



CSR & Financial Report



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Our Basic Philosophy is the cornerstone for all of the corporate activities undertaken by the Daicel Group. It represents the ideals that we have treasured and will continue to hold onto, unaffected by the ages.

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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.

Editorial Policy About the Daicel Group Annual Report 2018—CSR & Financial Report

The Daicel Group had issued annual CSR Reports to facilitate stakeholder understanding of its initiatives aimed at preserving the environment, ensuring safety and making social contributions. Since the previous edition, the Group has also incorporated operating results and other financial information into the content, rebranding the publication as the "Daicel Group Annual Report—CSR & Financial Report," with the aim of enabling readers to access a broad range of information within a single report.

To compile this edition, we have focused on communicating our corporate information to a variety of stakeholder groups by improving reader-friendliness and understandability while engaging in proactive disclosure, striving to

ensure the content will provide stakeholders with a clearer picture of various initiatives being undertaken by the Group.

At the same time, we have expanded the CSR content of our corporate website in response to stakeholder requests for detailed information.

In order to ensure reliability of the Annual Report, 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 63).

Reporting Period

The Daicel Group Annual Report 2018—CSR & Financial Report encompasses the Daicel Group's initiatives during FY2018/3 (April 2017 to March 2018), though some topics outside the specified period have also been included.

Entities within the Scope of Reporting

For details on the entities within the scope of reporting, please refer to page 60.

Detailed Information about the Group's CSR Initiatives

More detailed information about the Group's CSR initiatives is available on the CSR section of Daicel's website.

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

Disclaimer and Caution with Respect to Forward-Looking Statements

As the sole purpose of this report is the provision of information to readers, in no way does the Company intend to solicit readers to take a certain action through this publication. Although the Company compiled this report based on information available to it and deemed trustworthy at the time of its issuance, the content of the report inherently includes a number of risks and uncertainties. Accordingly, Daicel provides no guarantee to the accuracy or integrity of information therein.

When readers intend to use any part of information contained in this report, they are advised to use their own discretion. Daicel shall bear no responsibility whatsoever to readers about damage, loss or other negative outcomes attributable to their investment decisions that relied on forecasts, numerical targets and other forward-looking statements featured in this report.

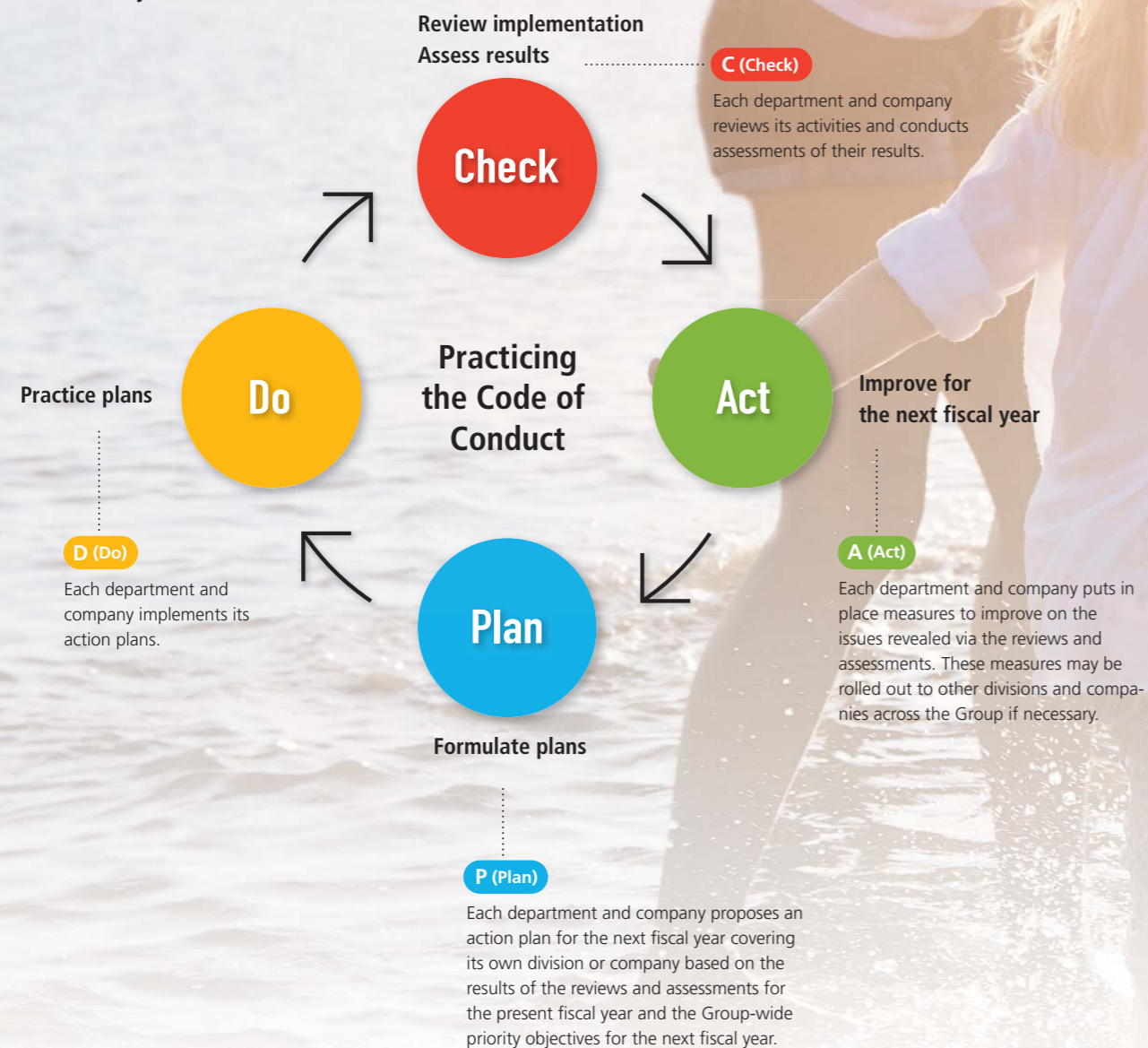
The Daicel Group's CSR Activities

The Daicel Group has put in place a Conduct Policy based on the basic philosophy shared 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, which lie at the heart of the Daicel Group's CSR activities. Furthermore, we have positioned a check, act, plan, and do (CAPD)* cycle as a basic methodology 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.

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

• The CAPD Cycle

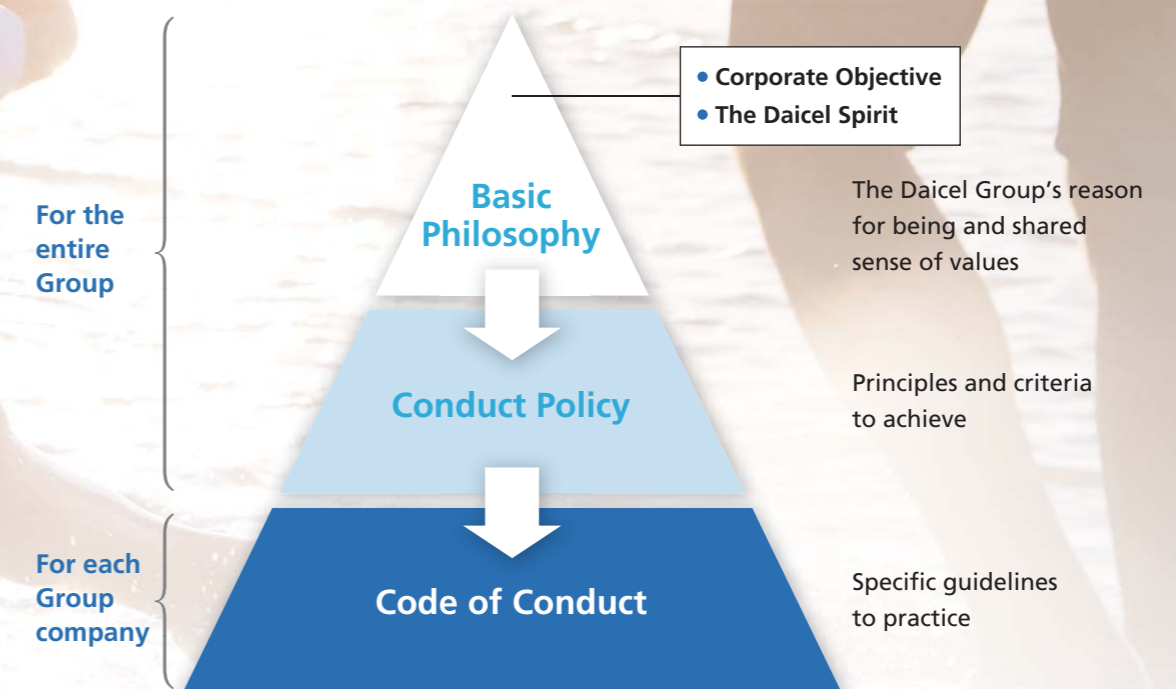


Conduct Policy

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



The Daicel Code of Conduct:
<https://www.daicel.com/en/csr/standard.html>



Misao Fudaba
President and CEO, Daicel Corporation

M. Fudaba

The Daicel Group is now taking on challenges to transform ourselves.

Since our founding in 1919, we have been firmly committed to creating new value through our “Monozukuri” manufacturing activities, thereby providing materials with superior functionality to satisfy the needs of customers and society as a whole. By doing so, we have striven to help people live better lives. The Daicel Group has endeavored to steadily meet customer expectations with regard to product quality and safety, and we’ve earned their trust by sincerely addressing their requests. This approach, in turn, enabled the Group to steadily gain the strong reputation that now enjoys. Today, however, in a rapidly changing business environment, we are now being called upon not only to supply raw materials to support living necessities but also to deliver products that help realize an affluent society and live up to people’s trust.

Having changed our corporate name in 2011, we have announced our intention to expand operations in a way that transcends the traditional boundaries of the chemical industry to secure further growth through the application of our chemistry-based expertise, proprietary technologies and know-how. We have simultaneously established Grand Vision 2020, a long-term vision that includes our three-stage “3D Step-up Plan.” Having closed FY2018/3, the fiscal year ended March 31, 2018, we finished the first year of “3D-III,” a three-year medium-term plan marking the final phase of the 3D Step-up Plan.

To secure continuous growth amid rapid changes in our operating environment, we have identified three keywords: “Change,” “Challenge” and “Courage.” Collectively, this “3C Spirit” supports key initiatives under 3D-III.

3C Spirit

- 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.

Moreover, in April 2017 we consolidated the functions of the Central Research Center and Himeji Technology Head Office through the establishment of our Innovation Park (iPark) in Himeji City, Hyogo Prefecture. As Daicel’s new technological powerhouse, iPark also boasts iCube, a new building designed to facilitate concurrent engineering via robust worksite communication and provide a space for open innovation with external partners. These facilities are expected to help our engineers change their work

styles. We are also developing new products in the fields of our existing operations while pushing ahead with cost reduction efforts. Furthermore, we are taking on the challenge of creating and nurturing new businesses in the field of electronic materials as well as in the medical and healthcare fields, believing that in these fields we are better positioned to deliver high-value-added solutions.

In FY2018/3, net sales rose to ¥463.0 billion, up ¥22.9 billion compared with the previous fiscal year. Operating income, however, was ¥58.9 billion, down ¥5.4 billion year on year. In line with the current medium-term plan, we have been focusing on achieving continuous growth. To this end, we must secure resilience to changes in external conditions by establishing a more robust business foundation while accelerating our initiatives to create new businesses. With this in mind, we will proactively engage in strategic investment aimed at incorporating promising technologies and commercial products from external sources in addition to stepping up in-house and external collaboration to create new businesses.

We also aim to earn greater public recognition. This will, in turn, help human resource management and better position the Group for acquiring new customers in new business fields. Thus, we are assiduously endeavoring to inform the general public of Daicel’s features, business and products.

The Daicel Group has long upheld “safety,” “quality” and “compliance.” They form the essence of our corporate activities. Building on this tradition, we will take on new challenges to adapt, becoming a company capable of steadily delivering new value in a timely manner.

Assuring Safety, Quality and Critical Environmental Initiatives

I have consistently stated that assuring safety and quality is the essence of our corporate activities. It is the foundation of our manufacturing activities. Having experienced a disastrous explosion and fire at what was then Daicel’s Sakai Plant in 1982, we have been vigilant to ensure a similar accident never occurs. We remain 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.” Nevertheless, in July 2017 a fire broke out at the Ohtake Plant. Although it was extinguished quickly without any human injuries or environmental damage, the accident created trouble for some stakeholders, including our customers, the surrounding residents and communities, and officials of the relevant authorities and government agencies. Taking this incident seriously, we have implemented recurrence prevention measures on various fronts, including installing new equipment and reviewing organizational structures



and operational procedures. Utilizing takeaways from the accident, we have also reassessed our business continuity plans (BCPs). Efforts are now under way to resolve issues identified through this reassessment and upgrade BCPs.

The Daicel Group is committed to maintaining a workplace where we can work in peace while also earning the trust of customers and local residents. Accordingly, we will continue to focus our efforts on “Monozukuri” that puts safety first.

In addition, the Daicel Group is actively supporting global warming countermeasures. In 2015, a United Nations summit adopted Sustainable Development Goals (SDGs), and in the same year, the Paris Agreement was signed at COP21. Since then, COP22 and COP23 were held in 2016 and 2017, respectively, in an effort to promote dialogue aimed at formulating guiding principles for achieving the specified goals. As such, efforts to tackle environmental issues are now being undertaken across national borders. Given these circumstances, chemical companies are called upon to meet ever higher requirements in terms of environmental preservation initiatives because chemical manufacturing is one of the most energy-intensive industries. Because of this, we are well aware of the need to step up efforts to reduce energy consumption and curb greenhouse gas emissions. To that end, the Daicel Group has in place the Energy Conservation Committee, which spearheads environmental initiatives across the board. Thanks to these initiatives, Daicel forecasts that the Company will be able to achieve its voluntary fiscal 2020 targets as a participant in Nippon Keidanren’s Commitment to a Low Carbon Society.

Going forward, we will keep uncovering new angles to advance a variety of power saving measures, including the introduction of innovative process technologies.

As for the assurance of product quality, all of Daicel’s manufacturing sites have acquired quality management system certifications under such international standards as ISO9001 or IATF16949, the latter of which was designed for the automotive industry, based on the nature of their products. This is an example of our efforts to satisfy customer expectations with regard to product quality. In addition, the Quality Management Division, which was established at Head Office and operates directly under the president, carries out quality management audits. Other initiatives associated with quality assurance include holding regular meetings aimed at sharing information on quality management and systematically consolidating and analyzing such information.

Corporate Compliance Initiatives

In addition to assuring safety and quality, maintaining strict compliance is upheld as an essential part of the Daicel Group’s business operations. In FY2018/3, some major Japanese corporations were found to be fabricating quality data while others let non-qualified staff handle inspections that should have been carried out by qualified individuals. These incidents raised many concerns

among the general public, but they also reminded us of the importance of compliance. Indeed, compliance failures can threaten a company’s ability to continue operating.

In FY2018/3, the Daicel Group continued to promote visualization and open communication throughout the workplace, with the aim of ensuring that no fraudulent activities go unchecked. More specifically, we strove to 1) systematically share business-related information to help employees notice problems or improvements; 2) ensure that everyone feels no constraint about saying what needs to be said to each other; and 3) encourage everyone to carefully listen to each other’s opinions and respond accordingly. Along with pursuing these three targets in our ongoing corporate ethics and compliance activities, we newly instituted a Compliance Enhancement Period over the Group companies. During this period, each department and companies implemented special education and training sessions,” thereby addressing various issues shared by Group members.

There are no magical solutions for compliance issues. We believe that ultimately, raising the compliance awareness of all Daicel Group employees is essential. This can only be accomplished by patiently and relentlessly pushing ahead with our corporate compliance and ethics initiatives. We will also encourage employees to think and act in line with the Daicel Group Conduct Policy and the Daicel Code of Conduct, both of which provide a set of precepts that serve as a constant reference to all Group members.

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 a majority of the Group’s employees have a nationality other than Japanese. Taking these factors into account, our Human Resources Policy declares that our workplace pay due respect to diverse cultures and value systems no matter where we operate. Anticipating the forecast reduction in Japan’s population, in April 2017 we began allowing eligible domestic employees, who meet prescribed conditions (such as engaging in child rearing and nursing care), to work at home as part of our efforts to help employees adopt flexible work styles. Looking ahead, we will continue to welcome diverse human resources in our workforce, develop a working environment in which everyone can find his/her job rewarding, and assist employees in achieving career success and personal growth. By doing so, we will help individual employees realize their full potential, thereby maximizing the Daicel Group’s strength.

Aiming to enhance the Company’s internal control system, Daicel appointed one more external director in June 2017. This increase in the number of external directors means they now comprise fully half of all directors. This move is intended to enhance the independency and transparency of the Board of Directors’ operations and better position it to make decisions from an independent standpoint. At Daicel, the participation of external directors extends beyond Board of Directors meetings. They also participate in such meetings as the KAIZEN (continuous improvement) Case Study Meeting, proactively sharing their insights to help improve the Company’s business operations.

Daicel’s most recent operating results fell short of planned targets in terms of profit due to such factors as changes in the business environment associated with key products and rising costs for the development of our operational foundation for the future. However, Daicel will relentlessly take on new challenges to adapt. With courage, all of Daicel’s officers and employees will work as one to pursue continuous growth over the medium to long term.

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

FY2018/3 Highlights

April 2017

The 16th Daicel Group Responsible Care Promotion Conference Held

The 16th 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 Group holds this conference annually to maintain high awareness of Responsible Care initiatives among employees. This year’s conference invited Mr. Noboru Furusawa to share some tips. His conference address focused on practical safety assurance activities that help create a vibrant workplace, empower employees and raise worker motivation.



The 5th Global KAIZEN Contest and the 7th KAIZEN Case Study Meeting Held

The 5th Global KAIZEN (continuous improvement) Contest was held at the Harima Plant. This round focused on initiatives undertaken by the Aerospace & Defense Systems/Safety Systems Company, with 19 of its business units from six countries participating in the event. The contest is aimed at encouraging the sharing of best practices throughout the organization and nurturing a culture of continuous improvement, thereby boosting the Group’s business growth.

The 7th KAIZEN Case Study Meeting was also held at this plant. With representatives from the Group’s domestic business sites participating in the event, the case study meeting is intended to foster a spirit of continuous improvement among all Group employees under the theme of “be aware, think and act.” To this end, each business site in Japan takes turns hosting this annual event. Presenters who took the platform at this round included staff members of eight departments chosen from 123 operating divisions of eight separate sites in Japan as well as their colleagues overseas who were selected from participants in the aforementioned Global KAIZEN Contest. Going forward, the Daicel Group will promote various improvement measures, placing utmost priority on the assurance of safety and quality.



May 2017

Received the RC Grand Prix Award under JCIA’s 11th Annual RC Awards Program

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).

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 initiatives related to “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 drastically decrease problems accompanying periodic repair work, thereby attracting the JCIA’s attention. Looking ahead, we will continuously strive to ensure the safety and quality of repair work.



June 2017

Co-Founded Wellness Open Living Labs, LLC to Help Extend Healthy Life Expectancy

Daicel invested in and became a co-founder of Wellness Open Living Labs (WOLL), a limited liability company that specializes in health science and aims to solve such issues as how to extend healthy life expectancy and cure dementia.

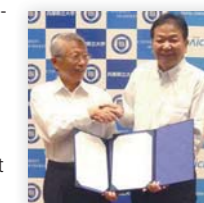
Daicel provides a variety of solutions in medical and healthcare-related fields, including the separation of optical isomers, the development of excipients to make oral drug administration easier for patients and the production of various functional foods. In line with the 3-D III medium-term plan, the Company is also focusing on nurturing new business units that operate in the medical and healthcare field. Therefore, Daicel will step up collaboration with WOLL and its co-founders, proactively participating in their projects as part of the Daicel Group’s efforts to facilitate open innovation. In these ways, we will accelerate the development and provision of solutions that help extend healthy life expectancy.

August 2017

Signed a Comprehensive Partnership Agreement with the University of Hyogo

Daicel signed a comprehensive partnership agreement with the University of Hyogo. One of Daicel forerunners began its operations in the Hyogo region. Because of

this, Daicel is committed to pursuing mutual development with communities in the region. To this end, the Company will engage in joint research and human resource development based on partnership with the University of Hyogo, a prominent local educational institution. Using this agreement as a springboard, we will facilitate open innovation—one of the priority policies identified by the 3D-III medium-term plan, thereby accelerating the creation and development of new businesses.



Executed Share Repurchases

Daicel’s Board of Directors passed a resolution to execute a share repurchase, expending up to ¥10.0 billion for a total of 7,500,000 shares. Daicel completed the repurchase in January 2018. This move clearly reflects the Company’s commitment to enhancing returns to its shareholders as well as its flexible stance in terms of capital policies to remain responsive to changes in the operating environment. In line with the 3D-III medium-term plan, the Company will strive to maintain a dividend payout ratio of 30% while flexibly executing share repurchases where possible.

February 2018

Recognized as a “2018 Certified Health & Productivity Management Outstanding Organization—White 500”

Daicel was named to the “White 500” and recognized by the Ministry of Economy, Trade and Industry. This recognition program is designed to draw positive attention to businesses boasting outstanding track records in the practice of health management. Daicel has been promoting various health management initiatives, with particular focus placed on providing employees with optimal mental and physical care. For example, the Company has programs in place that are designed to help employees dealing with mental health problems smoothly return to work. Also developing educational programs and organizational frameworks aimed at identifying employees suffering from mental health issues at the earliest possible opportunity and ensuring that their issues are swiftly addressed. Evidently, these efforts attracted the Ministry’s attention and were partially responsible for the Company’s selection.

Having prioritized employee health, Daicel’s management aims to create a working environment in which all employees can stay healthy and work vibrantly. We believe that such an environment is essential to our pursuit of corporate development in a manner that helps individual workers enjoy fulfilling careers, as well as private lives. Guided by this belief, we will remain committed to systematically promoting health management initiatives.



Chronology of the Daicel Group

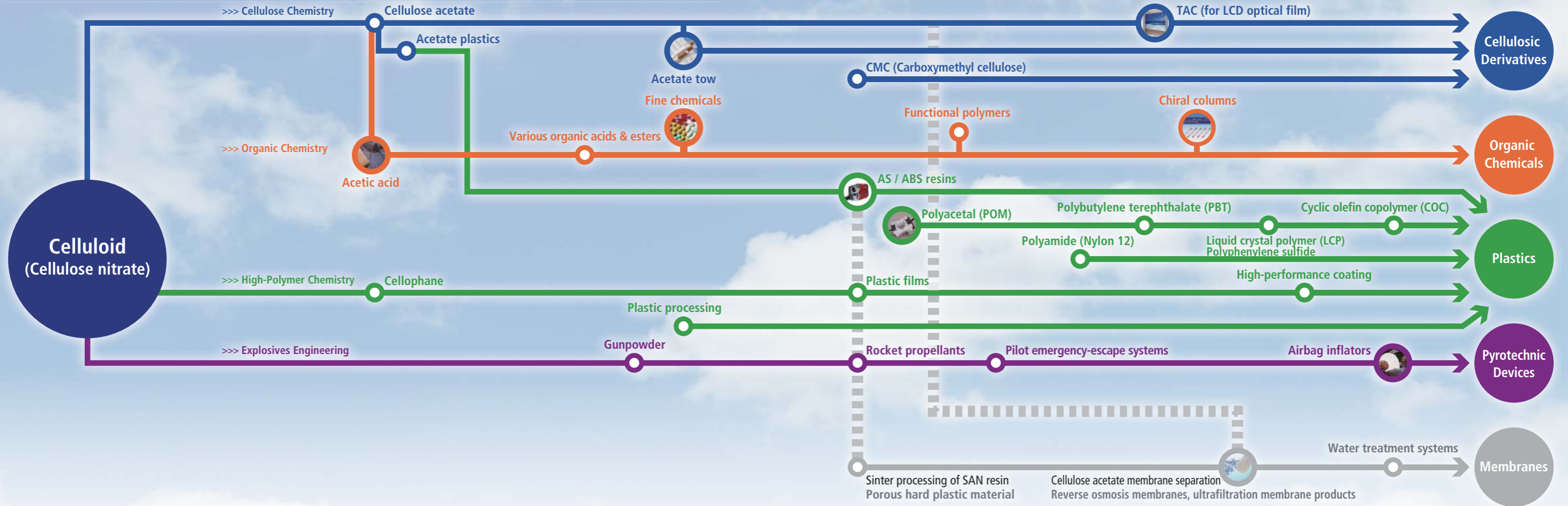
Building on a Strong Heritage of Innovation





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
<p>The World Leader in Celluloid; Commercialization of Cellulose Acetate</p> <p>Our operations began in 1919 with the merger of eight celluloid manufacturers to form Dainippon Celluloid Co., Ltd. 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.</p> <p>*Currently FUJIFILM Corporation</p> 	<p>Joining Japan's First Petrochemical Complex and Developing Proprietary Technologies</p> <p>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.</p> <p>These operations helped enhance quality of life during the fast-paced period of Japan's rapid economic growth.</p> 	<p>Adopting New Raw Materials and Processes</p> <p>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.</p> <p>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.</p> 	<p>Production Innovation the Daicel Way— Fully Prepared to Take on New Challenges with the Opening of the iPark</p> <p>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.</p> <p>With the aim of preparing ourselves for changes in the business environment, boosting initiatives to create new business units and strengthen existing businesses, we consolidated the Central Research Center and the Himeji Technology Head Office into the Innovation Park (iPark). With the completion of the construction of iCube, the building possessing the core functions, iPark launched its activities in the spring of 2017.</p> <p>Looking ahead, we will engage in co-creation, collaboration and cooperation to deliver the best solutions so customers can rest assured about reliability, safety and quality. By doing so, we will continue contributing to society in manifold ways.</p> 
<ul style="list-style-type: none"> • 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) 	<ul style="list-style-type: none"> • World War II ends (1945) • Japan's first petrochemical complex opens in Iwakuni, Yamaguchi Prefecture (1958) 	<ul style="list-style-type: none"> • The first oil crisis occurs (1973) • The Japanese economy enters the "bubble" phase 	<ul style="list-style-type: none"> • Collapse of Lehman Brothers, the fourth largest securities firm in the U.S. (2008) • Great East Japan Earthquake (2011)

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 53.2%.

*For more details of Group companies, refer to page 60.

Consolidated overseas sales ratio

53.2%

Number of Group companies

79 (14 countries)

Number of Group employees (Daicel and its consolidated subsidiaries)

12,309

(As of March 31, 2018)

Europe

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



Daicel (China) Investment Co., Ltd.



Daicel Safety Systems (Jiangsu) Co., Ltd.

Germany
UK
Poland
France



Daicel Safety Systems Europe Sp. z o.o.

Jiangsu Province, China
Shaanxi Province, China
Hong Kong
Guangxi, China
Mumbai, India
Hyderabad, India
Thailand
Malaysia
Singapore
South Korea
Shanghai, China
Zhejiang, China
Taiwan
Japan

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



Daicel Safety Systems (Thailand) Co., Ltd.

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



Harima Plant



Daicel Safety Systems America, LLC

Arizona, U.S.A.
Michigan, U.S.A.
Kentucky, U.S.A.
New Jersey, U.S.A.
Pennsylvania, U.S.A.
Mexico

Americas

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

Other
19.1%

Elsewhere in Asia
18.7%

Sales by Region

Japan
46.8%

China
15.3%

Note: The Group companies singled out in photos are featured in this report. Their initiatives are highlighted in "Highlights," "Nurturing Globally Capable Human Resources," "Maintaining Communication with Local Communities" and elsewhere.

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 the Daicel Group.

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	5 Fuel filler caps ● Engineering plastic alloys/ polyoxymethylene (POM)
2 Fuel sender modules ● Polyoxymethylene (POM)	6 Airbag systems ● Inflators
3 PHEV electricity supply connectors ● Polybutylene terephthalate (PBT)	7 Lithium-ion batteries ● CMC
4 Electric cooling water pumps for PHEV engines ● Polyphenylene sulfide (PPS)	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 External coverings ● Polymer alloys with engineering plastics	13 Display films ● Anti-glare films
10 Drive gears for printers ● Polyoxymethylene (POM)	14 LCDs ● TAC (cellulose acetate for LCD optical films) ● Polymer for LCD resist
11 Narrow-pitch connectors for smartphones ● Liquid crystal polymer (LCP)	15 Optical materials/ lenses ● Wafer level lenses
12 Printed circuit boards ● Epoxy compounds	

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

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.

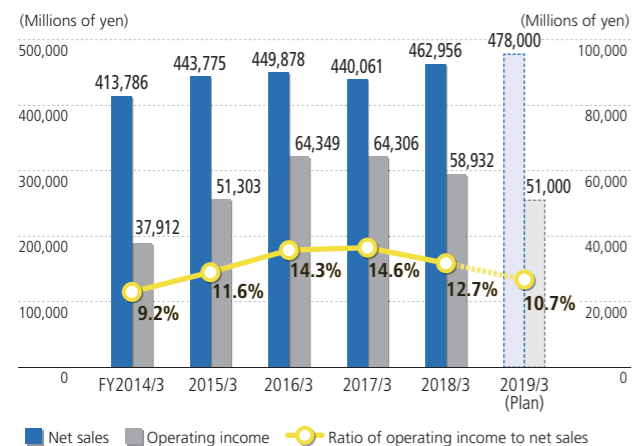
16 Pharmaceutical development and manufacturing ● Chiral columns	19 Cosmetics, shampoos, conditioners and toothpastes ● 1,3-Butylene glycol ● CMC and hydroxyethyl cellulose (HEC)
17 Pharmaceuticals ● Ketene derivatives, monochloroacetic acid, amines ● CMC	20 Functional foods ● Nutritional supplements
18 Orally disintegrating tablets (ODTs) ● Co-processed excipients	

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.

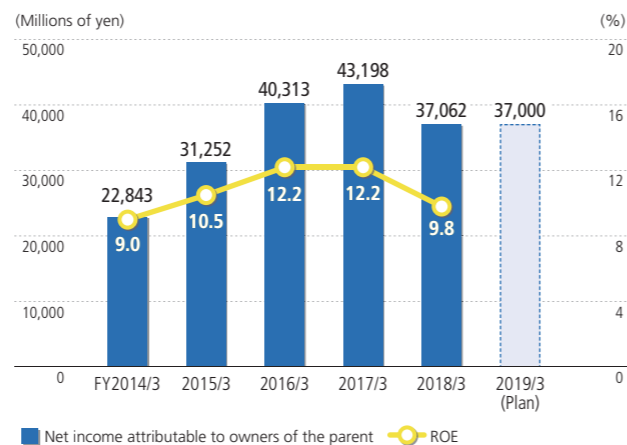
21 Packaging for snacks and other food products ● Barrier films for food packaging use	25 Polyester fibers ● Acetic acid
22 Food trays ● Polystyrene sheets and finished goods	26 Eyeglass frames ● Celluloid, Acetate resin
23 Agricultural materials ● Foamed polyethylene fruit caps	27 Housing materials ● Flame-resistant ABS resin
24 Household articles ● Improved sink-corner strainer	28 Combination faucets ● Polyphenylene sulfide (PPS)

Financial Highlights

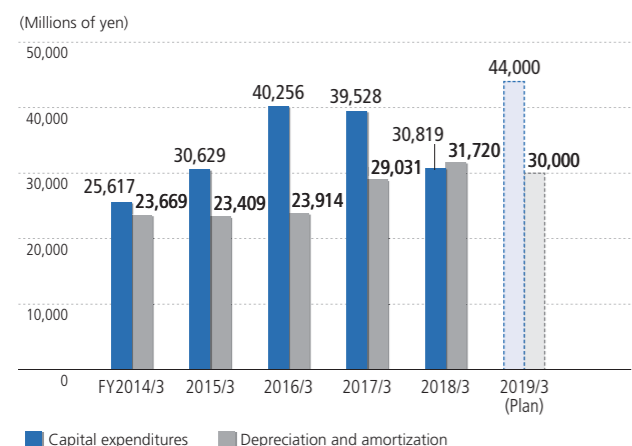
Net Sales / Operating Income / Ratio of Operating Income to Net Sales



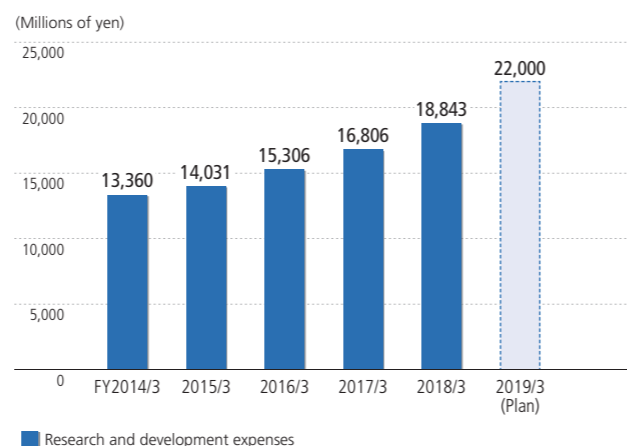
Net Income Attributable to Owners of the Parent / ROE



Capital Expenditures / Depreciation and Amortization

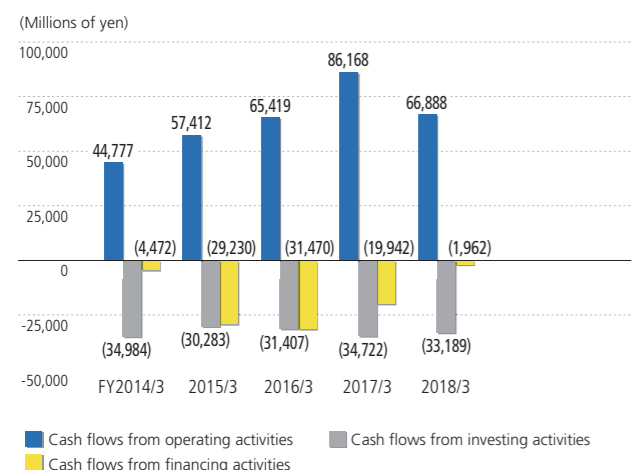


Research and Development Expenses

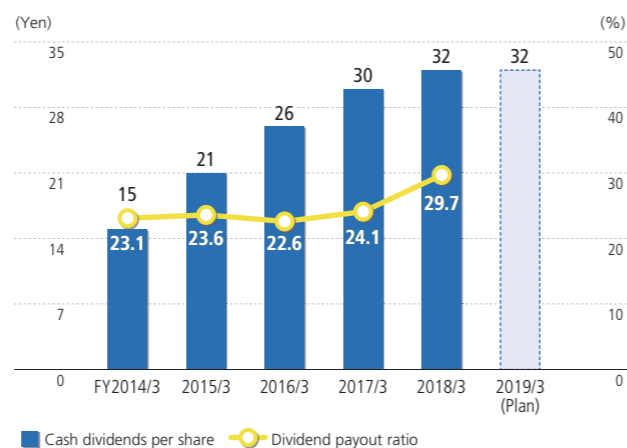


Note: Amortization of goodwill is not included in depreciation and amortization.

Cash Flows

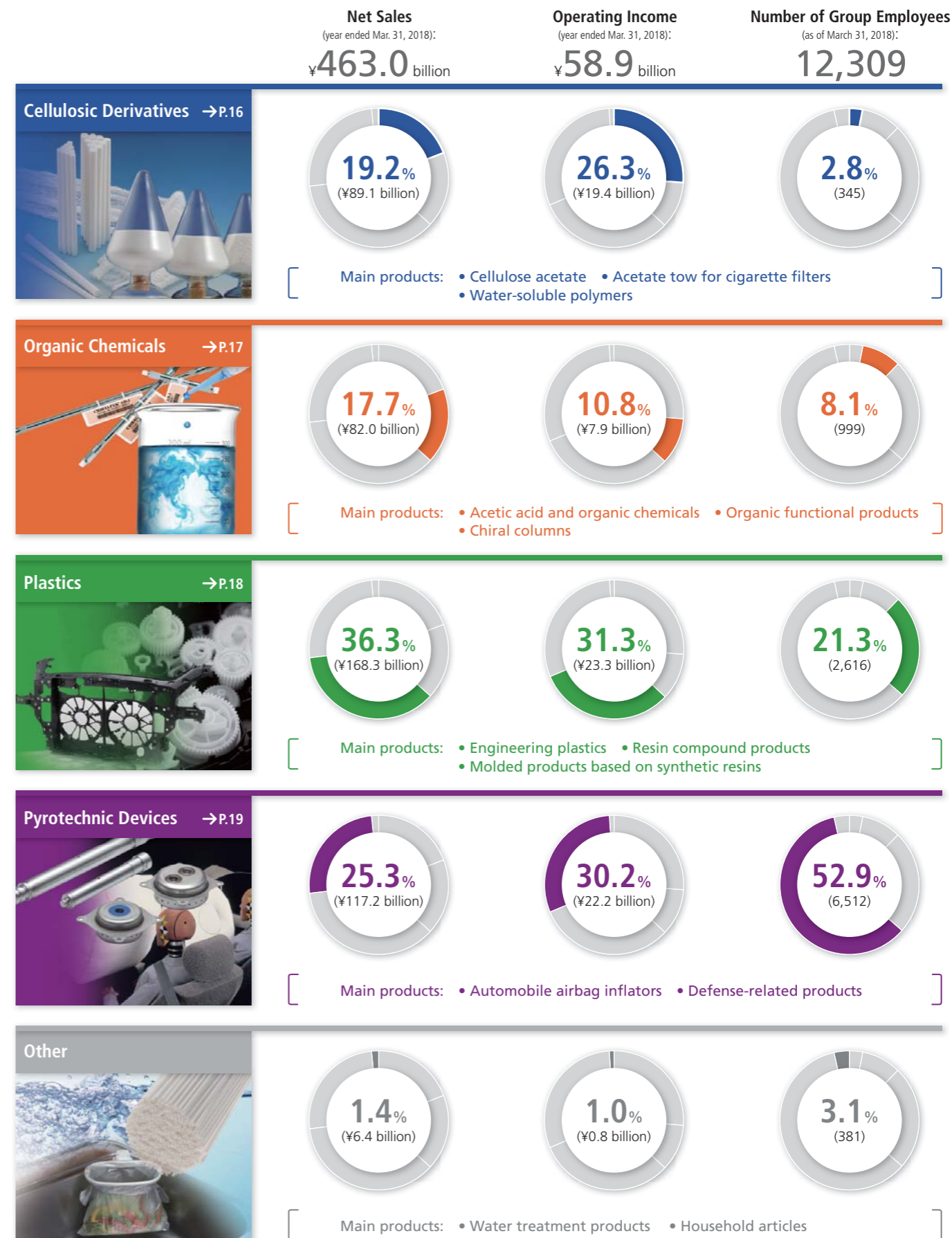


Cash Dividends Per Share / Dividend Payout Ratio



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.



Note: An additional 1,456 (11.8%) shared corporate staff are not depicted in the segment pie graphs. Altogether, the Group numbers 12,309 employees (as of March 31, 2018).



Cellulosic Derivatives

Business Overview

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

Daicel's competitive strength includes an integrated production system spanning acetic acid to cellulose acetate and acetate tow. The Company possesses a large market share of the production and sales of triacetyl cellulose (TAC), which is used in LCD films, and Daicel boasts a large share of the acetate tow market.

Strengths

- Products that command a large share of the global market
- A wealth of knowhow and research data cultivated over many years
- Customer-tailored technical services

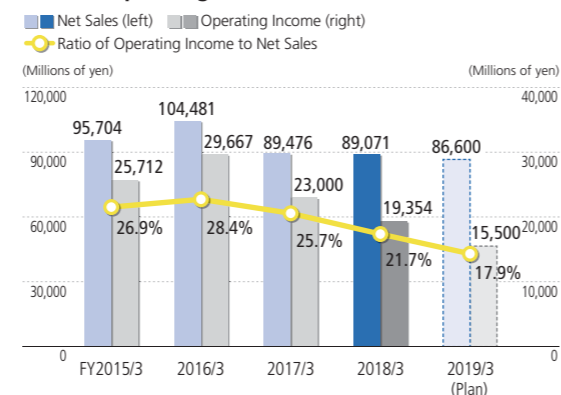
Business Environment

- Competition is intensifying between TAC films and other materials.
- Competition is intensifying among sellers of acetate tow as global demand for cigarettes wanes.

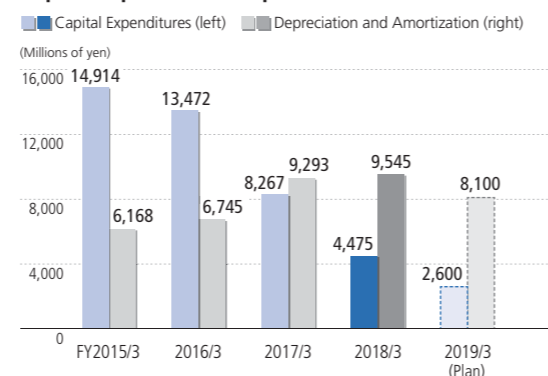
Strategies

- Create new markets by developing new functions that leverage the unique characteristics of cellulose.
- Develop and offer new functions that leverage the competitive advantages of our technologies.
- Improve our ability to offer solutions by using testing equipment that was newly installed in FY2017/3.

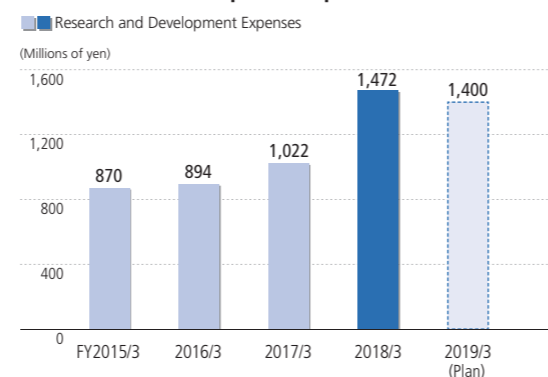
Net Sales/Operating Income/ Ratio of Operating Income to Net Sales



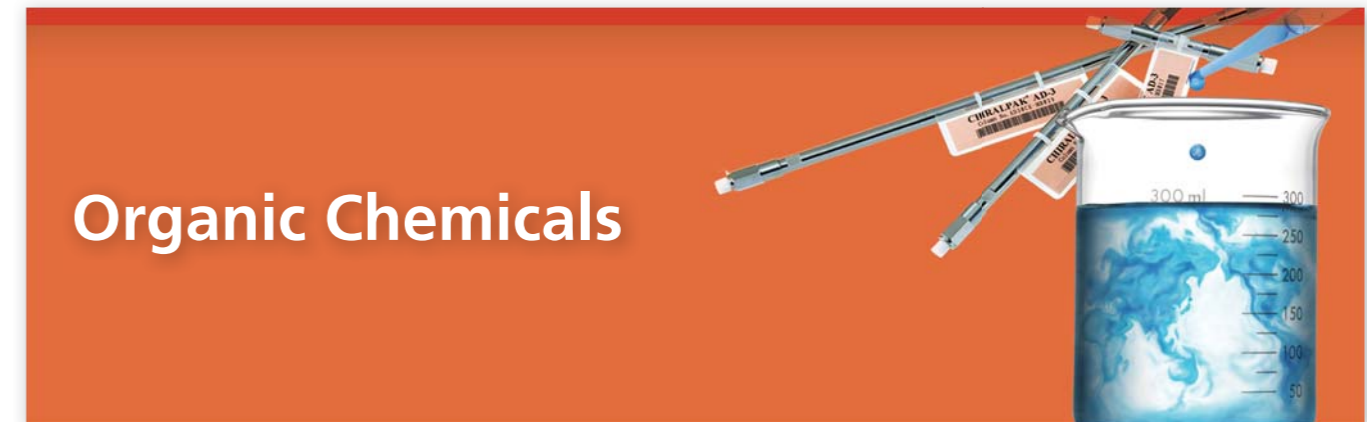
Capital Expenditures/Depreciation and Amortization



Research and Development Expenses



* For FY2018/3 business results, please refer to page 52.



Organic Chemicals

Business Overview

This business division operates the organic chemicals business, which focuses on acetic acid; the performance chemicals business, which deals with such products as peracetic acid derivatives; and the chiral chromatography business.

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

In the performance chemicals business, we manufacture and sell a broad range of products, including peracetic acid derivatives used in plastics materials and electronic materials; high performance materials used in manufacturing semiconductors and other applications; raw materials for cosmetics, pharmaceuticals, and agricultural chemicals where high quality is needed; and healthcare materials developed from biotechnologies.

In the chiral separation business, we mainly provide chiral columns and chiral stationary phases (CSPs) for separation and purification of optical isomers in pharmaceutical development and manufacturing processes, as well as chiral separation services. In addition, we possess a large share of the global market.

Strengths

- Japan's only acetic acid producer
- A lineup of unique high performance products
- A product lineup that commands large shares in niche markets

Business Environment

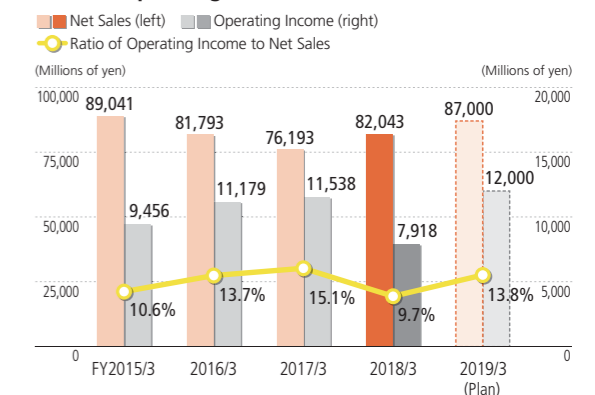
- Competition is intensifying globally.
- The expansion and technological innovation in the electronics market including semiconductors.
- The market for biopharmaceuticals (macromolecule drug) is expanding.
- The markets for cosmetics and healthcare are steadily growing.

Strategies

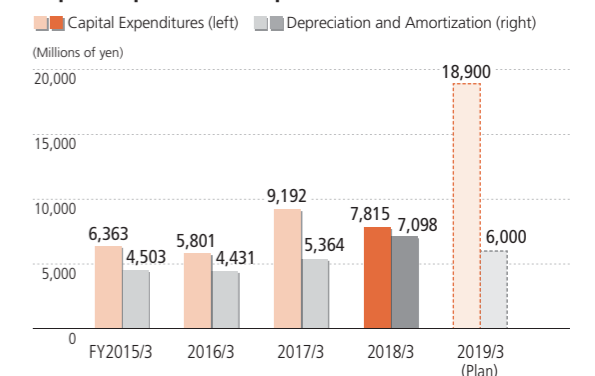
- Promote selection and concentration on the general-purpose chemicals business while improving competitiveness through stable operations and cost reductions.
- Provide sustainable solutions for the continually evolving electronic market.
- Enter the macromolecule drug development support business.
- Differentiate our business in the fields of cosmetics and healthcare and expand our product lineup.

* For FY2018/3 business results, please refer to page 52.

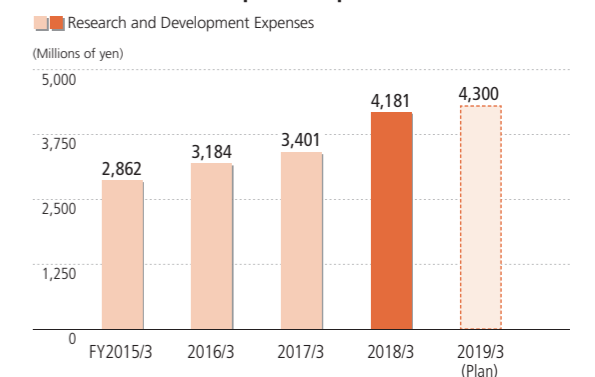
Net Sales/Operating Income/ Ratio of Operating Income to Net Sales



Capital Expenditures/Depreciation and Amortization



Research and Development Expenses





Plastics

Business Overview

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

The engineering plastics business is run by the Group subsidiary Polyplastics Co., Ltd, a leader in the engineering plastics market, with POM and LCP commanding the largest market share. The company has helped globally develop the market, which had been centered in the Asia-Pacific region, and provides solutions to a wide range of industries, especially automobiles and electronic materials but also extending to precision machinery, construction materials, and household consumables.

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

Strengths

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

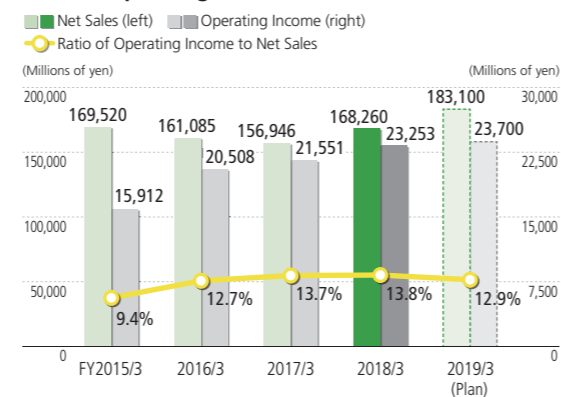
Business Environment

- Due to tightening environmental regulations, the need for lighter automobiles is growing and electric vehicles are growing more popular.
- Automobiles are incorporating a larger number of electronics with an eye toward self-driving.
- Manufacturers from emerging countries are gaining prominence in the electronics market.

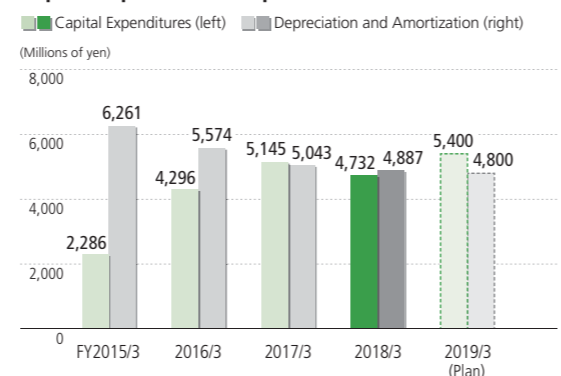
Strategies

- Bolster efforts to have our materials incorporated into design specifications.
- Promote the establishment of businesses that can respond to the commoditization of products in the market.
- Expand the technology development system globally.
- Create new businesses to ensure continuous growth.

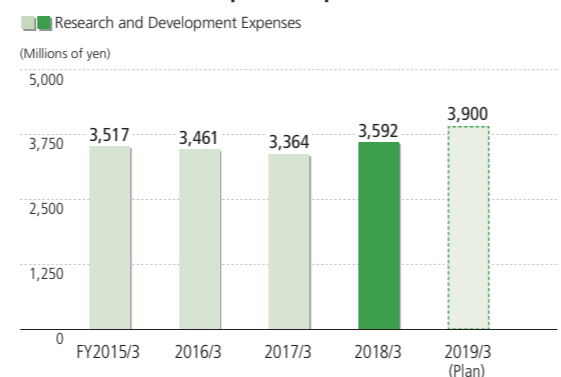
Net Sales/Operating Income/ Ratio of Operating Income to Net Sales



Capital Expenditures/Depreciation and Amortization



Research and Development Expenses



* For FY2018/3 business results, please refer to page 52.



Pyrotechnic Devices

Business Overview

This business division manufactures and sells such defense-related products as pilot emergency-escape systems and propellant thanks to a wealth of pyrotechnic device technologies accumulated over the course of its longstanding operations. The division also manufactures and sells automotive safety devices, mainly automobile airbag inflators (gas generation devices) which save passengers and pedestrians by inflating airbags within milliseconds after a collision.

Daicel's automobile airbag inflators are manufactured at seven locations across the six countries: Japan, the United States, China, Thailand, Poland, and South Korea. These products garner acclaim as the most important component of airbag systems, which continue to advance technologically.

Strengths

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

Business Environment

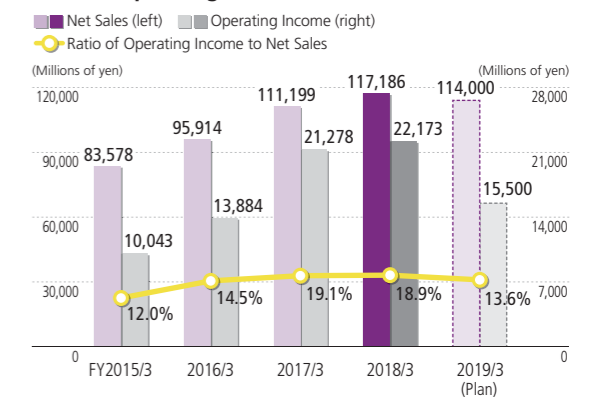
- The technology for self-driving cars continues to advance.
- Automobile safety regulations in emerging countries are getting stricter.
- Awareness of safety and peace of mind, including protections for pedestrians, is rising.

Strategies

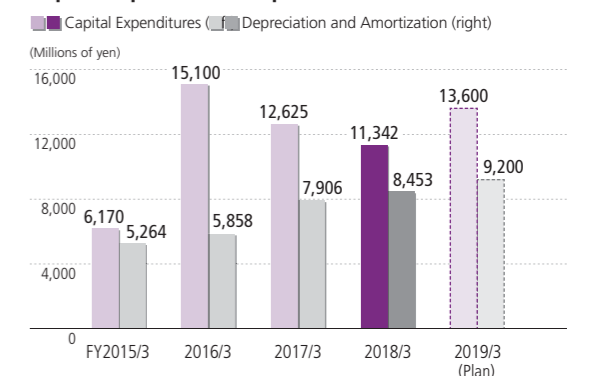
- Develop products that neatly match customer needs by strengthening alliances with automobile and module manufacturers.
- Globally expand our technical services and sales system.
- Improve product quality and productivity by introducing the image analysis system.
- Create new businesses based on pyrotechnic device technologies.

* For FY2018/3 business results, please refer to page 52.

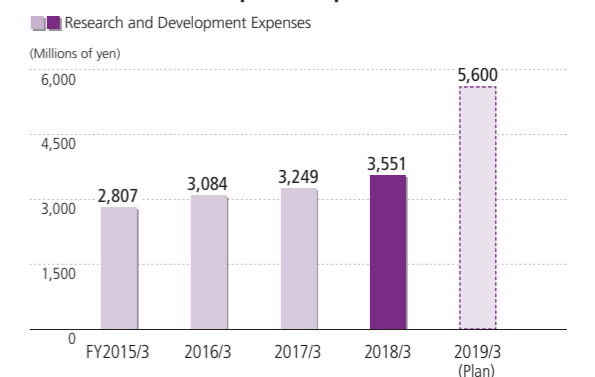
Net Sales/Operating Income/ Ratio of Operating Income to Net Sales



Capital Expenditures/Depreciation and Amortization



Research and Development Expenses



Taking on challenges to deliver the best solutions



With a strong belief in the infinite possibilities chemistry has to offer, the Daicel Group takes advantage of its proprietary technologies and know-how with the aim of contributing to society the functions it requires and helping to enrich individual lifestyles in various ways.

▶ Meeting the needs of society with our expertise in raw materials, technological strengths and R&D capabilities

Daicel is striving to create new business units operating in its focus areas, namely, electronics and the medical and healthcare field. To help readers understand our technologies in the electronics field, this Special Feature showcases such products as colored resist polymers, highly functional films and wafer level lenses.

Pursuing ever more precise manufacturing

.....Advances in our colored resist polymer technologies help create next-generation LCDs **P.22**

Realizing ever better user-friendliness

.....Daicel's optical films contribute to the realization of new display functions **P.24**

Making society even smarter

.....Wafer level lenses made only using resin are expected to help realize a smart society **P.26**

▶ Relentlessly taking on the challenge of assuring superior product quality and enhancing productivity

A new image analysis system has been introduced at Daicel's manufacturing sites. The system was co-developed by Daicel and Hitachi, Ltd. by bringing together Daicel's immense wealth of production know-how accumulated through unrivaled commitment to manufacturing and Hitachi's cutting-edge IoT-driven image analysis technologies. Here, we spotlight production site initiatives now under way to transform Daicel's manufacturing operations through the use of this system.

Image Analysis System transforms our operations at manufacturing frontlines

.....Our initiatives to improve product quality and product competitiveness by employing cutting-edge IoT and AI-driven technologies **P.28**

Advances in our colored resist polymer technologies help create next-generation LCDs



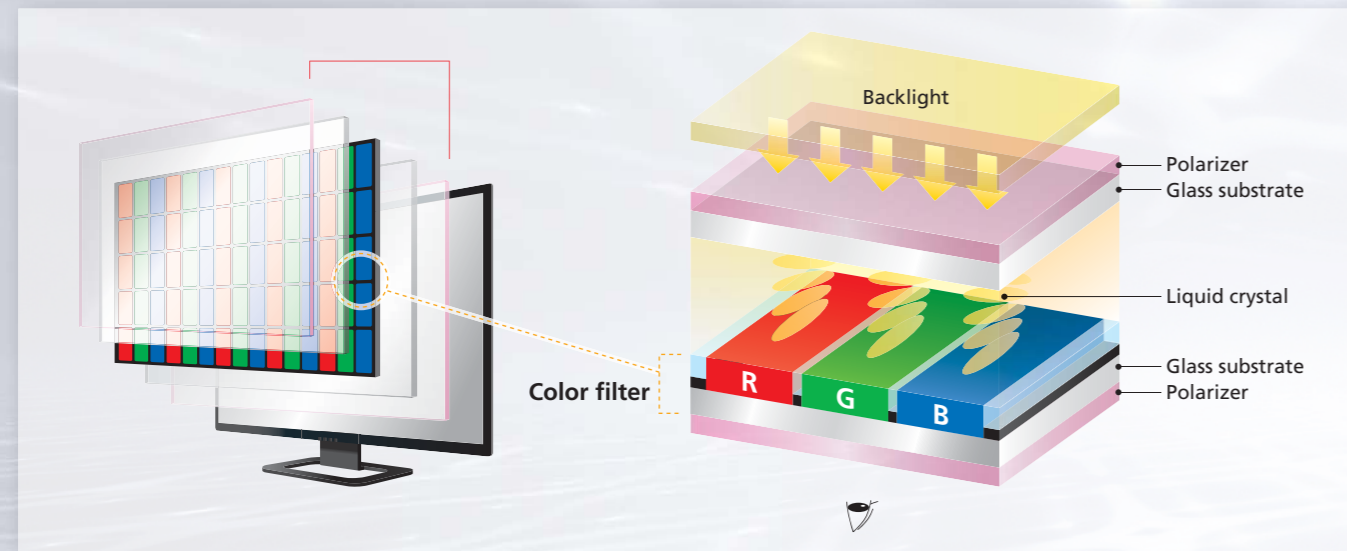
Today, liquid crystal displays (LCDs) are used in a wide range of applications. In addition to use in televisions, smartphones and tablets, LCDs are utilized as digital signage equipment at airports, train stations and other such facilities to provide guidance to passengers. Today, few people would spend a whole day without glancing at an LCD.

LCD components range from membranes, which sandwich liquid crystal materials, color filters and polarizer to glass substrates as well as backlights and other peripheral parts. Successful improvements in these components and parts often result in enhanced display functionalities, in terms of brighter imaging and clearer visibility, and enable the creation of thinner LCDs. Daicel's

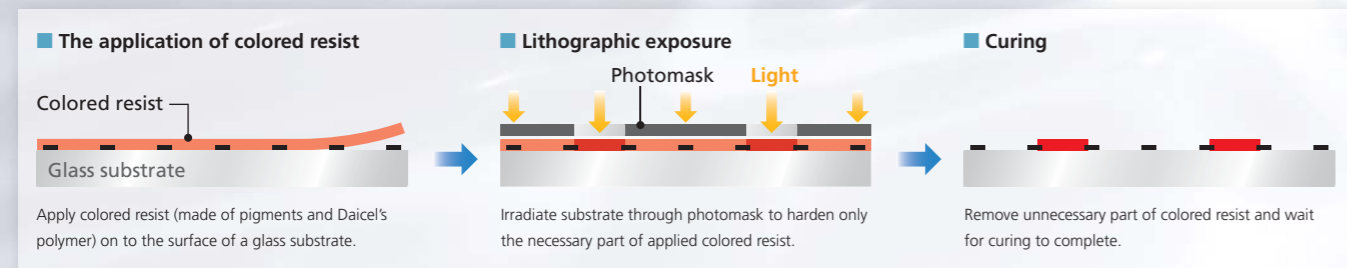
polymer has been used in resist materials for color filters and transparent materials for TFT panels. Both of these play key roles in conventional LCDs and are expected to remain important in next-generation LCDs. As such, our polymer is making notable contributions to the development of displays that boast stronger brightness and render clearer characters and images.

Daicel initiated the development of polymer for LCD resist in 2001. Since then, the Company has engaged in day-to-day R&D efforts that leverage its strength in cycloaliphatic epoxy compound and organic chemical technologies to create a new polymer capable of helping realize breakthroughs in LCD technologies.

A cross-section structure of an LCD



A peek at the manufacturing process for color filters



Q LCD applications are expected to broaden going forward. What's behind this growth?

The adoption of thin televisions, such as LCD TVs, rapidly became widespread in the 2000s due to such factors as a switchover to digital broadcasting. Today, advances in LCD technologies are resulting in the creation of organic EL, 4K and 8K TVs on the back of growing needs for thin televisions boasting larger display size and higher resolution. Due also to the popularization of smartphones and tablets, makers are meeting requests to improve display capabilities to more beautifully render images.

Q What do you mean by "beautifully"? Could you elaborate on specific performance requirements displays are expected to meet?

The LCD color display is formed by a group of cells, each of which consists of a combination of red, green and blue (RGB) color light. To beautifully render images, the LCD must be equipped with capabilities to provide high resolution, high luminance and high contrast as well as wide color gamut reproduction. To this end, resist polymer must meet high expectations, as it's essential for manufacturing color filters. As a material, resist polymer must boast robust hardening, image development properties and transparency while being capable of protecting pigments, which are mixed with it during the manufacturing process, from heat. Daicel has developed resist polymer meeting all of these functional requirements by taking advantage of the unique characteristics of its materials and its expertise in synthesis technologies.

Q Daicel's resist polymer is reported to include cycloaliphatic epoxy compound. Please explain the characteristics and strengths of this ingredient.

Cycloaliphatic epoxy compound boasts superior heat resistance. Accordingly, it helps the resulting polymer withstand heat applied in the course of the LCD manufacturing process and thus preserve the contrast between red, green and blue color light. Daicel has a long-standing track record in handling cycloaliphatic epoxy compound. Daicel boasts a significant share of the LCD raw material market so we stayed committed to swiftly meeting customer requests since the release of this product. Thanks to this approach, our polymer now boasts enhanced heat resistance and image development properties compared with conventional products while allowing users to easily control unintended reactions.

Q Please explain that reaction in more detail. Why is it supposed to be controlled?

Conventional products were supposed to be stored at a temperature of minus 20°C or lower as they become more viscous at room temperatures due to interaction between polymers. Because of this, our customers had to equip themselves with low-temperature storage facilities. However, Daicel's AQUABRID S series products will not undergo reaction as long as they are stored between zero to minus 10°C. Despite their high reactivity, these products are thus easier to handle and store. This, in turn, helps customers reduce energy costs associated with transportation, thereby contributing to the preservation of the environment.

Q What do you think the future outlook is given the growing applications for LCDs?

Display makers are now called upon to satisfy more diverse customer needs, which also tend to differ largely by individual product type, while facing even higher performance requirements. Furthermore, some displays have curved surfaces, while others can be folded. Also, demand is gradually growing for LCDs in virtual reality (VR)/augmented reality (AR) markets. In addition, the scope of applications is likely to expand in the automotive-related industry as the use of vehicle-mount displays is becoming widespread due to the emergence of autonomous driving systems and "connected" vehicles. To date, Daicel's polymer has accumulated a solid track record as an essential material for high-performance displays thanks to its reliability, heat resistance and other distinctive properties. With this in mind, we will assiduously work to enhance our polymer's strengths, thereby developing products capable of meeting the latest customer requests and market needs.

Kouichi Takawaki
Chief Researcher
R&D Center, Organic Chemical Products Company,
Daicel Corporation



Daicel's optical films contribute to the realization of new display functions

Daicel has long engaged in the manufacture of film. As soon as it was founded, the Company was involved in pioneering research into the production of Japanese-made photographic film. Following the launch of its cellophane film business in 1932, Daicel became the first in Japan to succeed in developing and commercializing moisture-proof functional films, a property achieved thanks to the application of a coating. Since then, Daicel has released a variety of films, one after another, for use in wide ranging applications. Today, these films are widely used in the packaging of confectionary and other foods, as well as such commodities as disposable pocket warmers.

In the field of electronics, in the early 1980s Daicel was quick to realize the potential of indium-tin-oxide (ITO) transparent conductive film, which, in turn, became sought after as a touch panel material. Daicel thus moved on to introduce an integrated manufacturing line capable of producing related materials ranging from films to touch panels. Leveraging its proprietary raw materials and coating technologies, the Company is currently engaged in the development and manufacture of low-sparking anti-glare (AG) films for high-resolution displays in addition to various hard coat films capable of meeting requirements in diverse applications.



Touch panel electronics devices available in the 1980s (electronic notebook, etc.)

Examples of Daicel products in electronics field

- Anti-glare (AG) films
- AG films that give smooth tactile impression
- AG films with ultrahigh-haze surfaces
- Non-filler low gloss films
- Anti-reflection (AR) films
- AG/AR films
- Films for pen-input displays



Q What are some applications of Daicel films? Please point out a few examples of finished products in which these films are used.

We mainly serve personal computer (PC), touch panel and monitor manufacturers. In recent years, we began gaining customers in the fields of medical displays and gaming PCs, both of which have demanding requirements for resolution and visibility. Thanks to the solid reputation we have earned, the ever-expanding applications now include digital signage (electronic advertisement) systems, monitors for aircraft and such educational equipment as pen-input tablets for students, electronic chalkboard systems used in classrooms and electronic dictionaries.

Moreover, our films are widely used in various types of vehicle-mounted displays. In step with advances in automotive electronics, LCDs are replacing conventional driver's seat meters and instrument displays, audio equipment interfaces and car mirrors while a growing number of car navigation systems are equipped with large size, high resolution touch panel displays. Because of this, film makers are called upon to meet needs for diverse functions for an even broader range of applications. Therefore, we are stepping up efforts to develop and market films with a variety of functions to satisfy these needs.

Akio Kojima
Group Leader
Functional Films Group, New Business Development Dept.,
Daicel Corporation

Note: His title was current at the time of the interview.



Q Given their expanding applications, could you elaborate on what functions these films are expected to provide?

The aforementioned optical films are expected to meet certain standards for visibility and strength in general. Also, we are asked to produce films that provide additional comfort for device users. With these needs in mind, Daicel manufactures an array of unique films designed to meet specific customer requests. To help enhance display visibility, we provide AR films with natural color tones as well as AG films made employing our proprietary phase-separation technologies. To help enhance display strength, we supply super hard coat films, which boast both high hardness (9H) and capability to withstand repeated buckling, in addition to anti-abrasion films that never sustain surface damage even when rubbed by steel wool. We are, of course, hard at work to help enhance user comfort. For example, we produce films capable of providing a smooth tactile impression much as if touching silk. By employing our phase separation technologies, we can better control the bumps and texture of the film surface. We also manufacture pen-input touch display films that provide a user experience akin to writing on paper with a pencil.

Q Please elaborate on phase separation technologies. How did these technologies enable Daicel to produce films for a variety of applications?

Phase separation is one of our key technologies. More than 20 years ago we initiated relevant research and, in the mid-2000s, we succeeded in applying these technologies to become a supplier of AG films for use in a then popular type of LCD TV.

Building on this success, we have nurtured AG films into one of Daicel's key offerings. Conventionally, AG films with bumpy matte surface finishing are made by mixing fine particle fillers. However, when these films are used in a high resolution display, fine particles cause display light to deflect and end up generating more sparking phenomenon. Our phase separation technologies make it possible to control surface bumps without using such fine particles. Accordingly, films made using these technologies are capable of preventing sparking while contributing to clear image rendering. Thanks to these functions, our film is recognized as an excellent material for large, high-resolution digital signage often used outdoors because it effectively reduces reflection caused by external illumination. Along with these technologies, Daicel boasts a number of raw materials that the Company is uniquely capable of developing. These strengths, I believe, help us differentiate ourselves from competitors.

Benefits attributable to the use of phase separation technologies

Mechanism by which film produces glare

Bumps created by fillers mixed into a film act as lenses, deflecting light and leading to uneven brightness



An AG film with superior anti-glare functions

Easy to watch, sparing viewers from eyestrain



Responsive to high resolution displays (up to 600dpi)



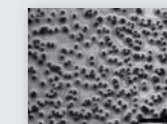
A magnified photo reveals mesh-shaped surface patterns produced via the application of the phase separation method.

A conventional AG film

Hard to watch due to glare on the display



Image detail is blurred.



A magnified photo reveals "sea islands" produced using the fine particle dispersion method.

These technologies thus help reduce glare while enhancing durability. When the resulting product is used in self-illuminous displays, such as organic EL displays, and micro LED televisions, its anti-glare property becomes even more notable.

Q What's the outlook for the future?

We are aggressively engaged in the development and marketing of materials for vehicle-mount displays based on the conviction that Daicel can leverage its strengths in this field. At the same time, we expect various types of displays to be introduced in the field of educational equipment. Furthermore, we are aware of a variety of demands for new functions, such as insulation from electromagnetic waves emitting from electronic devices, special displays for clean energy production units and customized finishing aimed at producing matte surfaces. We have already developed products equipped with these functions. Having undergone client evaluation, some of these products have already been put into practical use.

In addition, we will proactively partner with external corporations with technological strengths and engage in business alliances with an eye to executing M&A. We will also pursue global expansion in a proactive manner by, for example, securing footholds in such emerging markets as China.

Wafer level lenses made only using resin are expected to help realize a smart society

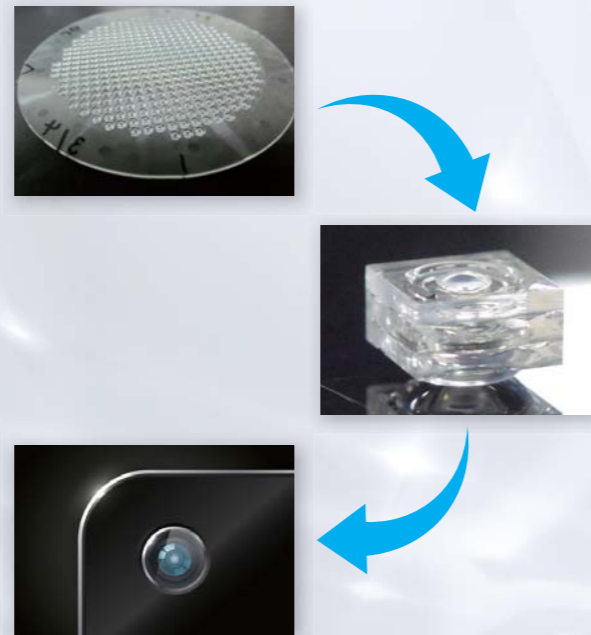
In recent years, demand has been growing for digital imaging and sensing equipment in the fields of smartphones, automobiles and IoT systems. Having developed lenses specifically designed for such equipment, Daicel has become the first in the world to succeed in commercializing wafer level lenses made only using resin.

Daicel has been involved in the development of wafer level lenses since 2011. Today, the Company is taking advantage of its strengths in polymer design and molding technologies to manufacture thin, small-size lenses equipped with superior heat resistance.



Wafer level lens production facilities are isolated in a clean room to thoroughly minimize the possibility of contamination by foreign matter.

Examples of wafer level lens applications



Daicel technologies make it possible to meet the need for wafer level lenses with unprecedented functions

Employing its proprietary UV/thermal hardening transparent materials and imprint molding technologies, Daicel made it possible to efficiently produce lenses with a unique shape and functions, such as outstanding heat resistance and responsiveness to reflow soldering, thus meeting the need for products that could not have been created using the conventional injection molding method.

	Conventional method	Daicel's solutions	
Technologies	Injection molding using thermoplastics	Imprint molding using proprietary UV/thermal hardening transparent resin	
Minimal thickness	From 200 to 300 microns	Less than 100 microns	Ultra thin
Compactness/ Complex shape	Significantly restricted in terms of size and shape	Capable of equipping lenses with sharp edges, thickness deviation, and ultra-fine and complex shapes	Ultra compact/ complex shape
Heat resistance (to be responsive to reflow soldering*)	Low (not suited for reflow soldering)	High (suited for reflow soldering)	Superior heat resistance
The number of lenses to be created per round of molding	Approximately 10 to 20	Approximately 1,000 or more	Mass production

* Soldering process that temporarily attaches a solder paste to each component and then applies heat (e.g. 260°C) in a high temperature reflow oven to melt the solder and permanently connect joints.

Q Please explain the features of wafer level lenses.

Wafer level lenses are manufactured by producing a wafer array and cutting it into a number of lens pieces. Conventional injection molding produces only 10 to 20 pieces per round of molding, but using this "lens array wafer" method boasts significant advantages including lens output of 1,000 or more per molding round while allowing for the manufacture of thinner and smaller lenses with fine and complex shapes. Based on this method, Daicel succeeded in developing wafer level lenses using only resin.

Q Daicel is said to be the first to develop and mass-produce lenses of this kind. What do you think are the factors behind this success?

As a chemical manufacturer, Daicel boasts unparalleled strength and expertise in manipulating the characteristics of thermal hardening resin. Leveraging this strength, the Company committed itself to developing molding technologies and creating an optimal resin material for wafer level lenses. I believe this was the most significant factor contributing to our success. In addition, applying new technologies to mass-production requires the development of relevant production equipment. We therefore worked in close collaboration with production equipment manufacturers to create dedicated molding machines. In short, behind this success stands Daicel's fundamental technologies associated with material design, as well as its efforts to achieve molding process breakthroughs and create dedicated molding machines. These were, I believe,

factors that helped the Company to become the first in the world to commercialize lenses of this kind.

Of course, we are deeply thankful for the dedication of the individual staff members and the cooperation of our partner companies.

Q Could you provide some examples of typical applications for wafer level lenses?

Having initiated mass production, we began supplying wafer level lenses for use in authorization equipment and stroboscopic lamps installed in smartphones, tablets and laptops. Moreover, our lenses are expected to be used in a growing number of IoT-related machines. With this in mind, plans call for launching a mass-production line for lenses specifically designed for IoT equipment by the end of fiscal 2018.

Q What's your outlook for the future?

We pay close attention to demand for lenses used in sensing equipment, especially three-dimensional (3D) sensing systems, believing that this field holds significant future potential. We also expect growing demand for lenses driven by the emergence of next-generation smartphones equipped with enhanced facial recognition systems and high-performance cameras, in addition to new smartphone functions in conjunction with 3D projection mapping and AR/VR devices. Moreover, we anticipate growing demand in such fields as vehicle-mount devices, industrial machinery and medical devices. We will strive to create lenses that will be adopted by a growing number of customers in these fields, thereby earning significant market recognition.



Takahiro Iwahama
Group Leader
Optical Materials Group, New Business Development Dept.,
Daicel Corporation



Image Analysis System transforms our operations at manufacturing frontlines

—Our initiatives to improve product quality and product competitiveness by employing cutting-edge IoT and AI-driven technologies—

Daicel is constantly changing. At the same time, we maintain unwavering commitment to manufacturing safety and quality. Today, manufacturers face growing demand for timely solutions capable of meeting the latest needs arising with the globalization of their operations. This feature introduces initiatives we are undertaking to further improve product security and to maintain and strengthen competitiveness amid this business environment.

Our responsibilities as a manufacturer enabling life-saving equipment

Daicel manufactures inflators (gas generation devices) that serve as the essential component of automobile airbag systems. In order to firmly save the lives of passengers, airbags must inflate within milliseconds after a collision is detected by sensors. Inflater manufacturers are necessarily equipped with sophisticated technologies in addition to a robust production structure capable of steadily supplying high quality products. As one such manufacturer, Daicel is committed to ceaselessly endeavoring to improve product quality and operational efficiency. To this end, the Company partnered with Hitachi, Ltd. to develop and introduce a new IoT/AI-based image analysis system at Daicel's Harima Plant (Tatsuno City, Hyogo Prefecture), one of its key inflator production bases.

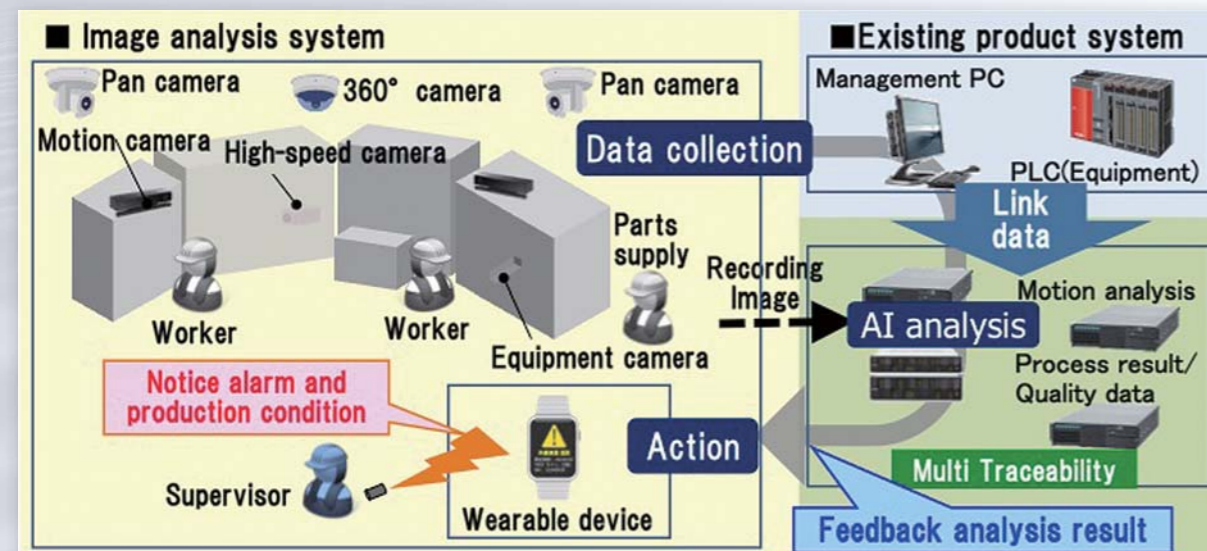
Product quality assurance by "all point management," instead of "representative management"

To date, we have been assiduously working to develop a framework that prevents operational mistakes and minimizes the impact of a failure before it becomes a major incident. These efforts involved the visualization of expertise of well-experienced operators and the standardization of operation

processes. We have also pushed ahead with the standardization of our operational procedures. These sorts of efforts are unceasing as room for improvement will always remain. Even if a robust employee training system is developed and confirmation and guidance of operation is ensured, human mistakes would not be reduced to zero. One study undertaken by the Ministry of Land, Infrastructure, Transport and Tourism, found that 35% of recall incidents reported during fiscal 2015 were due to product defects caused by failures in operational process, including human errors.

Addressing these issues, Daicel and Hitachi, Ltd. began verification testing of a new image analysis system in December 2015, with the aim of creating an operational environment that helps operators work with confidence and prevent mistakes. In June 2016, the system was introduced into production lines at Daicel's Harima Plant. Bringing together the expertise that Daicel has amassed over the long course of its manufacturing operations and Hitachi's cutting-edge image analysis technologies, this system is capable of consistently monitoring the status of operations, facilities and materials via images captured by multiple cameras installed along production lines. This made it possible to closely manage the quality of every product unit being manufactured, instead of inspecting samples on behalf of the entire lot. With this upgraded quality assurance structure, these production lines are now capable of "all point management" precisely controlling product quality on the basis of serial number, rather than "representative management," assuring the quality of a group of products based on lot number. Moreover, the AI-based analysis of a massive volume of image data helps us spot the types of manual operations most susceptible to mistakes (and most in need of improvement), determine optimal conditions for facility operations and enhance overall operational efficiency.

Image analysis system overview



Could you tell us about the changes you've experienced in frontline manufacturing operations since the introduction of the new system?

It is believed that the troubles often occur during the assembly process when an operator, material or machine is replaced or when operational procedures are amended. We call it "4M," as changes in "man," "material," "machine" and "method" lead to the greater likelihood of failure. In order to prevent failures, we therefore maintain a firm grip on instituting any of these changes. We hold this to be a matter of utmost importance. Even though supervisors are expected to play key roles in managing changes taking place at manufacturing sites, we could not manage every single change, especially tiny ones such as irregular behaviors, occurring at "blind spots" where supervisors' eyes could not reach.

Following the introduction of this system, cameras installed at manufacturing sites are used to confirm operational processes on behalf of supervisors. The AI system analyzes images of the action performed by the operators. As soon as an irregular behavior is detected, the supervisor is immediately notified of the incident via a wearable device, which issues an alarm and helps spot irregularities at the earliest stage. Furthermore, problems in facilities and materials can now be detected far earlier than when detection relied on human observation alone. The new system can detect irregularities at an early stage by capturing images of the manufacturing process by machines and robotic equipments which cannot be tracked by human eyes, and carrying out AI-based difference analysis by comparing them with the images during normal conditions.

Preventing failures via the use of an image analysis system sounds like quite an innovative management method. What factors did you focus on in the course of introducing this system?

We wanted the various cameras supporting the system to serve as "buddies" for operators so that our staff members would be relieved from undue anxiety of deviating from correct procedures and making mistakes. Therefore, we

engaged in intensive discussion to determine the types of cameras to be installed and their locations. More specifically, we began by reviewing take-aways from incidents we experienced in the past and clarifying issues to be addressed. We then went on to determine critical points in the entire production line while identifying the type of process and operation that needs to be captured by cameras and monitored. We have thus drawn up a system layout in which multiple cameras are arrayed along key manufacturing processes in the best positions to detect irregularities.

Please share your future plans for rolling out this system.

Efforts are now under way for a horizontal rollout of this system at the Daicel Group's six overseas plants. These efforts began with the installation of the system at Daicel Group production sites in China and South Korea. I believe that harmonizing the system's features with local production line characteristics, as well as each staff's approach, is the key to successfully introducing this system in overseas manufacturing bases. We will also endeavor to enhance productivity by analyzing accumulated image data. We have long been striving to enhance our operational productivity by, for example, introducing the Toyota Production System (TPS) and by facilitating the sharing of the expertise of well-experienced operators. Now, we expect this system to provide us with new insights that help us achieve further improvements. As the system performs AI-based analysis on the enormous amount of image data covering facilities and workers in operation, we are looking forward to seeing the system serve as a powerful tool capable of supporting frontline operators.

<https://www.daicel.com/data/news/0000449-1.pdf>



An example of the sensing system in action and how the image analysis system monitors the action of frontline operators



Kazunobu Okada
General Manager
Mechatronics Technology Division,
Production Technology Headquarters,
Daicel Corporation

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 FY2018/3 R&D Activities

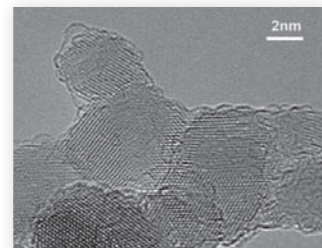
Consolidated R&D expenses amounted to ¥18,843 million. The Group has 1,183 employees, representing 10% of its total employees, engaged in R&D activities.

■ Topics

As part of its business-academia collaboration initiatives, Daicel and Osaka University founded the Joint Research Laboratory of Impulse Science in April 2017. This venture aims at elucidating the fundamentals of impulse phenomena emerging from the detonation of high-energy materials as well as the development of application technologies based on the clarified fundamentals.

Daicel has long been engaged in manufacturing that supports a safe and secure society through the provision of automobile air-bag inflators (gas generation devices) and other pyrotechnic products which use high-energy explosive materials. From the development and production of pyrotechnic devices, we have gained technological experience to control impulse phenomena within milliseconds—the key element in the functions of these products. Impulse phenomena taking place in ultra-short time spans and tightly constricted spaces are expected to lead to a number of new discoveries, including methods to synthesize new materials and instantly move micro objects through narrow paths.

As Daicel remains fully committed to providing solutions aimed at contributing to safety and peace of mind in manifold fields, we engage in meeting calls for elucidating the fundamentals of impulse phenomena and the development of applied technologies, novel materials and simulation techniques.

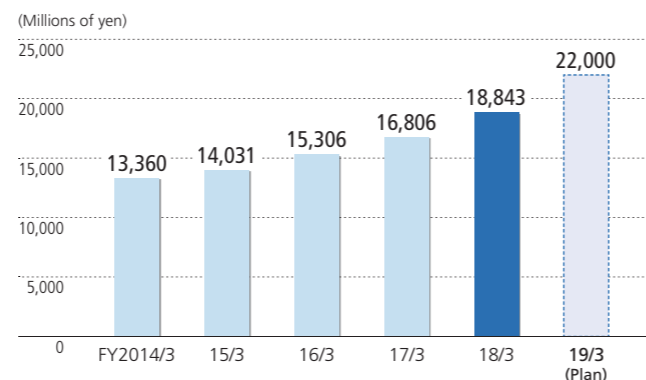


A picture of a nano diamond created through the detonation of a high-energy material as part of basic research



A prototype drug administration device, developed as part of basic research, employs explosives engineering technologies to deliver medications into living tissues

Research and Development Expenses



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"> Introducing process innovation technologies at cellulose acetate and cigarette filter tow manufacturing facilities to enhance product competitiveness Developing new applications and products by utilizing the characteristics of cellulose 	1,472
Organic Chemicals	<ul style="list-style-type: none"> Research into improving acetic acid manufacturing technologies Developing and commercializing new products based on peracetic acid derivatives as well as organic functional products for use in cosmetics and electronic materials Development of new chiral columns and products for use in separation and purification Development of resin materials and functional solvents for use in printed electronics in addition to resist monomers for ArF lithography Adapting process innovation technologies to manufacturing plants in order to strengthen competitiveness of existing products 	4,181
Plastics	<ul style="list-style-type: none"> Enhancement of quality and environmental suitability of engineering plastics Development of high-performance resins and polymer alloys Development of polystyrene-based products 	3,592
Pyrotechnic Devices	<ul style="list-style-type: none"> R&D on new gas generants and new inflators for automobile airbags Development of products related to pilot emergency-escape systems 	3,551
Others	<ul style="list-style-type: none"> Development of separation membranes and separation systems for water treatment equipment 	156
Corporate	<ul style="list-style-type: none"> R&D on creation of new businesses and basic research 	5,889

The Responsible Care Initiatives

Basic Policies for Responsible Care

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.

Responsible Care (RC) refers to activities undertaken by businesses that engage in the manufacture or handling of chemicals to proactively preserve the environment and ensure health and safety at every stage of their operations—from product development, manufacture, distribution and use to disposal. With chemical industries around the world participating in these efforts, the

disclosure of results and dialogue with society are also positioned as key RC activities.

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

The Daicel Group's Basic Policies for Responsible Care

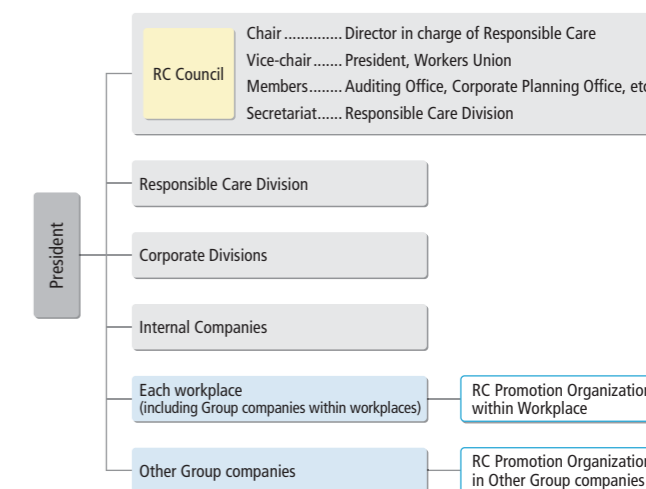
- Based on the management policy, we will comply laws and regulations, strive to safeguard the environment, health and safety. For this purpose, we share the specific implementation plans among all the employees and put them into action.
- We will strive to continually improve environmental, health and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

Implementation System for Responsible Care

At Daicel, the RC Council is in place to continuously and steadily promote RC activities. This body is chaired by a director placed in charge of RC by appointment from the president, who bears ultimate responsibility for RC activities. The council members include the president of the workers union and heads of administrative divisions appointed by the chairman. The council thus discusses and determines such matters as basic policies and targets for RC activities while engaging in auditing in accordance with in-house rules on RC audits.

To recognize outstanding contributions to RC activities, the RC Council selects recipients for in-house prizes that are given to both individuals and business units at the Daicel Group Responsible Care Promotion Conference. Prizewinners are chosen from applicants from all across the Group after undergoing a screening process based on the guidelines the RC Council puts in place to evaluate the activities and determine best practices each fiscal year.

Responsible Care Promotion Framework



Targets, Results and Assessments of RC Activities

		FY2018/3 Targets	FY2018/3 Results	Assessment	FY2019/3 Targets
Environmental Preservation	Global warming countermeasures	<ul style="list-style-type: none"> Promote energy conservation to achieve the FY2021/3 targets set forth in the Commitment to a Low Carbon Society. Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by Energy Saving Act). 	<ul style="list-style-type: none"> Achieved a reduction of approximately 400,000t-CO₂ against the GHG reduction target for FY2021/3 (Business as Usual basis). Reduced energy intensity 6 percentage points from the previous fiscal year. 	○	<ul style="list-style-type: none"> Promote energy conservation to achieve the FY2021/3 targets set forth in the Commitment to a Low Carbon Society. Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by Energy Saving Act).
	Other Group Companies (note)	<ul style="list-style-type: none"> Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by Energy Saving Act). 	<ul style="list-style-type: none"> Failed to meet the target of reducing energy intensity by 1% or more due to an increase in energy consumption. 	×	<ul style="list-style-type: none"> Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by Energy Saving Act).
Waste reduction and recycling	Daicel	<ul style="list-style-type: none"> Aim for a recycling rate of 75% or more. Reduce landfill indices to not more than 16% of levels recorded in FY2001/3 to achieve our FY2021/3 target ahead of schedule. 	<ul style="list-style-type: none"> Recycling rate declined to 70% due to a decrease in the volume of waste plastics being sold. Reduced landfill indices to 14% of levels recorded in FY2001/3, achieving our FY2021/3 target ahead of schedule. 	△	<ul style="list-style-type: none"> Aim for a recycling rate of 75% or more. Reduce landfill indices to not more than 16% of levels recorded in FY2001/3 to maintain the figure at or below the FY2021/3 target.
	Other Group Companies	<ul style="list-style-type: none"> Maintain zero-emission status at all business sites. 	<ul style="list-style-type: none"> Maintained zero-emission status at all business sites. 	○	<ul style="list-style-type: none"> Maintain zero-emission status at all business sites.
Occupational Health and Safety	Daicel	<ul style="list-style-type: none"> Aim for zero occupational accidents (placing particular focus on preventing injuries due to encounters with hazardous substances and falls). Ensure compliance with rules and the proper implementation of basic operations. Implement hazard simulation training at each plant. 	<ul style="list-style-type: none"> 12 occupational accidents (12 in the previous year), not including heat stress and falls in the course of construction and manual operations associated with production. However, the number of injuries due to encounters with hazardous substances increased. Promoted thoroughgoing compliance with rules and basic operations by, for example, issuing the 3rd edition of the <i>Essence of Safe Operations</i>, a leaflet summarizing basic operations of Daicel production sites. Launched TRC (Training Center) branch offices at Harima, Ohtake and Hirohata plants, thereby initiating hazard simulation training at these plants. 	△	<ul style="list-style-type: none"> Aim for zero occupational accidents (placing particular focus on preventing serious incidents, such as encounters with hazardous substances and heat stress). Utilize TRC branch offices at each plant to enhance the content of hazard simulation training.
	Other Group Companies	<ul style="list-style-type: none"> Aim for zero occupational accidents (placing particular focus on preventing injuries due to encounters with hazardous substances and falls). Share information regarding 3S, crisis-identification¹⁾ and hazard prediction activities between companies. Roll out activities aimed at learning from the lessons of the past. 	<ul style="list-style-type: none"> 3 occupational accidents (4 in the previous year), not including injuries due to falls or encounters with hazardous substances. Held casual workplace meetings about safety and shared best practices and other information regarding 3S, crisis identification and hazard prediction activities between Group companies. Implemented educational programs centered on learning from the lessons of the past while verifying the effectiveness of recurrence prevention countermeasures. 	△	<ul style="list-style-type: none"> Aim for zero occupational accidents (placing particular focus on preventing serious incidents, such as injuries due to encounters with hazardous substances and falls). Enrich the content of these workplace meetings by, for example, grouping attendees by type of manufacturing operations. Continue to roll out activities aimed at learning from the lessons of the past.
Process Safety and Disaster Prevention	Daicel	<ul style="list-style-type: none"> 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 BCPs²⁾ for key products based on BCP guidelines. Step up security measures using unified standards for the entire Company. 	<ul style="list-style-type: none"> One serious fire incident and seven minor incidents. Systematically implemented measures to upgrade aging facilities. Stepped up and measures to prevent trouble attributable to human error by, for example, displaying lessons from past incidents. Established BCP guidelines and ensured that every employee is versed in their content. Systematically strengthened security measures in accordance with security guidelines. 	△	<ul style="list-style-type: none"> Aim for zero accidents involving fire, explosions and leaks. Systematically address issues associated with safety infrastructure and corporate culture. Enhance BCPs for key products. Strengthen security measures in accordance with security guidelines.
	Other Group Companies	<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> Addressed priority issues based on action plans formulated by each Group company. Implemented recurrence prevention measures in response to the occurrence of four minor incidents. Systematically strengthened security measures in accordance with security guidelines. 	△	<ul style="list-style-type: none"> Aim for zero accidents involving fire, explosions and leaks. Systematically address priority issues for each Group company. Step up security measures at each Group company in accordance with security guidelines.
Distribution Safety		<ul style="list-style-type: none"> Aim for zero logistics accidents at Daicel Logistics Services and partner companies. Reduce logistics-related issues at partner companies by 30% from the previous fiscal year. Improve energy intensity by at least 1% (based on the calculation method in the Energy Conservation Act). 	<ul style="list-style-type: none"> Maintained the status of zero logistics accidents at Daicel Logistics Services and partner companies. Reduced logistics-related issues at partner companies by 21% from the previous fiscal year. Improved energy intensity index by 0.3 points. 	△	<ul style="list-style-type: none"> Aim for zero logistics accidents at Daicel Logistics Services and partner companies. Reduce logistics issues at partner companies by 20% from the previous fiscal year. Improve energy intensity by at least 1% (based on the calculation method in the Energy Conservation Act).
Chemical Safety Initiative	Response to REACH ³⁾ regulations	Secure compliance with REACH regulations in accordance with their time frame.	Promoted registration of products being exported in annual volumes of 1 ton or more based on REACH's regulatory time frame.	○	Complete registration of products being exported in annual volumes of 1 ton or more based on REACH's regulatory time frame.
	Initiatives to secure compliance with other chemical regulations	Remain apprised of the latest developments and trends in chemical regulations and act appropriately to secure responsiveness to such regulations.	Regularly researched information on the revision of chemical regulations in Japan and overseas while holding in-house meetings to share such information.	○	Remain apprised of the latest developments and trends in chemical regulations and act appropriately to secure responsiveness to such regulations.
	Management of chemical substance information	Register new chemical products with the D-CLik ⁴⁾ database and update product information based on additional testing results.	Registered new chemical products with the D-CLik database and updated this information based on additional testing results.	○	Register new chemical products with the D-CLik database and update product information based on additional testing results.
	VOC ⁵⁾	Achieve VOC emissions of not more than 40% (medium-term target) of levels recorded in FY2001/3.	VOC emissions were 67% of levels recorded in FY2001/3.	×	Achieve VOC emissions of not more than 40% (medium-term target) of levels recorded in FY2001/3.
PRTR ⁶⁾	Maintain the level of PRTR substance emissions to not more than 40% (medium-term target) of levels recorded in FY2002/3.	PRTR substance emissions were 23% of levels recorded in FY2002/3.	○	Maintain the level of PRTR substance emissions to not more than 40% (medium-term target) of levels recorded in FY2002/3.	

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

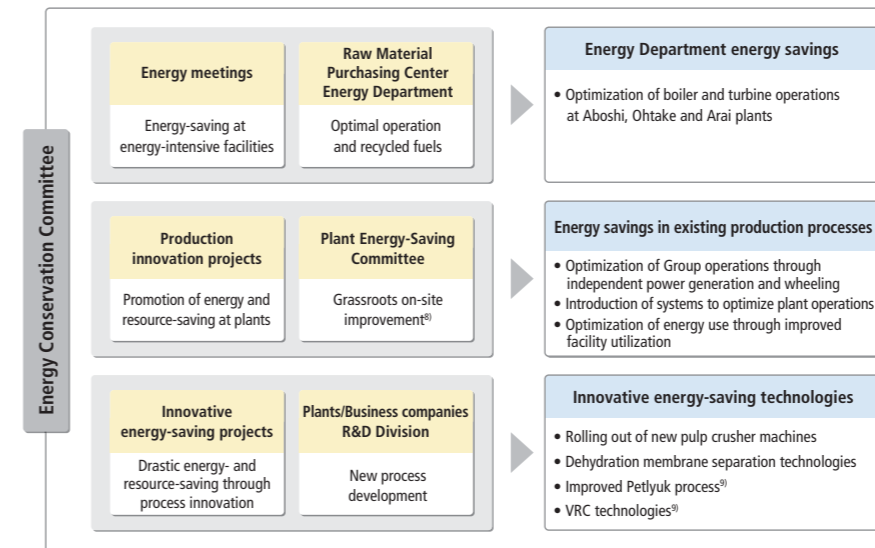
What is...?

- 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.
- 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.
- REACH:** The Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) regulations mandate that producers must register their chemical products with the European Union (EU) and conduct safety assessments, restrict their use, and control permits for their use.
- D-CLik:** A unique database Daicel has developed to manage chemical substance information.
- VOC:** VOC stands for Volatile Organic Compounds. Some of the most well known examples include toluene, xylene and ethyl acetate.
- PRTR:** PRTR stands for Pollutant Release and Transfer Register. This is a system where business operators calculate the amount of chemical compounds emitted into the environment or transferred off-site for treatment or disposal during production, usage or storage in Japan and notify the government of these figures.

Environmental Preservation

Global Warming Prevention

The Daicel Group has an Energy Conservation Committee chaired by the director in charge of Responsible Care. Operating directly under the president, the committee is spearheading across-the-board efforts to reduce energy consumption and CO₂ emissions 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. All relevant divisions are collaborating in these efforts that transcend organizational boundaries.



In FY2018/3, the energy consumption rate index improved approximately six percentage points year on year. This was mainly attributable to an increase in the volume of used tires mixed into boiler fuel at the Ohtake Plant and the effect of newly installed gas turbines that are now in full operation at the Arai Plant. Moreover, the emissions intensity index, which is based on CO₂ emissions attributable to energy consumption, improved year on year. The Company has thus achieved the target of improving energy intensity 1% or more annually as mandated by Japan's Act on the Rational Use of Energy (the Energy Saving Act).

Daicel is a participant in the Nippon Keidanren's Commitment to a Low Carbon Society, which sets forth specific targets to be met by FY2021/3. Based on this commitment, the Company achieved its target of curbing CO₂ emissions to 1,580,000 tons ahead of schedule.

As for other Group companies, energy consumption volumes grew compared with the previous fiscal year. On the other hand, the figures recorded at overseas Group companies (note) stayed virtually flat year on year.

Looking ahead, the Group will thoroughly review production processes, introduce new technologies, and optimize energy consumption across the board, thereby further reducing its energy use and CO₂ emissions.

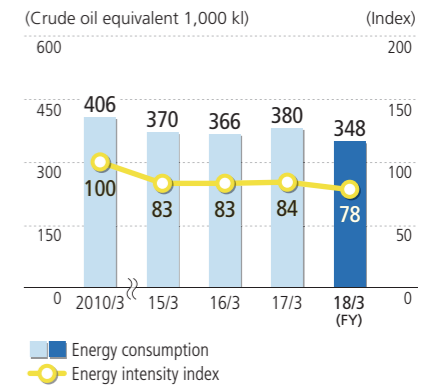
Note: The scope of Daicel Group organizations included in the reporting of environmental and occupational safety and health performance data disclosed as part of Responsible Care Initiatives is as follows. Daicel: Business sites of Daicel Corporation (plants and research institutes, as well as the business 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/responsible/goals-and-results.html>

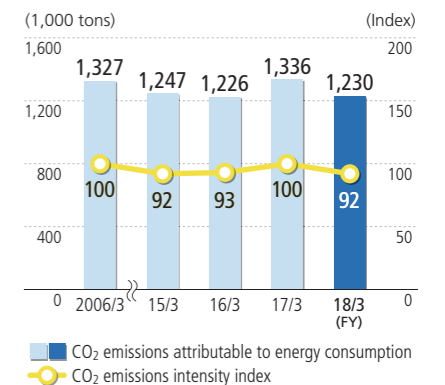
What is...?

- 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 on-site improvement:** 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.
- Improved Petlyuk process and VRC technologies:** These both refer to technologies to recover waste heat. For details about these technologies, please also see related content on Daicel's corporate website. <https://www.daicel.com/en/csr/responsible/global-warming.html>

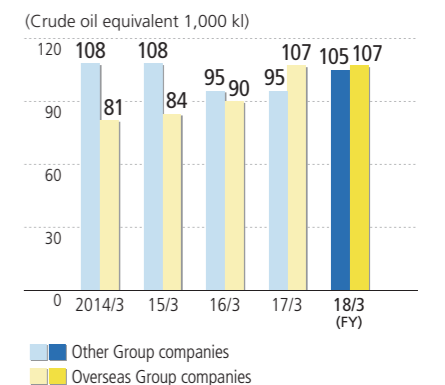
Daicel's Energy Consumption and Intensity Index⁷⁾



Daicel's CO₂ Emissions Attributable to Energy Consumption and CO₂ Emissions Intensity Index



Other/Overseas Group Companies' Energy Consumption



Occupational Health and Safety

Records of Occupational Accidents

In FY2018/3, Daicel and other Group companies recorded a total of 15 occupational accidents consisting of six accidents with lost workdays and nine accidents without lost workdays. Although the total count was down one accident year on year, the number of accidents with lost workdays increased by two compared with the previous fiscal year.

We managed to reduce to zero the number of occupational accidents attributable to heat stress and falls in the course of construction and manual operations associated with production. This successfully reversed a trend in the previous fiscal year in which multiple instances of these accidents were reported.

Unfortunately, just like the previous fiscal year, the accidents included human injuries due to encounters with hazardous substances and those involving cuts and abrasions.

Safety Exchange Meetings for Group Members

As we did in the previous fiscal year, we held casual exchange meetings aimed at fostering unity throughout the Group and heightening safety awareness. With the labor union and management acting in collaboration, the meeting was held at DM Novafoam Ltd.'s Okayama Plant and attended by 18 forepersons and mid-level managers from Daicel production sites and four of other domestic Group companies. Each participant brought practical experience in 3S and other frontline safety assurance initiatives to the meeting, which allowed them to interact and exchange their insights.



Global Safety Meeting

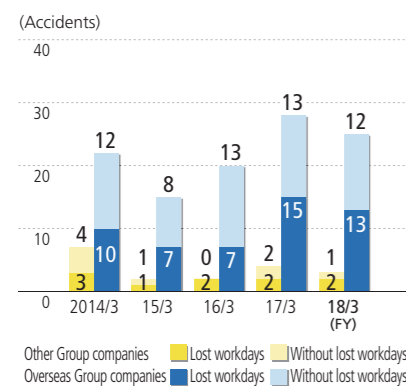
In FY2018/3, a Global Safety Meeting was held at the Innovation Park with 31 individuals in attendance. This number included those charged with supervising the Environment and Safety divisions at overseas business bases (namely DSSA,* SDI,* DSSE,* DSSC,* DSSK,* DSST* and DSTT*) as well as representatives from the Harima Plant, Daicel Pyrotechnics Ltd. and Daicel's Responsible Care Division. They exchanged opinions about such matters as the Basic Policies for Responsible Care, in-house standards for preventing occupational accidents, and the Group's performance in terms of environmental preservation and safety assurance while discussing progress in chemical management surveys requiring supplier cooperation. They also discussed the status of security measures in place at each business site.



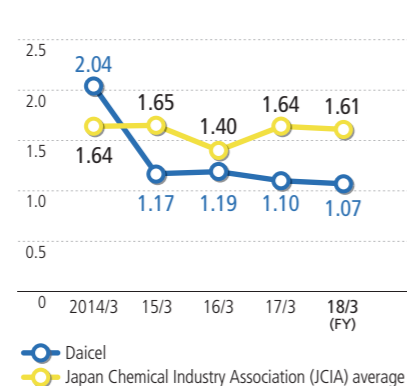
Initiatives to Prevent the Recurrence of Major Incidents

In FY2018/3, we proactively worked to prevent heat stress. To resolve this serious issue, health nurses, facility engineers, production staff and safety administrators at each plant engaged in concerted efforts in tandem with representatives from partner companies. They stepped up worksite patrols, provided employee education, utilized Wet Bulb Globe Temperature (WBGT) meters to carefully maintain the workplace environment, and ensured that workers operating in a high temperature environment maintained appropriate intake of salt and water. Thanks to these efforts, we successfully reduced to zero the occurrence of heat stress in the course of construction and manual operations associated with production.

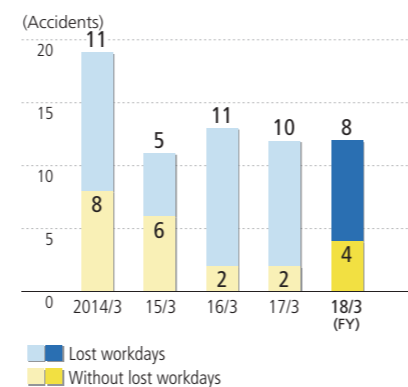
Number of Occupational Accidents at Other/Overseas Group Companies:



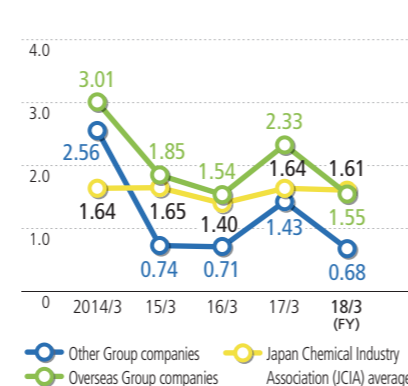
Occupational Accident Frequency Rate at Daicel: with/without lost workdays (including partner companies on plant premises)



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



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



Process Safety and Disaster Prevention

In FY2018/3, we experienced a fire at the Ohtake Plant.

The accident, fortunately involved no human injuries or environmental damage, such as a leakage of hazardous substances into the sea. However, the accident created trouble for some stakeholders, including our customers, the surrounding residents and communities, and officials of the relevant authorities and government agencies. In addition, a total of 11 minor incidents, including leakage, occurred within the premises of our business sites. Having investigated the causes of the fire and other incidents, we have implemented measures to prevent recurrence on various fronts, including installing new equipment and reviewing organizational structures and operational procedures.

Looking ahead, we will step up these preventive measures as well as other initiatives to promote process safety, disaster prevention and environmental preservation, with the aim of mitigating risk associated with our manufacturing operations.

Strengthening BCP Management and Security Measures

In FY2018/3, we established guidelines for business continuity plans (BCPs) for all Daicel Group companies. These guidelines encompass such matters as overarching policies for BCPs, the scope of operations to be covered by BCPs and the classification of each facility. Employing these guidelines, we will push ahead with initiatives to enhance our capabilities to ensure continuing operations.

In addition, systematic efforts have been made to strengthen security measures in place at Daicel plants by, for example, reinforcing perimeter fences, introducing access control systems at the gates and taking other new steps to prevent unauthorized entry into our business sites. Moreover, other Group companies began considering the introduction of additional security measures.

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 repeatedly train our employees so that, in the event of an emergency, they are well versed in lifesaving and first-aid practices, capable of preventing spillover effects from disasters, and able to efficiently collaborate with relevant authorities and government agencies. Complementing these efforts, Daicel also periodically conducts Group-wide disaster countermeasure exercises that address the possibility of a widespread disaster.

As in the previous fiscal year, we conducted one such exercise without giving participants advance warning. In this manner, we ensured that exercises were undertaken on as practical a basis as was possible.



*Notes

- DSSA: Daicel Safety Systems America Holdings, Inc. Daicel Safety Systems America, LLC Daicel Safety Systems America Arizona, Inc., etc.
- SDI: Special Devices, Inc.
- DSSE: Daicel Safety Systems Europe Sp.z o.o.

- DSSC: Daicel Safety Systems (Jiangsu) Co., Ltd.
- DSSK: Daicel Safety Systems Korea, Inc.
- DSST: Daicel Safety Systems (Thailand) Co., Ltd.
- DSTT: Daicel Safety Technologies (Thailand) Co., Ltd.

Quality Assurance


The Daicel Group Conduct Policy clarifies our determination to “offer safe, high-quality products and services that satisfy and gain the trust of our customers.” Each member of the Daicel Group promises to deliver safe and quality products which can be used with assurance by the customer.

■ Quality Management System Structure in Place at Each Plant

With the aim of supplying high quality products that satisfy customers and meet their needs, all of the Daicel Group’s plants have acquired quality management system certifications under such international standards as ISO9001 or IATF16949, based on ISO9001.

Each internal company is responsible for the quality of their products. Relevant officials from the Company’s plants and internal companies attend regular quality assurance meetings aimed at sharing requests and feedback from customers, as well as discussing how to maintain and improve product quality. As such, these officials are acting in close collaboration to operate the quality management system.

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

 >>> 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/other/declaration.html>

■ Across-the-Board Quality Assurance Initiatives

In FY2016/3, Daicel established the Quality Management Division. Operating directly under the president, the division is independent from corporate departments, 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.

Furthermore, in FY2017/3 Daicel established the “Quality Policy for Daicel Group,” which lays out ideal practices that must be embraced by all Group employees.


Through the aforementioned initiatives, we are ensuring that manufacturing divisions are subject to rigorous auditing while consolidating and analyzing quality management information across the board. With each division assiduously working to make improvements, we are pursuing a more robust quality assurance structure that better positions us to earn customer trust and confidence.

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.

 >>> To see the latest example of our efforts to improve product quality, please see the page 28 article, “Image Analysis System transform our operations at manufacturing frontlines—Our initiatives to improve product quality and product competitiveness by employing cutting-edge IoT and AI-driven technologies.”

Purchasing Activities

We shall comply with the following Basic Purchasing Policy when purchasing from suppliers, based on Daicel Group Conduct Policy, in keeping with courses of action intended to implement the Daicel Group’s basic philosophy.

■ Basic Purchasing Policy

1 Fairness & Rationality of Transactions

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

2 Legal Compliance and Confidentiality

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

3 Establishing Relationships of Trust

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


4 Adherence to CSR Initiatives

- We shall promote sustainable development with our suppliers through our activities for Corporate Social Responsibility and value improvement.

We established the Daicel Group CSR Purchasing Guidelines because we expect our suppliers to take a proactive attitude for CSR activities. We determined to promote purchasing activities that place emphasis on CSR throughout our supply chain.

The Daicel Group CSR Purchasing Guidelines encompass the following items.

- 1) Compliance with laws, regulations and social norms
- 2) Respect for human rights and the working environment
- 3) Occupational safety and health
- 4) Environmental consideration
- 5) Sound business management
- 6) The pursuit of product quality and safety as well as improvement in technologies
- 7) Stable supply and flexibility to remain responsive to changes
- 8) Information security
- 9) Contribution to community and society
- 10) Promotion of CSR initiatives in which all supply chain constituents play their roles

 >>> For detailed information, please visit Daicel’s corporate website. <https://www.daicel.com/en/purchase/>

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.

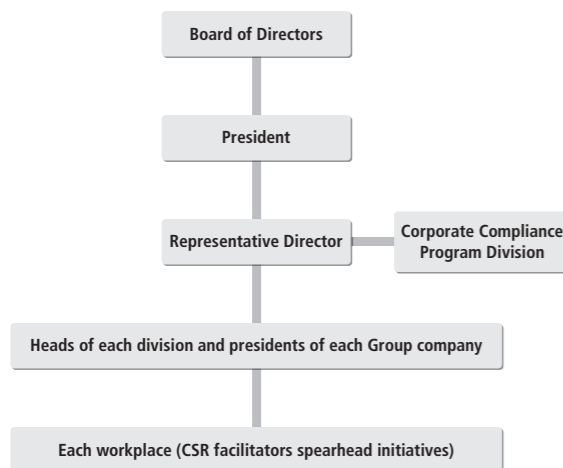
■ Corporate Ethics Management System

Adherence by each employee to corporate ethics is an essential management issue. Accordingly, the Daicel Group is promoting corporate ethics Group-wide. These efforts are not temporary measures, but 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 (reviews and assessments), act (improvement of past practices), plan, and do (CAPD) cycle. 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 a representative director of the Company as its Corporate Compliance Officer. Each Daicel department and Group company appoints a CSR Facilitator who spearheads activities related to corporate ethics.

Daicel's structure for promoting corporate ethics initiatives



■ 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. During this training, participants reconfirm the Company's concept of CSR, study examples of misconduct by Daicel Group as well as other companies, engage in discussions with fellow trainees and renew their awareness of the importance of corporate compliance.

Moreover, in conjunction with training for engineer to help acquire essential techniques for maintaining safe and stable operations (see page 42), we systematically implement legal compliance education programs.

■ 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, equivalent whistleblowing systems are being introduced at overseas Group companies as a basic platform to protect individuals who make reports and seek consultations.

Members of the Board of Directors and corporate auditors attend liaison meetings to receive regular updates on the status of the latest reports made via these whistleblowing systems, as well as measures being undertaken in response to these reports.

The number* of cases reported via the whistleblowing systems

FY2016/3: 16

FY2017/3: 16

FY2018/3: 31

* The total number of cases reported to the Corporate Compliance Program Division from informants across the Group; including cases where the existence of reported incidents had not been confirmed.

■ FY2018/3 Initiatives

FY2018/3 Groupwide Priority Objectives

Create a workplace where all members can

- 1) Visualize current work status, progress, problems, etc.
- 2) Voice one's awareness
- 3) Listen and Respond to other's opinions

The Corporate Compliance Program Division provided all employees at Daicel and its Group members in Japan and overseas with the rationale behind establishing these priority objectives.

In addition to corporate ethics initiatives planned and implemented by each department and company, the following initiatives were carried out by Daicel and its Group companies worldwide throughout the course of our first "Daicel Group Compliance Enhancement Period" designated as August and September in FY2018/3.

1. Small-group discussion

- ① Small-group discussion aimed at answering "why are the three priority objectives important for us?"

Participants were able to reflect on issues they might conceivably experience arising from poor information sharing, constraints on voicing one's opinion freely and a lack of sincerity in listening to others. They also objectively assessed the degree that these objectives are embedded in their workplaces.

- ② Case studies on "what if this misconduct happened in my workplace?"

Participants were directed to analyze the root cause of real-life corporate misconduct examples and discuss the potential occurrence of fraud at their workplace and the actions they would

need to take if it were recognized. Thus, these case studies provided participants with meaningful training.

2. Educational sessions

E-learning programs were provided, with the aim of keeping employees informed of such matters as the Basic Philosophy, the Daicel Group Conduct Policy, Daicel Code of Conduct, whistleblowing systems and other compliance issues.

3. "Senryu*" Contest

*Senryu: humorous seventeen-syllable poem

We encouraged Group employees in Japan to submit their own short "Senryu" poetry on compliance, then selected excellent pieces for prizes. Having received more than 700 submissions, we are convinced that this poetry award contest provided Group employees throughout Japan with good opportunities to reflect on compliance.

As we did in the previous fiscal year, we regularly uploaded a variety of compliance education materials to the intranet covering all Group companies in Japan and overseas. These materials included the latest news related to compliance, case studies aimed at facilitating group discussions, every-day examples of potential compliance violations depicted in four-panel cartoons, and compliance quizzes, were used effectively to facilitate casual compliance classes at workplaces.

In addition, staff at the Corporate Compliance Program Division tour all Daicel departments as well as Group companies in Japan and overseas. These staff members assist each department and Group company in the operation of a CAPD cycle for compliance initiatives, confirm the content of and progress in the implementation of corporate ethics and compliance activity plans, and exchange opinions on issues specific to each of them.

Initiatives undertaken by DCIC (China)

Daicel (China) Investment Co., Ltd. (DCIC), a subsidiary with 56 staff and operating in the China (Shanghai Waigaoqiao Free Trade Zone), serves as regional headquarters for Group companies in China as well as a local R&D base.

At DCIC, systematic compliance initiatives are under way, with the Corporate Support Dept. taking the initiative in holding quarterly corporate ethics seminars, distributing information aimed at raising compliance awareness via bulletin boards, carrying out special compliance campaigns during designated months, and providing introductory training programs for new recruits.



A corporate ethics seminar



Corporate ethics educational materials posted on a bulletin board

In addition to preparing educational materials based on translations of Japanese materials used at Daicel, DCIC develops its own educational materials tailored to include matters specific to Chinese industry. Moreover, DCIC distributes the materials it creates to other Group companies in China to help them educate their employees.

DCIC staff also visit regional Group companies in an effort to assist the companies with their corporate ethics initiatives. For example, they may help in formulating activity plans and assessing progress while exchanging opinions to provide advice and suggestions.

Looking ahead, we will strive to implement educational programs to encourage employees to act proactively to ensure compliance.

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 2017 Children's Chemistry Experiment Show

In October 2017, the Daicel Group participated in the 2017 Children's Chemistry Experiment Show held in Kids Plaza Osaka (Osaka Pref., Japan). With such industrial bodies as the Japan Chemical Industry Association acting as co-sponsors, this two-day event was a crowd-pleaser, attracting approximately 6,000 attendees, including children and their parents.



Examples of beads created via the experiment

We set up our booth to invite children to take part in an experiment aimed at creating beads through the reaction between alginate acid colored with fluorescent paint and calcium chloride. During the two-day period, more than 500 children participated in this experiment and had fun creating beads with their favorite colors.

Participating in Children's Science Festival

The Daicel Group participated in Children's Science Festival, an educational event held under the auspices of Myoko City, Niigata Pref., Japan. Our booth offered an experiment titled "Let's make



Daicel booth at Children's Science Festival

flowers bloom with an aqueous pen." The children used aqueous pens to draw on filter paper, which would then transform into flower-like patterns upon immersion in water. Thanks to our efforts to make experiment procedures easy to understand, approximately 100 children were able to experience the fun of chemistry.

Plant Tour at the Harima Plant

Fifth graders at Kochi Elementary School in Tatsuno City, Hyogo Prefecture, were invited to tour Daicel's Harima Plant as part of their school program. Although children at this grade usually learn the outline of automotive industry and related manufacturing process in line with their social study curriculum, the school asked the plant to allow students to tour its facilities with the aim of helping them understand what really goes on at production sites. Thus, a one-day tour was organized. We welcomed students to observe the plant's production line for inflators used in automobile airbags, be briefed about its parts storage facilities and take part in a hands-on experience program to glimpse the technical training of the plant staff. With a number of departments acting in collaboration, the tour was successful. The children were amazed and excited to find the plant facilities operating in their neighborhood were far bigger than they had imagined. And the many plant staff involved in the event appreciated the valuable opportunity to make a meaningful community contribution.



Children being briefed by Daicel staff at the Harima Plant

Volunteer Activities

Cleanup Activities Covering the Mountainous Area Surrounding Mt. Fuji (Polyplastics)

Eleven employees at Polyplastics Co., Ltd. participated in the Mt. Fuji Garbage Reduction Project, an initiative under the auspices of Shizuoka Prefecture aimed at cleaning areas surrounding Mt. Fuji. Overcoming struggles like collecting foul-smelling garbage, these volunteers were able to carry out their mission. They completely filled a light truck with various types of garbage abandoned along the roadside including PET bottles, empty cans, food containers and worn-out tires. Going forward, Polyplastics will proactively engage in social contribution initiatives that carefully address the needs of local communities, thereby fulfilling its responsibilities as a member of society.



Polyplastics employees who participated in cleanup 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.

Opinion Exchange Meeting and Cleanup Activities as Part of Community Engagement

The Kanzaki Plant of Daicel Value Coating Ltd. (DVC) is facilitating communication with local residents in various ways to ensure harmonious coexistence with neighboring communities. As it did in 2017, the plant held a periodic meeting to exchange opinions in 2017, inviting leaders of three neighboring community associations to attend the event. With representatives from the plant providing explanations of products it has developed and various initiatives it is undertaking, participants engaged in the frank exchange of opinions on these matters. In addition, in conjunction with a cleanup campaign carried out by local residents, plant staff also took part in cleanup activities simultaneously held at roads surrounding the plant and along the banks of the Kanzaki River.



Plant staff providing presentations to neighboring community association leaders at the opinion exchange meeting



Cleanup activities covering neighboring areas

Initiatives Undertaken by Group Companies Outside Japan

Members of the Daicel Group outside Japan are also active in community engagement, providing donations, participating in volunteer activities and maintaining dialogue with their neighbors.

Charity Campaigns Carried Out by DSSE (Poland)

Employees at Daicel Safety Systems Europe Sp. z o. o. (DSSE) participated in a variety of charity campaigns.

For example, ten DSSE employees took part in a charity marathon race to raise donations for the needy. This event regularly boasts more runners than any other similar event in Poland. Moreover, some 100 DSSE employees participated in a bicycle race organized to raise funds for a girl to receive proper treatment for an intractable disease. In addition to these voluntary participation, DSSE was a corporate supporter of this bicycle race. DSSE also signed up for Nobel Box, an initiative aimed at assisting the poor in their efforts to reclaim economic independence.



DSSE employees who took part in the charity marathon

"Christmas Angel" Program Undertaken by U.S.-Based Group Members (DSSA, DSTA and DSTP) (U.S.A.)

Over the course of the last three years, Daicel Safety Systems America (DSSA), Daicel Safety Technologies America (DSTA) and Daicel Safety Tube Processing (DSTP) have been helping run a "Christmas Angel" program at schools in Ohio County, Kentucky. This program aims to give children Christmas gifts or living necessities that, due to such reasons as economic hardship, would be beyond their household means. In FY2018/3, employees at these three Kentucky-based Group members acted as anonymous angels and donated gifts for 87 children attending five local schools.



"Christmas Angel" gifts being wrapped and ready to be sent to children

Financial Assistance to Local Students (DSSC) (China)

Daicel Safety Systems Jiangsu (DSSC) has been providing financial assistance to local students who struggle with difficulties in their pursuit of higher education due to economic hardship. To that end, DSSC has partnered with a local charity association in Danyang, Jiangsu Province since 2012. In FY2018/3, DSSC invited six such students, who live in Danyang and were chosen to receive scholarships from DSSC, to attend a ceremony in which the president of DSSC directly delivered a speech aimed at encouraging them. Also, the young people took the platform to introduce themselves to the attendees and share their plans and hopes for further studies. Having gotten to know these students, DSSC sincerely wishes them every future success in their respective fields.



A group photo of DSSC representatives and six students chosen as scholarship recipients at the ceremony

Human Resource Development

Human Resources 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. In the course of MBO, the Company strives to practice the following three concepts.

Dialogue: Regularly hold intensive, face-to-face dialogue between superiors and subordinates to strengthen relationships of trust

Growth: Motivate each employee to voluntarily take on higher targets, thereby helping them achieve personal growth

Accomplishments: Focus not only on results but also on the processes, with the aim of motivating employees to pursue challenging goals, one after another

MBO has also been rolled out at business sites overseas, including those in Thailand and China. Looking ahead, we will step up our efforts to develop human resources on a global basis.

System to Hear Employee 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.

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.

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.



New recruits participating in “Forests for Life,” a forest development activity as part of introductory 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.



On-the-job training at the Operation Training Center

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 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.

Nurturing Globally Capable Human Resources

In line with its steady global business expansion, the Daicel Group advances several activities to realize its Human Resources Policy globally. These activities include making efforts to spread common Human Resource Guidelines, and fostering employee development to fill key roles at all sites worldwide.

Human Resource Guidelines

The Daicel Group has established common Human Resource Guidelines which have been used to start streamlining the HR system since 2013. The Human Resource Guidelines are personnel management principles that should be observed across the Group, and specify the basic concepts, compliance rules and recommendations for recruitment, compensation, human resource development, appraisal and labor relations.

Included in these basic concepts are “observing the laws and regulations of each country and company rules and ethics” and “developing a culture where the employer, superiors and subordinates think of each individual’s career and put ideas into practice”. In addition, to give an example of one recommendation, MBO (management by objectives) is positioned at the center of human resource management. In line with this policy, an MBO-based evaluation system has been introduced at some affiliates in Thailand and China and MBO is being established through continuous MBO training.

The Human Resource Guidelines will henceforth continue to be used to advance actions towards building and establishing an HR system which raises employee motivation and abilities on a global basis.

Global Mobility

The Daicel Group operates overseas affiliates in over a dozen countries, with a majority of employees based outside Japan. Until recently, overseas assignments primarily involved Japanese nationals being posted to overseas affiliates. However in order to facilitate greater transfer of knowledge and skills through international mobility of personnel, a framework for the treatment of employees posted outside their home countries, regardless of origin, is being developed.

Since 2017, two younger engineers have been seconded to Daicel’s Harima Plant in Japan for a period of one and two years

Career Development

Daicel Corporation has an ongoing commitment to employee career development and creates an annual human resource development plan. The HR development plan aims to foster individual career growth on a medium to long term basis, linking employee ambitions with company goals.

One element of employee development involves succession planning which seeks to ensure long term continuity of leadership in key management positions through appropriate selection and development of successor candidates.

Currently, Daicel is taking steps to expand succession planning overseas, beginning with Aerospace & Defense Systems/Safety Systems Company affiliates who will prepare and submit their plans to the head office for review.

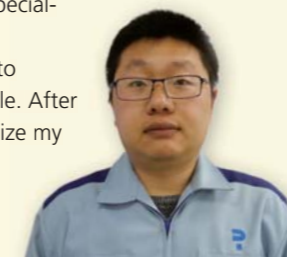
The expectation is that the program will eventually be broadened to include other business divisions, first in China and then beyond, with the goal of building stronger long-term management stability worldwide.

respectively from DSSC (China) and DSST (Thailand), both operating under the Aerospace & Defense Systems/Safety Systems Company. The objective of their overseas assignments is to allow them to obtain hands-on experience of technical development in Japan and learn best practices which they will subsequently share with their colleagues upon returning to their home countries.

Daicel is making efforts to expand these international job assignment/training activities including the transfer of non-Japanese employees to third countries (outside Japan) to share experience and skills worldwide.

● Voice of Mr. Sun Zhen

I have been seconded from China to work at the Safety Systems Technical Development & Research Systems Center in Japan. Over the past two months, I have participated in training sessions and deepened my specialized knowledge of inflators and pyrotechnics. I am also working to improve my Japanese little by little. After returning to China, I hope to utilize my experiences to improve products and engage in new projects.



● Voice of Mr. Kamdee Jirawat

Since December 2017, I have been working in product development at the Safety Systems Technical Development & Research Systems Center, and will be here for two years. I am grateful for the opportunity to work here, and for the warm and kind welcome I have received from everyone. Using my experience here, I will develop and improve products and endeavor to introduce them at the Thai production site.



Pursuit of Workforce Diversity and Optimal Work-Life Balance

Approach to Diversity

In line with the Daicel Group Conduct Policy, the Group is actively developing a working environment that respects diversity, personality and the uniqueness of everyone working for our Group companies. The Group is also assiduously working to eradicate any form of discrimination and harassment from its workplaces as part of efforts to ensure employee health and promote inclusiveness. Throughout its corporate activities, the Group does not condone any form of forced labor or child labor, regardless of the country or region in which it operates.

In addition, recruiting activities undertaken at overseas subsidiaries are free of any form of discrimination. We are focused solely on nurturing human resources equipped with the "Daicel Spirit," no matter what country they come from.

In this way, we will incorporate increasingly diverse people into our workforce. Believing that the interactions of a diverse workforce will help spark the creation of new value, we will also encourage employees to respect and inspire each other.

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. (The targets for 2021 are based on comparisons with figures recorded in 2016.)

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 support those who endeavor to strike a balance between work and family duties. Simultaneously, we are helping female employees develop robust careers while proactively recruiting diverse people with strong potential.



"Nadeshiko Seminar," a special training program as part of initiatives to help women develop their skills

Employment of Persons with Disabilities

At Daicel, the ratio of persons with disabilities in the total workforce amounts to 2.1% as of March 31, 2018, exceeding the statutory employment rate (2.0%). Daicel systematically recruits persons with disabilities to support the aspirations of these individuals to participate in social activities and to provide motivation in life. Furthermore, in order to help each individual achieve their best, we pay utmost attention in assigning suitable jobs according to the degree of disability.

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 FY2018/3, 31 of 32 employees who reached the retirement age were reemployed under this system, with a total of 181 senior employees (as of March 31, 2018) currently working at the Company after passing their retirement age. Daicel will continue to offer a work environment where veteran employees can make use of their careers, knowledge and experience to engage in work that they find meaningful.

Efforts to Promote Work-life Balance

Daicel is striving to develop an environment in which all employees can work vibrantly with confidence. To this end, the Company is promoting flexible working styles while improving working conditions. 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 initiatives to create an inclusive working environment in which every employee can strike an optimal work-life balance, Daicel is proactively pursuing three targets: 1) shortening mandatory working hours; 2) increasing the number of holidays; and 3) reducing overtime hours.

To achieve these targets, Daicel's management signed an agreement with the labor union in April 2017 with regard to the following matters. As such, the Company intends 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.

- Full-time employees other than shift workers
Shorten mandatory working hours from 8 to 7.5 hours in April 2018
Will result in a decrease of approximately 120 hours (or 6.2%) in mandatory annual working hours
- Shift workers
Increase annual holidays by 10 days in April 2020
Expected to result in a decrease of approximately 70 hours (or 3.6%) in mandatory annual working hours

Initiatives to Increase the Utilization Ratio of Annual Paid Leave

Having set the target of increasing the overall ratio of annual paid leave utilized by employees to 70% in 2020, efforts are now under way to gradually increase the number of designated days on which the Company encourages employees to take annual paid leave. Building upward from the current three days, plans call for designating a total of five such days per year from FY2020/3 onward.

Fiscal year	2016/3	2017/3	2018/3
Ratio of annual paid leave utilized	62.2%	63.2%	64.4%

Flexible Working Styles

Allowing Employees to Work at Home

Daicel has introduced flextime and similar systems that offer employees the option of embracing more flexible working styles. On April 1, 2017, the Company began a scheme that allows eligible employees to work from home. This program is open to all staff meeting the prescribed conditions (such as engaging in child rearing and nursing care) and allows applicants to work at home up to eight days per month. Currently, a total of 39 employees are using this scheme. Going forward, we will strive to help employees adopt more productive working styles and, to this end, promote the use of this remote working scheme. Accordingly, we will strive to let employees know that working at home might be a good option and help them understand the details of this program.

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.

In addition, the Company was nominated for a government-led recognition program, which ultimately selected Daicel for inclusion in the "Certified Health & Productivity Management Outstanding Organizations—White 500" (see page 7 for details).

Initiatives of the Healthcare Committee

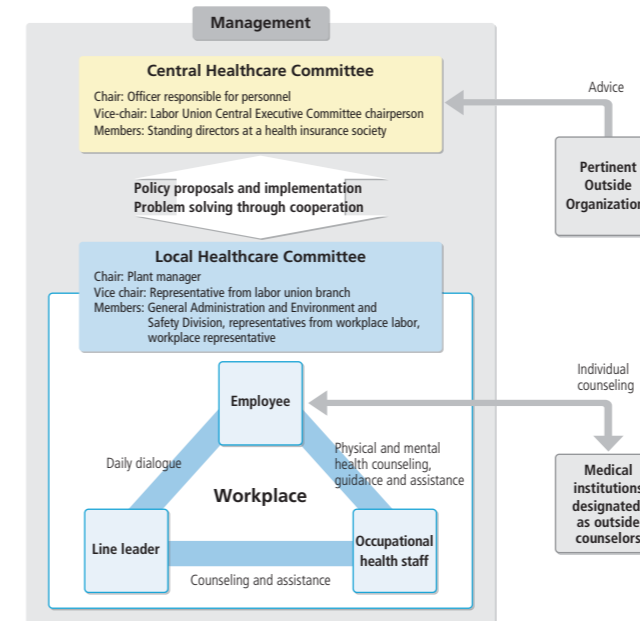
As a part of efforts to provide comprehensive support within the Group, a variety of measures are undertaken to ensure the sound health of employees. In addition to the Central Healthcare Committee, Local Healthcare Committees are set up at each site. Steps are also taken to provide everyday health guidance. Complementing these endeavors, psychiatrists are employed to help employees who have developed any mental health problems.



A health nurse providing a lecture on how to remain a healthy and enthusiastic worker



Each attendee took turns giving presentations



Strengthening Measures Aimed at Employees in Need of Support

Initiatives Undertaken by the Health Nurse Team

Operating under the 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, which are designed to improve the workplace environment based on the results of mandatory stress checks. Moreover, the team is involved in educational sessions focused on preventing physical and mental health issues, with team members sharing their insights as lecturers during position-specific training. Each team member is ceaselessly striving to improve their ability to develop plans and teach the relevant subjects.

Utilizing Psychiatrists Employed Exclusively by Daicel

Currently, Daicel employs four psychiatrists 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.

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 spontaneous efforts to better manage their working environments by, for example, utilizing the results of stress checks. Following the enforcement of a law mandating that domestic business operators perform stress checks on their employees, in fiscal 2017 Daicel and its Group companies in Japan carried out these stress checks, which successfully extended to 99% 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 FY2018/3 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 60% 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 FY2016/3, Daicel began closely assessing the working status of employees posted overseas, with the aim of realizing more robust health management. In FY2018/3, the Company began providing face-to-face health nurse counseling to employees whose working hours were deemed excessively long, aligning the treatment of employees working overseas with standards applied to domestic employees.

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.

Directors, Audit & Supervisory Board Members and Executive Officers (As of June 22, 2018)

Directors



Misao Fudaba

President and CEO, President, Member of the Nomination and Compensation Committee and Chairperson of the Management Advisory Committee

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



Masumi Fukuda

Representative Director, Senior Managing Executive Officer, Member of the Nomination and Compensation Committee, Member of the Management Advisory Committee, Head of Corporate Support Center and Responsible for Corporate Compliance Program

April 1975 Joined the Company
 April 2002 Vice President of Cellulose Company
 April 2004 President of Functional Organic Products Company
 June 2004 Executive Officer
 June 2006 Managing Executive Officer, Head of Corporate Planning
 June 2008 President of Cellulose Company
 June 2010 President of Organic Chemical Products Company
 June 2012 Representative Director, Senior Managing Executive Officer, Head of Corporate Support Center, Responsible for Corporate Compliance Program, Responsible for Business Process Innovation
 June 2016 Responsible for Corporate Planning

Yoshimi Ogawa

Director, Senior Managing Executive Officer, Member of the Management Advisory Committee, Responsible for Quality Management Division, Responsible for Responsible Care, Responsible for Organic Chemical Products Company and Responsible for Aerospace & Defense Systems/ Safety Systems Company

April 1983 Joined the Company
 June 2000 Head of Production Innovation Center, Production Technology Headquarters
 April 2002 Head of Business Process Innovation
 June 2006 Executive Officer, Vice President of Aerospace & Defense Systems/Safety Systems Company, General Manager of Harima Plant, Aerospace & Defense Systems/Safety Systems Company
 June 2009 Head of Production Technology, Responsible for Responsible Care, Responsible for Engineering Center
 June 2011 Director
 June 2013 Managing Executive Officer
 April 2014 General Manager of Production Technology Headquarters
 April 2015 Responsible for Quality Management Division
 June 2016 Responsible for Organic Chemical Products Company, Responsible for Aerospace & Defense Systems/Safety Systems Company
 June 2017 Senior Managing Executive Officer

Hisao Nishimura

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

August 1985 Joined the Company
 April 2002 Head of Central Research Center
 July 2005 President of CPI Company
 June 2010 Executive Officer
 June 2012 Head of Research Control
 Responsible for New Business Planning and Development, Responsible for Intellectual Property Center
 June 2013 Managing Executive Officer
 April 2014 General Manager of R&D Headquarters
 June 2014 Director
 June 2016 Responsible for New Business Planning
 April 2017 Responsible for New Business Development

Tadao Kondo

External Director, and Member of the Nomination and Compensation Committee

June 2004 Representative Member of the Board, Vice President of NIPPON SHOKUBAI CO., LTD.
 April 2005 Representative Member of the Board, President of NIPPON SHOKUBAI CO., LTD.
 April 2011 Representative Member of the Board, Chairperson of NIPPON SHOKUBAI CO., LTD.
 June 2011 Member of the Board, Chairperson of NIPPON SHOKUBAI CO., LTD.
 June 2012 Councilor of NIPPON SHOKUBAI CO., LTD.
 June 2013 Director of the Company
 June 2018 Honorary Advisor of NIPPON SHOKUBAI CO., LTD.

Masafumi Nogimori

External Director, and Member of the Nomination and Compensation Committee

April 2005 Executive Vice President and Representative Director of Astellas Pharma Inc.
 June 2006 President & CEO and Representative Director of Astellas Pharma Inc.
 June 2011 Chairperson and Representative Director of Astellas Pharma Inc.
 June 2016 Retired from Astellas Pharma Inc.
 June 2017 Director of the Company

Kunie Okamoto

External Director

April 2005 President of Nippon Life Insurance Company
 June 2010 Audit & Supervisory Board Member of the Company
 April 2011 Chairperson of Nippon Life Insurance Company
 April 2018 Director and Consultant of Nippon Life Insurance Company
 June 2018 Director of the Company

Teisuke Kitayama

External Director

June 2005 Director President (Representative Director) of Sumitomo Mitsui Financial Group, Inc., Chairperson of the Board of Sumitomo Mitsui Banking Corporation
 April 2017 Director of Sumitomo Mitsui Banking Corporation
 June 2017 Advisor of Sumitomo Mitsui Banking Corporation
 June 2018 Director of the Company

Standing Audit & Supervisory Board Members

Yuji Iguchi

Hiroyasu Masuda

Outside Audit & Supervisory Board Members

Toshio Takano

Attorney at Law, Takano Law Office

Ryo Ichida

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

Junichi Mizuo

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

Managing Executive Officers

Dieter Heckmann

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

Takashi Ueno

General Manager of Ohtake Plant

Hisanori Imanaka

Responsible for Corporate Planning

Hidekage Kojima

Responsible for Cellulose Company

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 Holdings, Inc.
 President & CEO of Daicel Safety Systems America Arizona, Inc.
 Chairperson of Daicel Safety Systems (Jiangsu) Co., Ltd.
 Chairperson of Daicel Safety Technologies (Jiangsu) Co., Ltd.
 President & CEO of Special Devices, Inc.

Naohide Hakushi

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

Executive Officers

Satoshi Sakamoto

Assistant to General Manager R&D Head quarters, Assigned to Osaka University

Naotaka Kawaguchi

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

Ikuo Takahashi

General Manager of Innovation Park
 Head of Research Center

Yukio Yoshino

President of Daicel Value Coating Ltd.

Shinji Fujita

Deputy Head of Corporate Support Center

Masaaki Fujio

General Manager of Kanzaki Plant

Yasuo Tsuji

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

Kouichi Maruyama

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

Takashi Iiyama

General Manager of Production Technology Headquarters

Akihisa Takabe

Deputy General Manager of R&D Headquarters

Hitoshi Hayashi

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

Akio Kojima

President of Cellulose Company

Mikio Yagi

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

Haruyoshi Tashika

Vice President of Organic Chemical Products Company and General Manager of Production Management

Corporate Governance

Basic Policy Regarding Corporate Governance

By strengthening its corporate governance, Daicel is increasing its corporate value. This is recognized as an important management initiative that will enable the Company to achieve its social mission and responsibilities as a listed company.

The Company maintains its agility by clarifying the responsibilities of each part of its organization and by adopting a management system that supports timely decision-making and

implementation. Moreover, by actively soliciting external opinions and incorporating positive suggestions in its operations, Daicel is maintaining the soundness of its corporate management while improving management transparency and fairness.

[You can find our Corporate Governance Report on our website. <https://www.daicel.com/en/profile/governance.html>](https://www.daicel.com/en/profile/governance.html)

Corporate Governance Framework

Corporate Governance Framework Quick Reference Table

(As of June 22, 2018)

Item	Content
Type of organizational structure	Company with an Audit & Supervisory Board
Number of directors (external directors)	8 (4)
Number of Audit & Supervisory Board members (outside members)	5 (3)
Number of Board of Director meetings held (average attendance rate of external directors) (average attendance rate of outside Audit & Supervisory Board members)	14 in FY2018/3 (96%) (97%)
Term of directors	1 year
Voluntary advisory body to the Board of Directors	Nomination and Compensation Committee
Body that deliberates important corporate matters and reports to the President & CEO	Management Advisory Committee
Compensation system for directors and Audit & Supervisory Board members*	1. Monthly compensation 2. Bonuses (excluding external directors and outside Audit & Supervisory Board members) 3. Stock-based compensation (excluding external directors and outside Audit & Supervisory Board members)
Auditor	Deloitte Touche Tohmatsu LLC

* The compensation system also applies to executive officers and others

Internal Control Systems

In accordance with basic policy concerning the development of internal control systems, the Daicel Group works to administer and enhance its internal control systems.

We believe that these systems help the Daicel Group sustain steady growth. Furthermore, to accurately grasp the status of these systems (both their administration and enhancement), Daicel has established an Internal Control Council as a body charged with discussing initiatives related to internal control. We are working to ensure the effectiveness of the entire Group's internal control.

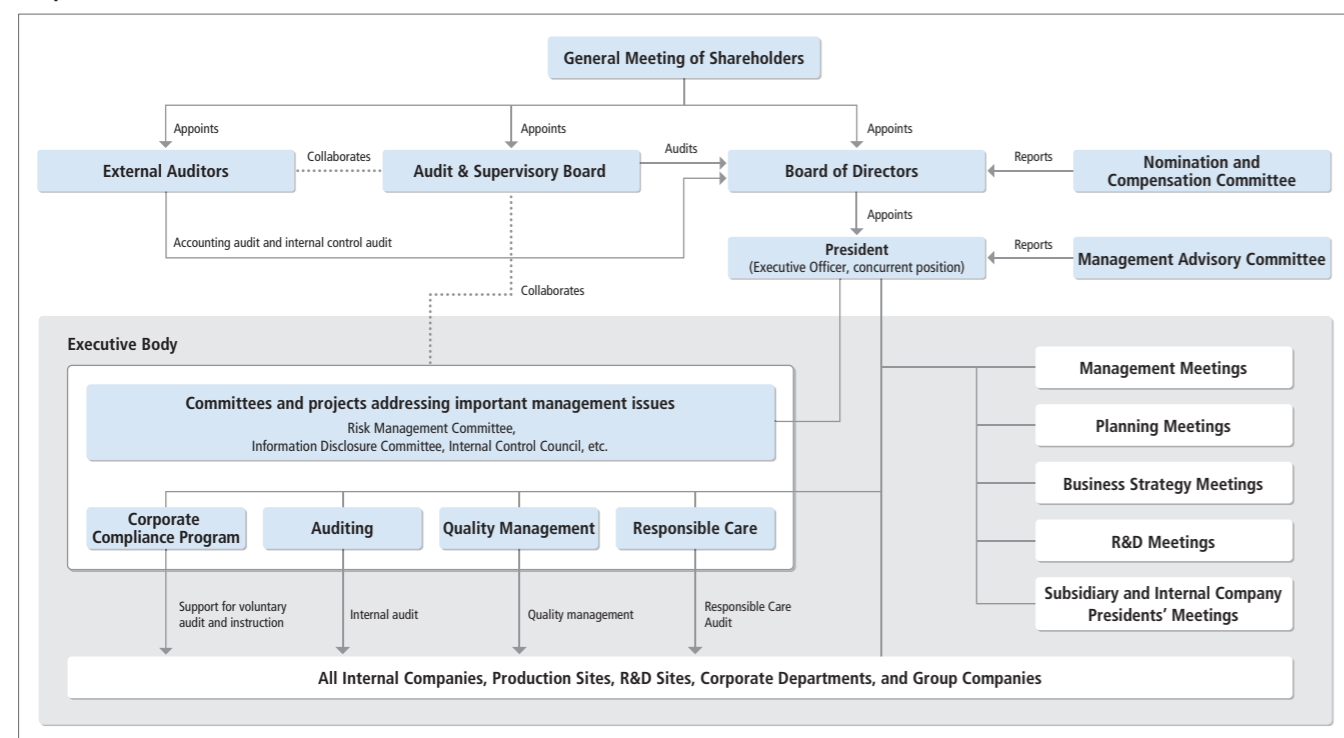
Response to the Financial Instruments and Exchange Law (Internal Control Reporting System)

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 internal control report over financial reporting for FY2018/3 is disclosed on EDINET, a corporate disclosure system established by the FSA at the following

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

Corporate Governance Framework (As of June 22, 2018)



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

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 FY2018/3, Daicel identified two key points that need further evaluation: risks related to managing work time at workplaces and risks of being drawn into international conflicts or terrorist activities. The Group promoted the re-evaluation of these risks and the formulation of response measures.

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

Communication with Shareholders and Investors

Basic Policy on Information Disclosure

Daicel encourages fair evaluation of its corporate value by fostering 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.

[Our disclosure policy, including our basic policy on information disclosure, is available on our website. <https://www.daicel.com/en/ir/disclosure.html>](https://www.daicel.com/en/ir/disclosure.html)

IR Activities

In line with the basic policy on information disclosure, Daicel adopts a proactive approach toward its IR activities. Quarterly results briefings are held for domestic institutional investors and analysts. Moreover, through activities such as individual interviews and small meetings, the Company actively strives to promote communication, aspiring to foster better understanding of the Company. In addition, the Company hosted a Plastics business briefing in FY2018/3, with the aim of helping attendees better understand its operations.

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

[For more information on our IR activities, please visit our website. <https://www.daicel.com/en/ir/>](https://www.daicel.com/en/ir/)

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, both by having the officer in charge of IR meet individually with analysts and investors at their offices, as well as by responding to their questions during interviews conducted via teleconference or in face-to-face sessions at domestic conferences.

Events	Occasions (FY2018/3)	Content
Financial briefing sessions for analysts and institutional investors	4	Held on a quarterly basis; the interim and period-end results were presented by the president, while the first and third quarter results were explained via conference calls hosted by the Investor Relations department
Business briefings for analysts and institutional investors	1	Held a business briefing on Plastics in FY2018/3
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	4	Participated in domestic conferences for overseas investors, with the officer in charge of IR conducting individual interviews
Individual visits to overseas investors	3	The officer in charge of IR visited overseas shareholders and investors (in North America, Europe, and Asia)
Individual financial briefings for security company sales representatives	1	The Investor Relations department held an individual business briefing for security company sales representatives

Consolidated Ten-Year Summary

As of and for the years ended March 31

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

	FY2009/3	2010/3	2011/3	2012/3	2013/3	2014/3	2015/3	2016/3	2017/3	2018/3
Operating Results										
Net sales	¥ 377,979	¥ 320,243	¥ 353,684	¥ 341,942	¥ 358,513	¥ 413,786	¥ 443,775	¥ 449,878	¥ 440,061	¥ 462,956
Operating income	10,589	20,856	32,711	20,426	26,196	37,912	51,303	64,349	64,306	58,932
Net income attributable to owners of the parent	1,296	11,069	16,802	11,827	15,372	22,843	31,252	40,313	43,198	37,062
Financial Position										
Net assets	¥ 211,487	¥ 229,004	¥ 235,336	¥ 234,711	¥ 262,899	¥ 295,805	¥ 356,177	¥ 368,720	¥ 399,429	¥ 413,541
Total assets	445,911	428,376	411,071	398,196	461,512	509,834	565,332	560,190	599,708	644,078
Interest-bearing debt	142,602	105,893	94,357	83,249	99,224	105,917	86,981	71,276	72,291	99,743
Cash Flows										
Cash flows from operating activities	¥ 40,165	¥ 66,445	¥ 53,428	¥ 34,000	¥ 44,480	¥ 44,777	¥ 57,412	¥ 65,419	¥ 86,168	¥ 66,888
Cash flows from investing activities	(24,401)	(16,471)	(20,141)	(9,190)	(35,312)	(34,984)	(30,283)	(31,407)	(34,722)	(33,189)
Cash flows from financing activities	(2,422)	(50,735)	(28,170)	(25,044)	5,737	(4,472)	(29,230)	(31,470)	(19,942)	(1,962)
Cash and cash equivalents, end of year	30,507	30,128	33,724	33,435	53,238	62,573	66,737	65,237	96,275	128,290
Per Share Information										
Basic net income per share (yen)	¥ 3.62	¥ 31.10	¥ 47.22	¥ 33.46	¥ 43.71	¥ 64.98	¥ 88.95	¥ 115.02	¥ 124.61	¥ 107.81
Net assets per share (yen)	530.43	579.18	596.06	618.94	685.11	764.51	922.71	966.36	1,067.63	1,136.32
Cash dividends per share (yen)	8.00	10.00	10.00	10.00	12.00	15.00	21.00	26.00	30.00	32.00
Financial Indicators										
Ratio of operating income to net sales (%)	2.8	6.5	9.2	6.0	7.3	9.2	11.6	14.3	14.6	12.7
ROE (%)	0.6	5.6	8.0	5.5	6.7	9.0	10.5	12.2	12.2	9.8
Rate of earnings on total capital (%)	0.3	2.5	4.0	2.9	3.6	4.7	5.8	7.2	7.4	6.0
Total asset turnover (times/year)	0.8	0.7	0.8	0.8	0.8	0.9	0.8	0.8	0.8	0.7
Equity ratio (%)	42.3	48.1	51.6	54.7	52.2	52.7	57.3	60.2	61.6	59.8
Dividend payout ratio (%)	221.0	32.2	21.2	29.9	27.5	23.1	23.6	22.6	24.1	29.7
Total shareholder return (%)	325.8	32.2	21.2	45.2	27.5	23.1	23.6	32.5	33.3	56.6
Others										
Capital expenditures	¥ 24,183	¥ 16,481	¥ 9,912	¥ 18,740	¥ 27,217	¥ 25,617	¥ 30,629	¥ 40,256	¥ 39,528	¥ 30,819
Depreciation and amortization	38,579	36,693	32,786	28,316	24,026	23,669	23,409	23,914	29,031	31,720
Research and development expenses	12,046	11,316	11,970	12,730	12,875	13,360	14,031	15,306	16,806	18,843
Number of employees (at year-end)	7,803	7,665	7,747	8,149	9,233	9,700	10,173	10,709	11,556	12,309

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

Consolidated Balance Sheets

Daicel Corporation and Consolidated Subsidiaries
March 31, 2018 and 2017

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2018/3	2017/3	2018/3
ASSETS			
CURRENT ASSETS:			
Cash and cash equivalents (Note 14)	¥ 128,290	¥ 96,275	\$ 1,210,283
Marketable securities (Notes 3 and 14)	929	29	8,764
Receivables (Note 14):			
Trade notes	3,380	3,592	31,886
Trade accounts	88,912	83,735	838,792
Unconsolidated subsidiaries and associated companies	5,393	4,346	50,877
Allowance for doubtful receivables	(44)	(80)	(415)
Inventories (Note 4)	109,295	100,657	1,031,084
Deferred tax assets (Note 10)	5,353	6,631	50,500
Other current assets	13,057	12,029	123,179
Total current assets	354,567	307,216	3,344,971
PROPERTY, PLANT AND EQUIPMENT (Notes 5 and 17):			
Land	26,754	26,760	252,396
Buildings and structures	162,111	157,581	1,529,349
Machinery and equipment	597,726	595,739	5,638,924
Construction in progress	14,053	19,762	132,575
Total	800,646	799,843	7,553,264
Accumulated depreciation	(616,605)	¥(614,662)	(5,817,028)
Net property, plant and equipment	184,041	185,180	1,736,235
INVESTMENTS AND OTHER ASSETS:			
Investment securities (Notes 3 and 14)	72,535	72,094	684,292
Investments in and advances to unconsolidated subsidiaries and associated companies (Note 14)	11,119	10,357	104,896
Deferred tax assets (Note 10)	1,102	1,505	10,396
Net defined benefit asset (Note 7)	5,321	5,303	50,198
Other assets	15,390	18,049	145,188
Total investments and other assets	105,469	107,310	994,990
TOTAL	¥644,078	¥ 599,708	\$6,076,207

See notes to consolidated financial statements of Financial Section.

https://www.daicel.com/en/csr/pdf/2018_01.pdf

	Millions of Yen		Thousands of U.S. Dollars (Note 1)
	2018/3	2017/3	2018/3
LIABILITIES AND EQUITY			
CURRENT LIABILITIES:			
Short-term bank loans (Notes 6 and 14)	¥ 10,117	¥ 7,788	\$ 95,443
Current portion of long-term debt (Notes 6, 14 and 16)	13,733	4,513	129,556
Payables (Notes 14 and 16):			
Trade notes	284	170	2,679
Trade accounts	53,719	44,446	506,783
Nontrade accounts	11,077	12,353	104,500
Construction	7,377	9,937	69,594
Unconsolidated subsidiaries and associated companies	2,365	2,182	22,311
Income taxes payable (Notes 10 and 14)	4,271	7,432	40,292
Other current liabilities (Notes 10 and 16)	15,461	20,503	145,858
Total current liabilities	118,409	109,327	1,117,066
LONG-TERM LIABILITIES:			
Long-term debt (Notes 6, 14 and 16)	75,884	59,983	715,886
Net defined benefit liability (Note 7)	12,318	12,249	116,207
Provision for environmental measures (Note 21)	4,000	—	37,735
Asset retirement obligations (Note 8)	1,238	1,036	11,679
Deferred tax liabilities (Note 10)	14,634	16,158	138,056
Other long-term liabilities	4,050	1,506	38,207
Total long-term liabilities	112,126	90,951	1,057,792
COMMITMENTS AND CONTINGENT LIABILITIES (Notes 13, 15 and 22)			
EQUITY (Notes 9 and 24):			
Common stock, authorized, 1,450,000,000 shares in 2018 and 2017; issued, 349,942,682 shares in 2018 and 349,942,682 shares in 2017	36,275	36,275	342,216
Capital surplus	31,642	31,867	298,509
Retained earnings	292,104	266,462	2,755,698
Treasury stock - at cost, 11,239,478 shares in 2018 and 3,737,941 shares in 2017	(14,004)	(4,025)	(132,113)
Accumulated other comprehensive income:			
Unrealized gain on available-for-sale securities	33,410	34,978	315,188
Deferred gain (loss) on derivatives under hedge accounting	58	(16)	547
Foreign currency translation adjustments	4,805	4,212	45,330
Defined retirement benefit plans	583	(134)	5,500
Total	384,876	369,620	3,630,905
Noncontrolling interests	28,665	29,809	270,424
Total equity	413,541	399,429	3,901,330
TOTAL	¥644,078	¥599,708	\$6,076,207

Consolidated Statements of Income

Daicel Corporation and Consolidated Subsidiaries
Years Ended March 31, 2018, 2017 and 2016

	Millions of Yen			Thousands of U.S. Dollars (Note 1)
	2018/3	2017/3	2016/3	2018/3
NET SALES	¥462,956	¥440,061	¥449,878	\$4,367,509
COST OF SALES (Notes 11 and 16)	325,754	303,229	316,049	3,073,150
Gross profit	137,201	136,832	133,829	1,294,349
SELLING, GENERAL AND ADMINISTRATIVE EXPENSES (Note 11)	78,269	72,526	69,479	738,386
Operating income	58,932	64,306	64,349	555,962
OTHER INCOME (EXPENSES):				
Interest and dividend income	1,770	1,821	2,367	16,698
Gain on sales of investment securities	3,914	2,461	2,719	36,924
Subsidies from municipal governments (Note 17)			793	
Equity in earnings of unconsolidated subsidiaries and associated companies	1,336	870	1,094	12,603
Insurance income (Note 18)	854			8,056
Interest expense (Note 16)	(1,203)	(958)	(1,131)	(11,349)
Foreign exchange gain (loss)	(730)	(1,599)	(2,065)	(6,886)
Loss on dispositions of property, plant and equipment	(2,260)	(3,361)	(4,311)	(21,320)
Loss on claim compensation (Note 19)	(85)	(989)	(1,557)	(801)
Loss on disaster (Note 20)	(677)			(6,386)
Provision for environmental measures (Note 21)	(4,000)			(37,735)
Reduction of cost of property, plant and equipment (Note 17)			(561)	
Other – net	1,379	1,822	1,793	13,009
Other income (expenses) – net	297	66	(858)	2,801
INCOME BEFORE INCOME TAXES	59,229	64,373	63,491	558,764
INCOME TAXES (Note 10):				
Current	14,537	15,996	16,630	137,141
Prior periods		690		
Deferred	225	(2,439)	305	2,122
Total income taxes	¥14,246	14,246	16,935	139,273
NET INCOME	44,466	50,126	46,555	419,490
NET INCOME ATTRIBUTABLE TO NONCONTROLLING INTERESTS	7,404	6,928	6,242	69,849
NET INCOME ATTRIBUTABLE TO OWNERS OF THE PARENT	¥37,062	¥ 43,198	¥ 40,313	\$ 349,641

	Yen			U.S. Dollars (Note 1)
	2018/3	2017/3	2016/3	2018/3
PER SHARE INFORMATION (Notes 2.s and 12):				
Basic net income	¥ 107.81	¥ 124.61	¥ 115.02	\$ 1.02
Cash dividends applicable to the year	32.00	30.00	26.00	0.30

See notes to consolidated financial statements of Financial Section.

[WEB >>> https://www.daicel.com/en/csr/pdf/2018_01.pdf](https://www.daicel.com/en/csr/pdf/2018_01.pdf)

Consolidated Statements of Comprehensive Income

Daicel Corporation and Consolidated Subsidiaries
Years Ended March 31, 2018, 2017 and 2016

	Millions of Yen			Thousands of U.S. Dollars (Note 1)
	2018/3	2017/3	2016/3	2018/3
NET INCOME	¥44,466	¥50,126	¥46,555	\$419,490
OTHER COMPREHENSIVE INCOME (LOSS) (Note 23):				
Unrealized gain (loss) on available-for-sale securities	(1,563)	3,546	(3,563)	(14,745)
Deferred gain (loss) on derivatives under hedge accounting	113	222	(94)	1,066
Foreign currency translation adjustments	91	(1,340)	(10,503)	858
Defined retirement benefit plans	869	(210)	(1,578)	8,198
Share of other comprehensive income (loss) in associates	236	(404)	(736)	2,226
Total other comprehensive income (loss)	(252)	1,813	(16,476)	(2,377)
COMPREHENSIVE INCOME	¥44,214	¥51,939	¥30,079	\$417,113
TOTAL COMPREHENSIVE INCOME ATTRIBUTABLE TO:				
Owners of the parent	¥36,880	¥44,937	¥26,394	\$347,924
Noncontrolling interests	7,334	7,001	3,684	69,188

See notes to consolidated financial statements of Financial Section.

[WEB >>> https://www.daicel.com/en/csr/pdf/2018_01.pdf](https://www.daicel.com/en/csr/pdf/2018_01.pdf)

Daicel Group Companies / Organizations covered by this report

(As of March 31, 2018)

This section features the outline of Daicel Group companies / organizations covered by this report.

The Daicel Group consists of a total of 79 companies: Daicel Corporation, its 62 consolidated subsidiaries and 16 other affiliated companies. 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 33. For more details, refer to the Company's website.

[WEB >>> https://www.daicel.com/en/csr/responsible/goals-and-results.html](https://www.daicel.com/en/csr/responsible/goals-and-results.html)

- ① Consolidated subsidiaries
- ② Organizations whose activities are featured on "Safety and Quality Assurance Initiatives" (page 6) "Human Resource Development" (pages 42-44) and "Risk Management Initiatives" (page 49)
- ③ Organizations whose activities are featured on "Corporate Ethics (Compliance) Initiatives" (pages 38-39)
- ④ Organizations whose activities are featured on "Initiatives of the Healthcare Committee" (page 45)

Japan

Company name	Country	Business	①	②	③	④
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 Sangyo 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	○	○	○	○
Kyoei 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	④
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	④
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	④
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 generators 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	④
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, 2018)

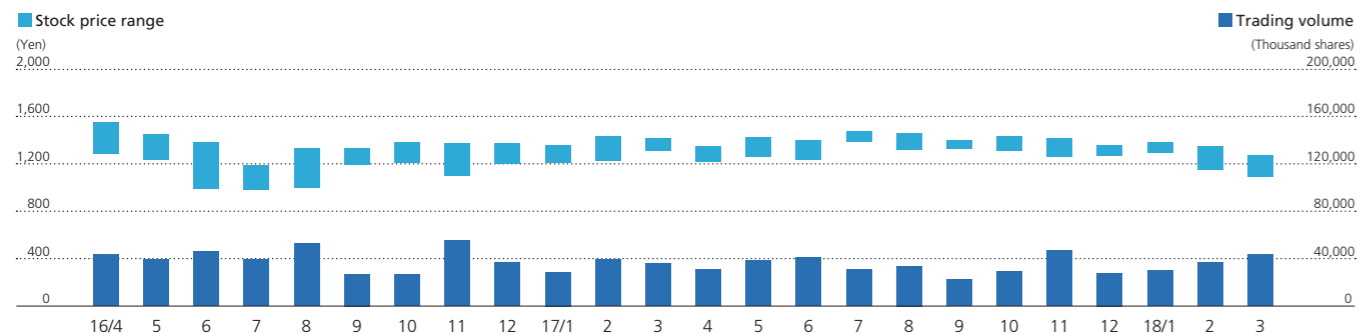
Establishment	September 8, 1919
Capital	¥36,275,440,089
Number of employees	12,309 (Consolidated); 2,354 (Non-consolidated)
Status of Stock	
Common stock authorized:	1,450,000,000 shares
Issued:	349,942,682 shares
Listing:	Tokyo Stock Exchange (First Section)
Shareholder registry administrator:	
	Sumitomo Mitsui Trust Bank, Limited 1-4-1, Marunouchi, Chiyoda-ku, Tokyo, Japan
Number of shareholders:	18,375
Accounting auditor:	Deloitte Touche Tohmatsu LLC

Principal Domestic Locations

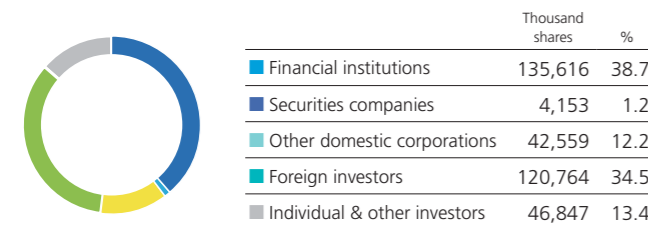
Osaka Head Office	Grand Front Osaka Tower-B, 3-1, Ofuka-cho, Kita-ku, Osaka 530-0011 Tel: +81-6-7639-7171 Fax: +81-6-7639-7181
Tokyo Head Office	JR Shinagawa East Bldg., 2-18-1, Konan, Minato-ku, Tokyo 108-8230 Tel: +81-3-6711-8111 Fax: +81-3-6711-8100
Nagoya Sales Office	JP Tower Nagoya, 1-1-1, Meieki, Nakamura-ku, Nagoya, Aichi 450-6325
H.R. Training Center	14-1, Kouto 3-chome, Kamigori-cho, Akou-gun, Hyogo 678-1205
Innovation Park	1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1283
Himeji Production Sector/Aboshi Plant	1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1281
Himeji Production Sector/Hirohata Plant	12, Fuji-cho, Hirohata-ku, Himeji-shi, Hyogo 671-1123
Harima Plant	805, Umaba, Ibogawa-cho, Tatsuno-shi, Hyogo 671-1681
Arai Plant	1-1, Shinko-cho, Myoko-shi, Niigata 944-8550
Ohtake Plant	1-4, Higashisakae 2-chome, Otake-shi, Hiroshima 739-0695
Kanzaki Plant	12-1, Kanzaki-cho, Amagasaki-shi, Hyogo 661-0964
Polyplastics Co., Ltd./Fuji Plant	973, Miyajima, Fuji-shi, Shizuoka 416-8533

Stock Information

Stock price range



Shareholder Composition (As of March 31, 2018)



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

Top 10 Shareholders (As of March 31, 2018)

Shareholder	Thousand shares	Distribution of shares issued and outstanding* (%)
Japan Trustee Services Bank, Ltd. (Trust Account)	22,612	6.67
The Master Trust Bank of Japan, Ltd. (Trust Account)	17,747	5.23
Nippon Life Insurance Company	17,402	5.13
Toyota Motor Corporation	15,000	4.42
National Mutual Insurance Federation of Agricultural Cooperatives	7,779	2.29
Japan Trustee Services Bank, Ltd. (Trust Account 9)	7,692	2.27
Sumitomo Mitsui Banking Corporation	7,096	2.09
The Bank of Tokyo-Mitsubishi UFJ, Ltd. ²	6,503	1.91
FUJIFILM Holdings Corporation	5,769	1.70
STATE STREET BANK WEST CLIENT-TREATY 505234	5,446	1.60

Notes: 1. Excludes treasury shares. Percents are rounded down from the third decimal place.
2. The Bank of Tokyo-Mitsubishi UFJ, Ltd. changed its legal name to "MUFG Bank, Ltd." on April 1, 2018.

Third-Party Verification



Daicel Group Annual Report 2018 CSR & Financial Report Third Party Verification Report

May 28, 2018

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

■ Purpose of Verification

This Responsible Care® verification is performed by the Responsible Care Verification Center with the objective of verifying the following and reporting opinions from the perspective of a specialist in the Chemical Industry on the "Daicel Group Annual Report 2018" prepared by Daicel Corporation (hereinafter, "Report"). The scope of verification shall not include financial information.

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

■ Verification Methodology

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

■ Opinion

- 1) The reasonableness of the calculation and aggregation methods of performance indices (numerical data) and the accuracy of the numerical data
In this item, we have confirmed that:
• The performance indices (numerical data) are calculated and aggregated accurately with reasonable methods at both the Head Office and the Harima Plant.
- 2) The accuracy of information other than numerical data
In this item, we have confirmed the following:
• Information provided in the Report is accurate. Some suggestions were given at the drafting stage concerning inappropriate expressions and difficult-to-understand text, however, they have all been corrected in the current Report.
- 3) Responsible Care and CSR activities
• We value your continuous efforts to challenge work and business reform by, for example, introducing an AI-linked image processing system this fiscal year to innovate production technology, following the previous fiscal year's founding of the Innovation Park that provides opportunities for cross-cultural interaction.
• We appreciate the Harima Plant's many years of efforts to communicate with local communities, by holding a sakura (cherry blossom) festival to which it has invited local residents for over 20 years, as well as opening a stall at a local cosmos flower festival and conducting other activities. Additionally, the Harima Plant's anzen dojo (safety training facilities) has an excellent curriculum.
• We value how you have taken every opportunity to promote in various forms your "Inochi no Mori Zukuri" (creation of a forest that gives life) afforestation activities characterized by mixed and dense planting, based on the original satoyama ecological system.
• We think that the Trouble Review Sheet that you use to analyze causes of industrial accidents, is an excellent format. We would like to see you develop it further in the future so even deeper analysis will be available to anyone.
- 4) Characteristics of the Report
• The Report has an integrated format that contains both CSR activities and financial information. However, more emphasis is put on CSR content.
• The Report is easy to understand because your business operations are explained in line with the changes of the times, and products of each business segment are introduced by skillfully combining illustrations, photos and texts. We hope you will take advantage of your talent to steadily improve yourselves, to make it your goal to create an even more reader-friendly and easily understandable report.

Shigeki Nagamatsu

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