

ANNUAL REPORT 2019

CSR & Financial Report

The Daicel Group Annual Report 2019



100th
Surprise! DA future.



Daicel Corporation

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Editorial Policy

The Daicel Group publishes the Daicel Group Annual Report—CSR & Financial Report to convey financial and nonfinancial information that facilitates understanding among all its stakeholders, including shareholders and investors, regarding the Group's business activities and CSR initiatives. As a key stakeholder communication tool, we compile the report to disclose corporate information in a style that is proactive as well as easy to read and comprehend.

Additional details as well as comprehensive information on the CSR activities of subsidiaries and environmental, social and governance (ESG) data is available on the Daicel Group's website.

CSR section of the Daicel Group's website <https://www.daicel.com/en/csr/>

■ Reporting Period

FY2019/3 (April 2018 to March 2019)

Note: Topics outside the specified period have been included.

■ Entities within the Scope of Reporting

The report covers initiatives of Daicel Group companies and those of other companies as noted.

The following terms are used in the report.

- Daicel/We/Our: Daicel Corporation
- Daicel Group/The Group: Daicel Corporation and its affiliates
- Group companies: Affiliates of Daicel Corporation
- Daicel's business sites and on-premise Group companies: Daicel's plants and research institutes as well as the business sites of domestic Group companies operating on the premises of Daicel's plants (not including the headquarters)
- Other Group companies: business sites of the domestic Group companies operating outside the premises of Daicel's business sites
- Overseas Group companies: business sites of Daicel's overseas Group companies

The scope of the Group companies for reporting varies depending on the content of the initiatives. Refer to the following websites for more details.

- Scope of reporting for human resources and governance data

<https://www.daicel.com/en/csr/other/boundary.html>

- Scope of reporting for environmental and occupational health and safety data

<https://www.daicel.com/en/csr/other/responsible.html>

■ Publication Schedule

September 2019 (previous edition: September 2018, next edition: September 2020)

The information released on our website may be updated as necessary, even after publication of the report in September 2019.

■ Guidelines Used for Reference

- International Integrated Reporting Framework, International Integrated Reporting Council
- Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation, Ministry of Economy, Trade and Industry (METI)
- Sustainability Reporting Standards 2016, GRI

■ Third-party Verification

We received third-party verification on the contents of the Daicel Group Annual Report 2019—CSR & Financial Report from the Responsible Care Verification Center of the Japan Chemical Industry Association (JCIA) to confirm its reliability. Results of the review are described under "Third-party Verification" on page 63.

Disclaimer and Caution with Respect to Forward-Looking Statements

As the sole purpose of this report is the provision of information to readers, in no way does the Company intend to solicit readers to take a certain action through this publication. Although the Company compiled this report based on information available to it and deemed trustworthy at the time of its issuance, the content of the report inherently includes a number of risks and uncertainties. Accordingly, Daicel provides no guarantee to the accuracy or integrity of information therein. When readers intend to use any part of information contained in this report, they are advised to use their own discretion. Daicel shall bear no responsibility whatsoever to readers about damage, loss or other negative outcomes attributable to their investment decisions that relied on forecasts, numerical targets and other forward-looking statements featured in this report.

Basic Philosophy System

Basic Philosophy

Corporate Objective

We contribute to a better quality of life by developing and manufacturing products that society needs and values.

With a strong belief in the infinite possibilities chemistry has to offer, Daicel Group continues to meet the demands of the times by contributing to society the functions it requires and helping to enrich individual lifestyles through the application of proprietary technologies and know-how.

The Daicel Spirit

We will continue to share the Daicel Spirit and grow through innovation.

- We believe that innovation starts with an ideal followed by tireless efforts undertaken with integrity.
- Our focus on Monozukuri is unshakeable. For our purposes the meaning of Monozukuri encompasses the creation of new value in all corporate activities.
- We respect the individuality and achievements of all Daicel Group members.

Daicel Group Conduct Policy

We, the Daicel Group, have established the following Conduct Policy in order to realize our Basic Philosophy. Every member of the Daicel Group shall fully understand and voluntarily consider this Conduct Policy and shall put it into practice in a tangible way through their daily activities.

1. We shall not only comply with all laws and regulations but also act with high ethical standards and sound judgment.
2. We shall contribute to the development of society as good corporate citizens.
3. We shall offer safe, high-quality products and services that satisfy and gain the trust of our customers.
4. We shall contribute to the development of local communities by complying with international rules and each country's laws and regulations and by respecting local cultures and customs.
5. We shall willingly and justly disclose reliable corporate information.
6. We shall conduct honest trade in accordance with the basic principles of fair and free competition.
7. We shall work positively to conserve the natural environment and to ensure safety.
8. We shall properly manage corporate assets and information.
9. We shall respect the diversity, personality and individuality of every member of the Daicel Group and shall maintain a healthy and comfortable work environment that is free from discrimination and harassment.

Daicel Code of Conduct

We established a code that applies to the business activities of all our employees to more explicitly express the Daicel Group's Conduct Policy.

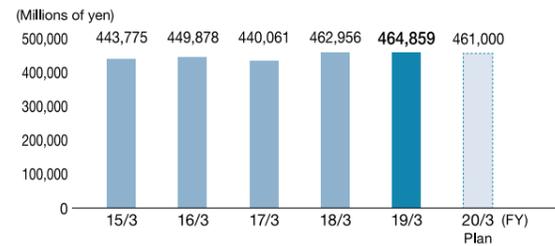
[WEB Daicel Code of Conduct https://www.daicel.com/en/csr/standard.html](https://www.daicel.com/en/csr/standard.html)



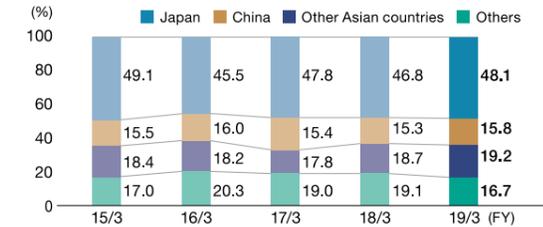
Financial/Non-Financial Highlights

Financial Highlights (Consolidated)

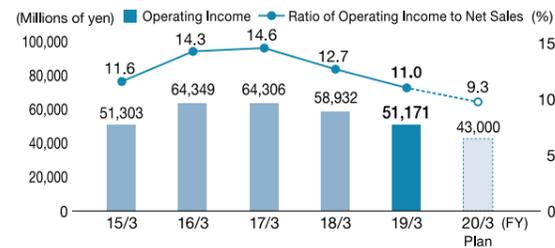
Net Sales



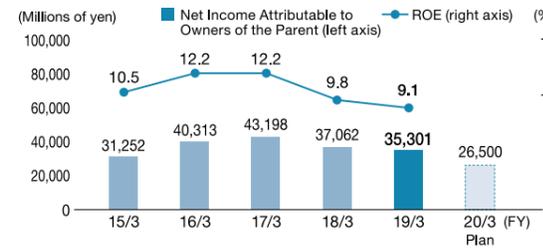
Net Sales Ratio by Region



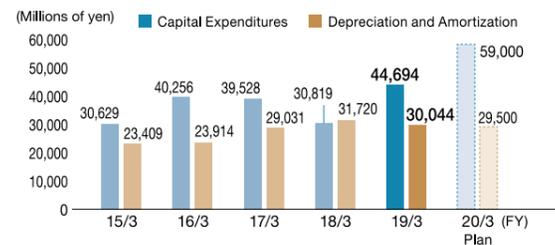
Operating Income / Ratio of Operating Income to Net Sales



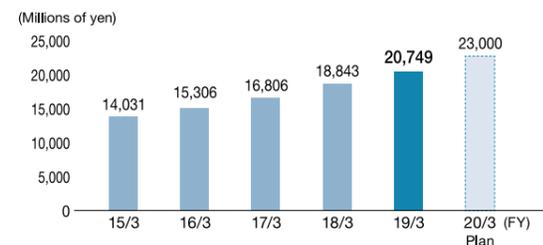
Net Income Attributable to Owners of the Parent and ROE



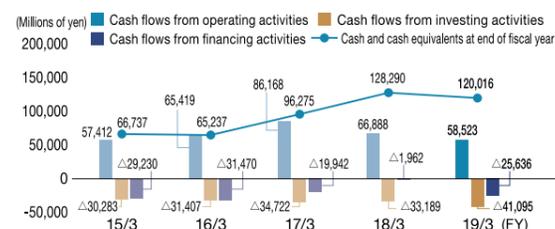
Capital Expenditures / Depreciation and Amortization



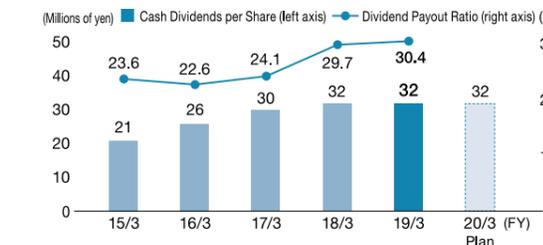
Research and Development Expenses



Cash Flows

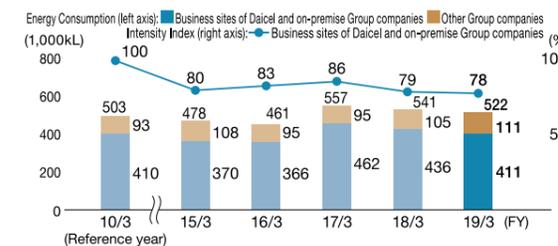


Cash Dividends per Share / Dividend Payout Ratio

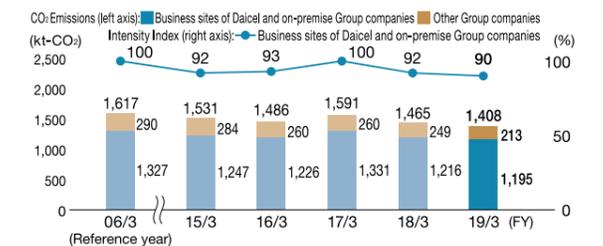


Non-Financial Highlights

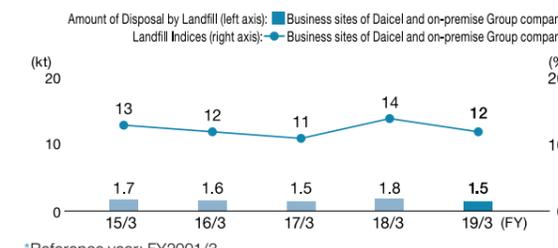
Energy Consumption and Intensity Index (Domestic)



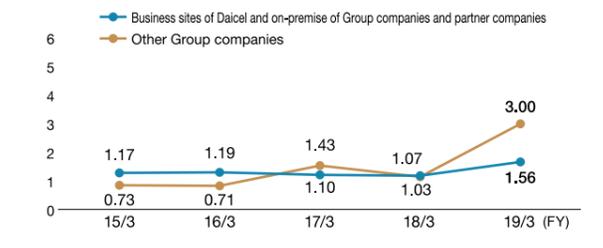
CO2 Emissions Attributable to Energy Consumption and the Intensity Index (Domestic)



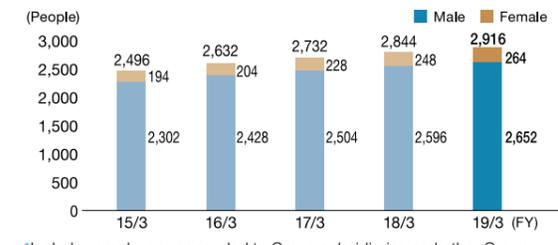
Amount of Disposal by Landfill and Final Landfill Rate*



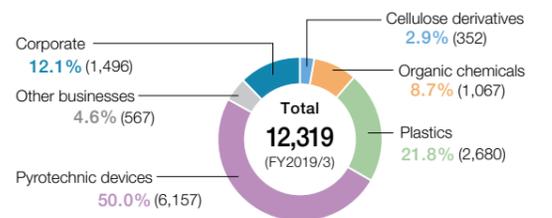
Occupational Accident Frequency Rate (Domestic)



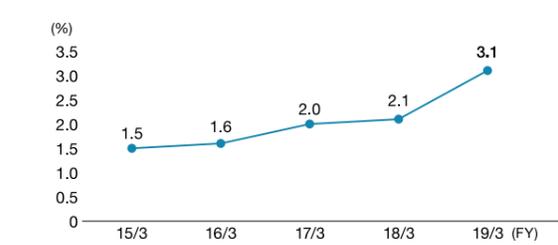
Number of Employees (Regular Employees*, Non-Consolidated)



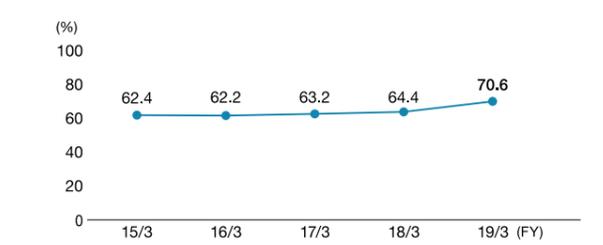
Ratio and Number of Employees by Business Segment (Consolidated)



Ratio of Female Managers (Non-Consolidated)



Annual Paid Leave Acquisition Ratio (Non-Consolidated)

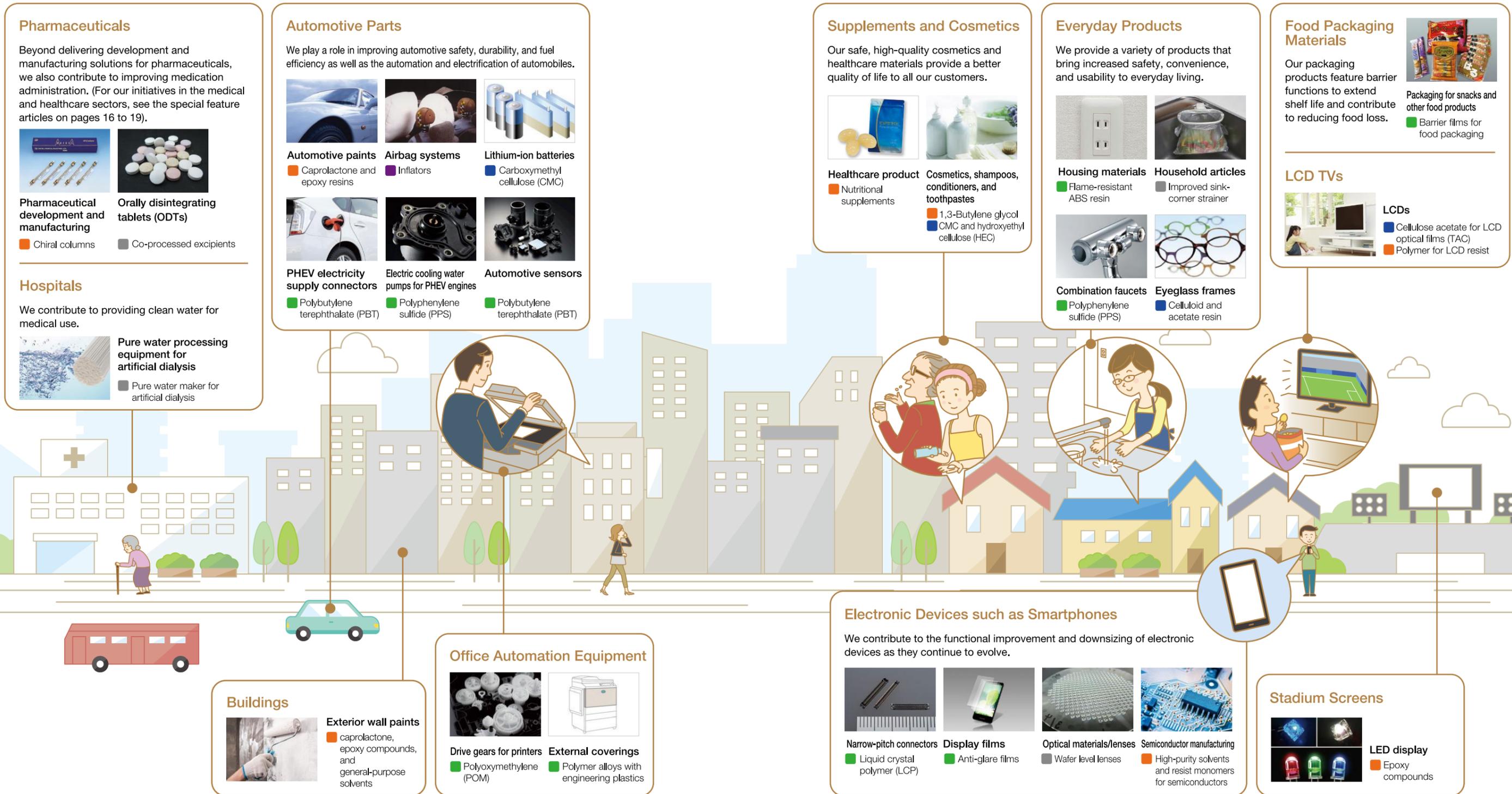


Value Creation Stories

Daicel in Every Aspect of Our Lives

While the majority of the Daicel Group's products are raw materials and ingredients that are not directly visible to consumers, they significantly benefit society through their extensive applications across a wide variety of products, such as automotive parts, electronic devices, cosmetics, and healthcare goods.

■ Cellulosic derivatives ■ Organic chemicals ■ Plastics ■ Pyrotechnic devices ■ Others



Story of Value Creation

Chronology of the Daicel Group

Since its establishment as a celluloid manufacturer, Daicel has been expanding its business lines into cellulosic derivatives, organic chemicals, plastics, and pyrotechnic devices.

In 2019, it will celebrate the 100th anniversary of its founding. Certainly society has dramatically changed over the last century, but how has Daicel evolved? Here are highlights of Daicel's 100 years as a company that transforms change into opportunity while focusing all of its efforts on manufacturing.



100th
Surprise! DA future.

From 1919

Launched of the cellulosic derivatives and organic chemicals businesses

In 1919, eight celluloid manufacturers were merged to form Dainippon Celluloid Co., Ltd. Since our founding, we have focused on developing flame-retardant celluloid and ultimately developed acetate plastics. In 1935, the Arai Plant established a fully integrated production system, from the production of acetic acid (a raw material of cellulose acetate) to acetate plastics, marking the beginning of our organic chemicals business.



From 1950

Full-fledged launch of the cellulose business
Beginning of our pyrotechnic devices business

In 1950, we began the comprehensive production of acetate plastics at our Aboshi Plant. With the establishment of the National Police Reserve of Japan (currently the Japan Ground Self-Defense Force), we launched our pyrotechnic devices business in 1953 and constructed the Harima Plant the following year.

In 1958, the Sakai Plant started producing acetate tow for cigarette filters to expand our cellulose business.



From 1960

Launched into the petrochemical business and expanded the plastics business
Adopted new raw materials and manufacturing methods

In the 1960s, we entered the petrochemical business and began producing AS and ABS resins and engineering plastics. In the wake of the first oil crisis, we pushed forward the commercialization of acetic acid using the methanol carbonylation process to switch to raw materials that are not dependent on petroleum.



From 1980

Aggressively expanded in overseas markets
Implemented the full-fledged launch of the automobile airbag inflator business

In the 1980s, we established local subsidiaries in Europe, the US, and Asia. In 1988, we established a subsidiary for producing automobile airbag inflators. In 1990, we established a business base in the optical isomer separation business in the US, and in 1992 we established a joint venture in China to begin production of acetate tow for cigarette filters.



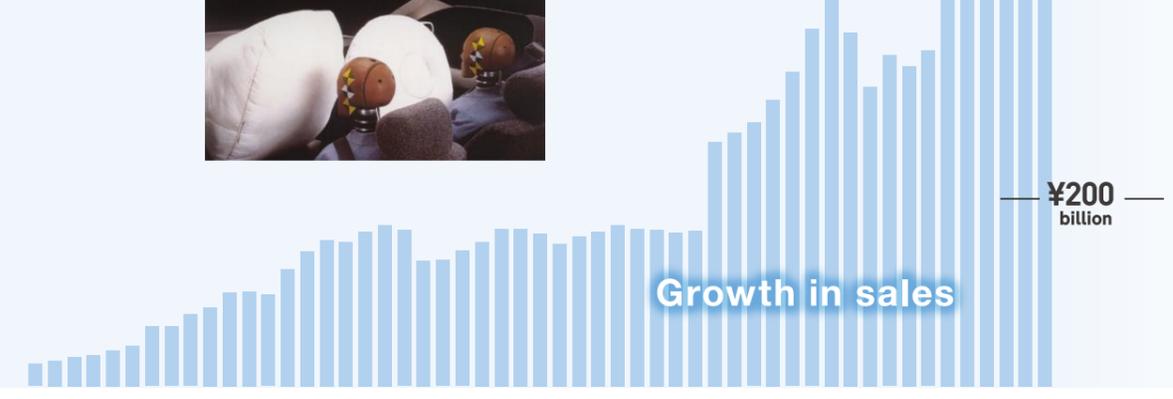
From 2000

Rolled out Production Innovation by the Daicel Way Expanded the automobile airbag inflator business to overseas markets

In the 2000s, we established the production and sales sites for our inflator business in six countries worldwide. In 2000, we accelerated our efforts to achieve Daicel Production Innovation by rolling out production innovation initiatives after completing the construction of the Integrated Production Center (IPC) of the Aboshi Plant. In 2017, we opened a new site, Innovation Park, to integrate our R&D for products and process technologies.



FY2019/3
Consolidated sales
Total:
¥464.9 billion



Net sales on a consolidated basis for FY2002/3 and after.

Value Creation Milestones

Driving Value Creation for a Prosperous Society

Believing in the infinite possibilities of chemistry over the last 100 years since our founding, we have been driven by our corporate mission to continuously meet the demands of the times by contributing to society the functions it requires and helping to enrich individual lifestyles through the application of proprietary technologies and know-how.

We intend to be a corporate group that can deliver the best solutions for the most urgent social issues by building industry-leading manufacturing systems through the integration of solid partnership built on trust, the unique technologies and advanced production systems we have developed over the years, and the diverse human resources that have supported these efforts. We believe these efforts will enable us to contribute to the creation of a more sustainable society, bringing us closer to fully realizing our aspirations.

Unique, Versatile Technologies

Since our founding as a celluloid manufacturer, we have been constantly striving to meet the changing demands of society, which has allowed us to successfully expand our business domains. At the same time, we have also been able to accumulate unique and diverse technologies in fields such as cellulose chemistry, organic chemistry, high-polymer chemistry, and pyrotechnic engineering. Today, we are strengthening the individual technologies we have accumulated, creating new technologies and markets through the use of information technology and AI, and engaging in collaborative efforts with universities and other companies.

Respect for the Active Participation of Diverse Human Resources and Achievements

Human resources are the key to organizational management. Our history to date represents the accumulated achievements of our predecessors' steadfast dedication to overcoming challenges as well as the results of expanding our businesses while receiving social recognition for these efforts. Today, Daicel is operated by more than 10,000 employees worldwide. The Daicel Group's driving force is composed of their individual strengths and demonstrated internationally, with respect for different ideas and cultures, as they collaborate with each other and carry a sense of fulfillment gained when achieving their vision. We believe that growth of human resources is a source of corporate growth.

Solid Partnership Built on Trust

The Daicel Group is supported by a wide variety of stakeholders including customers, suppliers, logistics industries, investors, and financial institutions as well as government agencies and local communities that support the success of our plants. Establishing partnerships based on trust does not happen overnight. The partnerships we depend upon today represent the results of the time, diligence and unrelenting efforts of all our Group employees since our founding.

We will continue to maintain and further strengthen our ties with partners across the globe in a widening range of areas.

Advanced Production Systems

We create solutions for our customers on the basis of our commitment and dedication to quality craftsmanship and manufacturing techniques (*monozukuri*). We will achieve sustainable *monozukuri* through the following three types of innovations.

- (1) Product innovation (applied to commercial products)**
Continue to create new products that society needs (things and functions).
- (2) Process innovation (applied to the production process)**
Solidify our foundation business with "production innovation" and "process innovation" for achieving optimal cost and quality.
 - ◆ Production innovation: Innovation for ideal production systems
 - ◆ Process innovation: Adopting new manufacturing methods and raw materials, innovating in unique element technologies, and establishing optimization technologies
- (3) Management innovation (applied to management systems)**
Thoroughly reform organizational structures and functions, workflows, and corporate culture to support the success of business strategies.

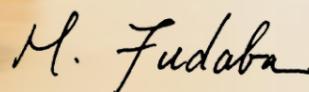
A Sustainable and Prosperous Society

Message from the President and CEO

We will contribute to the creation of a prosperous society through innovation based on years of trust.

As we enter the final year of our medium-term business plan, 3D-III, we will more effectively adapt to rapidly accelerating social change while taking on new challenges to reform business practices and work styles under the slogan “Change, Challenge and Courage.”

Misao Fudaba
President and CEO



(Mr. Fudaba's title at the time of the May 2019 interview)

100 Years of Change and Challenge

In September 2019, we will celebrate our 100th anniversary. Founded by the merger of eight manufacturers that had introduced the domestic production of celluloid, a new product at the time, we have continued to develop new materials and businesses needed by society through times of change. Today, we continue to offer unique products and solutions that contribute to everyday life.

After 100 years of risks and opportunities, our present-day success is a result of the sincere devotion of our predecessors, whose leadership established a company valued by customers and society as a whole, as well as the continued guidance and support of all our stakeholders.

In today's rapidly evolving business environment, we face increasingly urgent challenges in such areas as the progress of globalization, environmental concerns, the low birth rate, and an aging population. We must respond flexibly and proactively to social change and transform ourselves if we are to continue delivering significant value to society in such volatile times.

We will continuously identify the needs of customers and society and assess our capabilities and the competition to become a more resilient company that is open to these new challenges, and is capable of making the right choices and commitments with the courage to change direction as needed.

Review of Our FY2019/3 Results

In FY2019/3, the second year of our medium-term business plan, 3D-III (FY2018/3–2020/3), net sales were ¥464.9 billion, up ¥1.9 billion year-on-year, and operating income was ¥51.2 billion, down ¥7.8 billion year-on-year. For the final year of 3D-III (FY2020/3), we expect sales and profits to decline from FY2019/3 with net sales of ¥461 billion and operating income of ¥43 billion, falling short of the final targets set for 3D-III of ¥500 billion in sales and operating income of ¥70 billion.

Several factors contributed to these results, including softening market conditions for our key product, acetate tow for cigarette filters, which occurred more rapidly than expected, decreased pyrotechnics production having finished producing replacement parts for a recall by another company, and the slower-than-expected growth of our regular businesses. Although external factors also warrant consideration, including specific market situations such as U.S.-China trade friction, we must also accept responsibility for the delayed response.

Accelerating the Development of New Businesses by Integrating Internal and External Functions

In terms of developing new businesses in key areas planned for 3D-III, along with growing several medical and healthcare products and new businesses, we are expanding into new fields by incorporating downstream and peripheral product affiliates by acquiring, for example, a German pharmaceutical company and a U.S. Genomics Company. In electronics as well, we launched full-scale marketing by transferring the business to Group companies in line with progress in market development for functional films, which has been promoted by the corporate headquarters. We also established a new company in Taiwan to handle optical sources and materials and accelerated the growth of the optical lens business to support the expected expansion of sensing equipment.

We are working at Innovation Park (iPark) to create and foster new businesses by promoting open innovation with universities and other companies; accelerating new product development through virtual labs, using computational science and simulation technology; and promoting concurrent engineering, in which development, mass production, and marketing work in tandem.

Promoting Diversity and Work Style Reform to Increase Competitiveness

As part of our 3D-III growth strategies, we are promoting diversity and creating a comfortable and pleasant work environment.

More than half of our net sales are from overseas operations, while 6,000 of the approximately 12,000 of all Group employees are foreign nationals. Top management at some of our overseas Group companies is appointed from locally hired employees, and localization of middle-management positions is promoted at many sites. Also in Japan, the number of foreign national employees in the company is rising, especially R&D and marketing personnel capable of bridging the gap between overseas markets and domestic business sites. These diverse human resources have been a key source of competitive advantage in our global business expansion.

In addition, while working to improve our telecommuting and satellite office systems, we started the Nadeshiko Seminar training program in 2017 to further promote the active participation of female employees. Through these efforts, we have established an environment that encourages female employees to fully apply their strengths and take on leadership roles, including management positions.

We have shortened the mandatory working hours of regular full-time employees by thirty minutes per day, while studying the feasibility of introducing a consecutive-day holiday system for shift workers in production and other relevant departments. Although half an hour may

not seem like very much, it represents a bold decision by the company. Our employees are also becoming more aware of the importance of work style reform for increasing productivity. This was evident at the annual KAIZEN case study meeting, where increasing productivity in a short time was presented as a suggestion for improvement. We believe that the success of our work style reform can be measured by improvement in the personal growth of employees and company competitiveness.

Coexistence with Society and Provision of Solutions

The long-term vision, Grand Vision 2020, formulated in 2010, which was the year I was appointed as the president and CEO, declared our corporate objective as “contributing to a better quality of life by developing and manufacturing products that society needs and values” and our vision as “to become a company that delivers the best solutions.”

We believe that the United Nations Sustainable Development Goals (UN SDGs) will lead to the creation of products and services that contribute to addressing social issues. Moreover, our businesses deliver products and solutions that can have a positive impact in terms of addressing social challenges. These include materials for downsizing automobiles to reduce environmental impact and medical products that help to extend healthy life expectancies. Additionally, our corporate objective and vision represent vital perspectives for considering new businesses.

We are committed to the Responsible Care (RC) activities as a common initiative of the chemical industry in which we participate. While our industry is associated with materials that benefit society, other substances and manufacturing processes require careful handling. In this context, we thoroughly strive to ensure that all our employees are aware of safety and quality as foundational aspects of our operations through the annual RC promotion conference held every April, at the beginning of each fiscal year.

However, since people do not always take the right actions, it is important that we maintain our steadfast efforts to ensure safety and quality.

Furthermore, recognizing the essential roles of laws and regulations, we strive for the highest level of compliance. With our Corporate Compliance Program Division taking the lead, we promote voluntary compliance activities in each department. We also actively work to strengthen our governance system by, for instance, establishing internal audit functions, such as the Auditing Office and Quality Management Division as well as our management system, and by increasing the number of outside directors and auditors. Safety and quality are at the very foundation of our operations as a manufacturer, and we will continue to contribute to society through fair business practices and activities.



Continuing to Deliver Products and Services that Benefit Society

We are currently formulating a long-term vision to serve as our compass for at least the next ten years. In formulating this vision, each department is engaged in discussions that primarily involve employees in their 30s and 40s. During these talks, participants have raised the importance of SDG-related policies. The fact that employees who will be future leaders are concerned about factors potentially affecting sustainable growth is promising for the Group’s future.

Our mission, which will remain unchanged for the next 100 years, is to generate innovation for the betterment of society, as we do business in a way that will never betray the public’s trust and offer products and services for society’s benefit.

Finally, I would like to announce the upcoming appointment of the president and CEO position. In May 2019, the Nomination and Compensation Committee nominated a new president and CEO, pending approval at the Ordinary General Meeting of Shareholders. The baton will be passed to Mr. Yoshimi Ogawa, who has a proven record of facilitating change with outstanding results. He will be charged with accelerating innovation to meet the needs of society while a new long-term vision is formulated for our next milestone.

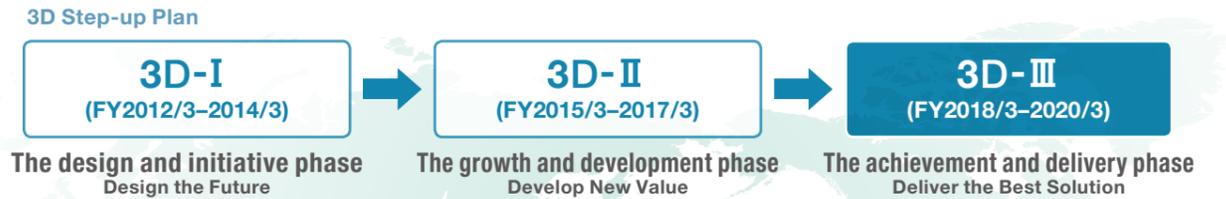
We thank all of our stakeholders for their continued guidance and support and look forward to continuing to share our progress in the coming years.

(Interviewed in May 2019)

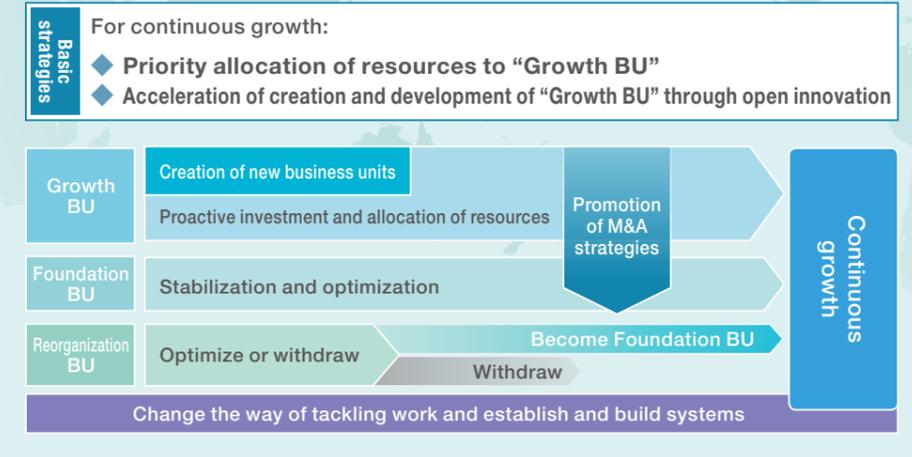
Outline of the 3D-III Medium-Term Business Plan (FY2018/3–2020/3)

Grand Vision 2020, the Daicel Group’s Long-term Vision

To be recognized as a company that delivers the best solutions



Overall Picture of 3D-III



Target Business Areas of 3D-III

	External environment	Strengths	Main initiatives of FY2019/3
Medical/health care	<p>Importance of QOL</p> <ul style="list-style-type: none"> ▶ Importance of QOL in a society with low growth, decreasing birthrate and aging population, and good longevity ▶ Popularization and spread of generic drugs ▶ Progress in life sciences 	<ul style="list-style-type: none"> ▶ Global base of CPI, network ▶ High level of recognition for products related to optical isomer separation columns ▶ Bio-conversion technology ▶ Pharmaceutical additive design technology 	<ul style="list-style-type: none"> ▶ Begin offering the Actranza™ lab ▶ Acquisition of a U.S. genomics company, Arbor Biosciences (Biodiscovery LLC) ▶ Acquisition of a German pharmaceutical manufacturing company, Lomapharm GmbH <p>▶▶ For details, see Special Features (page 16)</p>
Electronics	<p>Smartification</p> <ul style="list-style-type: none"> ▶ Diversification of smart devices ▶ Improved mobility features with the advance of ICT ▶ Electrification of automobiles and acceleration of self-driving technology 	<ul style="list-style-type: none"> ▶ Fine organic chemicals technology ▶ World’s first commercialized cured wafer lens ▶ New resin, hybrid materials ▶ Distillation technology, metal control technology 	<ul style="list-style-type: none"> ▶ Establishment of an optical products development and sales company, Daicel Micro Optics Co., Ltd., in Taiwan ▶ Expansion of the high-performance film business ▶ Further development of solvents for printed electronic devices

Special Feature

Daicel's Solutions for Improving the Quality of Life* Expected in a Society with 100-Year Lifetimes

Under the 3D-III Mid-term Plan, we have been actively developing new businesses, particularly in medical and health care.

In FY2019/3, we took major steps to achieve our goals, including development of a drug delivery system expected to substantially contribute to the development of innovative drugs such as gene therapy, the acquisition of a pharmaceutical contract development and manufacturing company, and the acquisition of a genomics company. This special feature covers the background and prospects of these businesses as shared by key persons in each field.

*Quality of Life (QOL): Material wealth as well as the general level of satisfaction in life, including psychological wellbeing.

Case 1

Cutting-edge Medical Care

Developing new treatments and applying our airbag technology

Establishing a Method for Administering Next-Generation Drugs

We are applying technologies cultivated through our pyrotechnic device business, such as automobile airbag inflators, to develop for medical purposes an injectable drug delivery device, a pyro-drive jet injector. This needle-free injector system incorporates a novel mechanism that ejects the drug loaded in the device as a high-speed stream of fluid driven by the instantaneous power generated from pyro combustion to penetrate the skin.

At the experimental level, we have already obtained very promising, unprecedented findings by using the device to effectively deliver genes and other drugs into cells.

While next-generation drugs such as gene therapeutics only function when delivered into cells, the significant size of the molecules has posed a challenge, hindering the expected effects from being obtained. The device is anticipated to serve as a new drug delivery system to overcome the challenge.

As the first step, we developed "Actranza™ lab" for developing next-generation drugs such as gene and cancer therapeutic drugs, and we have started offering it to joint research projects at several universities and pharmaceutical companies. The next step is to develop devices for human use. Moreover, we are providing Actranza™ lab to universities and pharmaceutical companies with the expectation of new drug development and expansion of the potential of the drug delivery system.

Actranza™ lab.



Development of the initial concept and device took place around 2009. Full-fledged development into a medical device followed the establishment of the Medical Business Strategy Office in 2016.

Features of Actranza™ lab



Control unit
Easy-to-grip design.

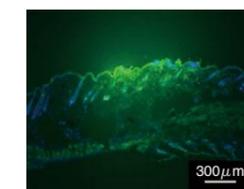


Actuator
Driving source for ejecting drug fluid; generates pressure from explosive combustion energy.



Container unit
A container for loading drug fluid, ejected through a fine nozzle at the tip of the container.

Gene Administered Mouse Tissue



When a jellyfish-derived fluorescence gene is injected using Actranza™ lab, the gene is delivered into cells and its genetic information produces a fluorescent protein. The green area (pictured) is the fluorescence emission of the protein. When administered using a needle, the same gene is not delivered into cells and no green fluorescence is observed.



Yuri Yamamoto

Head of Business Planning
Medical Device Division, R&D Headquarters
Daicel Corporation



Case 2 Healthy Living

Drugs that can be swallowed without water could extend a healthy life expectancy across the world



Launching from a Super-Aging Society, Japan

Many people either have trouble swallowing pills, which can get stuck in one's throat, or simply feel the whole experience is unpleasant. Children and the elderly in particular have more difficulty swallowing medications, which may allow drugs to enter the trachea, a risk that must be mitigated insofar as possible. Therefore, developing medicines that are easy to swallow can be a key solution for a super-aging society.

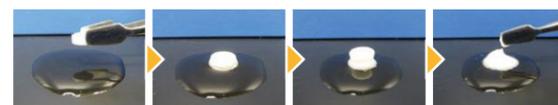
Daicel has been developing excipients that make it easier to swallow tablets. One example is GRANFILLER-D®, an excipient for orally disintegrating tablets (OD tablets).

GRANFILLER-D® can be combined with various active pharmaceutical ingredients and then compressed to make OD tablets, which are easily swallowed and disintegrated even with small amount of water such as saliva.

Recently we have also been developing next-generation excipients to expand the range of applicable active pharmaceutical ingredients. By globally expanding our business, we hope to spread these superior pharmaceutical excipients from Japan to the rest of the world.

In October 2018, we acquired Lomapharm GmbH, a German pharmaceutical contract development and manufacturing company, as a subsidiary to develop dosage forms such as tablets and eye drops. This acquisition will significantly benefit both companies. For instance, we will gain great access to the viewpoints of excipient users, enabling us to achieve further advances in excipient development. Meanwhile, Lomapharm GmbH will be able to expand its product line-up, including OD tablets based on our technologies and excipients.

Simulation of Breaking Down in the Mouth



When it comes into contact with saliva or water, it quickly absorbs the moisture and turns into a cream form.

Production Line of Lomapharm GmbH



Takahiro Hiramura
Division Manager, Pharma Solutions, New Business Development
Daicel Corporation



Tomohito Okabayashi
Technical Marketing Manager, Pharma Solutions, New Business Development
Daicel Corporation

Case 3 The Search for Life

Cultivating opportunities in the genomics market with an average annual growth of 18%

Partnering with a Genomics Venture

Genomics is a field of life science that reads and interprets the genetic information incorporated in genes, that is, the genome, and applies it to fields such as medicine and agriculture. The field has recently experienced rapid growth due to progress in both analytics technology and cost reductions.

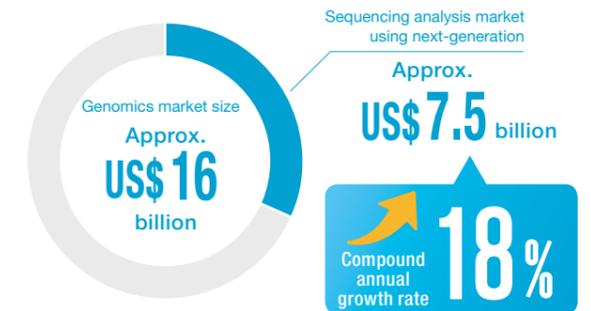
According to our survey, the worldwide market of the entire genomics field was valued at approximately US\$16 billion*, of which genome sequencing and analysis accounts for about US\$7.5 billion* with a compound annual growth of around 18%*.

In the pharmaceutical field, the Daicel Group commands the top share of the optical isomer separation market for small molecule drugs and also plans to offer advanced solutions in nucleic acids and gene therapy. One recent initiative was the acquisition of a US genomics venture, Arbor Biosciences (official name: Biodiscovery LLC) in January 2019.

This company is a leader in targeted DNA sequencing analysis technology and maintains a particularly solid position in Agribio, including the genetic analysis of agricultural products and identification of microorganisms. The technology is also useful for traceability since it allows species identification at a finer level of precision and can aid in estimating their production source by examining and comparing the DNA sequences of agricultural products.

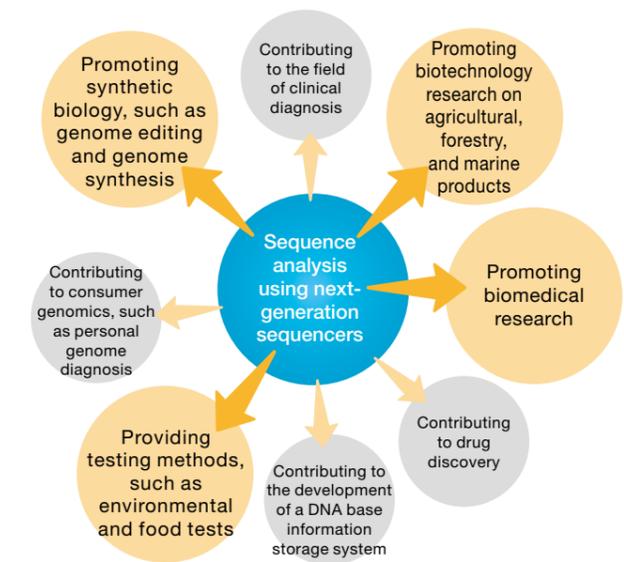
The acquisition of Arbor Biosciences has allowed us to continue building relationships with companies conducting research and development in the most advanced fields of life sciences. We will strive to offer solutions for a wide range of fields beyond medicine by bringing together the benefits from the global network of our CPI Company, which operates the optical isomer separation business.

*Figures based on our 2018 survey.



Promising Fields for the Application of Sequence Analysis Information

Yellow circles indicate areas in which Arbor Biosciences is particularly competitive.



Arbor Biosciences

A genomics venture in Michigan, U.S.A., with about 20 employees, predominantly researchers.



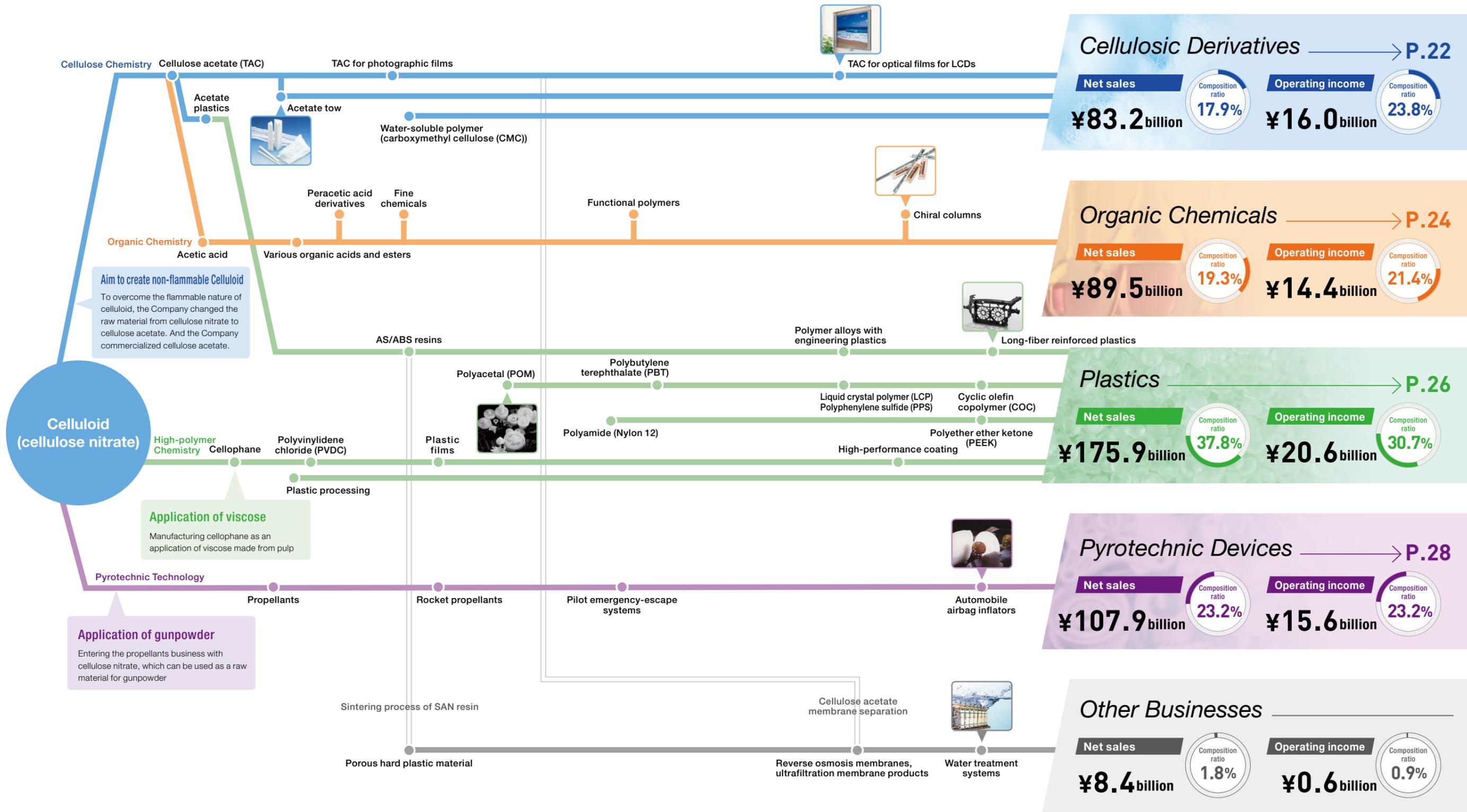
Joseph M. Barendt, Ph.D.
President of Chiral Technologies, Inc. and Arbor Biosciences

Overview of the Daicel Group's Business Operations

FY2019/3 net sales (consolidated) FY2019/3 operating income (consolidated)

Total **¥464.9 billion**

Total **¥51.2 billion**



*Consolidated operating income includes an adjustment of -¥16 billion as a corporate expense.

Cellulosic Derivatives

We are expanding cellulose derivatives in a wide range of fields with a key product, cellulose acetate made of natural cellulose.



Business Overview

Our cellulosic derivatives division develops products made from cellulose derived from natural wood pulp or cotton, a sustainable material that is friendly to both people and environment. Our history began with the manufacturing of celluloid, the origin of plastics made from cellulose. With technologies cultivated through celluloid manufacturing, we had aimed non-flammable celluloid, successfully industrialized cellulose acetate, and developed various

cellulose derivatives. The division's main product is cellulose acetate, which is used in LCD films that require superior optical properties, acetate fibers with unique properties and characteristics, and plastics. We also manufacture acetate tow used for cigarette filters with large global market shares, and water-soluble polymers with a wide variety of applications such as food, medicine and cosmetics, and electronic materials.

Business Environment

- ▶ Intensifying competition between TAC films and other materials
- ▶ Intensifying competition among sellers of acetate tow for cigarette filters as global demand for cigarettes wanes
- ▶ Increasing expectations for natural materials that are environmentally friendly

Daicel's Strengths

- ▶ Products that command a large share of the global market
- ▶ A wealth of knowhow and research data cultivated over many years
- ▶ Integrated production system spanning acetic acid to cellulose acetate and acetate tow for cigarette filters
- ▶ Customer-tailored technical services

Strategies Based on the 3D-III Mid-term Plan

- Creating new markets through the discovery of new functions utilizing the characteristics of cellulose
- Strengthening ties with key customers and developing new ones

TOPIC Contributing to Reducing Environmental Impact with Materials of Lithium-ion Battery for EVs

Carboxymethylcellulose (CMC) is a water-soluble polymer made from natural cellulose, which is used in a broad range of applications such as food additives and personal care products.

Meanwhile, our CMC has also been used for the anode plates of lithium-ion rechargeable batteries, a rapidly expanding market, and it is highly recognized for its stable quality, especially in automotive applications

used over long periods. By supplying our CMC for lithium-ion batteries used in hybrid and electric vehicles that reduce CO₂ emissions, we are contributing to the realization of a society with less environmental impact. We will continue to offer solutions for next-generation batteries.



Lithium-ion batteries

Overview of FY2019/3

The sales volume of cellulose acetate decreased due to the growth of competing materials for LCD applications and the withdrawal of an external customer for cigarette filter applications. As for acetate tow for cigarette filters, amid the decreasing global demand for cigarettes, net sales decreased primarily due to a softening market, although sales volumes were maintained at nearly the same level as the previous year, which was close to full capacity, by working to strengthen ties with major customers and developing new customers. Operating income also decreased due to an increase in raw material and fuel prices and a decrease in the sales prices of acetate tow for cigarette filters.

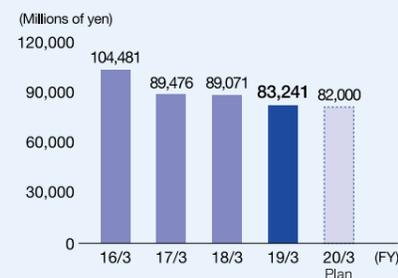
Forecast for FY2020/3 (as of May 9, 2019)

The net sales of cellulose acetate is expected to decrease as a result of competition with other materials for LCD applications and due to the year-on-year impact of the sales decrease following the withdrawal of a customer for cigarette filter applications. As for the acetate tow for cigarette filters, sales volume is expected to increase because of factors such as the increased in supply from domestic joint ventures which manufacture acetate tow for cigarette filters and development of new customers in growth markets. In terms of pricing, although lowering prices for major customers is bottoming out, the average unit price is expected to decrease due to factors such as the changes product mix and customer structure. While overall business results in FY2020/3 are expected to show a decrease in both sales and profits, we will continue our efforts to increase competitiveness through quality improvement, stable supply, and cost reduction and also accelerate the development of new applications.

Performance Highlights (Consolidated)



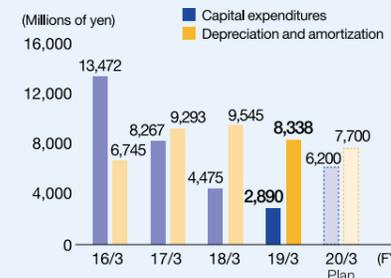
Net Sales



Operating Income/Operating Income Ratio



Capital Expenditures/Depreciation and Amortization



Research and Development Expenses



Organic Chemicals

Daicel is the only domestic producer in Japan that manufactures acetic acid, a basic chemical. We manufacture and sell a wide variety of chemical products, including acetic acid derivatives.



Business Overview

This segment operates the organic chemicals business focused on acetic acid, the performance chemicals business, which creates highly functional materials, and the chiral separation business, which maintains a major share of the global market.

In the organic chemicals business, we manufacture a broad variety of chemicals, including the mainstay product acetic acid and its derivatives. These products are used in a wide range of fields, including as raw materials for synthetic fibers and plastics, as various solvents, and as raw materials for pharmaceuticals and agricultural chemicals.

In the performance chemicals business, we manufacture and sell wide-ranging products and offer solutions that

meet various market needs, including peracetic acid derivatives used in automotive paints and special inks, high-performance resist materials and special solvents used in the manufacturing processes of cutting-edge semiconductors and displays, raw materials for cosmetics that require a high level of quality management, and healthcare materials developed from biotechnologies.

In the chiral separation business, we mainly provide chiral columns and chiral stationary phases (CSPs) for separation and purification of optical isomers in pharmaceutical development and manufacturing processes, as well as chiral separation services in five regions of the world: Japan, the US, Europe, China, and India.

Business Environment

- ▶ Drastic changes in the economic environment in China
- ▶ Expansion of the electronics market and new needs due to innovations in AI and IoT
- ▶ Growth of the medical/healthcare market because of increased health awareness in an aging society

Daicel's Strengths

- ▶ Japan's only acetic acid producer
- ▶ A lineup of high-performance products based on unique technologies and an outstanding capacity for developing new products
- ▶ Gaining market traction by maintaining large shares in niche markets

Strategies Based on the 3D-III Mid-term Plan

- Improving competitiveness through stable operations and cost reductions
- Concentrating management resources on core values (technologies and products)
- Identifying needs in collaboration with business partners (co-search) and offering solutions (co-creation)
- Strengthening product proposal capabilities and expanding the product lineup in the cosmetics and healthcare fields
 - Expanding the macromolecule drug development support business

TOPIC Special Solvents for Manufacturing Multilayer Ceramic Capacitors Receives KCS Award in Chemical Technology

In May 2019, the CELTO MX series, our special solvents used in manufacturing multilayer ceramic capacitors (MLCCs), received the Kinki Chemical Association's KCS Award in Chemical Technology.

MLCCs are electronic components that are smaller than a grain of rice and are indispensable for driving smartphones and tablet devices. Approximately one thousand MLCCs are used in a smartphone. Manufacturing these small components requires a solvent capable of dissolving conductive inks while leaving

the substrate completely untouched. We were able to develop the optimum solvent formulation through multiple strategies.

Along with the increasing demand for MLCCs, our sales are also steadily rising. We will continue to develop new products to make your life more convenient and comfortable.



Multilayer Ceramic Capacitors (MLCCs)

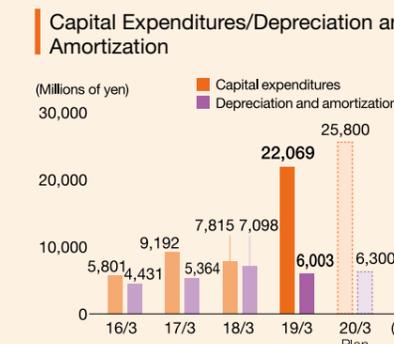
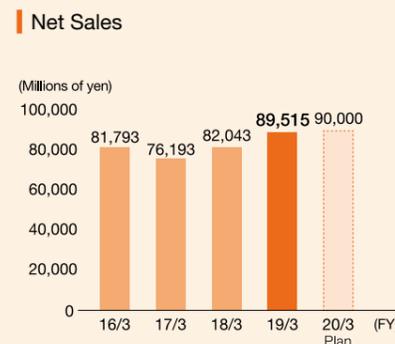
Overview of FY2019/3

Our key product, acetic acid, showed an increase in net sales due to an upward market trend supported by tight supply and demand. The net sales of acetic acid derivatives and chemicals also increased because of firm demand and revisions to selling prices following the rise in raw material and fuel prices. Net sales of performance chemicals increased, having recovered from the fire at the peracetic acid plant in the previous fiscal year, along with revised selling prices driven by rising raw material and fuel prices and strong demand for cosmetic raw materials. Net sales in the chiral separation business also increased due to increased sales of columns and chiral stationary phases (CSPs) and new businesses in India. As a result, the business segment enjoyed increases in both net sales and operating income.

Forecast for FY2020/3 (as of May 9, 2019)

In FY2020/3, the acetic acid market is expected to fall at the same time China's economic growth slows. We project that net sales of this business segment, however, will increase as a result of expanded sales of peracetic acid derivatives in performance chemicals and the strong demand remaining in electronic materials and the cosmetics and healthcare fields. We also expect net sales in the chiral separation business to rise, supported by the growth in new businesses and acquisition of Arbor Biosciences (official name: Biodiscovery LLC) in FY2019/3. Operating income for the entire business segment will also increase in light of the anticipated year-on-year decline in raw material and fuel costs. Capital investment will go up since we are currently working on construction projects to upgrade the production plant for carbon monoxide, a raw material for acetic acid, and increasing capacity for cosmetic raw materials.

Performance Highlights (Consolidated)



Plastics

The main focus of our plastics business is engineering plastics that feature excellent mechanical strength, heat resistance, and chemical resistance.

Business Overview

This business division is broadly separated into the engineering plastics business, which handles polyoxymethylene (POM), polybutylene terephthalate (PBT), polyphenylene sulfide (PPS), liquid crystal polymer (LCP), and cyclic olefin copolymer (COC); the plastics compound business, which focuses on acrylonitrile butadiene styrene (ABS) resins; and the plastic processing business, which supplies polystyrene sheets, molded containers, and functional films.

The engineering plastics business is run by the Group subsidiary Polyplastics Co., Ltd., a leader in the engineering plastics market, with POM and LCP

commanding the largest market share. The company has helped globally develop the market, which had been centered in the Asia-Pacific region, and provides solutions to a wide range of industries, especially automobiles and electronic materials.

The plastics compound business and the sheet business are run by Daicel Polymer Ltd. This subsidiary meets increasingly sophisticated user needs, focusing on such high-performance products as polymer alloys that exploit the diverse properties of multiple types of resin as well as reinforced grade products that use specialty fillers.

Business Environment

- ▶ Slowdown in global automobile production
- ▶ Increased need for lighter automobiles corresponding to tightening environmental regulations and the growing popularity of electric vehicles
- ▶ Increased electrification of automobiles with an eye toward self-driving
- ▶ Growth of the electronics market supported by progress in AI and IoT

Daicel's Strengths

- ▶ Products that command a large share of the global market
- ▶ A wealth of knowhow and research data cultivated over many years
- ▶ Provision of technical solutions to customers

Strategies Based on the 3D-III Mid-term Plan

- Establishing a supply system to meet demand
- Expanding businesses in Europe and the United States
- Developing applications and expanding sales in the next-generation automotive field
- Creating new businesses to achieve sustainable growth

TOPIC Polyplastics Co., Ltd. Obtaining "Green Material" Certification in China

Polyplastics Co., Ltd. develops and manufactures products with reduced environmental impact to realize a sustainable society.

With public awareness of health and the environment also rising in China, efforts of the Chinese government are in full swing, including legalizing the concentration levels of volatile organic compounds (VOCs) in the passenger compartments of automobiles. Backed by a wealth of experience and data gained through years of working in the automotive industry, the company obtained "green material" certification for the first time for plastic materials

in the Chinese automobile industry. In addition, it also received an award as a green material-certified company for the second consecutive year at the International Forum (XIQING) on China Automobile Material, held in Tianjin in March 2019. We will continue to cooperate in the hope that the VOC material certification system will further develop in the Chinese automobile market and lead to the improvement of the vehicle interior environment.



Award for green material-certified company

Overview of FY2019/3

In the engineering plastics business, net sales increased despite the impact of the economic slowdown in China during the second half of the fiscal year. This was due to increased sales volume driven by greater demand for automotive parts, progress in new parts adoption, and price revisions following the rise in raw material and fuel prices. In the plastic compound business, although sales volume decreased, net sales remained flat as result of price revisions following the rise in raw material and fuel prices. Net sales of the plastic processing business also increased thanks to the strong performance of the coating business. Consequently, although overall net sales of the business segment increased, operating income dropped under the impact of rising raw material and fuel prices.

Forecast for FY2020/3 (as of May 9, 2019)

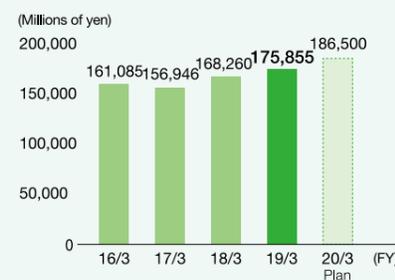
Despite continued concerns over China's economic slowdown, demand for engineering plastics is expected to grow due to factors such as the advancing electrification of automobiles and sophistication of smartphones. We therefore expect the increase in sales volume to persist into FY2020/3. We will continue our efforts to flexibly meet and anticipate customer needs and to strengthen and expand customer technical support systems at a global level. Moreover, we particularly expect to strengthen our presence in the European and US markets.

We plan to expand overseas sales in the plastic compound business, and intend to boost the sales of high-performance films in the plastic processing business. These efforts are expected to increase sales and profits across this segment.

Performance Highlights (Consolidated)



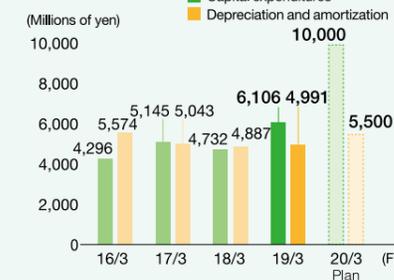
Net Sales



Operating Income/Operating Income Ratio



Capital Expenditures/Depreciation and Amortization



Research and Development Expenses



Pyrotechnic Devices

The main products of our pyrotechnic devices business are inflators for airbags. The business segment is committed to delivering highly reliable products associated with protecting human lives.



Business Overview

We have cultivated a wealth of pyrotechnic device technologies over the course of our longstanding operations, which started with the production of cellulose nitrate, a raw material of celluloid. Our pyrotechnic devices business division applies these technologies to manufacture and sell automotive safety devices such as automobile airbag inflators (gas generation devices), which protect the lives of occupants and pedestrians by inflating airbags within milliseconds after a collision and gas generators for seatbelt pretensioners

(PGG). The division also manufactures and sells defense-related products such as pilot emergency-escape systems and propellants.

Our automobile airbag inflators are highly regarded as the key component of airbag systems that continue to advance technology. They are manufactured at seven locations across six countries, Japan, the United States, China, Thailand, Poland, and South Korea, to flexibly respond to rapidly changing automotive industries worldwide.

TOPIC Automotive Airbag Inflators Growing Fast in India

We established Daicel Safety Systems India Pvt. Ltd., a sales base for automotive airbag inflators in India, in October 2018.

Following the rapid growth of automotive markets and tightened safety regulations that require all cars to be equipped with driver-side airbags starting in July 2019, India is seeing continually rising demand for airbags. We project that automobile production in India in 2030 will nearly double that of 2018, and the airbag market will grow about eight times larger. Through our base in India, we

will conduct sales activities that are more closely aligned with local customers and also look into the possibility of establishing a manufacturing base there.



Corporate logo of Daicel Safety Systems India Pvt. Ltd.

Business Environment

- ▶ Slowdown in the growth of global automobile production
- ▶ Ongoing technological advances in self-driving cars
- ▶ Stricter automobile safety regulations in emerging countries
- ▶ Rising awareness of safety and peace of mind, including protections for pedestrians

Daicel's Strengths

- ▶ Products that command a large share of the global market
- ▶ A global supply system
- ▶ Advanced technology and high product quality

Strategies Based on the 3D-III Mid-term Plan

- Promptly responding to market needs through technical services at each location
- Developing products that correspond with next-generation automobiles by strengthening cooperation with automobile and module manufacturers
- Improving quality and productivity by reinforcing production bases
- Creating new businesses based on pyrotechnic device technologies

Overview of FY2019/3

Despite the increased sales volume of inflators in the automotive safety parts business and defense-related products, overall net sales of the pyrotechnic devices business division decreased, mainly as a result of changes in product mix of inflator sales. In addition to these factors, operating income decreased due to increases of costs, such as the development of technical service systems in each global location, research and development for next-generation inflators, and investment in infrastructure development for improving production quality control and productivity.

Forecast for FY2020/3 (as of May 9, 2019)

Given that the number of airbags equipped per automobile is rising, despite the slow growth rate of worldwide automobile production, we project that the sales volume of inflators for new vehicles will increase. In FY2020/3, net sales and operating profits are expected to fall as the supply of replacement products for recalls by other companies, which began in FY2016/3, is coming to an end. However, we aim to steadily expand our business through customer-based marketing and technical support at our global sites. In addition, we will work both to lift profits by improving infrastructure and reviewing our business structure and to develop next-generation products that meet emerging needs, such as environmental changes driven by progress in self-driving technology, by strengthening ties with module manufacturers.

Performance Highlights (Consolidated)

Net Sales (FY2019/3)

¥107.9 billion

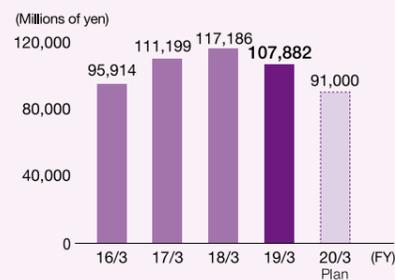
Down 7.9% year-on-year

Operating Income (FY2019/3)

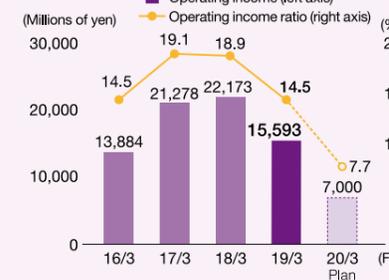
¥15.6 billion

Down 29.7% year-on-year

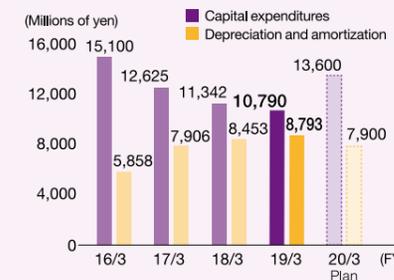
Net Sales



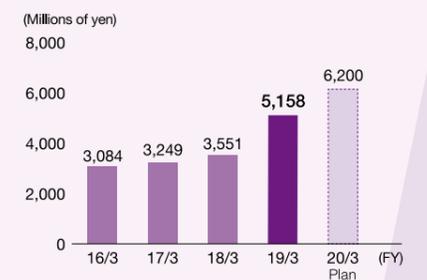
Operating Income/Operating Income Ratio



Capital Expenditures/Depreciation and Amortization

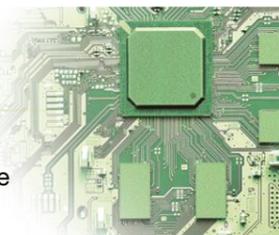


Research and Development Expenses



Research and Development

Particularly focusing on the medical/healthcare and electronics fields, we promote research and development across a wide range of fields to generate significantly new value for society.



Contributing to Printed Electronics for Electronic Circuits

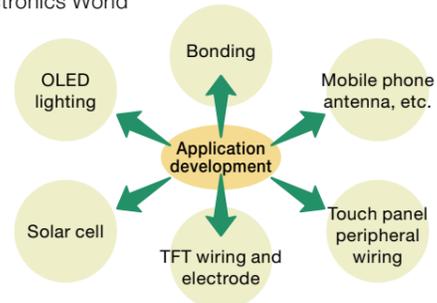
The electronic circuit board incorporated in an electronic device is generally composed of a resin board with copper layers to which electronic components are connected after the circuit area has been coated with a protective layer and unnecessary area has been chemically removed.

Meanwhile, research into printed electronics has advanced, producing a technology for directly printing electronic circuits on resin surfaces. The technology makes possible the printing of electronic circuits on films for flexibly bendable displays.

Compared to conventional methods, it not only simplifies production but also reduces environmental impact, since it is now possible to print only the necessary parts, thereby minimizing the use of harmful chemicals for removing excess copper.

Daicel is conducting research on printed electronics and began operating a mass production facility for Picosil[®], a silver nano ink paste used for printing electronic circuits, at its Arai Plant in Niigata Prefecture in January 2019.

Expanding Applications for Silver Nano Ink in the Printed Electronics World



Printing Electronic Circuits by Using a Silver Nano Ink



After printing the circuit, silver nanoparticles are heat treated to form the wiring. Compared to other brands, Picosil[®] can be treated at a lower temperature range of 120°C to 150°C so that circuits can also be formed on PET resins. Various types of printing methods, such as inkjet, screen, gravure, and offset printing, can be used for the application, and with the inkjet printing method, circuits can be formed by drop-on-demand printing.

List of R&D Themes for FY2019/3

Cellulosic Derivatives

- Development of new materials and applications by reactions and structural processing utilizing the characteristics of cellulose
- Introducing process innovation technologies at cellulose acetate and cigarette filter tow manufacturing facilities to enhance product competitiveness

Organic Chemicals

- Research into improving acetic acid manufacturing technologies
- Developing and commercializing new products based on peracetic acid derivatives as well as organic functional products for use in cosmetics and electronic materials
- Development of new chiral columns and products for use in separation and purification
- Development of resin materials and functional solvents for use in printed electronics in addition to resist monomers for ArF lithography
- Adapting process innovation technologies to manufacturing plants in order to strengthen competitiveness of existing products

Plastics

- Enhancement of quality and environmental suitability of engineering plastics
- Development of high-performance resins and polymer alloys
- Development of polystyrene-based products

Pyrotechnic Devices

- R&D on new gas generators and new inflators for automobile airbags
- Development of products related to pilot emergency-escape systems

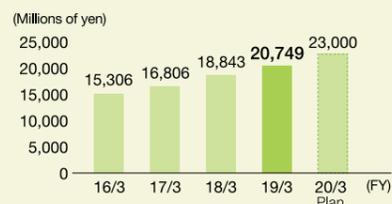
Others

- Development of separation membranes and separation systems for water treatment equipment

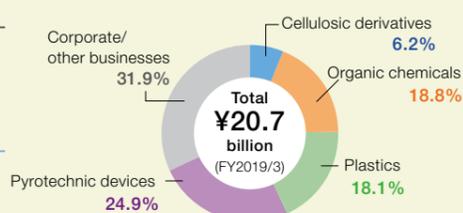
Corporate

- R&D on creation of new businesses and basic research

Research and Development Expenses (Consolidated)



Ratio of R&D Expenses by Business Segment (Consolidated)



ESG Initiatives

CSR Management

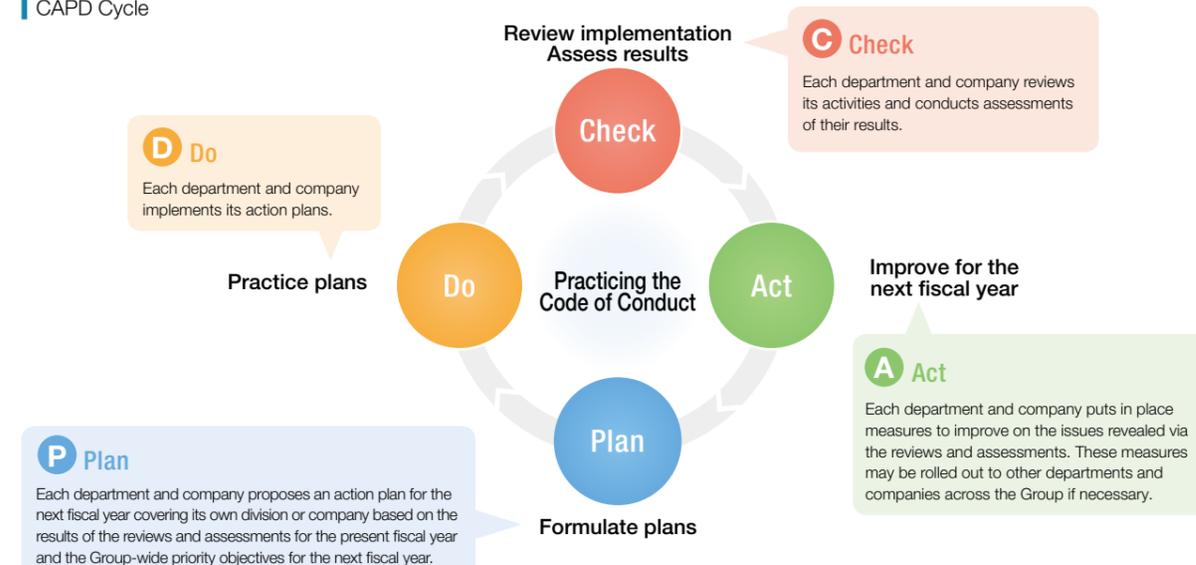
Promotion of CSR Activities

Basic Policy

The CSR activities of Daicel Group consists of its Corporate Ethics Initiative and Responsible Care Initiative (RC). Corporate Ethics Initiative is made of practicing the Daicel Group Conduct Policy founded on the Group's basic philosophy and the Code of Conduct formulated by each Group company under the policy. Our CSR activities are not limited to particular individuals or organizations but instead involve everyone who works at the Daicel Group. In pursuing our CSR activities, we are guided by a Check, Act, Plan, and Do (CAPD)* cycle as a basic methodology to continually improve our activities.

*Instead of a plan, do, check, and act (PDCA) cycle, the more widely known approach to continuous improvement, Daicel has adopted a CAPD improvement cycle to avoid the risk of overlooking crucial facts and realities that often lie hidden in the initial planning stage.

CAPD Cycle



Promotion System for CSR Activities

The Daicel Group seeks to implement CSR activities by integrating them into its management. The Corporate Compliance Program Division and RC Council collaborate in promoting CSR activities, while each responsible division addresses individual issues by operating a CAPD cycle.

The Corporate Compliance Program Division receives reports on activities other than those related to RC from individual divisions and Group companies, and in turn reports them during the "Top Management Review". Objectives for

the next fiscal year are determined based on the results of the Review and then reflected in the activity plans. The status of the activities is reported to the Board of Directors.

The RC Council receives reports on RC activities, presents a report to the Planning Meeting, and determines the objectives and implementation activities for the following fiscal year. Additionally, the RC Council reports on the status of these activities to the Management Meeting.

CSR Management

Promotion System for Corporate Ethics

Basic Approach

The Daicel Group has positioned corporate ethics as an essential component of the CSR engagement systems of each department and Group company. Instilling a sense of corporate ethics in every employee is considered to be just as vital, and therefore the Daicel Group promotes corporate ethics Group-wide.

Promotion System and Management System for Corporate Ethics (Compliance) Initiative

Daicel established the Corporate Compliance Program Division to promote corporate ethics activities and appointed a representative director of the Company as its Corporate Compliance Officer. Each Daicel department and Group company has established its own Corporate Ethics Management System based on processes that incorporate the Check (reviews and assessments), Act (improvement), Plan, and Do (practice) cycle, and appoints a CSR Activity Facilitator, who spearheads corporate ethics activities which are voluntary and involve all employees.

Daicel's Structure for Promoting Corporate Ethics Initiatives



Responsible Care Activities

To practice the spirit of Responsible Care (RC), the Daicel Group established the Daicel Group Basic Policies for Responsible Care and is promoting across-the-board RC activities to contribute to the sustainable development of society.

Daicel Group's Basic Policies for Responsible Care

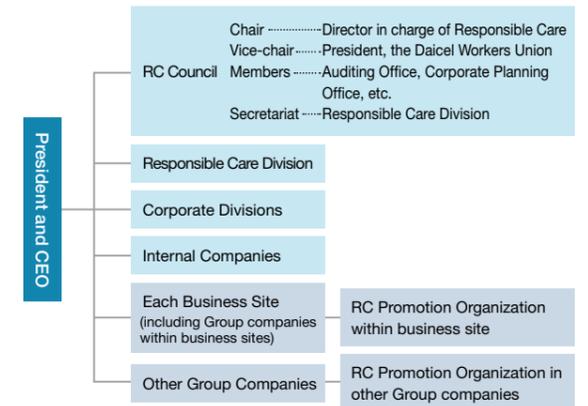
- In accordance with management policy, we will comply with laws and regulations and strive to safeguard the environment, health, and safety. For this purpose, we share specific implementation plans among all employees and put them into action.
- We will strive to continually improve environmental, health, and safety performance and the security of facilities as well as processes and technologies throughout the entire chemical lifecycle, from development to disposal, and inform society of the results of such efforts.
- We will further reduce our consumption of resources and energy and strive to reduce, reuse, and recycle waste.
- We will protect the environment and people's health and safety by driving continual improvement in chemical product safety and stewardship throughout the supply chain.
- We will practice risk-based chemical management throughout the entire chemical lifecycle, from development and production to use, consumption, and disposal and strive to strengthen our chemical management systems by continual improvement.
- We will influence the employees and the value chain stakeholders to promote the safe management of chemicals within their own operations.
- We will strengthen our stakeholder relationships by understanding and responding to stakeholder concerns and expectations about safer operations and products as well as openly communicating about our performance and products.
- We will put the Daicel Group's overall efforts into continually improving initiatives for the environment, health, and safety in order to meet stakeholder expectations.
- We will contribute to the sustainable development of society by developing and providing unique and innovative technologies and other solutions.
- We will promote biodiversity-friendly activities in order to pass on the wealth of nature to future generations.

Implementation System for Responsible Care

The Daicel Group promotes its RC activities under the RC Council. The council is chaired by a director in charge of RC by appointment by the president, who bears ultimate responsibility for RC activities. The council comprises the president of the Daicel workers union and heads of administrative divisions appointed by the chairman as well as the Responsible Care Division, which serves as the secretariat for the council.

The council discusses and determines such matters as basic policies and targets for RC activities in addition to the content of annual RC implementation plans, and it also conducts RC audits.

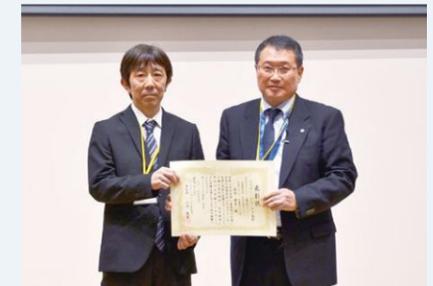
Diagram of Responsible Care Promotion System



TOPIC

17th Daicel Group Responsible Care Promotion Conference

RC activities are undertaken by chemical companies to proactively ensure environmental, health and safety preservation and constitute a key component of CSR activities. The Daicel Group holds a Responsible Care Promotion Conference at the start of each fiscal year to ensure that employees maintain a high level of awareness as they engage in RC activities. In FY2019/3, the 17th Daicel group RC Promotion Conference was held at the Innovation park in April and attended by about 100 participants, including members of Daicel management, company chiefs, presidents of Group companies, Daicel trade union representatives, and representatives of each department. During the conference, the president, along with the Responsible Care chairperson and vice chairperson, offered messages, and the RC activity policies were confirmed. RC awards were also presented to 15 employees who significantly contributed to RC activities in FY2018/3. This year, outside director Nogimori gave a lecture entitled "Corporate obligation to safety."



Presentation of the RC Award (left: representative of the recipients, right: RC chairperson)



KAIZEN Case Study Meeting



KAIZEN Case Study Meeting

The Daicel Group holds KAIZEN (continuous improvement) Case Study Meetings to foster a spirit of continuous improvement among all Group employees under the theme of "be aware, think and act." The meeting took place at the innovation park in April of FY2019/3. This year's event was attended by staff members from 20 departments chosen out of 124 teams at business sites in Japan and overseas. They included teams selected from the sites of Aerospace & Defense Systems/Safety Systems companies in six countries that participated in the sixth Global KAIZEN Contest as well as sites chosen from the head offices in Tokyo, Osaka, and Nagoya, which participated in the meeting for the first time. Going forward, the Daicel Group will promote various improvement measures, placing utmost priority on the assurance of safety and quality.

CSR Management

Targets, Results, and Assessments of RC Activities

Boundary	FY2019/3 Targets	FY2019/3 Results	Assessment	FY2020/3 Targets	
Environmental Preservation Global warming countermeasures	Business sites of Daicel and on-premise Group companies	Promote energy conservation to achieve the FY2021/3 targets set forth in the KEIDANREN's (Japan Business Federation) Commitment to a Low Carbon Society. Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by the Energy Saving Act).	Emissions totaled 1.2 million tons against the GHG emission target of 1.58 million tons for 2020 (Business as Usual basis). Energy intensity improved by 0.8 percentage point.	○	Promote energy conservation to achieve the FY2021/3 targets set forth in the KEIDANREN's Commitment to a Low Carbon Society. Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by the Energy Saving Act).
	Other Group companies	Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by the Energy Saving Act).	Failed to meet the target of reducing energy intensity by 1% or more.	△	Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by the Energy Saving Act).
Waste reduction and recycling	Business sites of Daicel and on-premise Group companies	Reduce landfill indices to not more than 16% of levels recorded in FY2002/3 to achieve our FY2021/3 target ahead of schedule.	Reduced landfill indices to 12%.	◎	Reduce landfill indices to not more than 16% of levels recorded in FY2002/3 to achieve our FY2021/3 target ahead of schedule.
	Other Group companies	Maintain zero emission status at all business sites.	Achieved zero emission status at 5 Group companies except at DM Novafoam Ltd.	○	Achieve zero emission status at all business sites.
Occupational Health and Safety	Business sites of Daicel, on-premise Group companies, and partner companies	Aim for zero occupational accidents (placing particular focus on preventing serious incidents, such as encounters with hazardous substances and heat stress). Utilize TRC branch offices at each plant to enhance the content of hazard simulation training.	17 occupational accidents (12 in the previous year) Encounters with hazardous substances remained the same but heat stress increased from the previous year. Enhanced and strengthened training related to unique technologies and basic operations and hazard simulation training at TRC branch offices at each plant.	△	Aim for zero occupational accidents (placing particular focus on preventing serious incidents, such as encounters with hazardous substances, heat stress and falling accidents). Utilize TRC branch offices at each plant to enhance the content of hazard simulation training.
	Other Group companies	Aim for zero occupational accidents (placing particular focus on preventing injuries due to encounters with hazardous substances and falls). Enrich the content of workplace safety meetings by, for example, grouping attendees by type of manufacturing operations. Continue to roll out activities aimed at learning from the lessons of the past.	9 occupational accidents (3 in the previous year) There was a falling accident involving a worker at a construction subcontractor. Held safety meetings at Group companies primarily involved in production based on processing.	△	Aim for zero occupational accidents (placing particular focus on preventing injuries due to encounters with hazardous substances and falls). Continue holding workplace safety meetings by, for example, grouping attendees by type of manufacturing operations. Continue to roll out activities aimed at learning from the lessons of the past.
Process Safety and Disaster Prevention	Business sites of Daicel, on-premise Group companies, and partner companies	Aim for zero accidents involving fire, explosions, and leaks. Systematically address issues associated with safety infrastructure and corporate culture. Enhance BCPs ^{*1} for key products.	There were 3 small fires and 1 process incident, with minor impact. Reviewed risks that may lead to accidents, strengthened the system for responding to accidents, and prepared for the early resumption of product supply. Secured spare parts in accordance with BCP guidelines and strengthened the supply chain.	△	Aim for zero accidents involving fire, explosions, and leaks. Systematically promote preventive measures against risks that may lead to accidents, the ability to deal with accidents, and measures to ensure the early resumption of product supply. Enhance BCPs for key products.
	Other Group companies	Strengthen security measures in accordance with security guidelines. Aim for zero accidents involving fire, explosions, and leaks. Systematically address priority issues for each Group company. Step up security measures at each Group company in accordance with security guidelines.	Systematically strengthened access control at the gates of each business site in accordance with security guidelines. 2 small fires with minor impact; preventive measures were implemented. Systematically addressed priority issues for each Group company. Stepped up consideration of security measures in accordance with security guidelines.	△	Promote measures for strengthening security measures in accordance with security guidelines. Aim for zero accidents involving fire, explosions, and leaks. Systematically address priority issues for each Group company. Step up security measures at each Group company in accordance with security guidelines.
Distribution Safety	—	Aim for zero logistics accidents at Daicel Logistics Services and partner companies. Reduce logistics issues at partner companies by 20% from the previous fiscal year. Improve 5-year average energy intensity by at least 1% (based on the calculation method in the Energy Conservation Act).	No serious logistics accidents, but logistics issues increased. Failed to achieve target due to an increase in logistics issues. Energy intensity did not improve by 1% or more.	△	Prevent recurrence of logistics issues such as contact accidents at customer sites as well as shipping and delivery errors. Eliminate leaks of hazardous substances as well as shipping and delivery errors. Improve 5-year average energy intensity by at least 1% (based on the calculation method in the Energy Conservation Act).
	Response to REACH ^{*2}	Complete the registration of products being exported in annual volumes of 1 ton or more based on REACH's regulatory timeframe.	Completed registration of products being exported in annual volumes of 1 ton or more based on REACH's regulatory timeframe.	○	Ensure a consistent response to REACH.
Chemical Safety Initiative	Initiatives to secure compliance with other chemical regulations	Remain apprised of the latest developments and trends in chemical regulations and act appropriately to secure responsiveness to such regulations.	Regularly researched information on the revision of chemical regulations in Japan and overseas while holding in-house meetings to share such information.	○	Remain apprised of the latest developments and trends in chemical regulations and act appropriately to secure responsiveness to such regulations.
	Management of chemical substance information	Register new chemical products with the D-CLik ^{*3} database and update product information based on additional testing results.	Registered new chemical products with the D-CLik database and updated this information based on additional testing results.	○	Register new chemical products with the D-CLik database and update product information based on additional testing results.
	VOC ^{*4}	Reduce VOC emissions by 40% or more from levels recorded in FY2001/3.	Reduced VOC emissions by 50% from levels recorded in FY2001/3.	◎	Maintain a reduction of VOC emissions by 40% or more from levels recorded in FY2001/3.
PRTR ^{*5}	Maintain a reduction of PRTR substance emissions by 40% or more from levels recorded in FY2002/3.	Reduced PRTR substance emissions by 66%.	◎	Maintain a reduction of PRTR substance emissions by 40% or more from levels recorded in FY2002/3.	

Assessment criteria: ◎ → Succeeded by meeting or exceeding targets (100% or more) ○ → Nearly achieved targets (80% or more)
△ → Failed to meet targets (40% or more) × → Results fell far short of targets (less than 40%)

^{*1} BCPs (Business Continuity Plans) aim to minimize damage and ensure a swift restoration of operations should a business site be hit by an earthquake or other major disaster.
^{*2} REACH (Registration, Evaluation, Authorization and Restriction of Chemicals) mandate that producers must register their chemical products with the European Union and conduct safety assessments, restrict their use, and control permits for their use.
^{*3} D-CLik is a unique database developed by Daicel to manage chemical substance information.
^{*4} VOCs (Volatile Organic Compounds) include such well-known examples as toluene, xylene, and ethyl acetate.
^{*5} PRTR (Pollutant Release and Transfer Register) is a system with which business operators calculate the amount of chemical compounds emitted into the environment or transferred off-site for treatment or disposal during production, usage, or storage in Japan and also notify the government of these figures.

Environmental Report

Environmental Management

Basic Approach

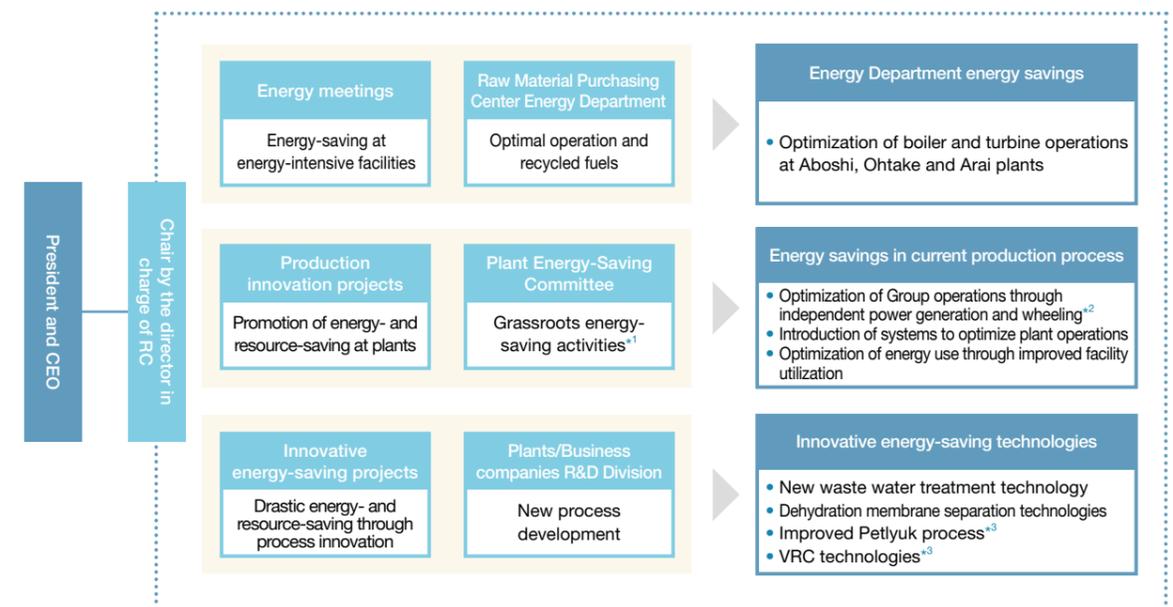
In accordance with the Daicel Group's environmental management policy, each Daicel's business site and Group company executes its own Environmental Management System, including setting targets, monitoring progress, and assessing results. These collective efforts help us keep in mind our corporate social responsibilities as we strive to contribute to the realization of a sustainable society.

Our Structure for Promoting Energy-Saving Initiatives

The Group's Energy Conservation Committee is chaired by the director of Responsible Care and operated directly under the president. With representatives from all relevant divisions, the committee is spearheading across-the-board environmental management efforts such as reducing

energy consumption, CO₂ emissions, and industrial wastes while also managing atmospheric and water pollution. The committee applies a three-dimensional strategy to manage such efforts.

Diagram of Energy-Saving Promotion System



^{*1} Grassroots energy-saving activities: Activities aimed at saving energy by, for example, stepping up steam trap management, optimizing facility operations, and adjusting the temperature settings of air conditioners, with the aim of making a significant difference through the accumulation of small actions.
^{*2} Independent power generation and wheeling: The supply of electricity to our facilities in other locations with energy generated by our own facilities using the electric company's distribution network.
^{*3} VRC technologies and Improved Petlyuk process: These are one of exhaust heat treatment technology. For more information, see our website

<https://www.daicel.com/en/csr/environment/global-warming.html>

Environmental Report

Global Warming Prevention

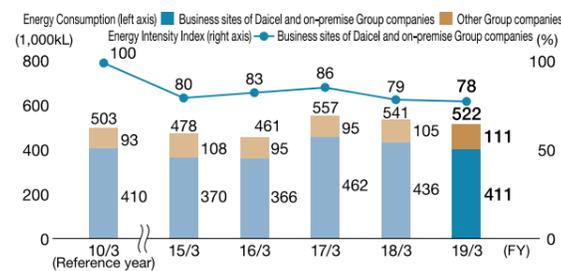
Initiatives to Reduce CO₂ Emissions

Daicel and all its domestic Group companies achieved energy consumption reduction of 19,000 kl (3% of previous year in crude-oil equivalent). In addition, Business site of Daicel and on-premise Group companies improved 0.8% in the average change in energy intensity, based on the calculation method defined by the Energy Saving Act*¹. In addition, the energy intensity index*² based on FY2010/3 is 1 percentage point improvement from the previous year. The power

sold externally has been included in this calculation from FY2017/3 in accordance with the revised Electricity Business Act. The CO₂ emissions of Daicel and on-premise Group companies were 1,200,000 tons-CO₂, a 2% reduction from the previous fiscal year, and thus the target has already been achieved*³.

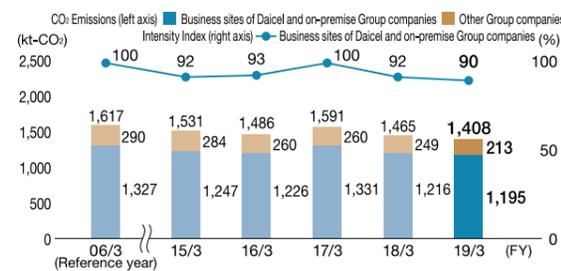
*² energy intensity index: Based on the total consumption of resources required for manufacturing a specified unit of product, the energy intensity index is obtained using the following formula: Energy intensity for that year / Energy intensity in a standard year × 100

Energy Consumption and Intensity Index (Domestic)



*¹ The target is to improve the average energy intensity by at least 1% annually (following the calculation method defined by the Energy Saving Act).

CO₂ Emissions Attributable to Energy Consumption and the Intensity Index



*³ The CO₂ emission target for FY2021/3 is 1,580,000 tons, which is in line with the phase-I target for the Nippon Keidanren's Commitment to a Low Carbon Society.

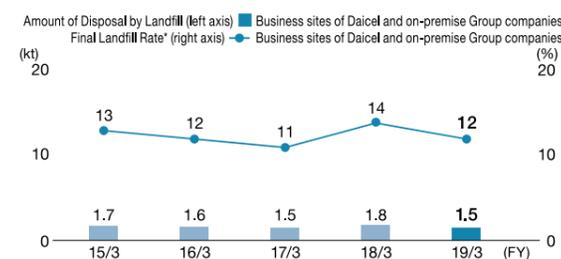
Reduction and Recycling of Industrial Waste

Initiatives to Reduce Industrial Waste

In FY2019/3, the amount of industrial waste generated by domestic Group companies, on and outside their premises, decreased by approximately 1,600 tons compared to the previous year. The land fill index was 12%, so the target of keeping it below 16% was achieved, with FY2001/3 as the

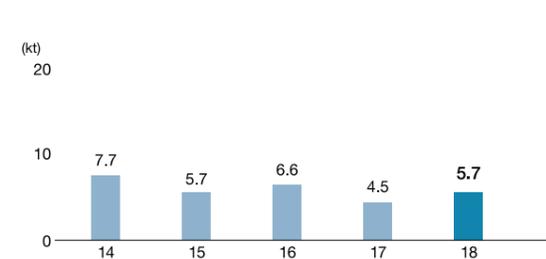
reference year. Moreover, in FY2019/3, 5 out of 6 of the Group companies based outside of Daicel's main premises (DM Novafoam Ltd. being the exception) maintained zero-emission status.

Amount of Disposal by Landfill and Final Landfill Rate



*Final Landfill Rate: (amount of disposal by landfill / amount of industrial waste generated) × 100

Amount of Disposal by Landfill (Overseas)*



*The data collection period is from January to December each year.

Social Report

Responsibility for Customers and Product Safety

Enhancing Product Quality

Quality Policy for Daicel Group

Each member of the Daicel Group promises to deliver safe and quality products which can be used with assurance by the customer. In order to realize this policy, we undertake the following actions.

- We listen to customer requirements and deliver trust and satisfaction.
- We clarify and seek to achieve the required quality.
- We obey laws and regulations.
- Each member looks at matters from the customer's perspective and undertakes actions on their own initiative.

Quality Management System

All of the Group's plants have acquired quality management certifications under international standards such as ISO 9001, the quality standard, and IATF16949, the comparable standards for the automobile industry. Our quality management system is based on compliance with these standards.

Each internal company is responsible for the quality of their products. Relevant officials from the Company's plants and internal companies attend regular quality assurance meetings, in which they share requests and feedback from customers and discuss how to maintain and improve product quality. As such, these officials are acting in close collaboration to operate the quality management system. The Quality Management Division, operating directly under

the president, audits these activities and collects and analyses product quality data. They encourage the relevant departments to make the necessary improvements and, in turn, deepen the trust of our customers.

Also, aiming to enhance customer satisfaction, each plant engages in continued efforts to improve product quality by identifying its annual quality targets. Having specified indicators for assessing the quality of each product they manufacture, these plants are operating a CAPD cycle to achieve improvement and, at the end of each fiscal year, plant general managers carry out top management reviews with the aim of evaluating initiatives undertaken during the year and of obtaining insights into actions that should be taken in the fiscal year to follow.

Chemical and Product Safety

Basic Approach

In line with its Basic Policies for Responsible Care, Daicel aims to ensure the safety of its chemical products in all stages of its operations, ranging from manufacture and use to disposal, and also throughout its supply chain while striving to mitigate risk associated with these products. To this end, the Company is committed to maintaining robust information disclosure with regard to its chemical products.

Chemical Substance Management

In addition to complying with domestic regulations with regard to the management of chemical products, Daicel maintains compliance with chemical regulations enforced in Europe, the United States, China, South Korea, and other countries by regularly acquiring the latest information on law revisions in these countries.

The Company completed all the phase 1 to 3 registrations of its products designated under the European Union's REACH*, complying with regulatory timelines specified by the regulations based on the volume of

substances being manufactured or exported.

Moreover, employees in charge of chemical management at both internal companies and Group companies meet quarterly to exchange the latest information on the law and regulatory updates with regard to chemicals and trends among industrial associations in Japan and overseas.

*REACH: Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulation mandate that producers must register their chemical products with the European Union and conduct safety assessments, restrict their use, and control permits for their use.

Social Report
Responsibility for Customers and Product Safety

Process Safety and Disaster Prevention

Basic Approach

Through its risk assessment process, the Daicel Group identifies risks associated with process safety and disaster prevention. We continuously strive to maintain safe and stable operations by adopting the necessary measures against these identified risks in order to achieve zero accidents.

Initiatives on Process Safety and Disaster Prevention

In FY2019/3, the Group encountered five cases of small fires (e.g., involving lighting equipment or a vehicle) and one process-related accident. All of these incidents were minor and had little impact. Root cause analysis has been carried out and preventive measures put in place to address both physical and human errors.

After lessons were learned from a fire at the Ohtake plant in 2017, we conducted activities to identify risks that could result in accidents and developed action plans comprising preventive measures. We also made structural improvements as a response to such accidents and will accelerate our

recovery efforts if any such future incidents occur. All of these action plans have been successfully completed. We also worked on strengthening security at our business sites to prevent illegal access to our grounds and to monitor our visitors. We are making progress on our plans to enforce the perimeter fence and to install access control systems at our gates. Our Group companies outside of our premises are also taking steps to strengthen security. Looking ahead, we will continue to focus on ways to reduce risks related to process safety and disaster prevention.

Distribution Safety

Basic Approach

As a distributor, Daicel Corporation works with Daicel Logistics Service Co., Ltd. to ensure safe distribution and quality management. Daicel Logistics Service Co., Ltd. has set its safety target as maintaining its status of zero logistics accidents and zero occupational accidents and achieving zero at-fault traffic accidents. Its quality management target is stated as: "take responsibility as a logistics contracting company by quickly and sincerely responding to complaints and accidents relating to logistics to earn the CS (customer satisfaction) of the distributors."

Preventing Logistics Accidents

In FY2019/3, Daicel Logistics Service and its partner companies maintained zero-accident status in the course of logistics operations. The number of logistics issues (e.g., shipping and delivery errors and customer complaints, as defined by Daicel Logistics Service's standards) remained almost the same as in the previous fiscal year. Since most of the observed incidents were reoccurrences of past issues, we intend to improve our preventive measures and raise employee awareness. In addition, with the help of partner companies, we will identify the root causes for the observed issues to improve our prevention measures.

Training at the Safety and Quality Education Center

In 2011, Daicel Logistics Service opened the Safety and Quality Education Center on the premises of the Kansai Logistics Center Amagasaki Sales Office. This move was intended to step up its efforts to maintain distribution safety and quality, both essential to earning customer trust. Since then, the facility provides training programs aimed at enhancing the operational skills of tank truck drivers and plant staff in charge of loading and unloading cargos, utilizing a unique curriculum prepared by Daicel Logistics Service. As of March 31, 2019, a total of approximately 1,000 trainees completed training at the facility.

In recognition of these initiatives, in FY2017/3 Daicel Logistics Service was chosen by the Japan Chemical Industry Association (JCIA) to receive an Outstanding Award under the JCIA's 10th Annual Responsible Care Awards Program.



Technical training

Social Report Creating Attractive Workplaces

Occupational Health and Safety

Basic Approach

The Group strives for zero occupational accidents, and to this end we pursue activities that ensure safety remains the highest priority. These activities include 3S activities, namely seiri (tidying), seiton (putting everything in order), and seisou (cleaning); crisis-identification, and hazard prediction, all fundamental activities at our production sites.

Initiatives toward Zero Occupational Accidents

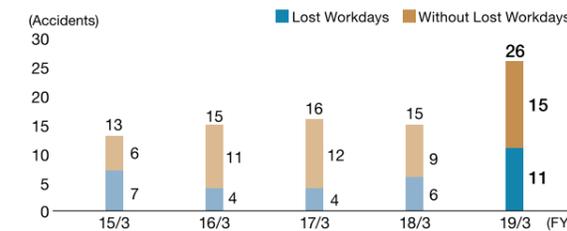
In FY2019/3, we focused on preventing serious occupational accidents such as heatstroke and injury caused by hazardous substances. At each plant, the occupational health and safety manager, health nurses, and facility manager worked hand in hand on prevention efforts, including the enforcement of patrols to ensure against heatstroke and injuries, replenishing drinking water and mineral supplies, and setting up rest areas.

In FY2019/3, the business sites of Daicel, on-premise Group companies and partner companies, and other Group companies recorded a total of 26 occupational accidents, consisting of 11 accidents with lost workdays and 15 without lost workdays. Compared to the previous fiscal year, injuries

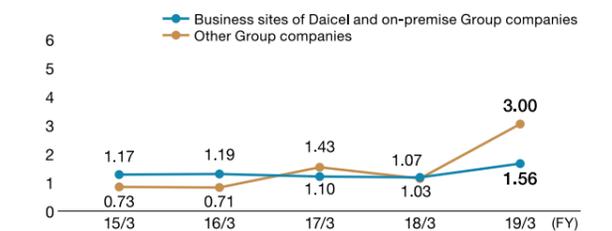
from hazardous substances remained the same while heatstroke cases increased. Since most of the instances of heatstroke occurred during the short period of consecutive days of severe heat, we enforced preventive measures against heatstroke at each plant. In addition, after an employee from a contract company fell while performing outsourced roof repair work, we had to make sure that our safety measures for working in high places would be taken seriously.

In FY2020/3, we will continue to focus on preventing serious occupational accidents, such as heatstroke and injury from hazardous substances as well as falls, as our top priority.

Number of Occupational Accidents (Domestic)



Occupational Accident Frequency Rate* (Domestic)



*Occupational Accident Frequency Rate = (number of people involved in an occupational accident / total actual working hours) × 1 million hours

Initiatives to Improve Occupational Health and Safety Safety Exchange Meetings for Group Members

Since FY2015/3, we have been holding casual exchange meetings aimed at fostering a sense of unity among Group members and heightening the awareness of those who take on front line operations with regard to 3S and other safety assurance initiatives. With the labor union and management acting in collaboration, these meetings are attended by forepersons and mid-level managers from Daicel production sites and other domestic Group companies. The sessions usually involve a tour of plant facilities and small-group discussions on 3S case studies to help participants

exchange their insights.

In FY2019/3, a meeting was held at the Kanzaki plant (Daicel Value Coating Ltd.), the manufacturing base for packaging films with the participation of managers, including DM Novafoam Ltd., Daicel Pack Systems Ltd., and Daicel Pyrotechnics Ltd., all of which conduct a primarily processing style of manufacturing. The group of participants also visited the Product Safety and Quality Education Center at Daicel Logistics Service Co. Ltd.'s Amagasaki site.

Social Report
Creating Attractive Workplaces

Human Resource Management

Human Resource Policy

As we globalize our businesses and rapidly expand overseas, we have unified our human resource management guidelines to encourage employees from diverse backgrounds to work together. We have positioned these guidelines as a base for all of these people.

The guidelines define the Group's fundamental stance on various human resource issues, ranging from recruitment, training, and development to work placement and the determination of working conditions. These guidelines are entitled, "People Are the Foundation of Our Success."

Daicel Group's Human Resource Policy

People are the Foundation
for Our Success

The Three Core Principles of Our Human Resources Policy

- Will** We encourage the strong will and courageous decisions of each individual.
- Diversity & Inclusion** We continue to evolve through the interaction of our diverse personalities.
- Integrity** We do the right thing and proudly follow the right path.

Initiatives to Help Employees Maintain Mental and Physical Health

Daicel Declaration on Health Management

The Company will strive to offer a safe and comfortable workplace based on the conviction that its business foundation relies upon the mental and physical health of each employee. The Company will act in collaboration with the health insurance society to help each employee as well as their families engage in autonomous and proactive efforts to maintain and improve their health conditions.

Organizational Structure for Health Promotion

In 2003, the Company established Central and Local Healthcare Committees consisting of representatives from labor unions, management and Daicel's health insurance society. These committees are working to create workplaces within Daicel where individual Daicel employees can exert their individuality and capabilities and promote health throughout the Company's workplaces.

As a part of efforts to provide comprehensive support within the Group, a variety of measures are undertaken to ensure the sound health of employees. In addition to the Central Healthcare Committee, Local Healthcare Committees are set up at each site. Steps are also taken to provide everyday health guidance. Complementing these endeavors, psychiatrists are employed to help employees who have developed any mental health problems. We will continue to focus on the health of our employees, both mentally and physically, through such initiatives as programs to support those with mental health problems so they can return to work, provide training for the early detection of health problems, and build the necessary infrastructure.

Achievements for FY2019/3 Initiatives

• Mental Healthcare

The stress check carried out in FY2019/3 achieved 99.8% coverage of all employees.

We conduct 20 mental health training sessions per year with a focus on interpersonal stress in the workplace to improve employee communication skills and stress tolerance.

• Physical Healthcare

80.9% of eligible employees underwent specified health checkups (79.2% in FY2018/3).

50.6% of those for whom counseling was deemed necessary received counseling (41.2% in FY2018/3).

We will maintain our focus on the mental and physical health of employees. Our Healthcare Committee will continue to take the lead in tackling health-related challenges, including improving the workplace environment and promoting counseling for those who need it after specified health checkups.

Human Resource Development

Developing Global Talent

Aerospace & Defense Systems /Safety Systems Company (motor vehicle safety devices) is a company that operates five manufacturing sites in the U.S., China, South Korea, Thailand, and Poland. While each site develops its own training and development programs, the Aerospace & Defense Systems/Safety Systems Company education center trains and certifies trainers specialized in critical processes and special skills to ensure the same level of quality and safety are incorporated into manufacturing practices worldwide. As of March 31, 2019, there are 16 certified trainers across the globe, and each of them trains and certifies new trainers locally at the various business sites.

Daicel Safety Systems (Jiangsu) Co., Ltd. (DSSC) in China, the largest manufacturing site, completed building their new training center in February 2019 and the four Dojos (safety, quality, maintenance, and assembly) have launched their education programs. Daicel Safety Systems Europe Sp. z o.o. (DSSE) in Poland is also planning to set up Dojos

and begin training. We conduct training and development programs tailored to local cultures and the size of each business site based on the principle of safety and quality assurance with the same Daicel Spirit.



During the training program

TOPIC

■ Initiatives at MSD Human Development Center

The Daicel Safety Systems (DSS) Human Resource Development Center was renamed the "MSD Human Development Center" in 2018 to serve as a human resource development center specialized in processing and assembly-style manufacturing. Aerospace & Defense Systems/Safety Systems Company is making every effort to develop human resources with the level of manufacturing skills required to contribute to the growth of Safety Systems Company businesses. The Daicel Group's Human Resource Policy states that "People are the Foundation for Our Success." Our training efforts focus on the following four missions based on our belief that nurturing personnel and their capabilities will drive Company growth.

- 1 DSS Human Resource Monozukuri Development
- 2 Monozukuri Training in Technical Development & Research Centre of Safety Systems Company
- 3 Developing Global Talent
- 4 Safety Training at the Harima Plant

The MSD Human Development Center has established its own structure for educational programs, including (1) position-specific programs such as training for new employees, operators, supervisors, and leaders; (2) specialized programs encompassing manufacturing knowledge and skills specific to each job type; and (3) development of certification or qualification systems for specialized or key processes.

The educational programs cover the knowledge and skills needed for manufacturing processes, including standard procedures based on the Toyota Production System, manufacturing engineering, statistical quality control, problem-solving skills, and equipment maintenance. Trainees acquire the related knowledge and skills through classroom lectures and hands-on experience.

In addition to the standard training rooms, we have three specialized rooms for these lectures: Assembly Dojo, Maintenance Dojo, and Safety Dojo. We use the term "Dojo" to encourage participants to view these facilities as places where they can deepen self-awareness and develop the discipline necessary for independently acquiring and practicing the targeted skills.

Social Report

Creating Attractive Workplaces

Diversity Promotion

Basic Approach

In line with the Daicel Group Conduct Policy, the Group is actively developing a working environment that respects diversity, personality, and the uniqueness of everyone working for our Group companies. It is also assiduously working to eradicate any form of discrimination and harassment from its workplaces as part of efforts to ensure employee health and promote inclusiveness.

In addition, recruiting activities undertaken at overseas subsidiaries are free of any form of discrimination. We are focused solely on nurturing human resources equipped with the Daicel Spirit, no matter what country they come from. In this way, we will incorporate increasingly diverse people into our workforce. Believing that the interactions of a diverse workforce will help spark the creation of new value, we will also encourage employees to respect and inspire each other.

Initiatives to Promote Diversity

• Helping Women Earn Career Success

1. Progress of the Action Plan

In April 2016, we established an action plan for the Daicel Corporation to ensure that women who are willing to develop high-profile careers are not encumbered by barriers at Daicel and are free to pursue their ambitions. The goals outlined in the plan were achieved ahead of schedule, thus new goals were established in December 2018. This five-year action plan aims to achieve the following three targets by 2021 (in comparison with figures recorded in 2016).

- **Target 1:** Increase the number of women in managerial positions by 2.5 times (4%)*
- **Target 2:** Increase the number of women in senior roles (candidates for managerial positions) by 1.3 times (8%)
- **Target 3:** Raise the annual paid leave acquisition ratio from 62% to 70% or greater

*The original target (double the number of women who take managerial positions) was achieved in July 2018, thus a new target was established. Also included in the target is the ratio of women in managerial positions.

2. Diversity and Work Style Reform Seminar

Seminars on diversity and work style reform as a management strategy were held in July 2018 for 46 employees in leadership positions at the Innovation Park and again in October 2018 for 60 senior managers.

Attendees learned how to help women earn career success, which requires work style reform and also corporate culture reform. They also learned how to raise the awareness of all employees to trigger reform of the corporate culture as well as about the importance of raising their own awareness and that of their subordinates across the Company.



Seminar participants

3. Nadeshiko Seminar for Aspiring Female Leaders

This training program was introduced in FY2018/3 to develop female leaders. In FY2019/3, seven female employees

were selected and enrolled in the program. During the last session, each attendee presented what they had learned and achieved to their senior managers, who in turn expressed what they expected from their subordinates in terms of future endeavors and achievements.

Looking ahead, we will continue to assist employees in taking on new challenges and achieving growth in order to enable them to perform to the best of their abilities.

• Employment of Persons with Disabilities

As part of its initiatives to fulfill its social responsibilities as a corporate citizen, Daicel maintains the ratio of persons with disabilities in the total workforce above the statutory employment rate. In addition, Daicel systematically recruits persons with disabilities to support the aspirations of these individuals to participate in social activities and provide motivation in life. As a result, the ratio of persons with disabilities in the total workforce amounted to 2.02% (non-consolidated) as of March 31, 2019. Furthermore, to help each individual achieve their best, we pay the utmost attention to assigning suitable jobs according to the degree of disability.

• Encouraging Senior Employees to Remain Active in the Workforce

Daicel has introduced a system through which retired employees can continue employment so that senior human resources, age 60 and older, can remain active and the Company can make the most use of their knowledge and experience in the workforce. In FY2019/3, 32 out of 35 employees who reached the retirement age were reemployed under the system, with a total of 188 senior employees (as of March 31, 2019) currently working at the Company after passing their retirement age. In accordance with the revised Law concerning Stabilization of Employment of Older Persons, applying the system to employees seeking to continue to work through age 65, Daicel will keep providing a work environment where veteran employees can make use of their careers, knowledge, and experience.

Work-Life Balance Promotion

Basic Approach

Daicel is striving to develop an environment in which all employees can work vibrantly with confidence, and the Company therefore supports a work-life balance. It is also promoting flexible working styles while improving working conditions in order to establish an environment that helps diverse human resources pursue success. Furthermore, we are taking on work style reforms and, to this end, proactively making changes in the ways we process our tasks, with the aim of securing greater productivity.

Initiatives to Shorten Working Hours

• Initiatives to Shorten Working Hours

The Company is actively working to shorten working hours for employees. Starting in FY2019/3, the mandatory working hours for full-time employees (other than shift workers) were reduced from 8 to 7.5 per business day, resulting in a decrease of approximately 120 hours (or approximately 6.2%) in mandatory annual working hours. In addition, the Company is proceeding with its plan to increase the annual holidays for shift workers by 10 days in April 2020.

• Initiative to Improve the Annual Paid Leave Acquisition Ratio

The Group's target for the annual paid leave acquisition ratio is to achieve 70% or more by FY2021/3. The ratio for FY2019/3 was 70%. The Group mandates each workplace to designate a few days in their annual operational calendar on which employees are encouraged to take annual paid leave. The number of designated days for this leave was increased from 3 to 4 in FY2019/3, and will be increased to 5 in FY2020/3 and beyond.

Initiatives to Help Realize a Flexible Working Style

• Promoting Teleworking

The Company is promoting teleworking as a flexible and efficient working style which eliminates the limitations

associated with specific working time or places. In October 2018, the "work from home" scheme was enhanced by opening up eligibility to all employees and also eliminating the limitations on the number of days per month employees are allowed to work from home. As of March 2019, a total of 146 employees are teleworking. In addition, the "work from satellite office" program was introduced in January 2019, further enhancing the flexibility of the work environment. Employees are leveraging these programs and choosing the work style that best meets current and emerging needs.

■ Participation in Telework Days 2018

The Company participated in Telework Days 2018, a national event introduced by the Japanese government as part of its work style reform.

A total of 93 employees from our three locations in Tokyo, Osaka, and Nagoya participated in the event by working from their home or satellite offices to help us review our working styles and processes and promote flexible working styles.



• Encouraging Child-Rearing Leave for Male Employees

To further encourage a work life balance, since FY2018/3, the Company has provided 5 days of paid child-rearing leave towards total child-rearing leave taken. As a result, the percentage of eligible male employees taking Child-Rearing leave in FY2018/3 increased to 29.8% from 0% in the previous fiscal year.

VOICE Child-Rearing Leave Has Helped Me to Grow as a Parent

I took eight months of child-rearing leave beginning in October 2017. During that time, I divided and undertook housework and child-rearing duties with my wife. We each focused on tasks we are good at. I communicated my intention with my supervisor well in advance to taking the leave, and during the period my colleagues kept me informed of social gatherings, which I attended to keep abreast of what was going on at work. I felt anxious before taking the leave, but I am grateful for the opportunity it gave me to grow as a parent.

Mototsune Abe, General Affairs, Ohtake Plant



Social Report

Respect for Human Rights / Sustainable Procurement

Respect for Human Rights

Basic Approach

Respect for human rights is an integral part of all business activities undertaken by the Daicel Group. The Daicel Group's Basic Philosophy, Daicel Group Conduct Policy, and each Group company's Code of Conduct all declare our determination to maintain legal compliance, high ethical standards, and sound judgment in the course of our business conduct. These documents also make clear that all workplaces of the Daicel Group must be healthy, inclusive, and free of discrimination and harassment, with due respect being paid to the diversity, personality, and individuality of every employee. In addition, the Group does not condone any form of forced labor or child labor, regardless of the country or region in which it operates. We foster a corporate culture that respects human rights, and therefore our Code of Conduct states our basic commitment to respect human rights and to never violate them through such acts as discrimination based on ethnicity, nationality, creed, religion, or gender, or through harassment. All Daicel Group employees are well-versed in these precepts. Moreover, they are encouraged to proactively make their own judgments in line with these precepts and put them into practice throughout the course of day-to-day business activities.

Reporting and Consultation

The Group has established the Compliance Help Line System (Whistleblowing System) to receive reports and provide consultation on issues that include human rights. Issues can be raised anonymously to protect the identity and privacy of

the reporter, and rules are in place that prohibit any adverse treatment of the individual.

▶▶ More details on page 50

Supply Chain Management

In its purchasing activities, the Daicel Group carefully evaluates quality, pricing, and delivery dates while also considering social impact, in such areas as the environment, human rights, and the labor force. We established Basic Purchasing Policy and the Daicel Group CSR Purchasing Guidelines to encourage suppliers to gain an understanding of our policies and to fulfill our corporate social responsibilities in tandem with all of its supply chain constituents toward realizing a sustainable society.

Basic Purchasing Policy

1. Fairness and Rationality of Transactions

- We shall be fair in providing prospective suppliers with opportunities for participating in business transactions. Also we shall conduct our purchasing activities in an open manner with no regard for previous dealings and with no preference for companies domiciled in Japan.
- Our overall considerations shall be limited to matters of quality, price, stability of supply, state of technological development, environmental considerations, and the assurance of safety. We shall consider these aspects in a comprehensive manner.

2. Legal Compliance and Confidentiality

- We shall comply with laws and corporate ethics in our business operations.
- We shall strictly protect confidential information obtained through businesses and shall never infringe the intellectual property rights of third parties.

3. Establishing Relationships of Trust

- We shall strive to establish better partnerships with our suppliers in consideration of mutual benefit and trust as well as good faith.

4. Adherence to CSR Initiatives

- We shall promote sustainable development with our suppliers through our activities for corporate social responsibility and value improvement.

• Daicel Group CSR Purchasing Guidelines <https://www.daicel.com/en/purchase/img/guidelines.pdf>

Social Report

Local Communities and Contribution to Society

Communication with Society

As part of its Responsible Care initiative, the Group maintains active communication with local communities. In order to build good relationships and contribute to local community development, we also participate in an extensive range of activities such as those for nurturing children as the future generation and for disaster relief.

■ Participating in the 2018 Children's Chemistry Experiment Show (Japan)

In October 2018, the Children's Chemistry Experiment Show was held at the Kobe International Exhibition Hall, attracting approximately 3,200 visitors, including children and their families. The Company's booth, under the name of "Let's make colorful beads," was visited by about 500 children over the two days. Children enjoyed feeling the shapes of the beads they created with their own hands and observing how the colors are illuminated under black light. This was a great opportunity for them to experience real chemistry.



Children's Chemistry Experiment Show

■ Donating Emergency Supplies to a Local Community-Building Center (Japan)

Polyplastics Co., Ltd. donated power generators and rice cookers as emergency disaster supplies to the recently constructed Fuji-Minami Community-Building Center in August 2018. The center was built on the former site of the company's dormitory, and many employees still live in the area. The facility provides a meeting place for the local community and serves as a gathering site in times of disaster. After hearing from the Fuji City government that the center was not completely equipped, the company donated the needed emergency supplies and in turn received a letter of appreciation from the city's mayor.



Polyplastics Co., Ltd. donated emergency power generators and other goods.

■ Support for Educational Opportunities (Poland)

In April 2018, Daicel Safety Systems Europe Sp. z o.o. (DSSE) in Poland conducted many projects with vocational schools and universities and contributed to raising student awareness and capabilities. Specifically, the company provided their latest educational facility and trained vocational school teachers as an event of "Science Festival 2018." In the "Top Mechanics 2018" competition, DSSE employees took part in an evaluation committee and provided feedback and suggestions to participants. The company also participated by offering a workshop in "LEAN DAYS," held at the Wroclaw University of Science and Technology.



Educational project by DSSE

Governance

Directors, Audit & Supervisory Board Members, and Executive Officers

(as of June 21, 2019)

Directors



Misao Fudaba
Chairman of Board of Directors, Member of the Nomination and Compensation Committee

April 1979 Joined the Company
June 2006 Executive Officer
Deputy Head of Corporate Support Center
June 2008 Head of Raw Material Purchasing Center
June 2010 President and CEO
June 2019 Chairman of Board of Directors



Kotaro Sugimoto
Representative Director, Managing Executive Officer, Member of the Nomination and Compensation Committee, Member of the Management Advisory Committee, Head of Corporate Support Center, Responsible for Corporate Compliance Program, Business Process Innovation, and Corporate Sustainability

April 1984 Joined the Company
June 2011 Head of Raw Material Purchasing Center
June 2014 Executive Officer, President of Daicel Logistics Service Co., Ltd.
June 2017 Managing Executive Officer
June 2019 Representative Director



Masafumi Nogimori
External Director and Chairman of the Nomination and Compensation Committee

April 2005 Executive Vice President and Representative Director of Astellas Pharma Inc.
June 2006 President & CEO and Representative Director of Astellas Pharma Inc.
June 2011 Chairman and Representative Director of Astellas Pharma Inc.
June 2016 Retired from Astellas Pharma Inc.
June 2017 Director of Daicel Corporation



Sonoko Hacchoji
External Director and Member of the Nomination and Compensation Committee

November 1993 Vice President of IBJ International Plc., UK securities subsidiary of the Industrial Bank of Japan, Ltd.
March 2002 Executive Officer of IBJ Leasing Co., Ltd.
January 2006 Director (General Manager of Administration Division) of Yuki Management & Research Co., Ltd.
March 2011 Managing Director and Managing Executive officer of FUJITA KANKO INC. (Chief of Planning Group and Deputy Chief of Business Operations Division)
April 2017 Special Advisor to the President (Chief Strategy Officer) of Tsuda University
June 2019 Director of Daicel Corporation



Yoshimi Ogawa
President and CEO, Member of the Nomination and Compensation Committee, and Chairman of the Management Advisory Committee

April 1983 Joined the Company
April 2002 Head of Business Process Innovation
June 2006 Executive Officer, Vice President of Aerospace & Defense Systems/Safety Systems Company
June 2009 Head of Production Technology
June 2011 Director
June 2013 Managing Executive Officer
April 2014 General Manager of Production Technology Headquarters
June 2017 Senior Managing Executive Officer
June 2019 President and CEO



Hisanori Imanaka
Director, Managing Executive Officer, Member of the Management Advisory Committee and Responsible for Corporate Planning and Raw Material Purchasing Center

April 1982 Joined the Company
July 2010 Vice President of Cellulose Company
June 2012 President of Cellulose Company
June 2014 Executive Officer, Head of Raw Material Purchasing Center
June 2017 Managing Executive Officer
June 2019 Director



Kunie Okamoto
External Director and Member of the Nomination and Compensation Committee

April 2005 President of Nippon Life Insurance Company
June 2010 Audit & Supervisory Board Member of Daicel Corporation
April 2011 Chairman of Nippon Life Insurance Company
April 2018 Director and Consultant of Nippon Life Insurance Company
June 2018 Director of Daicel Corporation
July 2018 Consultant of Nippon Life Insurance Company



Toshio Asano
External Director and Member of the Nomination and Compensation Committee

April 2010 President & Representative Director, Presidential Executive Officer of Asahi Kasei Pharma Corporation
April 2014 Presidential Executive Officer of Asahi Kasei Corporation
June 2014 President & Representative Director and Presidential Executive Officer of Asahi Kasei Corporation
April 2016 Director and Standing Advisor of Asahi Kasei Corporation
June 2016 Standing Advisor of Asahi Kasei Corporation
June 2019 Director of Daicel Corporation



Akihisa Takabe
Director, Executive Officer, Member of the Management Advisory Committee, General Manager of R&D Headquarters, Responsible for New Business Development, Responsible for Intellectual Property Center, and Responsible for Quality Management Division

April 1984 Joined the Company
June 2008 President of Daicel Safety Systems Inc.
April 2014 Head of Central Research Center
Head of Corporate Research Center of R&D Headquarters
February 2015 Deputy General Manager of R&D Headquarters
June 2015 Executive Officer
June 2019 Director



Teisuke Kitayama
External Director and Member of the Nomination and Compensation Committee

June 2005 Director President (Representative Director) of Sumitomo Mitsui Financial Group, Inc., Chairman of the Board (Representative Director) of Sumitomo Mitsui Banking Corporation
April 2011 Chairman of the Board of Sumitomo Mitsui Banking Corporation
April 2017 Director of Sumitomo Mitsui Banking Corporation
June 2017 Advisor of Sumitomo Mitsui Banking Corporation
June 2018 Director of Daicel Corporation
October 2018 Honorary Advisor of Sumitomo Mitsui Banking Corporation

Standing Audit & Supervisory Board Members

Yuji Iguchi

Shinji Fujita

Outside Audit & Supervisory Board Members

Toshio Takano

Attorney at Law, Takano Law Office

Ryo Ichida

Certified Public Accountant,
Tax Accountant of Ryo Ichida Certified
Public Accountant Office

Junichi Mizuo

President of MIZUO Compliance & Governance
Research Office
Honorary Professor of Surugadai University; Ph.D. in
Business Administration

Senior Managing Executive Officer

Yasuhiro Sakaki

Responsible for Aerospace & Defense Systems/Safety Systems Company
Chairman of Daicel Safety Systems Americas, Inc.
Chairperson of Daicel Safety Systems (Jiangsu) Co., Ltd.
Chairperson of Daicel Safety Technologies (Jiangsu) Co., Ltd.

Managing Executive Officers

Dieter Heckmann

President of CPI Company
Chairman & President of Chiral Technologies Europe S.A.S.
Chairman of Chiral Technologies, Inc.
Chairperson of Daicel Chiral Technologies (China) Co., Ltd.
Chairman of Daicel Chiral Technologies (India) Pvt. Ltd.

Takashi Ueno

General Manager of Ohtake Plant

Hidekage Kojima

Responsible for Cellulose Company

Naohide Hakushi

General Manager of Himeji Production
Sector and General Manager of Aboshi Plant
President of Kyodo Sakusan Co., Ltd.

Executive Officers

Satoshi Sakamoto

Assistant to General Manager R&D
Headquarters, Assigned to Osaka University

Naotaka Kawaguchi

President of Aerospace & Defense Systems/
Safety Systems Company

Masaaki Fujio

General Manager of Kanzaki Plant

Yukio Yoshino

President of Daicel Value Coating Ltd.

Koichi Maruyama

President of Daicel Polymer Ltd.
Chairperson of Shanghai Daicel Polymer Ltd.

Takashi Iiyama

General Manager of Production Technology
Headquarters
Responsible for Responsible Care

Yasuo Tsuji

General Manager of Arai Plant
President of Daicel Arai Chemical Ltd.

Hitoshi Hayashi

President of Organic Chemical Products Company
General Manager of Marketing
Chairperson of Daicel Nanning Food Ingredients Co., Ltd.

Akio Kojima

President of Cellulose Company

Mikio Yagi

Vice President of Aerospace & Defense Systems/
Safety Systems Company and General Manager of
Aerospace & Defense Systems Division

Ikuo Takahashi

General Manager of Innovation Park
Head of Corporate Research Center of R&D
Headquarters

Haruyoshi Tashika

Vice President of Organic Chemical Products Company,
General Manager of Production Management, Head of
Ohtake Production Center, and Leader of Production

Governance

Corporate Governance

Basic Approach

Strengthening corporate governance is a key management initiative that enables us to enhance corporate value and achieve our social mission and responsibilities as a listed company. Daicel maintains its agility by clarifying the responsibilities of each part of its organization and by adopting a management system that supports timely decision-making and implementation. Moreover, by actively soliciting external opinions to improve management transparency and fairness, Daicel will strive to maintain the soundness of its corporate management.

Corporate Governance Framework

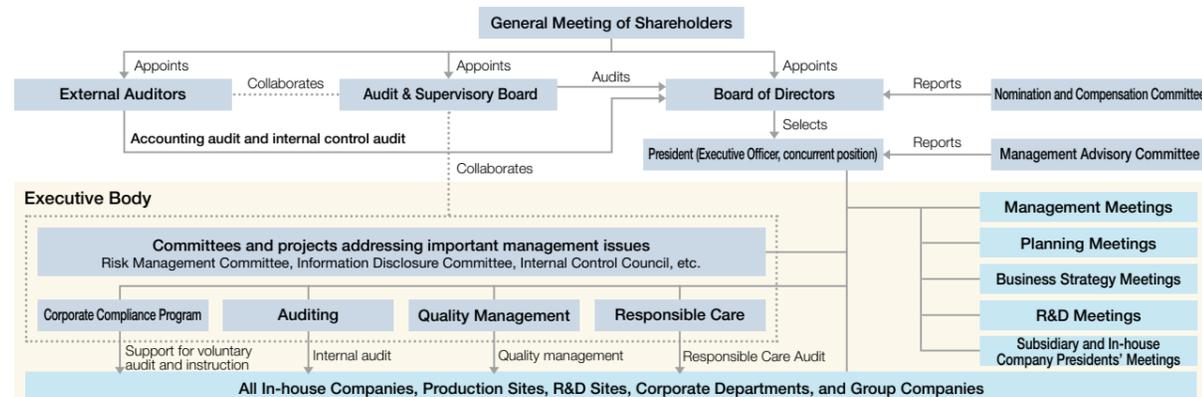
The Company has established a corporate framework under which its Board of Directors makes management decisions in an efficient manner and fulfills its supervisory functions, and its Audit & Supervisory Board accomplishes its auditing and supervisory functions. Such a framework has enabled us to keep reinforcing our corporate governance. Specifically, by welcoming External Directors and allowing them to provide opinions and advice based on their expertise, Daicel is working to ensure that the decisions made by its Board of Directors are appropriate and the execution of director duties is effectively supervised. Daicel has also adopted an in-house company system to promote various initiatives aimed at strengthening collaboration among its production, sales, and R&D functions, improve productivity and strategic functions within its corporate departments, and reestablish its R&D structure. Moreover, we have adopted an Executive Officer System that has enabled us to clearly separate our decision-making, supervisory, and business execution functions. Such a clear division of roles has allowed us to bolster our business management structure and, consequently, corporate activities.

Outline of the Corporate Governance Framework (as of June 21, 2019)

Item	Content
Type of organizational structure	Company with Audit & Supervisory Board
Chairperson of the Board	Chairman
Number of Directors	10
Number of External Directors (number of independent directors)	5 (5)
Number of Audit & Supervisory Board Members	5
Number of outside Audit & Supervisory Board Members (number of independent members)	3 (3)
Number of Executive Officers (number of officers concurrently serving as directors)	21 (4)
Number of female directors	1
Number of Board of Director meetings held (average attendance rate of External Directors Outside Audit & Supervisory Board Members)	15 in FY2019/3 (96.7% / 95.6%)
Term of Directors	1 year
Voluntary advisory body to the Board of Directors	Nomination and Compensation Committee is composed of 8 Directors (including 5 External Directors) and chaired by an External Director
Body that deliberates important corporate matters and reports to the president	Management Advisory Committee
Compensation system for Directors and Audit & Supervisory Board Members*	1. Monthly compensation 2. Performance-linked remuneration (excluding external directors and outside Audit & Supervisory Board members) 3. Restricted Stock Compensation (excluding External Directors and Outside Audit & Supervisory Board Members)
Auditor	Deloitte Touche Tohmatsu LLC

*The compensation system also applies to Executive Officers and others. The ratio between the three types of compensations (1, 2, and 3) is roughly maintained at 65:20:15.

Corporate Governance Framework (as of June 21, 2019)



Note: Executive officers include heads of in-house companies, heads of sites, heads of corporate divisions, and the presidents of group companies, who administer corporate affairs.

Communication with Shareholders and Investors

• Appropriate Information Disclosure and Constructive Dialogue
Daicel encourages fair evaluation of its corporate value by following its disclosure policy to foster accurate understanding of the Company among its stakeholders, including shareholders and investors. With the aim of building relationships of trust with all its stakeholders, Daicel has opted for a basic policy of disclosing corporate information in a timely, impartial, accurate, and proactive manner on an ongoing basis. We also carry out IR activities to engage in dialogue with our shareholders and investors to further enhance the company's value.

• Disclosure Policy (Including basic policy on Information disclosure)
<https://www.daicel.com/en/ir/disclosure.html>

• General Meeting of Shareholders

We have considered the Annual General Meeting of Shareholders as a valuable opportunity to engage with our shareholders. Daicel posts the convocation notice for its Annual General Meeting of Shareholders on its website prior to distributing it by postal mail, aiming to provide shareholders with sufficient time to examine the agenda items. Moreover, as we would like as many shareholders as possible to exercise their voting rights, we offer voting alternatives via postal mail or the Internet for those who are unable to attend the meeting. To facilitate their further understanding of initiatives of the Daicel Group, we are striving to provide easy-to-understand answers to questions voiced by shareholders.

At the Annual General Meeting of Shareholders held on June 22, 2018, we set up an exhibition booth outside the venue with the aim of showcasing the Daicel Group's products and technologies. After the closure of the meeting, we invited attendees to join a casual gathering aimed at facilitating interaction between shareholders and Daicel's officers and Directors. This enabled Daicel's officers to engage in in-depth dialogue with attendees.

• IR Activities

In line with the aforementioned basic policy on Information disclosure, Daicel adopts a proactive approach toward its IR activities. By holding quarterly results briefings as well as individual interviews, small meetings, and facility tours, the Company actively strives to promote communication, aspiring to foster better understanding of the organization among institutional investors. We also reach out to individual investors by participating in investment events hosted by securities companies to offer business briefing for individual investors and by organizing facility tours for individual shareholders as an opportunity for dialogue. In FY2019/3, we conducted a web-based questionnaire of 2,000 individual investors to develop

a better understanding of our operations and obtain their feedback on the Daicel Group.



Facility tour for domestic institutional investors (Harima Plant)



Facility tour for individual shareholders (Innovation Park)

Events	Occasions (FY2019/3)	Content
Financial briefing sessions for analysts and institutional investors	4	Held on a quarterly basis; the interim and period-end results were presented by the president, while the first and third quarter results were explained via conference calls hosted by the Investor Relations Department
Facility tours for analysts and institutional investors	1	Held a business briefing together with a facility tour (FY2019/3 tour took place at the Daicel Harima Plant)
Individual interviews with analysts and institutional investors	Approx. 200	Conducted individual interviews and conference calls with analysts and institutional investors
Small meetings with domestic institutional investors	2	President attended these meetings to exchange opinions with domestic institutional investors
Participation in conferences for overseas investors	4	Participated in domestic conferences for overseas investors, with the officer in charge of IR conducting individual interviews
Individual visits to overseas investors	3	Either the president or the officer in charge of IR visited overseas shareholders and investors (in North America, Europe, and Asia)
Business briefings for individual investors	4	Participated in investment events for individual investors hosted by the head office or branch offices of securities companies and offered business briefings
Facility tour for individual shareholders	1	Held business briefing and facility tour (FY2019/3 tour took place at the Daicel Innovation Park)

Governance

Compliance

The Daicel Group promotes compliance through a system centered on adherence to laws and regulations. We provide educational programs and operate a reporting and consultation system designed to address broad areas, including laws and regulations in Japan and overseas, social norms, and international guidelines as well as rules unique to the chemical industry to increase trust from society at large.

System for Promoting Compliance

We have established the Legal Compliance System, in which corporate departments are designated as organizations in charge of ensuring compliance with laws and regulations relating to their respective operations and managing information on the latest legal developments. Under this system, 11 corporate departments, including the Legal

Group, are responsible for providing the relevant departments with information on revisions to laws, regulations, and guidelines as well as educational materials. Furthermore, every department and Group company in Japan conducts an annual self-evaluation checklist to review the status of compliance at each workplace and clarify any issues.

Education and Training Programs

Daicel systematically provides corporate compliance training tailored to each position and role for new graduate recruits, recently promoted employees, managers, directors, presidents of Group companies, employees posted to

overseas Group companies, and others. We also organize seminars on specific themes in response to requests from individual departments and Group companies.

Reporting and Consultation System

With the intent of establishing a system to protect whistleblowers who act in the public interest, Daicel is taking steps to ensure that the employees of each workplace are able to issue reports and hold consultations without difficulty. However, for circumstances where corporate ethics-related issues cannot easily be resolved at the workplace through ordinary reporting to supervisors, the Company has put in place the Compliance Help Line System (Whistleblowing System). This help line is not only an in-house system. Daicel has also established an external counterpart through which employees can consult and raise issues with external parties. It has also put in place the Corporate Ethics Management Guidelines: (1) The personal information and privacy of whistleblowers and those who request consultations must be protected; (2) Adverse treatment in response to whistleblowers and those who request consultations must be prohibited; and (3) Results related to investigations must be fed back to whistleblowers and those who requested consultations. Steps are being taken to ensure that these guidelines are strictly upheld.

Number of Reports and Consultations
In FY2019/3, there were no cases that have significantly affected management.

Category	FY2017/3	FY2018/3	FY2019/3
Harassment	3	12	8
Violation of laws and regulations	1	4	6
Violation of internal rules	10	11	18
Others	0	3	20
Not applicable	2	1	0
Total	16 (6)	31 (13)	52 (35)

(Cases)
*The total number of cases indicates ones reported to the Corporate Compliance Program Division from individuals across the Group.
*Includes reports which were not confirmed as fact.
*Figures in brackets represent the numbers of reports and consultations received from Group companies outside Japan.

TOPIC

Corporate Ethics Activities in China

In August 2018, a corporate ethics seminar was hosted by Daicel (China) Investment Co., Ltd. (DCIC) in Shanghai with the attendance of CSR Activity Facilitators from seven Group companies in China and members of the Corporate Compliance Program Division from Japan. The division gave a lecture during which it explained the status of corporate ethics at the Daicel Group and the prevention of bribery. A presentation of corporate ethics activities at each company and an exchange of opinions followed, allowing participants to share current activities and issues. This was the first seminar of its kind, and we intend to continue to encourage information-sharing and corporate ethics activities through similar activities.



Participants exchanging opinions

Risk Management

Basic Approach

Daicel recognizes the vital role of risk management and adheres to its Risk Management Regulations so that it responds appropriately to the risks inherent in its corporate activities and minimizes the impact should any such risks materialize.

Risk Management System

Daicel established the Risk Management Committee in 2006 as an organization to coordinate and promote Companywide risk management activities. Chaired by the corporate compliance officer (representative director), the committee is responsible for periodically reviewing the status of risk awareness in each department and Group company and

offers advice and support on countermeasures and initiatives. The committee also monitors the status of activities carried out by departments and Group companies based on their respective activity reports submitted at the end of each fiscal year.

Risk Management Initiatives

The Daicel Group maintains an inventory of potential risks that could have a major impact on its ability to achieve its business targets. Potential risks are entered into an intranet database together with countermeasures and initiatives designed to prevent the incidence of risk or to reduce any subsequent impact. The countermeasures are revised in consultation with the risk managers of corporate departments. Each department and Group company assigns a priority level to each risk and carries out countermeasures accordingly while also regularly updating the status and progress of the countermeasures in the database. Each department and Group company pursues its respective risk management activities by making use of the database and following a check, act, plan, and do (CAPD) cycle.

In FY2019/3, we focused on identifying the risks of potential fraud based on internal and external misconduct cases as a key factor for reevaluating our risks. We specifically sought to reevaluate each of the following risks and consider possible countermeasures.

Key Points of FY2019/3

- Information (mainly IT security)
- Asset management (scraps to be disposed, developed products, external custody etc.)
- Fabrication and falsification of data (quality, date, quantity, amount etc.)
- Legal violation regarding permission and approval (unauthorized, forgotten necessary report, lack of qualified person etc.)

Strengthening BCP Management

Daicel formulates and manages business continuity plans (BCPs) to minimize damage in the event of emergencies such as major disasters and new strains of influenza as well as to maintain business or ensure the early resumption of business in the event of such contingencies. In FY2019/3, we sought to learn from an accident that occurred in the previous fiscal year. As a preventive measure, we re-inspected the risks related to substances with self-degradation or thermal polymerization properties. To prevent greater damage, we installed: (1) remote-controlled surveillance cameras and fire extinguishing equipment and (2) a system for sharing information on disasters.

Information Security Initiatives

The Daicel Group implements information security initiatives encompassing the IT operations of the entire Group under its Information Systems Security Policy. With respect to cyberattacks, we have introduced a system that instantly detects security anomalies. We also consign third parties to regularly conduct vulnerability assessment and systematically address any issues that arise. As of the publishing of this report, every issue had been addressed. As part of our countermeasures against targeted email attacks that remain the focus of ongoing concern, we provide education and training to raise employee awareness of security. Looking ahead, we intend to continue implementing initiatives to keep abreast of advances in information technology and increasingly sophisticated cyberattacks.

Consolidated Ten-Year Summary

As of and for the years ended March 31

Millions of Yen
(Except net income per share and other information)

	FY2009/3	2010/3	2011/3	2012/3		2013/3	2014/3	2015/3	2016/3	2017/3	2018/3	2019/3
Operating Results												
Net sales	¥ 377,979	¥ 320,243	¥ 353,684	¥ 341,942		¥ 358,513	¥ 413,786	¥ 443,775	¥ 449,878	¥ 440,061	¥ 462,956	¥ 464,859
Operating income	10,589	20,856	32,711	20,426		26,196	37,912	51,303	64,349	64,306	58,932	51,171
Net income attributable to owners of the parent	1,296	11,069	16,802	11,827		15,372	22,843	31,252	40,313	43,198	37,062	35,301

Financial Position

Net assets	¥ 211,487	¥ 229,004	¥ 235,336	¥ 234,711		¥ 262,899	¥ 295,805	¥ 356,177	¥ 368,720	¥ 399,429	¥ 413,541	¥ 423,243
Total assets	445,911	428,376	411,071	398,196		461,512	509,834	565,332	560,190	599,708	640,284	654,791
Interest-bearing debt	142,602	105,893	94,357	83,249		99,224	105,917	86,981	71,276	72,291	99,743	104,306

Cash Flows

Cash flows from operating activities	¥ 40,165	¥ 66,445	¥ 53,428	¥ 34,000		¥ 44,480	¥ 44,777	¥ 57,412	¥ 65,419	¥ 86,168	¥ 66,888	¥ 58,523
Cash flows from investing activities	(24,401)	(16,471)	(20,141)	(9,190)		(35,312)	(34,984)	(30,283)	(31,407)	(34,722)	(33,189)	(41,095)
Cash flows from financing activities	(2,422)	(50,735)	(28,170)	(25,044)		5,737	(4,472)	(29,230)	(31,470)	(19,942)	(1,962)	(25,636)
Cash and cash equivalents, end of year	30,507	30,128	33,724	33,435		53,238	62,573	66,737	65,237	96,275	128,290	120,016

Per Share Information

Basic net income per share (yen)	¥ 3.62	¥ 31.10	¥ 47.22	¥ 33.46		¥ 43.71	¥ 64.98	¥ 88.95	¥ 115.02	¥ 124.61	¥ 107.81	¥ 105.38
Net assets per share (yen)	530.43	579.18	596.06	618.94		685.11	764.51	922.71	966.36	1,067.63	1,136.32	1,198.77
Cash dividends per share (yen)	8.00	10.00	10.00	10.00		12.00	15.00	21.00	26.00	30.00	32.00	32.00

Financial Indicators

Ratio of operating income to net sales (%)	2.8	6.5	9.2	6.0		7.3	9.2	11.6	14.3	14.6	12.7	11.0
ROE (%)	0.6	5.6	8.0	5.5		6.7	9.0	10.5	12.2	12.2	9.8	9.1
Rate of earnings on total capital (%)	0.3	2.5	4.0	2.9		3.6	4.7	5.8	7.2	7.4	6.0	5.5
Total asset turnover (times/year)	0.8	0.7	0.8	0.8		0.8	0.9	0.8	0.8	0.8	0.7	0.7
Equity ratio (%)	42.3	48.1	51.6	54.7		52.2	52.7	57.3	60.2	61.6	60.1	60.1
Dividend payout ratio (%)	221.0	32.2	21.2	29.9		27.5	23.1	23.6	22.6	24.1	29.7	30.4
Total shareholder return (%)	325.8	32.2	21.2	45.2		27.5	23.1	23.6	32.5	33.3	56.6	67.2

Others

Capital expenditures	¥ 24,183	¥ 16,481	¥ 9,912	¥ 18,740		¥ 27,217	¥ 25,617	¥ 30,629	¥ 40,256	¥ 39,528	¥ 30,819	¥ 44,694
Depreciation and amortization	38,579	36,693	32,786	28,316		24,026	23,669	23,409	23,914	29,031	31,720	30,044
Research and development expenses	12,046	11,316	11,970	12,730		12,875	13,360	14,031	15,306	16,806	18,843	20,749
Number of employees (at year-end)	7,803	7,665	7,747	8,149		9,233	9,700	10,173	10,709	11,556	12,309	12,319

Note: Amortization of goodwill is not included in depreciation and amortization.

Consolidated Balance Sheets

Daicel Corporation and Consolidated Subsidiaries
March 31, 2018 and 2019

	Millions of Yen		Thousands of U.S. Dollars
	2018/3	2019/3	(Note 1)
ASSETS			
CURRENT ASSETS:			
Cash and cash equivalents (Note 14)	¥ 128,290	¥ 120,016	\$ 1,081,225
Marketable securities (Notes 3 and 14)	929	30	270
Receivables (Note 14):			
Trade notes	3,380	2,920	26,306
Trade accounts	88,912	86,259	777,108
Unconsolidated subsidiaries and associated companies	5,393	5,059	45,576
Allowance for doubtful receivables	(44)	(67)	(603)
Inventories (Note 4)	109,295	126,153	1,136,513
Other current assets	13,057	13,665	123,108
Total current assets	349,214	354,038	3,189,531
PROPERTY, PLANT AND EQUIPMENT (Notes 5 and 17):			
Land	26,754	26,931	242,621
Buildings and structures	162,111	168,530	1,518,288
Machinery and equipment	597,726	609,850	5,494,144
Construction in progress	14,053	31,630	284,954
Total	800,646	836,943	7,540,027
Accumulated depreciation	(616,605)	(639,511)	(5,761,360)
Net property, plant and equipment	184,041	197,432	1,778,666
INVESTMENTS AND OTHER ASSETS:			
Investment securities (Notes 3 and 14)	72,535	64,002	576,594
Investments in and advances to unconsolidated subsidiaries and associated companies (Note 14)	11,119	11,087	99,882
Deferred tax assets (Note 10)	2,662	2,701	24,333
Net defined benefit asset (Note 7)	5,321	6,110	55,045
Other assets	15,390	19,418	174,936
Total investments and other assets	107,029	103,320	930,810
TOTAL	¥ 640,284	¥ 654,791	\$ 5,899,018

See notes to consolidated financial statements of Financial Section.

https://www.daicel.com/en/csr/pdf/2019_01.pdf

	Millions of Yen		Thousands of U.S. Dollars
	2018/3	2019/3	(Note 1)
LIABILITIES AND EQUITY			
CURRENT LIABILITIES:			
Short-term bank loans (Notes 6 and 14)	¥ 10,117	¥ 9,965	\$ 89,774
Current portion of long-term debt (Notes 6 and 14)	13,733	18,285	164,729
Payables (Notes 14 and 16):			
Trade notes	284	257	2,315
Trade accounts	53,719	50,852	458,126
Nontrade accounts	11,077	13,666	123,117
Construction	7,377	8,486	76,450
Unconsolidated subsidiaries and associated companies	2,365	2,898	26,108
Income taxes payable (Notes 10 and 14)	4,271	4,008	36,108
Other current liabilities (Note 10)	15,233	17,088	153,945
Total current liabilities	118,181	125,509	1,130,711
LONG-TERM LIABILITIES:			
Long-term debt (Notes 6 and 14)	75,884	76,043	685,072
Net defined benefit liability (Note 7)	12,318	12,485	112,477
Provision for environmental measures (Note 22)	4,000	5,265	47,432
Asset retirement obligations (Note 8)	1,238	1,256	11,315
Deferred tax liabilities (Note 10)	11,069	7,673	69,126
Other long-term liabilities	4,050	3,312	29,837
Total long-term liabilities	108,561	106,038	955,297
COMMITMENTS AND CONTINGENT LIABILITIES (Notes 13, 15 and 23)			
EQUITY (Notes 9 and 25):			
Common stock, authorized, 1,450,000,000 shares in 2019/3 and 2018/3; issued, 331,942,682 shares in 2019/3 and 349,942,682 shares in 2018/3	36,275	36,275	326,801
Capital surplus	31,642	31,692	285,513
Retained earnings	292,104	294,149	2,649,990
Treasury stock - at cost, 3,609,174 shares in 2019/3 and 11,239,478 shares in 2018/3	(14,004)	(4,344)	(39,135)
Accumulated other comprehensive income:			
Unrealized gain on available-for-sale securities	33,410	29,024	261,477
Deferred gain (loss) on derivatives under hedge accounting	58	13	117
Foreign currency translation adjustments	4,805	4,968	44,756
Defined retirement benefit plans	583	1,817	16,369
Total	384,876	393,597	3,545,918
Noncontrolling interests	28,665	29,645	267,072
Total equity	413,541	423,243	3,813,000
TOTAL	¥ 640,284	¥ 654,791	\$ 5,899,018

Consolidated Statements of Income

Daicel Corporation and Consolidated Subsidiaries
Years Ended March 31, 2017, 2018 and 2019

	Millions of Yen			Thousands of U.S. Dollars (Note 1)
	2017/3	2018/3	2019/3	2019/3
NET SALES	¥ 440,061	¥ 462,956	¥ 464,859	\$ 4,187,918
COST OF SALES (Notes 11 and 16)	303,229	325,754	331,086	2,982,756
Gross profit	136,832	137,201	133,773	1,205,162
SELLING, GENERAL AND ADMINISTRATIVE EXPENSES (Note 11)	72,526	78,269	82,602	744,162
Operating income	64,306	58,932	51,171	461,000
OTHER INCOME (EXPENSES):				
Interest and dividend income	1,821	1,770	2,266	20,414
Gain on sales of investment securities	2,461	3,914	5,767	51,954
Gain on sales of investments in capital of subsidiaries and associates			290	2,612
Equity in earnings of unconsolidated subsidiaries and associated companies	870	1,336	1,762	15,873
Insurance income (Note 18)		854	2,005	18,063
Interest expense	(958)	(1,203)	(1,185)	(10,675)
Foreign exchange gain (loss)	(1,599)	(730)	(73)	(657)
Loss on dispositions of property, plant and equipment	(3,361)	(2,260)	(1,715)	(15,450)
Loss on claim compensation (Note 19)	(989)	(85)		
Impairment loss on fixed assets (Note 20)			(1,783)	(16,063)
Loss on disaster (Note 21)		(677)	(967)	(8,711)
Provision for environmental measures (Note 22)		(4,000)	(1,298)	(11,693)
Loss on revision of retirement benefit plan (Note 7)			(3,308)	(29,801)
Other – net	1,822	1,379	801	7,216
Other income (expenses) – net	66	297	2,563	23,090
INCOME BEFORE INCOME TAXES	64,373	59,229	53,734	484,090
INCOME TAXES (Note 10):				
Current	15,996	14,537	13,910	125,315
Prior periods	690			
Deferred	(2,439)	225	(2,106)	(18,972)
Total income taxes	14,246	14,763	11,804	106,342
NET INCOME	50,126	44,466	41,930	377,747
NET INCOME ATTRIBUTABLE TO NONCONTROLLING INTERESTS	6,928	7,404	6,628	59,711
NET INCOME ATTRIBUTABLE TO OWNERS OF THE PARENT	¥ 43,198	¥ 37,062	¥ 35,301	\$ 318,027

	Yen			U.S. Dollars (Note 1)
	2017/3	2018/3	2019/3	2019/3
PER SHARE INFORMATION (Notes 2.s and 12):				
Basic net income	¥ 124.61	¥ 107.81	¥ 105.38	\$ 0.94
Cash dividends applicable to the year	30.00	32.00	32.00	0.28

Consolidated Statements of Comprehensive Income

Daicel Corporation and Consolidated Subsidiaries
Years Ended March 31, 2017, 2018 and 2019

	Millions of Yen			Thousands of U.S. Dollars (Note 1)
	2017/3	2018/3	2019/3	2019/3
NET INCOME	¥ 50,126	¥ 44,466	¥ 41,930	\$ 377,747
OTHER COMPREHENSIVE INCOME (LOSS) (Note 24):				
Unrealized gain (loss) on available-for-sale securities	3,546	(1,563)	(4,439)	(39,990)
Deferred gain (loss) on derivatives under hedge accounting	222	113	(67)	(603)
Foreign currency translation adjustments	(1,340)	91	431	3,882
Defined retirement benefit plans	(210)	869	1,291	11,630
Share of other comprehensive income (loss) in associates	(404)	236	(178)	(1,603)
Total other comprehensive income (loss)	1,813	(252)	(2,961)	(26,675)
COMPREHENSIVE INCOME	¥ 51,939	¥ 44,214	¥ 38,968	\$ 351,063
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:				
Owners of the parent	¥ 44,937	¥ 36,880	¥ 32,267	\$ 290,693
Noncontrolling interests	7,001	7,334	6,700	60,360

Consolidated Statements of Changes in Equity

Daicel Corporation and Consolidated Subsidiaries
Years Ended March 31, 2017, 2018 and 2019

	Millions of Yen													
	Number of Shares of Common Stock Outstanding	Common Stock	Capital Surplus	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income						Total	Noncontrolling Interests	Total Equity
						Unrealized Gain (Loss) on Available-for-Sale Securities	Deferred Gain (Loss) on Derivatives under Hedge Accounting	Foreign Currency Translation Adjustments	Defined Retirement Benefit Plans	Total	Noncontrolling Interests			
BALANCE, APRIL 1, 2016	349,172,397	¥ 36,275	¥ 31,579	¥ 242,657	¥ (10,388)	¥ 31,499	¥ (146)	¥ 5,885	¥ 62	¥ 337,424	¥ 31,296	¥ 368,720		
Net income attributable to owners of the parent				43,198						43,198		43,198		
Cash dividends, ¥26.00 per share				(9,039)						(9,039)		(9,039)		
Repurchase of treasury stock	(2,967,656)				(4,001)					(4,001)		(4,001)		
Retirement of treasury stock			(11)	(10,353)	10,364									
Change in the parent's ownership interest due to transactions with noncontrolling interests			298							298	(2,228)	(1,930)		
Net change in the year						3,479	130	(1,672)	(197)	1,739	742	2,481		
BALANCE, MARCH 31, 2017	346,204,741	36,275	31,867	266,462	(4,025)	34,978	(16)	4,212	(134)	369,620	29,809	399,429		
Net income attributable to owners of the parent				37,062						37,062		37,062		
Cash dividends, ¥33.00 per share				(11,419)						(11,419)		(11,419)		
Repurchase of treasury stock	(7,501,649)				(9,979)					(9,979)		(9,979)		
Disposal of treasury stock			0		0					0		0		
Retirement of treasury stock	112													
Change in the parent's ownership interest due to transactions with noncontrolling interests			(225)							(225)	(324)	(549)		
Net change in the year						(1,568)	75	593	718	(181)	(818)	(1,000)		
BALANCE, MARCH 31, 2018	338,703,204	36,275	31,642	292,104	(14,004)	33,410	58	4,805	583	384,876	28,665	413,541		
Net income attributable to owners of the parent				35,301						35,301		35,301		
Cash dividends, ¥32.00 per share				(10,781)						(10,781)		(10,781)		
Restricted stock awards			(0)	(9)	192					182		182		
Repurchase of treasury stock	(10,523,907)				(12,998)					(12,998)		(12,998)		
Disposal of treasury stock					0					0		0		
Retirement of treasury stock	18,154,211			(22,465)	22,465									
Change in the parent's ownership interest due to transactions with noncontrolling interests			50							50	(41)	8		
Net change in the year						(4,385)	(44)	163	1,233	(3,033)	1,021	(2,012)		
BALANCE, MARCH 31, 2019	346,333,508	¥ 36,275	¥ 31,692	¥ 294,149	¥ (4,344)	¥ 29,024	¥ 13	¥ 4,968	¥ 1,817	¥ 393,597	¥ 29,645	¥ 423,243		

	Thousands of U.S. Dollars (Note 1)												
	Common Stock	Capital Surplus	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income						Total	Noncontrolling Interests	Total Equity
					Unrealized Gain (Loss) on Available-for-Sale Securities	Deferred Gain (Loss) on Derivatives under Hedge Accounting	Foreign Currency Translation Adjustments	Defined Retirement Benefit Plans	Total	Noncontrolling Interests			
BALANCE, MARCH 31, 2018	\$ 326,801	\$ 285,063	\$ 2,631,567	\$ (126,162)	\$ 300,990	\$ 522	\$ 43,288	\$ 5,252	\$ 3,467,351	\$ 258,243	\$ 3,725,594		
Net income attributable to owners of the parent			318,027						318,027		318,027		
Cash dividends, \$0.29 per share			(97,126)						(97,126)		(97,126)		
Restricted stock awards		(0)	(81)	1,729					1,639		1,639		
Repurchase of treasury stock				(117,099)					(117,099)		(117,099)		
Disposal of treasury stock				0					0		0		
Retirement of treasury stock			(202,387)	202,387									
Change in the parent's ownership interest due to transactions with noncontrolling interests		450							450	(369)	72		
Net change in the year					(39,504)	(396)	1,468	11,108	(27,324)	9,198	(18,126)		
BALANCE, MARCH 31, 2019	\$ 326,801	\$ 285,513	\$ 2,649,990	\$ (39,135)	\$ 261,477	\$ 117	\$ 44,756	\$ 16,369	\$ 3,545,918	\$ 267,072	\$ 3,813,000		

See notes to consolidated financial statements of Financial Section.

https://www.daicel.com/en/csr/pdf/2019_01.pdf

Consolidated Statements of Cash Flows

Daicel Corporation and Consolidated Subsidiaries
Years Ended March 31, 2017, 2018 and 2019

	Millions of Yen		Thousands of U.S. Dollars (Note 1)	
	2017/3	2018/3	2019/3	2019/3
OPERATING ACTIVITIES:				
Income before income taxes	¥ 64,373	¥ 59,229	¥ 53,734	\$ 484,090
Adjustments for:				
Income taxes - paid	(16,272)	(16,607)	(14,623)	(131,738)
Depreciation and amortization	29,926	32,229	30,442	274,252
Impairment loss on fixed assets			1,783	16,063
Amortization of goodwill	910	727	608	5,477
Loss on dispositions of property, plant and equipment	3,361	2,260	1,715	15,450
Provision for environmental measures		4,000	1,265	11,396
Gain on sales of investment securities	(2,461)	(3,914)	(5,767)	(51,954)
Gain on sales of investments in capital of subsidiaries and associates			(290)	(2,612)
Equity in earnings of unconsolidated subsidiaries and associated companies	(870)	(1,336)	(1,762)	(15,873)
Changes in assets and liabilities:				
Decrease (increase) in notes and accounts receivable	(4,161)	(5,243)	4,140	37,297
Decrease (increase) in inventories	3,778	(8,624)	(16,149)	(145,486)
Increase (decrease) in notes and accounts payable	(3,165)	9,952	(3,049)	(27,468)
Other - net	10,751	(5,786)	6,476	58,342
Net cash provided by operating activities	86,168	66,888	58,523	527,234
INVESTING ACTIVITIES:				
Net decrease (increase) in time deposits	468	241	(157)	(1,414)
Net decrease (increase) in short-term investment securities	59	(575)	900	8,108
Capital expenditures	(38,014)	(33,433)	(43,580)	(392,612)
Payment for purchases of investment securities	(524)	(5,103)	(167)	(1,504)
Proceeds from sales and redemption of investment securities	5,232	6,641	8,076	72,756
Proceeds from sales of property, plant and equipment	521	415	22	198
Payment for investments in capital of subsidiaries and associates			(4,103)	(36,963)
Proceeds from sales of investments in capital of subsidiaries and associates			431	3,882
Increase in finance receivables	(76)	(499)	(56)	(504)
Collection of finance receivables	51	73	127	1,144
Other - net	(2,440)	(948)	(2,587)	(23,306)
Net cash used in investing activities	(34,722)	(33,189)	(41,095)	(370,225)
FINANCING ACTIVITIES:				
Net change in short-term bank loans	831	2,268	(121)	(1,090)
Proceeds from issuance of long-term debt	5,771	513	17,755	159,954
Repayments of long-term debt	(5,318)	(4,499)	(13,809)	(124,405)
Proceeds from issuance of bond		29,849		
Dividends paid	(9,036)	(11,412)	(10,783)	(97,144)
Dividends paid to noncontrolling interests	(6,259)	(8,153)	(5,679)	(51,162)
Payment for purchases of treasury stock	(4,001)	(9,979)	(12,998)	(117,099)
Payment for acquisition of interests in a subsidiary from noncontrolling interests	(1,930)	(549)	(0)	(0)
Net cash used in financing activities	(19,942)	(1,962)	(25,636)	(230,954)
EFFECT OF FOREIGN CURRENCY TRANSLATION ADJUSTMENTS ON CASH AND CASH EQUIVALENTS	(465)	278	(64)	(576)
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	31,037	32,014	(8,273)	(74,531)
CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR	65,237	96,275	128,290	1,155,765
CASH AND CASH EQUIVALENTS, END OF YEAR	¥ 96,275	¥ 128,290	¥ 120,016	\$ 1,081,225

See notes to consolidated financial statements of Financial Section.

https://www.daicel.com/en/csr/pdf/2019_01.pdf

Business Risks

Business risks that may potentially have significant influence on the Daicel Group's business performance and financial position include the following. Items listed in this annual report do not necessarily comprise all of the risks related to the business of the Daicel Group.

All forward-looking statements are based on information available as of June 24, 2019.

1. Trends in Currency Exchange Rates

The Company's ratio of overseas sales to consolidated net sales is on the increase (51.9% in the fiscal year ended March 31, 2019), and the Company's results are becoming more easily influenced by exchange rate fluctuations. We generally believe that depreciation of the yen has a positive effect on our performance, while appreciation of the yen has a negative effect on our performance. Though the Company executes exchange contracts and otherwise hedges foreign currency risk, these activities do not guarantee the complete elimination of this risk.

2. Risks in Expanding Overseas Business Operations

The Company is broadening its overseas business development, centered on China and the rest of Asia, as well as in North America, Europe and elsewhere. However, there are inherent risks in overseas operations. These include unforeseen legal and regulatory changes, vulnerability of industrial infrastructure, difficulties hiring and retaining qualified employees, and social or political instability caused by acts of terrorism and war. In the event that any of these risks arise and cause disruption to overseas business operations, the Daicel Group's consolidated performance and business plans could be affected.

3. Risks in Procuring Raw Materials

The Daicel Group engages in stable procurement of raw materials and strives to secure adequate supplies necessary for its production activities by conducting purchasing from multiple suppliers. Despite this preference for multiple suppliers, however, the Group may become reliant on a limited number of suppliers for certain special raw materials. Alternatively, supplies may be suspended due to events affecting a supplier, such as natural disaster, accident or bankruptcy. Also, a sharp increase in demand could lead to a supply shortage. Any of these cases could have a negative effect on the Group's performance.

4. Fluctuations in Raw Material (Methanol) Prices

The Daicel Group purchases a large volume of methanol, the raw material for its core products, such as acetic acid and polyacetal. We apply mechanisms to regularly purchase methanol at a relatively low price, such as entering long-term contracts and investing in methanol producing companies. Upswings in the methanol market may negatively affect Group performance.

5. Fluctuations in Other Raw Material Prices

To combat raw material and fuel price increases, the Daicel Group has been switching to raw materials and fuels that are less expensive and more stable in price, as well as reducing costs through improved manufacturing. When surging raw material prices exceed the benefits of these efforts, the Group may be able to upwardly revise product selling prices. However, there is a limit as to how much upward price revisions can absorb escalating costs. Beyond this limit, rising costs may have a negative impact on Group performance.

6. Quality Guarantee and Product Liability

The Daicel Group has established a quality guarantee framework and strives to assure product safety and prevent defects. As a precaution, we also carry product liability insurance. However, in cases where products manufactured by the Company are found to be the cause of damage, the Company's performance may be negatively impacted.

7. Industrial Accidents

The Company routinely conducts safety and disaster prevention activities and strives daily to assure the safety of its manufacturing plants and other facilities. However, in cases where fires, explosions, or other industrial accidents or disasters occur, the Company's performance may be negatively affected.

8. Earthquakes and Natural Disasters

One of the Group's primary manufacturing facilities, the Fuji Plant of Polyplastics Co., Ltd., is in a region that requires reinforced countermeasures for disaster prevention related to the anticipated Tokai earthquake. We conduct earthquake-training drills and take countermeasures to protect equipment there. We also practice disaster preparedness and emergency training drills at other facilities. However, in the event that significant damage is incurred by a natural disaster, Group results may be negatively affected.

9. Risks from Product and Technological Obsolescence

Depending on the industry, product cycles may be rapid. It is possible that sales volumes may fail to reach initial expectations, R&D expenses might not be recouped and income from Daicel's businesses could deteriorate. Moreover, cost reductions cannot always keep up with intense pressure to reduce sales prices, which also could cause income from Daicel's businesses to decline.

10. Risks from Violent Market Fluctuations

In the event of excess supply caused by such factors as large-scale plants being constructed by other companies, or a drastic decline in demand caused by abnormal economic conditions, there is a chance that Daicel's income from its businesses could deteriorate.

11. Risks Related to Intellectual Property

As stated in its Code of Conduct, the Daicel Group strives to maintain and protect its intellectual property (IP) rights and shall not infringe on the IP rights held by third parties. Based on this, the Group meticulously investigates IP-related information and adopts a strategic approach to the acquisition and management of IP rights, as well as to the conclusion and management of IP-related contracts. However, it is possible that the Group may be subject to an unexpected warning or litigation about infringement of third party IP rights, or a third party may infringe on the Group's IP rights without permission. Any of these cases could have a negative effect on the Group's performance.

12. Risks Related to Environmental Regulations

Through its energy-saving and resource-saving initiatives, the Daicel Group works hard to prevent further global warming, reduce the environmental impact of its activities—by effectively using resources and reducing waste, for example—and handle chemical substances in an appropriate manner. Due to the tightening of environmental regulations, however, the Group may be forced to make capital expenditures or business reorganizations in order to achieve legal compliance, and this could have a negative effect on the Group's performance.

13. Risks Related to Information Security

In the conduct of its business, the Daicel Group holds large quantities of confidential and personal information. The Group is building management frameworks and conducting employee training programs to ensure appropriate handling of such information, and also constantly introduces and updates its security software to address the changing IT environment. However, unpredictable and unauthorized access by outside parties could cause such information to be leaked or altered, which could have a negative effect on the Group's performance.

Global Network (as of March 31, 2019)

Consolidated Overseas Sales Ratio



Number of Group Companies



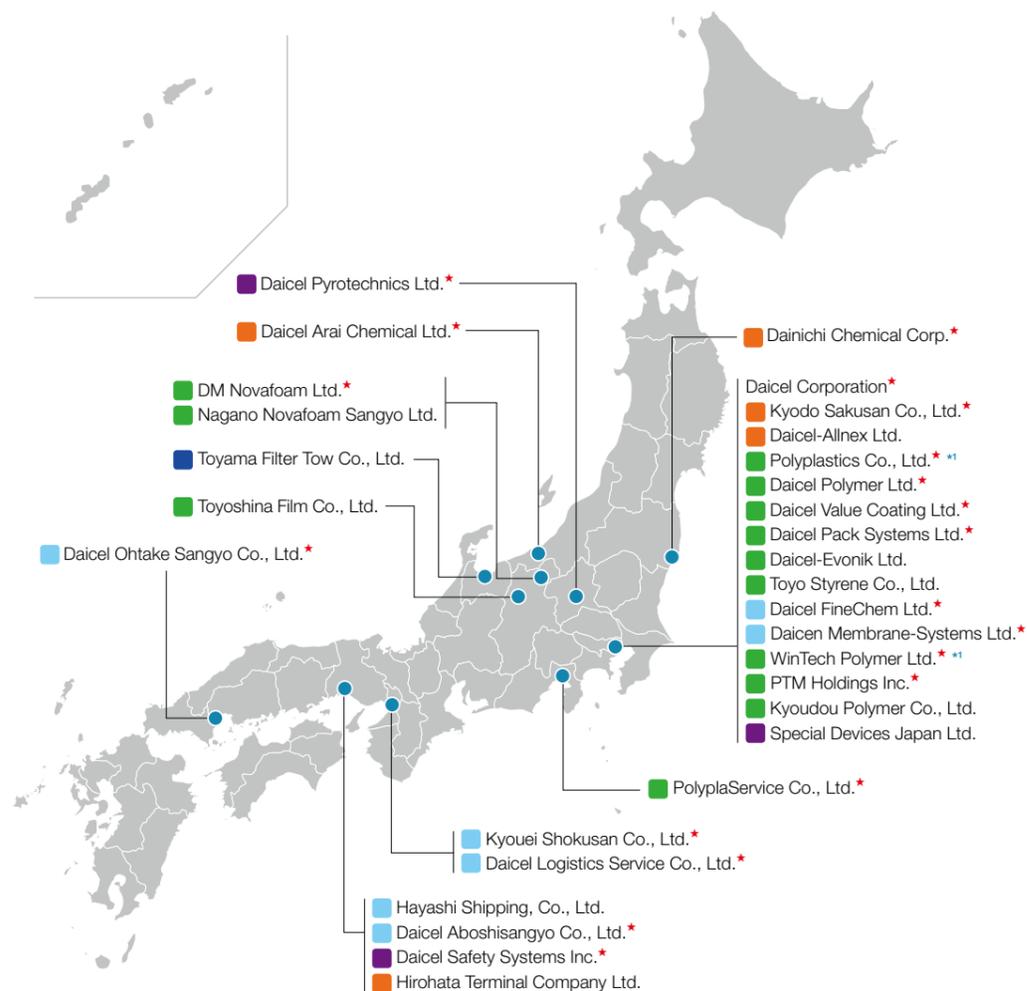
Number of Group Employees
(Daicel and consolidated Subsidiaries)



■ Cellulosic derivatives
 ■ Organic chemicals
 ■ Plastics
 ■ Pyrotechnic devices
 ■ Other companies and companies involved in multiple business departments

★ Consolidated subsidiaries

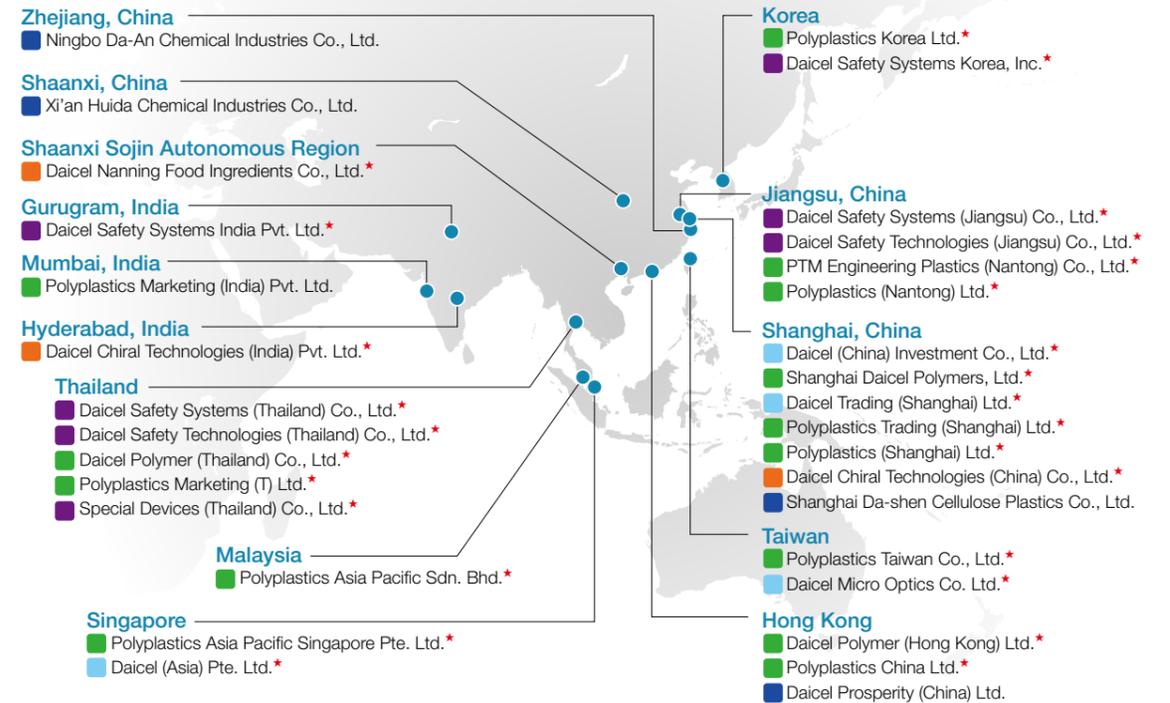
Japan



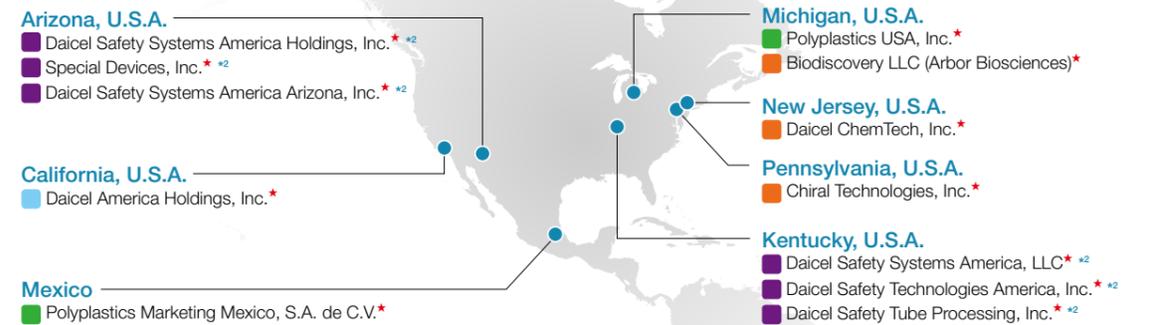
^{*1} Polyplastics Co., Ltd. took over the operations of WinTech Polymer Ltd. in an absorption-type merger, effective as of April 1, 2019.

Overseas

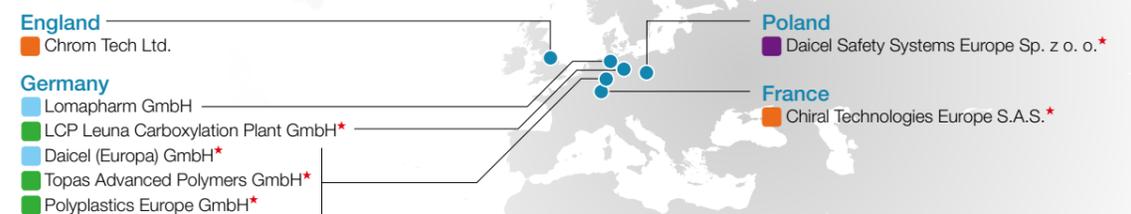
Asia



North America and Latin America



Europe



^{*2} Integrated the six pyrotechnic subsidiaries in North America to establish Daicel Safety Systems Americas, Inc., effective as of April 1, 2019.

Company Data

■ Corporate Overview (as of March 31, 2019)

Corporate Overview

Corporate Name: Daicel Corporation
Establishment: September 8, 1919
Capital: ¥36,275,440,089
Number of employees: 12,319 (Consolidated); 2,421 (Non-consolidated)

Status of Stock

Common stock authorized: 1,450,000,000 shares
Issued: 331,942,682 shares
Listing: Tokyo Stock Exchange (First Section)
Shareholder registry administrator: Sumitomo Mitsui Trust Bank, Limited 1-4-1, Marunouchi, Chiyoda-ku, Tokyo, Japan
Number of shareholders: 16,384
Accounting auditor: Deloitte Touche Tohmatsu LLC

■ Principal Domestic Locations

Office

• **Osaka Head Office**
 Grand Front Osaka Tower-B, 3-1, Ofuka-cho, Kita-ku, Osaka 530-0011
Tel: +81-6-7639-7171 **Fax:** +81-6-7639-7181

• **Tokyo Head Office**
 JR Shinagawa East Bldg., 2-18-1, Konan, Minato-ku, Tokyo 108-8230
Tel: +81-3-6711-8111 **Fax:** +81-3-6711-8100

• **Nagoya Sales Office**
 JP Tower Nagoya, 1-1-1, Meieki, Nakamura-ku, Nagoya, Aichi 450-6325
Tel: +81-52-582-8511 **Fax:** +81-52-582-7943

Training Center

• **H.R. Training Center**
 14-1, Kouto 3-chome, Kamigori-cho, Akou-gun, Hyogo 678-1205

Innovation Park

1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1283

Plant

• **Himeji Production Sector/Aboshi Plant**
 1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1281

• **Himeji Production Sector/Hirohata Plant**
 12, Fuji-cho, Hirohata-ku, Himeji-shi, Hyogo 671-1123

• **Harima Plant** 805, Umaba, Ibogawa-cho, Tatsuno-shi, Hyogo 671-1681

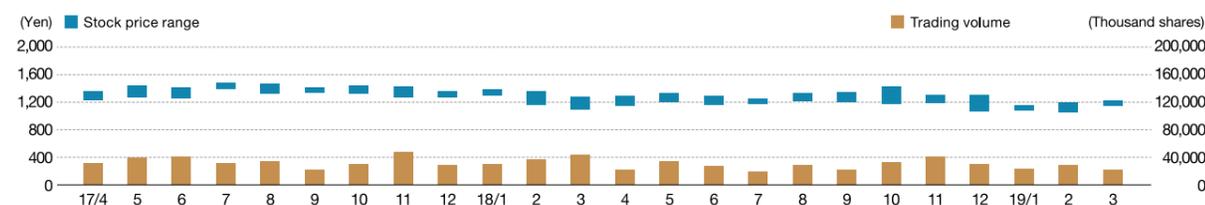
• **Arai Plant** 1-1, Shinko-cho, Myoko-shi, Niigata 944-8550

• **Ohtake Plant** 1-4, Higashisakae 2-chome, Otake-shi, Hiroshima 739-0695

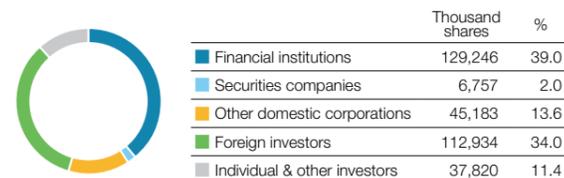
• **Kanzaki Plant** 12-1, Kanzaki-cho, Amagasaki-shi, Hyogo 661-0964

Stock Information

■ Stock Price Range



■ Shareholder Composition (as of March 31, 2019)



■ Top 10 Shareholders (as of March 31, 2019)

	Thousand shares	Distribution of shares issued and outstanding (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	21,184	6.45
Japan Trustee Services Bank, Ltd. (Trust Account)	17,867	5.44
Nippon Life Insurance Company	17,402	5.30
Toyota Motor Corporation	15,000	4.56
Japan Trustee Services Bank, Ltd. (Trust Account 9)	9,306	2.83
FUJIFILM Holdings Corporation	8,390	2.55
National Mutual Insurance Federation of Agricultural Cooperatives	7,779	2.36
Sumitomo Mitsui Banking Corporation	7,096	2.16
MISAKI ENGAGEMENT MASTER FUND	6,693	2.03
MUFG Bank, Ltd.	6,503	1.98

*Excludes treasury shares. Percents are rounded down from the third decimal place.

Third-Party Verification Report



Daicel Group Annual Report 2019 CSR & Financial Report Third Party Verification Report

May 31, 2019

To: Mr. Misao Fudaba,
President and CEO, Daicel Corporation

■ Purpose of Verification

This Responsible Care® verification is performed by the Responsible Care Verification Center with the objective of verifying the following and reporting opinions from the perspective of specialists in the Chemical Industry on the "Daicel Group Annual Report 2019" prepared by Daicel Corporation (hereinafter, "Report", including relevant parts of the website "Daicel Group CSR Report 2019"). The scope of verification shall not include financial information.

- 1) The reasonableness of the calculation and aggregation methods of performance indices (numerical data) and the accuracy of the numerical data
- 2) The accuracy of information other than numerical data
- 3) Responsible Care and CSR activities
- 4) Characteristics of the Report

■ Verification Methodology

- At the Head Office, we held an inspection concerning the reasonableness of the aggregation method of numerical data reported from each site (office, plant) and the accuracy of numerical data as well as the accuracy of information other than numerical data. It was conducted by interviewing relevant business managers and Report editors concerning the content as well as receiving necessary documents and explanations.
- At the Ohtake Plant, we held an inspection concerning the reasonableness of the calculation methods of numerical data reported to the Head Office and the accuracy of numerical data as well as the accuracy of information other than numerical data. It was conducted by interviewing relevant business managers and Report editors, receiving necessary documents and explanations, and checking or physically confirming them against evidence.
- The numerical data and other information provided in the Report were inspected by sampling.

■ Opinion concerning:

- 1) The reasonableness of the calculation and aggregation methods of performance indices (numerical data) and the accuracy of the numerical data
 In this item, we have confirmed that reasonable methods were adopted for the calculation and aggregation of numerical data at both the Head Office and the Ohtake Plant and within the inspection, the numerical data is calculated and aggregated accurately.
- 2) The accuracy of information other than numerical data
 In this item, we have confirmed that information provided in the Report is accurate and there is no significant issue that should be corrected.
- 3) Responsible Care and CSR activities
 • We value activities carried out with the efforts for raising the level of CSR throughout the entire Group, including overseas companies. Since the number of overseas group companies is now increasing, we expect that activities are carried out based on the planning and the prompt response to the situation as needed with a good balance.
 • We value the introduction of a "disaster information sharing system" to improve the accuracy and speed of information transmission in emergency disaster prevention activities, and look forward to applying this system to more plants.
 • We value Ohtake Plant for its proactive efforts to communicate with the local community, including vocational experiences for junior high school students and chemical experiment classes for elementary school students.
 • We commend the efforts made to raise awareness of RC activities by communicating the RC activity policy of the year to the employees of each group company with a message from the President and the Chair of the Responsible Care Council at the Daicel Group Responsible Care Promotion Conference, attended by representatives from group companies and others, held at the beginning of each fiscal year.
 • We commend the company for its proactive efforts to realize Work Styles Reform, including the promotion of telework and the introduction of a satellite office system.
- 4) Characteristics of the Report
 • Since the previous fiscal year, the company has been working to improve the quality and quantity of disclosure through a two-pronged reporting system, the Annual Report (booklet) which includes CSR activities and financial information, and the web-based CSR report. We hope that the roles of the booklet and the website will be clarified and the links between them strengthened, and that information will be disclosed in a way that is easy to understand and rich in content.

Shigeki Nagamatsu

Shigeki Nagamatsu
Chief Director, Responsible Care Verification Center
Japan Chemical Industry Association