



Responsible Care®

The Daicel Group **Annual Report 2017**

—*CSR & Financial Report*—

***THE BEST SOLUTION FOR YOU***



The Daicel Group Annual Report 2017



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Accelerating the Creation of New Businesses



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Our Basic Philosophy represents the ideals around which the Daicel Group has organized itself; the ideals that we have treasured and we will continue to hold onto, unaffected by the ages.

### Basic Philosophy

#### Corporate Objective —The Daicel Group's Reason for Being

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

We, and the chemical industry we are a part of, have provided optimal solutions addressing a wide range of issues. With a strong belief in the infinite possibilities chemistry has to offer, we continue 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 —A Shared Sense of Values

As members of the Daicel Group, we will continue to share the values below (the Daicel Spirit) and grow through innovation.

##### 1. Integrity and Ceaseless Efforts

We believe that innovation starts with an ideal followed by tireless efforts undertaken with integrity. We understand the importance of clarifying what should be the ideal Daicel Group, the ideal division or unit and the ideal individual, and of the ceaseless efforts needed to achieve these ideals.

##### 2. Focus on Creation of New Value (*Monozukuri*\*)

Our focus on *monozukuri* is unshakeable. Although the literal meaning of the Japanese word *monozukuri* is "making things," for our purposes the meaning of the term has been broadened to encompass the creation of new value in all corporate activities, including R&D, sales and marketing and support services.

##### 3. Respect for Individuality and Achievements

We respect the individuality and achievements of all Daicel Group members, which serve to underpin the Group's *monozukuri* efforts. Individual Group members collectively generate the driving force behind our overall growth. Group members are therefore offered ongoing opportunities to exert their own strengths, establish their own presence, realize their own ideals and enjoy their own sense of fulfillment.

## The Daicel Group Annual Report 2017 —CSR & Financial Report

The Daicel Group has issued an annual CSR Report to facilitate stakeholders' understanding of its initiatives aimed at preserving the environment, ensuring safety and making social contributions. From this edition, the Group is also incorporating its operating results and other financial information and rebranding the publication as "The Daicel Group Annual Report—CSR & Financial Report." By doing so, we aim to enable readers to access a broad range of information within a single report. To compile this edition, we have focused on improving reader-friendliness and understandability while engaging in proactive disclosure, striving to ensure the content will provide stakeholders with a clearer picture of the various initiatives being undertaken by the Group. In order to ensure reliability, Daicel has submitted this publication to the Responsible Care Verification Center of the Japan Chemical Industry Association (JCIA) for third-party verification. The results of this verification are included in the section entitled "Third-Party Opinion" (see page 57).

#### Reporting Period

This edition reports on the Daicel Group's initiatives during fiscal 2016 (April 2016 to March 2017), though some topics from the first half of fiscal 2017 have also been included.

#### Organizations within the Scope of Reporting

For details on the scope of reporting, please refer to pages 54 to 55.

#### Detailed Information about the Group's CSR Initiatives

More detailed information about the Group's CSR initiatives is available on Daicel's website under the section entitled "Detailed information on the Responsible Care Initiative."

#### Topics Covered on our Website are as Follows:

- The Responsible Care Initiative/ Scope of Data Calculation for Environmental and Occupational Safety Performance
- The Total EHS Assessment System
- Environmental Preservation:
  - Waste Flow
  - Environmental Impact of Business Activities
  - Environmental Management to Prevent Atmosphere and Water Pollution
  - Reduction and Recycling of Industrial Waste
  - Environmental Load Data
  - Environmental Accounting
  - The Status of Environmental Management System Certification
- Distribution Safety

- Chemical Safety Initiative:
  - Reduction of PRTR\* Substance Emissions
  - Reduction of VOC\*\* Emissions
  - Other Activities in Chemical Safety
- Quality Assurance:
  - Status of Quality Management System Certification
- Financial Section
  - Consolidated Financial Statements
  - Notes to Consolidated Financial Statements
  - Independent Auditor's Report

\* Pollutant Release and Transfer Register (PRTR): A system to calculate the extent to which the production, use and storage of specific chemical substances results in the release and transfer of those substances into the environment.  
 \*\* Volatile Organic Compounds (VOC). Some of the most well known examples include toluene, xylene and ethyl acetate.

#### 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 them 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.

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

# About the Daicel Group

## The Daicel Group's CSR Activities

The Daicel Group has put in place a conduct policy based on the basic philosophy common throughout the Group. In order to properly carry out this policy, each Group company formulates its own code of conduct. Moreover, the Corporate Ethics Initiative and Responsible Care Initiative underpin the Conduct Policy or more specifically the Code of Conduct (the Daicel Group Conduct Policy in the case of the Group), which lie at the heart of the Daicel Group's CSR activities. We utilize a check, act, plan, and do (CAPD)\* cycle to continually improve activities related to implementing our conduct policy and code of conduct. In addition, our CSR activities are not limited to particular individuals or organizations but instead involve everyone who works at the Daicel Group.

\*Daicel has adopted a CAPD improvement cycle as opposed to a plan, do, check, and act (PDCA) cycle to avoid any possibility of overlooking certain facts and realities at the initial planning stage.

### The CAPD Cycle



**C (Check):**  
Each division reviews its activities and reports to the Corporate Compliance Program Division. The Daicel Group respects the initiative of each division and company to ensure each division conducts corporate compliance activities of their own volition. Each division therefore checks its own activities and reports them to the Corporate Compliance Program Division.

**A (Act):**  
Each division endeavors to improve on the issues revealed by the results of the self-check.

**P (Plan):**  
Each division proposes an action plan for the next fiscal year covering its own division or company based on the results of its self-check of the present fiscal year and the Group-wide priority objectives for the next fiscal year.

**D (Do):**  
Each division implements its action plans.

## 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.

### Basic Philosophy, Conduct Policy and Code of Conduct



## Basic Purchasing Policy

In line with the Conduct Policy aimed at realizing its Basic Philosophy, the Daicel Group will embrace the following practices in the course of its engagement and purchasing activities with suppliers.

### Fairness & Rationality of Transactions

- We shall be fair in providing prospective suppliers with opportunities for participating in business transactions.
- 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 according to economic rationale.
- 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.

### Legal Compliance, Confidentiality, and Information Disclosure

- 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 third parties' intellectual property rights.

### Establishing Relationships of Trust

- We shall strive to establish better partnerships with our suppliers by pursuing mutual economic benefit.

### Adherence to CSR Initiatives

- We shall promote our CSR initiatives with the aim of enhancing our corporate value and that of our suppliers.



Misao Fudaba  
President and CEO, Daicel Corporation

M. Fudaba

“

Committed to living up to people's trust and meeting their needs, Daicel will take on challenges to change ourselves with courage.

”

In the fiscal year ended March 2011 (fiscal 2010), we established the long-term vision “Grand Vision 2020” and identified our target of becoming a company that delivers the best solutions to stakeholders worldwide.

Over the course of our corporate history—which extends more than 100 years to the founding of Daicel's predecessor—we have steadily accumulated technological strengths in many areas. Since the beginning, Daicel has been guided by a commitment to the creation of new value (*Monozukuri*\*), which has facilitated the global expansion of our operations. Today, Daicel is determined to make the best use of its heritage and strengths. We seek to deliver the best solution to our customers and society as a whole, while remaining attentive to changing values and evolving consumer perspectives to address unmet needs. In these ways, Daicel aims to continuously help people live better lives and enrich society.

In line with this determination, Grand Vision 2020 was formulated, along with 3D Step-up Plan that consists of a set of three-year medium-term plans entitled “3D-I,” “II” and “III,” each of which covers a three-year period and encompasses various concrete initiatives aimed at realizing this vision.

Having successfully concluded the fiscal year ended March 2017 (fiscal 2016), the final year of the “3D-II” medium-term plan, we were able to achieve operating income of ¥64 billion, far in excess of the medium-term plan's operating income target of ¥50 billion. Although our net sales target of ¥500 billion went unmet, we are pleased to announce that we satisfied our targets for ROE (10% or greater) and total shareholder return ratio (30% or greater).

These operating results were in part attributable to the success of our own efforts aimed at boosting sales volume and reducing cost. Additional momentum was provided by tailwinds from such external factors as favorable exchange rates and raw material and fuel prices. Moreover, unexpected orders for automobile airbag inflators improved our business performance significantly. Taking these favorable factors into account, however, we cannot rest content with these results. We have concluded we are only midway in terms of our initiatives to secure growth for the Group, including operations aimed at developing new business.

Having initiated the “3D-III” medium-term plan as the final phase toward the realization of Grand Vision 2020, we have identified three keywords: “Change,” “Challenge” and “Courage.” Collectively, this “3C Spirit” guides our efforts to become a company capable of delivering the best solutions. In addition to harnessing our existing strengths, we do this by decisively pursuing corporate changes, courageously overcoming challenges to expand into untapped fields and ceaselessly striving to break the status quo. These keywords were determined after engaging in thoroughgoing discussion on such fundamental questions as “what changes do we have to make,” “what goals should we aim to achieve,” “what solutions can we deliver” and “who will we reach with our solutions.” Although the outlook for our operating environment has become increasingly murky, we will take on challenges to change ourselves with courage to enhance our capability to deliver optimal solutions, thereby securing growth for the Group.

Simultaneously, we have maintained a policy of placing utmost priority on safety, quality and compliance, as these form the very foundation of our manufacturing business. In this *Annual Report 2017*, we showcase initiatives to strengthen our foundations along with a number of new activities aimed at taking on other challenging goals. We will be pleased if this report furthers your understanding of Daicel's operations.

\* *“Monozukuri”*: Our focus on “*Monozukuri*” is unshakable. Although the literal meaning of the Japanese word “*Monozukuri*” is “making things,” for our purpose the meaning of the term has been broadened to encompass the creation of new value in all corporate activities, including R&D, sales and marketing and support services.

## Ensuring the Highest Standards in Safety and Quality

Together, operational safety and product quality constitute the backbone of our manufacturing operations. In both areas, we engage in Responsible Care Initiatives as a member of the international circle of chemical industries, in addition to promoting our own initiatives that go beyond industry requirements.

Over 35 years ago, we experienced a disastrous explosion and fire at what was then Daicel's Sakai Plant. Since then, we have been vigilant to ensure a similar accident never occurs. We have determined not to let the lessons we learned from this tragedy fade. The entire Daicel Group has thus been hard at work to ensure the safety and quality of its "Monozukuri."

We did experience minor facility troubles and labor accidents in the fiscal year under review. Thankfully, none of these incidents led to major issues. We have already taken actions to prevent recurrences. Absolutely committed to protecting workers and prioritizing human lives, we also believe that it is important to be well prepared in advance of any problem that may conceivably arise, whenever/wherever that may be, to ensure it is rapidly contained and corrected. Going forward, we will continue to focus our efforts on "Monozukuri" that puts safety first to maintain a workplace where we can work in peace while also earning the trust of customers and local residents.

Recently, the Sustainable Development Goals (SDGs) were formulated at a United Nations summit, while the Paris Agreement to curb global warming was signed at COP21. In the face of these international developments, businesses are being called to meet ever higher requirements in terms of efforts to preserve the global environment. With this in mind, we are well aware of the need to allocate sufficient resources to environmental preservation initiatives, even as we continue to deliver solutions for environmental issues through our business activities.

Because chemical manufacturing is inherently energy intensive, we will increasingly prioritize conserving resources and energy. In light of the need to preserve limited natural resources and control greenhouse gas emissions, we have been utilizing high-efficiency boilers and power generation facilities while recycling waste such as used tires for feedstock. We have also been steadily pursuing power saving measures, as well as the introduction of innovative process technologies. Thanks to these efforts, we were able to achieve our energy-saving targets outlined in the 3D-II medium-term plan. As we promote the 3D-III, we will keep pursuing new angles to advance power conservation.

As for the assurance of product quality, we have established the Quality Management Division, which directly reports to the president and carries out quality management audits independent of any other body. Under the initiative of this division, efforts are now under way to further strengthen the quality management systems in place at each business.

We also believe that in order to better live up to the trust and expectations our customers place in our manufacturing operations, each Daicel Group employee must be ever cognizant of quality. To realize this ideal, we have drawn up the Daicel Group Quality Policy while striving to ensure that it is embraced by every workplace throughout the Group. At the same time, quality management audits are systematically being undertaken at business sites in Japan and overseas.

Looking ahead, we will continue to focus our combined efforts on assuring safety and quality as a company that is widely trusted as a corporate citizen, admired as a member of community and capable of contributing to the development and betterment of society.

## Initiatives for Corporate Compliance

The importance of compliance has long been discussed as a corporate management issue, yet fraudulent practices, including improper accounting and dishonest quality information disclosure continue to be reported by the media. Among the misdeeds making news headlines, the falsification of data is a potentially calamitous issue. This sort of misstep could disrupt our very essence as a manufacturer. We believe that misdeeds largely arise when a limited number of staff are able to arbitrarily determine business execution. Accordingly, in fiscal 2016 we stepped up our ongoing efforts to promote visualization and open communication throughout our workplace, with the aim of ensuring that no fraudulent activities can go unchecked.

More specifically, we strove to 1) ensure that everyone feels no constraint about saying what needs to be said to each other; 2) encourage everyone to carefully listen to each other's opinions and respond accordingly; and 3) systematically share business-related information to help employees notice problems or improvements. With these three points designated as priority targets in the Group's corporate compliance initiatives, each business unit is also engaged in initiatives such as exchanging worksite pleasantries, hosting events for dialogue and reviewing information sharing.

Convinced that workplace atmosphere can significantly affect the outcome of these pursuits, we are also making a constant effort to foster relationships of trust between colleagues. These efforts must be unceasing. We will steadily endeavor to create a better workplace in which issues aren't dealt with behind closed doors, an environment where everyone engages in frank discussions regardless of age or rank. We are confident that these and other corporate compliance initiatives will better position us to maintain the trust of society.

## A Message to Our Stakeholders

In recent years, the Daicel Group's overseas sales have consistently accounted for more than 50% of our net sales, while more than half the Group's employees have a nationality other than Japanese. With the expected decline in Japan's population, domestic businesses will face an inevitable need to provide greater career opportunities to women and seniors. We will therefore strive to enhance our human resource management systems to create a workplace environment in which each employee can realize their full potential regardless of nationality, gender or age.

We also have established the Innovation Park by consolidating our functions related to R&D and production technologies into a single business site. This facility is in charge of concurrent engineering\* aimed at swiftly promoting various processes that ranges from planning new projects, marketing activities, R&D and industrialization to mass-production. Leveraging the Innovation Park, we will also promote open innovation, engaging in "co-creation," "collaboration" and "cooperation" with customers, universities and other external institutions.

In addition to these and other initiatives aimed at positioning us to better pursue innovation, we seek to change individual work styles as part of our efforts to overcome the challenges of the next decade. By doing so, we aim to maintain Daicel's sustainable growth by providing solutions for the issues confronting society and secure even stronger partnerships with our customers, business partners, local communities and investors.

We kindly request your continued support and confidence in our upcoming endeavors.

\*A development method in which a variety of tasks, ranging from design to manufacturing, are executed in parallel to reduce the time required to launch the mass production of a new product.

## Fiscal 2016 Highlights

### April 2016

#### Initiatives Supporting Victims of the 2016 Kumamoto Earthquake

Through the launch of a matching gift program, in which the Daicel Group contributes the same amount donated by its employees, the Group provided financial support to victims of the Kumamoto earthquake while assisting with reconstruction of areas hit by this disaster. Moreover, the Group provided local business partners with aid supplies by leveraging its distribution channels. We seek to see the earliest possible reconstruction of areas affected by the earthquake.

#### The 15th Daicel Group Responsible Care Promotion Conference Held

The 15th Daicel Group Responsible Care Promotion Conference was held at the Company's Osaka Head Office. Responsible Care refers to activities undertaken by chemical companies to proactively ensure safety, health and environmental preservation and constitutes a key component of the Daicel Group's CSR activities. The conference is held each year to maintain high awareness of Responsible Care initiatives among employees. Ms. Chiyoko Shimozaki, who serves as an external director for the Company, was invited to speak at this year's conference. She explored "human attentiveness," from the perspective of brain science.



#### Daicel Group 6th KAIZEN Case Study Meeting Held

The 6th KAIZEN (continuous improvement) Case Study Meeting was held at the Kanzaki Plant under the theme of "be aware, think and act." Presenters from eight divisions were selected from case studies on improved operations submitted by a total of 122 divisions operating at eight sites in Japan. The selected representatives engaged in a lively discussion and exchange of opinions with top management. Going forward, the Daicel Group will promote various improvement measures, placing utmost priority on the assurance of safety and quality.

### May 2016

#### Received Outstanding Awards under the JCIA's 10th Annual Responsible Care Awards Program

Two Daicel subsidiaries, Polyplastics Co., Ltd. and Daicel Logistics Service Co., Ltd., have been chosen to receive Outstanding Awards for Responsible Care from the Japan Chemical Industry Association (JCIA). For approximately 40 years, Polyplastics has been hosting periodic dialogue events at its Fuji Plant, inviting representatives from local communities to give presentations on its RC activities and offering tours to foster understanding of the plant's environment-friendly production facilities. Daicel Logistics Service established the Safety and Quality Education Center in 2011. Since then, the center has been active in providing leading-edge technical training to enhance the capabilities of machinery operators engaged in cargo handling. These two subsidiaries and their commendations embody the Daicel Group's commitment. We continuously engage in dialogue with local residents and promote human resource development aimed at securing safety and quality, along with wide-ranging initiatives aimed at contributing to broader society.



### July 2016

#### Developed New Image Analysis System for Automobile Airbag Inflator Production Lines

In tandem with Hitachi, Ltd., the Group developed an image analysis system for use at the frontlines of manufacturing to detect signs of irregular operator behavior as well as facility malfunctions. With the aim of enhancing quality and productivity, the system was introduced at the Harima Plant's automobile airbag inflator production lines. The system helps quickly detect facility-related problems, stabilize quality and enhance operational efficiency. Moreover, the system supports "multi-traceability," in which each final product can be traced based on imaging data and manufacturing information should an abnormality be identified. Following successful roll out at the Harima Plant, the Company will introduce the same system at six key overseas plants producing airbag inflators. In this way, the Company will build an integrated management system supporting its global production network.



#### Reorganized the Group's U.S. Operations

To foster more robust corporate governance at local subsidiaries and enhance management efficiency, the Daicel Group reorganized its U.S. operations. In conjunction, Daicel (U.S.A.), Inc. was renamed Daicel America Holdings, Inc. Daicel America Holdings is now charged with the direct supervision of three other subsidiaries, thereby serving as regional headquarters for all Group companies in the United States.

- **Chiral Technologies, Inc.** A business base for the Group's chiral chromatography business in the United States.
- **Daicel ChemTech, Inc.** A newly established subsidiary that engages in marketing and technical services to expand and strengthen the Group's organic chemicals business in the country.
- **Daicel Safety Systems America Holdings, Inc.** A holding company that has been established to expand and strengthen the Group's pyrotechnic devices business through the control of five local subsidiaries in this business.

### October 2016

#### Expanded the Ohtake Plant's Facilities That Manufacture Acetate Tow for Cigarette Filters

The Group's Ohtake Plant expanded its facilities for manufacturing acetate tow for cigarette filters and successfully brought them online. This facility expansion was intended to boost the Group's supply capacity to meet customer demand that has been growing particularly in Asia, with total annual production capacity being raised by 10%. Moreover, in conjunction with this facility expansion, the Group has established a flexible manufacturing facility. Primarily designed for testing use, it boasts robust capacity comparable to commercial mass-production facilities. The Group will utilize this testing facility to develop new products using acetate tow and conduct research to discover new functions of acetate tow, thereby creating solutions that meet unfilled market needs.



### March 2017

#### Established Innovation Park (iPark) through the Consolidation of Technological Bases while Completing iCube as its Core Facility

The Central Research Center and the Himeji Technology Head Office, which had been two separate R&D facilities, have been consolidated into the Innovation Park (iPark), a new technological base aimed at enabling multiple divisions to closely collaborate in product development, mass-production and commercialization. The establishment of iPark is thus expected to help us accelerate the development and creation of new businesses. On March 13, 2017, the Group also completed iCube, a new building that serves as a core iPark facility and provides a place for open innovation with external partners. Along with ongoing efforts to transform work styles, the Group will continuously strive to develop new technologies and products.

For more details on iPark and iCube, please see page 20.

# The Daicel Group's Geographical Expansion

The Daicel Group has its bases of operations in 14 countries and regions around the world, with 79 Group companies\* engaging in their respective businesses. The Group's consolidated overseas sales ratio totals 52.2%.

\*For more details of Group companies, refer to page 54.

Consolidated overseas sales ratio

**52.2%**

Number of Group companies

**79** (14 countries)

Number of Group employees (Daicel and its consolidated subsidiaries)

**11,556**

(As of March 31, 2017)

## Europe

Organic Chemicals	2 companies
Plastics	3 companies
Pyrotechnic Devices	1 company
Others/Companies engaged in multiple core businesses	1 company

## Asia

(Excluding Japan)

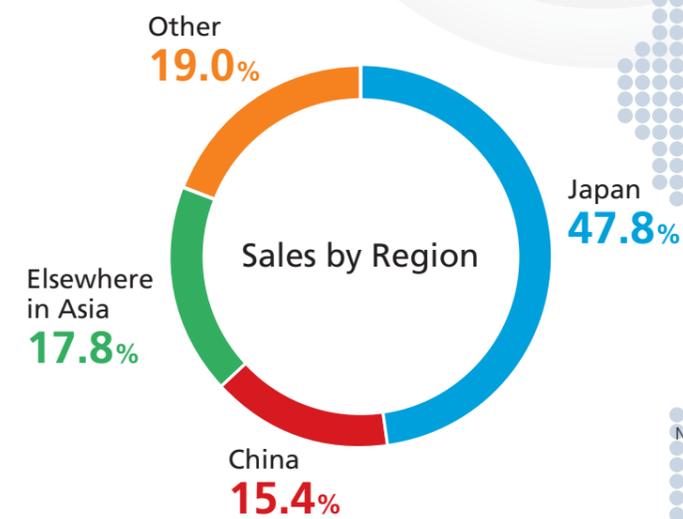
Cellulosic Derivatives	4 companies
Organic Chemicals	3 companies
Plastics	14 companies
Pyrotechnic Devices	6 companies
Others/Companies engaged in multiple core businesses	3 companies

## Japan

Cellulosic Derivatives	1 company
Organic Chemicals	5 companies
Plastics	13 companies
Pyrotechnic Devices	3 companies
Others/Companies engaged in multiple core businesses	7 companies

## Americas

Organic Chemicals	2 companies
Plastics	3 companies
Pyrotechnic Devices	6 companies
Others/Companies engaged in multiple core businesses	1 company



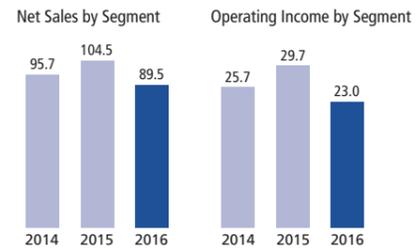
Note: The Group companies singled out in photos are featured in this report. Their initiatives are highlighted in "Special Feature," "Human Resource Development," "Maintaining Communication with Local Communities" and elsewhere.

# Overview of the Daicel Group's Business Operations

Having started out as a celluloid manufacturer, the Daicel Group has expanded its operations to other areas by employing such core technologies as cellulose chemistry, organic chemistry, high-polymer chemistry and pyrotechnic engineering. From manufacturing and marketing diverse types of chemicals to automobile airbag inflators and gas generation devices, the Daicel Group's wide-ranging products extend well beyond the traditional boundaries of the chemical industry.

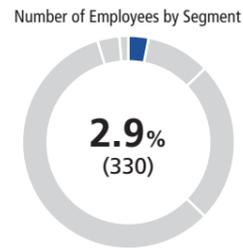
## Cellulosic Derivatives

Daicel has been cultivating its cellulosic chemical technologies based on the celluloid manufacturing technologies in use since its founding. In this area, Daicel produces a wide range of cellulosic derivatives, including cellulose acetate, which is used for such items as liquid crystal displays (LCD) films and acetate tow used in cigarette filters, as well as water-soluble polymers that boast wide-ranging applications such as food items, pharmaceuticals, cosmetics and electronic materials.



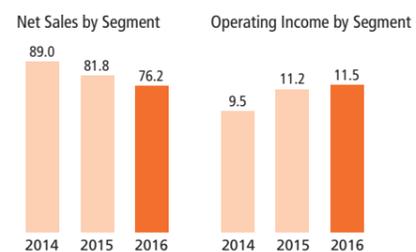
Net Sales by Segment  
**20.3%** (¥89.5 billion)

Operating Income by Segment  
**29.4%** (¥23.0 billion)



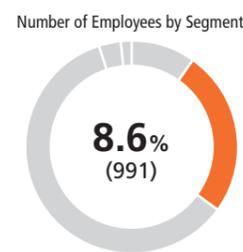
## Organic Chemicals

In addition to general purpose products like our mainstay acetic acid, Daicel manufactures highly functional organic chemicals for such applications as electronic materials while producing ingredients for cosmetics and health-care products based on its proprietary technologies. Moreover, Daicel supplies chiral columns, which play a key role in pharmaceutical development, and also provides separation services.



Net Sales by Segment  
**17.3%** (¥76.2 billion)

Operating Income by Segment  
**14.8%** (¥11.5 billion)



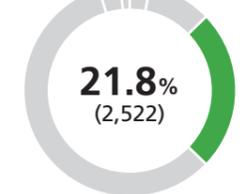
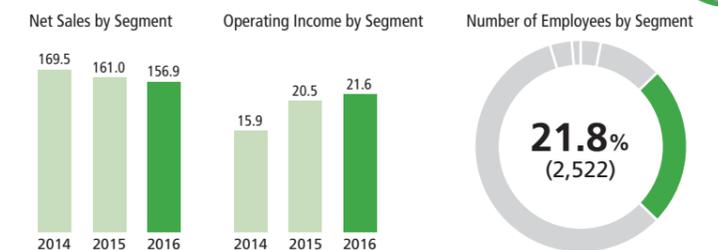
## Plastics

Net Sales by Segment  
**35.7%** (¥156.9 billion)

Daicel is engaged in the engineering plastics business, which creates and supplies resin with superior mechanical strength and heat resistance for use in electronics, automobile and a range of other industries; the compound plastics business that creates solutions

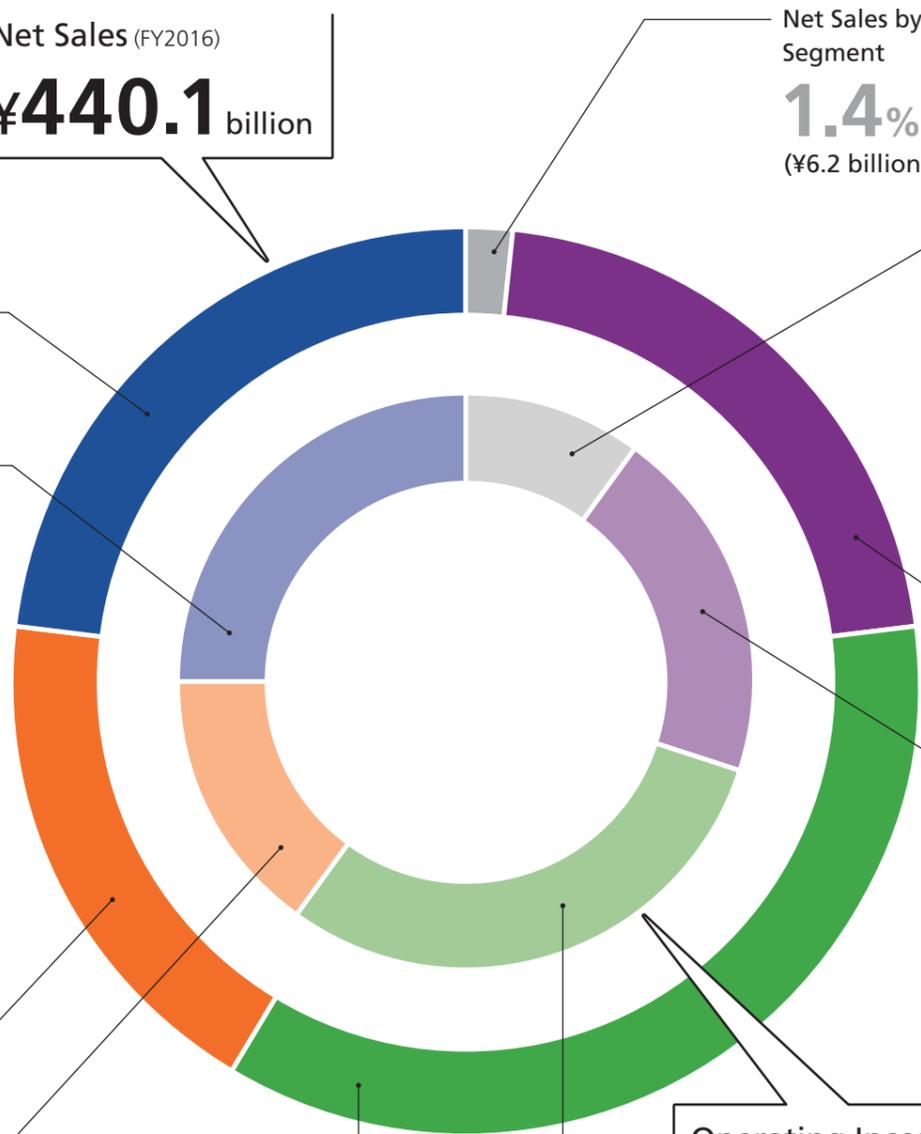
Operating Income by Segment  
**27.6%** (¥21.6 billion)

by exploiting the diverse properties of multiple types of resin through composite technologies; and the plastic processing business, which supplies polystyrene sheets, molded containers and functional films.



Note: An additional 1,384 (12%) shared corporate staff are not depicted in the segment pie graphs. Altogether, the Group numbers 11,556 employees (as of March 31, 2017).

Net Sales (FY2016)  
**¥440.1 billion**

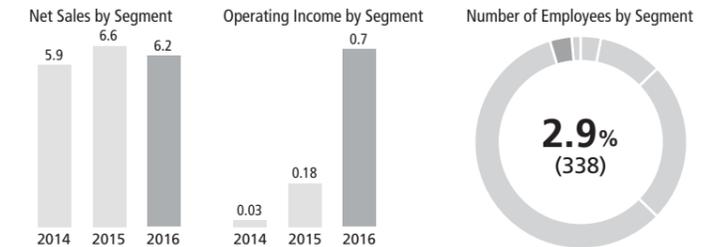


## Other

Net Sales by Segment  
**1.4%** (¥6.2 billion)

Operating Income by Segment  
**1.0%** (¥0.7 billion)

Daicel develops various separation membrane module technologies for water treatment and related applications. For example, Daicel provides membranes for industrial water treatment systems, used in a range of sectors, as well as medical-use water treatment systems for dialysis treatment. Daicel also engages in warehousing business.

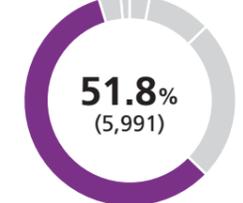
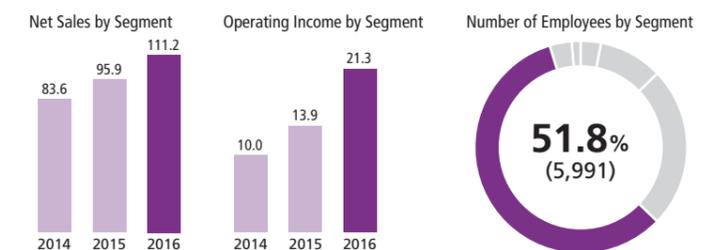


## Pyrotechnic Devices

Net Sales by Segment  
**25.3%** (¥111.2 billion)

Operating Income by Segment  
**27.2%** (¥21.3 billion)

Daicel is a supplier of such defense-related products as gunpowder and emergency-escape systems for aircraft crew thanks to a wealth of pyrotechnic device technologies accumulated over the course of its longstanding operations. Daicel also manufactures automobile airbag inflators, a critical safety device that protects passengers and pedestrians by inflating airbags within milliseconds of a collision.



## Major Applications of Daicel Group Products

The Daicel Group's products include many basic materials. As such, the general public may come in contact with them without even noticing it. Here we showcase some examples of finished goods around you that are made using products and materials supplied by

To support ever-advancing automobile technologies, we provide a variety of products that help enhance driving safety, durability and fuel efficiency of vehicles.

- 1 Automotive paints**  
● Caprolactone and epoxy resins
- 2 Fuel sender modules**  
● Polyoxymethylene (POM)
- 3 PHEV electricity supply connectors**  
● Polybutylene terephthalate (PBT)
- 4 Electric cooling water pumps for PHEV engines**  
● Polyphenylenesulfide (PPS)
- 5 Fuel filler caps**  
● Engineering plastic alloys/ polyoxymethylene (POM)
- 6 Airbag systems**  
● Inflators
- 7 Lithium-ion batteries**  
● CMC
- 8 LED lighting**  
● LED encapsulants

A range of Daicel Group products are playing key roles in the creation of electric and electronic equipment with sophisticated functions.

- 9 Printer covers**  
● Polymer alloys with engineering plastics
- 10 Drive gears for printers**  
● Polyoxymethylene (POM)
- 11 Narrow-pitch connectors for smartphones**  
● Liquid crystal polymer (LCP)
- 12 Printed circuit boards**  
● Epoxy compounds
- 13 Display films**  
● Anti-glare films
- 14 LCDs**  
● TAC (cellulose acetate for LCD optical films)

the Daicel Group.

The Group provides high-quality ingredients for pharmaceuticals, healthcare products and cosmetics while meeting strict safety requirements in these fields. The Group also delivers solutions for the development of new pharmaceuticals and drug preparations. In these ways, we are relentlessly striving to help people live better lives well into the future.

● : Cellulosic derivatives ● : Organic chemicals ● : Plastics ● : Pyrotechnic devices ● : Others

- 15 Pharmaceutical development and manufacturing**  
● Chiral columns
- 16 Pharmaceuticals**  
● Ketene derivatives, monochloroacetic acid, amines  
● CMC
- 17 Orally disintegrating tablets (ODTs)**  
● Co-processed excipients
- 18 Cosmetics, shampoos, conditioners and toothpastes**  
● 1,3-Butylene glycol  
● CMC and hydroxyethyl cellulose (HEC)
- 19 Functional foods**  
● Nutritional supplements

The Group is contributing to an affluent society through the provision of products, raw materials and functions that enhance the safety and user-friendliness of various goods used by consumers.

- 20 Packaging for snacks and other food products**  
● Barrier films for food packaging use
- 21 Food trays**  
● Polystyrene sheets and finished goods
- 22 Agricultural materials**  
● Foamed polyethylene fruit caps
- 23 Household articles**  
● Improved sink-corner strainer
- 24 Polyester fibers**  
● Acetic acid
- 25 Eyeglass frames**  
● Celluloid, Acetate resin
- 26 Housing materials**  
● Flame-resistant ABS resin

Chronology of the Daicel Group

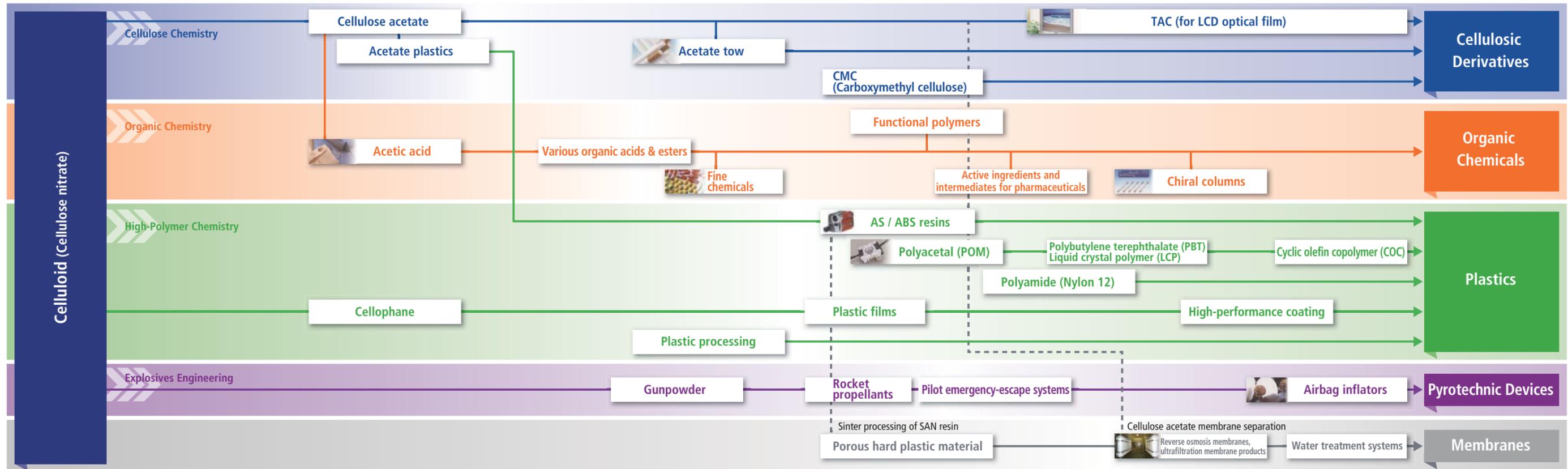
# Building on Strong Heritage of Innovation

More than a century ago,\* Daicel's predecessors commenced manufacturing. The success of their undertaking depended on blazing a new path to meet evolving customer needs amidst technological upheaval. Today, guided by this selfsame spirit, Daicel continues relentlessly taking on new challenges to achieve innovation. To Daicel, "change" has always meant "chance."

At present, the Daicel Group's four flagship businesses encompass cellulosic derivatives, organic chemicals, plastics and pyrotechnic devices. These flagship businesses have attained high global market share for diverse products including triacetyl cellulose (TAC) used in film for liquid crystal displays, chiral columns, polyacetal (POM) and automobile airbag inflators.

Leveraging our distinctive strengths in chemistry, we will continue to provide products with superior functions to satisfy the needs and dreams of society. This is how we contribute to a better society and an improved quality of life.

\*Our forerunners Japan Celluloid Jinzo Kenshi Co., Ltd. and Sakai Celluloid Company were established in 1908. In the following decade, they merged with six other firms to form the Company.



1919 – 1930s      1940s – 1960s      1970s – 1990s      2000s – 2010s

**The World's Industry Leader in Celluloid; Commercialization of Cellulose Acetate**

The Daicel Group has its roots in Dainippon Celluloid Co., Ltd., which was established in 1919 through the merger of eight celluloid manufacturers. When our celluloid business was at its peak, Dainippon Celluloid led the industry in both the quality and volume of celluloid produced, supplying its products to customers all around the world.

In addition, Dainippon Celluloid engaged in photographic film research from its earliest days, eventually creating Fuji Photo Film Co., Ltd.\* By spinning off the photographic film business from the celluloid operations, Dainippon Celluloid aimed for significant growth under a new business structure.

In 1929, we developed acetate plastics to advance the incombustibility of celluloid. In 1935, we launched the in-house production of acetic acid. Intended to establish a fully integrated production system, from the production of acetic acid (a raw material of cellulose acetate) through to acetate plastics, this move also marked the beginning of our organic chemicals business.

\*Currently FUJIFILM Corporation



- The end of the First World War (1918) leads to a postwar recession
- The crash of the New York Stock Exchange triggers a global depression (1929)
- The Second World War breaks out (1939)

**Joining Japan's First Petrochemical Complex and Developing Proprietary Technologies**

In 1958, we initiated full-fledged production of acetate tow for cigarette filters. In the 1960s, we became a member of Japan's first petrochemical complex project, thus initiating our petrochemical business. In the plastics business, we launched the engineering plastics business with the start of manufacturing for SAN and ABS resins, as well as the establishment of Polyplastics Co., Ltd., a joint venture with a U.S. partner. Realizing that cellulose nitrate (a raw material of celluloid) serves as a raw material for gunpowder, we began supplying this raw material and eventually began producing gunpowder and other products through our pyrotechnic devices business.

These operations helped enhance quality of life during the fast-paced period of Japan's rapid economic growth.



- World War II ends (1945)
- Japan's first petrochemical complex opens in Iwakuni, Yamaguchi Prefecture (1958)

**Adopting New Raw Materials and Processes; Starting Production Innovations the Daicel Way**

With the onset of the first oil crisis, we strove to decrease dependence on petroleum-based raw materials. Since 1980, we have pushed forward with this by switching our production processes over to alternatives, such as using methanol produced from natural gas in the manufacture of acetic acid.

We also accelerated the development of functional chemicals employing our proprietary technologies. Moreover, we have consolidated previously separate research facilities into the Central Research Center, a new facility established in Aboshi, Hyogo Prefecture, with the aim of enhancing our overall R&D capabilities.

In 1988, we moved forward with full scale capacity to supply airbag inflators by establishing a dedicated production subsidiary. In 1990, we launched an operations base in the United States for the chiral chromatography business, stepping up our expansion in this field. In 1992, we increased domestic production capacity for acetate tow while also establishing a joint venture to produce this product in China.



- The first oil crisis occurs (1973)
- The Japanese economy enters the "bubble" phase

**Enhancing Productivity and Competitiveness via Production Innovations the Daicel Way while Accelerating the Global Expansion of Core Businesses**

Thanks to the success of production innovation initiatives undertaken since the 1990s, we were able to bring our integrated production center online at the Aboshi Plant. Boasting high productivity, this facility attracted the industry's attention as an embodiment of Daicel Production Innovation.

In step with the development of Japan's automobile industry, which now commands significant global presence, we worked to globalize our operations for automobile airbag inflators. In anticipation of rapid demand growth in Asian markets for chiral columns used for the separation of optical isomers, we expanded development and production into China and India.

Boasting superior functions capable of meeting wide-ranging needs, our organic chemicals and plastics continue supporting numerous applications in automobiles and electronics.

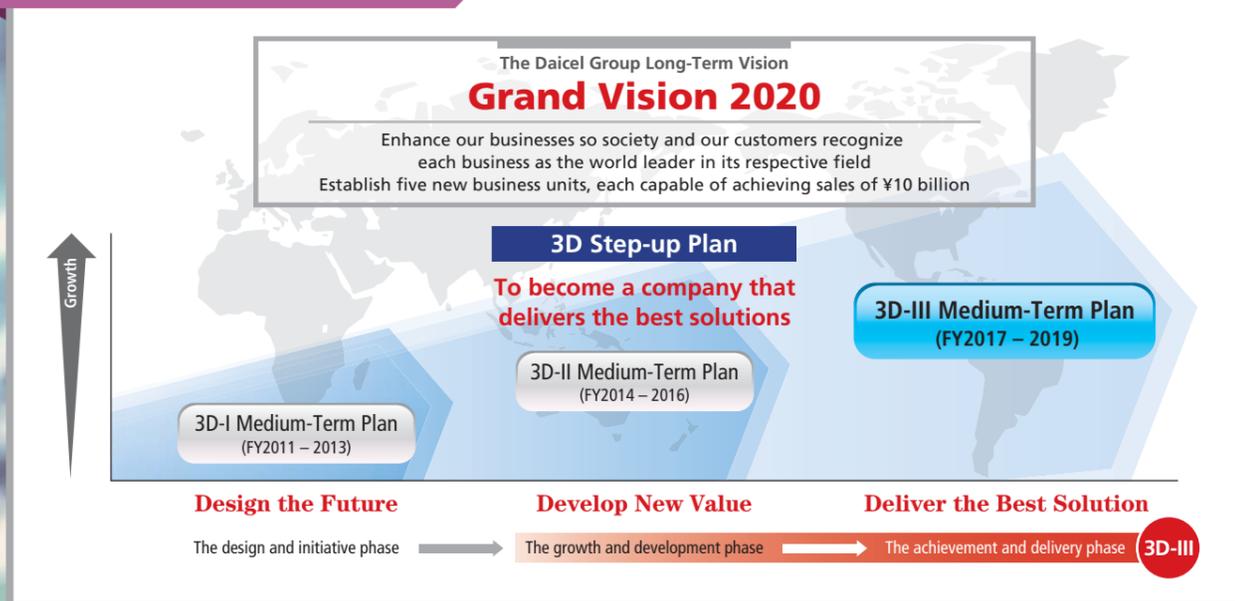


- Collapse of Lehman Brothers, the fourth largest securities firm in the U.S. (2008)
- Great East Japan Earthquake (2011)

# 3D-III Medium-Term Plan

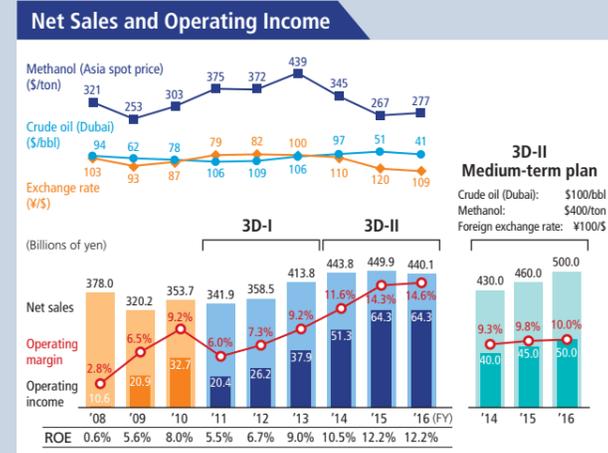
At the start of the fiscal year ending March 2018 (fiscal 2017), Daicel initiated its 3D-III medium-term plan, which marks the final phase of our tri-staged 3D Step-up Plan. Together, these action plans aim to realize our overarching goal (set forth in the long-term Grand Vision 2020 announced in fiscal 2010) of becoming a company that delivers the best solutions to the global market.

## Positioning the 3D-III Medium-Term Plan



## Results of 3D-II, Issues to Address Going Forward

Although the net sales target under the previous 3D-II medium-term plan went unmet, sales volumes grew in the cellulosic derivatives, organic chemicals, plastics and pyro-technic devices business segments, while a variety of measures



were successfully undertaken to reduce cost. Thanks to these efforts, operating income rose significantly.

Business performance also benefitted from such major external factors as favorable foreign exchange rates, raw material and fuel prices, as well as a rapid rise in the production of inflators. Given the favorable tailwind from these unexpected factors, we do not believe that the concrete initiatives set forth in 3D-II have been sufficiently executed to yield expected results. In particular, even though some new products have been developed, our initiatives to develop new business faced difficulties in terms of realizing swift commercialization and undertaking M&A. Despite our original aim of making drastic changes during 3D-II, the actual outcome fell short. This is why we have concluded we are only midway in terms of delivering on our initiatives to develop new business pillars capable of driving growth.

Taking these lessons into account, the 3D-III medium-term plan was thoroughly reviewed to achieve continuous growth while being centered on initiatives to build next-generation businesses.

## Changing Operating Environment and 3D-III Targets

The operating environment is rapidly changing. For example, there are shifts in such economic factors as foreign exchange rates, raw material and fuel prices. At the same time, growing business globalization will cause corporations to expand their scope of partnering and broaden their target markets. Moreover, such emerging technologies as the IoT and AI will help accelerate R&D related to new materials and process technologies. Meanwhile, a growing number of consumers are shifting their focus to safety and security, along with enhancing the quality of life. In addition, a technology-driven transformation of the labor environment is now under way, attempting to meet pressing needs arising from changing demographics.

In the 3D-III medium-term plan, we have positioned the aforementioned changes as growth opportunities. Furthermore, we will transform ways of working to accelerate implementation of the plan's initiatives. We will thus work to remain in step with the rapid advancement of technologies and the globalization of businesses while addressing growing consumer concerns about safety, security and health. In these ways, the Company will continuously provide solutions to satisfy the increasingly diversified needs of society, thereby securing continuous growth for Group operations.

## The 3D-III Operating Environment

The environment in which growth was achieved with conventional methods and ways of working is changing rapidly

Environmental changes (= new opportunities)	
<b>Global economy</b> <ul style="list-style-type: none"> <li>Diversification of business partners accompanying globalization</li> <li>Growing impact of changes in trade policies on the business sector</li> <li>The growing might of the Chinese and Indian markets</li> </ul>	<b>Rise of new technology domains</b> <ul style="list-style-type: none"> <li>Vehicle electrification and the acceleration of self-driving technology</li> <li>Diversification of smart devices with the evolution of the IoT and AI</li> <li>Increasing prediction accuracy driven by the big data era</li> </ul>
<b>QOL (Quality of Life)</b> <ul style="list-style-type: none"> <li>Growing importance of QOL in a society with low growth, a decreasing birthrate/aging population, and high average longevity</li> <li>Widespread shift in consumer preferences to offerings that support safe, secure and healthy lifestyles</li> <li>Progress of life sciences leading to an age of personalized medicine and disease prevention</li> </ul>	<b>The labor environment</b> <ul style="list-style-type: none"> <li>Growing calls for higher productivity due to dwindling workforce and intensifying global competition</li> <li>Increasing need for workers to meet higher requirements as the production network expands around the globe</li> <li>Increasing mobility with new ICT developments</li> </ul>

We will realize new growth by responding to the changing environment.  
 We will provide the best solutions with the highest reliability in terms of quality and safety to a diverse, global clientele.

- Enhance business models to fully fit global customers
- Speed up the creation of new businesses in medical, healthcare and other areas
- Strengthen capability to provide solutions by realizing innovation in our methods and ways of working

## Objectives of Mid-Term Plan "3D-III"

Realize continuous growth by providing the best solutions aligned with the changing business environment

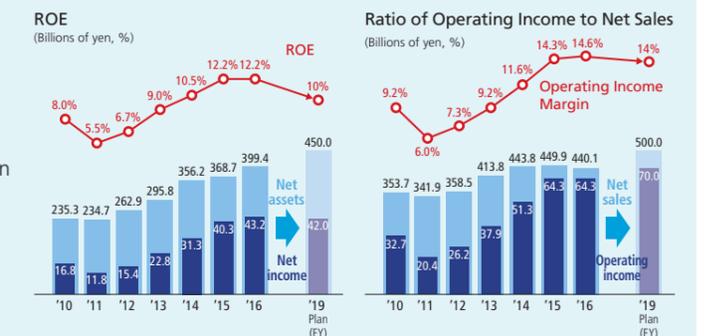
### Fiscal 2019 consolidated performance targets

Net sales of ¥500 billion and operating income of ¥70 billion

Assumptions: Crude oil (Dubai): \$55/bbl  
 Methanol (Asia spot price): \$300/ton  
 Exchange rate: ¥110/¥

### Important Operating Indices

Return on equity (ROE) and operating profit ratio



## Basic Ways of Thinking

These concepts were formulated to drive a radical change in mindset, action and working environment. Motivated by them, the Daicel Group will engage in the thoroughgoing execution of necessary change and the pursuit of continuous growth.

### 3C Spirit "Change, Challenge and Courage"

**Change**: We will CHANGE our approach for inventing strategies, going beyond mere extensions of conventional thinking.

**Challenge**: We will continue to CHALLENGE ourselves to break through the status quo and accomplish major results and growth.

**Courage**: We will have the COURAGE to jump into new areas.

These keywords support fundamental ways of thinking that drives our initiatives to address various business issues.

### Transform Our Behavior and Environment

The Daicel Group will thoroughly change its conventional business methods.

As for Group management, we will adopt a new management system aimed at optimizing our strategic planning and execution based on more detailed segmentation of business units (BUs), instead of conventional internal corporate systems or company-based business segmentation.

As for organizational management, we will work to integrate our indigenous corporate culture that serves as common ground for the Group with personal value systems that may largely differ by nationality, age and gender.

We will also accelerate all business actions and processes, including decision making.

In addition, we will change our working environment to help facilitate the aforementioned changes. More specifically, we will create an innovation-oriented workplace by proactively utilizing such cutting-edge technologies as the IoT and big data analysis.

## Basic Strategies and Main Policies

In line with "Basic Ways of Thinking" described in the previous section, we adopted the following two basic strategies.

- Priority allocation of resources to "Growth BUs"
- Acceleration of creating and developing "Growth BUs" through open innovation

To realize these two strategies, we will execute concrete initiatives under the following three main policies.

### ① Promote selection and concentration through BU management

Employing a management approach based on business units, we will solidify our foundation for continuous growth, allocating greater management resources to business units that drive growth.

### ② Execute strategic investment to proactively acquire technologies and products developed outside the Group

We will actively engage in capital expenditure and R&D investment while implementing inorganic measures, such as M&A, with the aim of accelerating the creation and development of business units capable of driving continuous growth.

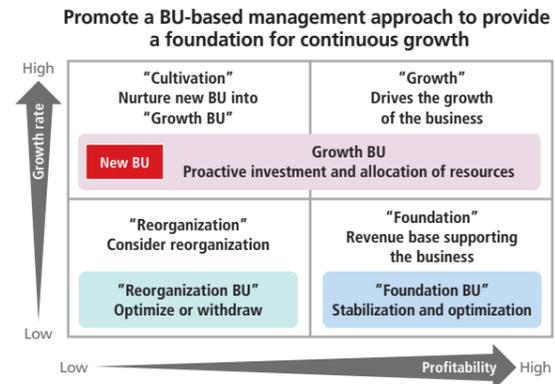
### ③ Develop an operational environment that facilitates growth

We will optimize our organizational and management structure to facilitate these policies.

## Main Policy ① Promote selection and concentration through BU management

The Daicel Group's business portfolio consists of cellulosic derivatives, organic chemicals, plastics, pyrotechnic devices and other businesses. We will subdivide these segments into more detailed categories "business units (BUs)," allocating greater management resources to BUs with higher growth potential and profitability. We will also redirect resources from BUs with weak growth rates to high growth BUs. In these ways, we will accelerate growth while enhancing the efficiency of management resources.

Moreover, in addition to launching and nurturing new business units, we will identify growth areas that span across individual BUs or segments so that we can combine the strengths of multiple BUs to better realize potential opportunities for growth. We will also review our BUs by market, with the aim of strategically optimizing our organizational structure.



## Main Policy ② Execute strategic investment to proactively acquire technologies and products developed outside the Group

In line with our ongoing focus on developing operations in the fields of medical, healthcare and electronics, we have specified five business unit prospects in these fields and decided to concentrate management resources on such units to develop new businesses. Simultaneously, we will proactively engage in business collaboration and M&A with external partners in the fields of our existing operations. By doing so, we will further accelerate growth.

**Building the basis to support continuous growth**

<b>External environment</b> Importance of quality of life (QOL) • QOL has become ever more important in a society with low growth, decreasing birthrate/aging population, and longevity • Popularization and spread of generic drugs due to attempts to control medical expenses • Progress of life sciences leading to an age of personalized medicine and disease prevention  Smartification • Evolution of the IoT and AI has led to the diversification of smart devices • An increase in mobility features with new ICT developments • Electrification of automobiles and the acceleration of self-driving technology	<b>Strengths</b> • Global base and network for the chiral separation business • High degree of recognition for chiral column related products in the pharmaceutical industry • Bio-conversion technologies • Expient technology  • Fine organic chemicals technology (resistant monomers, polymers) • World's first commercialized cured wafer lens • New resin and hybrid materials • Distillation technology, metal control technology (High-purity electrical material solvents)	<b>Focus Areas</b> ① <b>Medical and health care</b> Optimize Daicel strengths for a QOL society  ② <b>Electronics</b> Optimize Daicel strengths for a smart society
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**Turning selected prospects into new BUs**

<b>① Medical and health care</b> <b>Medical and health care</b> Existing: Chiral core (columns, chiral stationary phase), separation services New: Biopolymer purifying tools (bio-separation and others), analysis services, specialty chemicals, achiral columns, pharmaceutical formulating solutions, raw materials for functional foods and new drug delivery device  <b>Cosmetics</b> Existing: 1,3BG, polyglycerol New: Skin care products  ¥10 billion* → ¥35 billion**	<b>② Electronics</b> <b>Electronic materials</b> Existing: LED encapsulants, resist materials for printed circuit boards, solvents for electric materials and solvent additives New: FPD/ArF resist materials, solvents for printed electronics devices, silicon encapsulant, low metal solvents and peripheral semiconductor materials  <b>Performance film</b> Existing: Barrier film New: Hard-coat film for display and film related to clean energy processes  <b>Optical parts</b> New: Wafer lens  ¥16 billion* → ¥45 billion**
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\*Sales in FY2016 \*\*Expected sales in FY2019 (Organic and inorganic growth)

## Main Policy ③ Develop an operational environment that facilitates growth

Throughout the Group, we will develop an optimal operational environment that facilitates growth. For example, we have established open laboratories to incorporate new technologies and products through enhanced collaboration with corporate customers, universities and other external research institutions. Moreover, we will create an open office environment that helps smooth coordination between divisions while introducing cutting-edge IT technologies. We will also enable employees to adopt diverse work styles based on their individual lifestyles.

**Better ways of working through better systems**

Issue	Aim of corrective policy	Example of corrective policy
Enhance competitiveness	Promotion of diversity	• Offer greater career opportunities to women, seniors and staff hired overseas
	Redesign responsibilities and authority	• Autonomous decision making on the spot and speedy customer interaction (shift from Mother plant design to regional independent and autonomous design)
	Strengthen the foundation of global management	• Nurture a select group of globally capable personnel; collectively hire mid-career professionals to change our corporate DNA
	Shorten the period of technical investigation	• Use virtual laboratories (combine computational chemistry and dynamic stimulation)
Realize work-life balance	Promotion of a variety of ways of working	• Optimize an environment for those working at home
	Optimization of work efficiency	• Promote efficient work styles based on working hours analysis and utilize outsourcing
	Improve efficiency through the enhancement of information sharing	• Improve the level of information sharing through the use of IT technology and the enhancement of the office environment

**Changing work styles to improve productivity**

**Establishment of Innovation Park**  
Acceleration of open innovation and concurrent engineering\*

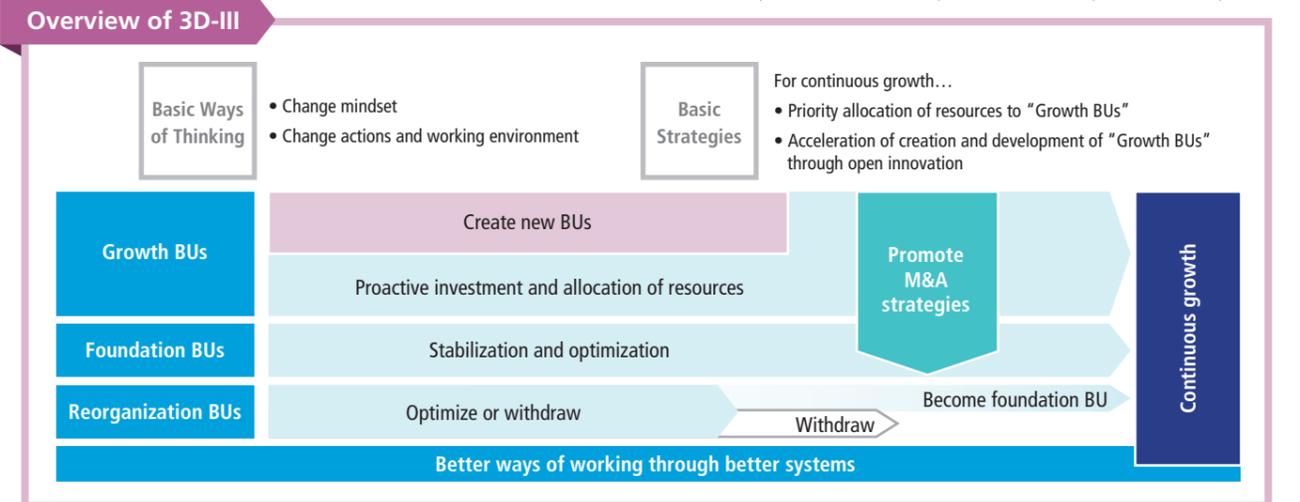
- Free address work space encourages communication
- Multi-purpose hall with translation system
- Functional zoning (Picture: distillation equipment)
- Laboratory clean room

**Remove hurdles between divisions and strengthen relations, thereby promoting concurrent engineering\***

Realize a virtual laboratory by using molecule/process simulation and flow/structure analysis

**Through open innovation (both internal and external), combine knowledge, technology and know-how to develop innovative solutions**

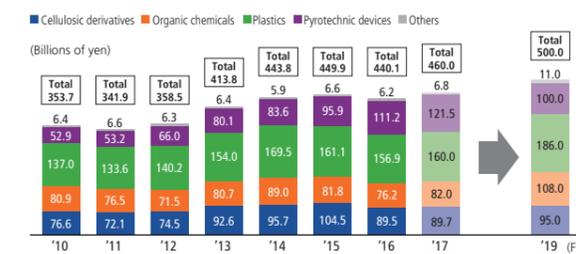
\* A development method in which a variety of tasks, ranging from design to manufacturing, are executed in parallel to reduce the time required to launch the mass production of a new product.



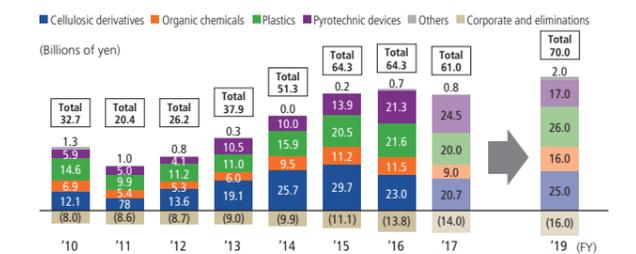
## Performance Targets by Segment

Along with strategic allocation of resources to new BUs, we will promote selection and concentration based on BU management in the cellulosic derivatives, organic chemicals, plastics, pyrotechnic devices and other business segments. In these operations, we will shift our management resources to promising fields, thereby achieving growth in both new and existing businesses.

### Net Sales by Segment



### Operating Income by Segment



## Shareholder Returns

Based on our business plan, we aim to maintain solid shareholder returns, with the target dividend payout ratio set at 30%.

With regard to our basic policies on shareholder returns, we focus on securing robust internal reserves to establish a stronger revenue base while paying dividends that reflect consolidated performance. We also adhere to a financial strategy that is conscious of achieving ROE of 10% or more. Giving comprehensive consideration to these factors, we maintain a balanced approach to profit distribution that extends to share repurchases, which will be carried out flexibly to supplement dividends.

# Innovation Park

## Accelerating the Creation of New Businesses

To realize its long-term Grand Vision 2020, the Daicel Group is accelerating R&D and a mass production technology study designed to create new businesses and commercialize new products and technologies. To that end, Daicel has consolidated the Central Research Center and the Himeji Technology Head Office, two R&D facilities located near the Company's Aboshi Plant within the Himeji Production Sector, by relocating their functions into a single R&D site. On April 1, 2017, the Innovation Park (iPark) was thus opened, with the newly constructed iCube initiating its operations as a core iPark facility.

### Background and Purposes of the Establishment of the Innovation Park

Previously, the Company's Central Research Center housed the R&D Headquarters' Corporate Research Center as well as various R&D units of the Group's operating companies. While the former was in charge of the creation of new businesses and the establishment of elemental technologies, the latter engaged in product development and cost reduction efforts related to existing businesses. Moreover, the placement of laboratories and other testing and assessment facilities was determined based on which parent organization they belonged to, and office spaces were allotted to each research unit in the same manner. Meanwhile, the Himeji Technology Head Office comprised the Production Technology Headquarters, which spearheaded the Daicel Production Innovation initiative and other process innovation activities, and the Responsible Care Office in charge of groupwide environmental and safety activities, in addition to the Engineering Center that played key roles in the selection, construction and maintenance of plant facilities.

Having consolidated these separate R&D sites and functions into a single site, Daicel established a technological powerhouse aimed at accelerating R&D in relation to fundamental technologies, new product development, innovative process and highly efficient mass-production methods. As the Group's key R&D site, the Innovation Park is expected to drive breakthroughs and innovation in a variety of technological fields.



Location of iCube and Daicel Ijinkan as well as greenery within the Innovation Park premises

The premises of the Innovation Park were designed to reflect our respect for the paths blazed by our predecessors as we look to achieve future growth by building on their heritage. For example, Daicel Ijinkan is carefully preserved at the site. Boasting more than 100 years of history, this residence even precedes the founding of Daicel and has been designated as an important urban landscape structure by Himeji City. As we have also paid close attention to the natural environment, abundant greenery surrounds the structures and includes eucalyptus trees, which are protected trees under the city's nature preservation regulations. The name of the entire site, the Innovation Park (iPark), was determined to symbolize our rich history as well as environment-friendly attitude.



Daicel Ijinkan

### Roles of iCube

In conjunction with the consolidation of R&D functions into the Innovation Park, the new iCube building was established. Various experiment facilities and equipment that had been housed by the Central Research Center are now placed in this building based on function zones, with the aim of enhancing their operational efficiency and safety. Moreover, having secured dedicated spaces for open innovation, iCube is expected to enable engineers in various fields to engage in vibrant communication and collaboration beyond organizational boundaries.

The naming of the building expresses our focus on "innovation." We also created the logo for iCube, the design of which attests to our aspiration to realize innovation in three areas—production, process and products—through multi-faceted and continuous collaboration.



### Concepts behind the Establishment of the Innovation Park

The Innovation Park was established to embody the following five concepts.

#### 1. Technological fusion

With technological divisions related to R&D, production technologies, engineering, the environment and safety being consolidated into this single site, we aim to accelerate the creation of new businesses, research on new products and innovative process technologies and the development of highly efficient mass-production facilities.

#### 2. Zoning by function

In conjunction with the relocation of R&D functions of each division to the new site, experiment facilities and equipment formerly housed by the Central Research Center were drastically rearranged. The new arrangement was determined based on zoning by function and was not restricted by organizational boundaries. We also gave due consideration to experiment efficiency and safety.

#### 3. Open innovation

With the aim of promoting active collaboration with external partners, including those from abroad, the innovation park is equipped with two clean rooms with varying degrees of cleanliness, one chemical laboratory boasting multiple functions and other open-laboratory facilities. We will leverage these facilities in joint R&D activities involving domestic and overseas customers, thereby realizing open innovation.



Multi-purpose chemical engineering experiment facilities



Open-laboratory facilities

#### 4. Work style reforms

The innovation park is designed to facilitate collaboration beyond organizational boundaries. The site planning allows staff in charge of R&D, production technologies, engineering, the environment and safety, to freely engage with their colleagues in charge of business planning, sales and back office operations as well as representatives from customers and partner companies. Thus, iPark is expected to help us change our working styles.



#### 5. Diversified communication

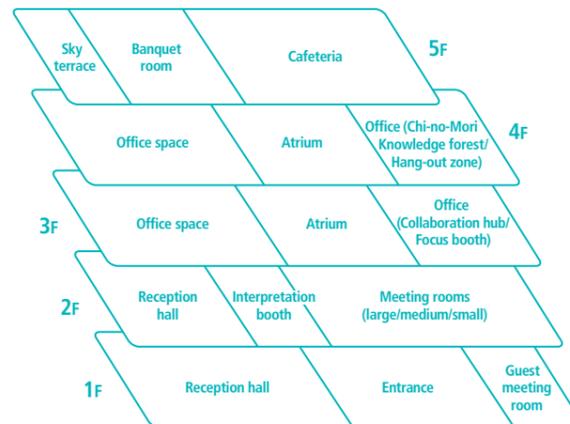
A large, non-territorial office space sparks formal and informal communication between those specializing in various fields ranging from exploratory research, product development, production innovation and process innovation to engineering. This setting helps researchers and other participants inspire one another, boosting motivation as they strive together to push forward with the development of new products and innovative mass-production technologies, as well as the creation and commercialization of new businesses.

### Features of the New iCube Building

A five-story structure with a total floor space of 5,754 m<sup>2</sup>, iCube is designed to allow workers to engage in diverse ways of communication, with the aim of transforming work styles, promoting open innovation and accelerating the creation of new businesses.

After passing through a glass-paneled entrance emblazoned with iCube's logo, visitors are ushered into a soaring lobby. From there, a reception hall boasting a capacity of 350 people is directly accessible. The hall also has a dedicated room for simultaneous interpreters, as it is intended to serve as a place fostering exchange with our customers, including those from abroad. The second floor boasts various sizes of meeting rooms, each equipped with systems for teleconferencing, online meetings and intranet. In addition to connecting us with colleagues at other business sites, these systems will be used to set up emergency headquarters when a major disaster strikes. The third and fourth floors are large office spaces capable of accommodating 350 workers. These spaces foster an atmosphere of exciting collaboration, thanks to such features as a variety of "communication zones" and an open stairwell. The fifth floor houses a glass-walled cafeteria, designed to allow workers to dine and chat in a relaxing setting.

From a sky terrace next to this room, people can enjoy a panoramic view of surrounding landscapes and sea breezes from the nearby Seto Inland Sea. There is also a banquet room for the purpose of engaging with customers.



### The Development of Areas Surrounding the Innovation Park

In conjunction with a series of projects aimed at celebrating the centennial of Daicel's founding, such as the Forest for Life initiative, iPark will develop greenery surrounding Daicel Ijinkan as well as around Kinugake Club, another historical structure, in tandem

with the Aboshi Plant. We will strive to create a business site symbolizing our longstanding history and commitment to peaceful coexistence with the natural environment.

### The Future Outlook

In line with its long-term Grand Vision 2020 established in 2010, Daicel is striving to become a company that delivers the best solutions to the global market. To this end, the Innovation Park will play a core role in our Groupwide initiatives in the fields of R&D, production technologies, engineering and responsible care, thereby driving the integration of expertise in a variety of fields.

Furthermore, iPark's unique environment will help us accelerate

innovation through co-creation, collaboration and cooperation between in-house and external experts in various technological fields. In these ways, we will continue to provide the best solutions to customers in diverse fields and contribute to a society as a whole.

As Daicel approaches its 2019 centennial, the Innovation Park will serve as a new technological powerhouse supporting the Company's operations over the next 100 years.

# VOICE

## My Commitment to Leading the Innovation Park



Ikuo Takahashi  
General Manager of Innovation Park

On March 13, 2017, we held a completion ceremony for the new iCube building, inviting a number of guests, including the governor of Hyogo Prefecture, the mayor of Himeji City, the president of Kobe University, the vice president of University of Hyogo and other high-profile public figures. We also held an opening ceremony for the Innovation Park on April 6, 2017. Joining its staff, we joyously celebrated the launch of the new R&D site. Daicel's president, directors and executives attended both events, in addition to representatives from construction firms and other business partners who came out to join in celebration with us. I extend my deepest gratitude to each of the attendees and am very pleased that we were able to make these ceremonies so memorable.

Since then, we have received a number of requests from those who are interested in touring the site. In response, we are now organizing and offering site tours with a spirit of hospitality.

The planning of the Innovation Park began in June 2014 when we formed an action team to draw up basic concepts for the site. In April 2015, we launched a dedicated committee in charge of facility relocation and rearrangement while appointing more than 70 committee members beyond sectional boundaries. The committee consisted of five subcommittees, which met regularly, occasionally holding camp-style meetings, and engaged in lively discussions to decide the planning of today's iPark. Not only does this project involve the construction of a new building, it simultaneously entailed the massive renovation of the Central Research Center buildings that housed a number of laboratories, as well as the installation of earthquake-resistance reinforcements. With this in mind, I believe the success of this challenging project is attributable to our staff's hard work. I extend my wholehearted gratitude to their dedication.

The project coincided with the formulation of the 3D-III medium-term plan. Accordingly, the aforementioned committee members had also been engaged in discussions with regard to the medium-term plan for the Innovation Park. These discussions helped us crystallize our concepts on the upcoming R&D organization

that would operate in the new site. As we engaged in cross-functional activities spanning sectional boundaries, we were also able to get to know each other well. We understood each other's ways of thinking and ended up paying greater respect to each other. This was a significant experience that developed a stronger sense of unity and common purpose.

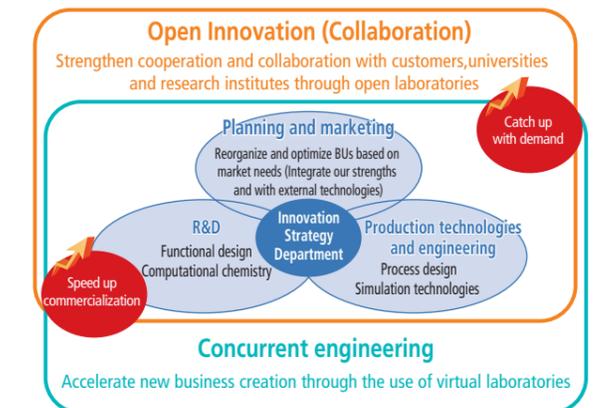
In addition, the Innovation Park includes two newly established organizations: the Innovation Strategy Department and the CSR Center. The former coordinates projects related to research, development and other technological themes and manages their progress beyond organizational boundaries to produce outputs in shorter time. The latter is responsible for communication with such external entities as government agencies in relation to research, technology and safety while supporting in-house engineers. It also handles human resource development, general affairs, safety, environmental and corporate ethics, as well as serving as a CSR advocate for the entire site.

As we create new businesses through co-creation, collaboration and cooperation with our customers, we are committed to thinking, exchanging ideas and working together with our customers. That's how we provide the best solutions capable of contributing to society.

#### Establishment of the New Innovation Park

**Aims to accelerate the creation of new businesses and strengthen existing businesses**

- Utilize open innovation and concurrent engineering in all stages of investigation/planning, research and production (mass production) in order to realize innovative technological development and accelerate commercialization.
- The Innovation Strategy Department simultaneously champions the three operational aspects of "planning and marketing," "R&D," and "industrial technology and engineering" essential to realizing this.



## Research and Development Activities

Daicel is engaged in R&D aimed at creating new value in diverse fields, including electronic materials, functional films, medical and healthcare, as well as the environment and energy. Employing its strength in fundamental technologies, such as cellulose chemistry, organic chemistry, high-polymer chemistry and pyrotechnic technology, the Company is thus endeavoring to deliver the best solutions capable of contributing to society.

### Outline of Fiscal 2016 R&D Activities

Consolidated R&D expenses amounted to ¥16,806 million. The Group has 1,128 employees, representing 10% of its total employees, engaged in R&D activities.

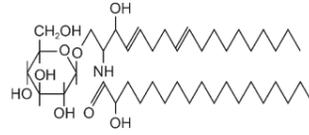
#### Topics

Daicel has promoted an industry-academia research project as part of initiatives aimed at creating new businesses in the medical and healthcare field. More specifically, the Company has co-funded the Department of Impulse Science for Medicine in tandem with Osaka University's Graduate School of Medicine. Applying Daicel's pyrotechnic technologies, researchers involved in the department are hard at work creating innovative medical technologies, including new methods for administration and treatment, with the aim of yielding breakthroughs never before achieved with conventional medical devices.

The Company has also been engaged in joint research with Hokkaido University and the Northern Advancement Center for Science & Technology. Results of this project revealed mechanisms in which glucosylceramide, an active ingredient of "Konjac Ceramide" used in functional food, alleviates skin itchiness caused by hypersensitivity. These findings are expected to create new solutions that prevent or reduce itching symptoms attributable to such causes as atopic dermatitis.

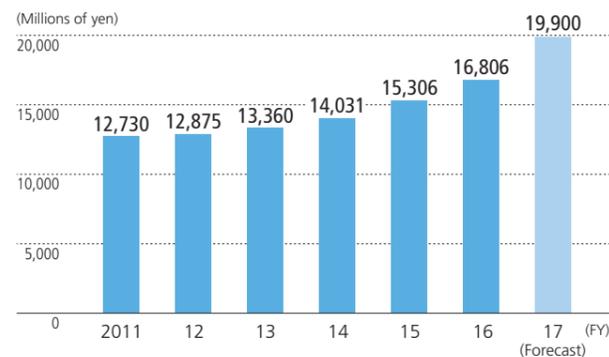


The Pureceramide 1800 functional food



Glucosylceramide

### Research and Development Expenses



### Fiscal 2016 Key R&D Themes and Expenses by Business Segment

Business Segment	Key R&D Themes	R&D Expenses (millions of yen)
Cellulosic Derivatives	<ul style="list-style-type: none"> <li>Strengthening production technology and improving the quality and competitiveness of cellulose acetate and cigarette filter tow</li> <li>Developing new applications and products based on existing products</li> </ul>	1,022
Organic Chemicals	<ul style="list-style-type: none"> <li>Research into improving acetic acid manufacturing technologies</li> <li>Developing and commercializing new products based on peracetic acid derivatives as well as organic functional products for use in cosmetics and electronic materials</li> <li>Development of new optical isomer separation columns and products for use in separation and purification</li> <li>Development of resin materials and functional solvents for use in printed electronics in addition to resist monomers for ArF lithography</li> <li>Adapting process innovation technologies to manufacturing plants in order to strengthen competitiveness of existing products</li> </ul>	3,401
Plastics	<ul style="list-style-type: none"> <li>Enhancement of quality and environmental suitability of engineering plastics; development of high-performance resins and polymer alloys; and development of polystyrene-based products</li> </ul>	3,364
Pyrotechnic Devices	<ul style="list-style-type: none"> <li>R&amp;D on new gas generators and new inflators for automobile airbags; and development of pilot emergency-escape and other systems</li> <li>Application of pyrotechnic devices to develop products in new fields</li> </ul>	3,249
Others	<ul style="list-style-type: none"> <li>Development of separation membranes and separation systems</li> </ul>	154
Corporate	<ul style="list-style-type: none"> <li>R&amp;D on creation of new businesses; and basic research that cannot be allocated to any specific segment</li> <li>Development of functional chemical products and functional films for the electronics market; and development of functional materials for advanced fields, such as the medical/healthcare fields</li> </ul>	5,614

## Products and Technologies that Contribute to a Healthier Environment and People's Safety

The Daicel Group provides customers with environmentally friendly products and safety.

### Daicel Corporation

#### CEL TOL<sup>®</sup>IA

Wide-bandgap (WBG) semiconductors are expected to become next-generation power semiconductors, boasting significant potential to curb energy loss as they enhance power conversion efficiency and reduce device size and weight. Accordingly, their practical applications are under intensive discussion in a variety of fields, including car electronics.

In the course of joint research with the Suganuma Lab at Osaka University's Institute of Scientific and Industrial Research, Daicel Corporation has developed a silver paste for bonding WBG semiconductors through the combination of micro silver and the CEL TOL<sup>®</sup>IA solvent.

Bonding materials based on sintered silver had already been recognized as a promising solution in light of the need to strike a balance between high-temperature resistance, joint strength and stress relaxation. Moreover, these materials can be produced through low temperature sintering. However, due to problems in temporal stability and higher costs, the application of this method was feasible only in a few special fields.

To resolve these problems, our joint research developed this silver paste, which consists only of sub-micro silver, micro silver and the CEL TOL<sup>®</sup>IA solvent. This composition helps secure the optimal balance of the solvent's chemical and thermal properties, realizing superior bond strength without the use of nano-silver or other types of specially formed silver. As a result, the use of this paste enables the commercialization of a simpler, non-pressure bonding process at a temperature of 180°C.

Following this groundbreaking invention employing the Company's unique expertise in solvent technologies, Daicel Corporation began distribution of product samples. This is just one way the Company is striving to help accelerate adoption of next-generation power semiconductor technologies, with the aim of fulfilling pressing social needs.

#### Eco-Friendly Chiral Column for UHPLC

Daicel Corporation has released the first three models of "CHIRALPAK<sup>®</sup> I-U" series solvent-resistant chiral columns, namely, CHIRALPAK<sup>®</sup> IA-U, CHIRALPAK<sup>®</sup> IB-U, and CHIRALPAK<sup>®</sup> IC-U, for use in ultra-high performance liquid chromatography (UHPLC).

Today, high performance liquid chromatography (HPLC) is a popular analysis method in various areas, including pharmaceuticals, food and cosmetics. At the same time, the use of UHPLC has become widespread thanks to the development of user-friendly UHPLC equipment capable of performing more efficient, rapid separation with greater sensitivity.

Daicel Corporation developed solvent-resistant high-performance chiral filler with a particle diameter of 1.6µm for use in UHPLC. Consequently, the development of the new chiral column has led to a 70% reduction in time necessary for UHPLC-based analyses and an 80% reduction in the volume of solvents used in such analyses.

This new chiral column was developed based on another solvent-resistant chiral column the Company previously created to enable the use of solvents (e.g., ethyl acetate and halogenated solvent) in the mobile phases of chromatography as well as for dissolving analysis samples regardless of solvent type. Thanks to this invention, the Company had been chosen by the Cellulose Society of Japan to receive the Fiscal 2015 CSJ Technical Award.



CHIRALPAK<sup>®</sup>I-U series

### Daicel Polymer Ltd.

#### PLASTRON<sup>®</sup> Super EP (Engineering Plastic) Grade Contributes to Weight Reduction

Daicel Polymer markets PLASTRON<sup>®</sup>, a long-fiber reinforced plastic boasting superior rigidity and impact strength that had never been achieved by conventional fiber reinforced plastics. This remarkable performance is thanks to Daicel Polymer's composite technologies that can produce resin pellets with unified lengths of fiber reinforcement directionally and sequentially arranged.

Enhancing its PLASTRON<sup>®</sup> lineup, Daicel Polymer has released the Super EP Grade products based on polyphenylene sulfide (PPS) and polyether ether ketone (PEEK). Simultaneously, Daicel Polymer began distributing samples of this grade.

The new grade is expected to provide a solution for the automotive industry as it faces growing calls for improved fuel efficiency. For example, metal-based components used in engine chambers can be replaced with heat resistant, light-weight resin materials created using this grade. Possible applications may also include materials for the housings of industrial-use high-speed electrical fans as well as machining tools.

The development of this grade was backed by two other Group subsidiaries, namely, Polyplastics Co., Ltd. and Daicel-Evonik Ltd., which produced PPS-based resin and PEEK-based resin, respectively. Going forward, the Daicel Group will rally its overall strength to deliver the best solutions to its customers.



PLASTRON<sup>®</sup>

### Daicel-Evonik Ltd.

#### VESTAKEEP<sup>®</sup>-J, a PEEK-Based Thermoplastic Boasting Superior Heat Resistance

Daicel-Evonik manufactures and supplies VESTAKEEP<sup>®</sup>-J, a PEEK-based thermoplastic polymer with superior heat resistance.

VESTAKEEP<sup>®</sup>-J has a melting point of 334°C and is capable of enduring continuous use at temperatures of 250°C. In addition to its extreme heat resistance, the product boasts superior rigidity, surface hardness, mechanical strength and low water absorption.

Thanks to these features, VESTAKEEP<sup>®</sup>-J is used in a wide variety of applications, including the automotive field. For example, this product helps reduce exhaust gas emissions and enhance fuel efficiency by reducing the weight of automotive parts. Specifically, VESTAKEEP<sup>®</sup>-J provides alternatives for parts used in extremely harsh environments, such as inside engines and transmissions. The product is thus supporting key automotive components that support driving comfort.

In the aircraft field, in which such light alloys as duralumin are intensively used, this product is driving a switch to resin-based structure materials and interior components to achieve further weight reduction. Through combination with carbon fibers, VESTAKEEP<sup>®</sup>-J is also expected to create a next-generation hybrid material. The result can be molded using less energy and less time compared with conventional thermal curing materials.



Next-generation hybrid material using carbon fiber and resin



Inside a transmission

## Human Resource Development

### Human Resource Policy

Amid the fast-paced expansion of overseas business activities associated with globalization, the Daicel Group has put in place a "Human Resources Policy" taking into consideration the need for employees with a varied and diverse set of values to work closely together. In coming up with this policy, which covers a wide range of areas including recruiting, training, work assignments, and working conditions, the Group was conscious of the fundamental underlying concept that 'people are the foundation for our success'.

**“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.

### Personnel System to Support Human Resource Development

At Daicel, human resource development is underpinned by various systems and structures. By consistently adhering to the intent of these systems and following these rules and structures, Daicel is actively promoting human resource development.

#### Human Resource Development via MBO— Dialogue, Growth and Achievement

Daicel has positioned Management by Objectives (MBO) as the most important methodology to encourage each employee to develop their competencies. MBO involves intensive, face-to-face dialogue between superiors and subordinates as it aims to strengthen relationships of trust. These sessions seek to boost ambition, motivating each employee to voluntarily take on higher targets, thereby helping them achieve both personal growth as well as job accomplishments. We focus not only on results but also on the processes. In this way, we are motivating our employees to pursue challenging goals, one after another.

MBO has been thoroughly embraced by domestic Group companies, and efforts are now under way to roll it out at business sites overseas. Some Thai and Chinese subsidiaries are currently introducing this methodology. Looking ahead, we will step up our efforts to develop human resources on a global basis.

#### System to Hear Employees' Opinions (Voluntary Reporting System)

The voluntary reporting system gives employees an opportunity to express their career-development wishes. Once a year, all employees have interviews with their supervisors to express their thoughts on their careers, including their preferences regarding job types and work locations. Through dialogue, supervisors consider optimal placement and personnel training programs based on the individual's wishes, aptitude and capabilities, with the aim of helping them achieve personal growth and greater accomplishments.

### Educational System Supporting Human Resource Development

New recruits at Daicel undergo a regimen of training and development programs spanning a full year. From the start, this course is designed to impart new employees with a basic mindset as working members of society, with the ultimate goal of ensuring they are fully prepared for their upcoming duties. In this way, we are helping our employees develop essential skills that will, in turn, enable them to build robust careers at Daicel and contribute to the Company's success.

#### Introductory Training

Through introductory training, new recruits are taught what they need to know as a part of Daicel Corporation. This includes essentials, such as the Company's policies, and imparting the basics of business conduct. Moreover, introductory training also seeks to raise their individual commitment to meaningful social contribution through participation in CSR activities.

#### Training in Manufacturing

Upon completing introductory training, trainees undergo on-the-job training at the Operation Training Center and a production site. Once there, they learn about the importance of safety and quality, actions and behaviors required in manufacturing workplaces, and basic knowledge on and actual hands-on procedures at plant facilities. As such, we provide a seamless curriculum aimed at nurturing employees capable of supporting our manufacturing operations.



University graduates engaged in training



High school graduates engaged in training

### Our Commitment to Technicians

#### Curriculum Aimed at Nurturing Future Engineering Leaders

The development of technicians is an important management issue, because they underpin the foundation of the Company's manufacturing operations. Starting with first-year training for manufacturing, technicians continue to receive training aimed at allowing them to acquire various specialized techniques, appropriate behavior and other knowledge required should they become managers in the future.



#### Nurturing Outstanding Experts

We have established a separate training system to nurture experts equipped with superior technological capabilities in their respective fields. This program aims to secure the human resources who will, in turn, help the Company surmount future challenges. We have cultivated a corporate culture that enables these experts to concentrate on their specialties. As one career option, we have developed a dedicated career track for those who have the perspicacity and willingness to enhance their specialized strengths.

### Promoting a Deeper Understanding of CSR by the Group

In order to deepen understanding of the Daicel Group's policies and approach toward CSR, training programs are conducted in line with the status of employees as well as individual roles and responsibilities. When an employee is first appointed to management, he or she undergoes comprehensive training encompassing such wide-ranging fields as corporate ethics (compliance), responsible care, internal control, legal affairs, risk management, intellectual property, labor relations and human resource development. Corporate ethics and legal affairs in particular have been identified as areas of significant importance and are undertaken by all levels of employees. The Daicel Group makes every effort to provide employees with opportunities to reflect on their roles and responsibilities within society and on proper behavior.

## Nurturing Globally Capable Human Resources

The Daicel Group is pursuing personnel exchange beyond borders while proactively nurturing globally capable human resources by, for example, passing down its technological know-how. In this section, we showcase some of our initiatives in this regard.

### Pursuing Globally-Unified Product Quality

#### Nurturing Operations Trainers

Dedicated to providing on-site operations supervisors with training on how to do training, a specialized human resource development center is functioning within the Aerospace & Defense Systems and Safety Systems Company (MSD)<sup>1</sup> as part of DSS<sup>2</sup>. This center seeks to nurture "operations trainers." More specifically, these training sessions aim to develop human resources capable of accurately communicating the importance of safety and quality to frontline operators and giving them proper instructions based on prescribed operational procedures. In fiscal 2016, we established a standardized, global educational and certification system for nurturing these trainers.

Currently, there are already five certified trainers handling sessions at DSS in Japan. And, in September 2016, DSSC (China)<sup>3</sup> became the Group's first overseas base to begin nurturing operations trainers on its own premises thanks to an employee who acquired this certification.

In December 2016, employees at DSST (Thailand)<sup>4</sup> and DSSE (Poland)<sup>5</sup> participated in training sessions, with the aim of acquiring a operations trainer certificate. Attendees at the sessions, also learned about each other's cultural differences and ways of thinking. These attendees with various nationalities ended up understanding each other better and gained greater respect for their peers from other countries.

We are confident that nurturing operations trainers of various nationalities will help us unify relevant training standards and requirements used at business sites around the globe.

We will also strive to nurture an international circle of future leaders who can engage in equal discussions on quality and production issues with their counterparts from different countries.



- 1 MSD: Motor Vehicle Safety Device: Refers to a company producing airbag inflators (gas generation devices) and related devices
- 2 DSS: Daicel Safety Systems Inc.
- 3 DSSC: Daicel Safety Systems (Jiangsu) Co., Ltd.
- 4 DSST: Daicel Safety Systems (Thailand) Co., Ltd.
- 5 DSSE: Daicel Safety Systems Europe Sp.z o.o.

#### Technological Training beyond Borders (DSST)

DSST, a base of operations for the Aerospace & Defense Systems and Safety Systems Company in Thailand, is striving to launch a new production line for gas generators. In 2016, as part of this project, two Group companies in Japan and China welcomed 10 and 12 DSST employees, respectively, to provide them with relevant training sessions. Upon successful completion, one of the participants remarked, "These sessions provided me with the theoretical knowledge and practical skills necessary to produce gas generators. This was such a significant experience it allowed me to review the entire production process, from the acceptance of raw materials to the finishing of products."

In addition, employees who engage in overseas training are given opportunities to enhance their capabilities to engage in international communication. One employee who underwent training in China has said, "I was able to pick up quite a lot of Chinese vocabulary and learn local customs during a training period spanning four months or so." Furthermore, many participants keep in touch with their fellow trainees and exchange information even after they return to their respective countries. These outcomes, we believe, attest to the fact that our

cross-border training initiative helps build a network of human resources capable of collaborating in manufacturing regardless of mother tongue.

We will continue with the provision of these technological training sessions.



### Strengthening a Network of HR Staff for the Group

Since 2014, we have been holding periodic HR Group Meetings, promoting the globalization of human resource practices for the entire Group and strengthening a dedicated network uniting relevant HR staff serving at each Group company. These meetings provide a valuable opportunity in which HR department managers from MSD affiliates all around the world gather and discuss key issues in this area.

In 2016, the fifth and sixth meetings were held in DSSC in Danyang, China, and DSSE in Zarow, Poland, respectively.

Under the theme "Enhancement of Engineering Resources," attendees engaged in discussions on how to nurture staff capable of maintaining inflator manufacturing lines and sustaining stable operations amid the rapid advance of factory automation. In addition to reviewing the challenges and needs currently being faced by each business site, staff at DSS, the mother factory, shared their best practices with attendees. Having examined the status of facility maintenance at each business site, discussions concluded that dedicated training and certification systems based on globally standardized programs must be established to secure human resources who possess sufficient practical skills. Representatives from bases in China and Thailand immediately agreed to pilot the first two such programs.

Addressing key management issues identified in the 3D-III medium-term plan for fiscal 2017 and beyond, we also initiated plans aimed at ensuring technological succession and nurturing core human resources.



### Nurturing Japanese Employees Equipped with Global Perspectives

In step with the globalization of our business, many Japanese employees need to be equipped with knowledge and experience that extends far beyond the domestic business setting. Striving to ensure that they can properly satisfy their broadening duties, a growing number of departments are dispatching their staff abroad.

#### Dispatching Employees to Overseas

In 2016, we dispatched one of our researchers to a university in Missouri, the United States, with the aim of exposing him to a leading-edge technological environment. Moreover, we seconded a manager to a law firm in Virginia to acquire the latest IP related know-how. With these activities, we are endeavoring to nurture human resources who can lead the Company's global operations.

#### Language Training

Employees' linguistic capability is a critical factor that affects the success of the Company's global operations. Since fiscal 2014, we have been providing a short-term language training program in the Philippines. A total of 136 trainees have completed this program during the past three years. From fiscal 2015 onward, we have in place similar programs involving overseas language studies in the United Kingdom and China, dispatching multiple trainees to these countries every year. As a result, a growing number of young employees who have completed these programs are now engaged in overseas assignments, actively pursuing career success on the global stage.

## Pursuit of Workforce Diversity and Optimal Work-Life Balance

The Daicel Group is striving to create a workplace in which people with diverse backgrounds can achieve success while respecting one another.

### Approach to Diversity

#### Recruiting and Training Activities

The Daicel Group is active in developing a working environment that embraces diversity, striving to ensure that every employee feels his/her job rewarding. Each employee should be able to pursue a successful career and experience personal growth, regardless of nationality, gender, age or belief.

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



Staff at Daicel (Asia) Pte. Ltd.

help spark the creation of new value, we will also encourage employees to respect and inspire each other.

Here, we introduce a few of our initiatives to promote diversity.

#### Helping Women Earn Career Success

We have established a five-year action plan 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. In line with this plan, we aim to achieve the following three targets by 2021.

- Target 1: Double the number of women who take managerial positions**
- Target 2: Increase the number of female manager candidates by 1.3 times**
- Target 3: Raise the average utilization ratio of annual paid leave to 70% or greater**

To secure and nurture excellent human resources, we are striving to enhance the content of programs aimed at supporting those who endeavor to strike a balance between work and family duties.

Simultaneously, we are helping female employees develop their skills while proactively recruiting diverse people with strong potential.

#### Employment of Persons with Disabilities

Daicel systematically recruits persons with disabilities to support the aspirations of these individuals to participate in social activities and to provide motivation in life. As a result, their ratio in the total workforce reached the statutory employment rate (2.1%) in March 2017.

Furthermore, in order to help each individual achieve their best, we pay utmost attention in assigning suitable jobs according to the degree of disability. Looking ahead, we will step up the recruitment of persons with disabilities as a part of our social responsibility activities.

#### Encouraging Senior Employees to Remain Active in the Workforce

Daicel encourages its senior human resources, age 60 or older, to remain active components of its workforce. To that end, Daicel introduced a system for retired employees to continue employment. In fiscal 2016, 48 of 51 employees who reached the retirement age were re-employed under this system, with a total of 177 senior employees (as of March 31, 2017) currently working at the Company after passing their retirement age. In accordance with revisions to the Law concerning Stabilization of Employment of Older Persons, applying the system to employees seeking to continue work through age 65, Daicel will continue to offer a work environment where veteran employees can make use of their careers, knowledge and experience.

### Efforts to Promote Work-life Balance

#### Developing an Environment That Allows Diverse People to Pursue Success

Daicel is striving to develop an environment in which all employees can work vibrantly with confidence. To this end, the Company has launched a scheme that allows eligible employees to work at home while helping shorten working hours by, for example, introducing flextime. Moreover, the Company is conducting reviews of its current child-rearing and nursing care leave plans. In these ways, Daicel is creating a company 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

As part of its concrete initiatives aimed at helping employees strike an optimal work-life balance, Daicel is pursuing three targets: 1) shortening mandatory working hours; 2) increasing the number of holidays; and 3) reducing overtime hours. These initiatives are also intended to encourage each employee to review their ways of working and seriously consider and devise new working styles that enable them to enhance productivity and achieve higher performance.

#### Flexible Working Styles

##### Allowing Employees to Work at Home

Daicel has introduced such systems as flextime, thereby offering an option of embracing more flexible working styles to employees. In fiscal 2017, the Company is planning to expand the scope of its existing scheme that allows eligible employees to work at home. Preparation is now under way, with various workplaces participating in trial implementation of this scheme.

##### Flextime with Shorter Working Hours

In January 2017, we introduced a new system for employees who work shorter hours, allowing them to flexibly change their start and finish times.

#### Helping Employees Strike a Balance between Work and Family Duties

To expand our potential employment pool amid a rapidly aging society, we have further enhanced our support programs for individuals concerned about personal commitments. These employees want to work with the confidence that they can strike a balance between work and family duties. Currently, the content of our programs goes well beyond the legally mandatory scope that corporations are obliged to meet.

##### Extended child-rearing leave

Employees can take extended leave to focus on child-rearing (until their child has reached two years old).

##### Extended nursing care leave

Employees can take extended nursing care leave of up to 365 days when full-time nursing care is necessary for family members.

### Labor and Management Relationship to Support Various Initiatives

Daicel considers its employees to be an important stakeholder and, accordingly, has established the Labor and Management Charter, which has been signed by representatives of labor unions and management. With respect to the individual positions of labor and management, management carries out discussions with labor in good faith in order to best develop the Company's business. Through these efforts, we are maintaining and reinforcing a healthy relationship between labor and management. In addition, labor and management committees are set up at each place of work. The Daicel Group undertakes a variety of measures covering a wide range of areas. This includes discussions between labor and management regarding such issues as working conditions, productivity improvement, personnel systems, work hours, and health management.

## Workplace Health Promotion (Healthcare Activities)

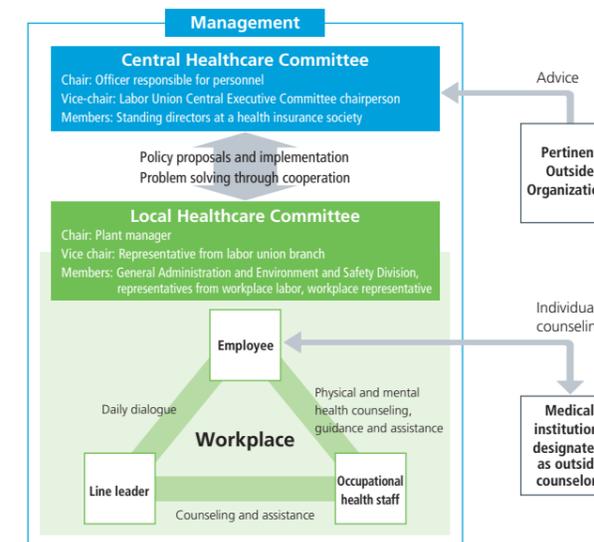
In 2003, the Company established Central and Local Healthcare Committees consisting of representatives from labor unions, management and Daicel's health insurance society. These committees are working to create workplaces within Daicel where individual Daicel employees can exert their individuality and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

The Healthcare Committees put forward proposals relating to healthcare, take steps to carry out measures at each workplace and strive to resolve individual issues. Through a process of collaboration, the committees also work to promote physical and mental care. In addition to helping employees with mental health problems return to work, the committees implement training while formulating and implementing plans for various activities aimed at identifying employees suffering from mental health issues at the earliest possible opportunity. These activities include offering educational programs to prevent physical and mental disorders and the construction of necessary systems. In this way, the committees strive to promote the improved physical and mental health of Daicel employees. The Company recognizes that the ability of employees to go about their duties in a healthy and energetic manner goes a long way to ensuring that individual employees lead fulfilling lives. At the same time, this contributes to Daicel's growth and development. Based on this understanding the Company strives to take the appropriate action.

### Initiatives of the Healthcare Committee

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.



### Strengthening Measures Aimed at Employees in Need of Support

#### Initiatives Undertaken by the Health Nurse Team

Operating under the Central Healthcare Committee, a health nurse team is in place to help build a cooperative framework that extends beyond individual business sites and to promote the sharing of information. In addition, the health nurse team participates in discussions undertaken at each business site to formulate action plans mandated by a compulsory stress check system to improve workplace environments. Moreover, the team is involved in educational sessions focused on preventing lifestyle diseases and enhancing stress resistance as part of position-specific training. Each team member is ceaselessly striving to improve their ability to teach the relevant subjects.

#### Utilizing Psychiatrists Employed Exclusively by Daicel

Currently, Daicel is employing four psychiatrists in order to bolster its follow-up care system for employees who have developed mental health issues. Every psychiatrist is assigned a geographical

segment for his/her oversight, thereby ensuring that employees in need receive meticulous care.



Introductory training (high school graduates)

### Measures Aimed at Strengthening Prevention

#### Utilizing Stress Checks to Improve the Workplace Environment

Aiming to develop a vibrant workplace, Daicel has been assisting each business site in efforts to improve the working environment. Following the enforcement of a law mandating that domestic business operators perform stress checks on their employees, in fiscal 2016 Daicel and its Group companies in Japan carried out these stress checks, which extended to 95% of total headcount during the first round alone. The Group is also providing employees with face-to-face sessions with a psychiatrist if they suffer excessive stress and are in need of counseling. Going forward, the Company will seek to resolve the issues that have been identified during a comprehensive analysis of the stress check results. Each Healthcare Committee will spearhead efforts to improve the workplace environment.

#### Initiatives to Prevent Occupational Diseases

Daicel is proactively stepping up its measures aimed at preventing occupational diseases, with the aim of meeting goals set forth in a three-year action plan established by the Company's health insurance society based on the Data Health Plan, a government-led disease prevention initiative. Specifically, in line with fiscal 2017 numerical targets announced by the Japanese government, the Company is endeavoring to ensure that at least 90% of its employees who were supposed to receive specified health checkups actually undergo these checkups. Likewise, the Company is striving to ensure that at least 70% of those who were deemed to need advice on maintaining their health receive such guidance. Hoping to increase the number of employees and their families undergoing the health checkups it provides, Daicel is engaging in activities aimed at raising employee health awareness at each business site while providing them with guidance from the health nurses.

#### Health Guidance and Consultations for Employees Posted Overseas

In fiscal 2015, Daicel began closely assessing the working status of employees posted overseas, with the aim of realizing more robust health management. Moreover, health nurses have been visiting overseas bases, providing guidance, consultation services, and support to employees posted from Japan. Through specialized and professional health guidance and advice, Daicel is helping to improve the health of employees posted from Japan who play an important part in the operations of local subsidiaries.

## Maintaining Communication with Local Communities

### Nurturing Children for the Future

The Daicel Group is enthusiastic about showing children the magic and appeal of chemistry. We make every effort to nurture children for the future.

#### ● Participating in the 2016 Children's Chemistry Experiment Show

The Daicel Group participated in the Chemistry Day 2016 Children's Chemistry Experiment Show held at Kyocera Dome Osaka. The largest domestic event of its kind, the Children's Chemistry Experiment Show aims to help the general public discover the excitement of chemistry.

We set up our booth alongside educational institutions, chemical companies and other relevant organizations based in the Kinki area. Our goal was to fascinate children with chemical experiments designed especially for them.

More specifically, we hosted an experiment aimed at creating beads by mixing alginic acid, extracted from seaweed and colored with fluorescent paint, and calcium. During the two-day period, our experiment attracted numerous attendees, with a long line forming in front of our booth. Glimpsing the reactions of the children and their growing curiosity as they created the colorful beads, we are confident that this event was quite a success.



Children's Chemistry Experiment Show

### Volunteer Activities

Daicel Group Members Proactively Taking Part in Volunteer Activities

#### ● Supporting the Reconstruction of Areas Hit by the Kumamoto Earthquake

A total of 16 employees at Polyplastics Co., Ltd. participated in volunteer activities in areas devastated by the Kumamoto Earthquake. Utilizing a company-assisted volunteer leave program,\* they helped reconstruct such areas by, for example, removing debris, transporting it to a specified collection site, dismantling damaged furniture, cleaning evacuation shelters and serving as conversation partners with evacuees.

A number of participants made such comments as "I was glad to be able to take part in volunteer activities," and "nowadays barriers to volunteering have become significantly lower." Their



Employees who engaged in volunteer activities in areas affected by the Kumamoto earthquake

responses indicated a positive attitude about participating in similar activities in the future. The Daicel Group is committed to supporting employee volunteers, hoping that a growing number of employees will engage in these activities by inspiring one another to do so.

\* Polyplastics Co., Ltd. introduced a volunteer leave program in 2016 to assist employees engaging in social contribution activities.

### Interaction with the Local Community

To interact with community residents, the Daicel Group regularly hosts events to foster dialogue while cooperating in other local events.

#### ● DVC Interacting with Communities Surrounding Its Kanzaki Plant

The Kanzaki Plant of Daicel Value Coating Ltd. (DVC) is facilitating communication with local residents in various ways to ensure harmonious coexistence with communities. In 2016, the plant invited leaders of three neighboring community associations to attend its periodic opinion exchange meeting.

At this meeting, plant staff explained how barrier films produced at the plant are helping to reduce food loss, a pressing issue confronting society, by delaying quality deterioration and prolonging shelf life. Attendees were also informed of scheduled construction work at the plant. We will continue with initiatives to help our neighbors better understand our business operations.



An opinion exchange meeting involving community association representatives

#### ● Cohosting a Chestnut Picking Event with Local Children's Organization

Daicel Pyrotechnics Ltd. is supporting activities undertaken by a local children's group as part of its community contribution initiatives. In 2016, Daicel Pyrotechnics made its Takasaki Plant's premises available for chestnut picking, one of several seasonal events hosted by this children's organization. On a fine autumn day, approximately 30 people, including parents, had fun picking up chestnuts, with children boasting to one another about the number and size of chestnuts they found. Although it was a short event, we believed the time allowed children to directly experience the joy of participating in a harvest. Looking ahead, we will steadily make social contributions in such aspects as the vitalization of communities and upbringing of children while paying close attention to local resident feedback.



A chestnut picking event

### Initiatives Undertaken by Overseas Group Companies

The Daicel Group's overseas Group members are active in social contribution initiatives.

#### ● SDI and DSSA AZ Participate in "Back to School" Campaigns

In the United States, Special Devices, Inc. (SDI) and Daicel Safety Systems America Arizona, Inc. (DSSA AZ) have participated in "Back to School" campaigns to support children in Chandler, Arizona.

These campaigns aim to donate educational equipment and clothing to children in low-income households, with multiple sponsors collaborating in running a charity drive. Not only did SDI and DSSA AZ make donations, these two companies dispatched 37 volunteer employees, each wearing a T-shirt carrying the company logo, to assist in the distribution of educational equipment.

These employees expressed how happy they felt seeing that essentials were delivered to children in urgent need just in time for the new semester. Both SDI and DSSA AZ are planning to sign up in the next round of these campaigns.

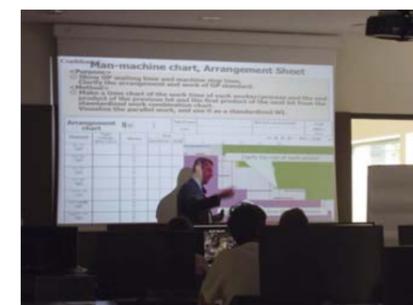


Campaign participants

#### ● DSSE Contributes to Vocational Training

In Poland, Daicel Safety Systems Europe Sp. z o.o. (DSSE) is engaged in various initiatives aimed at assisting the provision of vocational training to students. In tandem with Wrocław University of Technology, DSSE hosted a Learn Day event as part of the Kaizen (continuous improvement) science club. More specifically, staff at DSSE conducted a workshop for students under the theme of "how to shorten changeover time in product lines," a key factor in the realization of lean manufacturing that's responsive to demands for multiple production items.

In addition, DSSE contributed to student education by offering a workshop inviting students to DSSE's factory.



A workshop for students

#### ● Providing Financial Assistance to a Remote Elementary School in a Mountainous Region of China

In 2016, Daicel Nanning Food Ingredients Co., Ltd. provided financial assistance to a local elementary school that has a branch school in the mountains of Tiandong County, an area located 200 kilometers away from Nanning City.

This remote school's facilities were decrepit and there was a dearth of gymnastic and other educational equipment. After learning of this desperate situation, Daicel Nanning Food Ingredients decided to donate funds to repair the school building. This move, in turn, inspired the local town council, which donated a considerable amount of additional funds, enabling a massive building renovation. Thanks to these donations, the school children are now actively studying in a cleaner, brighter environment and no longer constrained by the poor conditions of the facility.



A ceremony marking the donation at the elementary school

#### ● PAP Participates in River Cleaning Activities

In tandem with residents of neighboring communities, in 2016 Malaysia-based Polyplastics Asia Pacific Sdn. Bhd. (PAP) participated in cleanup activities and mangrove tree planting in areas near its Kuantan Plant along the Balok River. These activities were conducted as part of the Balok River Adoption Program, a green partnership involving eight chemical companies operating in nearby communities. We are participating based on our belief that we are responsible to fellow members of community for the preservation of the environment surrounding our plant.



PAP employees and local residents who took part in cleanup activities

## Corporate Ethics (Compliance) Initiatives

The Daicel Group has positioned corporate ethics as an essential component of the systematic efforts of each department and Group company to engage in CSR activities.

### Corporate Ethics Management System

Adherence by each employee to corporate ethics is an essential management issue, and the Daicel Group is accordingly promoting corporate ethics Group-wide.

These efforts to promote corporate ethics are not temporary measures. They are conducted on an ongoing basis. With this in mind, we have formulated Corporate Ethics Management Regulations for the Company. In addition, each department has established its own Corporate Ethics Management System based on processes that incorporate the check, act, plan, and do (CAPD) cycle, and through activities involving the participation of all employees, we are striving to maintain and improve this system. We have also taken steps to introduce this CAPD cycle at each Group company.

### Promotion System

Daicel established the Corporate Compliance Program Division to promote corporate ethics activities and appointed the Company's representative director as its Corporate Compliance Officer. Each Daicel department and Group company appoints a CSR Facilitator who spearheads activities related to corporate ethics and compliance.

The Corporate Compliance Program Division provides support to the Company and each Group company. With Group-wide priority objectives for corporate compliance activities being announced at the beginning of every fiscal year, the Division confirms the status and progress of each corporate compliance activity plan and helps to resolve various issues specific to each department and workplace through a process of interactive dialogue and opinion exchange. In this manner, the Division encourages each workplace to raise employee awareness of compliance. Stepping up initiatives undertaken in the previous fiscal year, in fiscal 2016 Daicel uploaded a variety of new compliance education materials to its intranet (covering all Group companies in Japan) each month. These materials included the latest news related to compliance, case studies aimed at facilitating group discussions and every-day examples of potential compliance violations depicted in four-panel cartoons as well as compliance quizzes, all of which were designed to facilitate casual compliance classes at workplaces.

**Fiscal 2016 Groupwide Priority Objectives**

- ✓ Create a workplace where all members can
  - ✓ Voice one's awareness
  - ✓ Listen and respond to other's opinions
  - ✓ See current work status, progress, problems, etc.
- Create environment where dishonest acts or harassment would be unlikely to occur
- Promote communication through compliance activities (participation of all members, individual thinking)
- Increase opportunities to communicate and promote mutual

With respect to other specific compliance issues, individual committees are established in accordance with each set of relevant rules and regulations. These committees consider and help resolve issues.

### Examples of Committees

Regulation	Committee	Goals
Regulations on Export Controls	Export Controls Committee	To ensure that the Company and its Group companies do not engage in illegal export activities or the provision of goods and technologies that are prohibited under security trade-related laws and regulations for the purpose of maintaining international peace and security
Regulations on Personal Information Protection	Personal Information Protection Committee	To acquire, manage and use personal information appropriately
Regulations on Information Disclosure	Information Disclosure Committee	To disclose corporate information appropriately

### Legal Compliance System

Daicel has established a Legal Compliance System. Under this system, corporate departments are designated as organizations in charge of

ensuring compliance with laws and regulations relating to their respective operations. More specifically, designated corporate departments are tasked with obtaining information regarding related laws and regulations and providing that information to other departments that may be affected. There are 11 corporate departments, including the Legal Group, designated as organizations responsible for compliance. These departments use the intranet to provide employees with information on revisions to laws and regulations as well as guidelines while also providing education materials.

Utilizing a checklist, every department and Group company in Japan voluntarily conducts a corporate ethics review once each year. In addition to reflecting on the status of compliance at each workplace, this initiative is designed to uncover any issues.

### Education and Training Programs

Daicel systematically provides corporate compliance training at various levels. This training encompasses new graduate recruits, employees who have just been promoted, directors and presidents of Group companies. Employees are given position-specific training whenever they are promoted, reconfirming the Company's concept and definition of CSR, studying examples of misconduct by Daicel Group as well as other companies, engaging in discussions with fellow trainees and renewing their awareness of the importance of corporate compliance.

Moreover, in conjunction with training for technicians to help acquire essential techniques for maintaining safe and stable operations (see page 26), we systematically implement legal compliance education programs.

For fiscal 2016 corporate compliance initiatives, we have determined these Group-wide priority objectives: "Create a workplace where all members can voice one's awareness, listen and respond to other's opinions and see current work status, progress, problems, etc. We implemented relevant education not only in internal divisions but also at domestic and overseas Group companies. And at training sessions for Daicel managers, executive officers gave them lectures on priority objectives. In addition, each production site hosted seminars on the prevention of corporate misconduct while holding group discussions on actual incidents as part of training.

Although individual departments and Group companies are tasked with obtaining information regarding the laws and regulations directly related to their operations and educating their personnel, organizations responsible for compliance with laws and regulations hold in-house seminars whenever requested to do so.

### Whistleblowing 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 Corporate Ethics Help Line. 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. In this manner, the Company is endeavoring to create a system that is easy-to-use by all employees.

Through the administration of the Corporate Ethics Help Line, whistleblowers and those who request consultations must be protected from the consequences of their actions. Daicel has accordingly put in place the following Corporate Ethics Management Guidelines. Steps are being taken to ensure that these guidelines are strictly upheld.

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.

Similar in-house and external help lines are established in Group companies in Japan to protect whistleblowers and those who request consultations. In addition, drawing on the experience gained in Japan, whistleblowing systems are also introduced at overseas Group companies as a basic platform to protect individuals who make reports and seek consultations.

## The Responsible Care Initiatives

### Responsible Care: Basic Policies and Implementation System

➤ Every effort will be made to implement the Responsible Care Initiative put forward by the Daicel Group throughout its operations in order to contribute to a viable sustainable society.

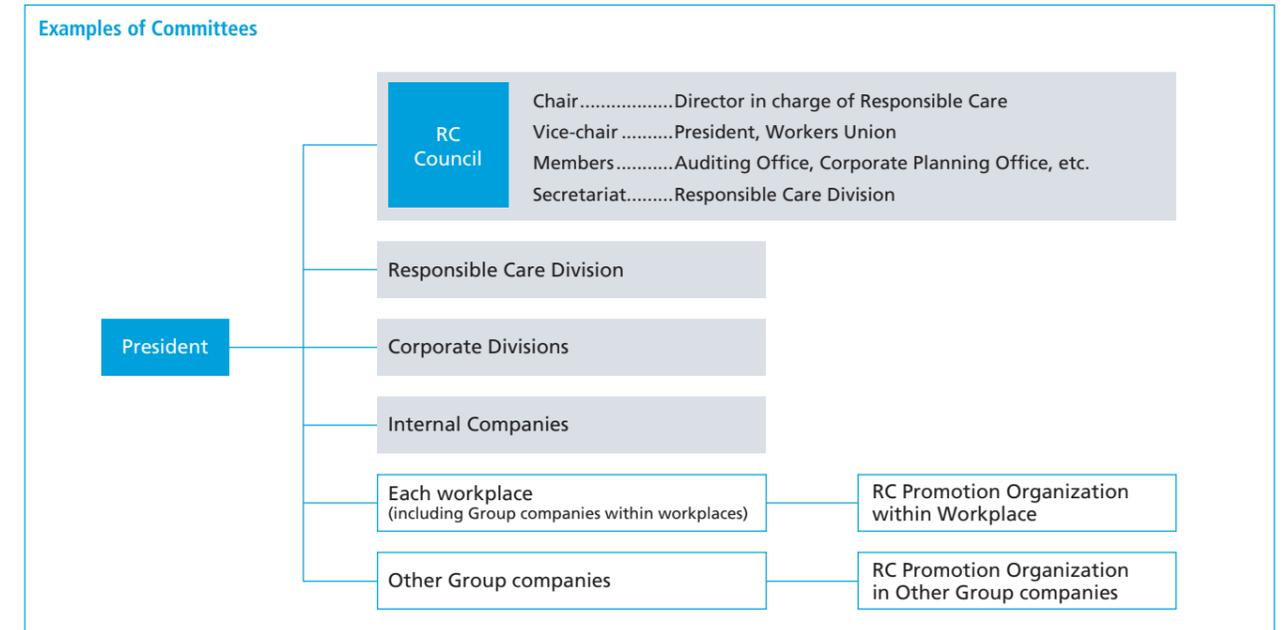
In 1995, the Daicel Group established its Basic Policies for Responsible Care (RC) based on "The Guiding Principles for the Improvement of Environmental, Health and Safety Conditions" of the Japan Chemical Industry Association (JCIA) and supplemented and revised the items on the preservation of biodiversity in 2011.

Embarking on fiscal 2017, the Group's Basic Policies for Responsible Care have been updated in response to the revision of JCIA's guiding principles.

Daicel is deeply aware of its responsibility as a corporate citizen to protect the environment and ensure the health and safety of all those involved with the Company in whatever capacity and every stage of its operations—from the design of products to their manufacture and use to disposal. With this in mind, the Daicel Group is promoting across-the-board RC activities to contribute to the sustainable development of society.

**The Daicel Group's Basic Policies for Responsible Care (Fiscal 2017 update)**

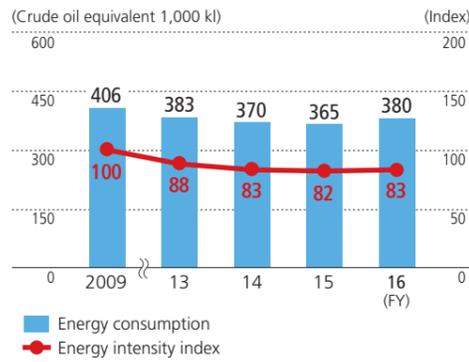
1. Based on the management policy, we will comply laws and regulations, strive to safeguard the environment, health and safety. For this purpose, we share the specific implementation plans among all the employees and put them into action.
2. We will strive to continually improve environmental, health and safety performance and the security of facilities, processes and technologies throughout the entire chemical lifecycle from development to disposal, and inform society of the results of such efforts.
3. We will further reduce consumption of resources and energy and strive to reduce, reuse and recycle waste.
4. 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.
5. 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 chemicals management systems by continual improvement.
6. We will influence the employees and the value chain stakeholders to promote the safe management of chemicals within their own operations.
7. 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.
8. We will put Daicel Group's overall efforts into continually improving initiatives for the environment, health and safety in order to meet stakeholder's expectations.
9. We contribute to the sustainable development of society by developing and providing unique and innovative technologies and other solutions.
10. We will promote biodiversity-friendly activities in order to pass on the wealth of nature to future generations.



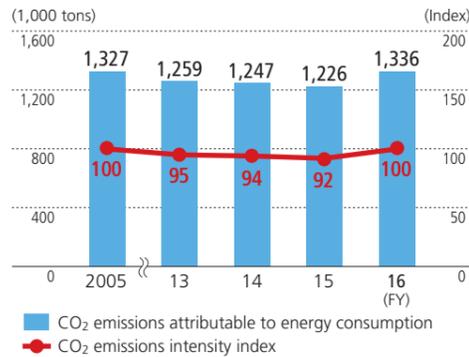
## Environmental Preservation

Daicel	<b>Fiscal 2016 Targets</b> <ul style="list-style-type: none"> <li>Promote energy conservation to achieve the fiscal 2020 targets set forth in the Commitment to a Low Carbon Society.</li> <li>Reduce energy intensity by 1% or more from the previous fiscal year.</li> </ul>	<b>Fiscal 2016 Results</b> <ul style="list-style-type: none"> <li>Promoted energy conservation from three angles.</li> <li>Deteriorated energy intensity by 1% from the previous fiscal year.</li> </ul>	<b>Fiscal 2017 Targets</b> <ul style="list-style-type: none"> <li>Promote energy conservation to achieve the fiscal 2020 targets set forth in the Commitment to a Low Carbon Society.</li> <li>Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by Energy Saving Act).</li> </ul>
	<b>Fiscal 2016 Targets</b> <ul style="list-style-type: none"> <li>Reduce energy intensity by 1% or more from the previous fiscal year.</li> </ul>	<b>Fiscal 2016 Results</b> <ul style="list-style-type: none"> <li>Reduced energy intensity by 12% from the previous fiscal year (5% reduction using calculation methods stipulated by the Energy Saving Act).</li> </ul>	<b>Fiscal 2017 Targets</b> <ul style="list-style-type: none"> <li>Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by the Energy Saving Act).</li> </ul>

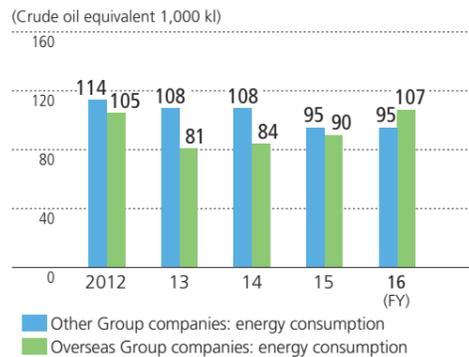
### Daicel's Energy Consumption and Intensity Index



### Daicel's CO<sub>2</sub> Emissions Attributable to Energy Consumption and CO<sub>2</sub> Emissions Intensity Index



### Other/Overseas Group Companies' Energy Consumption



The Energy Conservation Committee is the centerpiece of the Group's various efforts to conserve energy and prevent global warming.

Daicel\* is a participant in the Nippon Keidanren's Commitment to a Low Carbon Society, which sets forth specific targets to be met by fiscal 2020. With this in mind, the Company's Energy Conservation Committee is spearheading energy-saving countermeasures from three angles: Energy Department energy savings; energy savings in existing production processes through production innovation initiatives; and the introduction of innovative energy-saving technologies.

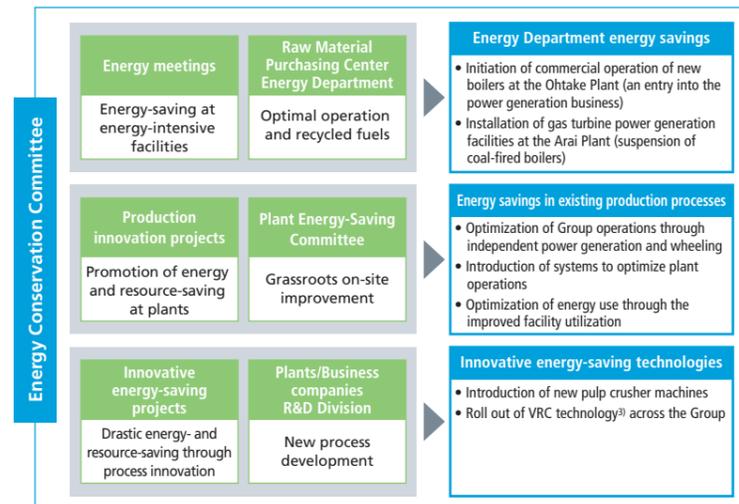
In fiscal 2016, the energy consumption rate index<sup>1)</sup> deteriorated approximately one point year on year. This was mainly attributable to a decrease in the volume of used tires mixed in fuels for boilers at the Ohtake Plant and an increase in fuel consumption at the Arai Plant due to the trial operation of newly installed gas turbines. Moreover, compared with the previous fiscal year, the intensity index based on CO<sub>2</sub> emissions attributable to energy consumption deteriorated. However, as mandated by Japan's Act on the Rational Use of Energy (the Energy Saving Act), the Company has made efforts to improve energy intensity 1% year on year. The Company succeeded in achieving this reduction.

As for other Group companies,\* energy consumption volumes and CO<sub>2</sub> emissions attributable to energy consumption were virtually unchanged from the previous fiscal year. On the other hand, those figures recorded at overseas Group companies\* were up year on year.

Looking ahead, the Group will promote grassroots energy-saving activities,<sup>2)</sup> thoroughly review production processes, introduce new technologies, and optimize energy consumption across the board, thereby reducing its energy use and CO<sub>2</sub> emissions.

More detailed information about the appropriate management of chemical substances, the environmental load from other business activities, the status of environmental management system certification and other topics is available on Daicel's website.

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



### What is...?

- 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
- 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.
- Vapor recompression (VRC) technology:** This is used to capture heat from low-temperature steam by raising its temperature through compression.

Note: The scope of Daicel Group organizations included in the reporting of environmental and occupational safety and health performance data disclosed as part of Responsible Care Initiatives is as follows.

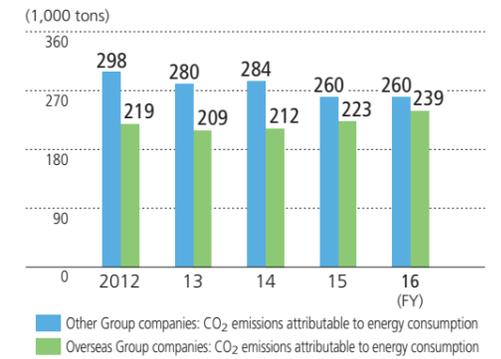
Daicel: Business sites of Daicel Corporation (plants and research institutes, as well as the business units of the Group's domestic subsidiaries operating on the premises of Daicel Corporation's plants)

Other Group companies: Business sites of domestic Group subsidiaries operating outside the premises of Daicel Corporation's plants

Overseas Group companies: Daicel Corporation's overseas Group subsidiaries

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

### Other/Overseas Group Company CO<sub>2</sub> Emissions Attributable to Energy Consumption



## しなのの森づくり

The Daicel Group has positioned nurturing human resources and creating a plant that harmoniously coexists with its surrounding community as key to maintaining manufacturing operations centered on "Monozukuri" and sustainable growth. To that end, the Group has been engaged in a Forests for Life initiative that involves employees, their family members and people from partner companies and neighboring communities.

In fiscal 2016, the Group launched the "Creation of Native Forests for Life Committee" chaired by the president. The Group also hosted a tree planting ceremony at the Harima Plant as a kickoff event for the committee while creating a logo for the Forests for Life initiative as well as a video clip of a tree planting to share the concepts behind our initiative.

In addition, sessions themed around the Forests for Life initiative were incorporated into the training curriculum for first-year employees, and the fiscal 2017 new recruits were required to learn about the concepts behind the initiative and its objectives. Trainees also engaged in tree planting activities while practicing hazard prediction training.



Forests for Life initiative logo



Fiscal 2017 new recruits who participated in the initiative as part of training



New recruits practice mound planting

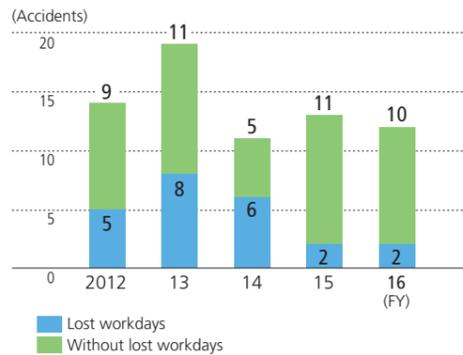


A tree planting ceremony at the Harima Plant

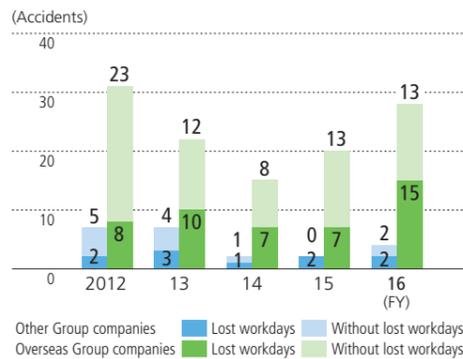
## Occupational Health and Safety

Daicel	<b>Fiscal 2016 Targets</b> Aim for zero occupational accidents • Ensure compliance with rules and the proper implementation of basic operations. • Prevent erosion of past countermeasures. • Reinforce countermeasures to prevent heat stress during summer construction.	<b>Fiscal 2016 Results</b> 12 Occupational accidents (13 in previous year) • Engaged in dialogue through 3S, crisis-identification and hazard prediction activities to ensure compliance with rules and proper implementation of basic operations. • Reconfirmed lessons from the past, erected warning signboards at the incident sites and practiced pointing and calling before operations begin. • Implemented heat stress countermeasures based on health condition management, working environment management and work schedule management in addition to raising worker awareness through intercom announcements.	<b>Fiscal 2017 Targets</b> Mitigate critical worksite risks by drawing on lessons from past incidents • Eradicate occupational accidents involving injuries attributable to contact with chemicals and those involving falling. • Maintain compliance with rules and the proper implementation of basic operations. • Implement hazard simulation training at each plant.
	<b>Fiscal 2016 Targets</b> Aim for zero occupational accidents • Share information regarding 3S, crisis-identification and hazard prediction activities between companies. • Roll out activities aimed at learning from the lessons of the past.	<b>Fiscal 2016 Results</b> 4 Occupational accidents (2 in the previous year) • Held casual workplace meetings about safety that included information regarding 3S, crisis-identification and hazard prediction activities. • Reflected on cases of past incidents and reconfirmed countermeasures to prevent recurrences.	<b>Fiscal 2017 Targets</b> Aim for zero occupational accidents • Share information regarding 3S, crisis-identification and hazard prediction activities between companies. • Roll out activities aimed at learning from the lessons of the past.

Number of Occupational Accidents at Daicel: (including partner companies on plant premises)



Number of Occupational Accidents at Other/Overseas Group Companies:



▶ We Are Working Diligently to Decrease Occupational Accidents to Zero.

### Records of Occupational Accidents

In fiscal 2016, Daicel and other Group companies recorded a total of 16 occupational accidents, representing an increase of one accident compared with the previous fiscal year and consisting of four accidents with lost workdays and 12 accidents without lost workdays. Just like those recorded in the previous fiscal year, the accidents included encounters with hazardous substances, slips and falls as well as heat stress. We also experienced a serious industrial accident in which a worker had contact with rotating machinery.

### Initiatives to Prevent the Recurrence of Major Incidents

Committed to not letting lessons from past incidents fade, each business site erects warning signboards at the very site where incidents had occurred, displaying the summary and analysis of such incidents as well as countermeasures to prevent recurrences. Moreover, "pointing and calling out loud" is practiced before operations begin, while in-house rules and regulations have regularly been updated based on takeaways from accidents. These initiatives also included implementing hazard simulation training.

For fiscal 2017, we will continue to upgrade the foundation of production sites through the 3-S [*Seiri* (tidying), *seiton* (putting everything in order) and *seisou* (cleaning)] activities, *Hiyari Hatto* (near-miss) crisis-identification<sup>4)</sup> activities and KY hazard-prediction activities. At the same time, we will implement ongoing employee education focused on "Monozukuri" (manufacturing) at the Operation Training Center while enforcing measures aimed at preventing past incidents from recurring.

### Safety Exchange Meetings for Group Members

The Daicel Group has been hosting casual exchange meetings aimed at fostering unity throughout the Group and heightening awareness and sensitivity about 3S and safety initiatives at the frontlines. Based on collaboration between labor and management, one such meeting was held at the Hirohata Plant in fiscal 2016. In addition to Daicel's representatives, approximately 20 production managers from such Group companies as Daicel Pyrotechnics Ltd., DM Novafoam Ltd., Daicel Logistics Service Co., Ltd., Daicel Pack Systems, Ltd., and Dainichi Chemical Corp. gathered to tour the plant's production site and engage in group discussions to exchange ideas.

## Process Safety and Disaster Prevention

Daicel	<b>Fiscal 2016 Targets</b> Aim for zero accidents involving fire, explosions and leaks • Undertake improvements using lessons from past issues. • Enhance BCPs in light of assessments conducted via drills.	<b>Fiscal 2016 Results</b> No serious incidents, 11 small-scale accidents • Initiated efforts to enhance the content of hazard simulation training at each plant based on past incidents. • Compiled a draft for BCP guidelines providing common concepts shared by all Group members.	<b>Fiscal 2017 Targets</b> Aim for zero accidents involving fire, explosions and leaks • Systematically implement countermeasures against facility aging and measures to prevent troubles attributable to human errors. • Develop infrastructure and draw up BCPs for key products based on BCP guidelines. • Step up security measures using unified standards for the entire Group.
	<b>Fiscal 2016 Targets</b> • Implement comprehensive inspections of rules and procedures for process safety and disaster prevention, addressing any shortfalls with the enforcement of countermeasures. • Establish a system to ensure strict management of changes and alterations.	<b>Fiscal 2016 Results</b> • Conducted a follow-up survey about results of voluntary examination of safety capabilities based on best practices undertaken at a model business site. • Rolled out the full-fledged use of the Total EHS Assessment System.	<b>Fiscal 2017 Targets</b> • Identify priority issues for each Group company and promote measures to tackle such issues • Step up security measures using unified standards for the entire Group.

The Daicel Group is promoting safe and stable plant operations through the Total EHS Assessment System<sup>5)</sup> and general operability studies<sup>6)</sup> as well as the implementation of measures aimed at preventing recurrence of past incidents. In fiscal 2016, there were still no serious incidents of fire, explosion or leaks of hazardous substances that impacted areas in close proximity to the various bases operated by the Group. Regrettably, the Company did report 11 small-scale accidents, including hazardous material leakage within its premises. Every effort was made to ascertain the causes for each incident and to implement appropriate preventive measures. These initiatives have been rolled out across all of the Group's production sites.

### Strengthening BCP<sup>7)</sup> Management

In fiscal 2016, the Daicel Group has stepped up measures to support its Business Continuity Plans (BCPs) based on across-the-board perspectives. Going forward, we will better employ our BCP guidelines that provide Groupwide standards to realize even more robust BCP management.

In addition, discussions have been under way to strengthen our security measures by, for example, reinforcing fences installed on external boundaries of premises, introducing access control systems at their gates and taking other new steps to prevent unauthorized entry into our business sites. We will continue to rally Groupwide efforts to upgrade our security.

### Emergency Drills

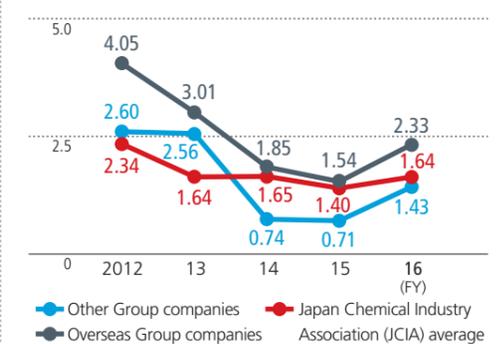
The Daicel Group regularly conducts emergency safety drills in accordance with the annual plans of each business site. These drills are designed to ensure that all employees are well versed in lifesaving in the event of an emergency, and are capable of minimizing any impact on neighboring areas, responding appropriately to the needs of local residents and conducting fire-fighting activities in a timely manner.

Complementing these efforts, Daicel also periodically conducts Group-wide disaster countermeasure exercises that address the possibility of a widespread disaster. When one such exercise was conducted in fiscal 2016, participants were not provided with advance warning. Assuming that a major earthquake struck, this exercise focused on emergency first responses, information gathering, communication and other immediate countermeasures. In this manner, we ensured that exercises were undertaken on as practical a basis as was possible.

Occupational Accident Frequency Rate at Daicel: with/without lost workdays (including partner companies on plant premises)



Occupational Accident Frequency Rate at Other/Overseas Group Companies: with/without lost workdays



## TOPICS

### Winning JCIA's RC Grand Prix Award

The Company's Aboshi Plant was chosen to receive the Responsible Care (RC) Grand Prix Award under the 11th Annual RC Awards program sponsored by the Japan Chemical Industry Association (JCIA), with representatives from the plant attending an award ceremony held on May 25, 2017 to receive an award certificate.

The RC Awards program aims to motivate corporations to engage in RC activities by commending business sites, departments and other business units boasting an excellent track record in or making a remarkable contribution to these activities.

The Aboshi Plant was recognized for its initiatives themed on "periodic repair that pursues high quality in detail." More specifically, in the course of periodic repairs the plant incorporated such initiatives as preemptively conducting risk assessment, carefully rehearsing repair work and thoroughly educating workers about safety rules. The plant also introduced an in-house certification system to accredit employees' flange-clamping skills. As a result, the plant was able to decrease problems accompanying periodic repair work in a drastic manner, thereby attracting the JCIA's attention. Looking ahead, we will continuously strive to ensure the safety and quality of repair work.



Hiroyasu Yamaguchi  
Deputy General Plant Manager, Aboshi Plant, Himeji Production Sector

### What is...?

- Crisis-identification activities: Near-accident and near-trouble events are recorded to identify the causes of these events. Hazard prediction activities help eliminate causes of accidents and troubles to create safer working environments.
- Total Environmental, Health and Safety (EHS) Assessment System: This is the Daicel Group's unique risk assessment system. Under this system, a prior assessment of diverse risks associated with all business operations—including planning, R&D, production, consumption, and disposal—is initiated in order to ensure thorough consideration of environmental, health and safety issues.
- General operability studies: Daicel's original method of standardizing plant operations. This method exhaustively codifies decision-making techniques for how to operate a plant under all imaginable plant and operating conditions, based on sensor and alarm data received during plant operations.
- Business Continuity Plan (BCP): Plan aimed at minimizing damage and ensuring a swift restoration of operations should a business site be hit by an earthquake or other major disaster.

### A Daicel Employee Recognized as Making Contribution to Explosives Safety



Mr. Hiroshi Ueda, Head Supervisor at the Manufacturing II Division of the Aerospace & Defense Systems/Safety Systems Company, was chosen to receive an Award from the Chairman of the Hyogo Explosives Safety Association under the association's fiscal 2016 commendation program. In this commendation, the association praised Mr. Ueda for his devotion to duties, outstanding performance, careful vigilance in handling explosives and strong sense of commitment, thus considering him a role model for other employees.

## Quality Assurance

With the aim of supplying high quality products that satisfy customers and meet their needs, all of the Daicel Group's plants have acquired certification under ISO 9001, ISO/TS 16949 (for the automobile industry) based on ISO 9001 and other international standards for quality management systems.

Each internal company and Group company is responsible for the quality of their products. Relevant officials from the Company's plants, internal companies and Group companies attend regular quality assurance meetings aimed at sharing requests and feedback from customers in order to enhance product quality in a way that accurately addresses their concerns.

In fiscal 2015, Daicel established the Quality Management Division. Operating directly under the president, the division is independent from internal companies, plants and Group companies, with the aim of performing robust audits of the quality management system and spearheading activities to improve product quality. The Division immediately began auditing departments in charge of manufacturing at plants and Group companies in Japan and overseas.

In fiscal 2016, Daicel established the "Quality Policy for Daicel Group," which lays out ideal practices that must be embraced by all Group employees. To realize this policy, the Group will strive to upgrade its quality assurance systems to better live up to customers' trust. In these ways, the Group will ensure that customers can always use its products with confidence.

More detailed information about the quality management system certification acquired by Daicel Group companies is available on Daicel's website.

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

Airbag inflators	Acquired ISO/TS 16949 certification (Quality management system for the automobile industry)
Special machinery products	Acquired JISQ 9100 certification (Quality management system for the aerospace industry)
Medical and pharmaceutical products	Implementing production and quality control under structural and administrative standards based on Good Manufacturing Practice (GMP) rules for the manufacturing, management and quality control of pharmaceutical products
Medical device products	Acquired ISO 13485 certification (Quality management system for medical devices)
Food additive products	Acquired ISO 22000 certification (Food safety management system)

### 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.

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

(As of June 23, 2017)



**President**  
**Misao Fudaba**



**Representative Director**  
**Masumi Fukuda**

### Directors and Audit & Supervisory Board Members

**President**  
**Misao Fudaba**

**Directors**  
**Masumi Fukuda**  
**Yoshimi Ogawa**  
**Hisao Nishimura**

**External Directors**  
**Akishige Okada**  
Advisor of Sumitomo Mitsui Banking Corporation

**Tadao Kondo**  
Advisor of Nippon Shokubai Co., Ltd.

**Chiyoko Shimozaki**  
Professor of Human Resource Management  
Graduate School of Business Osaka City University

**Masafumi Nogimori**  
Former President & CEO of Astellas Pharma Inc.

**Audit & Supervisory Board Members**  
**Yuji Iguchi**  
**Hiroyasu Masuda**

**Outside Audit & Supervisory Board Members**  
**Kunie Okamoto**  
Chairman of Nippon Life Insurance Company

**Toshio Takano**  
Lawyer

**Ryo Ichida**  
Certified Public Accountant

### Executive Officers

**President and CEO**  
**Misao Fudaba**

**Senior Managing Executive Officers**  
**Masumi Fukuda**  
Head of Corporate Support Center,  
Responsible for Corporate Compliance Program

**Yoshimi Ogawa**  
Responsible for Quality Management Division,  
Responsible Care,  
Organic Chemical Products Company and  
Aerospace & Defense Systems /  
Safety Systems Company

**Managing Executive Officers**  
**Hisao Nishimura**  
General Manager of R&D Headquarters,  
Responsible for New Business Development and  
Intellectual Property Center

**Takahiko Ando**  
General Manager of Production Technology  
Headquarters, Responsible for Engineering Center

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

**Hidekage Kojima**  
Responsible for Cellulose Company

**Takashi Ueno**  
General Manager of Ohtake Plant

**Hisanori Imanaka**  
Responsible for Corporate Planning

**Kotaro Sugimoto**  
Head of Raw Material Purchasing Center,  
Responsible for Business Process Innovation

**Yasuhiro Sakaki**  
President of Aerospace & Defense Systems /  
Safety Systems Company  
President & CEO of Daicel Safety Systems America Arizona, Inc.  
President & CEO of Daicel Safety Systems America Holdings, Inc.  
Chairperson of Daicel Safety Systems (Jiangsu) Co., Ltd.  
Chairperson of Daicel Safety Technologies (Jiangsu) Co., Ltd.  
President & CEO of Special Devices, Inc.

**Executive Officers**  
**Naohide Hakushi**  
General Manager of Himeji Production Sector  
and General Manager of Aboshi Plant,  
President of Kyodo Sakusan Co., Ltd.

**Tetsusaki Nonaka**  
Head of Quality Management Division and  
Assistant Head of Responsible Care

**Satoshi Sakamoto**  
President of Cellulose Company

**Yukio Yoshino**  
President of Daicel Value Coating Ltd.

**Yasuo Tsuji**  
General Manager of Arai Plant  
President of Daicel Arai Chemical Ltd.

**Akihisa Takabe**  
Deputy General Manager of R&D Headquarters

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

**Naotaka Kawaguchi**  
Vice President of Aerospace & Defense Systems /  
Safety Systems Company, General Manager of  
Harima Plant and General Manager of Global  
Production Management

**Shinji Fujita**  
Deputy Head of Corporate Support Center

**Kouichi Maruyama**  
President of Daicel Polymer Ltd.  
Chairperson of Shanghai Daicel Polymer Ltd.

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

**Ikuo Takahashi**  
General Manager of Innovation Park and  
Head of Research Center

**Masaaki Fujio**  
General Manager of Kanzaki Plant

**Takashi Iiyama**  
Vice President of Organic Chemical Products  
Company and General Manager of Process  
Engineering Center

# Corporate Governance

## Corporate Governance Framework

Daicel is a company with a Board of Corporate Auditors. Also, by welcoming external directors and allowing them to provide opinions and advice based on their expertise, the Company is working to ensure that the decisions made by its Board of Directors are appropriate and the execution of director duties is effectively supervised. The Company has also adopted an executive officer system. The adoption of the executive officer system has enabled the Company to clearly separate its 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.

In addition, Daicel has adopted an internal company system. Through this system, the Company is adhering strictly to a policy of integrated management with respect to the production, sales and R&D functions of existing businesses while improving productivity and strategic functions within its corporate divisions. In this manner, Daicel is reinforcing its product and technology development structure and systems across internal companies as well as horizontally across the Group as a whole.

Based on its corporate auditor system, 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 Board of Corporate Auditors accomplishes its auditing functions. Such a framework has enabled us to keep reinforcing our corporate governance.

\*Business divisions within the Company are essentially operated as independent companies. Functions that traverse each division are referred to as corporate departments. Corporate departments are not only a feature of the Company on a non-consolidated basis, but also serve a head office function across the Group as a whole on a consolidated basis.

### Board of Directors

Daicel's Board of Directors consists of eight directors, four of whom have been externally appointed. The Board of Directors meets, in principle, once a month to make decisions concerning important management issues in line with the regulations for the Board of Directors meetings. Furthermore, the Board of Directors supervises the execution of business and operating activities.

At Daicel, external directors are tasked with providing advice and supervisory functions based on their experience and expertise. All of the Company's external directors have been designated as independent directors, as defined under the Securities Listing

Regulations of the Tokyo Stock Exchange in Japan.

The term of office for Daicel's directors is one year. Such a short term of office enables Daicel shareholders to increase their involvement in the appointment of directors. At the same time, it allows us to better clarify the management responsibilities of our directors and thereby reinforce our corporate governance.

### Audit & Supervisory Board

Daicel currently has five audit & supervisory board members, three of whom have been externally appointed. All audit & supervisory board members are required to attend Board of Directors' meetings. In addition, standing Audit & Supervisory Board are required to attend meetings of the Management Meeting, the Risk Management Committee and other important organizations, thereby auditing the overall management of corporate affairs.

Meanwhile, the Company's audit & supervisory board members all together form the Audit & Supervisory Board. The Audit & Supervisory Board holds meetings to report, deliberate and make decisions on important issues relating to the Company's audits.

Audit & supervisory board members regularly receive reports from the Company's internal auditing divisions such as the Corporate Compliance Program Division, the Auditing Office, the Quality Management Division, the Responsible Care Division and external auditors. In addition, on an as needed basis, they collaborate—through the exchange of information and opinions—with the internal auditing divisions and the external auditors in promoting audits of the Company. All of the three outside audit & supervisory board members have been designated as independent corporate auditors, as defined under the Securities Listing Regulations of the Tokyo Stock Exchange in Japan.

The Company has also established the Office of Audit & Supervisory Board as an organization to support audits by audit & supervisory board members. The Office of Audit & Supervisory Board has its own dedicated staff which is independent from the business divisions.

### Management Meeting

Daicel has established the Management Meeting as a body to have deliberations and make decisions prior to its president implementing the basic corporate management policies formulated by the Board of Directors. The Management Meeting consists of the president, directors (excluding external directors), corporate auditors (excluding external corporate auditors) and the executive officers selected by the president as its members. The Management Meeting convenes, in principle, twice a month.

### Nomination and Compensation Committee

A Nomination and Compensation Committee has been established. This committee is chaired by an external director and is comprised of external directors as well the Company's president. The Nomination and Compensation Committee reports on the nomination of directors and executive officers, as well as making recommendations on their compensation, taking into consideration advice from the chairperson of the Board of Directors.

### Management Advisory Committee

The Management Advisory Committee is in charge of deliberating such important corporate matters as the formulation of Group strategies and business restructuring based on such strategies. By doing so, the committee serves as an advisory body for the President & CEO. The committee members consist of the President & CEO, directors (excluding external directors) and executive officers designated by the President & CEO. The committee convenes these members on an as needed basis.

## Internal Control Systems

In accordance with its basic policies concerning the development of internal control systems formulated by the Board of Directors, the Daicel Group works to administer and enhance its efficient and effective internal control systems.

We believe that these systems help the Daicel Group sustain steady growth. Furthermore, to accurately grasp the status of the entire Group, Daicel has established an Internal Control Council as a body charged with discussing initiatives aimed at ensuring the effective functioning of internal control systems.

### Response to the Financial Instruments and Exchange Law (Internal Control Reporting System)

The Auditing Office assesses the effectiveness of the Company's internal control over financial reporting in order to prepare and submit a report to the Financial Services Agency (FSA). Through these activities, the Auditing Office is striving to ensure the reliability and transparency of Daicel's financial reporting.

\*Daicel's report on internal control over financial reporting for fiscal 2016 is disclosed on EDINET, a corporate disclosure system established by the FSA at the following

<http://disclosure.edinet-fsa.go.jp/> (Japanese language only)

## Risk Management Initiatives

Daicel established the Risk Management Committee in 2006 as an organization to coordinate and promote Companywide risk management activities. Since its establishment, the Risk Management Committee has guided the entire Company in aggressively conducting risk management activities.

Each department within the Company is taking stock of potential risks that could have a major impact on Daicel's ability to achieve its business targets. To fully assess the situation, the Company's risk countermeasures and initiatives are entered into an intranet database. Countermeasures and initiatives are designed to prevent the incidence of risk or to reduce any subsequent impact. Each department assigns a priority level to each risk and carries out countermeasures accordingly. Steps are also taken to regularly update the status and progress of countermeasure implementation, and any newly identified risks are promptly entered into the database. Utilizing this database, Daicel pursues a check, act, plan, and do (CAPD) cycle in conjunction with the risk management activities of each department. Similar risk management activities are undertaken by Group companies in Japan and overseas\*.

The Risk Management Committee periodically confirms the status of countermeasure implementation by each department and Group company. Recommendations and support are then provided as considered appropriate. In addition, summary activity reports are submitted by each department at the end of each fiscal year. This process enables all appropriate parties to fully grasp the status of risk.

In fiscal 2016, Daicel implemented Group-wide risk countermeasure initiatives based on research into actual incidents of improper business practices detected internally and externally. By doing so, the Group was able to spot potential sources of misconduct and ensure that these risks were properly addressed.

\*Certain overseas Group companies are excluded from using the database.

## Communication with Shareholders and Investors

### Basic Information Disclosure Policy

Daicel encourages fair evaluation of its corporate value by fostering an 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.

### IR Activities

In line with the aforementioned Basic Information Disclosure Policy, Daicel adopts a proactive approach toward its IR activities.

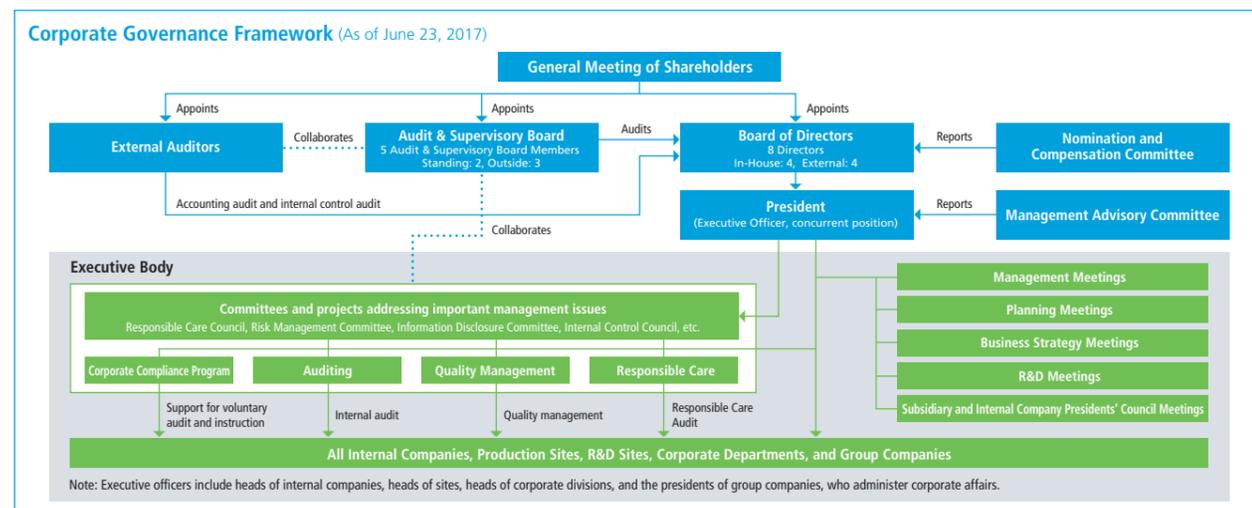
Quarterly results briefings are held for domestic institutional investors and analysts. Moreover, through the use of individual interviews and small meetings, the Company actively strives to promote communication, ensuring that appropriate parties gain a deeper understanding of the Company and its activities. In addition, the Company hosted a plant tour at its Ohtake Plant on February 24, 2017, with the aim of helping attendees better understand its operations and process innovation initiatives.

Moreover, Daicel maintains a designated IR page on its website where it posts pertinent documents including its Securities Report, Financial Results Report, Briefing Session and presentation materials and Shareholders' Report in a timely manner. The Company is working to upgrade and expand its information disclosure aimed at investors.

<https://www.daicel.com/en/ir/library.html>

For overseas investors, the Company publishes its Annual Report while making its Financial Results Reports, briefing sessions and presentation materials available in English on its website. Furthermore, the Company is facilitating investor understanding of its operations by holding face-to-face sessions at domestic conferences and responding to media coverage via conference calls.

Events	Occasions (per year)	Content
Financial briefing sessions for analysts and institutional investors	4	Held on a quarterly basis; the interim and period-end results are presented by the president, while the first and third quarter results are explained via conference calls hosted by the Investor Relations department
Facility tours for analysts and institutional investors	1	Business presentations are held in conjunction with facility tours (In fiscal 2016, one such tour was organized at Daicel's Ohtake Plant.)
Individual interviews with analysts and institutional investors	Approx. 250	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	3	Participated in domestic conferences for overseas investors, with the officer in charge of IR conducting individual interviews with attendees



# Consolidated Eleven-Year Summary

As of and for the years ended March 31

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

	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
<b>Operating Results</b>											
Net sales	¥381,422	¥416,989	¥377,979	¥320,243	¥353,684	¥341,942	¥358,513	¥413,786	¥443,775	¥449,878	¥440,061
Operating income	36,398	32,163	10,589	20,856	32,711	20,426	26,196	37,912	51,303	64,349	64,306
Net income attributable to owners of the parent	17,438	13,675	1,296	11,069	16,802	11,827	15,372	22,843	31,252	40,313	43,198
<b>Financial Position</b>											
Total current assets	¥206,670	¥207,833	¥185,546	¥180,232	¥197,908	¥197,170	¥232,200	¥261,046	¥279,788	¥276,828	¥307,216
Total assets	547,431	515,617	445,911	428,376	411,071	398,196	461,512	509,834	565,332	560,190	599,708
Total current liabilities	152,555	158,230	151,157	102,166	90,745	101,828	113,226	115,894	112,572	102,667	109,327
Total long-term liabilities	152,466	118,239	83,266	97,205	84,988	61,656	85,386	98,134	96,581	88,802	90,951
Net assets	242,409	239,147	211,487	229,004	235,336	234,711	262,899	295,805	356,177	368,720	399,429
<b>Cash Flows</b>											
Cash from operating activities	¥ 25,534	¥ 49,275	¥ 40,165	¥ 66,445	¥ 53,428	¥ 34,000	¥ 44,480	¥ 44,777	¥ 57,412	¥ 65,419	¥ 86,168
Cash from investing activities	(54,183)	(43,140)	(24,401)	(16,471)	(20,141)	(9,190)	(35,312)	(34,984)	(30,283)	(31,407)	(34,722)
Cash from financing activities	26,948	243	(2,422)	(50,735)	(28,170)	(25,044)	5,737	(4,472)	(29,230)	(31,470)	(19,942)
Cash and cash equivalents, end of year	13,958	20,740	30,507	30,128	33,724	33,435	53,238	62,573	66,737	65,237	96,275
<b>Per Share Information</b>											
Basic net income per share (yen)	¥ 48.19	¥ 37.86	¥ 3.62	¥ 31.10	¥ 47.22	¥ 33.46	¥ 43.71	¥ 64.98	¥ 88.95	¥ 115.02	¥ 124.61
Net assets per share (yen)	596.88	593.54	530.43	579.18	596.06	618.94	685.11	764.51	922.71	966.36	1,067.63
Cash dividends per share (yen)	8.00	8.00	8.00	10.00	10.00	10.00	12.00	15.00	21.00	26.00	30.00
<b>Financial Indicators</b>											
Ratio of operating income to net sales (%)	9.5	7.7	2.8	6.5	9.2	6.0	7.3	9.2	11.6	14.3	14.6
ROE (%)	8.4	6.4	0.6	5.6	8.0	5.5	6.7	9.0	10.5	12.2	12.2
ROA (%)	3.4	2.6	0.3	2.5	4.0	2.9	3.6	4.7	5.8	7.2	7.4
Total asset turnover (times/year)	0.7	0.8	0.8	0.7	0.8	0.8	0.8	0.9	0.8	0.8	0.8
Equity ratio (%)	39.5	41.4	42.3	48.1	51.6	54.7	52.2	52.7	57.3	60.2	61.6
Dividend payout ratio (%)	16.6	21.1	221.0	32.2	21.2	29.9	27.5	23.1	23.6	22.6	24.1
Total shareholder return (%)	16.6	31.4	325.8	32.2	21.2	45.2	27.5	23.1	23.6	32.5	33.3
<b>Others</b>											
Capital expenditures	¥ 52,059	¥ 50,350	¥ 24,183	¥ 16,481	¥ 9,912	¥ 18,740	¥ 27,217	¥ 25,617	¥ 30,629	¥ 40,256	¥ 39,528
Depreciation and amortization	23,268	28,653	38,579	36,693	32,786	28,316	24,026	23,669	23,409	23,914	29,031
Research and development expenses	11,717	12,004	12,046	11,316	11,970	12,730	12,875	13,360	14,031	15,306	16,806
Number of employees (at year-end)	7,034	7,685	7,803	7,665	7,747	8,149	9,233	9,700	10,173	10,709	11,556

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

# Management's Discussion and Analysis

## Consolidated Operating Results

### Overview of the fiscal year ended March 31, 2017

During the fiscal year ended March 31, 2017 (fiscal 2016), the global economy as a whole remained on a mild recovery track, despite a period of decelerating growth in the Chinese economy. The Japanese economy continued to recover at a slow pace with occasional signs of weakness. However, the outlook was unpredictable due primarily to changes in the foreign exchange environment and increasing uncertainty in international affairs.

Amid such circumstances, the Daicel Group continued working to strengthen its corporate foundation, mainly through construction of an optimal production system that meets product demand and offers organizational reinforcement to expand business as well as continuous cost reduction.

As a result, consolidated sales revenue for the fiscal year under review totaled ¥440.061 billion (down 2.2% year-on-year), and was adversely affected by foreign exchange rates and other factors. On the income front, operating income amounted to ¥64.306 billion (down 0.1%) and net income attributable to owners of the parent rose to ¥43.198 billion (up 7.2%).

### Operating Results

	Millions of Yen			
	2017/3	2016/3	Change from previous year	% change
Net Sales	440,061	449,878	(9,817)	(2.2)
Operating Income	64,306	64,349	(43)	(0.1)
Net Income Attributable to Owners of the Parent	43,198	40,313	2,885	7.2

### Operating Results by Segment

#### Cellulosic Derivatives

Sales revenue declined for cellulose acetate. Demand remained almost unchanged for LCD film applications, but decreased for other applications. Unfavorable foreign exchange rates and other factors had a negative impact.

Amid slack demand worldwide for acetate tow for cigarette filters, we boosted sales volume by strengthening relationships with main

customers, the successful development of new customers, and an increase in production at our Ohtake Plant. Meanwhile, sales revenue dropped due mainly to unfavorable foreign exchange rates.

Consequently, overall segment sales revenue amounted to ¥89.476 billion (down 14.4% year-on-year). Operating income fell to ¥23.0 billion (down 22.5%) due to the influence of exchange rates, an increase in depreciation and other factors.

#### Organic Chemicals

Acetic acid, our key product, posted a growth in sales volume as the Aboshi Plant was not undergoing its biennial periodical maintenance during the fiscal year under review. However, unfavorable foreign exchange rates and sluggish market conditions suppressed sales revenue.

Despite volume growth, sales revenue declined in organic chemicals, which were adversely affected by unfavorable foreign exchange rates, the impact of falling crude oil prices on selling prices and other factors.

Performance chemicals posted a slight increase in sales revenue thanks to solid demand for some products in the electronic materials, cosmetics/healthcare and other markets, despite the effect of unfavorable foreign exchange rates.

In the chiral separation business, which includes optical resolution columns, sales revenue decreased due mainly to unfavorable foreign exchange rates. Column sales remained healthy for India and other destinations.

Consequently, overall segment sales amounted to ¥76.193 billion (down 6.8% year-on-year). Operating income rose to ¥11.538 billion (up 3.2%), reflecting a decline in raw material and fuel procurement prices and other factors.

#### Plastics

The engineering plastics business, such as polyacetal (POM), polybutylene terephthalate (PBT) and liquid crystal polymers (LCP), registered a growth in sales volume buoyed by solid automobile production in China and Southeast Asia. This came despite slowing growth in China and other emerging economies, as well as a slowdown in the electronic device market. Meanwhile, unfavorable foreign exchange rates, the impact of falling raw material and fuel prices on selling prices, and other factors depressed sales revenue.

A decline in sales revenue was also recorded by the plastic compound business centering on ABS resins and engineering plastic alloy resins. Despite an increase in sales volume, this was due primarily to unfavorable foreign exchange rates and the impact of falling crude oil prices on selling prices.

Sales revenue decreased in the plastic processing business, including sheets, molded containers and films. This was primarily a reflection of a decline in sales of sheets and other products.

Consequently, overall segment sales amounted to ¥156.946 billion (down 2.6% year-on-year). Operating income rose to ¥21.551 billion (up 5.1%), on the back of increased sales volumes, falling raw material and fuel procurement prices, improved profitability at each company, and other factors.

#### Pyrotechnic Devices

The automobile airbag inflator (gas-generating device) and other automobile safety parts business achieved sales revenue growth, thanks to an increase in inflator sales volume and other factors, despite unfavorable exchange rates.

Aerospace & defense businesses, which cover items such as gunpowder, missile components and pilot emergency-escape systems, saw a decline in sales revenue.

Consequently, overall segment sales came to ¥111.199 billion (up 15.9% year-on-year). Operating income rose to ¥21.278 billion (up 53.3%) thanks to the increase in sales volume and other factors.

#### Other Businesses

In the membrane business, including membrane modules for water treatment, sales revenue declined due to decreased apparatus and other sales.

Other businesses including the warehousing business also posted a decline in sales revenue.

Consequently, overall segment sales amounted to ¥6.244 billion (down 5.5% year-on-year). Operating income rose to ¥741 million (up 309.4% year-on-year).

## Net Sales and Operating Income by Segment

### Net Sales

	Millions of Yen			
	2017/3	2016/3	Change from previous year	% change
Cellulosic Derivatives	89,476	104,481	(15,005)	(14.4)
Organic Chemicals	76,193	81,793	(5,600)	(6.8)
Plastics	156,946	161,085	(4,139)	(2.6)
Pyrotechnic Devices	111,199	95,914	15,285	15.9
Other Businesses	6,244	6,604	(360)	(5.5)
Total	440,061	449,878	(9,817)	(2.2)

### Operating Income

	Millions of Yen			
	2017/3	2016/3	Change from previous year	% change
Cellulosic Derivatives	23,000	29,667	(6,667)	(22.5)
Organic Chemicals	11,538	11,179	359	3.2
Plastics	21,551	20,508	1,043	5.1
Pyrotechnic Devices	21,278	13,884	7,394	53.3
Other Businesses	741	181	560	309.4
Corporate and eliminations	(13,804)	(11,071)	(2,733)	(24.7)
Total	64,306	64,349	(43)	(0.1)

## Overview of financial position for the fiscal year under review

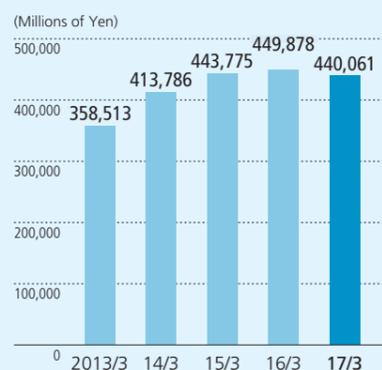
Total assets as of March 31, 2017 were ¥599.708 billion, an increase of ¥39.518 billion from March 31, 2016, due primarily to increases in cash and deposits as well as notes and accounts receivable, despite a decrease in inventories and other factors.

Total liabilities were ¥200.278 billion, an increase of ¥8.809 billion from March 31, 2016 due primarily to increases in deferred tax liabilities and provision for repairs, despite decreases in notes and accounts payable and other factors.

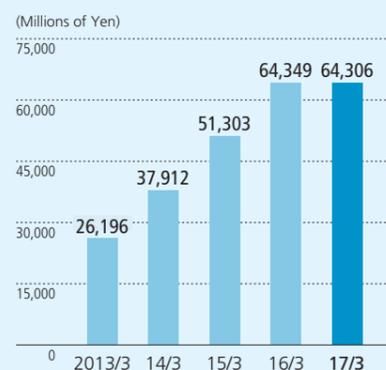
Total net assets were ¥399.429 billion. Total shareholders' equity, which is calculated as net assets minus non-controlling interests, climbed to ¥369.620 billion. Shareholders' equity ratio rose to 61.6%.

Years ended March 31

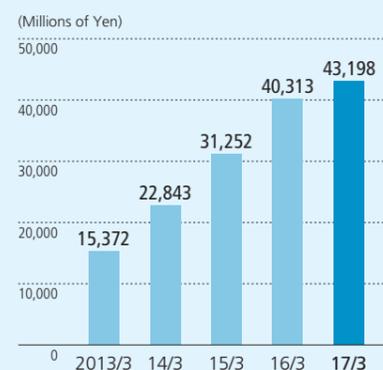
### Net Sales



### Operating Income



### Net Income Attributable to Owners of the Parent



### Ratio of Operating Income to Net Sales



### ROE



### ROA



## Overview of cash flows for the fiscal year ended March 31, 2017

### Cash flow from operating activities

Cash flow from operating activities increased by ¥86.861 billion, compared with an increase of ¥65.419 billion in the previous fiscal year. The improvement was mainly attributable to ¥64.373 billion of net income before income taxes and ¥29.926 billion of depreciation and amortization. Meanwhile, the main outflow was a payment of ¥16.272 billion for corporate income taxes.

### Cash flow from investment activities

Cash flow from investment activities decreased by ¥34.722 billion, compared with a decrease of ¥31.407 billion in the previous fiscal year. The main factor for the decrease was ¥37.201 billion for the purchase of property, plant and equipment.

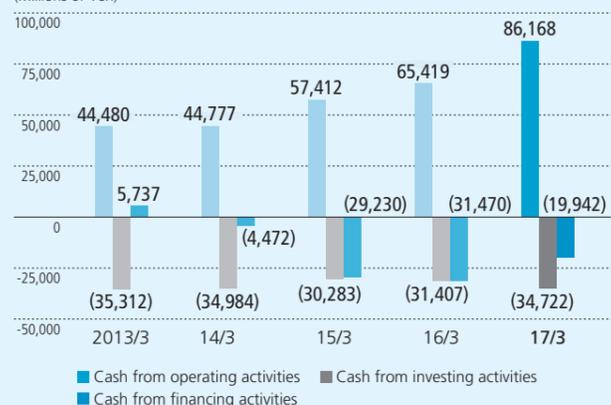
### Cash flow from financing activities

Cash flow from operating activities decreased by ¥19.942 billion, compared with a decrease of ¥31.470 billion in the previous fiscal year. The main inflow was attributable to ¥5.771 billion from long-term borrowings. The main outflows included ¥5.318 billion for repayment of long-term loans, ¥4.001 billion for acquisition of treasury stock, ¥9.036 billion in dividend payments and ¥6.259 billion in dividends paid to non-controlling interests.

As a result, cash and cash equivalents on March 31, 2017 totaled ¥96.275 billion.

### Cash Flows

(Millions of Yen)



## Consolidated Forecast for the fiscal year ending March 31, 2018 (As of May 10, 2017)

Looking ahead at the global economy, moderate recovery is expected to continue, supported by resilient consumer spending against the backdrop of an improved employment environment in developed countries. Meanwhile, the uncertain business environment is likely to continue, given that anti-globalization movements triggered by economic disparity and immigration issues, as well as geopolitical risks, may exert a material impact on the economic outlook.

These broader circumstances will influence the Daicel Group's business forecast for the fiscal year ending March 31, 2018, as will other factors closer at hand. Sales volumes of acetate tow for cigarette filters, automobile airbag inflators and other products are expected to grow.

The biennial periodical maintenance of our Aboshi Plant is scheduled while a rise in raw material and fuel prices is anticipated. Taking these factors into consideration, the Company forecasts net sales of ¥460.0 billion, operating income of ¥61.0 billion, and net income attributable to owners of the parent of ¥37.0 billion. For these forecasts, we assume an exchange rate of ¥110 /US\$1, a methanol price of US\$300/ton (Asian spot market), a crude oil price of US\$55/bbl (Dubai) and a domestic naphtha price of ¥42,000/kl.

Our consolidated business performance forecasts above have been prepared based on currently available information. Actual results may differ from these forecasts due to a number of factors.

### Forecast for the Fiscal Year Ending March, 31 2018

	Millions of Yen			
	2018/3 Forecast	2017/3 Results	Change from previous year	% change
Net Sales	460,000	440,061	19,939	4.5
Operating Income	61,000	64,306	(3,306)	(5.1)
Net Income Attributable to Owners of the Parent	37,000	43,198	(6,198)	(14.3)

### Forecast for Net Sales and Operating Income by Segment

#### Net Sales

	Millions of Yen			
	2018/3 Forecast	2017/3 Results	Change from previous year	% change
Cellulosic Derivatives	89,700	89,476	224	0.3
Organic Chemicals	82,000	76,193	5,807	7.6
Plastics	160,000	156,946	3,054	1.9
Pyrotechnic Devices	121,500	111,199	10,301	9.3
Other Businesses	6,800	6,244	556	8.9
Total	460,000	440,061	19,939	4.5

#### Operating Income

	Millions of Yen			
	2018/3 Forecast	2017/3 Results	Change from previous year	% change
Cellulosic Derivatives	20,700	23,000	(2,300)	(10.0)
Organic Chemicals	9,000	11,538	(2,538)	(22.0)
Plastics	20,000	21,551	(1,551)	(7.2)
Pyrotechnic Devices	24,500	21,278	3,222	15.1
Other Businesses	800	741	59	8.0
Corporate and Eliminations	(14,000)	(13,804)	(196)	(1.4)
Total	61,000	64,306	(3,306)	(5.1)

## 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 26, 2017.

### 1. Trends in Currency Exchange Rates

The Company's ratio of overseas sales to consolidated net sales is on the increase (52.2% in the fiscal year ended March 2017), 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.

# Consolidated Balance Sheets

Daicel Corporation and Consolidated Subsidiaries  
March 31, 2017 and 2016

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2017	2016	2017
<b>ASSETS</b>			
<b>CURRENT ASSETS:</b>			
Cash and cash equivalents (Note 15)	¥ 96,275	¥ 65,237	\$ 859,598
Marketable securities (Notes 4 and 15)	29	279	258
Receivables (Note 15):			
Trade notes	3,592	3,188	32,071
Trade accounts	83,735	80,484	747,633
Unconsolidated subsidiaries and associated companies	4,346	3,451	38,803
Allowance for doubtful receivables	(80)	(103)	(714)
Inventories (Note 5)	100,657	104,886	898,723
Deferred tax assets (Note 11)	6,631	4,891	59,205
Other current assets	12,029	14,512	107,401
<b>Total current assets</b>	<b>307,216</b>	<b>276,828</b>	<b>2,743,000</b>
<b>PROPERTY, PLANT AND EQUIPMENT (Notes 6 and 18):</b>			
Land	26,760	27,109	238,928
Buildings and structures	157,581	149,581	1,406,973
Machinery and equipment	595,739	557,373	5,319,098
Construction in progress	19,762	36,777	176,446
<b>Total</b>	<b>799,843</b>	<b>770,842</b>	<b>7,141,445</b>
Accumulated depreciation	(614,662)	(595,265)	(5,488,053)
<b>Net property, plant and equipment</b>	<b>185,180</b>	<b>175,576</b>	<b>1,653,392</b>
<b>INVESTMENTS AND OTHER ASSETS:</b>			
Investment securities (Notes 4 and 15)	72,094	69,063	643,696
Investments in and advances to unconsolidated subsidiaries and associated companies (Note 15)	10,357	11,442	92,473
Deferred tax assets (Note 11)	1,505	858	13,437
Net defined benefit asset (Notes 2.j and 8)	5,303	5,594	47,348
Other assets	18,049	20,826	161,151
<b>Total investments and other assets</b>	<b>107,310</b>	<b>107,785</b>	<b>958,125</b>
<b>TOTAL</b>	<b>¥599,708</b>	<b>¥560,190</b>	<b>\$5,354,535</b>

See notes to consolidated financial statements.

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2017	2016	2017
<b>LIABILITIES AND EQUITY</b>			
<b>CURRENT LIABILITIES:</b>			
Short-term bank loans (Notes 7 and 15)	¥ 7,788	¥ 7,196	\$ 69,535
Current portion of long-term debt (Notes 7, 15 and 17)	4,513	5,361	40,294
Payables (Note 15):			
Trade notes	170	182	1,517
Trade accounts	44,446	47,905	396,839
Nontrade accounts	12,353	11,597	110,294
Construction	9,937	8,434	88,723
Unconsolidated subsidiaries and associated companies	2,182	2,229	19,482
Income taxes payable (Notes 11 and 15)	7,432	6,938	66,357
Other current liabilities (Notes 11 and 17)	20,503	12,820	183,062
<b>Total current liabilities</b>	<b>109,327</b>	<b>102,667</b>	<b>976,133</b>
<b>LONG-TERM LIABILITIES:</b>			
Long-term debt (Notes 7, 15 and 17)	59,983	58,709	535,562
Net defined benefit liability (Notes 2.j and 8)	12,249	11,774	109,366
Asset retirement obligations (Note 9)	1,036	1,091	9,250
Deferred tax liabilities (Note 11)	16,158	14,786	144,267
Other long-term liabilities	1,523	2,441	13,598
<b>Total long-term liabilities</b>	<b>90,951</b>	<b>88,802</b>	<b>812,062</b>
<b>COMMITMENTS AND CONTINGENT LIABILITIES (Notes 14, 16 and 20)</b>			
<b>EQUITY (Notes 10 and 22):</b>			
Common stock, authorized, 1,450,000,000 shares; issued, 349,942,682 shares in 2017 and 364,942,682 shares in 2016	36,275	36,275	323,883
Capital surplus	31,867	31,579	284,526
Retained earnings	266,462	242,657	2,379,125
Treasury stock - at cost, 3,737,941 shares in 2017 and 15,770,285 shares in 2016	(4,025)	(10,388)	(35,937)
Accumulated other comprehensive income:			
Unrealized gain on available-for-sale securities	34,978	31,499	312,303
Deferred gain (loss) on derivatives under hedge accounting	(16)	(146)	(142)
Foreign currency translation adjustments	4,212	5,885	37,607
Defined retirement benefit plans	(134)	62	(1,196)
<b>Total</b>	<b>369,620</b>	<b>337,424</b>	<b>3,300,178</b>
Noncontrolling interests	29,809	31,296	266,151
<b>Total equity</b>	<b>399,429</b>	<b>368,720</b>	<b>3,566,330</b>
<b>TOTAL</b>	<b>¥599,708</b>	<b>¥560,190</b>	<b>\$5,354,535</b>

## Consolidated Statements of Income

Daicel Corporation and Consolidated Subsidiaries  
Years Ended March 31, 2017, 2016 and 2015

	Millions of Yen			Thousands of U.S. Dollars (Note 1)
	2017	2016	2015	2017
<b>NET SALES</b>	<b>¥440,061</b>	¥449,878	¥443,775	<b>\$3,929,116</b>
<b>COST OF SALES (Note 12)</b>	<b>303,229</b>	316,049	327,628	<b>2,707,401</b>
Gross profit	<b>136,832</b>	133,829	116,147	<b>1,221,714</b>
<b>SELLING, GENERAL AND ADMINISTRATIVE EXPENSES (Note 12)</b>	<b>72,526</b>	69,479	64,844	<b>647,553</b>
Operating income	<b>64,306</b>	64,349	51,303	<b>574,160</b>
<b>OTHER INCOME (EXPENSES):</b>				
Interest and dividend income	<b>1,821</b>	2,367	1,802	<b>16,258</b>
Gain on sales of investment securities	<b>2,461</b>	2,719	52	<b>21,973</b>
Subsidies from municipal governments (Note 18)		793	500	
Equity in earnings of unconsolidated subsidiaries and associated companies	<b>870</b>	1,094	1,172	<b>7,767</b>
Interest expense	<b>(958)</b>	(1,131)	(1,376)	<b>(8,553)</b>
Foreign exchange gain (loss)	<b>(1,599)</b>	(2,065)	1,822	<b>(14,276)</b>
Loss on dispositions of property, plant and equipment	<b>(3,361)</b>	(4,311)	(2,539)	<b>(30,008)</b>
Impairment loss on fixed assets			(90)	
Loss on claim compensation (Note 19)	<b>(989)</b>	(1,557)		<b>(8,830)</b>
Reduction of cost of property, plant and equipment (Note 18)		(561)	(475)	
Other – net	<b>1,822</b>	1,793	775	<b>16,267</b>
Other income (expenses) – net	<b>66</b>	(858)	1,644	<b>589</b>
<b>INCOME BEFORE INCOME TAXES</b>	<b>64,373</b>	63,491	52,947	<b>574,758</b>
<b>INCOME TAXES (Note 11):</b>				
Current	<b>15,996</b>	16,630	16,546	<b>142,821</b>
Prior periods	<b>690</b>		(850)	<b>6,160</b>
Deferred	<b>(2,439)</b>	305	1,155	<b>(21,776)</b>
Total income taxes	<b>14,246</b>	16,935	16,850	<b>127,196</b>
<b>NET INCOME</b>	<b>50,126</b>	46,555	36,096	<b>447,553</b>
<b>NET INCOME ATTRIBUTABLE TO NONCONTROLLING INTERESTS</b>	<b>6,928</b>	6,242	4,843	<b>61,857</b>
<b>NET INCOME ATTRIBUTABLE TO OWNERS OF THE PARENT</b>	<b>¥ 43,198</b>	¥ 40,313	¥ 31,252	<b>\$ 385,696</b>

	Yen			U.S. Dollars (Note 1)
	2017	2016	2015	2017
<b>PER SHARE INFORMATION (Notes 2.r and 13):</b>				
Basic net income	<b>¥ 124.61</b>	¥ 115.02	¥ 88.95	<b>\$ 1.11</b>
Cash dividends applicable to the year	<b>30.00</b>	26.00	21.00	<b>0.27</b>

See notes to consolidated financial statements.

## Consolidated Statements of Comprehensive Income

Daicel Corporation and Consolidated Subsidiaries  
Years Ended March 31, 2017, 2016 and 2015

	Millions of Yen			Thousands of U.S. Dollars (Note 1)
	2017	2016	2015	2017
<b>NET INCOME</b>	<b>¥50,126</b>	¥46,555	¥36,096	<b>\$447,553</b>
<b>OTHER COMPREHENSIVE INCOME (LOSS) (Note 21):</b>				
Unrealized gain (loss) on available-for-sale securities	<b>3,546</b>	(3,563)	14,603	<b>31,660</b>
Deferred gain (loss) on derivatives under hedge accounting	<b>222</b>	(94)	(219)	<b>1,982</b>
Foreign currency translation adjustments	<b>(1,340)</b>	(10,503)	11,166	<b>(11,964)</b>
Defined retirement benefit plans	<b>(210)</b>	(1,578)	3,783	<b>(1,875)</b>
Share of other comprehensive income (loss) in associates	<b>(404)</b>	(736)	987	<b>(3,607)</b>
Total other comprehensive income (loss)	<b>1,813</b>	(16,476)	30,322	<b>16,187</b>
<b>COMPREHENSIVE INCOME</b>	<b>¥51,939</b>	¥30,079	¥66,419	<b>\$463,741</b>
<b>TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:</b>				
Owners of the parent	<b>¥44,937</b>	¥26,394	¥59,306	<b>\$401,223</b>
Noncontrolling interests	<b>7,001</b>	3,684	7,112	<b>62,508</b>

See notes to consolidated financial statements.

## Consolidated Statements of Changes in Equity

Daicel Corporation and Consolidated Subsidiaries  
Years Ended March 31, 2017, 2016 and 2015

	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				
<b>BALANCE, MARCH 31, 2014</b> (April 1, 2014, as previously reported)	351,352,019	¥36,275	¥31,579	¥183,199	¥(6,349)	¥20,517	¥ 79	¥ 5,374	¥(2,063)	¥268,612	¥27,193	¥295,805	
Cumulative effect of accounting change				2,328						2,328	(129)	2,198	
<b>BALANCE, APRIL 1, 2014</b> (as restated)	351,352,019	36,275	31,579	185,528	(6,349)	20,517	79	5,374	(2,063)	270,940	27,063	298,004	
Net income attributable to owners of the parent				31,252						31,252		31,252	
Cash dividends, ¥17.00 per share				(5,972)						(5,972)		(5,972)	
Repurchase of treasury stock	(31,530)				(36)					(36)		(36)	
Disposal of treasury stock	30		0		0					0		0	
Effect of change in closing period of certain consolidated subsidiaries				670		(20)	(22)	(701)	3	(70)	(1,426)	(1,497)	
Net change in the year						14,518	(145)	10,001	3,679	28,053	6,372	34,426	
<b>BALANCE, MARCH 31, 2015</b>	351,320,519	36,275	31,579	211,478	(6,385)	35,014	(88)	14,674	1,619	324,167	32,010	356,177	
Net income attributable to owners of the parent				40,313						40,313		40,313	
Cash dividends, ¥26.00 per share				(9,134)						(9,134)		(9,134)	
Repurchase of treasury stock	(2,148,198)				(4,003)					(4,003)		(4,003)	
Disposal of treasury stock	76		0		0					0		0	
Change in the parent's ownership interest due to transactions with noncontrolling interests										(540)		(540)	
Net change in the year						(3,514)	(58)	(8,789)	(1,556)	(13,918)	(174)	(14,092)	
<b>BALANCE, MARCH 31, 2016</b>	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	
<b>BALANCE, MARCH 31, 2017</b>	346,204,741	¥36,275	¥31,867	¥266,462	¥(4,025)	¥34,978	¥ (16)	¥ 4,212	¥ (134)	¥369,620	¥29,809	¥399,429	

	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				
<b>BALANCE, MARCH 31, 2016</b>	\$323,883	\$281,955	\$2,166,580	\$(92,750)	\$281,241	\$(1,303)	\$52,544	\$ 553	\$3,012,714	\$279,428	\$3,292,142	
Net income attributable to owners of the parent			385,696							385,696		385,696
Cash dividends, \$0.23 per share			(80,705)							(80,705)		(80,705)
Repurchase of treasury stock				(35,723)						(35,723)		(35,723)
Retirement of treasury stock		(98)	(92,437)	92,535								
Change in the parent's ownership interest due to transactions with noncontrolling interests		2,660								2,660	(19,892)	(17,232)
Net change in the year					31,062	1,160	(14,928)	(1,758)	15,526	6,625	22,151	
<b>BALANCE, MARCH 31, 2017</b>	\$323,883	\$284,526	\$2,379,125	\$(35,937)	\$312,303	\$(142)	\$37,607	\$(1,196)	\$3,300,178	\$266,151	\$3,566,330	

See notes to consolidated financial statements.

## Consolidated Statements of Cash Flows

Daicel Corporation and Consolidated Subsidiaries  
Years Ended March 31, 2017, 2016 and 2015

	Millions of Yen			Thousands of U.S. Dollars (Note 1)
	2017	2016	2015	
<b>OPERATING ACTIVITIES:</b>				
Income before income taxes	¥64,373	¥63,491	¥52,947	\$574,758
Adjustments for:				
Income taxes – paid	(16,272)	(20,895)	(10,791)	(145,285)
Depreciation and amortization	29,926	24,958	24,520	267,196
Impairment loss on fixed assets			90	
Amortization of goodwill	910	1,011	1,113	8,125
Loss on dispositions of property, plant and equipment	3,361	4,311	2,539	30,008
Gain on sales of investment securities	(2,461)	(2,719)	(52)	(21,973)
Equity in earnings of unconsolidated subsidiaries and associated companies	(870)	(1,094)	(1,172)	(7,767)
Reduction of cost of property, plant and equipment		561	475	
Subsidies from municipal governments		(793)	(500)	
Changes in assets and liabilities:				
Decrease (increase) in notes and accounts receivable	(4,161)	(4,987)	2,801	(37,151)
Decrease (increase) in inventories	3,778	(1,317)	(12,063)	33,732
Increase (decrease) in notes and accounts payable	(3,165)	1,325	(6,680)	(28,258)
Other – net	10,751	1,566	4,186	95,991
Net cash provided by operating activities	86,168	65,419	57,412	769,357
<b>INVESTING ACTIVITIES:</b>				
Net decrease (increase) in time deposits	468	640	(293)	4,178
Net decrease (increase) in short-term investment securities	59	(397)	3,600	526
Capital expenditures	(38,014)	(35,851)	(29,629)	(339,410)
Payment for purchases of investment securities	(524)	(23)	(3,910)	(4,678)
Proceeds from sales and redemption of investment securities	5,232	5,622	2,117	46,714
Proceeds from sales of property, plant and equipment	521	1,433	559	4,651
Increase in finance receivables	(76)	(413)	(221)	(678)
Collection of finance receivables	51	107	13	455
Subsidies from municipal governments		793	500	
Other – net	(2,440)	(3,318)	(3,017)	(21,785)
Net cash used in investing activities	(34,722)	(31,407)	(30,283)	(310,017)
<b>FINANCING ACTIVITIES:</b>				
Net change in short-term bank loans	831	(5,930)	(2,167)	7,419
Proceeds from issuance of long-term debt	5,771	382	5,000	51,526
Repayments of long-term debt	(5,318)	(8,415)	(25,314)	(47,482)
Dividends paid	(9,036)	(9,105)	(5,972)	(80,678)
Dividends paid to noncontrolling interests	(6,259)	(3,858)	(739)	(55,883)
Payment for purchases of treasury stock	(4,001)	(4,003)	(36)	(35,723)
Payment for acquisition of interests in a subsidiary from noncontrolling interests	(1,930)	(539)		(17,232)
Net cash used in financing activities	(19,942)	(31,470)	(29,230)	(178,053)
<b>EFFECT OF FOREIGN CURRENCY TRANSLATION ADJUSTMENTS ON CASH AND CASH EQUIVALENTS</b>	(465)	(4,041)	4,812	(4,151)
<b>NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS</b>	31,037	(1,500)	2,711	277,116
<b>INCREASE IN CASH AND CASH EQUIVALENTS FROM CHANGE IN CLOSING PERIOD OF CONSOLIDATED SUBSIDIARIES</b>			1,452	
<b>CASH AND CASH EQUIVALENTS, BEGINNING OF YEAR</b>	65,237	66,737	62,573	582,473
<b>CASH AND CASH EQUIVALENTS, END OF YEAR</b>	¥96,275	¥65,237	¥66,737	\$859,598

See notes to consolidated financial statements.

## Daicel Group Companies and Other Relevant Organizations Subject to Reporting

This section features the outline of Daicel Group companies and other relevant organizations subject to reporting.

The Daicel Group consists of a total of 79 companies: Daicel Corporation, its 77 consolidated subsidiaries and one non-consolidated subsidiary. Please note, the organizations subject to reporting for Responsible Care Initiatives (included in the calculation of environmental/occupational safety and health performance data) do not coincide with those listed below. Such organizations are specified in the note on page 35. For more details, refer to the Company's website.

<https://www.daicel.com/csr/library.html>

- ① Consolidated subsidiaries
- ② Organizations whose activities are featured on "Safety and Quality Assurance Initiatives" (page 6) "Human Resource Development" (pages 26-28), "Corporate Ethics (Compliance) Initiatives" (page 32) and "Risk Management Initiatives" (page 41)
- ③ Organizations whose activities are featured on "Initiatives of the Healthcare Committee" (page 29)

### ● Japan

Company name	Country	Business	①	②	③
Toyama Filter Tow Co., Ltd.	Japan	Manufacture of acetate tow for cigarette filters			
Kyodo Sakusan Co., Ltd.	Japan	Manufacture and sale of acetic acid	○	○	
Dainichi Chemical Corp.	Japan	Manufacture and sale of oligomer products, acrylic resin, polyester resin, etc.	○	○	
Daicel Arai Chemical Ltd.	Japan	Subcontractor for the Group's manufacturing operations etc., manufacture of chlorinated salts	○	○	○
Daicel-Allnex Ltd.	Japan	Manufacture and sale of UV-curing resin and electron beam curing resin		○	
Hirohata Terminal Company Ltd.	Japan	Acceptance and management of methanol and other raw materials, settlement in connection with transactions of such materials			
Polyplastics Co., Ltd.	Japan	Manufacture and sale of engineering plastics	○	○	○
WinTech Polymer Ltd.	Japan	Manufacture and sale of engineering plastics	○	○	
PTM Holdings Inc.	Japan	Stockholding company for PTM Engineering Plastics (Nantong) Co., Ltd.	○		
PolyplaService Co., Ltd.	Japan	Subcontractor for the Group's manufacturing operations	○	○	
Daicel Polymer Ltd.	Japan	Manufacture and sale of resin compound products and extruded sheets	○	○	○
Kyoudou Polymer Co., Ltd.	Japan	Manufacture and sale of ABS copolymer resin, etc.			
Daicel Value Coating Ltd.	Japan	Manufacture and sale of various functional films, subcontractor for coating and coating design	○	○	○
Daicel Pack Systems Ltd.	Japan	Manufacture, processing and sale of various molded containers	○	○	○
DM Novafoam Ltd.	Japan	Manufacture and sale of foamed cushioning materials	○	○	
Nagano Novafoam Sangyou Ltd.	Japan	Subcontractor for the Group's product packaging, etc.			
Daicel-Evonik Ltd.	Japan	Manufacture and sale of nylon-12, PEEK resin, etc.		○	
Toyo Styrene Co., Ltd.	Japan	Manufacture and sale of polystyrene resin			
Toyoshina Film Co., Ltd.	Japan	Manufacture and sale of OPP films			
Daicel Pyrotechnics Ltd.	Japan	Manufacture and sale of ammunition for hunting use	○	○	
Daicel Safety Systems Inc.	Japan	Manufacture and sale of automobile airbag inflators	○	○	○
Special Devices Japan Ltd.	Japan	Sale of airbag initiators, micro gas generators and other industrial pyrotechnic devices			
Daicel FineChem Ltd.	Japan	Manufacture and sale of aqueous adhesives, water-soluble high-polymers, cellulose acetate plastics and other resins, construction and civil engineering materials, household goods and industrial products	○	○	○
Daicen Membrane-Systems Ltd.	Japan	Manufacture and sale of separation membrane modules for water treatment	○	○	○
Daicel Aboshisangyo Co., Ltd.	Japan	Subcontractor for the Group's manufacturing operations, manufacture and sale of magnesium hydroxide slurry	○	○	○
Daicel Ohtake Sangyo Co., Ltd.	Japan	Subcontractor for the Group's manufacturing operations	○	○	○
Daicel Logistics Service Co., Ltd.	Japan	Warehouse and transportation services	○	○	○
Kyouei Shokusan Co., Ltd.	Japan	Insurance agency and travel agency businesses	○	○	
Hayashi Shipping, Co., Ltd.	Japan	Marine transportation of chemical ingredients and products			

### ● Asia (excluding Japan)

Company name	Country	Business	①	②	③
Xi'an Huida Chemical Industries Co., Ltd.	China	Manufacture and sale of acetate tow for cigarette filters			
Ningbo Da-an Chemical Industries Co., Ltd.	China	Manufacture and sale of cellulose acetate and acetic anhydride			
Shanghai Da-Shen Cellulose Plastics Co., Ltd.	China	Manufacture and sale of celluloid and acetate sheets			

Company name	Country	Business	①	②	③
Daicel Prosperity (China) Ltd.	China	Sale of acetate sheets			
Daicel Nanning Food Ingredients Co., Ltd.	China	Manufacture and sale of sorbic acid and potassium sorbate	○	○	
Daicel Chiral Technologies (China) Co., Ltd.	China	Sale of chiral columns and technical services for chiral businesses	○	○	
Polyplastics Trading (Shanghai) Ltd.	China	Sale of engineering plastics	○	○	
Polyplastics China Ltd.	China	Sale of engineering plastics	○	○	
Polyplastics (Shanghai) Ltd.	China	Sale of engineering plastics	○	○	
Polyplastics (Nantong) Ltd.	China	Manufacture and sale of engineering plastics	○	○	
PTM Engineering Plastics (Nantong) Co., Ltd.	China	Manufacture and sale of engineering plastics	○	○	
Daicel Polymer (Hong Kong) Ltd.	China	Sale of resin compound products	○	○	
Shanghai Daicel Polymers, Ltd.	China	Manufacture and sale of resin compound products	○	○	
Daicel Safety Systems (Jiangsu) Co., Ltd.	China	Manufacture and sale of automobile airbag inflators	○	○	
Daicel Safety Technologies (Jiangsu) Co., Ltd.	China	Manufacture and sale of inflator initiators and micro gas generators	○	○	
Daicel (China) Investment Co., Ltd.	China	Regional headquarters for the Group's production and sales subsidiaries in China and research and development	○	○	
Daicel Trading (Shanghai) Ltd.	China	Purchase and sale of products in the Chinese market	○	○	
Polyplastics Taiwan Co., Ltd.	Taiwan	Manufacture and sale of engineering plastics	○	○	
Polyplastics Korea Ltd.	South Korea	Sale of engineering plastics	○	○	
Daicel Safety Systems Korea, Inc.	South Korea	Manufacture and sale of automobile airbag inflators	○	○	
Polyplastics Marketing (T) Ltd.	Thailand	Sale of engineering plastics	○	○	
Daicel Polymer (Thailand) Co., Ltd.	Thailand	Sale of resin compound products	○	○	
Daicel Safety Systems (Thailand) Co., Ltd.	Thailand	Manufacture and sale of automobile airbag inflators	○	○	
Daicel Safety Technologies (Thailand) Co., Ltd.	Thailand	Manufacture and sale of airbag initiators and micro gas generators	○	○	
Special Devices (Thailand) Co., Ltd.	Thailand	Manufacture and sale of airbag initiators and micro gas generators	○	○	
Polyplastics Asia Pacific Singapore Pte. Ltd.	Singapore	Sale of engineering plastics	○	○	
Daicel (Asia) Pte. Ltd.	Singapore	Purchase and sale of products in Asian markets	○	○	
Polyplastics Asia Pacific Sdn. Bhd.	Malaysia	Manufacture and sale of engineering plastics	○	○	
Daicel Chiral Technologies (India) Pvt. Ltd.	India	Sale of chiral columns and technical services for chiral businesses	○	○	
Polyplastics Marketing (India) Pvt. Ltd.	India	Sale of engineering plastics	○		

### ● North America and Latin America

Company name	Country	Business	①	②	③
Daicel ChemTech, Inc.	U.S.A.	Purchase and sale of products in the U.S. market	○	○	
Chiral Technologies, Inc.	U.S.A.	Sale of chiral columns and technical services for chiral businesses	○	○	
Polyplastics USA, Inc.	U.S.A.	Sale of engineering plastics	○	○	
Topas Advanced Polymers, Inc.	U.S.A.	Sale of cyclic olefin copolymer	○	○	
Daicel Safety Systems America Holdings, Inc.	U.S.A.	Regional headquarters for the Group's North American subsidiaries engaged in the manufacture and sale of automobile safety equipment	○	○	
Daicel Safety Systems America, LLC	U.S.A.	Manufacture and sale of automobile airbag inflators	○	○	
Daicel Safety Technologies America, Inc.	U.S.A.	Production of gas generants for automobile airbag systems	○	○	
Daicel Safety Tube Processing, Inc.	U.S.A.	Manufacture of automobile airbag inflator parts	○	○	
Daicel Safety Systems America Arizona, Inc.	U.S.A.	Manufacture and sale of automobile airbag inflators	○	○	
Special Devices, Inc.	U.S.A.	Manufacture and sale of airbag initiators and micro gas generators	○	○	
Daicel America Holdings, Inc.	U.S.A.	Stockholding company for Group companies in North America	○	○	
Polyplastics Marketing Mexico, S.A. de C.V.	Mexico	Sale of engineering plastics	○	○	

### ● Europe

Company name	Country	Business	①	②	③
Chiral Technologies Europe S.A.S.	France	Sale of chiral columns and technical services for chiral businesses	○	○	
Polyplastics Europe GmbH	Germany	Sale of engineering plastics	○	○	
LCP Leuna Carboxylation Plant GmbH	Germany	Manufacture and sale of hydroxybenzoic acid and potassium sulfate	○	○	
Topas Advanced Polymers GmbH	Germany	Manufacture and sale of cyclic olefin copolymer	○	○	
Daicel (Europa) GmbH	Germany	Purchase and sale of products in the European market	○	○	
Daicel Safety Systems Europe Sp. z o. o.	Poland	Manufacture and sale of automobile airbag inflators	○	○	

## Company Data

## Corporate Overview (As of March 31, 2017)

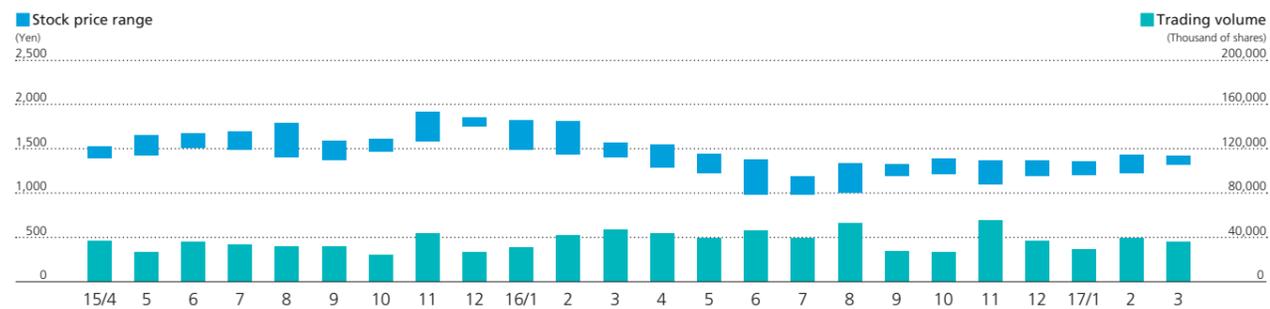
<b>Establishment</b>	September 8, 1919	<b>Status of Stock</b>	
<b>Osaka Head Office</b>	Grand Front Osaka Tower-B, 3-1, Ofuka-cho, Kita-ku, Osaka, 530-0011, Japan Tel: +81-6-7639-7171 Fax: +81-6-7639-7181	<b>Common Stock Authorized:</b>	1,450,000,000 shares
<b>Tokyo Head Office</b>	JR Shinagawa East Bldg., 2-18-1, Konan, Minato-ku, Tokyo 108-8230, Japan Tel: +81-3-6711-8111 Fax: +81-3-6711-8100	<b>Issued:</b>	349,942,682 shares
		<b>Capital:</b>	¥36,275,440,089
		<b>Listings:</b>	Tokyo Stock Exchange (First Section)
		<b>Shareholder registry administrator</b>	Sumitomo Mitsui Trust Bank, Limited 1-4-1, Marunouchi, Chiyoda-ku, Tokyo, Japan
		<b>Number of shareholders</b>	17,365
		<b>Accounting auditor</b>	Deloitte Touche Tohmatsu LLC

## Principal Domestic Locations

<b>Osaka Head Office</b> Grand Front Osaka Tower-B, 3-1, Ofuka-cho, Kita-ku, Osaka 530-0011	<b>Himeji Production Sector/Aboshi Plant</b> 1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1281
<b>Tokyo Head Office</b> JR Shinagawa East Bldg., 2-18-1, Konan, Minato-ku, Tokyo 108-8230	<b>Himeji Production Sector/Hirohata Plant</b> 12, Fuji-cho, Hirohata-ku, Himeji-shi, Hyogo 671-1123
<b>Nagoya Sales Office</b> JP Tower Nagoya, 1-1-1, Meieki, Nakamura-ku, Nagoya, Aichi 450-6325 *Relocated to the above address on September 19, 2017	<b>Harima Plant</b> 805, Umaba, Ibogawa-cho, Tatsuno-shi, Hyogo 671-1681
<b>H.R. Training Center</b> 14-1, Kouto 3-chome, Kamigori-cho, Akou-gun, Hyogo 678-1205	<b>Arai Plant</b> 1-1, Shinko-cho, Myoko-shi, Niigata 944-8550
<b>Innovation Park</b> 1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1283	<b>Ohtake Plant</b> 1-4, Higashisakae 2-chome, Otake-shi, Hiroshima 739-0695
	<b>Kanzaki Plant</b> 12-1, Kanzaki-cho, Amagasaki-shi, Hyogo 661-0964
	<b>Polyplastics Co., Ltd./Fuji Plant</b> 973, Miyajima, Fuji-shi, Shizuoka 416-8533

## Stock Information

## Stock price range



## Shareholder Composition (As of March 31, 2017)



Note: Treasury stock is included in "Individual & other investors."

## Major Shareholders (As of March 31, 2017)

Shareholder	Thousand of shares	Distribution of shares issued and outstanding* (%)
Japan Trustee Services Bank, Ltd. (Trust Account)	24,987	7.21
The Master Trust Bank of Japan, Ltd. (Trust Account)	21,031	6.07
Nippon Life Insurance Company	17,402	5.02
FUJIFILM Holdings Corporation	17,271	4.98
Toyota Motor Corporation	15,000	4.33
Sumitomo Mitsui Banking Corporation	7,096	2.04
Japan Trustee Services Bank, Ltd. (Trust Account 9)	6,886	1.98
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	6,503	1.87
National Mutual Insurance Federation of Agricultural Cooperatives	5,459	1.57
Daicel Trading-Partner Shareholding Association	5,422	1.56

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

## Third-Party Opinion



ダイセルグループ アニュアルレポート 2017  
CSR & Financial Report  
第三者検証 意見書

2017年5月31日

株式会社 ダイセル  
代表取締役社長 札幌 操 殿

一般社団法人 日本化学工業協会  
レスポンシブル・ケア検証センター長

高瀬 純治



## ■報告書検証の目的

レスポンシブル・ケア報告書検証は、株式会社ダイセルが作成したダイセルグループ アニュアルレポート 2017(以後、報告書と略す)に記載されている、下記の事項について、化学業界の専門家であるレスポンシブル・ケア検証センターが意見を表明することを目的としています。尚、検証範囲は、財務情報を除くものとする。

- 1) パフォーマンス指標(数値)の算出・集計方法の合理性及び数値の正確性
- 2) 数値以外の記載情報の正確性
- 3) レスポンシブル・ケア活動及び CSR 活動
- 4) 報告書の特徴

## ■検証の手順

- ・本社において、各サイト(事業所、工場)から報告される数値の集計方法の合理性、及び数値以外の記載情報の正確性について調査を行いました。調査は、報告書の内容について各業務責任者及び報告書作成責任者に質問すること、並びに資料提示・説明を受けることにより行いました。
- ・新井工場において、本社に報告する数値の算出方法の合理性、数値の正確性、及び数値以外の記載情報の正確性の調査を行いました。調査は、各業務責任者及び報告書作成責任者に質問すること、資料提示・説明を受けること、並びに証拠物件と照合することにより行いました。
- ・数値及び記載情報の調査についてはサンプリング手法を適用しました。

## ■意見

- 1) パフォーマンス指標(数値)の算出・集計方法の合理性及び数値の正確性について
  - ・パフォーマンス数値は本社及び新井工場において、合理的な方法で正確に算出・集計されていることを確認しました。
- 2) 数値以外の記載情報の正確性について
  - ・報告書に記載された情報は、正確であることを確認しました。原案段階では表現の適切性あるいは文章の分かり易さに関し指摘しましたが、現報告書では修正されており、修正すべき重要な事項は認められません。
- 3) レスポンシブル・ケア活動及び CSR 活動について
  - ・異文化交流の場としてのイノベーション・パークの創設は、貴社の変革に挑戦する姿勢が良く表れたものと、またこれを特集として掲載されたことを評価いたします。
  - ・改善事例発表会では、聴衆を少人数のグループに分け、グループ毎に発表を複数回実施する等、発表者と聴衆とのコミュニケーションが十分図られるよう工夫されている点の評価いたします。
  - ・新井工場は、3Sの実施が良好と評価いたします。また、AHK活動を再活性化する目的で AHK 職場安全推進委員を任命し、活動状況のデータベース化や情報の共有化(ミエリ化)を図っている点、20~30 代の若手を活動の中心に配置している点の評価いたします。
  - ・網干工場が、日本化学工業協会の「レスポンシブル・ケア大賞」を受賞されたことを評価いたします。
- 4) 報告書の特徴
  - ・CSR 報告書に財務情報を追加し、統合報告書を目指した様式となっています。特に、中期計画、研究開発に関する情報開示は、投資家にとって役立つ内容となっています。その分、環境、化学品安全に関する情報が、web 版の方に移行しています。
  - ・ダイセルグループの事業概要と事業の歴史は、適切なグラフと図を用い、分かり易く表現されています。今後、更に読み易く、分かり易い報告書を目指し、改善を続けられることを期待いたします。

以上