8	18.9	20.3
9	6	12	7	3	7	13
10	13	10	10	12	10	8
64.5	62.4	67.4	68.5	73.2	66.1	67.4
763 (316)	855 (378)	924 (427)	961 (453)	1,012 (479)	1,056 (514)	1,005 (483)
13,191 50.9	17,364 51.7	20,779 53.6	21,658 52.6	19,605	18,431 48.9	16,662 48.5
5119	51/	5.3.6	52.6	53.8	48.9	48.5

Consolidated Financial Statements

Consolidated Balance Sheets

(Millions of yen)

Assets	FY2020	FY2021
Current assets		
Cash and deposits	11,595	12,224
Notes and accounts receivable—trade	15,413	14,959
Electronically recorded monetary claims—operating	1,453	1,532
Merchandise and finished goods	8,928	11,582
Work in process	22	21
Raw materials and supplies	4,297	3,905
Prepaid expenses	278	317
Other	2,022	1,996
Allowance for doubtful accounts	(13)	(4)
Total current assets	43,997	46,534
Non-current assets		
Property, plant and equipment		
Buildings and structures	30,086	30,486
Accumulated depreciation	(16,027)	(16,944)
Buildings and structures, net	14,059	13,541
Machinery, equipment and vehicles	36,470	37,426
Accumulated depreciation	(30,643)	(31,870)
Machinery, equipment and vehicles, net	5,827	5,555
Tools, furniture and fixtures	3,990	4,144
Accumulated depreciation	(3,354)	(3,413)
Tools, furniture and fixtures, net	635	730
Land	9,273	9,638
Leased assets	4,645	4,804
Accumulated depreciation	(1,442)	(2,004)
Leased assets, net	3,203	2,800
Construction in progress	1,318	1,091
Total property, plant and equipment	34,317	33,358
Intangible fixed assets		
Goodwill	363	213
Others	470	405
Total intangible fixed assets	833	618
Investments and other assets		
Investment securities	4,372	4,004
Long-term loans receivable	18	16
Long-term prepaid expenses	140	231
Deferred tax assets	195	172
Net defined benefit assets	841	1,228
Other	323	310
Allowance for doubtful accounts	(6)	(6)
Total investments and other assets	5,884	5,958
Total non-current assets	41,035	39,935
Total assets	85,033	86,469

		(Millions of yen)
Liabilities	FY2020	FY2021
Current liabilities		
Notes and accounts payable—trade	9,404	10,204
Electronically recorded obligations—operating	423	429
Short-term borrowings	6,698	6,711
Lease liabilities	598	558
Accrued expenses	302	348
Income taxes payable	700	576
Accrued business office taxes	41	41
Provision for bonuses	753	816
Provision for waste disposal costs	375	-
Other	2,773	2,040
Total current liabilities	22,071	21,726
Non-current liabilities		
Corporate bonds	6,000	6,000
Long-term borrowings	15,831	15,051
Lease liabilities	2,978	2,551
Deferred tax liabilities	305	318
Retirement benefit liability	116	107
Asset retirement obligations	73	74
Other	251	255
Total non-current liabilities	25,556	24,359
Total liabilities	47,628	46,086

Net assets	FY2020	FY2021
Shareholders' equity		
Capital stock	8,895	8,895
Capital surplus	7,267	7,278
Retained earnings	18,733	20,498
Treasury shares	(1,040)	(1,021)
Total shareholders' equity	33,856	35,650
Accumulated other comprehensive income		
Valuation difference on available- for-sale securities	484	181
Foreign currency translation adjustment	24	507
Remeasurements of defined benefit plans	282	427
Total accumulated other comprehensive income	791	1,116
Non-controlling interests	2,756	3,616
Total net assets	37,404	40,383
Total liabilities and net assets	85,033	86,469

Consolidated Statements of Income

(Millions of yen)

	FY2020	FY2021
Net sales	59,140	62,672
Cost of sales	43,961	46,954
Gross profit	15,179	15,718
Selling, general and administrative expenses		
Selling expenses	4,130	4,173
General and administrative expenses	6,563	6,918
Total selling, general and administrative expenses	10,693	11,092
Operating income	4,485	4,626
Non-operating income		
Interest income	3	7
Dividend income	77	85
Share of profit of entities accounted for using equity method	57	55
Foreign exchange gains	7	55
Rent income	36	35
Other	64	79
Total non-operating income	246	319
Non-operating expenses		
Interest expenses	202	188
Corporate bond interest	37	37
Inactive facility expenses	-	365
Other	177	162
Total non-operating expenses	418	753
Ordinary income	4,314	4,192
Extraordinary income		
Profit on the reversal of the allowance for expenses for waste disposal costs	_	194
Gain on sales of investment securities	408	_
Total extraordinary income	408	194
Extraordinary losses		
Loss on disposal of non-current assets	146	173
Loss on valuation of investment securities	_	34
Impairment losses	431	_
Provision for waste disposal costs	385	_
Total extraordinary losses	963	207
Profit before income taxes	3,759	4,179
Income taxes—current	1,090	1,087
Income taxes—deferred	(79)	52
Total income taxes	1,010	1,139
Profit	2,749	3,039
Profit attributable to non-controlling interests	185	546
Profit attributable to owners of parent	2,563	2,492

Consolidated Statements of Comprehensive Income

(Millions of yen)

	FY2020	FY2021
Profit	2,749	3,039
Other comprehensive income		
Valuation difference on available-for-sale securities	1,021	(303)
Foreign currency translation adjustment	34	768
Remeasurements of defined benefit plans, net of tax	56	142
Share of other comprehensive income of entities accounted for using equity method	2	50
Total other comprehensive income	1,115	658
Comprehensive income	3,864	3,697
Comprehensive income attributable to owners of parent	3,655	2,824
Comprehensive income attributable to non-controlling interests	209	872

Consolidated Financial Statements

Consolidated Statements of Cash Flows

(Millions of yen)

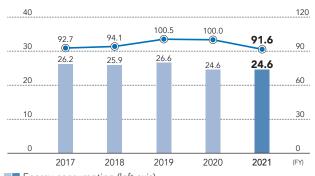
		(Millions of yer
	FY2020	FY2021
Cash flows from operating activities		
Profit before income taxes	3,759	4,179
Depreciation	3,263	3,430
Amortization of goodwill	196	150
Increase (decrease) in allowance for doubtful accounts	1	(9)
Interest and dividend income	(81)	(93)
Interest expenses	202	188
Corporate bond interest	37	37
Share of loss (profit) of entities accounted for using equity method	(57)	(55)
Loss (gain) on disposal of property, plant and equipment	146	173
Loss (gain) on valuation of investment securities	_	34
Impairment losses	431	_
Loss (gain) on sale of investment securities	(408)	_
Decrease (increase) in trade receivables	560	519
Decrease (increase) in inventories	(770)	(2,016)
Increase (decrease) in trade payables	(1,557)	744
Increase (decrease) in retirement benefit liability	(247)	(417)
Increase (decrease) in provision for waste disposal costs	385	(385)
Other	168	213
Subtotal	6,030	6,693
Interest and dividend income received	137	181
	(240)	(227)
Interest expenses paid Income taxes paid	(972)	(1,127)
Net cash provided by (used in) operating activities	4,955	5,520
Cash flows from investing activities	4,733	3,320
Payments into time deposits	(117)	(69)
	263	68
Proceeds from withdrawal of time deposits	(4,398)	(2,661)
Purchase of property, plant and equipment Purchase of investment securities	(502)	(2)
Collection of loans receivable	(302)	1
Proceeds from sales of investment securities	·	'
	1,027 19	_
Proceeds from subsidy income	(98)	(24)
Other	(3,804)	(36)
Net cash provided by (used in) investing activities Cash flows from financing activities	(3,004)	(2,700)
	(75)	673
Net increase (decrease) in short-term borrowings	(75) 5,908	4,890
Proceeds from long-term borrowings Repayments of long-term borrowings	(7,266)	(6,595)
		(0,373)
Revenue from sale and leaseback	2,918	_ (571)
Repayments of lease liabilities	(477)	(571)
Purchase of treasury shares	(712)	(0) (712)
Cash dividends paid	(712)	(712)
Dividends paid to non-controlling interests	(40)	(40)
Proceeds from share issuance to non-controlling shareholders	-	20
Net cash provided by (used in) financing activities	255	(2,336)
Effect of exchange rate change on cash and cash equivalents	(0)	135
Net increase (decrease) in cash and cash equivalents	1,405	619
Cash and cash equivalents at beginning of period	10,126	11,531
Cash and cash equivalents at end of period	11,531	12,151

Environmental Data

Evolution of Environmental Impact

Changes in Energy Consumption

(Yokkaichi, Ohgata, Shiga, administrative departments, domestic subsidiaries) (1,000 KL)



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

Notes: 1. The index of energy consumption per unit is calculated for DKS non-consolidated, based on the periodical report stipulated by the Act on the Rational Use of Energy. FY2020 performance, which is the benchmark in the GX Strategy Targets (FY2030) and Medium-Term Environmental Targets (FY2024) is set at 100.

 Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Daiichi Ceramo Co., Ltd., and as of FY2019, Ikeda Yakusou Co., Ltd.

.

2018

Changes in Greenhouse Gas Emissions

52.6

(1,000 t)

40

0

2017

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., and as of FY2019, Ikeda Yakusou Co., Ltd.

2019

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

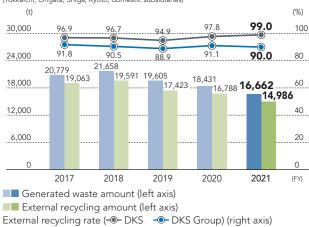
48.5

2021

2020

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

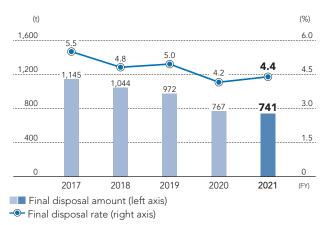
(Yokkaichi, Ohgata, Shiga, Kyoto, domestic subsidiaries)



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, Kyoto, domestic subsidiaries)

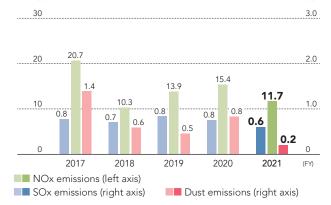


Notes: 1. The final disposal rate is the ratio of the final disposal amount to the generated waste amount.

 Subsidiary companies include Yokkaichi Chemical Co., Ltd., Kyoto Elex Co., Ltd., Daiichi Ceramo Co., Ltd., and as of FY2019, Ikeda Yakusou Co., Ltd.

Changes in SOx, NOx and Dust Emissions

(Yokkaichi, Ohgata, Shiga) (t)

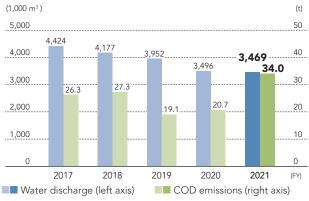


 $Note: Yokkaichi \ Chemical \ Co. \ Ltd. \ possesses \ no \ facilities \ that \ generate \ SOx, \ NOx \ or \ dust.$

Changes in Water Discharge and COD Emission Amounts

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

(t)

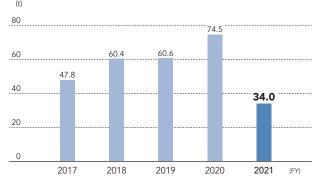


Environmental Data / Compliance Awareness Survey Results

Evolution of Environmental Impact

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

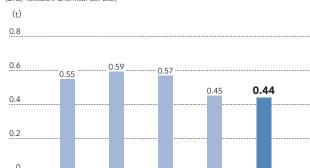
(DKS, Yokkaichi Chemical Co. Ltd.)



Note: The numerical values show the total amount for DKS and Yokkaichi Chemical Co. Ltd. DFor 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. \triangleright 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

2019

2018

Environment Accounting

Investments and Costs of Environmental Protection Activities

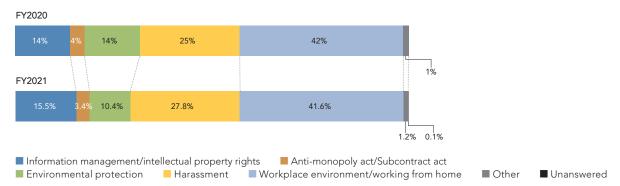
Category	Main activities	Investment (Millions of yen)	Costs (Millions of yen)
	Pollution prevention, air pollution control, water pollution prevention	34.8	265.0
Costs within the plant premises	Global environment preservation, energy saving	4.4	77.1
	Resource recycling, resource saving, waste treatment/disposal	0.4	480.0
Upstream/ downstream cost	Lowering the environmental impact in containers/packaging	0.0	3.4
Administrative cost	ISO acquisition/maintenance, greening of branch premises	1.1	36.6
R&D cost	Environmentally responsive R&D	0.0	601.1
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		41.0	1,464.4

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.	3.3
Cost savings through energy conservation	Electricity and fuel savings	9.2
Cost savings through resource conservation	Savings from the reduction of water and waste	11.4
Total		23.9

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, 2022)

Corporate Name	DKS Co. Ltd.
Foundation	April 1909
Incorporation	August 1918
Paid-in Capital	8,895 million yen
Number of Employees	571 (consolidated: 1,096)
Total Number of Shares Outstanding	10,684,321 shares
Share Unit Number	100 shares
Number of Shareholders	4,515
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
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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 2022

This issue marks the seventh time that the DKS Group has published its integrated annual report since the initial report in fiscal 2016. We regard this as an important means of communication of the value creation of DKS to our stakeholders. Its purpose is to present growth strategies from the present to the future in an easy-to-understand manner from a medium- to long-term perspective.

I took over the baton from Chairman CEO Sakamoto, and was appointed President COO in April. While cherishing the achievements and thoughts of the former president, I intend to push forward the development of the Company's business. Looking back on the second year of the medium-term management plan "FELIZ 115," we were able to achieve our qualitative goals of reviewing our business portfolio and changing our profit structure. On the other hand, earnings are currently deteriorating due to soaring raw material, transportation, and energy costs against the backdrop of geopolitical risks. There is an urgent need to pass on the price to products. We will strive to correct profitability, improve plant operating rates, reduce expenses, and aim for this term's targets.

In terms of ESG management goals, we are conscious of nonfinancial value creation such as responding to climate change and decarbonization, Health and Productivity Management, and strengthening governance. We will diversify our executives and explore new ways of being a business that is not bound by existing frameworks.

In the fiscal 2022 edition, we focused on giving consistency to subsequent content based on the management policy and business strategy sent via the President's message, and specifically expressing material issues unique to DKS. As the person responsible for issuing this report, I certify that the contents of this report are true and appropriate. Going forward,



we will strive to further improve our Company's disclosure and transparency. I would be grateful to hear your frank and constructive feedback.

October 2022
President COO
YAMAJI Naoki

Editor's Note

The Company's integrated annual report is now in its seventh issue and this year marks the third year of our medium-term management plan FELIZ 115. With the spread of the COVID-19 and the prolonging of the problem in Ukraine, 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 the environment, such as rising raw material prices worldwide and global warming,

we also rethought the identification of important risks, opportunities, and material issues in order to ensure value creation. We announced our support for the TCFD recommendations for the first time this year, and we clarified our strategies and goals related to climate change.

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

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



Public & Investor Relations Department



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