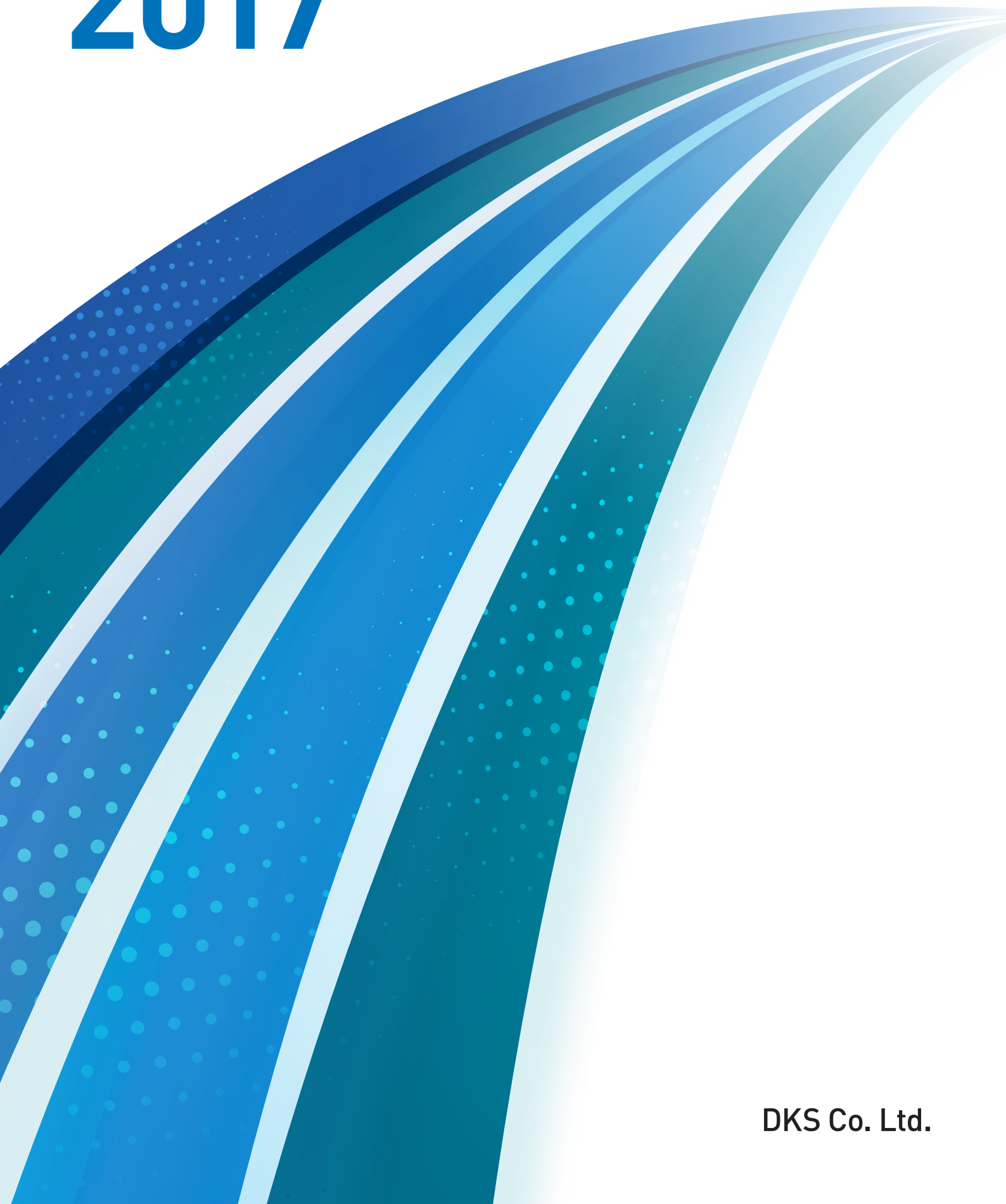
DKS REPORT 2017



DKS Co. Ltd.

Chemistry provides a solution.

DKS Credo	Contributing to the nation and society through industry

DKS Mottoes	Quality First Cost Reduction R&D Efforts

DKS Group Logo

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

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DKS Report 2017 Editorial Policy

In 2016, the DKS Group began to publish its 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. For DKS Report 2017, we considered the International Integrated Reporting Framework promoted by the International Integrated Reporting Council (IIRC).

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

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

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

Organizations Covered by this Report

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

Period Covered by this Report

In principle, this Report contains our activities and data during FY 2016 (from April 1, 2016, to March 31, 2017). The data on the Industrial Accident Severity Rate (ASR) and the Industrial Accident Frequency Rate (AFR) were obtained from January to December 2016.

Reference Guidelines

International Integrated Reporting Framework by the International Integrated Reporting Council (IIRC), "Environmental Reporting Guideline 2012" by the Ministry of the Environment, "Environmental Accounting Guideline 2005" by the Ministry of the Environment, "Environmental Accounting Guideline for Chemical Industries (November 2003)" by the Japan Chemical Industry Association (JCIA)

Posted on the Website

The Emission of Notification Substances under the PRTR Law in FY 2016
Transition of the Environmental Impact at Branches and Yokkaichi Chemical
Safety Securement and Disaster Prevention

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

History of DKS
From Kyoto to the World and to the Future

We respond to the needs of the future by developing materials and technologies ahead of the times.

1909 Onward
From Foundation to Establishing a Business Base

Consolidating DKS's Status as a Textile Oil Solution Manufacturer

1909 Business born in the Ohno Kungyokudo incense shop
1915 Dai-ichi Kogyo Seiyaku established
1916 Started mass production of industrial soap (first in Japan)
1931 Shanghai plant established (first operations overseas)
1939 Yokkaichi Plant opened

Started business in 1909 by developing and selling a silk cocoon unwinding agent, an agent to spin a silk yarn from waste cocoons. Subsequently, the Company developed and sold various textile oil agents using sulfation and formulation technologies and met the needs of the textile industry. Following the outbreak of World War I in 1914, the Company introduced the first domestically made soap, **Gembu Marseille Soap**, to the textile industry, which previously had been completely dependent on imports.

In 1918, Dai-ichi Kogyo Seiyaku (DKS) was incorporated under the mottoes "Quality First," "Cost Reduction" and "R&D Efforts" to meet growing demand. Redoubling its efforts to expand into household goods such as shampoo, laundry detergent and bath soap, the contributions of these products to the Company enabled DKS to find its breakthrough in the hard times in and after World War I. With industrial modernization being promoted during the postwar depression, the textile industry shifted from natural to synthetic fibers. In response, DKS developed numerous new soap products and textile oil agents. The basis of the DKS surfactants was established in those days.

The Source of DKS's Unique Technologies

During the recession following the end of World War I in 1918, DKS streamlined operations while taking steps to enhance its production facilities and expand sales channels. In 1920, DKS formulated provisions for awarding in-house inventors to encourage new product development, which in turn led to the creation of superior new products and patents. Staying ahead of competitors, DKS in 2002 established a patent reward program to encourage the creation of new businesses.

Core Products

1909 **SILKREELER** cocoon unwinding agent, the root of DKS's textile oil agents
1915 **Gembu Marseille Soap**
1934 Higher alcohol-based detergent **DK300** (later MONOGEN)
1937 **MONOGEN**

Global Events

1914 Outbreak of World War I
1915 Japan as No. 1 in cotton cloth export volume worldwide
Japan as No. 2 in rayon production worldwide
1916 Outbreak of the Pacific War

1945 Onward
Expands Business Scope and Modernizes Operations

Shift from Oil Agent Maker to a Comprehensive Chemical Maker

1949 Becomes a public company
1957 Forms partnership with Shell Oil Company
1959 Establishes Yokkaichi Chemical Company Limited (becomes wholly owned subsidiary in 2011)
1960 Completes construction of Japan's first production facilities of CMC, which employed the solvent method (Ohgata Plant, Niigata Prefecture)
1963 Forms alliance with General Mills

DKS took proactive steps to shift from its traditional oil agent manufacturing to becoming a diversified chemicals maker by getting ready for the age of free competition with the arrival of postwar modernization and industrialization, as well as streamlining and modernizing its facilities.

In 1950, DKS built a spray-drying tower required for producing synthetic detergents using drying technologies cultivated through the development of the **MONOGEN** powder. In 1959, DKS established Yokkaichi Chemical (which became a wholly owned subsidiary in 2011) to engage in full-scale production and sales of nonionic surfactants, the market for which was growing based on their performance and user friendliness.

In 1960, DKS made a long-term plan to address rapid market changes and intensifying competition driven by technological innovation. DKS engaged in the development of surfactant applications by actively forming business alliances with overseas companies. In addition, the Company entered new fields that included polymer flocculants and the polyether business in anticipation of the growth of the polyurethane market, which is positioned downstream of the rapid growing petrochemical industry.


Establishes Yokkaichi Chemical to manufacture and sell nonionic surfactants


Builds the Ohgata Plant, the first facilities in Japan to commence manufacturing of solvent-method CMC (CELLOGEN)

1949 **CELLOGEN** (CMC; synthetic thickener)
1950 Nonionic surfactant **NOIGEN**
1951 Cationic surfactant **CATIOGEN**
1958 Professional liquid textile softener **TAFFULON**, industrial liquid detergent **TEEPOL**

1945 World War II ends
There is a shift toward industrial streamlining/modernization and industrialization. The chemical industry transitions from fertilizers to petrochemicals.
The late 1950s marks the arrival of the home appliance era, with the washing machine, the refrigerator and the vacuum cleaner being referred to as the "three sacred treasures" in Japan.

1960s Onward
Strengthening and Renaissance

Establishes Foundation for Future Growth and Withdraws from Household Businesses

1969 Establishes Nippon Levulose Co., Ltd., the predecessor of Dai-ichi Kagaku Kogyo Co., Ltd. (absorbed in 2001, becomes the Shiga Plant)
1978 Capital participation in Chin Yee Chemical Industries Ltd. in Taiwan, accompanying the textile industry shift to Southeast Asia

In 1968, amid intensifying price competition in industrial fields, DKS strengthened new product development and its division system while upgrading its R&D structure by establishing the Central Research Laboratory. DKS intensifies the development of applications in the food and industrial fields for **CELLOGEN**—which features superior quality and variety compared to natural thickeners—and successfully commercialized the food emulsifier **sucrose fatty acid esters**. Commencing the development of flame retardants, DKS contributed to the development of industrial products such as those used in home appliances in the 1970s. In household goods, DKS developed popular consumer items that included the household cleaners **ALCO** and **MONOGEN UNI**. DKS's earnings deteriorated due to stagnation in core product fields including textiles, automobiles and paints during the subsequent oil shock. In 1973, DKS withdrew from the household goods business, profits for which had been eroding amid intensifying competition, marking the start of DKS's renaissance.


1970 Constructs sucrose fatty acid ester plant

Declares Transition in All Detergents

In 1966, DKS did not hesitate to accept higher costs and did undertook two large transformation initiatives in the areas of technology and main raw materials by rapidly switching to highly biodegradable materials after it was discovered that synthetic detergent raw materials with poor biodegradability were causing pollution.

1964 Releases new formula household synthetic detergent **MONOGEN UNI**
1969 Releases plastic flame retardant **PYROGUARD**
1970 Releases food emulsifier **DK ESTER**
1971 Releases pure fructose **Levulose**

1960 High economic growth begins, urban pollution problems become evident
1964 Tokyo Olympics are held, the Tokaido Shinkansen goes into operation
1970 Government enacts 14 bills to address pollution
1973 First oil shock
1979 Second oil shock

1980s Onward

Rebuilds Operations and DKS Rebirth

Aims to Become a Leading Company in Highly Functional Chemicals

1982 Establishes Dai-ichi Clean Chemical, Inc. (merges with Gembu in 2014)

1986 Establishes Kyoto Elex Co., Ltd.

1987 Establishes K&D Fine Chemical Corporation (K&DF)

1988 Establishes Dai-ichi Ceramo Co., Ltd., to enhance its electronics materials business

1992 Establishes Tianjin Dai-ichi Fine Chemicals Co., Ltd. in China

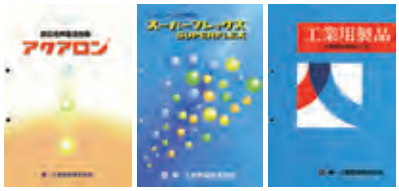
1996 Establishes PT. Dai-ichi Kimia Raya in Indonesia

2002 Establishes Elexcel Corporation with the aim of making next-generation solar cells commercially viable

In response to the unprecedented recession following the second oil shock, DKS starting in 1981 audaciously reallocated management resources mainly toward overseas business expansion and reorganizing production facilities to add value to R&D activities.

DKS subsequently established joint ventures with two other companies in different industries to meet new needs, while establishing joint ventures in China and Indonesia to increase sales by capturing rising demand for textile auxiliaries in neighboring countries. Following the collapse of the bubble economy in 1992, however, DKS posted its first losses since its foundation. Setting the goal of becoming a leading company in highly functional chemicals, DKS rolled out its three-year DKS Rebirth Plan in 1998, under which the Company began reducing staff, shutting down and then selling the Kyoto Plant, generating earnings in each division, and improving operational and research quality.

In 2003, DKS teamed up with an overseas maker to develop and market nonionic surfactants with low environmental impact for the Japanese market.



Product brochures at that time

1981 Releases UV/EB-curable monomers and oligomers **NEW FRONTIER**

1986 Releases waterborne polyurethane **SUPERFLEX**

1990 Releases industrial washing agent **DK BE-CLEAR**

1993 Releases polymerizable surfactant **HITENOL**

1982 Tohoku and Joetsu Shinkansen lines go into operation

1990 Bubble economy collapses, Gulf War breaks out

1995 Great Hanshin-Awaji Earthquake occurs

2004 Onward

Qualitative Change and Second Renaissance

Resolutions for the 100th Foundation Anniversary, Upgrading the Foundation for Future Growth

2006 Builds a new research laboratory in Kisshoin, Kyoto, to develop new technologies

2011 Yokkaichi Chemical becomes a wholly owned subsidiary

2015 Completes construction of the Kasumi Plant in Yokkaichi

From 2004, DKS created a highly profitable business portfolio and developed and expanded new high-value-added businesses. Raising electronics materials and IT as next-generation business pillars, DKS took steps to transition from a **traditional surfactant company to the leading industrial chemical supplier.**

Aiming to make qualitative changes toward its 100th anniversary in 2009, DKS launched its six-year management plan, the CHANGE100. Aiming to maintain stable earnings, DKS adopted a business division system, upgraded its management infrastructure, started using non-petrochemical raw materials and enhanced its financial standing. Heading toward the second half of the CHANGE100 plan, in 2012 DKS also saw post-acquisition merger benefits from Yokkaichi Chemical, purchased land for a new plant and undertook a public offering. Undertaking initiatives aimed at qualitative changes adhering to its corporate credo, DKS established a foundation for making the next leap forward.

In 2015, DKS formulated a five-year management plan aimed at creating new value and built the Kasumi Plant in Yokkaichi that year to serve as a mother plant to integrate the Company's production, sales and development functions. In so doing, DKS has established a platform for its second renaissance.

Built and transferred the research laboratory in Kisshoin, Kyoto

2009 100th anniversary

Making Yokkaichi a Technology Park

In 2015, DKS completed construction of the Kasumi Plant at the Yokkaichi Branch to serve as a mother plant and established a framework for producing electronic materials and rock hardening agents for the Linear Chuo Shinkansen. The Yokkaichi Branch serves as a substantive plant for product development and manufacturing because Yokkaichi has a cluster of the automobile, electricity/electronics and pharmaceutical industries, as well as universities. DKS aims to make this complex a technology park for increasing corporate value.

2005 Releases ionic liquid **ELEXCEL IL**

2009 Release polyurethane **EIMFLEX**

2015 Releases cellulose nanofiber thickener **RHEOCRYSTA**

2008 Lehman Brothers Crisis

2011 Great East Japan Earthquake occurs

2020 Onward

Passing the technologies from our long history to the next generation—the next big step

2015–2020 REACT1000

Act for a Leap

Targets (fiscal year ending March 2020)

Net sales	¥67 billion
Operating income	¥6 billion
Operating margin	9.0%
ROE	10%
Overseas sales ratio	20%

Management Policy Outline

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

Advantages and Strengths of DKS Businesses

To preserve the global environment

For safe and secure living

For happy and convenient societies

Chemistry provides a solution

Functional Chemicals

We provide solutions for the individual needs of various industries by proposing and creating additional value based on our chemical technology-derived substances/material technologies (detergents, emulsifiers, dispersants, thickeners, foaming agents).

Plastic Materials

We provide plastic additives and resin materials indispensable for various plastics that have remarkable characteristics not found in natural materials (radcure monomers/oligomers, flame retardants, antistatic agents, lubricants, anti-clouding agents, antioxidants).

Surfactants

We have provided highly functional surfactants since our foundation in 1909.

Machines & metals
Chemicals

Amenity Materials

We provide materials and application technologies to add comfort in daily living environments.

Living
Food

Polyurethane Materials

We provide industrial materials and polyurethane materials (paints, adhesives, civil engineering and construction materials and electric insulation materials).

Civil engineering
IT

Functional Materials

We provide flame retardants, radcure resins, waterborne polyurethanes, etc., for applications essential to home appliances and daily life.

Environment & recycling
Machines & metals

Electronic Device Materials

We provide ceramic materials, conductive pastes, etc., for applications in home appliances and electronic components.

Environment & recycling
IT

DKS Group Products Around Us

DKS Group products support a variety of products used in our daily life.

Oil spill treatment agents

Feed binders

Rock hardening agents

Waterproof roofing materials

Conductive pastes for solar batteries

Precision cleaning agents

Optical fiber connectors

Sealants for electric insulation

Building reinforcing agents

Silicon wafer detergents

Food additives

Coatings for building material and furniture

Shampoos

Surface modifiers
Flame retardants

IT & electronic materials

Vision for the Future and the Value Creation Process

Vision for the Future

DKS Materiality
(Five Important Issues)

1 Quality and Safety Management ▶P.32

2 Research and Development ▶P.34

3 Human Resource Management ▶P.36

4 Consideration for the Environment ▶P.38

5 Responsibility as a Global Company ▶P.42

2015

[Five-Year Management Plan REACT1000 (2015–2020)]

Value Creation Process

Principal Management Resources
(Results for the fiscal year ended March 2017)

Manufacturing capital
Manufacturing bases: 11 (includes four overseas)
Raw materials used: carbon, petroleum, coal, ore minerals, plants, wood

Intellectual capital
Patents held: 855

Human capital
Employees: 967

Financial capital
Net assets: ¥28,044 million
Interest-bearing debt: ¥25,713 million

Social capital
Primary agencies (Zenkoku Ichi-Ko Kai): 34

Natural capital
Energy consumption: 25,200 kL
Water consumption: 4,937,000 m³

Business Model

Sales & Marketing

Research & development

Product design

Functional improvement

Marketing

DKS business activities
Chemistry provides a solution.

Mass production

Production management

Procurement

Manufacturing

Value Drivers

Uni-Top Strategy
Responding to market needs
▶Message from the CEO P.12

R&D Foundation
▶The Three Core Technologies of DKS P.31
▶Research and Development P.34

of the DKS Group

2020

2025 Vision

From Kyoto to the world and to the future,

as the top company for industrial chemicals

Back casting

Research & Design

Sample making

Prototype making

Order taking

Management

New Product Development/ Product Improvement
(Five core business segments)

- **Surfactants** ▶P.25
- **Amenity Materials** ▶P.26
- **Polyurethane Materials** ▶P.27
- **Functional Materials** ▶P.28
- **Electronic Device Materials** ▶P.29

DKS Stakeholders and Value Creation

Employees
Skills acquisition
Work-life balance
Work motivation
Diversity

Shareholders
Growth
Efficient and transparent management
Shareholder returns

Customers
Coexistence and mutual prosperity through the joint development of high-value-added products

Society
Regional economic revitalization driven by contributions to the development of local communities

Governance
Strong and transparent business promotion structure
▶Corporate Governance P.42

Important CSR Issues

Basic Policies

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 level of comfort. To do these things, we pursue "Chemistry provides a solution" and contribute to the establishment of a sustainable society.

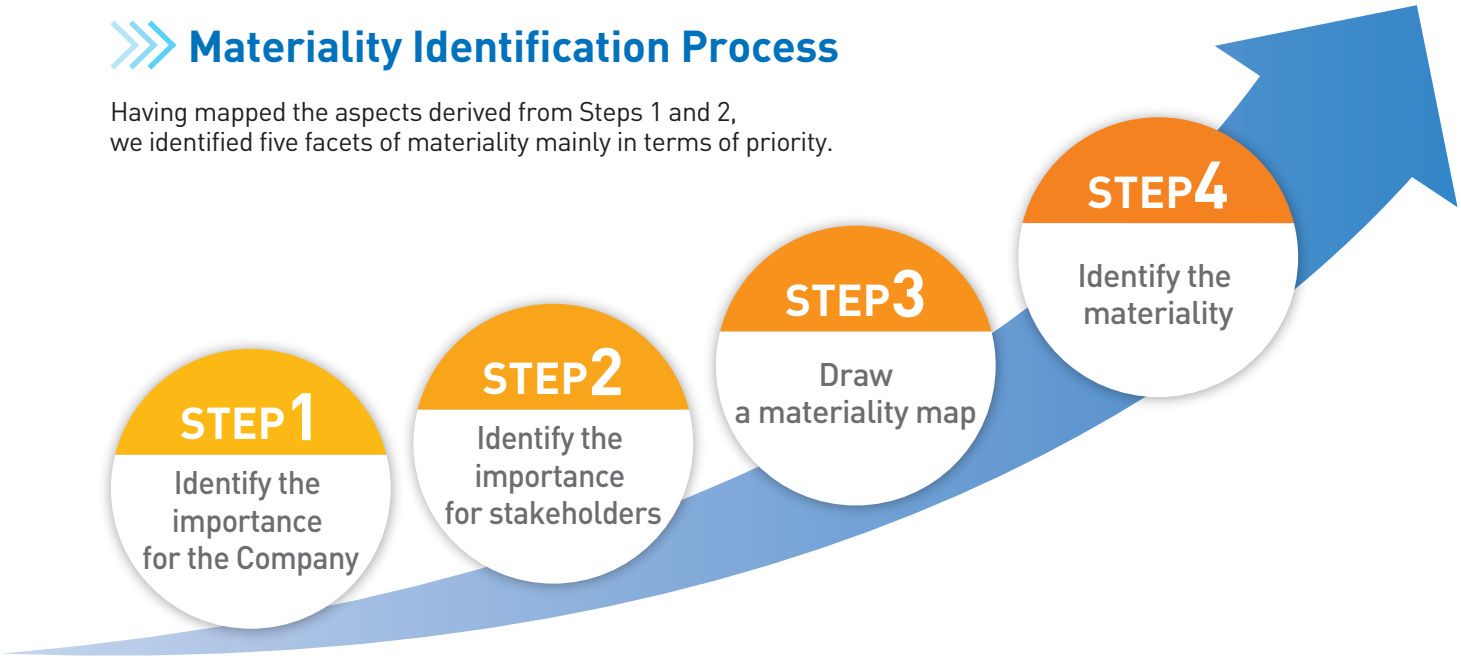
Identifying Important CSR Issues (Materiality)

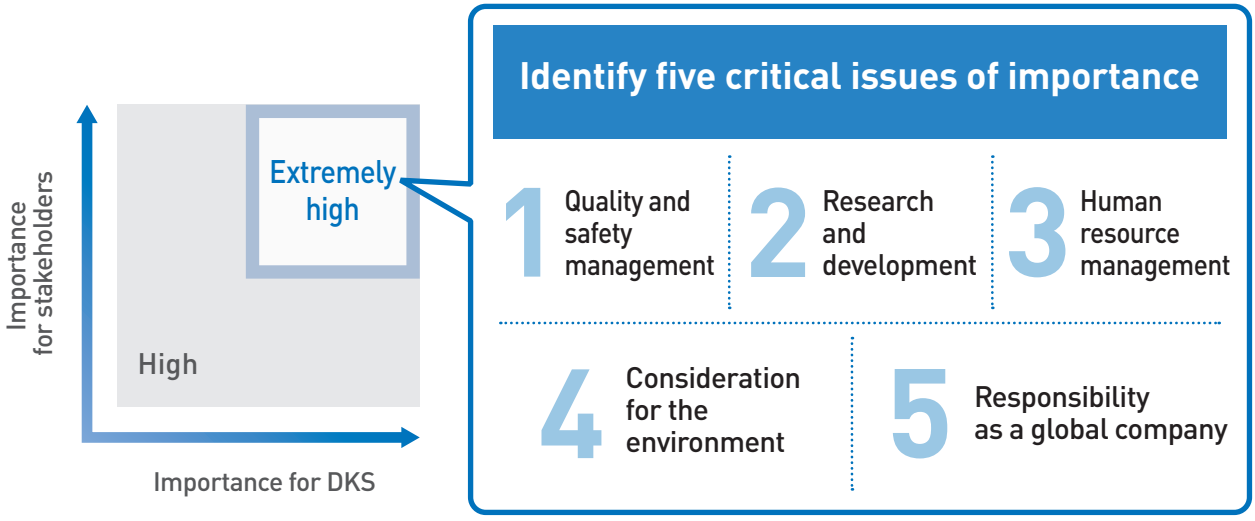
At DKS, we are formulating "materiality," tackling issues from a long-term perspective. In the formulation of materiality, we have referenced the UN's Sustainable Development Goals (SDGs),* ISO26000 and other global guidelines, given the important demands that international society places on DKS as we work to advance business globally.

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

Materiality Identification Process

Having mapped the aspects derived from Steps 1 and 2,
we identified five facets of materiality mainly in terms of priority.





Relationship between the Five Important DKS Issues and Global Guidelines

DKS's important CSR issues	Activity details		Relation to global guidelines SDGs	ISO26000
1 Quality and Safety Management	Develop and provide highly safe industrial materials	Provide CMC, SE and CNF		Consumer issues
	Ensure quality assurance and secure product safety	Review the quality management system		Consumer issues
	Promote occupational safety and health	Reduce work accidents, DKPM activities		Labor practices
2 Research and Development	Respond to potential and apparent needs with "Uni-top" strategy promotion	SUS5 strategy		Consumer issues
	Promote "new combinations" with a cluster configuration	Uni-unite strategy		
	Promote an intellectual property strategy	Patent strategy		
3 Human Resource Management	Secure and nurture outstanding human resources	Study abroad, internal training system		
	Promote diversity	Active roles for women, reemployment of senior citizens, employment of the handicapped		
	Enhance worker health	Mental healthcare		Labor practices
	Grow globally and contribute to regional economies	DKS Singapore established, overseas development, nurturing human resources		
4 Consideration for the Environment	Respond to climate change (reduce GHGs)	Prevent of global warming (clean energy)		Environment
	Manage chemical substances	Reduce emissions of chemical substances (reduce VOCs)		Environment
	Reduce industrial waste	Raise the recycling rate and lower the final disposal volumes		Environment
	Preserve the air, environment & water resources	Remove pollutants, prevent air & water pollution, lower the environmental impact		Environment
	Respond to frequent natural disasters	Risk Management Manual (BCP)		Environment
5 Responsibility as a Global Company	Raise management transparency with the appropriate disclosure of information	Timely disclosure, website posting		Organizational governance
	Implement risk management	Risk Management Control Committee		Organizational governance
	Strengthen relationships with communities	Cleanup activities, participation in community events, lecture delivery, Yokkaichi City district local communication meeting		Participation in community and development
	Address food and agricultural issues	Provide CMC for agriculture, RSPO certificate for SE		Human rights
	Contribute to the "smart society"	Logistics that use IoT		

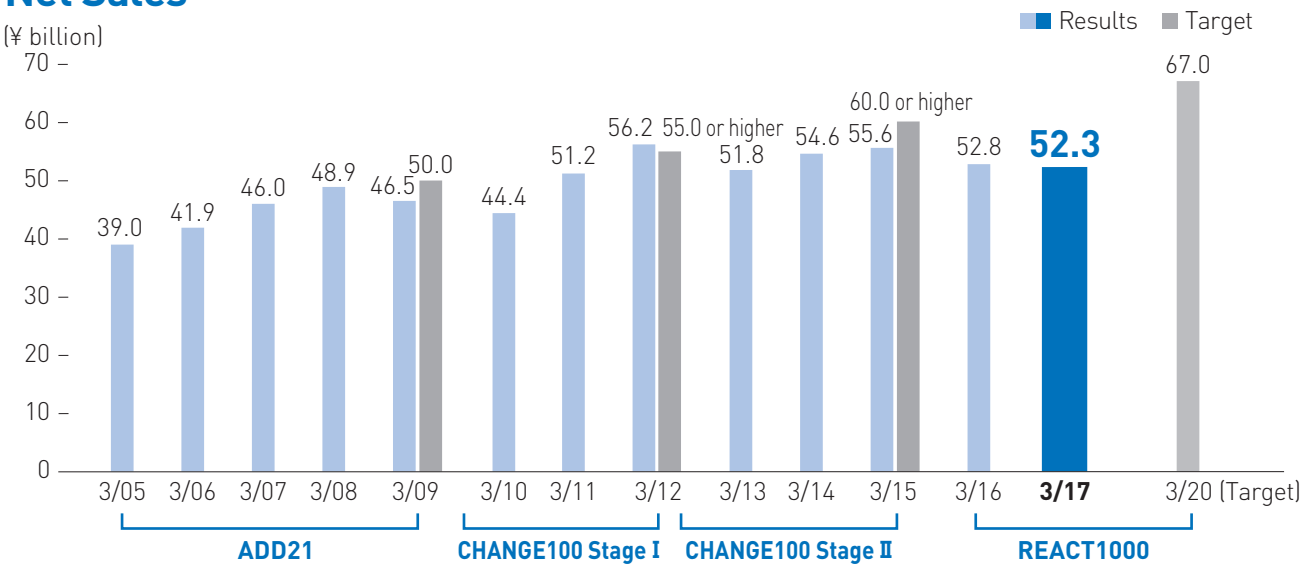
Sustainable Development Goals (SDGs) Stipulated by the United Nations

Seven Core Subjects of ISO26000

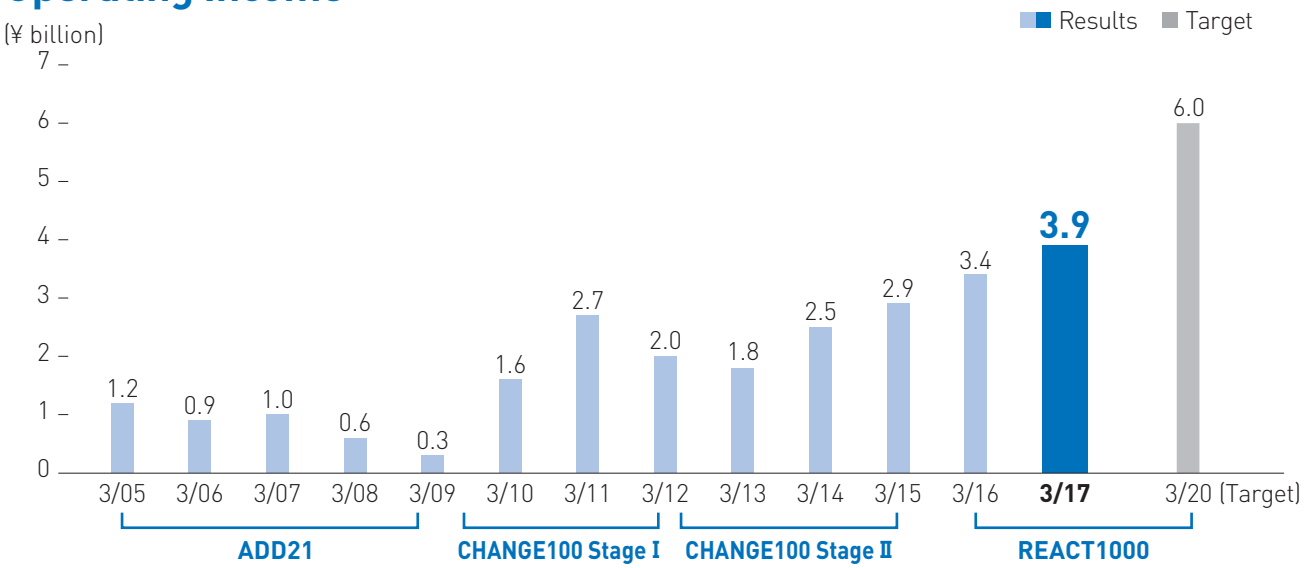
Review of the Medium-Term Management Plans

	ADD21 (Ambitious Dynamics DKS for the 21st Century) —Tolerance to Changes	CHANGE100 Stage I —Changing the Corporate Culture	CHANGE100 Stage II —Expansion along with Earnings
	April 2004–March 2009	April 2009–March 2012	April 2012–March 2015
Targeted Figures	Consolidated net sales ¥50 billion Ratio of ordinary income to sales 7%	Consolidated net sales ¥55 billion or higher Operating margin 4% or higher	Consolidated net sales ¥60 billion or higher Operating margin 5% or higher
Slogan	"With High Aspirations, We Will Shine Brightly in the 21st Century."	"Each of Us Holds the Key to Success "	"Each of Us Holds the Key to Success"
Vision	Business Expansion and Sustainable Corporate Value Growth	Building a Business Structure Necessary as a Leading Industrial Chemical Company	Staying Ahead of the Times as a Leading Industrial Chemical Company
Management Policies	**1.** Putting the concept "R&D is the engine of the Company" into practice to realize customer satisfaction **2.** Continuously complementing and expanding the values of the Company **3.** Reinforcing the business by emphasizing the "three actuals" (actual work site, actual goods and actual situation) **4.** Enhancing corporate governance **5.** Promoting compliance management **6.** Establishing an ideal company structure by the 100th anniversary (April 2009)	**1.** Securing a stable profit structure **2.** Pursuing greater business efficiency **3.** Developing and strengthening our foundation to realize the "technology makes the Company" concept **4.** Accelerating the creation of new products **5.** Enhancing compliance management **6.** Improving managerial skills and human resource development	**1.** Expanding peripheral business fields **2.** Enhancing and reinvigorating domestic production facilities **3.** Accelerating the creation of new businesses **4.** Pursuing cost reductions **5.** Improving management capabilities and developing human resources **6.** Enhancing overseas expansion and strengthening administration
Plan Outline	**1.** Increasing sales and building a stable earnings-generating business portfolio **2.** Developing and expanding new high-value-added businesses **3.** Generating strong awareness of and benefits from realizing targets after establishing the management infrastructure	**Basic Strategies** **1.** Enhancing the enterprise's power (marketing clout, cost-saving ability, technical strength and organizational power) = Heightening our corporate value **2.** Promoting selection and concentration = Determining the withdrawal from underperforming segments based on our exit rule **3.** Optimizing the allocation of management resources = Funneling people, goods and capital **4.** Seeking more productivity = Seeking more profitability through the integrated business division approach **5.** Creating new businesses and strengthening cooperation with the parties concerned = Developing inorganic materials, dispersion technology, electronics materials, etc. **6.** Focusing on priority business segments = Promptly reaping the benefits of an existing, ongoing, highly profitable business	
Review	In the final year of the plan (FY 2009), business conditions became severe, characterized mainly by declining demand and falling sales prices amid surging raw material naphtha prices caused by high crude oil prices and the subsequent global recession triggered by the financial crisis in the United States. Against this backdrop, DKS undertook such initiatives as boosting sales of core products, developing new markets in growing fields that include IT and the environment, focusing on developing new materials, continually revising prices, and cutting operating expenses and other costs. Despite these efforts, the Company's earnings fell below the plan's targets.	The initial year saw the impact of the financial crisis triggered by the Lehman Brothers bankruptcy. With revenues growing over the next two years, however, DKS successfully achieved a target of the plan by recording final fiscal year (fiscal year ended March 2012) consolidated net sales of ¥56.2 billion. In contrast, the Company was unable to reach the plan's operating income target due to operating income decreasing in the final fiscal year amid sharp demand drops and ongoing high raw resources prices.	Although DKS aimed to increase net sales from ¥56.2 billion the previous fiscal year to ¥60 billion, the fiscal year ended March 2015, the final year of the plan, ended with consolidated net sales at ¥55.5 billion, below the target because of delays in investment to raise production in core businesses and stagnation in the solar cell field. On the other hand, DKS achieved its operating margin target given record-high operating income, ordinary income and net income. While missing its quantitative targets, DKS saw success in qualitative terms.
Successes	● Introduced an integrated business division approach that vertically links the research, production and marketing divisions, and promoted a change in consciousness toward the concept of emphasizing earnings based on strict budget management and clarifying responsibilities	● Increased business divisions' profits by instilling a profitability mind-set ● Launched and promoted the Human Resources Development Project aimed at instilling an awareness of management in all departments	● Upgraded the management infrastructure (e.g., commenced introducing a new ERP system) for the future ● Maintained a healthy balance sheet (increased the capital adequacy ratio) ● Made new investments for growth (made Yokkaichi Chemical a wholly owned subsidiary) to expand business fields, purchased land, began preparation for a new plant
Issues	Further instillation of a profitability mind-set	Improve the corporate culture to bring a profitability mind-set to the forefront Realize a balance in three areas: 1. Maintain a strong balance sheet: Simultaneously increase assets and liabilities/capital 2. Revamp the business portfolio: Select and concentrate on future-oriented businesses 3. Optimize human resources: Develop highly capable employees that cross generational lines	Maintain a robust and healthy balance sheet to increase earnings

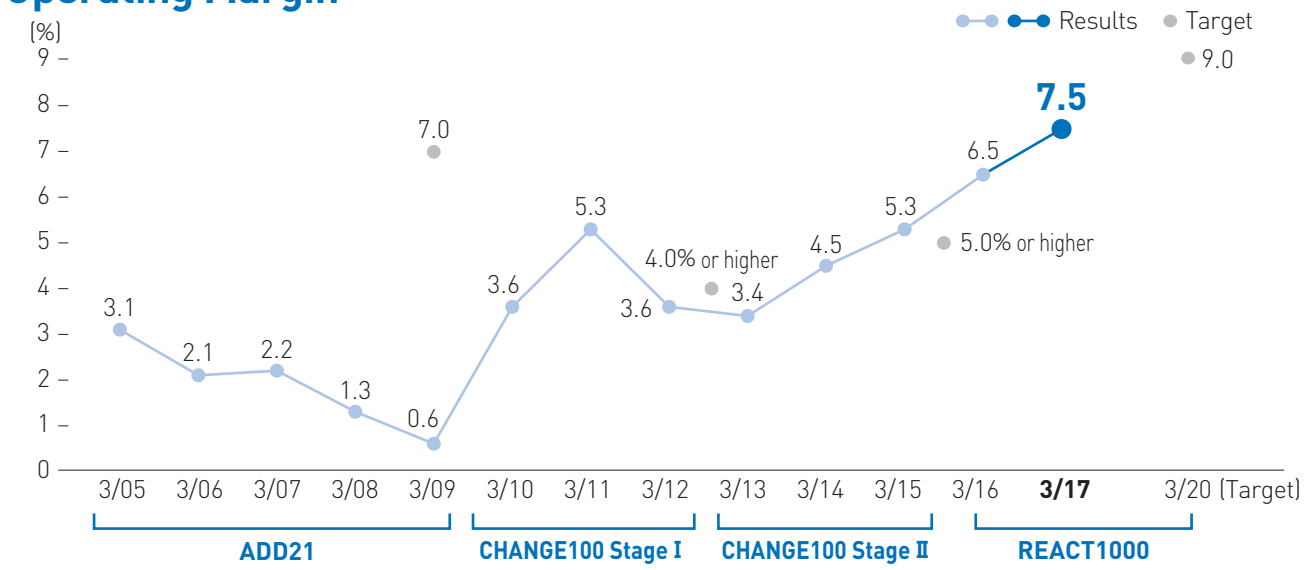
Net Sales



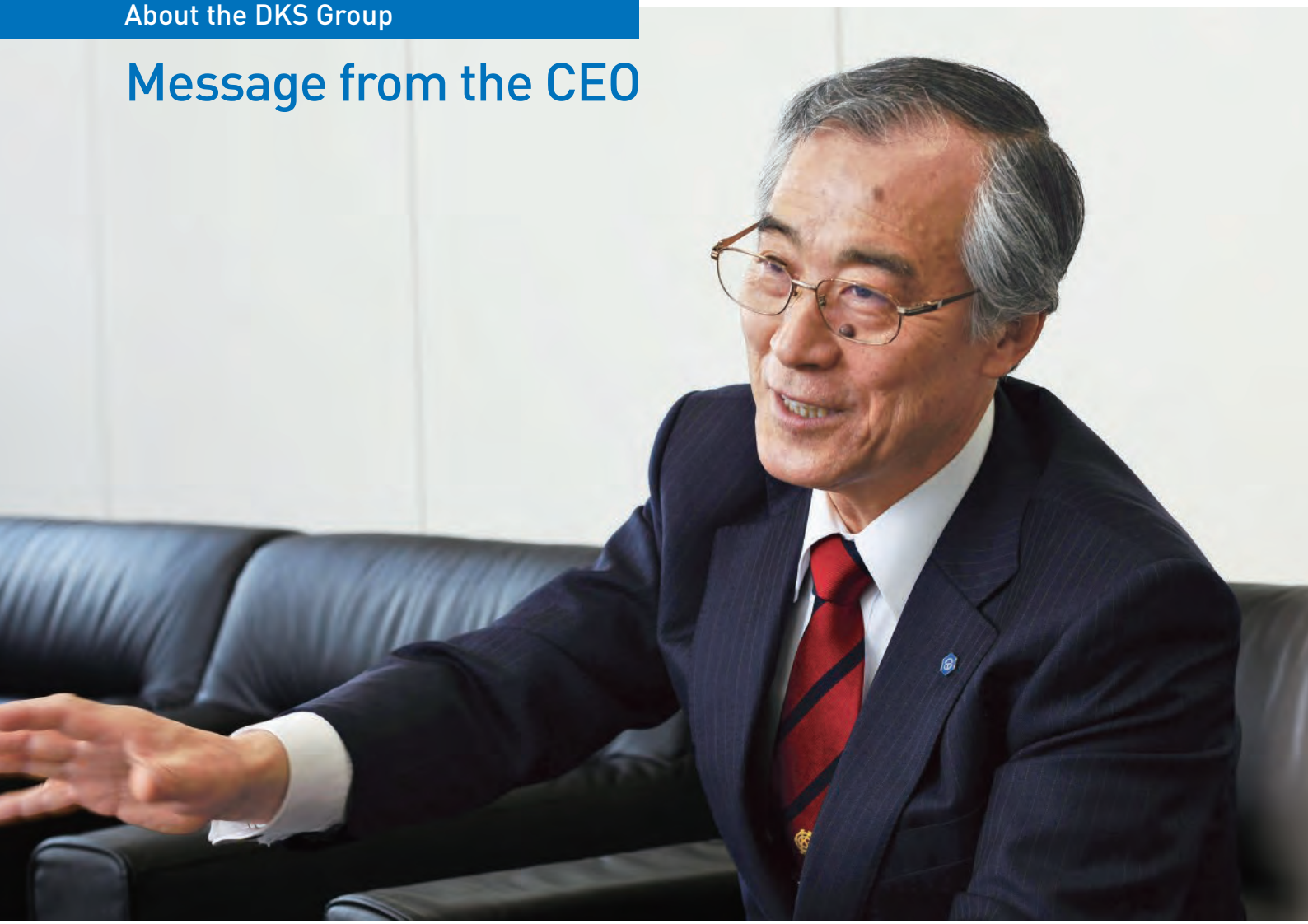
Operating Income



Operating Margin



Message from the CEO



Aiming to be a "Uni-top," top niche player

In line with the declaration of our second renaissance, we have launched new initiatives to become a chemical materials maker with a prominent presence in a smart society.

SAKAMOTO Takashi
Chairman CEO

Review of FY 2016 and Progress on Management Plan

As of this year, DKS has reached the midpoint of its five-year management plan REACT1000. Management has set a target for net sales of ¥75.0 billion in the fiscal year ending March 31, 2020, compared with the ¥55.5 billion posted in FY 2014. At the time, nominal GDP was projected to grow 3% in Japan, so 6% seemed like a reasonable pace of compound annual growth for a private-sector corporation, and we decided to base our five-year targets on this assumption and aimed to achieve an operating margin of 8% and return on equity (ROE) of 10%. Stable growth as a company is expressed as growth in net sales. Investors and

the market focus on growth potential. As a company that pursues "Chemistry provides a solution," management focuses its efforts on addressing four distinct stakeholders: customers, shareholders, society and our employees. We hope that our shareholders, a component of the financial markets, see us as a company with growth potential. While growing, DKS is ready to generate profits, the source of funds for payout to shareholders.

DKS has reported record-setting profits for three years in a row. However, growth in net sales has been sluggish. Net sales declined back-to-back over the first two years of the five-year plan. We were able to expand profits thanks to contributions from highly profitable new businesses, stable low prices for raw materials such as naphtha and management's efforts to reduce costs. DKS has steadily improved its business structure so that we can generate earnings constantly. However, there are two reasons why DKS did not achieve its target for net sales, an indicator of its growth potential. The first reason was extreme weakness in the solar cell business, an existing business that we have tried to expand strongly. The second reason was weak sales overseas, contrary to expectations for growth in Asia. We initially targeted sales of ¥65.5 billion in the second year of the plan but only reached ¥52.2 billion. We have not changed our profit-linked benchmarks in the five-year plan though; instead, we decided to alter our target for net sales. We call this action "rolling."

I selected Bob Dylan's Nobel Prize for Literature as one of my seven wonders of the world of 2016. It is rather significant for the academy to recognize a rock singer as a wellspring of literature. One song that he wrote was "Like a Rolling Stone." It was around the time of the Nobel Prize ceremony that DKS decided to "roll" the targets of net sales. Management aims to shorten periods of weak sales and minimize any declines. Internally, we discussed the curvature of an upward sales trajectory. Management revised down its sales target from ¥75.0 billion to ¥67.0 billion for the fiscal year ending March 31, 2020. We then decided to have all employees implement reforms to their business practices with the objective of attaining this revised target. As the title of Dylan's song suggests, moss does not grow on a rolling stone. Similarly, employees who put in their best effort shine. Rolling into a positive spiral, this is what we are going to do in the middle of the management plan.

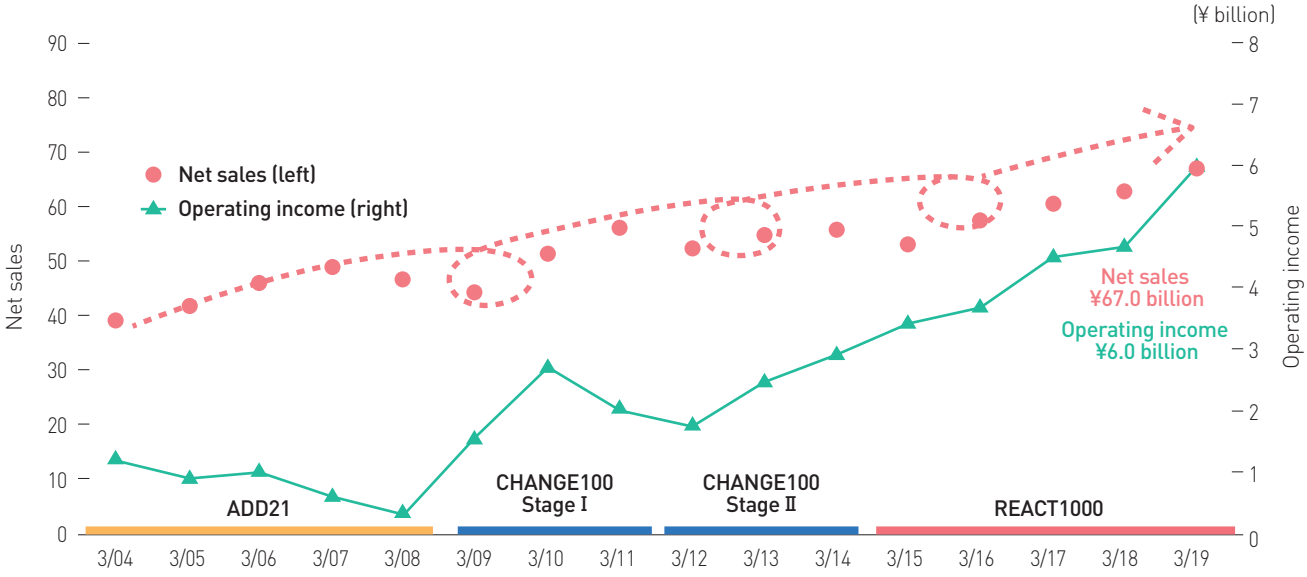
We have named a matrix of action guidelines toward our four stakeholders after the five-year plan REACT Matrix, using the five initials R, E, A, C and T (Return, Export, Advance, Create and Train). In this matrix, we have created 20 keywords. Let me present examples of how this matrix works. DKS built a plant to produce electronic materials and products for the Linear Chuo Shinkansen on 100,000 square meters of newly acquired land in Yokkaichi. We moved a storage battery subsidiary company to this location and maximized its capability. DKS also set up a safety training center. We acquired land for a new plant in Taiwan to develop more Asian markets. DKS was recognized by the Japan Institute of Invention and Innovation for its cellulose nanofibers. Regarding shareholder returns, DKS bought back its own shares and raised its dividend by ¥2 per share. In the domains peripheral to the current business, DKS is methodically advancing projects in NEXT new fields and DREAM new businesses.

Scope of REACT1000 and AND100×6

	Employees	Shareholders	Customers	Society
R (RETURN)	Give proper credit for their contributions	P/E and P/B for 1000	Active partner	Positive economic cycle
E (EXPORT)	Increase the overseas ratio	Annual report	Market development	Mother plant
A (ADVANCE)	ACTUAL100×6	Withdraw from unprofitable businesses	DREAM100×6	Brands
C (CREATE)	NEXT100×6	Change from undervalued stock to growth stock	Diplomacy with special assignments	Regional revitalization
T (TRAIN)	Training & education	Outside executive meetings	Increase IT sales	Public classes

Message from the CEO

Rolling Model (image)



Outlook for the Chemical Industry

The chemical industry must contribute increasingly to humans, all living organisms and the earth. Monikers such as Industry 4.0, the Fourth Industrial Revolution and Society 5.0 are expressions of the dawning of a new era. The economy continues to evolve by the ambitions of people. Reflecting on the history of humans and our future, I observed the seven wonders of the world of 2016. One such wonder is having come across a modern version of Xu Fu. Emperor Qin Shi Huang, the first emperor to unite all of China under his rule, sought out an elixir of eternal life. In search of a miracle cure, Xu Fu traveled east to Japan. He is enshrined at the Xu Fu shrine (or Jofuku Jinja in Japanese) in Wakayama. Before reaching the east, chemistry's origins can be traced back to archeology and alchemy. Even after all this time, people cannot make gold. The origins of chemistry are in alchemy and the search for eternal life. I have met a researcher who has spent half his life looking for an elixir of eternal life. Chemistry is truly interesting.

In April 2017, I was invited to an inauguration party for Mitsubishi Chemical Holdings Corporation. One of the guests said that he expected the integration of Mitsubishi Chemical to trigger restructuring in the chemical industry. Dow Chemical and DuPont will merge together in the United States. The chemical industries in Europe and the United States have moved toward a smaller number of larger players, such as BASF. In Japan, on the other hand, companies have been dispersed since the breakup of the *zaibatsu* conglomerates after World War II and have survived to this day. I believe the Tokyo Stock Exchange has the largest number of listed chemical companies among the advanced countries. It is notable that only one Japanese chemical company has gone bankrupt since World War Ⅱ. Some insist that the large number of big and small companies has led to inefficiencies that explain the weaker profitability of Japanese chemical makers compared to rivals in Europe and the United States. However, I believe Japan is a place where not-so-big companies can realize their identity and embody the fun of manufacturing. DKS is a small company but has thrived for a century making chemical intermediate materials.

I sometimes review *Shinbijon 2050* ("New Vision 2050"), a book published last year in Japan. It examines the gross national product per capita during the thousand years from the 11th century to the 20th century. Even after the Industrial Revolution in the 18th century, the scale of the gross national product changed little. Then, it expanded 15 times during the 100 years of the 20th century. What will happen to the global economy in the 21st century? This is the main topic of the book. The book expects the economy to expand a little but is unlikely to grow 15 times in scale again. Declining birthrates and the aging populace in Japan and China will keep growth in the global population in check, and that economic activity will enter a new cycle of elusive growth. Given limited natural resources, the book posits that a time will come when the world recycles and reuses existing materials with the aim of reducing carbon emissions. I cannot help but believe that chemistry will be a key to creating new materials and components that support industry in a sound material-cycle society. Chemistry, which began with the search for eternal life through alchemy, will evolve into a creator of added value for a material-cycle society.

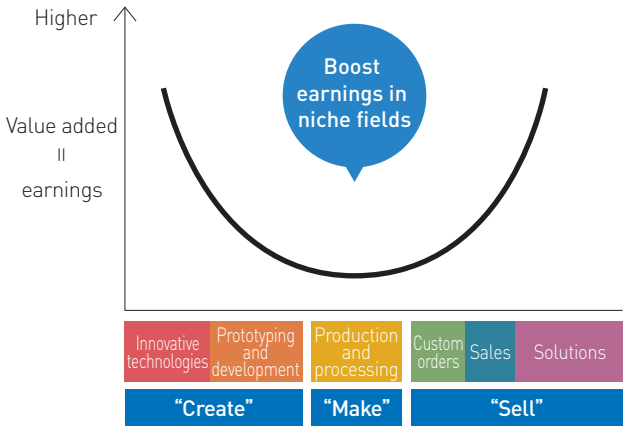
Aiming to Be a Company Valued for Its Uniqueness

DKS produces a large variety of products in small lots. At the end of the Meiji era 100 years ago, the production of silk products had been encouraged as an export industry. In Kyoto, there is a 500-year-old incense store called Ohno Kungyokudo in front of the Nishi Hongwanji Temple. When Oda Nobunaga, a samurai in the Sengoku period, attacked the Hongwanji Temple in Osaka, Buddhist monks fled with their textbooks of Shinran Shonin, the founder of the temple, on their backs to the old capital, Kyoto. It is said that by carrying their important teachings on their backs, Hongwanji Kennyo, the 11th head of Hongwanji Temple, granted the surname "Ouno/Ohno" to the store owner (*ou* in Japanese means to carry a thing on one's back). DKS was founded as a venture to make a chemical agent for spinning silk yarn at Ohno Kungyokudo. The Company also developed surfactants. The Company grew steadily after the release of a new surfactant product MONOGEN, but it eventually succumbed to price competition. Amid a wave of commoditization, the Company decided to withdraw from the household products business in 1973. DKS has followed a unique path to become a specialized manufacturer of industrial materials. This represents our renaissance as a supplier of industrial chemicals, our current business. That is when we began to specialize in the small-lot production of a wide variety of products.

When commencing the current five-year management plan, we declared our second renaissance. DKS aims to be a company that shines in a smart society, using the new land acquired in Yokkaichi, the first land we have purchased since World War II. Toyo Keizai, Inc.'s Company Handbook describes DKS as a leader in industrial chemical agents with a reputation for strong technologies. We believe this reflects our rich variety of products not found at other companies and our technologies backed by 100 years of experience. DKS has amassed a diverse range of technologies derived from its large number of products. Innovation is defined as the combination of established knowledge with new knowledge. Innovation arises when established knowledge is applied to new ideas, and it does not necessarily entail the invention of new things. I believe this innovation is a unique trait of DKS and one of its strengths. It is the way of "Uni-top," a path toward leadership through uniqueness in our field. Our second renaissance has begun with the notion of "Uni-top," and we will make the best use of our strengths to become a distinctive leader in the chemicals domain.

"SUS5" is our rallying cry, which brings the entire company together. The first S stands for Smile. There is a smile curve that represents profitability in the manufacturing process. Profitability is high in the design and development stage, as shown by the upturn on the left-side dimple of the smile. The production process is not that profitable, as represented by the chin of the smile. Profitability turns upward again for the solution-based marketing and sales process on the right-side dimple of the smile curve. DKS, a technology-based company, is on the right- and left-side dimples. We keep smiling as we endeavor. The next letter, U, stands for Unite, which represents our approach to establishing advantages via collaboration. DKS is collaborating with players in other fields, including universities. The second S stands for Straps, the shoe laces that tighten to fit. The bottom, middle and top of an organization all have their own roles to fulfill. By tying these layers together, we can leverage our full capabilities as a company. The 5 represents our targets for a 5% ratio of R&D spending to net sales, 5% time/person devotion to self-designated research and Society 5.0.

DKS Smile Curve



Environment, Society and Corporate Governance (ESG)

Environmental initiatives, social responsibility and corporate governance go hand in hand. The time has come when companies are scrutinized for their ESG activities. Work-style reforms to increase productivity have become a national priority in Japan. When DKS celebrated its 100th anniversary seven years ago, the Company disclosed its policy on work-style reforms in its Declaration of Action for Executives and Employees. Staying one step ahead of social trends, we have focused efforts on health management. In December 2016, DKS received high marks from the Development Bank of

Message from the CEO

Japan both for its environmental efforts and health management. This was the first time that a Kyoto-based manufacturer received two such awards at the same time. DKS received the highest ranking of "A" for its environmental score. Our initiatives as a plant-holding manufacturer and in the R&D activities of eco-friendly materials are recognized. In surveys of all employees since the Declaration, DKS obtained the best results among the eight Kyoto-based companies that participated in the survey.

Last year, we implemented a manager evaluation system that was created with help from a leading consulting company. The system is based on the concept of adding points for evaluations instead of subtracting. The system is simple and transparent, linking evaluation and promotion. Care was taken so that the system serves to motivate everyone, including general employees (union workers), to understand a clear career path from manager to the executive level. Directors watch other directors and audit & supervisory board members monitor directors, and at the same time, the labor union checks management. The union assumes the role of governance. Public companies are governed by the corporate governance code, the stewardship code and standard rules. Prior to their enforcement, we discussed the details with officials of the securities exchange. They said that complying with the rules is desirable, but it is sufficient for companies to explain why some rules are not complied with. We address corporate governance through our management principles and make efforts to increase corporate value.

For example, we will not set up a third-party organization for nominating a successor to the position of CEO. For a company like DKS that is built on technologies with a large variety of products in small lots, it would be extremely difficult for a nomination committee to find a qualified successor. I believe the grooming of a successor is the top management's most important duty. For a while, DKS did not satisfy conditions in the corporate governance code for selecting independent directors. We created instead the Outside Director and Audit & Supervisory Board Member Committee as an independent organization. It serves as a platform outside the Board of Directors for the representative directors to discuss internal matters with outside directors and audit & supervisory board members and hear their opinions. Outside directors and audit & supervisory board members, who come from different backgrounds such as the machinery or electric equipment industries and labor-related government agencies, give us their shrewd and constructive opinions on various topics. We intend to continue holding meetings of the Committee. During the fiscal year, DKS held 36 IR meetings. We wish to be a proactive company in communicating with institutional investors.

Financial Strategy, Capital Policy and Investment Goals

During the past 20–30 years of slow growth in Japan's economy, DKS has not always been in a healthy financial position. Lackluster earnings cast a shadow over financial indicators. The Company struggled through its lowest point during the six years of the DKS Rebirth Plan, which spanned from the end of the previous century to the beginning of this century. DKS let go of its main plant in Kyoto where the Company had been founded, its head office and research center. We had nothing left. We were in an anguished state. It was a dark period before the light brightened with our second renaissance. There is no miracle drug that can revive the dead. Luckily, we reached an awareness for our needed actions through the management quality award activities, and that became the basis of our actions. DKS implemented whatever was possible as its financial strategy during the five years of the ADD21 Plan, which began in 2004. This laid the foundation for the CHANGE100 Plan as the next stage of business development. In the end, strong shareholders' equity, profitability and growth potential—the three parameters that served as the guiding light of our financial strategy—took us out of the dark tunnel.

Finally, during our 100th anniversary year, we were sure that the tide had turned, and we made it with the help of the 30–40-year-old weary equipment. The outbreak of the financial crisis in September 2008 was an opportunity to wipe our financial slate clean. Through M&A, DKS turned Yokkaichi Chemical Co., Ltd. into a wholly owned subsidiary. We decided to move the aging Yokkaichi Plant. We planned to raise the necessary funds through bank loans and the equity markets. We drew up plans for borrowing costs and capital budgets. DKS issued 3.5 million shares to raise funds in March 2011, testing the waters for another issuance of 10 million shares three years later. Our shareholders' equity ratio, which had slumped to 25%–29% during the dark years, recovered to 38.9% as of March 31, 2017. Our financial strategy and capital policy marked a major milestone with the purchase of 100,000 square meters of land near Kasumi, Yokkaichi City, and the plan to construct a new plant on this land. ROE is 9.5%, just shy of our target of 10%. DKS bought back its own shares and raised the dividend by ¥2 to ¥12 per share.

Our investment policy is based on our financial reach, with the intention of keeping spending below depreciation for

the year. DKS began preparing to invest in equipment for future growth with its sights set on a V-shaped recovery after the 2008 financial crisis. The purchase of the land in Yokkaichi and the construction of the new plant were budgeted at ¥12 billion. That spending, including the construction of the new plant, has pushed annual depreciation higher than in the past. DKS has invested roughly the whole amount budgeted in the CHANGE100 Plan, which was calculated based on its financial reach. There are six new pillars in the first stage of our second renaissance. These projects have code names such as Cindy, Dianne and Suzanna. DKS plans to invest another ¥12 billion over the next three years in line with these six pillars and to modernize equipment. This spending during the first stage of our second renaissance will lay the groundwork for further progress in the second stage.

It is said in Japan that a goddess named RORA will smile on the country in 2020. RORA represents the R in R&D (R&D spending by financially sound Japanese corporations will support the economy that year), the O in the 2020 Tokyo Olympics, the R in Reform (demand for reform (i.e., renovation) will increase for condominium buildings, industrial infrastructure to support Japan's rapid growth (e.g., bridges) and quake-resistant reinforcement in Tokyo) and the A in Assistance (growth in demand for household chore assistance services is expected). Since DKS created the REACT1000 Plan, the economic assumptions underlying the plan have not changed despite changes around the world. The U.S. economy is robust, and the financial health and earnings of Japanese companies are stable. Indeed, these indicators are stronger than anticipated. However, such trends do not make us optimistic about achieving our rolled targets for earnings under the five-year plan. I believe these targets are within reach as we unite and move with purpose and clarity toward achieving them.

Conclusion

Although I will not mention all of my seven wonders of the world for 2016, the U.K.'s decision to exit the European Union was one of them. The election of President Trump came as a surprise to many, however, I was not surprised. Before the election, it had been projected that the yen would strengthen and that stocks would fall if Trump were elected. Most news reporters and commentators were of this opinion. Japanese stocks plummeted the day after the election but have recovered all lost ground since then. Moreover, the yen did not appreciate. These trends continue today. The fact that all these

people did not expect a victory by Trump is also one of the seven wonders of the world. We intend to manage operations proactively and stand by our changes, but drawing up accurate forecasts is always a challenge. What is crucial to business operations is what you do about events that have already occurred, that is, management that stands the wonders.

I had an opportunity to interview an author who has written 25 or more books about cutting-edge companies around the world. I identified two main themes in the answers to my questions. Q1: What drives you to research companies and publish so many books? A: I'm glad you asked an analog question. After the Bubble Economy collapsed, I wrote a lot about the struggles of Japanese companies. I am sad about that. I wanted to write of the day when Japanese companies would unfurl their wings and fly out into the world again. Q2: Waiting for the Fourth Industrial Revolution, we are working on new businesses to continue as a compact company that makes a wide variety of products in small quantities. What should we take into consideration? A: I recommend that you customize yourself to frontier domains and functions (e.g., addressing special orders). Management should focus on maximizing the power of the inherited "secret sauce" of your specialties such as the manufacturing of many products in small quantities. It is what Japanese companies are good at.

It appears that chemistry will be even more interesting in the Society 5.0 era. "The day is approaching when Japan, which lost out on IT strategies, will lead the world in the IoT domain. Chemistry will be one of the keys." This was the conclusion of the author I interviewed. Recently, I was asked by an analyst which company was our model. I gladly and immediately answered, "3M." The analysts around me seemed surprised. 3M generates 100 times the sales of DKS and has 3.5 times as many products. It is truly a global company that dominates in terms of the small-lot production of a large variety of products. Sixteen years ago, I first learned about 3M's customer-inspired approach to development. 3M is a blue-chip company that has increased dividends for more than 50 years. We will spark innovations through new combinations of proven technologies, collaborating with companies in different sectors and supporting the healthcare industry. DKS aims to be a company that meets the needs of all four stakeholder categories.

Financial/Capital Strategies and Total Shareholder Return

1 Financial Position

As of the end of the fiscal year ended March 31, 2017, the Company had total assets of ¥69.0 billion, net assets of ¥28.0 billion, a capital adequacy ratio of 38.9%, cash and cash equivalents of ¥9.3 billion and interest-bearing debt of ¥24.6 billion; the net D/E ratio was 0.54.

Regarding cash flows for the period, cash flows provided by operating activities were ¥3.7 billion, slightly lower than the previous year due to factors that included an increase in accounts receivable at the end of the fiscal year to a record-high level. For this reason, following on from the previous fiscal year (¥8.4 billion), capital investment amounted to ¥3.7 billion, mainly consisting of investment in new equipment (e.g., Kasumi Plant). Negative cash flows from investment activities came to ¥3.3 billion, but we were able to maintain positive free cash flow.

In January 2017, while identifying trends in the stock market, we decided for the first time to repurchase stock as part of our capital policy to promote aggressive returns to shareholders; we acquired 2.26 million shares for ¥1 billion. As a result, in conjunction with dividends the total payout ratio for the fiscal year ended March 2017 was 65.6%.

2 Financial Analysis of the Past 10 Years

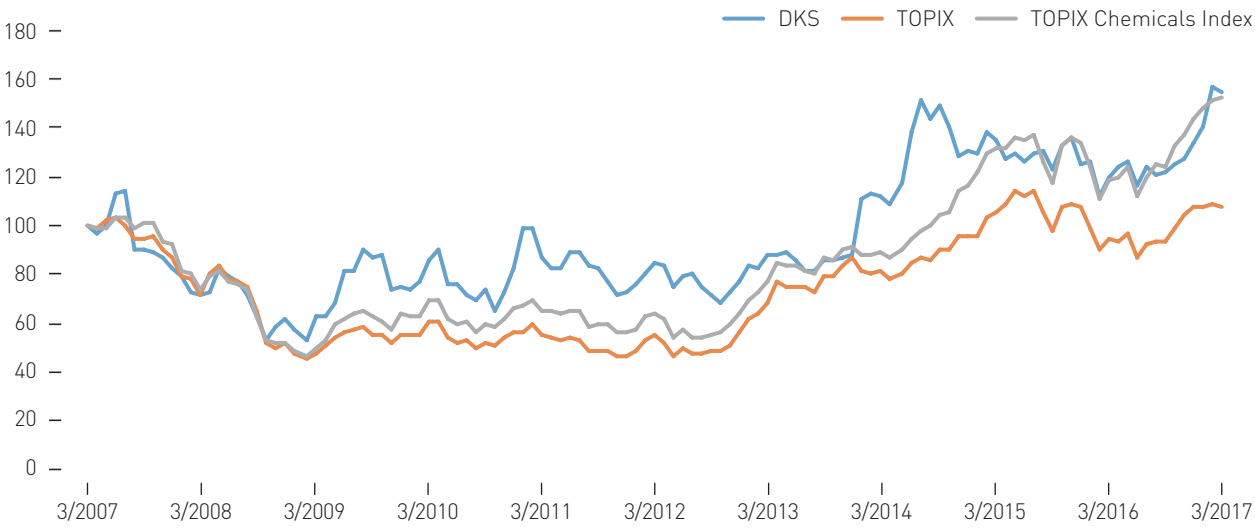
The performance and financial results of the DKS Group for the period from April 2006 to March 2017 are analyzed as follows. (Cumulative totals are the totals over the 10-year period from April 2007.)

	April 2006–March 2007	April 2016–March 2017	Assessment/Comments
Net Sales	¥46.0 billion	¥52.2 billion	Increased 13.5%
Ordinary Income	¥792 million	¥3.77 billion	Increased approx. 4.7 times
Profit Attributable to Owners of Parent	¥468 million	¥2.48 billion	Increased approx. 5.3 times
Total Assets	¥45.5 billion	¥69.0 billion	Increased 51.6%
Net Assets	¥15.9 billion	¥28.0 billion	Increased ¥12.1 billion due to retained earnings and two capital increases
Interest-Bearing Debt	¥14.8 billion	¥24.5 billion	Increased ¥9.7 billion mainly due to capital investment funds
Cash and Cash Equivalents	¥2.1 billion	¥9.3 billion	Increased to ensure liquidity on hand
Net D/E Ratio	0.80	0.54	Improved due to increases in net assets and cash deposits
Net Debt/EBITDA	5.25	2.42	Repayment capacity enhanced by improved profitability

	Total for 10 years from April 2007	Assessment/Comments
Profit Attributable to Owners of Parent Cumulative Total	¥10.5 billion	Weak in the past 10 years; there was an impact from the financial crisis of 2008
Capital Investment Cumulative Total	¥31.6 billion	Invested aggressively for growth since the fiscal year from April 2014 onward and invested more than ¥11.8 billion, the amount of depreciation
Depreciation Cost Cumulative Total	¥19.9 billion	
FCF Cumulative Total	¥(1.6) billion	For 10 years, FCF was almost zero
Dividend Cumulative Total	¥3.3 billion	Dividend increased for three consecutive periods
Capital Increase	¥4.4 billion	Implemented public offerings on two occasions (March 2011, December 2014)
Share Buyback	¥1.0 billion	Determined a shareholder return policy in January 2017

3 Past Total Shareholder Return

Total shareholder return (TSR) by dividend and stock price was as follows. Following the stock price decline brought about by the financial crisis in 2008, the stock price recovered upward and diagonally to an annual rate of 4.4% for the past 10 years.



	10 years		5 years		3 years		2 years		1 year
	Cumulative total	Annual rate	Cumulative total	Annual rate	Cumulative total	Annual rate	Cumulative total	Annual rate	
DKS	54.0%	4.4%	82.8%	12.8%	37.5%	11.2%	14.2%	6.9%	28.6%
TOPIX	8.0%	0.8%	96.2%	14.4%	33.7%	10.2%	2.3%	1.1%	14.7%
TOPIX Chemicals Index	52.2%	4.3%	138.3%	19.0%	71.7%	19.8%	15.5%	7.5%	28.3%

4 Future Financial Strategies/Shareholder Returns

Under REACT1000, our current five-year management plan, we have set "maintaining and enhancing an appropriate ROE level" as a management policy. In addition, as an action point we are promising all our shareholders a change from comparative value stock to growth stock. For our financial strategy going forward, while supporting medium- to long-term growth, we would like to implement measures to optimize the cost of equity.

Because we are a chemical manufacturer, continuous investments in plant and equipment, as well as R&D expenditures, are indispensable for achieving medium- to long-term growth. While maintaining continuing financial discipline, we are therefore investing for growth, and the main source of that investment will be internal reserves and interest-bearing debt. In addition, we believe an important option will be to conduct policy flexibly, such as making capital increases for growth or financially strategic acquisitions of treasury stock, based on our financial situation and stock market trends.

Specifically, we will steadily raise PBR to 1 or above by improving and maintaining ROE to a level above the cost of equity. Also, while maintaining financial discipline, we will bring about a reduction in the cost of capital to an appropriate level by using moderate leverage. While aiming for sustainable dividend growth, we will aim to optimize the cost of capital through flexible shareholder return measures in conjunction with share buybacks.

Financial and Nonfinancial 11-Year Summary

Financial Data (Millions of yen)	3/2007	3/2008	3/2009	3/2010
Net Sales	46,031	48,875	46,528	44,352
Surfactants	15,460	16,574	15,880	14,373
Amenity Materials	9,013	8,645	8,316	7,397
Polyurethane Materials	7,909	8,075	7,504	7,161
Functional Materials	9,415	10,576	9,406	9,467
Electronic Device Materials	4,232	5,003	5,420	5,950
Overseas Sales	7,110	7,726	7,572	6,692
Operating Income	991	623	298	1,575
Ordinary Income	792	351	(28)	1,239
Profit Attributable to Owners of Parent	468	436	(350)	503
Capital Expenditures	4,005	3,040	2,929	873
Depreciation and Amortization	1,463	1,778	1,700	1,733
R&D Expenses	2,084	2,058	1,936	1,863
Net Cash Provided by (Used in) Operating Activities	1,951	2,964	1,383	3,061
Net Cash Provided by (Used in) Investing Activities	(3,448)	(2,743)	(2,678)	(1,661)
Free Cash Flows	(1,497)	221	(1,295)	1,400
Cash Dividends Paid	273	195	117	195
Net Assets	15,958	16,172	14,438	15,316
Total Assets	45,543	46,166	41,749	44,291
Interesting-Bearing Debt[1]	14,856	16,259	16,259	14,499
Per-Share Data (Yen)				
Net Profit	11.99	11.17	(8.99)	12.89
Net Assets	389.67	392.73	350.23	367.84
Cash Dividend	7.00	5.00	3.00	5.00
Major Indices				
Overseas Sales Ratio (%)	15.4	15.8	16.3	15.1
R&D Expenses to Sales Ratio (%)	4.5	4.2	4.2	4.2
Operating Margin (%)	2.2	1.3	0.6	3.6
Return on Equity (%)	3.0	2.9	(2.4)	3.6
Return on Assets (%)	1.1	1.0	(0.8)	1.2
Equity Ratio (%)	33.4	33.2	32.7	32.4
Net D/E Ratio (times)	0.8	0.9	1.0	0.8
Year-End Stock Price (yen)	324	228	195	266
PER (times)	27.0	20.4	—	20.6
PBR (times)	0.8	0.6	0.6	0.7
Dividend Payout Ratio (%)	2.2	2.2	1.5	1.9
Nonfinancial Data				
No. of Employees (consolidated)	946	934	894	910
No. of Employees (non-consolidated)	667	647	609	582
No. of Employees Outside Japan	7	8	7	7
Ratio of Female Employees to Total Employees (non-consolidated)	13.8	14.2	14.3	14.6
No. of Employees Who Utilized the Child-Care Leave System (non-consolidated)	6	5	6	8
No. of Employees Who Utilized the Child-Care Part-Time Work System (non-consolidated)	7	8	6	4
Annual Paid Leave Rate (non-consolidated + assigned employees) (%)	62.4	66.3	72.3	71.4
No. of Patents Held (overseas) [2]	—	—	—	—
Generated Waste Amount (tons) [3]	11,015	12,800	8,579	9,912
CO_2 Emissions (consolidated) (thousands of tons) [3]	51.6	46.6	43.1	37.4

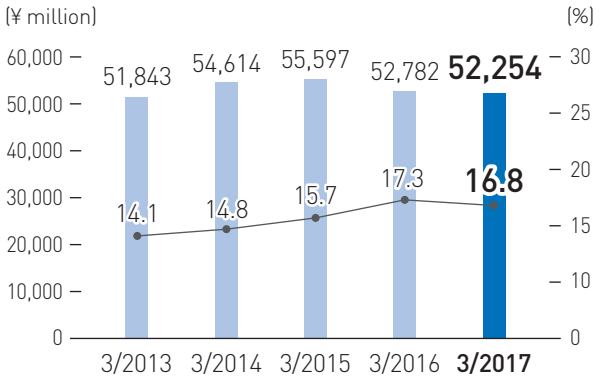
1. Lease obligations not included in interest-bearing debt.
2. The collation method was amended to a legal effective date basis from FY 2016.
3. Data are presented on a non-consolidated basis up to FY 2009 and on a consolidated basis including Yokkaichi Chemical from FY 2010.

3/2011	3/2012	3/2013	3/2014	3/2015	3/2016	3/2017
51,245	56,249	51,843	54,614	55,597	52,782	**52,254**
15,131	18,779	19,486	20,359	21,573	20,779	**19,793**
7,046	7,220	6,825	7,141	6,856	7,208	**6,986**
8,761	8,634	8,466	9,564	9,442	8,934	**9,093**
11,441	10,228	9,666	10,680	11,216	11,259	**12,517**
8,863	11,386	7,398	6,868	6,508	4,600	**3,862**
8,748	8,296	7,323	8,103	8,743	9,131	**8,794**
2,732	2,033	1,754	2,477	2,944	3,439	**3,944**
2,439	1,742	1,544	2,374	2,717	3,200	**3,773**
1,155	165	797	1,336	1,782	2,198	**2,489**
1,111	2,312	3,664	1,512	3,948	8,485	**3,786**
1,836	2,252	2,003	2,104	2,153	2,087	**2,335**
2,010	2,273	2,340	2,506	2,439	2,380	**2,393**
2,502	2,309	2,477	3,553	2,322	4,197	**3,750**
(616)	(2,869)	(3,548)	(1,793)	(3,229)	(7,687)	**(3,336)**
1,886	(560)	(1,071)	1,760	(907)	(3,490)	**414**
298	298	298	298	474	528	**608**
16,498	16,949	18,200	19,886	26,156	26,745	**28,044**
47,741	51,357	55,416	57,570	64,420	66,057	**69,046**
14,098	15,700	18,712	20,679	21,322	23,227	**24,594**
29.38	3.87	18.68	31.32	38.69	41.64	**47.40**
367.85	377.77	404.39	440.00	472.40	485.05	**529.94**
7.00	7.00	7.00	7.00	9.00	10.00	**12.00**
17.1	14.7	14.1	14.8	15.7	17.3	**16.8**
3.9	4.0	4.5	4.6	4.4	4.5	**4.6**
5.3	3.6	3.4	4.5	5.3	6.5	**7.5**
7.7	1.0	4.8	7.4	8.2	8.7	**9.5**
2.5	0.3	1.5	2.4	2.9	3.4	**3.7**
32.9	31.4	31.1	32.6	38.7	38.8	**38.9**
0.5	0.6	0.7	0.6	0.4	0.5	**0.5**
261	246	250	322	387	328	**427**
8.9	63.6	13.4	10.3	10.0	7.9	**9.0**
0.7	0.7	0.6	0.7	0.8	0.7	**0.8**
2.7	2.9	2.8	2.2	2.3	3.1	**2.8**
861	995	979	969	944	982	**967**
554	533	526	514	508	495	**486**
5	6	6	5	6	7	**7**
14.8	14.8	14.8	16.0	15.9	17.0	**17.5**
6	10	10	8	11	9	**6**
6	7	11	8	9	10	**13**
69.0	66.7	62.7	63.7	61.0	64.5	**62.4**
–	–	636 (237)	660 (245)	722 (299)	822 (344)	**855 (378)**
15,774	13,395	14,421	12,724	13,876	13,191	**17,364**
57.5	49.8	51.9	52.0	51.3	50.9	**52.5**

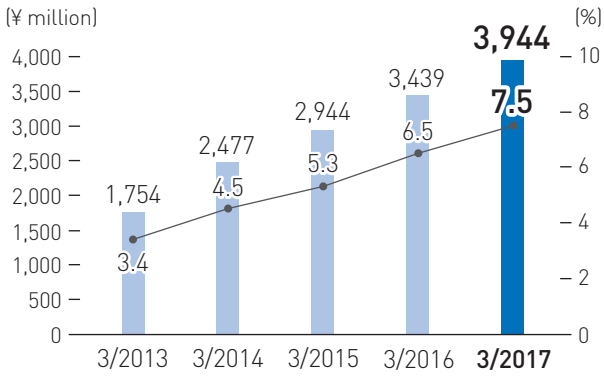
Financial and Nonfinancial Highlights

Financial Highlights (Consolidated)

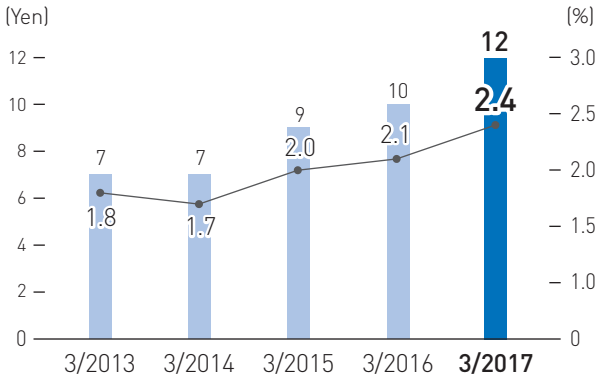
Net Sales/Overseas Sales Ratio



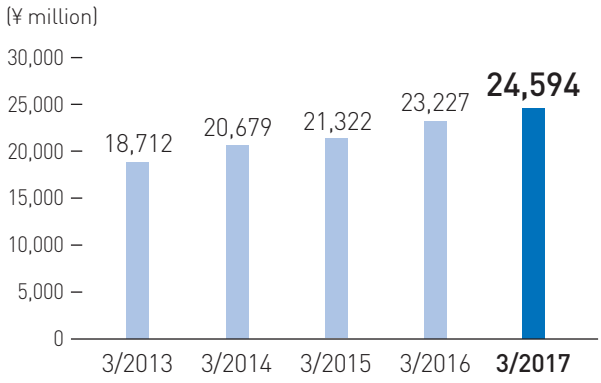
Operating Income/Operating Margin



Dividend per Share/Dividend on Equity (DOE)



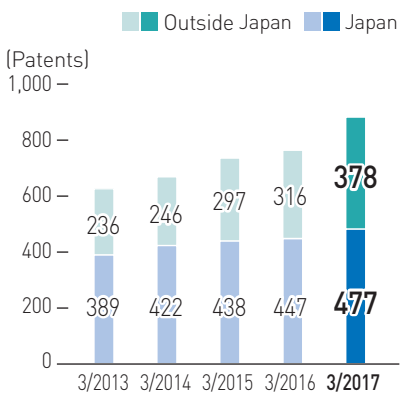
Interest-Bearing Debt*



*Lease obligations not included in interest-bearing debt.

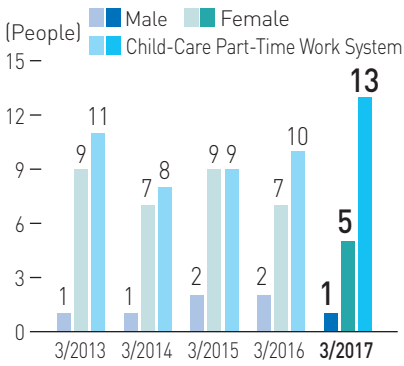
Nonfinancial Highlights (Group/Non-consolidated)

Number of Patents Held* (Group)

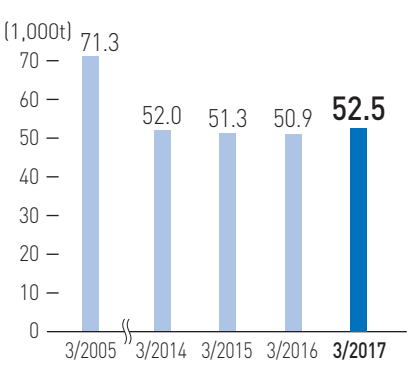


*The collation method was amended to a legal effective date basis from FY 2016.

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

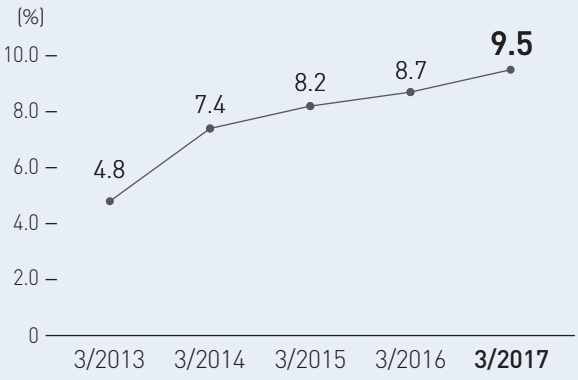


CO_2 Emissions (Group)

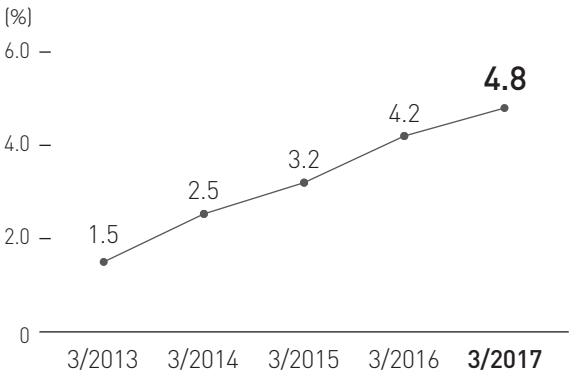


ROE Analysis Based on the DuPont Model

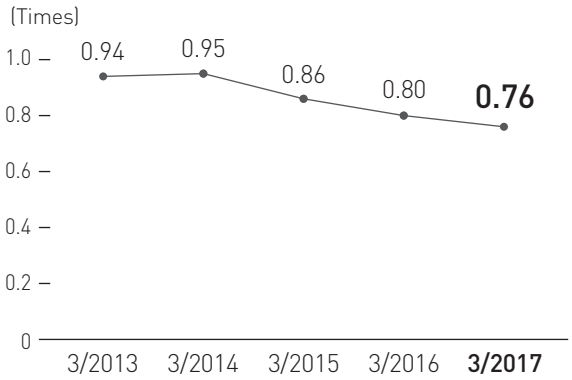
ROE



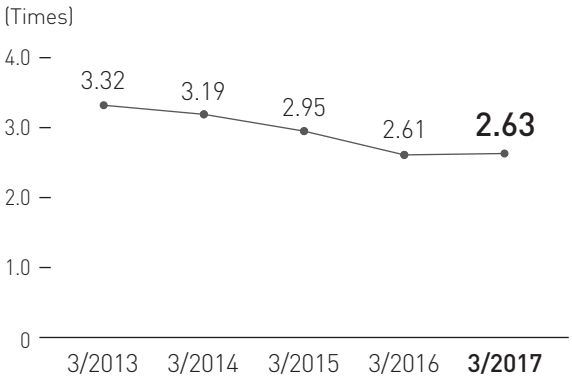
Net Profit Margin



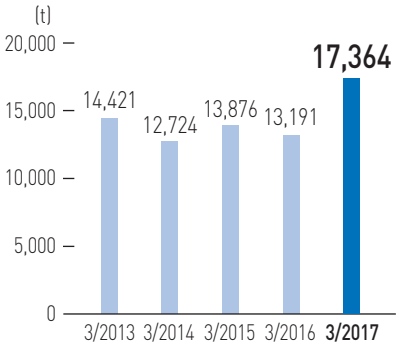
Asset Turnover Ratio



Financial Leverage

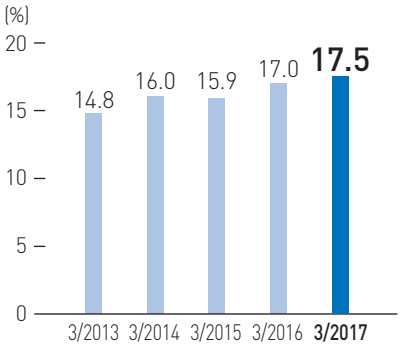


Generated Waste Amount



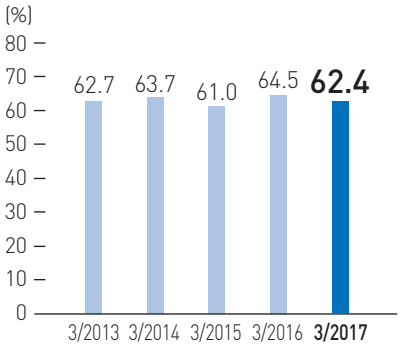
Ratio of Female Employees

(Non-consolidated)



Annual Leave Rate

(Non-consolidated + Assigned Employees)



Five Core Business Segments

Surfactants

Providing highly functional surfactants since the Company's founding in 1909

- Nonionic surfactants
- Cationic surfactants
- Anionic surfactants
- Amphoteric surfactants

Major products/ applications


IT & electronics


Soap & detergents


Metals

Amenity Materials

Providing materials and peripheral application technologies necessary for a comfortable living environment

- Sucrose fatty acid esters
- Vinyl polymers
- Cellulose polymers
- Acrylic polymers

Major products/ applications


Fish/animal feed


Cosmetics & personal care


Food

Polyurethane Materials

Providing industrial materials and urethane raw materials, for example, paints, adhesives, civil engineering and construction materials, electric insulating materials

- Polyether polyols
- Urethane systems
- Urethane prepolymers

Major products/ applications


Civil engineering


Construction


Synthetic lubricants

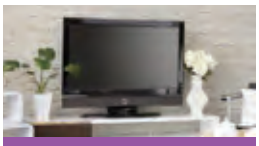
Functional Materials

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

- Radiation-curable monomers/oligomers
- Flame retardants
- Waterborne polyurethanes
- Amide-based lubricants

Major products/ applications


Electronics


Flame retardants for plastics


Films

Electronic Device Materials

Providing ceramic materials and conductive pastes for home electronics components

- Conductive pastes for electronics
- Functional inorganic materials
- Injection molding pellets

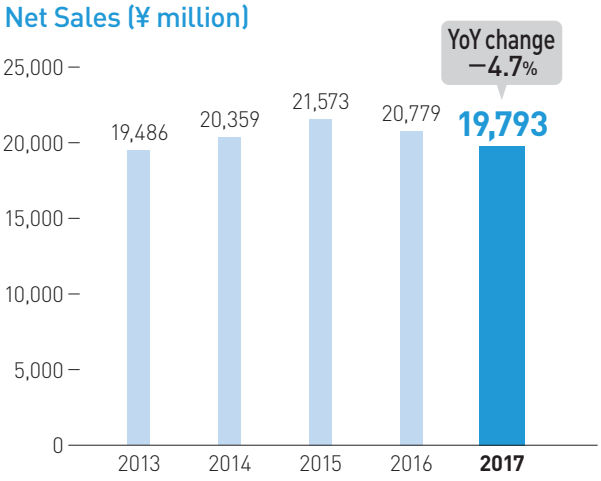
Major products/ applications


Ceramic materials

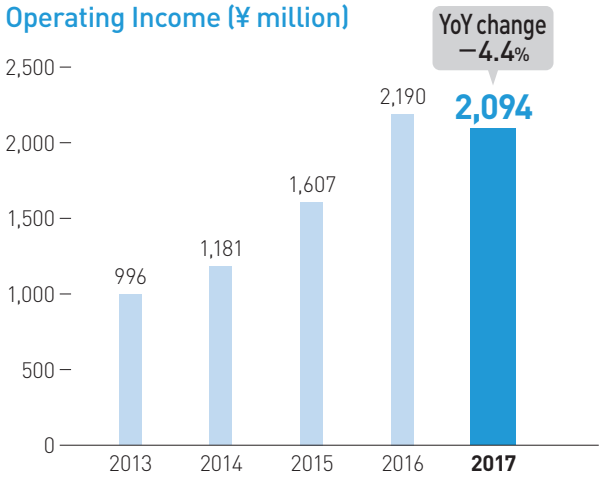

Solar cells

Surfactants

Net Sales (¥ million)



Operating Income (¥ million)



Segment outline

Since the Company's founding in 1909, the surfactants segment has been a core business for more than 100 years. DKS surfactants provide high added value to a wide variety of B2B products in the energy, machinery, metal, colorant, rubber, plastic, IT, electric and electronic sectors.

DKS is developing products in line with the recent increase in environmental awareness around the world. In particular, it is developing and manufacturing eco-friendly products mainly at its Yokkaichi and Shiga branches using natural oils and petrochemicals as raw materials.

A review of the fiscal year ended March 2017 and an outlook for the future

The fiscal year ended March 2017 saw a moderate slump in both sales and operating income.

Although demand was firm for rubber and plastic applications in Japan and overseas, domestic sales in soap and detergent applications dropped noticeably amid a downturn in naphtha prices. Overseas, sales slumped in textile applications.

The segment is working to accelerate the shift of the Kasumi Plant to a mother plant. Construction of new nonionic surfactant facilities was launched in November 2016.

The Company is focusing on leveraging its core technologies to develop highly functional products in line with the needs of its customers in Japan and around the world.

The strengths of DKS and the main functions of the business

The history of soap, which is representative of surfactant products, traces back to the ancient Romans. After that period, the focus moved from just the washing of dirt from hands and feet to also include items offering the functions of dispersion and emulsification, particularly those affecting the surface of different substances, such as oil and water.

The functions required of surfactants have become more diversified and more sophisticated as the industries in which the Company's customers operate have evolved.

DKS has developed polymerizable surfactants that function as surfactants and then enhance the properties of target materials such as water resistance and is working on expansion of the market.

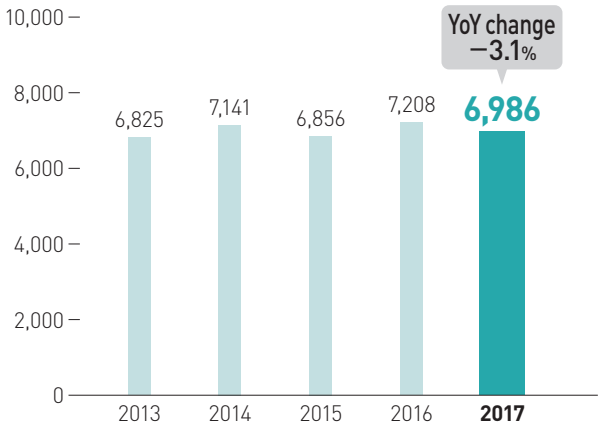
DKS's five-year management plan REACT1000 aims to expand sales as a "Uni-top" market leader by leveraging our fine-grinding technology to meet the performance requests of our customers.

Strategies for future/risks and opportunities

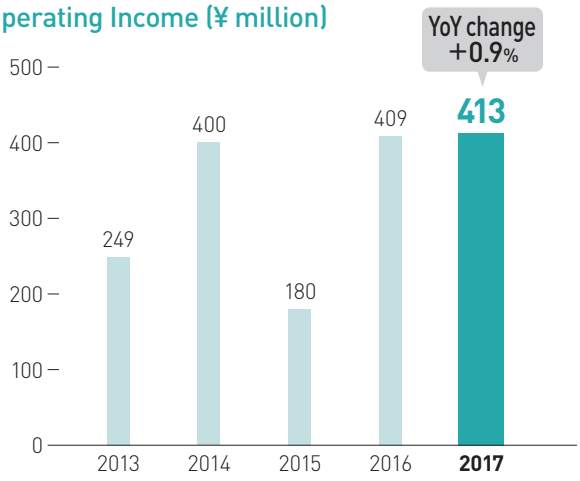
The surfactants domain is where DKS can take advantage of its technologies and experience accumulated over many years. Growth in demand for polymerizable surfactants is expected in the paint/coating and adhesive/binder industries. Meanwhile, the Company faces many competitors in this domain, including domestic chemical manufacturers producing detergents and dispersants. To maintain profitability in the segment, the Company is focused on spurring growth by developing high-value-added products that meet customers' needs and/or are eco-friendly.

Amenity Materials

Net Sales (¥ million)



Operating Income (¥ million)



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, cosmetics, toiletries, fisheries/livestock, textiles, pulp/paper, civil engineering, agrochemicals and agro-materials.

In addition to core-technology surfactants, DKS manufactures products made from natural raw materials, including sugar and pulp, at the Shiga and Ohgata branches in line with the Company's commitment to preserving the environment.

A review of the fiscal year ended March 2017 and an outlook for the future

Although sales in the business were somewhat sluggish, operating income improved marginally in the fiscal year ended March 2017.

In the domestic market, cellulose polymer materials used in energy and environmental applications performed well, and demand for binders used in aquaculture feed was strong. While food application demand for sucrose fatty acid esters derived from raw material sugar was firm in Japan and overseas, sales overseas in cosmetics applications were somewhat weak.

The segment views the overseas markets as a growth field and explores its customer base to improve the comfort of daily life by providing highly functional products.

The strengths of DKS and the main functions of the business

With more than 65 years of experience in cellulose polymers using pulp and more than 50 years of experience in sucrose fatty acid esters using sugar, the Company has a long history in product development and is developing markets based on the basic and application technologies accumulated to date.

In areas such as food and cosmetics, taste and texture can be greatly affected by thickening, dispersing or emulsifying. The effects of the products providing these functions become clear when used in customer products.

The Company is focused on expanding sales by providing its customers with highly functional products that are both safe and reliable.

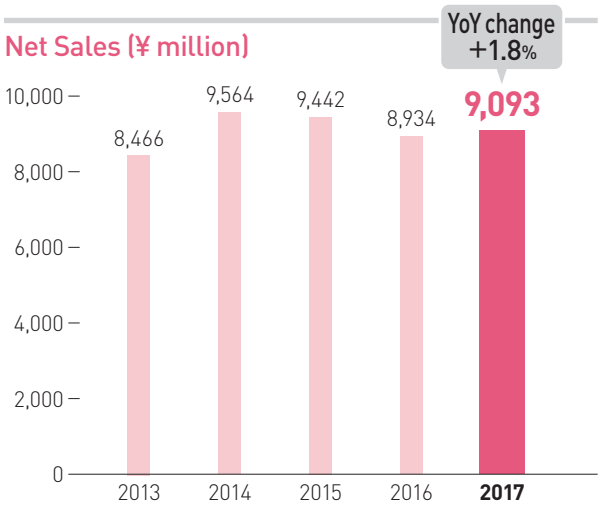
Strategies for future/risks and opportunities

While the Amenity Materials business targets companies operating in a wide range of industries, the domestic market for the segment appears unlikely to expand moving forward given current demographic trends. The Company nevertheless targets stable sales and profitability in Japan in line with the customer base acquired to date. On the other hand, DKS targets an expansion in product sales overseas, which the Company views as an area for growth, especially for food and cosmetics-related applications.

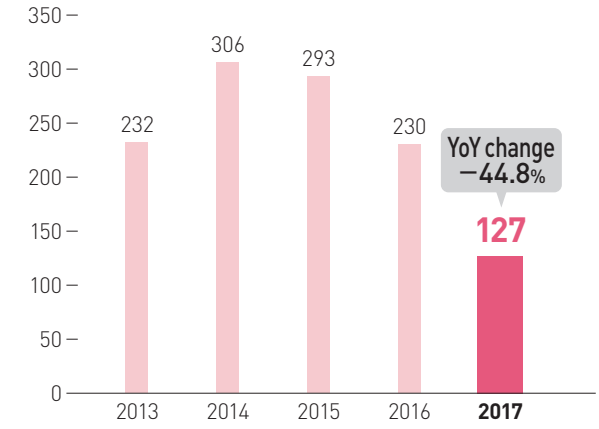
The Company's competitors in the field can be said to include food additive manufacturers.

Polyurethane Materials

Net Sales (¥ million)



Operating Income (¥ million)



Segment outline

The segment provides polyurethane materials and industrial materials, including paints, adhesives, civil engineering and construction materials, and electric insulation materials. The main areas of development include lower density soft urethane foams, polyether polyols for rigid urethane foams with enhanced heat insulation and flame retardancy, and rock hardening agents primarily used for mountain tunnel projects and polyether polyols to make flexible or rigid urethane foams.

Petrochemicals used as the mainstay raw materials in the segment are mainly manufactured at the Yokkaichi Branch.

A review of the fiscal year ended March 2017 and an outlook for the future

Sales in the segment in the fiscal year ended March 2017 were generally firm, though operating income declined by a substantial margin.

Sales of synthetic lubricants that are eco-friendly and in line with HFC regulations were somewhat sluggish amid a decline in naphtha prices, whereas construction chemical sales were down sharply. On the other hand, the increase in public works projects contributed to favorable growth in sales of civil engineering–related chemicals, especially for use in mountain tunnels. Marginal profits remained low and decreased on a year-on-year basis due to changes in the sales mix.

With the launch of production at the Kasumi Plant, which came online in 2016, the Company aims to expand sales to the Linear Chuo Shinkansen project of tunnel construction chemicals, for which the Company has a strong share and proven track record.

The strengths of DKS and the main functions of the business

The main functions of products in the segment are adhesion, insulation and water stopping, which are all areas in which the Company gains an advantage from its unique technologies and experience. The Company has established a safety education and training center at the Kasumi Plant, where production takes place; aims to promote the training of human resources throughout the group to generate synergies; and is working to build on its strengths to better meet the needs of its customers.

Strategies for future/risks and opportunities

The Kasumi Plant, which was built at the Yokkaichi third complex, began full-scale operations in December 2015. Further expansions are progressing in line with the Company's plan to make the facility a mother factory. The Company aims to develop and manufacture high-quality products through a combination of applied technologies and the most cutting-edge equipment.

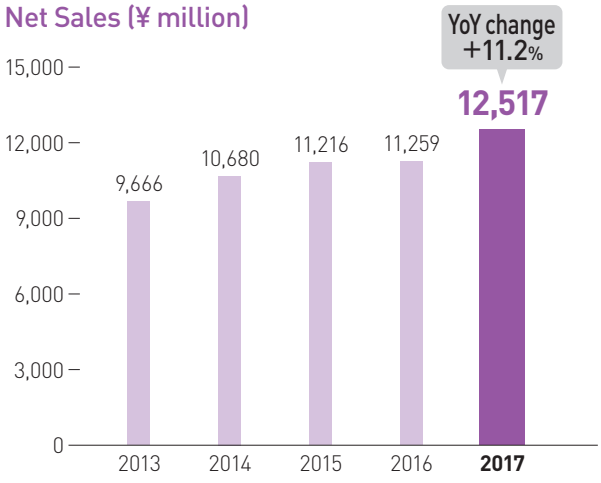
Risks to the segment include competitors and the growth potential of the market. While maintaining a focus on the potential for growth in the target market, the Company also aims to improve manufacturing capacity and its technological abilities to best its competitors.

The segment is developing water-reactive (foaming) polyols and synthetic lubricants that are eco-friendly and in line with HFC regulations, and in IT products is working to reduce volatile organic compounds (VOCs) by developing a single-component waterborne insulating coating. Although environment-related measures can be considered risks, we remain committed to finding opportunities to develop eco-friendly products.

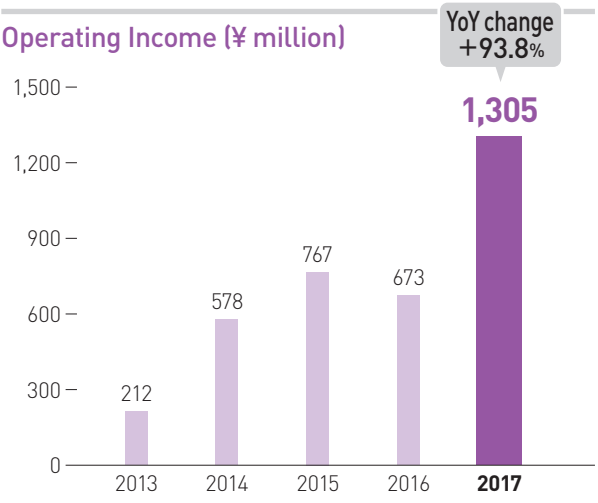
Competitors in this business include civil engineering and building construction firms, as well as electronic materials manufacturers.

Functional Materials

Net Sales (¥ million)



Operating Income (¥ million)



Segment outline

The Functional Materials segment supplies various plastic additives indispensable to the highly functional plastics and rubber used in our living environment such as personal computers, smartphones and home electronics, as well as radiation-curable monomers and oligomers, flame retardants, antistatic agents, lubricants, anti-clouding agents and antioxidants, among others.

Waterborne polyurethanes being developed since 1973 are used in coating wood and plastic, metal and paper coating agents, film and wood adhesives, and paper/fiber binding.

Although the Ohgata and Yokkaichi branches have been the main manufacturing bases for these products, the manufacturing of new products now takes place at the Kasumi Plant.

A review of the fiscal year ended March 2017 and an outlook for the future

Sales and operating income both expanded sharply compared with the previous year in the fiscal year ended March 2017.

In Japan, performance was strong in waterborne polyurethanes for textile applications, whereas radiation-curable resins for IT and electronics applications and brominated flame retardants for rubber and plastic applications bounced back after declining in the fiscal year ended March 2016. Thanks to recent years spent developing the market, radiation-curable resins made a strong contribution to sales as new highly functional products.

Overseas, sales were weak in radiation-curable resins for IT and electronics applications and phosphorus-based flame retardants, but there was notable growth in brominated flame retardants for rubber and plastic applications.

Brominated flame retardants are used mainly in plastics in the electronics and electrical fields and in housing thermal insulation. Growth was particularly clear in applications tied to the IT and electronics fields.

The strengths of DKS and the main functions of the business

The technology used in radiation-curable monomers and oligomers is called radcure (UV or EB curing) 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 a variety of fields to conserve resources and energy and to reduce the environmental impact. Its uses include clear paint for building materials and furniture; anticorrosive paint for metals; resist materials for semiconductors, dry films and LCDs; coating agents for mobile phones, optical fibers, plastics and paper; printing inks and plate-making materials; and adhesives.

Brominated flame retardant raw materials are sourced from bromine production sites worldwide, with the market for plastic applications mainly overseas. Brominated flame retardants demonstrate higher flame retardancy than conventional phosphorus and inorganic flame retardants.

Waterborne polyurethanes allow the polyurethanes, a kind of plastics, to be dispersed in water and are therefore increasingly essential as the world moves away from organic solvents.

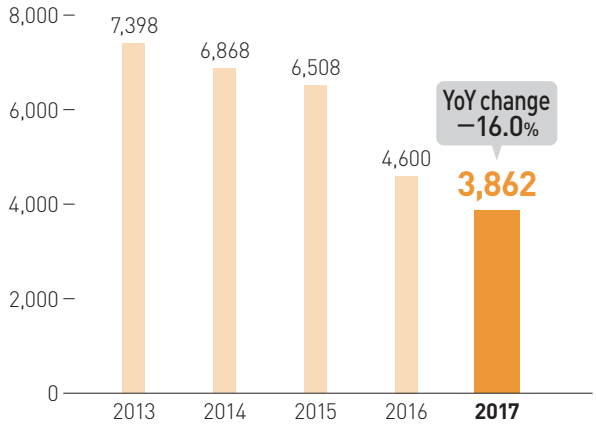
DKS is developing a variety of products through the combination of technologies that exhibit flame retardancy and surface coating.

Strategies for future/risks and opportunities

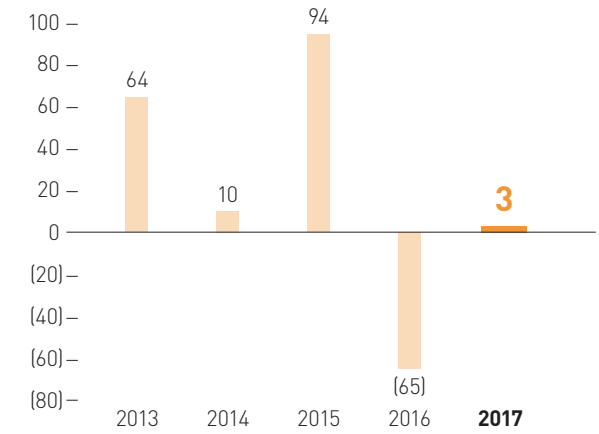
Target markets for this business include those with strong growth potential and areas both in Japan and overseas in which the Company believes it can demonstrate its strengths. While competitors include electronic materials manufacturers and overseas flame retardant manufacturers, the Company is looking to secure growth through its unique technologies and proposal capabilities.

Electronic Device Materials

Net Sales (¥ million)



Operating Income (¥ million)



Segment outline

As evidenced by the spread of the Internet and smartphones, as well as the increase in solar power generation facilities, there has been a clear advancement in the information society and a concerted effort to create a more eco-friendly society. Since the 1980s, DKS has been developing ion-conductive polymers and ionic liquids and continues to advance the supply of products in these areas of growth. We are also developing and supplying lithium-ion battery materials, ceramic materials and conductive pastes.

Mainstay products in the electronic device materials segment are produced at subsidiary companies Dai-ichi Ceramo (Shiga) and Kyoto Elex (Kyoto).

A review of the fiscal year ended March 2017 and an outlook for the future

In the fiscal year ended March 2017, sales in the segment declined sharply, and although operating income recovered from the level in the fiscal year ended March 2016, it nevertheless remained at a low level.

Sales of electronic device materials segment dropped sharply in the fiscal year ended March 2017. There was a particularly sharp downturn in sales of ceramic material injection molding pellets and conductive pastes for solar cells that are used in solar power generation equipment. However, earnings in the segment showed signs of hitting the bottom, thanks to firm sales of new products marketed to the IT and electronic materials sectors.

The strengths of DKS and the main functions of the business

DKS is focused on developing business activities at the subsidiary companies that make use of the Company's surfactant 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. We can conduct mixing operations under special conditions or with a high level of viscosity thanks to our unique and extensive experience and detailed know-how in the process.

The main features of our products are their high degree of efficiency and precision. As an example, ionic liquids are compounds made of ion pairs, which generally assume a liquid state at temperatures of 100°C or less. They have no vapor pressure and are nonflammable. Because they are highly safe and efficient thanks to having high ion conductivity, we are developing electrolyte applications for lithium-ion batteries and capacitors. These liquids are also attracting attention as next-generation materials in the energy device field and as green solvents for reducing environmental impact.

Strategies for future/risks and opportunities

We expect a tough operating environment ahead for the segment as there is some degree of uncertainty over the potential growth for the industry and existing applications for segment products. On the other hand, we aim to achieve growth and meet the quality demanded by our customers by making full use of the group's technologies and promoting R&D efforts to advance the development of next-generation products.

Product Pickup

[Rock hardening agent: GANBAN]

The DKS polyurethane business was launched in 1960 by the Company producing soft urethane foam raw materials at the Yokkaichi Branch.

The urethane market at the time was characterized by excessive competition, and DKS focused on advancing the development of high-value-added products, making use of existing technologies to expand our lineup of waterproofing materials, flooring materials, all-weather paving materials and water-stopping materials for civil engineering and construction projects.

GANBAN is an agent used to help prevent tunnel collapses and is a high-value-added urethane product that is economically efficient and has a low level of impact on the environment.

Contributing to safety in mountain tunnel construction and the advancement of construction technologies

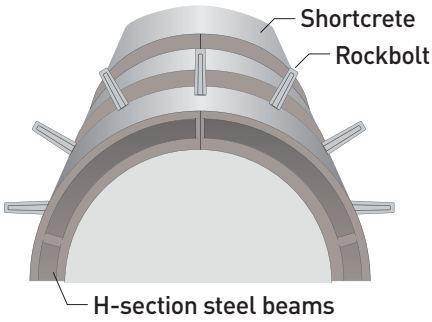
Forested mountains account for approximately two-thirds of total land area in Japan, and mountain tunnels stand alongside roads and ports in playing an important role not only for industry but also as social infrastructure supporting the daily life of the country's citizens. It is accordingly important to ensure safety in mountain tunnels, where construction is difficult due to the dangers of falling rocks.

GANBAN helps prevent tunnel collapses as it shows excellent levels of permeability and through injection can reliably fill fine cracks in ground surfaces. GANBAN also contributes to the enhanced sophistication of mountain tunnel construction in Japan, which has been described as among the best in the world. Specifically, the product forms into a strong and solid form quickly, ensuring safety during tunnel excavation work.

GANBAN in tunnel construction

As a solidifying agent for rock that can easily crumble, GANBAN is highly effective in preventing collapses.

The tunnel structure



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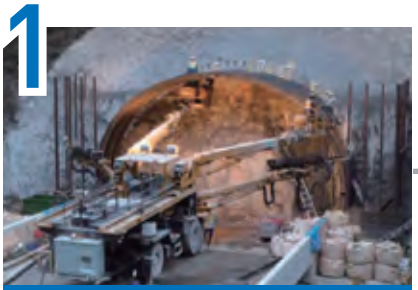


Tunnel opening

2

Injection of GANBAN

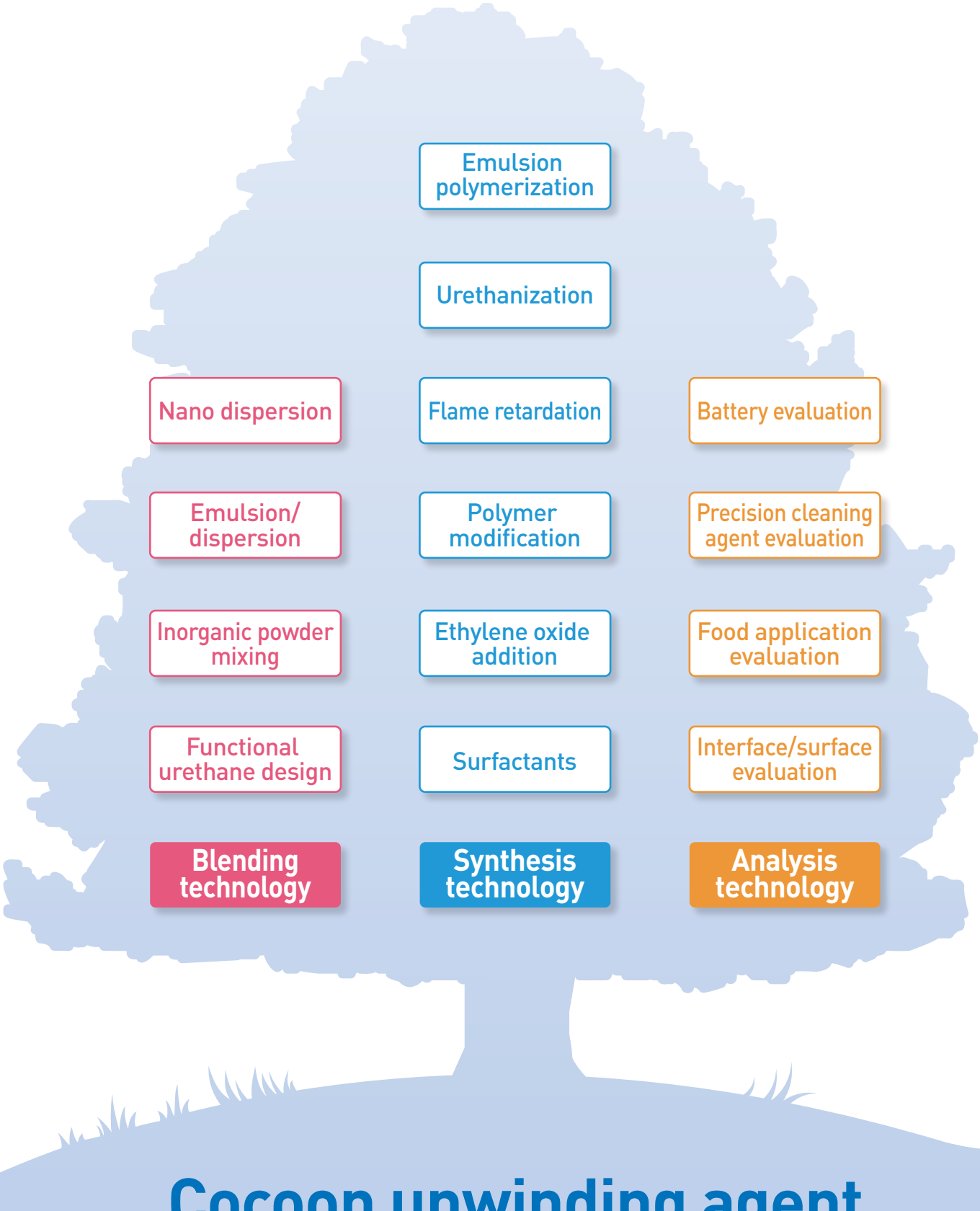
3

GANBAN application site

4

The Three Core Technologies of DKS

DKS was founded in 1909 for the development and sales of a cocoon unwinding agent for use in spinning. Since its founding, the Company has cultivated three categories of technology: synthesis, blending and analysis. These have created the base for DKS, allowing it to create unique technologies to meet the requirements of many industries.



Important Issue 1 Quality and Safety Management

Basis of Quality Assurance

Our Company established its Quality Assurance Management Regulations and Quality Policy in 1995. Providing high-quality, safe and reliable products based on quality assurance, we are working to realize improvements in customer satisfaction.

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


Quality Policy

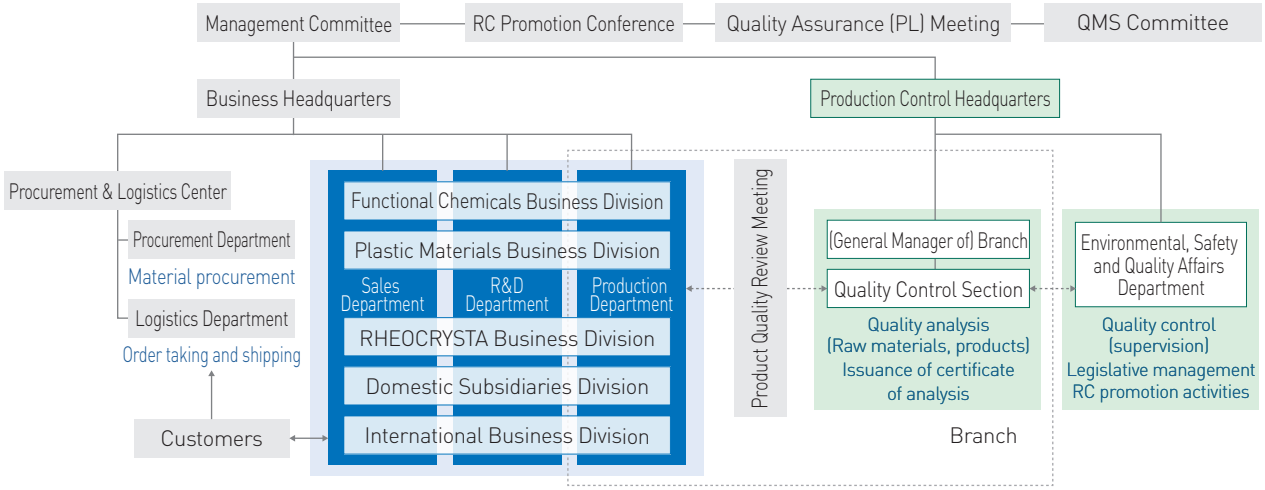
"To ensure customer-satisfying quality."

Quality Policy

Quality Control System

Having established a Quality Policy in 1995 and obtained ISO 9001 certification, we conduct companywide quality management activities. As basic tools for quality management, we execute PDCA cycles and provide products and services that satisfy customer demands and comply with laws and regulations. In addition to day-to-day quality management activities (such as product quality review meetings, corrective measures and preventive actions relative to complaints/nonconformity, audits, change control and quality education), we implement periodic reviews of the management system. Having completed the switch to the revised ISO 9001:2015 in FY 2016, we are promoting the further integration of ISO and business activities.

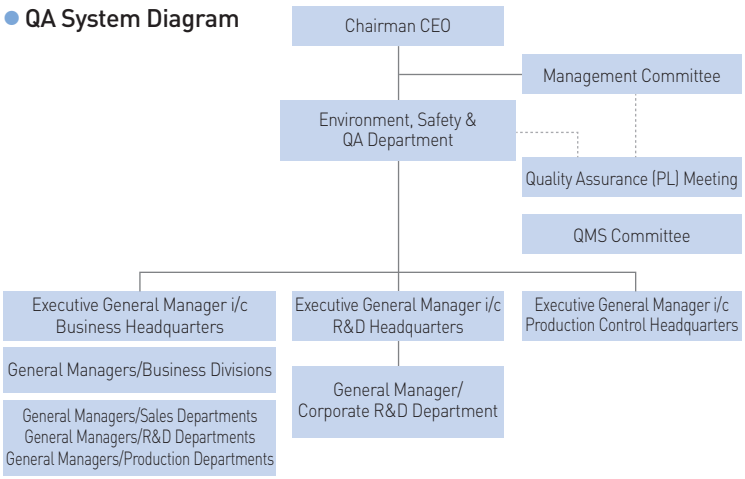
● **QC System Diagram**



Quality Assurance (QA) System

Having put in place a QA system based on our Quality Assurance Management Regulations and keeping our Quality Policy in mind, we promote QA activities—from product design/development, manufacturing and sales to customer service through each relevant department. We are compiling quality manuals and working to ensure product safety and quality, as well as trying to prevent quality-related issues before they arise.

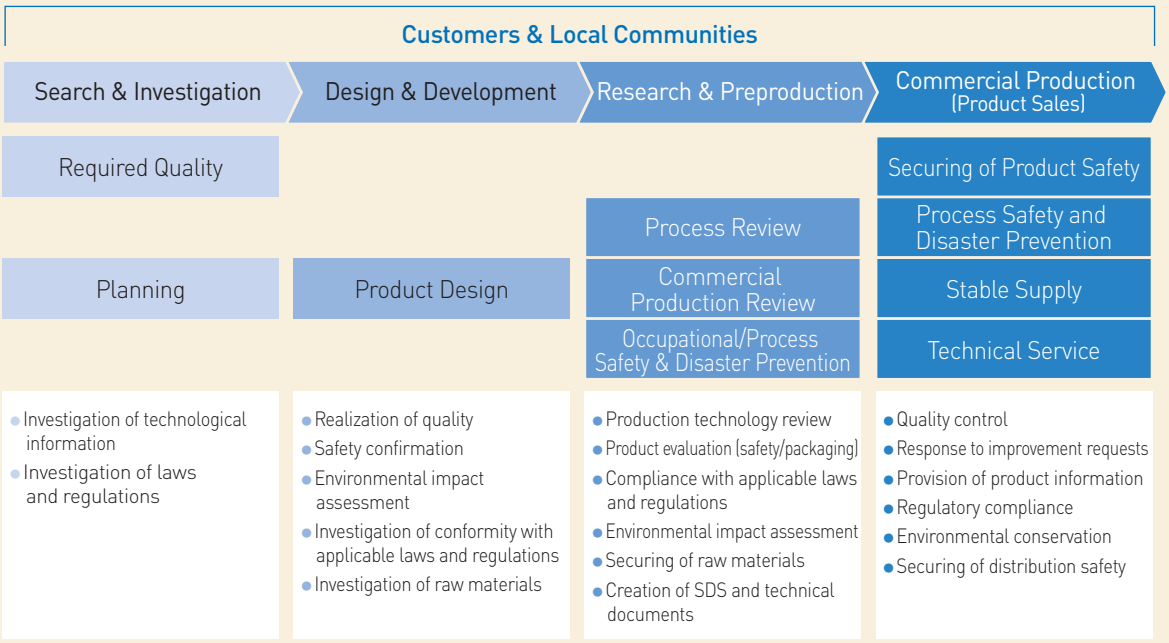
● **QA System Diagram**



Product Safety (chemical substance management from design/development)

To undertake the appropriate management of chemical substances, we have prepared the chemical substance management regulations. In our product development, we not only realize the quality demanded by customers but also obtain information on raw materials from the design/development stage and conduct product hazard assessments and environmental impact assessments, as well as conduct investigations into their conformity with applicable laws and regulations. We take measures to ensure that, as chemical substances, their safety and impact on the environment is taken into consideration.

Product Safety Mechanism



Provision of Product and Technical Information

Our products are utilized in a variety of fields, and we provide product and technical information tailored to the characteristics of each product and service. We always respond to requests and inquiries from our customers quickly, adequately and in good faith. To introduce our existing products and/or new products, we strive to promote close communication with customers through our everyday business negotiations and send out our information using brochures and technical documents. We also provide the latest information—covering, for example, product properties, applicable laws and regulations, transportation, handling methods and emergency measures—by means of safety data sheets (SDS) and actively promote the provision of information on the chemical substances contained in our products via MSDSplus.

We have sequentially updated our SDS and labeling to remain in compliance with the revised Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., and the Industrial Safety and Health Law, as well as the revised Japanese Industrial Standards (JIS).

Efforts to Reduce Complaints/Nonconformity Products

Because we position quality-related nonconformity (complaints/deviation) as an important issue for securing quality, we check any description of nonconformity, determine the cause and verify the corrective action and its effectiveness. We also attempt to handle any product complaints we have received quickly, adequately and in good faith.

Information on complaints and nonconformity is managed centrally via the Company's intranet, and we implement measures to prevent recurrences and/or similar occurrences and monitor related actions. Each production branch sets a goal for reducing the number of complaints/nonconformity cases and monitors progress. In FY 2016, the Company evaluated the effectiveness of corrective measures to date as a priority issue for reducing complaints and quality nonconformity. At the same time, we strengthened quality improvement actions by Quality Review Meetings in each department. As a result, in FY 2016, we recorded the lowest ever number of complaints. In the years to come, we will make progress in reducing the number of nonconformity cases by further ingenious efforts.

Important Issue 2 Research and Development

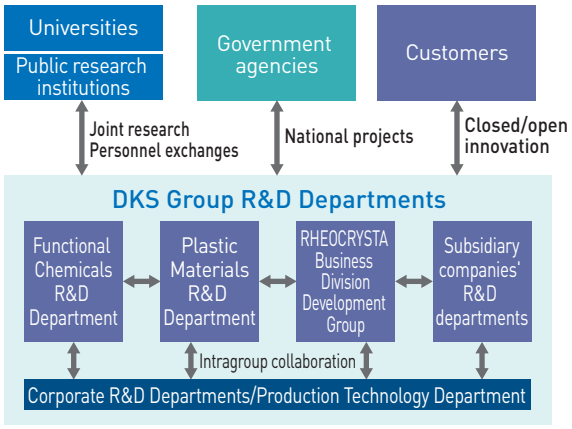
Efforts in R&D—DKS's Foundation That Underpins Strategies

As an 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 development of electronic materials and rock-hardening agents for tunnel construction, expansion of the sugar derivatives business, product improvement in areas peripheral to our existing business and R&D for high-value-added products. With innovative wisdom and technologies, we are pursuing "Chemistry provides a solution" in every industry and developing products that can contribute to a sustainable society.

R&D System

Starting in FY 2016, we reformed the R&D departments under the business divisions: the Functional Chemicals R&D Department, which mainly conducts development for the Surfactants and Amenity Materials segments; the Plastic Materials R&D Department, which is responsible for development of products for the Polyurethane and Functional Materials segments; and the RHEOCRYSTA Business Division's Development Group, which develops cellulose single nanofibers that have been successfully practically applied for the first time in the world. In the Electronic Materials segment, the Plastic Materials R&D Department and the subsidiary companies' R&D departments cooperate to focus on new developments. Support for the business divisions comes from the divisional R&D departments, which are responsible for developing Companywide research topics, new businesses and new technologies, and the Production Technology Department, which engages in the creation of and innovation in production technologies. We are working to accelerate R&D through collaboration not only within the Group but also with customers, universities and public research institutions.

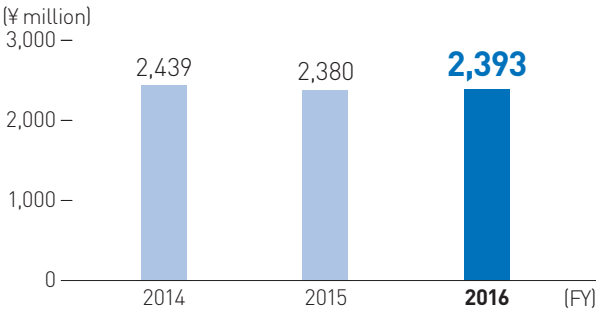
R&D System Diagram



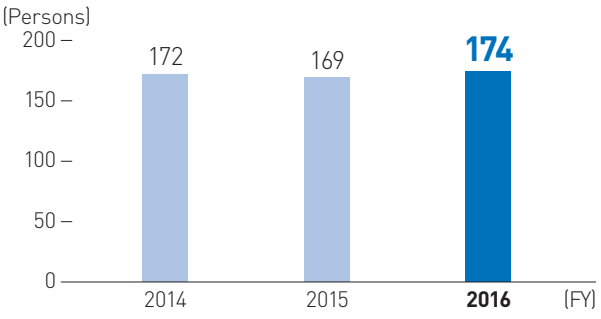
R&D Investments

In FY 2016, the total expenses required for R&D amounted to ¥2,393 million, which represented 4.6% of net sales. The total number of R&D personnel of the Company and the domestic subsidiary companies was 174, which was equivalent to around 18% of all employees (as of March 31, 2017).

R&D Costs



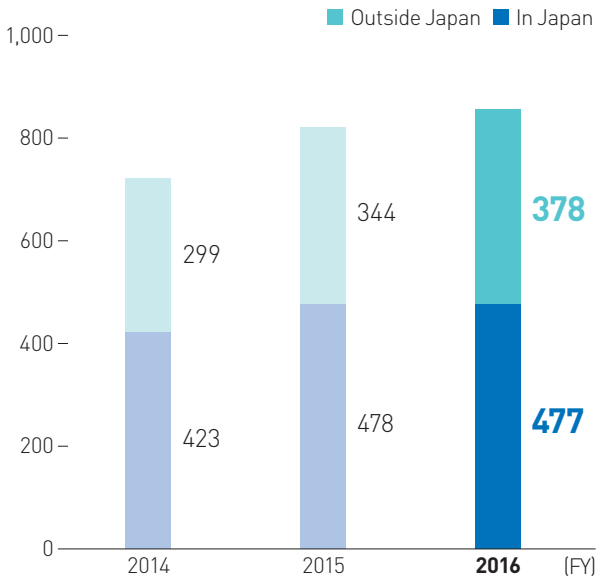
Research Personnel



Number of Patents Obtained

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

Number of Patents Held



*The collation method was amended to a legal effective date basis from FY 2016.

Our Products and Technology Development

Eco-Friendly Products and Technology Development

We supply products that meet environmental requirements, including global warming prevention, energy and resource saving, environmental protection and prevention of environmental pollution, and engage in the development of related technologies.

Environmental Requirement	Functions & Features	Our Product Lineup & Technology/Application	
Global Warming Prevention	Clean energy	Lithium-ion batteries	
		CELLBINDER Series	Binder for lithium-ion batteries
		ELEXCEL ACG Series	Gel polymer for lithium-ion batteries
		DD-1200C Series	Conductive paste for solar cells (lead-free)
	Halogen-freeness	DK BE-CLEAR Series	Waterborne detergents
		DK POLYOL 3000 Series	HFC[1] -free water-reactive polyols for urethane foams and insulating materials
Energy & Resource Saving	Energy efficiency	COLOURSOL CT-171D	Dye accelerating/leveling agents for polyester
		NEW FRONTIER Series	Solvent-free UV/EB-curable monomers/adhesives, coating agents
		DK SYSTEM NF Series	HFC-free systems for rigid polyurethane foams and insulating materials
	Effective resource utilization Extension of life span	Slag anti-solidification agents	
		ELEXCEL IL Series	Ionic liquids/energy device materials
		EIMFLEX Series	Polyurethanes for electric insulation/sealants
Environmental Protection, Prevention of Environmental Pollution	Eco-friendliness	NOIGEN XL Series, NOIGEN TDS Series	Nonionic surfactants/emulsifiers, cleaning agents
		RHEOCRYSTA Series	Cellulose single-nanofiber water dispersion thickener
		AH212	Organic alkaline agents
	VOC[2] reduction	SUPERFLEX Series	Polyurethane water dispersions and paints, coating, binders
		EIMFLEX WF Series	Waterborne polyurethanes for electric insulation/sealants
		ELASTRON Series, ELASTRON BN Series	Thermoreactive polyurethane water dispersions, binders, adhesives
		NEW FRONTIER Series	Solvent-free UV/EB-curable monomers/adhesives, coatings
	Reduction of environmental impact	HITENOL Series, NOIGEN Series	Polymerizable surfactants, emulsifiers for emulsion polymerization
		TRIBIO Series	Polylactic acid modifier agent
	Removal of contaminants	SEACLE N-800	Marine oil spill treatment agents
		DEOPELLET Series	Foul odor gas absorbents for absorption towers

1. HFC: Hydrofluorocarbons
2. VOC: Volatile organic compounds

Products to Meet Environmental Requirements

Having developed **RHEOCRYSTA**, a cellulose nanofiber product made from cellulose—a recyclable, eco-friendly material—DKS is advancing the development of applications that make the best use of its unique properties as a high-performance additive. We are also developing hydrophobic cellulose nanofibers dispersed in organic solvents to expand the scope of its applications.

DKS began to manufacture and sell **HITENOL** and **NOIGEN** Series polymerizable surfactants in the 1980s. Such eco-friendly products as water-based paints and adhesives, which have been popular in recent years, offer excellent water resistance and adhesiveness. The new **HITENOL AR** Series products offer excellent copolymerization qualities with a wide range of monomers and improve the water resistance of and inhibit the formation of bubbles in paints and adhesives.

Important Issue 3 Human Resource Management

Securing Superior Human Resources, Ensuring Diversity

Human Resource Philosophy
Respect for Humanity

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

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

Human Resource Development Policies

1. Development of Professional Workers

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

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

2. Development of Autonomous Personnel

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

Respect for Human Rights and Diversity

▶Efforts to Prevent Harassment

We are trying to prevent harassment through, for example, educational programs in hierarchical training courses. Several persons are selected as contacts, even from outside the Personnel Department, so that anyone can easily find someone to talk to and get advice from, and in addition, whistleblower portals in and out of the Company are in place.

▶Work-Style Reforms

●Work-Life Balance

We promote well-balanced work and home/family lifestyles, and various benefit programs are in place. Every worker, as a corporate citizen, should be able to work all the time with enthusiasm and enjoyment, including our Chairman, Mr. Sakamoto, who also chairs the Kyoto Labor Standards Association. For FY 2016, the actual ratio of annual paid leave taken was 62.4%. In the years to come, we will promote initiatives toward achieving 70%, which is the target by the Cabinet Office.

▶Promotion of Employee Participation and Advancement

Having set up an Employee Participation and Advancement Promotion Committee chaired by the Company chairman, we are aiming for a human resource group capable of successfully contributing to improvements in Company performance. We aim to create an environment in which we can maximize the abilities of diverse employees, including women, seniors and people with disabilities, and enable them to take an active part.

●Promotion of Women's Participation and Advancement

In addition to an environment that facilitates many and continuous working years for women, in the years to come we will maintain a work environment that enables women to develop their careers and implement measures aimed at having 7.0% or more of managerial positions occupied by women. As of the end of April 2017, the ratio had risen to 6.3% compared with 5.3% as of the end of April 2016.

●Retiree Reemployment System

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

●Employment of People with Disabilities

We are actively working to create opportunities for people with disabilities to play active roles in the workplace according to their individual abilities and aptitudes.

Human Resource Development/Education

▶Global Human Resource Development

We are undertaking a variety of projects based on the DKS Group's globalization strategy.

In recent years, our efforts have focused on accepting, on a short-term basis, local staff of overseas bases at domestic departments in Japan, the active recruitment of non-Japanese exchange students, and the conducting global skill training sessions geared toward employees ranging from the young to those in mid-level positions. We are also actively involved in other initiatives, such as study abroad programs, in-house language programs and select training sessions for local staff managers.

We will continue to accelerate the globalization of the DKS Group.

▶Education Courses

Education programs for our employees are supported by three pillars: in-house on-job training, external education to learn skills and abilities, and assisting self-development. We make use of our Shichijo Sembon Main Branch, the location of the Company's founding, and the new Kasumi Plant at the Yokkaichi Branch as the venues for education and training. We have enhanced systems to support the capacity building of employees by, for example, promoting and subsidizing schooling and qualification acquisition. The entire Company is putting efforts into human resource training.

General view of a training session

Efforts in Health Management

Health Declaration

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

Efforts in Health Management

▶Mental Healthcare

As one measure to assist in the mental healthcare of our employees, we have introduced a consultation service staffed by clinical psychotherapists, industrial counselors and industrial healthcare staff. In FY 2016, we maintained a mental health checkup participation ratio of 100%. Everyone, including all part-time workers, is eligible to undergo the checkup.

We also conduct mental health education, based on an annual plan, for all employees.

▶Enhancement of Health Management

We conduct health checkups that exceed the statutory requirements. The health checkup participation rate, the re-checkup participation rate and the health guidance implementation rate all stand at 100%. The resulting diagnoses of physical and mental health checkups are reported and discussed at the Safety and Health Meeting and the SHMS Committee, which involve management. An education program regarding preventive measures against lifestyle-related diseases is implemented for all employees.

For employees who work long hours, we have established our own standards that exceed the statutory requirements and have industrial physicians conduct interviews with all of them.

Employees acquire a qualification to be instructors in Automated External Defibrillator (AED) training, and training sessions are held with the cooperation of local fire departments. We cooperate with the Japanese Red Cross Society and conduct in-house blood donation drives.

▶Improvement of Working Environments

We are continuing the Company's own workplace environment improvement activities not only at manufacturing sites but also in administrative departments.

▶Acquisition of Health Management Ratings

In FY 2016, we acquired a health management rating from the Development Bank of Japan Inc. As this was the first time a business in the manufacturing industry in Kyoto acquired such a rating along with an environmental rating, the achievement was noted by the media.

DBJ health management rating certificate

The purpose of acquiring the rating is to assess Company efforts through the eyes of external organizations, which will lead to further improvements in the years to come.

Communication with Employees

▶Holding of "Festa"

We hold Festa, which are festivals for each region, to promote the good health of employees and their families and broad exchanges. Elaborately planned events, such as barbecues, bowling, chartered trains and large sporting activities, are useful in facilitating active inter-departmental and intergenerational communications.

▶Information Transmission inside the Company

Publishing the in-house newsletter "DKSCOM" every other month, our Public & Investor Relations Department works to instill the management policies and visions, as well as to foster communications within the Company. Feedback is also taken into consideration in planning the newsletters so that information can be disseminated and clearly understood by all employees in a timely fashion.

Important Issue 4 Consideration for the Environment

Basic Philosophy and Basic Policies for Environmental and Safety Practices

Basic Philosophy

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

Basic Policies

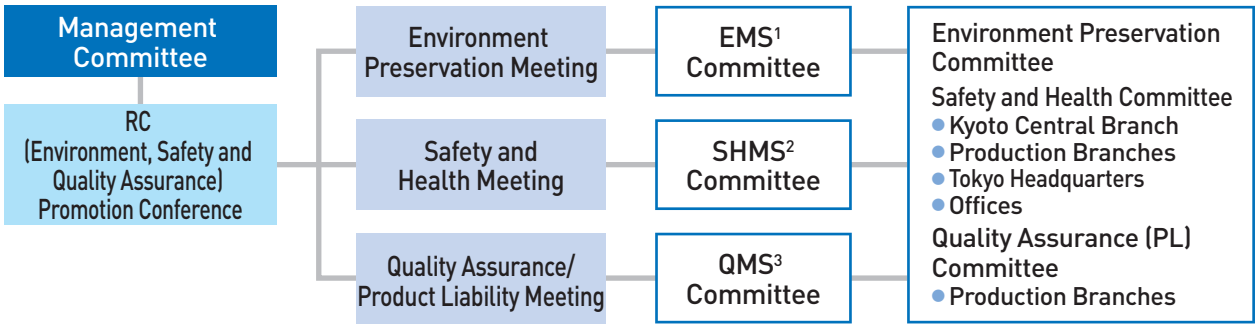
(1) Throughout the life cycle of each product from development to scrapping, we evaluate and minimize the impact of business activities on the environment and make the best efforts to preserve the environment.
(2) We aim at accident- and disaster-free operations to secure the safety of both local communities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

Responsible Care (RC) Activity Promotion System

We set up the safety and environment philosophy, basic and action policies, based on which we promote our corporate activities related to quality, safety and the environment. Such issues are discussed and decided by the RC Promotion Conference, which is the top decision-making body and is chaired by the president.

Moreover, we regularly hold environmental preservation meetings, safety and health meetings and quality assurance/product liability meetings chaired by the quality, safety and environment personnel and joined by the production branch general managers and relevant department managers. In these meetings, corporate targets, action plans and results are discussed to promote the RC activities. Under each of these meetings is a committee to make, implement and evaluate specific action plans for continuous improvements.

● RC Promotion System Diagram



1. EMS: Environmental Management System
2. SHMS: Safety and Health Management System
3. QMS: Quality Management System

Management Systems

The Company promotes the comprehensive safety management of chemical substances based on the RC Code, which consists of the seven management systems stipulated based on Japan Chemical Industry Association (JCIA) policies: environmental conservation, safety and disaster prevention, occupational safety and health, logistics safety, chemical product/product safety, dialogue with society and management system. In addition, the Company is working on improvements in environmental conservation and quality, using environmental ISO and quality ISO standards as tools.

Observation of Environmental Laws and Regulations

Environmental risk management is an important measure to minimize environmental risks and/or consequent damages caused by risks. We comply with environmental-related legislation and regulations and agreements with local municipal governments, based on the Declaration of Action by Board Members and Employees. All our production sites in Japan are regularly checked for environmental compliance in accordance with the ISO 14001–based environmental management system. Up-to-date information on legislation is checked and understood on a timely basis and disseminated internally to ensure compliance. Recently, education programs using an e-learning system have started.

Environment-Related Complaints

In FY 2016, we received one complaint relating to a bad smell. We promptly took emergency action, immediately investigated the cause and examined remedial measures. As a result, we concluded that drastic measures were necessary to ensure the prevention of a recurrence and are in the process of gaining the understanding of local residents.

Environmental Accounting

In FY 2016, the DKS Group's investment for environmental-related systems was spent mainly in the field of resource recycling. We incurred comparatively high environmental conservation-related costs in environmentally responsive R&D. The economic benefits therein include profits on the actual sales of valuable resources and the amount of cost savings, and are not based on estimated economic benefits.

Investments and Costs of Environmental Protection Activities

Category	Main Activities	Investment (Millions of yen)	Costs (Millions of yen)
Costs within the plant premises	Air/water/other pollution prevention	15.6	153.8
	Global environment preservation, energy saving	6.0	66.3
	Resource recycling, resource saving, waste treatment/disposal	2,000.4	361.3
Upstream/downstream cost	Lowering environmental impact in containers/packaging	0.0	0.6
Administrative cost	ISO acquisition/completing surveillance audits, greening branch premises	8.0	41.9
R&D cost	Environmentally responsive R&D	0.0	489.5
Social activity cost	Providing support grants for environmental protection to environmental preservation groups or local communities	0.3	1.7
Environmental damage cost		0.0	0.0
Total		**2,030.3**	**1,115.1**

Economic Effects Generated by Environmental Protection Measures

Category	Main Activities	Cost (Millions of yen)
Profit on sale of valuable resources	Profit on sale of metal scrap, waste oil and waste alkali, etc.	5.8
Amount of cost savings through energy saving	Amount of cost savings in electric power and fuels	0.0
Amount of cost savings through resource saving	Amount of cost savings through reduction of water use/waste	2.8
Total		**8.6**

FY 2016 Activity Targets and Results, FY 2017 Activity Targets

Evaluation A: Significant result B: Result in line with the target C: Target remains unachieved

Target Parameter	Management Items	FY 2016 Activity Targets	FY 2016 Results	Evaluation	Refer to Page	FY 2017 Activity Targets
Promotion of energy saving	Energy consumption per unit	1% improvement compared with FY 2015	8.6% increase compared with FY 2015	C	P. 40	1% improvement compared with FY 2016
Reduction of GHG* emissions	CO_2[1]	29.5% reduction compared with FY 2005 on average from FY 2016 to FY 2019	26.6% reduction in FY 2016 compared with FY 2005	C	P. 40	29.5% reduction compared with FY 2005 on average from FY 2016 to FY 2019
Reduction of industrial waste	Waste generation per unit	1% improvement in the fiscal year rate of nonconsolidated DKS[3]	22.7% increase compared with the previous fiscal year	C	P. 41	1% fiscal year rate improvement in non-consolidated DKS
	Final disposal rate[2]	3.5% or less in FY 2019	5.9%	C		3.5% or less in FY 2019
Reduction of environmental impact substance emissions	SOx emissions	Emission/discharge control of environmental pollutants in the air	13.3% reduction compared with FY 2015	A	P. 41	Emission/discharge control of environmental pollutants in the air
	NOx emissions		4.9% increase compared with FY 2015	C		
	Dust emissions		6.0% increase compared with FY 2015	C		
	Water discharge	Emission/discharge control of environmental pollutants in water	0.8% increase compared with FY 2015	C		Emission/discharge control of environmental pollutants in water
	COD emissions		37.3% increase compared with FY 2015	C		
Proper management of chemical substances	PRTR Law–designated substances emissions	Emission reduction of PRTR Law–designated substances	22.5% reduction compared with FY 2015 3% increase	A	P. 40	Reduced emissions of PRTR Law–designated substances
Promotion of green procurement		Promoting the green procurement ratio of office supplies	45.2%, decreased 6.3 percentage points compared with FY 2015	C	—	Improvement of the green procurement ratio of office supplies
Elimination of disasters/accidents		No occupational accidents (days away from work)	Zero cases occurred	B	Posted on our website	No occupational accidents (days away from work)
		Eliminating severe accidents associated with production facilities	No accidents occurred	B		Elimination of severe accidents involving production facilities
Environmental management system		Promotion of an environmental management system	Maintained	B	P. 38	Promotion of an environmental management system

1. Derived from energy in the production and administrative sectors
2. The ratio of the final disposal amount to the generated waste amount
3. We have decided not to set numerical targets for the Group until the method of recycling sludge newly generated from the wastewater treatment plant is established at a subsidiary company.

*GHG: Greenhouse gas

Important Issue 4 Consideration for the Environment

Global Warming Prevention (Energy Saving)

In FY 2016, energy consumption in the DKS Group amounted to 25,200 kl, a 4.5% increase compared with the previous fiscal year, and energy consumption per unit increased 8.6%, which means that we were unable to achieve our fiscal year targets. An increase in energy consumption due to the operation of a new facility and a decrease in production volume (down 3.7%) due to a change in product composition were major contributory factors. We also recorded 52,500 tons of carbon dioxide emissions in FY 2016, a 3.0% increase compared with the previous fiscal year, but a 26.6% reduction compared with FY 2005, meaning that the first-year medium-term target was not reached.

We will continue to work to improve the efficiency of our energy use toward the achievement of our medium-term targets.

Targets and Performance in FY 2016

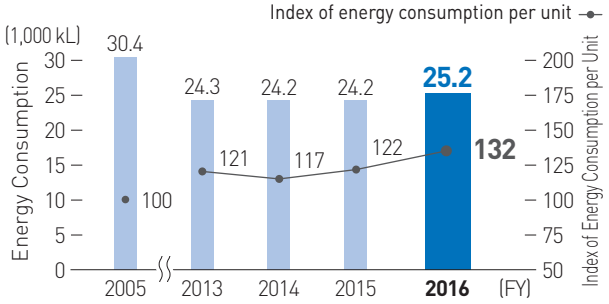
Evaluation A: Significant result B: Result in line with the target C: Target remains unachieved

Target Parameter	Management Items	Activity Targets	Performance in FY 2016	Evaluation
Promotion of energy saving	Energy consumption per unit	1% improvement compared with FY 2015	8.6% increase compared with FY 2015	C
Reduction of GHG* emissions	CO_2	29.5% reduction compared with FY 2005 on average from FY 2016 to FY 2019	26.6% reduction compared with FY 2005 in FY 2016	C

*GHG: Greenhouse gas

Changes in Energy Consumption

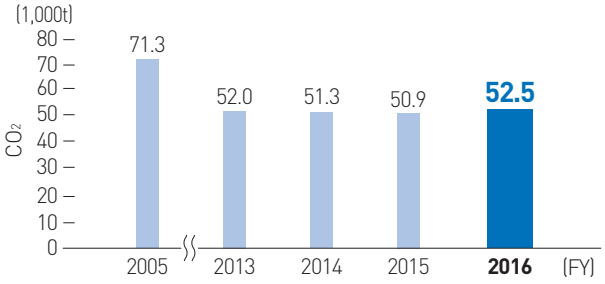
(Yokkaichi, Ohgata, Shiga, administrative sectors, domestic affiliates)



Notes: 1. Index of energy consumption per unit [2005 = 100]
2. Domestic subsidiaries include Yokkaichi Chemical, Kyoto Elex and Dai-ichi Ceramo.

Changes in CO_2 Emissions

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



Note: Carbon dioxide emissions in administrative sectors include fuels for Company cars.

Proper Management of Chemical Substances

The DKS Group had a total of 65 notification substances under the PRTR Law in FY 2016. The total amount of emissions was 50.6 tons, which resulted in a 14.7-ton (22.5%) decrease compared with the previous year. The breakdown was 50.1 tons to air, 0.54 tons to water and none to land.

In FY 2016, the amount of waste transfer recorded was 283.6 tons, a 9.1-ton (3.1%) reduction compared with the previous fiscal year due to the use of recycled solvents and changes in the variety configuration. We will advance improvements in production processes and the introduction of recovery equipment, while continuing to make efforts to reduce the emissions/discharge of PRTR substances into the environment.

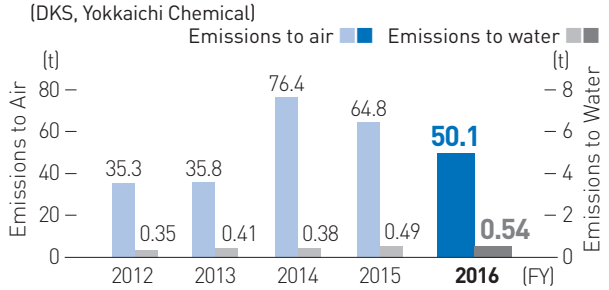
Targets and Performance in FY 2016

Evaluation A : Significant result B : Result in line with the target C : Target remains unachieved

Target Parameter	Management Items	Activity Targets	Performance in FY 2016	Evaluation
Proper management of chemical substances	PRTR Law-designated substances	Emission reduction of PRTR Law-designated substances	22.5% reduction compared with FY 2015	A

Changes in Emissions of PRTR Law-Designated Substances

(DKS, Yokkaichi Chemical)



Notes: 1. The numerical values show the total amount for DKS and Yokkaichi Chemical.
2. For the emission amount of notification substances under the PRTR Law in FY 2016 (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/download/index.html

Reducing Emissions of Environmental Impact Substances

Air Pollution Prevention

Compared with the previous fiscal year, the DKS Group's air-pollutant emissions in FY 2016 showed a 13.3% reduction in SOx emissions and increases in NOx and dust emissions of 4.9% and 6.0%, respectively.

We will move ahead with facility improvements and studies of operational methods with the aim of making further energy-efficiency enhancements.

Water Pollution Prevention

In FY 2016, the DKS Group recorded 3,908,000 cubic meters in the amount of water discharge, a 0.8% increase compared with the previous year, and 25.9 tons of COD emissions, a year-on-year increase of 37.3%. We will continue to make efforts to reduce the water discharge and COD emission amounts by, for example, conducting reviews of our production processes and optimizing the operation methods at our effluent treatment facilities.

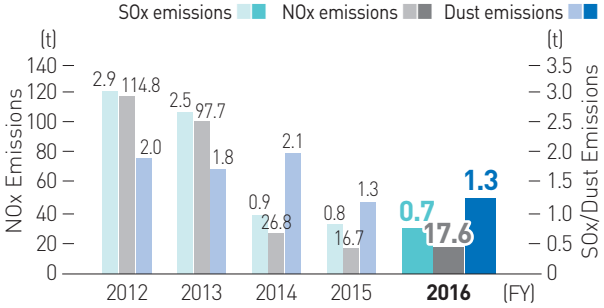
Targets and Performance in FY 2016

Evaluation A: Significant result B: Result in line with the target C: Target remains unachieved

Target Parameter	Management Items	Activity Targets	Performance in FY 2016	Evaluation
Reduction of environmental impact substance emissions	SOx emissions NOx emissions Dust emissions	Emission/discharge control of environmental pollutants in the air	13.3% reduction compared with FY 2015 4.9% increase compared with FY 2015 6.0% increase compared with FY 2015	A C C
	Water discharge COD emissions	Emission/discharge control of environmental pollutants in water	0.8% increase compared with FY 2015 37.3% increase compared with FY 2015	C C

Changes in SOx, NOx and Dust Emissions

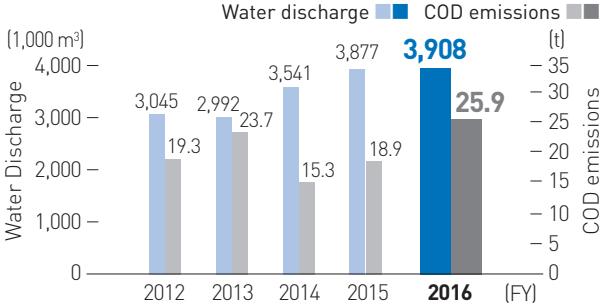
(Yokkaichi, Ohgata, Shiga)



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

Changes in Water Discharge and COD Emission Amounts

(Yokkaichi, Ohgata, Shiga, Yokkaichi Chemical)



Waste Reduction

The amount of waste generated by the DKS Group in FY 2016 amounted to 17,364 tons, an increase of 4,172 tons compared with the previous fiscal year. The waste generation per unit result was 22.7% worse (an increase) than the previous fiscal year, and thus we were unable to achieve our target of a 1% improvement (decrease) in the annual rate. The recycling rate was 91.6%, which marked a 4.1-percentage-point deterioration (decrease) compared with the previous fiscal year. The final disposal amount was 1,023 tons, representing a significant year-on-year increase. One contributory factor was that not all the sludge generated was recycled until a new facility was operating stably, and thus final disposal was fully carried out. For that reason, the final disposal rate was 5.9%, a deterioration (increase) of 4.5 percentage points compared with the previous fiscal year. In the year ahead, we will move ahead with a review of our sludge recycling and work to reduce the final disposal amount.

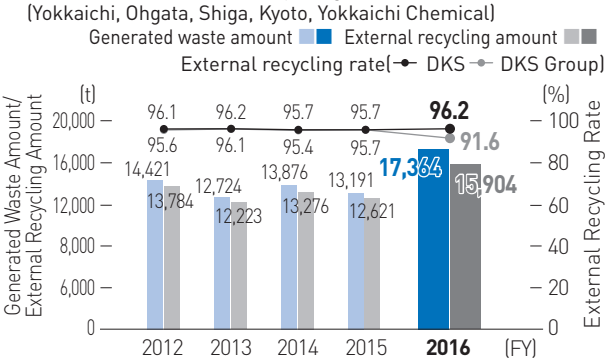
Targets and Performance in FY 2016

Evaluation A: Significant result B: Result in line with the target C: Target remains unachieved

Target Parameter	Management Items	Activity Targets	Performance in FY 2016	Evaluation
Reduction of waste	Waste generation per unit	1% improvement in the fiscal year rate of non-consolidated DKS	22.7% increase compared with FY 2015	C
	Final disposal rate	3.5% or less in FY 2019	5.9%	C

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

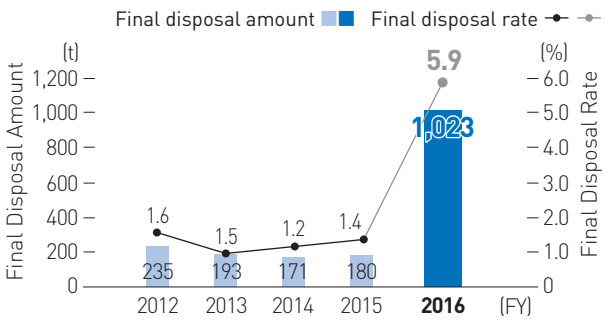
(Yokkaichi, Ohgata, Shiga, Kyoto, Yokkaichi Chemical)



Note: Domestic subsidiaries include Yokkaichi Chemical and Kyoto Elex.

Changes in Final Disposal Amount and Final Disposal Rate

(Yokkaichi, Ohgata, Shiga, Kyoto, Yokkaichi Chemical)



Note: The ratio of the final disposal amount to the generated waste amount

Important Issue 5 Responsibility as a Global Company

Corporate Governance

Basic Concept

We are operating the 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 were the founders' spirit.

To aim for the establishment of a management base that can gain and maintain the trust of society, as well as to conduct transparent and fair corporate activities that are rooted in corporate social responsibility (CSR), we pursue higher governance as management policy and position it as one of our most important tasks. Specifically, we established a basic policy for the internal control system in 2006 and keep revising it.

Through these practices, we will strengthen our management base so that we can earn high trust from all stakeholders, including our customers and society. We also believe it is important to conduct corporate activities with transparency and fairness rooted in CSR.

To continuously enhance corporate value, we will establish a management base that can earn the trust of society. In addition, we have established and are working to strengthen a corporate management system and other corporate governance systems that support our corporate activities.

Status and Features of Governance

We make all management decisions within the Board of Directors, which includes outside directors. We discuss in advance all matters to be brought to the Board of Directors at the Management Committee, while ensuring that we comply with laws and regulations, as well as our articles of incorporation, and that decisions are made rationally.

We are a company with an audit & supervisory board, the members of which include in-house and outside members. Audit & Supervisory Board members ask directors and employees to submit the reports necessary for auditing the execution of duties—such as management plan status reports, decisions made by the representative directors, situations relative to managing the risk of loss and important changes to accounting policies. The full-time audit & supervisory board members attend meetings of the Management Committee, the Risk Management Control Committee and the Compliance Control Committee, while conducting daily audits. Regarding important audit-related issues, Audit & Supervisory Board members exchange opinions during regular meetings with the representative directors, with whom they strive to deepen a mutual understanding and relationships of trust.

The auditing of accounts is performed by our accounting auditor, KPMG AZSA LLC, with audit & supervisory board members present on an as-needed basis. We also have established the Outside Executive Meetings as a mechanism to utilize the opinions of outside directors and outside audit & supervisory board members in management. In addition to securing opportunities for proposals from outside directors, through these meetings we are working on collaboration between outside directors and our management team through the exchange and sharing of information. Having also established an Internal Audit Department as a system for verifying the internal control system relative to financial reports, we collaborate with audit & supervisory board members and the accounting auditor.

Status of Response to the CG Code

Regarding the status of our compliance with the Corporate Governance Code, which covers the code of conduct to which publicly listed companies should adhere, we are completely in compliance with the exception of the following four principles.

▶ Each Corporate Code of Conduct Principle with which DKS Is Not in Compliance and Reason for Non-Compliance

【Supplementary Principle 1-2-4】
On the basis of our shareholder composition and the shareholding ratio of overseas investors, we have decided that it is not necessary for us to use the electronic exercise of voting rights or provide an English translation of the Notice of Convocation at this time.

【Principle 1-4 Cross Shareholdings】
We conduct the verification of cross-shareholdings from a medium- to long-term perspective, comprehensively consider the purpose of ownership, rationality, investment amount, etc., and decide whether to make such investments. Regarding judgments on the exercise of those voting rights, we make comprehensive judgments on investment portfolio companies and, because we need to make qualitative and comprehensive judgments in accordance with individual shareholdings, we have not established unified criteria.

【Supplementary Principle 4-1-3】
The succession planning for the CEO and other top executives remains a most important matter for company continuity, and it is important to carefully judge evident and potential management ability. We therefore judge that it is appropriate for our Company to make it a matter solely for the chief executive officer, who is familiar with the inner workings of the Company.

【Supplementary Principle 4-11-3】
As a result of our efforts to analyze and evaluate the effectiveness of the Board of Directors as a whole, with regard to the effectiveness of the Board of Directors, including the appropriateness of the number of Board of Directors' meetings, the matters to be discussed, content, etc., by the directors, including outside directors, and audit & supervisory board members, we have been credited for efforts that are generally thought adequate and judge that the effectiveness of the entire board of directors is being maintained. As providing a summary of these analyses and evaluation results would concern internal confidentiality, we will not disclose their current status.

Executive Remuneration

▶Approach to Executive Remuneration

Executive remuneration consists of normal monetary remuneration and monetary compensation that provides a bonus for the granting of restricted stock compensation.

- Based on the size of the role for which each director is responsible and his or her position, we set the amount of the normal monetary compensation to a maximum monthly amount of ¥22 million (equating to ¥264 million per annum; which does not, however, include the wage salaries of individuals serving concurrently as employees and executives), as determined by resolution of the 141st Ordinary General Meeting of Shareholders held on June 29, 2005. Changes based on performance evaluations of the Company as a whole in the previous fiscal year are made once a year and changes based on performance evaluations of the division of which each director is in charge of twice a year and decided within a certain range. In the case of outside directors, however, we have set a predetermined amount.

- Based on the size of the role for which each director is responsible and his or her position, we set specific allocations for the monetary compensation that provides a bonus for the granting shares with restriction on transfer to a maximum of ¥100 million per annum (of which the portion for outside directors shall be ¥6 million or less per year, and which does not include the wage salaries of individuals serving concurrently as employees and executives), as determined by the resolution of the 153rd Ordinary General Meeting of Shareholders held on June 27, 2017. In addition, the total number of shares of common stock that the Company will thus issue or dispose of is to be up to a maximum of 500,000 shares per annum.

  Audit & supervisory board member remuneration consists of normal monetary remuneration and monetary compensation that provides a bonus for the granting shares with restriction on transfer.

- By resolution of the 141st Ordinary General Meeting of Shareholders held on June 29, 2005, we set the amount of the normal monetary compensation to a prescribed maximum monthly amount of ¥6 million (equating to ¥72 million per annum).

- By resolution of the 153rd Ordinary General Meeting of Shareholders held on June 27, 2017, we set specific allocations for the monetary compensation that provides a bonus for the granting shares with restriction on transfer to a prescribed maximum annual amount of ¥20 million. In addition, the total number of shares of common stock to be thus issued or disposed of will be up to a maximum of 100,000 shares per annum.

  In addition, we introduced a stock-linked compensation plan using stock with restriction on transfer from FY 2017. Besides executive directors, outside directors and audit & supervisory board members will also be eligible. Believing it important to attend to duties while remaining constantly aware of the interests of all shareholders, even if the content of the duties of officers responsible for the management of the Company differs according to law, this plan was presented and, after paying sufficient heed to the amount and allocation to be granted, passed by resolution of the 153rd Ordinary General Meeting of Shareholders. Regarding the result of the resolution, 65.58% and 55.03% were in favor of the plan for directors and audit & supervisory board members, respectively.

● Executive Remuneration (Fiscal year ended March 2017)

Executive Position	Total Remuneration (Millions of yen)	Total by Type of Remuneration (Millions of yen)			Number of Executives
		Basic Remuneration	Stock Options	Bonuses	
Director (excluding outside director)	209	209	—	—	11
Audit & supervisory board members (excluding outside audit & supervisory board members)	33	33	—	—	2
Outside executives	15	15	—	—	7

● Significant Portion of Salary Paid to Executive Directors Who Concurrently Serve as Employees (Fiscal year ended March 2017)

Total (Millions of yen)	Number of Executives	Details
53	6	Salary (including bonuses) as employees

Important Issue 5 Responsibility as a Global Company

Compliance

Basic Concept

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

Corporate Philosophy

The corporate philosophy around which the Company forms the basis of its actions is indicated in our Company credo, Company mottos and Code of Corporate Ethics; these are outlined in our Declaration of Action by Board Members and Employees. For employees to always be able to confirm the corporate philosophy, we have created and distributed to all persons working in the Company a pocket-sized Corporate Philosophy Handbook.

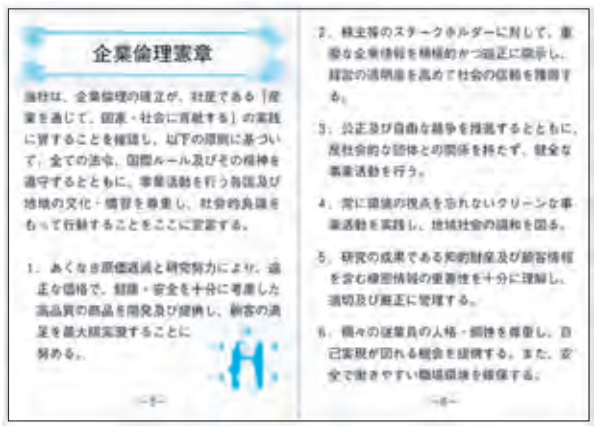
▶Code of Corporate Ethics

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

▶Declaration of Action by Board Members and Employees

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

Corporate philosophy handbook



Code of Corporate Ethics

▶Activities to Implement and Instill Compliance Practices

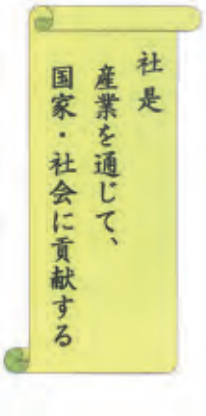
We have set up internal and external whistleblower hotlines that enable employees to consult and report on violations of laws and regulations. We also provide compliance assessments for each department, information such as commentary on various laws through the Company intranet, e-learning programs in a quiz format for the promotion of compliance awareness and knowledge consolidation. Since 2010, we have declared October every year to be Corporate Ethics Month, and we are carrying out activities to establish and instill the theme. The theme for 2016 was information management, and we reviewed the information management system at our Company and carried out activities to enhance its management.

To ascertain the achievement and the degree by which these compliance activities have been instilled, we conduct a Compliance Awareness Survey once a year for all employees, internally announce the results and try to extract the issues from employees so that these are addressed in the following fiscal year.

Company Credo

Company Mottoes

"October is a Corporate Ethics Month"



Company Credo

Risk Management (Risks and Responses to Them)

Basic Concept

Diverse and becoming more complex, the corporate risk surrounding the Company could result in increased adverse impacts on the Company itself, as well as on employees, shareholders, customers and local communities. We position risk management as an important issue for our management.

Risk Management

To address the risk surrounding the Company, we have established a Risk Management Control Committee composed of representatives of each department. Be they in Japan or overseas, we are working to operate and maintain crisis management systems on a daily basis so that we can obtain crisis information as soon as possible, ascertain the situation and take appropriate measures. To deal with potential and/or evident risks, we have taken several steps, including establishing Risk Management Procedures, Product Liability (PL) Prevention and Management Procedures and Information Security Rules. Major activities implemented in FY 2016 were a review of Company car management procedures; measures against information leakage risks and calling the entire Company's attention to them; the extraction of individual risks in each branch/department and approaches to continuous improvement; occasional reviews of and improvements to the Business Continuity Plan (BCP) covering earthquake countermeasures; and risk management responses for employees who are on overseas business trips or on assignment overseas. In addition to developing training that simulates an actual disaster, we will further promote knowledge to enhance our BCP measures and raise risk management awareness.

Business Continuity Plan (BCP) and Earthquake Countermeasures

Every year, the Risk Management Control Committee repeatedly conducts well-planned safety confirmation training exercises in all departments in preparation for the unlikely event of an earthquake and works to improve and raise knowledge of crisis awareness. As with past years, in FY 2016 we occasionally conducted training, by department or on a Companywide basis, to confirm people's safety using mobile phones and in situations in which there was no management present, as well as safety confirmation drills for establishing contact from offsite business locations. Our Company created the pocket-sized Manual on Major Earthquake Countermeasures, which summarizes emergency measures to be taken when an earthquake occurs. The manual was distributed to all employees to thoroughly familiarize them with the standards of behavior and safety confirmation methods required in an emergency.

In FY 2017, we will continue to conduct well-planned safety confirmation training exercises in each department and the entire Company. As disaster prevention measures, we will also devise BCP initiatives, deploy them in our Business Continuity Management (BCM) and promote initiatives for business continuation.

Manual on Major Earthquake Countermeasures

Information Security

Now forming an important foundation of the economy and in society, the role of IT controls is increasingly significant. Having established an information security policy, measure standards and implementation procedures, we are building a system to ensure information security against information system risks, such as cyber terrorism and information leaks. Recognizing the importance of the internal control system, we are also working with the Financial Reporting Control Committee, the IT System Control Committee and the Internal Audit Department.

Management (as of June 27, 2017)

Board of Directors

SAKAMOTO Takashi

Chairman CEO

AKASE Yoshinobu

Representative Senior Managing Director
Executive General Manager in charge of Business Headquarters

URAYAMA Isamu

Managing Director
Executive General Manager in charge of Financial Headquarters

ONISHI Hideaki

Managing Director
Executive General Manager in charge of R&D Headquarters

FUJIOKA Toshinori

Director
Executive General Manager of RHEOCRYSTA Business Division (Business Headquarters)

KITADA Akira

Director
Executive General Manager in charge of Production Control Headquarters, Environment, Safety & Quality Affairs

IWAISAKO Koichi

Director
Executive General Manager of Domestic Subsidiaries Division (Business Headquarters), President of Osaka Branch

OKAMOTO Osami

Director
Executive General Manager of Plastic Materials Business Division (Business Headquarters), in charge of Tokyo Headquarters

YAMAJI Naoki

Director
Executive General Manager in charge of Corporate Planning Headquarters, COO Office, Personnel & General Affairs Headquarters

Board of Directors

AOKI Sunao

Director (outside)

TATARA Hiroshi

Director (outside)

TAKASHIMA Masahiro

Director (outside)

TANIGUCHI Tsutomu

Director (outside)

Audit & Supervisory Board

NISHIZAKI Shinichi

Audit & Supervisory Board Member

SEKIGUCHI Hisashi

Audit & Supervisory Board Member

IDE Hidehiko

Audit & Supervisory Board Member (outside)

TANAKA Haruo

Audit & Supervisory Board Member (outside)

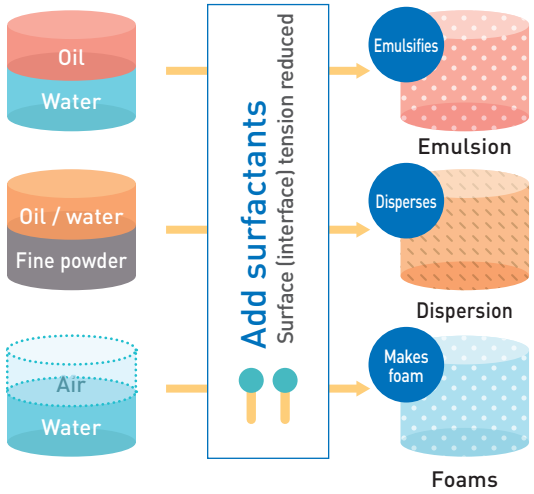
Fundamental Knowledge of Surfactants

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.

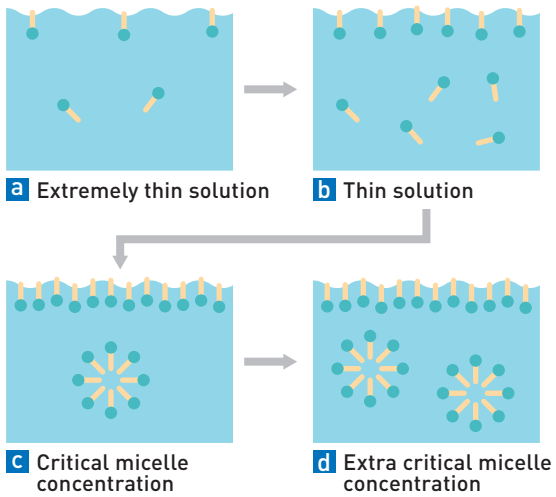
1 Basic Structure of Surfactants

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 micelle (spheres).

Functions of surfactants by reducing surface tension



Surfactant molecular structure



2 Surfactant Types

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

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

3 Main Actions and Applications

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

4 Environmental Impact of Surfactants

Domestic wastewater contains surfactants. Most such wastewater is collected and treated at public sewage treatment plants and released to the environment although some could 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
Antioxidant	An additive used to prevent oxidation and deterioration caused by exposure to oxygen in the air.
Antistatic agent	A compound to prevent the electrification of synthetic fibers and plastics caused by static electricity, for which a surfactant is mainly used. It is applied to the surface of target materials by spraying and lets static electricity escape.
BCP	An abbreviation for Business Continuity Plan through which, in the event of a disaster or other crisis, companies do not allow critical operations to go offline. Even if business activities are unavoidably interrupted, important functions will be restarted within the recovery time objective, and to minimize the risks involved in interrupted operations strategic preparations for continuing business are carried out in advance.
CELLOGEN	DKS brand of Sodium Carboxymethyl Cellulose (CMC) products. They are a typical anionic water-soluble polymer made from cellulose, widely used as a thickener, stabilizer, emulsion/dispersion stabilizer, protective colloid and so on.
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 = a 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.
CMC	An abbreviation for Sodium Carboxymethyl Cellulose. *See CELLOGEN.
CNF	An abbreviation for Cellulose Nanofibers. *See cellulose nanofibers.
Cocoon unwinding agent	An agent to spin a silk yarn from cocoons.
COD emissions	COD is an abbreviation for Chemical Oxygen Demand, which refers to the chemical demand for oxygen. The value indicates the oxygen volume needed for oxidizing underwater objects, and is one of the major indicators used for water quality.
Conductive paste	A paste used to fix a sample on a stage or be applied on a test piece to make it conductive. Some of these products use silver particles or carbon black as a filler dispersed in resin, or others use colloidal graphite dispersed in water.
Cost per unit of energy	An indicator used to express energy efficiency. It indicates the total energy consumption (in forms such as electricity and heat) required to manufacture a certain volume or value of products. It is generally used to assess the progress of companies' energy conservation efforts. For example, if 1 billion kcal of energy is used to manufacture 100 million yen of value, the cost per unit of energy is 1 billion kcal / 100 million yen = 10 kcal / 1 yen. Accordingly, smaller values indicate high manufacturing efficiency, energy conservation and contributions to slowing global warming.
DKPM activities	DKPM is an abbreviation for DKS Productive Maintenance. With 5S (sorting, setting in order, shining, standardizing, and sustaining) as the foundation, these activities strengthen the company structure and develop the framework for management and improvement.
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
Feed binder	An additive to raise the viscosity of feed for domestic animals and fish.
Flame retardant	Depending on the usage environment, materials used in electric appliances, building materials and other household goods can cause a fire. To ensure our daily living stays safe, it is important to make these materials hardly flammable and minimize the release of smoke and other toxic substances. Flame retardant is a general term used to refer to the compounds used to achieve these goals.
Industrial clusters	An accumulation of specialized organizations, government agencies and incubator organizations for nurturing venture companies that support businesses, universities, research facilities, law offices and accounting firms in specific growing fields such as telecommunications, bio, medicine and the environment. The term *cluster* refers to structures such as the bunches that grapes grow in, and the goal of this concept is mutual competition and coordination between manufacturing and government agencies to promote technological innovation, develop new products and services, and improve manufacturing education and regional prosperity. The system is also called production corporation accumulation.
IoT logistics	IoT is an abbreviation for Internet of Things. IoT logistics involves attaching a sensor or other device to items in storage or transit (packages) and enables acquisition of real-time location information over the Internet, with the goal of improving logistics efficiency.
KPI	An abbreviation for Key Performance Indicators. These indicators are used to evaluate the extent to which set goals have been achieved.
Lubricant	When processing powder, solid, or granulated materials, lubricants are additives used to reduce the friction between both materials and processing machinery and the particles of the materials themselves. These compounds improve fluidity, releasability and processing efficiency.
Materiality	A term that refers to how essential something is. Originally, it referred to the general rule of importance in the accounting field for items that could have major effects on financial affairs. Recently, important issues in CSR activities are also identified as "materiality," and more and more companies are using this approach of conducting CSR activities and reporting the results.

Terminology	Description
MSDSplus	MSDS stands for Material Safety Data Sheet. MSDSplus is a common format to transfer information for the chemical components of products recommended by the Joint Article Management Promotion-consortium (JAMP). It contains information such as applicable laws/regulations, the presence or absence of controlled substances in the product, substance names, CAS numbers and concentration, and it is used to share information with downstream users.
Polymerizable surfactant	A surfactant used for emulsion polymerization (monomers are emulsified/dispersed in water where the emulsifier is dispersed and lets polymerization occur by a water-soluble catalyst).
Polyurethane	A general term for polymer compounds with urethane bonding, having high abrasion resistance, chemical resistance, solvent resistance and aging resistance. It can be used as a paint or an adhesive by dissolving in a solvent, or as fibers. Urethane foams obtained by aerating polyurethane are used for furniture and construction materials, as well as packing material and mattresses.
Polyurethane water dispersion	A liquid solution of polyurethane dispersed in water. *See polyurethane.
Precision detergents	A surfactant blend formulation used for cleaning precision parts of electric/electronic/precision machinery.
PRTR Law	Act on Confirmation, etc., of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof or Law concerning Pollutant Release and Transfer Register (Act No. 86, 1999).
Radiation-curable monomers and oligomers	A general term for resins that harden in response to specific light wavelengths, such as ultraviolet light. Low molecular weight compounds used when creating polymers are called monomers. Molecules with a chemical structure not as large as polymers and created through the repetition of smaller numbers of polymerization are called oligomers.
Recycling ratio	The ratio of disused and waste materials that are recycled and reused to conserve resources and prevent environmental pollution.
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.
RSPO	An abbreviation for the Roundtable on Sustainable Palm Oil. The RSPO is a nonprofit organization with voluntary membership that seeks to reform the market into one that considers sustainable harvesting to be a standard element of palm oil products. The organization is managed by palm oil industry personnel in seven different sectors.
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).
SE	An abbreviation for Sucrose Esters. Sucrose esters, or sugar esters, are a food additive. *See sucrose fatty acid esters.
Sealant for electric insulation	A material to seal precision components without gaps to avoid exposure to the air.
Shinbijon 2050 ("New Vision 2050")	A book by H. Komiyama and K. Yamada published in 2016. The subtitle states that we can overcome global warming and the low birthrate and aging population in Japan, and the content discusses science and technology predictions for 2050 based on a society with consideration for the environment.
Smile curve	A smile curve is a curve used in the electronics and industrial equipment industries to express a value-added structure. The value added by manufacturing and processing, which is located in the middle of the value chain, is the smallest, and the value added by R&D and sales/aftermarket service on the two sides is the largest. The resulting curve is called a smile curve because the shape is higher on the two sides and lower in the middle just like a smile.
Sucrose fatty acid esters	Approved food additive in Japan since 1959. The high safety of sucrose fatty acid esters is recognized by international organizations (FAO/WHO). They are a nonionic surfactant with sucrose as the hydroxyl group and fatty acid from an edible oil as the lipophilic group, used in many food products as emulsifiers.
SUS5	The management strategy of DKS. S for Smile: to raise profits through smile-curve technological development. U for Unite: to carry out development in close contact with customers. S for Straps: to tighten the roles of the bottom, middle and top parts of a shoe lace. 5: to carry out innovation of actions at a 5% R&D spending ratio.
Unit emission of industrial waste	Unit consumption refers to the quantities of production factors (e.g., raw materials, power, labor force) necessary to produce a certain quantity of a product. In the same way, we measure the waste generated by the production of a unit quantity of a product as an indicator of the Company's contribution to conservation of the environment.
Urethane foam	A porous synthetic rubber material made from polyurethane. Used for applications such as thermal insulating material, sound absorption material and bedding.
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.
Water-reactive (foaming) polyols	Products in our polyurethane materials business segment. POLYGROUT, the water stopping material for civil engineering, is a typical example.

Consolidated Balance Sheets

(Millions of yen)

Assets	2016	2017
Current assets		
Cash and deposits	9,401	**9,379**
Notes and accounts receivable - trade	13,253	**14,832**
Merchandise and finished goods	7,069	**6,692**
Work in process	41	**35**
Raw materials and supplies	1,689	**1,683**
Prepaid expenses	234	**245**
Deferred tax assets	332	**339**
Other current assets	1,991	**2,750**
Allowance for doubtful accounts	(7)	**(10)**
Total current assets	34,007	**35,947**
Non-current assets		
Tangible fixed assets		
Buildings and structures	22,528	**24,525**
Accumulated depreciation	(12,548)	**(13,170)**
Buildings and structures, net	9,980	**11,355**
Machinery, equipment and vehicles	29,862	**32,313**
Accumulated depreciation	(25,939)	**(26,667)**
Machinery, equipment and vehicles, net	3,922	**5,646**
Tools, furniture and fixtures	3,585	**3,573**
Accumulated depreciation	(3,185)	**(3,166)**
Tools, furniture and fixtures, net	400	**407**
Land	9,436	**9,358**
Leased assets	1,586	**1,570**
Accumulated depreciation	(764)	**)870)**
Leased assets, net	821	**700**
Construction in progress	2,596	**922**
Total tangible fixed assets	27,158	**28,390**
Intangible assets	548	**387**
Investments and other assets		
Investment securities	3,263	**3,217**
Long-term loans receivable	25	**23**
Long-term prepaid expenses	380	**324**
Deferred tax assets	44	**51**
Net defined benefit assets	138	**264**
Other intangible fixed assets	497	**445**
Allowance for doubtful accounts	(6)	**(6)**
Total investments and other assets	4,343	**4,320**
Total non-current assets	32,050	**33,098**
Total assets	66,057	**69,046**

Liabilities	2016	2017
Current liabilities		
Notes and accounts payable - trade	10,250	**10,464**
Short-term loans payable	8,312	**6,001**
Lease obligations	345	**299**
Income taxes payable	545	**532**
Provision for bonuses	567	**603**
Provision for directors' bonuses	16	**—**
Accrued business office taxes	33	**35**
Accrued expenses	228	**386**
Deferred tax liabilities	0	**2**
Other current liabilities	2,001	**2,222**
Total current liabilities	22,300	**20,547**
Non-current liabilities		
Long-term loans payable	14,915	**18,593**
Lease obligations	1,044	**819**
Deferred tax liabilities	265	**426**
Net defined benefit liability	416	**262**
Asset retirement obligations	72	**72**
Other non-current liabilities	297	**279**
Total non-current liabilities	17,011	**20,454**
Total liabilities	39,312	**41,001**
Net assets		
Shareholders' equity		
Capital stock	8,895	**8,895**
Capital surplus	7,228	**7,218**
Retained earnings	9,339	**11,300**
Treasury shares	(149)	**(1,120)**
Total shareholders' equity	25,313	**26,293**
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	(161)	**145**
Deferred gains or losses on hedges	(9)	**(2)**
Foreign currency translation adjustment	301	**206**
Remeasurements of defined benefit plans	193	**212**
Total accumulated other comprehensive income	324	**561**
Subscription rights to shares	7	**3**
Non-controlling interests	1,100	**1,186**
Total net assets	26,745	**28,044**
Total liabilities and net assets	66,057	**69,046**

Consolidated Statements of Income

(Millions of yen)

	2016	2017
Net sales	52,782	**52,254**
Cost of sales	39,604	**38,532**
Gross profit	13,177	**13,721**
Selling, general and administrative expenses		
Selling expenses	4,243	**4,142**
General and administrative expenses	5,495	**5,634**
Total selling, general and administrative expenses	9,738	**9,777**
Operating profit	3,439	**3,944**
Non-operating income		
Interest income	13	**6**
Dividend income	58	**54**
Share of profit of entities accounted for using equity method	72	**82**
Foreign exchange gains	20	**15**
Insurance income	16	**15**
Other non-operating income	65	**86**
Total non-operating income	246	**261**
Non-operating expenses		
Interest expenses	305	**274**
Other non-operating expenses	179	**158**
Total non-operating expenses	484	**432**
Ordinary profit	3,200	**3,773**
Extraordinary income		
Gain on sales of investment securities	88	**55**
Total extraordinary income	88	**55**
Extraordinary losses		
Impairment loss	165	**187**
Loss on disposal of non-current assets	68	**93**
Total extraordinary losses	234	**281**
Profit before income taxes	3,054	**3,547**
Income taxes - current	888	**830**
Income taxes - deferred	13	**84**
Total income taxes	902	**915**
Profit	2,152	**2,632**
Profit (loss) attributable to non-controlling interests	(46)	**143**
Profit attributable to owners of parent	2,198	**2,489**

Consolidated Statements of Comprehensive Income

(Millions of yen)

	2016	2017
Profit	2,152	**2,632**
Other comprehensive income		
Valuation difference on available-for-sale securities	(891)	**306**
Deferred gains or losses on hedges	5	**6**
Foreign currency translation adjustment	(99)	**(69)**
Remeasurements of defined benefit plans	(49)	**17**
Share of other comprehensive income of entities accounted for using equity method	(25)	**(36)**
Total other comprehensive income	(1,059)	**224**
Comprehensive income	1,092	**2,857**
Comprehensive income attributable to owners of parent	1,158	**2,726**
Comprehensive income attributable to non-controlling interests	(66)	**131**

Consolidated Statements of Cash Flows

(Millions of yen)

	2016	2017
Cash flows from operating activities		
Profit before income taxes	3,054	**3,547**
Depreciation	2,087	**2,335**
Increase (decrease) in allowance for doubtful accounts	0	**3**
Interest and dividend income	(71)	**(61)**
Interest expenses	305	**274**
Share of loss (profit) of entities accounted for using equity method	(72)	**(82)**
Impairment loss	165	**187**
Loss (gain) on disposal of tangible fixed assets	68	**93**
Loss (gain) on sales of investment securities	(88)	**(55)**
Decrease (increase) in notes and accounts receivable - trade	531	**(1,614)**
Decrease (increase) in inventories	540	**409**
Increase (decrease) in notes and accounts payable - trade	(1,103)	**227**
Increase (decrease) in net defined benefit liability	(254)	**(246)**
Other cash flows from operating activities	(244)	**(311)**
Subtotal	4,919	**4,708**
Interest and dividend income received	140	**121**
Interest expenses paid	(302)	**(274)**
Income taxes paid	(559)	**(804)**
Net cash provided by (used in) operating activities	4,197	**3,750**
Cash flows from investing activities		
Payments into time deposits	(1,600)	**(82)**
Proceeds from withdrawal of time deposits	1,600	**—**
Purchase of tangible fixed assets	(7,829)	**(3,900)**
Proceeds from sales of tangible fixed assets	—	**27**
Purchase of investment securities	(3)	**(2)**
Proceeds from sales of investment securities	143	**441**
Purchase of shares of subsidiaries and associates	(96)	**—**
Collection of short-term loans receivable	1	**1**
Proceeds from subsidy income	150	**212**
Other cash flows from investing activities	(53)	**(33)**
Net cash provided by (used in) investing activities	(7,687)	**(3,336)**
Cash flows from financing activities		
Net increase (decrease) in short-term loans payable	620	**(3,190)**
Proceeds from long-term loans payable	5,000	**8,393**
Repayments of long-term loans payable	(3,604)	**(3,772)**
Repayments of lease obligations	(359)	**(346)**
Purchase of treasury shares	0	**(1,004)**
Proceeds from disposal of treasury shares	19	**21**
Cash dividends paid	(474)	**(526)**
Dividends paid to non-controlling interests	(46)	**(39)**
Payments from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation	—	**(10)**
Net cash provided by (used in) financing activities	1,154	**(477)**
Effect of exchange rate change on cash and cash equivalents	(46)	**(42)**
Net increase (decrease) in cash and cash equivalents	(2,381)	**(105)**
Cash and cash equivalents at beginning of period	11,783	**9,401**
Cash and cash equivalents at end of period	9,401	**9,296**

Group Companies

Domestic Group Companies

Name	Location	Ownership of Voting Rights (%)	Connection to DKS's Business	Details of Connection to DKS's Business
Yokkaichi Chemical Company Limited[1, 3]	Yokkaichi, Mie	100	● Surfactants ● Polyurethane materials	● Manufacturing of surfactants and polyurethane materials, etc.
Gembu Co., Ltd.	Chuo-ku, Osaka	100	● Surfactants ● Amenity materials	● Sales of surfactants and amenity materials, etc.
Dai-ichi Kenkou Co., Ltd.	Chuo-ku, Tokyo	100	● Polyurethane materials	● Sales of civil engineering and construction-use chemicals, etc.
Dai-ichi Ceramo Co., Ltd.	Higashiomi, Shiga	100	● Electronic device materials	● Rental of land and buildings
Kyoto Elex Co., Ltd.	Minami-ku, Kyoto	50.03	● Electronic device materials	● Building leasing
Elexcel Corporation	Yokkaichi, Mie	80	● Electronic device materials	● Contracted research related to dye-sensitized solar batteries and medium-sized lithium batteries
K&D Fine Chemical Corporation[5]	Chuo-ku, Chiba	50	● Surfactants	● Manufacturing of surfactants, etc.

Overseas Group Companies

Name	Location	Ownership of Voting Rights (%)	Connection to DKS's Business	Details of Connection to DKS's Business
P.T. Dai-ichi Kimia Raya	Karawang, Indonesia	91.53	● Surfactants ● Amenity materials ● Functional materials	● Manufacturing and sales of surfactants, etc.
Chin Yee Chemical Industries, Co., Ltd.	Taipei, Taiwan	51	● Surfactants ● Amenity materials ● Functional materials	● Manufacturing and sales of plastic lubricants, etc.
DKS (Shanghai) International Trading Co., Ltd.	Shanghai, China	100	● Surfactants ● Amenity materials ● Functional materials	● Importing and exporting operations for the company's products, etc.
Sisterna B.V.	Roosendaal, the Netherlands	94.9	● Amenity materials	● Sales of sucrose fatty acid esters
Shuang Yi Li (Tianjin) New Energy Co., Ltd.	Tianjin Economic-Technological Development Area, China	100	● Electronic device materials	● Manufacturing and sales of lithium-ion polymer batteries
Chin Yee Chemical Technologies (Wuxi) Co., Ltd.[4]	Wuxi, Jiangsu, China	57 (57)[2]	● Functional materials	● Manufacturing and sales of functional materials
Chin Yee International Investment Co., Ltd.[4]	Bandar Seri Begawan, Brunei	57 (14)[2]	● Functional materials	● Investment activities into Chin Yee Chemical Technologies (Wuxi) Co., Ltd.
DDFR Corporation Ltd.[5]	Hong Kong SAR, China	50	● Functional materials	● Purchasing of flame retardants
Dai-ichi Kogyo Seiyaku (Singapore) Pte. Ltd.[6]	Singapore	100	● Surfactants ● Amenity materials ● Functional materials	● Sales of surfactants, flame retardants, food additives, etc.

1. Specified subsidiary
2. Figures in ( ) in ownership ratio of voting rights indicate indirect ownership ratio included in the total.
3. The ratio of total sales of Yokkaichi Chemical Company Limited to consolidated sales (excluding internal sales between consolidated companies) is more than 10%.
4. Equity-method non-consolidated subsidiaries
5. Equity-method affiliates
6. Non-consolidated subsidiary

Note: Except for Nos. 4-6, all are consolidated subsidiaries.

Corporate Data (as of March 31, 2017)

Corporate Name	DKS Co. Ltd.
Foundation	April 1909
Incorporation	August 1918
Paid-in Capital	8,895 million yen
Number of Employees	486 (consolidated: 967)
Total Number of Shares Outstanding	53,421,609 shares
Share Unit Number	1,000 shares
Number of Shareholders	5,118
Stock Listing	Tokyo Stock Exchange
Securities Code	4461
Date of Record	Every year on March 31, and other dates as necessary and publicly announced in advance
Annual Meeting of Shareholders	Every year in late June
Shareholder Registry Administrator	Mizuho Trust & Banking Co., Ltd. 1-2 Yaesu 1-chome, Chuo-ku, Tokyo

Headquarters / Laboratory
5 Ogawara-cho, Kisshoin, Minami-ku, Kyoto 601-8391, Japan
Phone: +81 75 323 5911 Fax: +81 75 326 7356

Main Branch
55 Nishishichijo Higashikubo-cho, Shimogyo-ku, Kyoto 600-8873, Japan

Tokyo Headquarters
8th Floor, Yaesuguchi Daiei Building, 1-3-1 Kyobashi, Chuo-ku, Tokyo 104-0031, Japan
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Phone: +81 52 571 6331 Fax: +81 52 586 4539

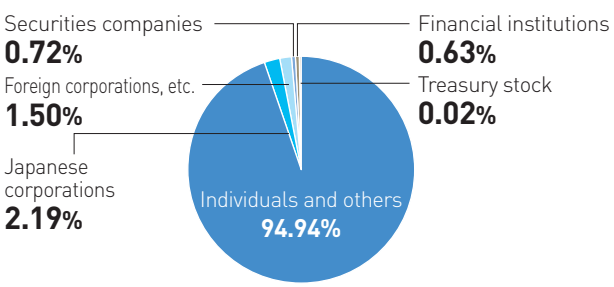
Kyushu Office
4th Floor, Hakata Ekimae Daiichi Building, 1-2-3 Hakata-eki Minami, Hakata-ku, Fukuoka 812-0016, Japan
Phone: +81 92 472 6353 Fax: +81 92 472 4989

List of Major Shareholders (Top 10)

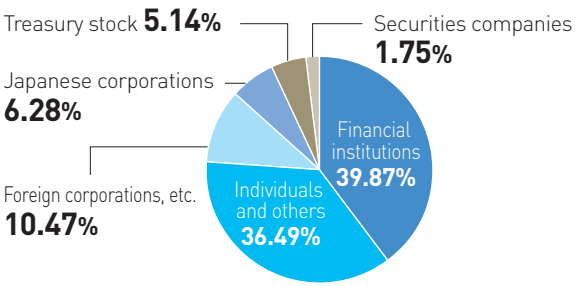
Shareholder Name	Number of Shares	Ratio of Shareholding (%)
Japan Trustee Services Bank, Ltd. (Trust account)	4,235,000	8.36
The Dai-ichi Life Insurance Company, Limited	3,067,000	6.05
Mizuho Bank, Ltd.	2,135,000	4.21
The Bank of Kyoto, Ltd.	2,085,000	4.11
Asahi Mutual Life Insurance Company	1,697,000	3.35
Shareholding Association of DKS's Business Partners	1,391,000	2.74
DFA International Small Cap Value Portfolio	1,363,000	2.69
The Master Trust Bank of Japan, Ltd. (Trust account)	1,300,000	2.57
DKS Employee Shareholding Association	1,290,317	2.55
Japan Trustee Services Bank, Ltd. (Trust account 5)	854,000	1.69

Shareholder Distribution

Composition by Shareholder



Composition by Shareholdings



Main Production Bases

Yokkaichi Branch Kasumi Plant

Kasumi Plant, Yokkaichi Branch

Address: 1-23-5 Kasumi, Yokkaichi, Mie
Area: 101,138 m^2
Main products: Polyurethane materials, functional materials

Ohgata Branch

Plants, Ohgata Branch

Address: 230 Saigata, Ohgata-ku, Joetsu, Niigata
Area: 87,732 m^2
Main products: CMC, waterborne polyurethanes, professional detergents, polyvinylpyrrolidone

Yokkaichi Branch Chitose Plant

Chitose Plant, Yokkaichi Branch

Address: 7 Chitose-cho, Yokkaichi, Mie
Area: 17,355 m^2
Main products: Polyether polyols, urethane prepolymer, EV-EB curable monomers/oligomers, anionic surfactant, cationic surfactants

Shiga Branch

Plant, Shiga Branch

Address: 427 Gokasho Hiyoshi-cho, Higashiomi, Shiga
Area: 106,813 m^2
Main products: Sucrose fatty acid esters, food additives, metal surface treatment agents, surfactants, solvent-alternative aqueous and non-aqueous detergents

DKS Co. Ltd.

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