

# Daicel Group CSR Report 2018

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

A message from the President and CEO

President and CEO

## The Daicel Group's CSR Activities



Throughout the Daicel Group, we aim to be a corporation that will continue to be trusted by society.

The Daicel Group's CSR Activities

### Corporate ethics



▶ Corporate Ethics (Compliance) Initiatives

▶ Corporate Governance

▶ Respect for Human Rights

▶ Fair Business Practices

### Responsible Care (RC)



▶ The Responsible Care Management System

▶ Environmental Preservation

▶ Occupational Health and Safety

▶ Process Safety and Disaster Prevention

▶ Chemical and Product Safety

▶ Distribution Safety

▶ Communication with Society

### Together with stakeholders



Together with Our Customers

Together with Our Suppliers

Together with Our Shareholders and Investors

Together with Employees

Together with Society

➤ Editorial Policy

➤ Third-party Verification

➤ List of Data Collection Boundaries

List of Declarations and Certifications

–Environmental Management System

–Quality Management System

➤ Policy List

➤ External Evaluation

### 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” 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.

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 nonqualified 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.

**President and CEO, Daicel Corporation**



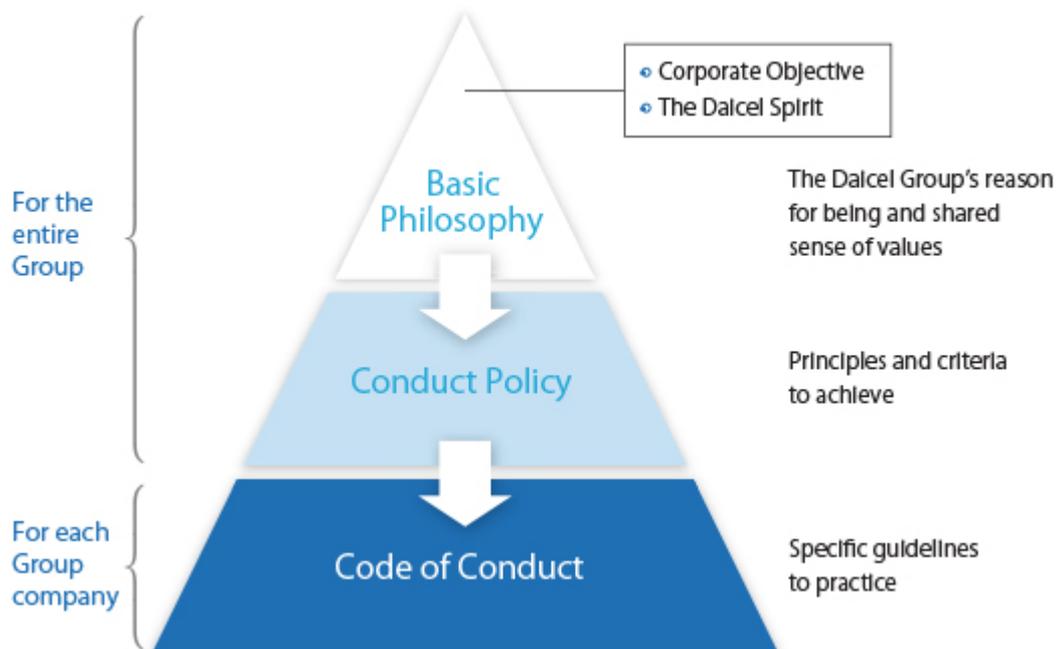
# The Daicel Group's CSR Activities

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.

## Basic Philosophy, Conduct Policy and Code of Conduct

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



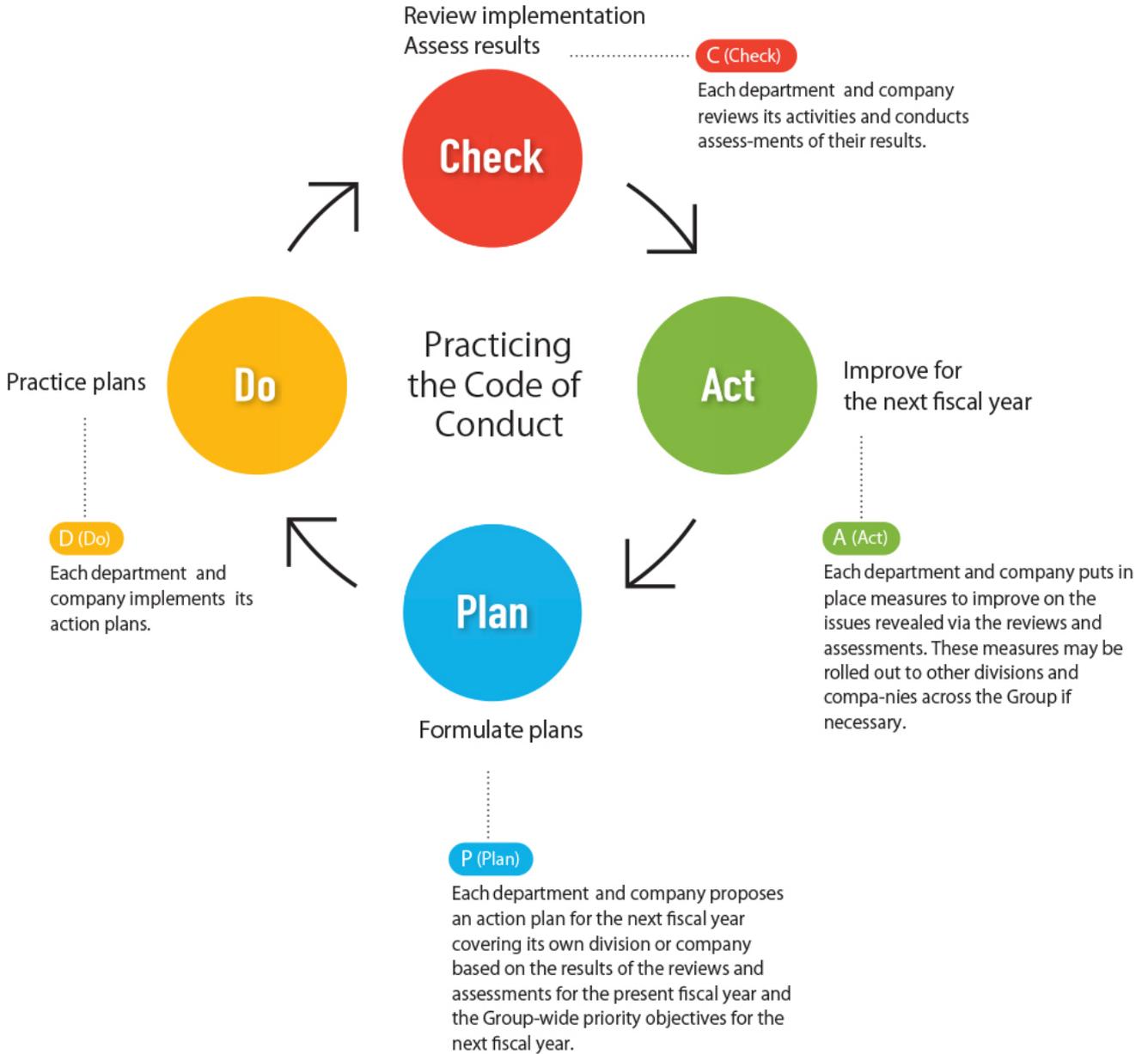
[Basic philosophy](#)

[Daicel Group Conduct Policy](#)

[Daicel Code of Conduct](#)

• The CAPD Cycle

• The CAPD Cycle



# – The Best Solution for You

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Contributing to an improved quality of life by meeting [the needs of society](#).

At the Daicel Group, we believe **in the unlimited potential of chemistry**.

By applying our unique technologies and expertise in the most effective manner, we are meeting **the diverse needs of society**.

Our industrial group contributes to a better society and an improved quality of life.

### The Daicel Spirit

We share the Daicel Spirit, a drive to innovate and achieve our growth.

- We believe that honest effort is the key to creativity.  
Through a commitment to perfection, we excel at innovation.
- We are committed to creativity, a concept that imbues all our business operations from developing innovations to creating value.
- We value each individual as well as his or her achievements.

## — Daicel Group Conduct Policy

We, the Daicel Group, have established the 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.

## **— 1. We shall not only comply with all laws and regulations but also act with high ethical standards and sound judgment.**

### **1-1 Response with integrity to stakeholders**

We shall respond with integrity, respect and gratitude to all people connected to Daicel —customers, shareholders, business partners, employees and local society.

### **1-2 Compliance with laws and ethics**

Rigorously complying with legal rules and regulations, whether local or foreign, we shall act to be constantly trusted and respected by all in society by using sound social judgment in the performance of our duties.

### **1-3 Maintenance of effective internal systems and training**

In order to further ensure that laws and corporate ethics are complied with, we shall constantly review and improve our internal rules and regulations to strengthen effective internal systems and shall thoroughly familiarize the entire organization through training sessions.

### **1-4 Response to antisocial influences**

We, in cooperation with the police, industrial associations and regional entities, shall take a firm stand against anti-social influences and/or organizations that disturb civil order and safety. We shall have no connections with them in any way, either directly or indirectly.

## **— 2. We shall contribute to the development of society as good corporate citizens.**

### **2-1 Social contribution activities**

We shall make social contributions from the viewpoint of trying to coexist in mutual prosperity with society through corporate activities, through cultural and sporting events, as well as by assisting in rescue and relief operations in the event of an emergency such as an accident or natural disaster.

## **— 3. We shall offer safe, high-quality products and services that satisfy and gain the trust of our customers.**

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### **3-1 Offer of products and services that are of use to society**

We shall always listen to the opinions of each of our customers, such as consumers and users, and shall develop and offer products and/or services that are of use to society. We shall thereby contribute significantly to the realization of a society that is affluent and pleasant to live in.

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### **3-2 Safety and quality assurances of products and services**

With respect to the supply of our products and/or services, we shall be aware that safety and quality assurances are a corporate social responsibility. We shall strive for those assurances throughout the entire product life cycle, from product development and manufacture to distribution, sales and use.

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### **3-3 Provision of product quality information**

With respect to the supply of our products and/or services, we shall provide easily understandable product quality information, guides to safe usage, etc., as appropriate./p>

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### **3-4 Response to incidents involving products**

In the event of a safety or quality problem arising with a product supplied to a customer, we shall promptly respond with integrity to contain and prevent a recurrence of the problem.

## **— 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.**

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### **4-1 Compliance with international rules and the laws of each country**

In conducting our international business affairs, we shall fully look into and comply with international rules and the laws of each country.

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## 4-2 Coexistence with society at national and local levels

We shall respect cultures and customs in order to coexist with the national and local societies in which we operate our businesses.

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## 4-3 Contribution to the development of local society

Companies overseas shall enter into local society and contribute to the development of the locality by means of local procurement and employment to the maximum possible extent.

# — 5. We shall willingly and justly disclose reliable corporate information.

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## 5-1 Disclosure of corporate information

We shall actively disclose to actors in the financial markets, such as shareholders and investors, information concerning our corporate finances and the status of our business activities in an appropriate, timely and clear manner.

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## 5-2 Fair accounting procedures

We shall accurately and properly record and store information on our corporate trading, asset and expense status by using fair accounting procedures based on legal and generally accepted accounting standards.

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## 5-3 Prohibition of insider trading

We shall not buy or sell securities such as stocks or corporate bonds for the purpose of making personal profit, etc., by using undisclosed important information gained through business activities.

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## 5-4 Communication with society

We shall strive to promote the understanding of our corporate activities by active communication with society.

## **— 6. We shall conduct honest trade in accordance with the basic principles of fair and free competition.**

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### **6-1 Compliance with antitrust**

We shall not act in breach of antitrust laws and shall compete equitably and freely.

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### **6-2 Compliance with laws relating to imports/exports**

As an importer and exporter of technology and products, we shall examine and comply with the laws and regulations relating to imports/exports. The export of our technology and products shall in no way be illegally connected to the development and manufacture of weapons, munitions or narcotics.

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### **6-3 Advertisements**

We shall advertise on an equitable basis without defaming or denigrating other companies or their products and without using socially discriminatory language.

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### **6-4 Highly transparent political and governmental relationships**

We shall not engage in behavior that could be mistaken as corrupt but shall foster highly transparent relationships with government agencies and political bodies, whether in local or overseas activities.

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### **6-5 Procurement transactions**

With respect to procurement transactions, we shall comply with the Corporate Procurement Transaction Guidelines, shall conduct business fairly and honestly based on economically rational measures and shall not engage in the pursuit of personal profit.

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### **6-6 Business entertainment, etc.**

With respect to entertainment and gifts given to or received from clients, we shall act with a clear distinction between public and private matters within the scope of sound commercial practice and judgment.

## **— 7. We shall work positively to conserve the natural environment and to ensure safety.**

### **7-1 Reduction of environmental impact**

We shall address the reduction of environmental impact by such measures as preventing global warming through reduced energy consumption, activities aimed at saving natural resources, managing chemical substances, effective utilization of resources and reducing waste.

### **7-2 Realization of a sustainable society**

With global environmental issues positioned as a major subject of our business activities, we shall strive to realize a sustainable society that can balance environmental protection with economic development.

### **7-3 Safe working environments**

We shall not only comply with the laws in all of our activities, including research and development, manufacturing and distribution, but we shall also conduct our own assessments to promote all measures to ensure safety in our workplaces.

## **— 8. We shall properly manage corporate assets and information.**

### **8-1 Effective use of corporate resources**

We shall not use corporate resources such as people, materials, financing, information and time for private purposes, and shall make effective use of them.

### **8-2 Handling of confidential information**

We shall not acquire confidential information about our customers, business partners, etc. by illegal methods. We shall strictly control and shall not disclose or divulge without predetermined procedures any confidential information acquired from companies or third parties in the course of our business activities. We shall not use such information for anything other than the purpose intended.

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### **8-3 Maintenance and protection of intellectual property (IP) rights**

We shall strive to maintain and protect our corporate IP rights (covering patents, utility model rights, trademark and design rights) and shall not infringe IP rights held by third parties.

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### **8-4 Control of personal information**

We shall strictly control and shall not disclose, divulge or use for anything other than the purpose intended without the prior consent of the person concerned, any information of a personal nature acquired in the course of our business activities.

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### **8-5 Appropriate use of information systems**

We shall use in-house corporate information systems only for Company-authorized duties and shall pay particular attention to the prevention of theft or falsification of data. We shall enforce all the necessary information security measures to prevent any information leaks, etc.

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### **8-6 Behavior causing damage to the Company**

We shall not gain profit for ourselves or third parties and shall not harm the reputation of a company by using our business position or power or information acquired in the course of our business activities.

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**— 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.**

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### **9-1 Human rights/discrimination, harassment**

Our basic position shall be to respect humanity. We shall never violate human rights through such acts as discrimination on the grounds of ethnicity, nationality, creed, religion or gender, or through harassment.

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### **9-2 Lively workplace environment**

We shall strive to foster a lively workplace environment by promoting honest and open communication between employees.

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### **9-3 Respect for individual ability**

By establishing appropriate, fair methods and a range of human resource training procedures, we shall enable everyone to display his or her abilities to the fullest possible extent and mutually understand and respect all these diverse talents. Particularly overseas, we shall address employee skill development as a way of contributing to the development of local society.

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### **9-4 Healthy workplace environment**

We shall strive to create a workplace environment that is physically and mentally healthy by promoting all measures for health control.

## — 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.

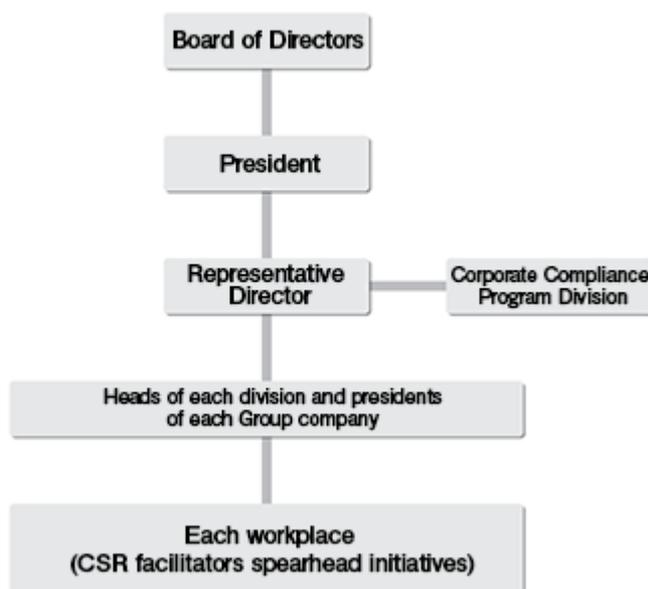
### Corporate Ethics Management System

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**



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## 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.

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## Daicel's Committees

To address specific compliance issues, such as export management and the protection of personal information, individual committees are established in accordance with each set of relevant rules and regulations. These committees consider pertinent issues and help resolve them in an effort to ensure robust compliance.

### EXAMPLES OF COMMITTEES

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

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## 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 ([Human Resource Development](#)), we systematically implement legal compliance education programs.

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## 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.

- ①The personal information and privacy of whistleblowers and those who request consultations must be protected;
- ②Adverse treatment in response to whistleblowers and those who request consultations must be prohibited; and
- ③Results 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.

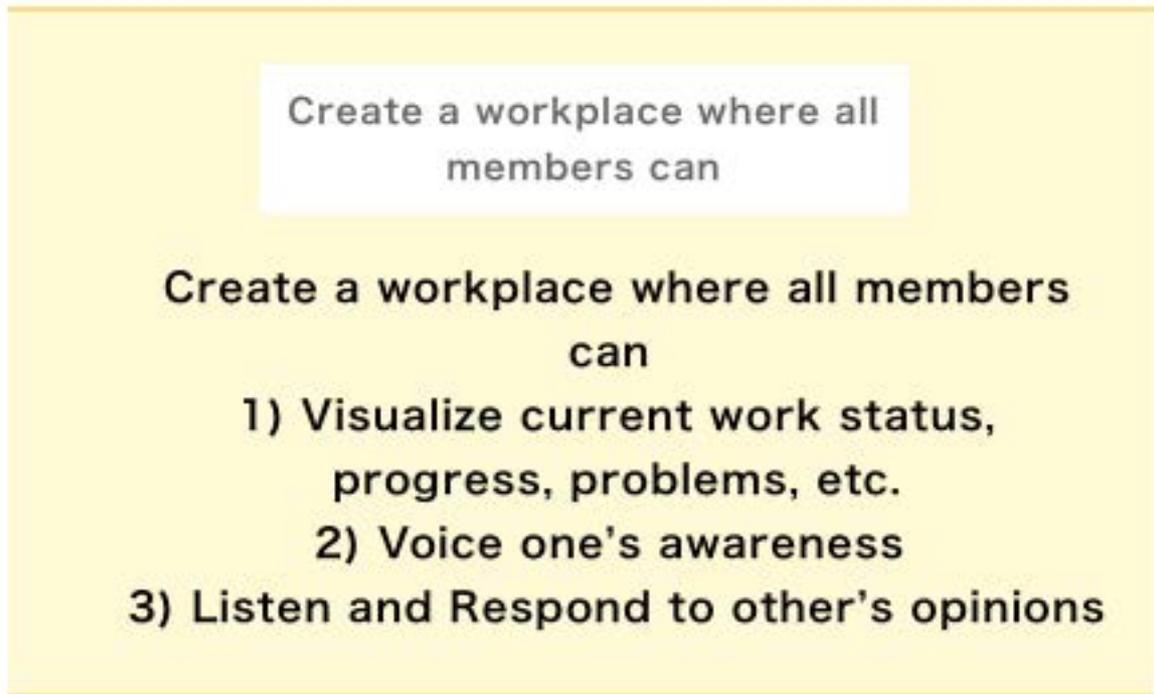
### The number\* of cases reported via the whistleblowing systems

FY 2016/3: 16	FY 2017/3: 16	FY 2018/3: 31
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\*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



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.

each department and company, the following initiatives were carried out by Daicel and its Group companies worldwide throughout the course of our first “DaicelGroup Compliance Enhancement Period” designated as August and September in FY2018/3.

### 1. Small-group discussion

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#### 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 ones 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 potential occurrence of fraud at their workplace and the actions they would need to take upon recognizing it. Thus, these case studies provided participants with meaningful training.

### 2. Educational sessions

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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.

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### 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.

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.



A corporate ethics seminar



Corporate ethics educational materials posted on a bulletin board

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➤ Corporate Governance System

[Click here >](#)

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➤ Internal Control Systems

[Click here >](#)

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➤ Risk Management Initiatives

[Click here >](#)

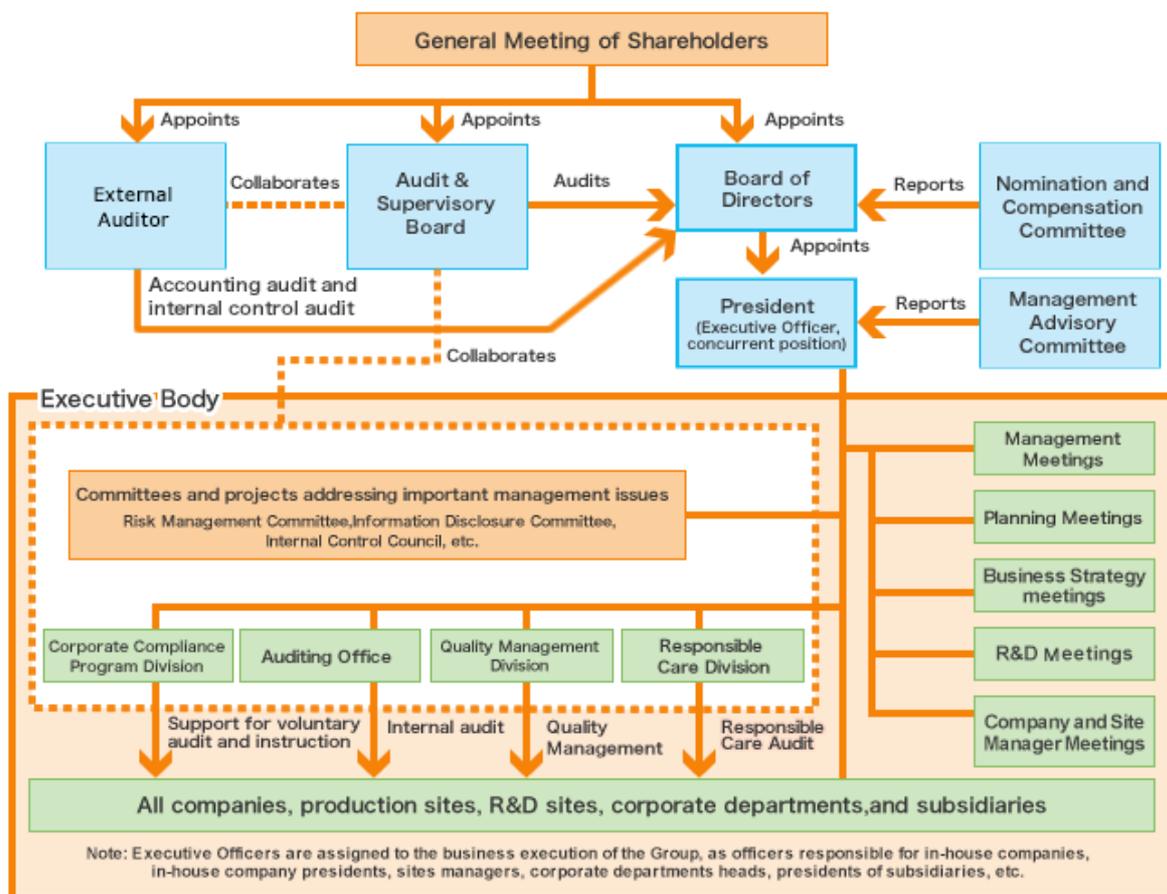
By strengthening its corporate governance, Daicel is increasing its corporate value. This is recognized as an important management initiative that will enable the Company to achieve its social mission and responsibilities as a listed company.

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.

Daicel is the company with Audit & Supervisory Board Members. Also, by welcoming external directors and allowing them to provide opinions and advice based on their expertise, the Company is working to ensure that the decisions made by its Board of Directors are appropriate and the execution of director duties is effectively supervised. The Company has also adopted an executive officer system. The adoption of the executive officer systems has enabled the Company to clearly separate its decision-making, supervisory and business execution functions. Such a clear division of roles has allowed us to bolster our business management structure and, consequently, corporate activities. In addition, Daicel has adopted an internal company system. Through this system, the Company is promoting various initiatives aimed at strengthening collaboration among its production, sales and R&D functions, improving productivity and strategic functions within its corporate departments, and reestablishing its R&D structure. The Company has established a corporate framework under which its Board of Directors makes management decisions in an efficient manner and fulfills its supervisory functions, and its Audit & Supervisory Board accomplishes its auditing and supervisory functions. Such a framework has enabled us to keep reinforcing our corporate governance.

● [Corporate Governance Report](#)

## — Corporate Governance



[Provisional Translation Only]

The Company provides this English translation of the original Japanese document solely for information purposes, and in the event of any discrepancy between this translation and the Japanese original, the latter shall prevail.

## Corporate Governance Report

Last Update: June, 27, 2018

**DAICEL CORPORATION**

Representative: Misao Fudaba, President and CEO

Contact: Investor Relations & Corporate Communications

Tel: +81-3-6711-8100

Securities Code: 4202

<https://www.Daicel.com>

The corporate governance of DAICEL CORPORATION (the “Company”) is described below.

### I. Basic Views on Corporate Governance, Capital Structure, Corporate Profile and Other Basic Information

#### 1. Basic Views

For Daicel, the strengthening of corporate governance is recognized as an important management issue to improve corporate value and fulfill the Company’s social mission and responsibility as a listed company. By clarifying the division of roles of each organization, the Company ensures mobility and institutes a management system that can promptly make decisions and implement them. As well, the Company actively incorporates external opinions into company management and improves both the transparency and fairness of management. Thus, the Company strives to maintain the soundness of its management.

#### [Reasons for Non-compliance with the Principles of the Corporate Governance Code]

(Note) The following is stated based on the code before the revision in June, 2018.

##### **Supplementary Principle 4-4-1**

Among its five Audit & Supervisory Board Members, the Company has appointed three Outside Audit & Supervisory Board Members, all of whom are identified as Independent Audit & Supervisory Board Members; two Standing Audit & Supervisory Board Members have also been appointed.

Standing Audit & Supervisory Board Members attend important internal meetings such as the Management Meeting, Planning Meeting, Business Strategy Meeting and Risk Management Committee, which enables them to audit the overall management of corporate affairs.

In addition, although the various Audit & Supervisory Board Members and Directors exchange information and opinions as needed, the Company is scheduled to further enhance the system to ensure greater cooperation between Audit & Supervisory Board Members and External Directors in the future.

#### [Disclosure Based on the Principles of the Corporate Governance Code]

(Note) The following is stated based on the code before the revision in June, 2018.

##### **Principle 1-4**

We will adhere to a shareholding policy when this principle is judged to contribute to the improvement of medium- and long-term corporate value from the perspective of strengthening business relationships, maintaining the stability of transactions with financial institutions, and maintaining or strengthening cooperative business relationships. We will periodically verify the status, objective and rationale for our shareholding policy and report our findings to the Board of Directors.

In exercising voting rights pertaining to our shareholding policy, we will exercise our voting rights to contribute to sustainable growth of the companies we invest in and enhance corporate value over the medium and long terms, with the premise of contributing to the profitability of the Company and the Group.

#### **Principle 1-7**

In an effort to monitor transactions between related parties, the Company conduct a questionnaire every year to determine whether transactions have taken place between Directors, Audit & Supervisory Board Members, Executive Officers, and their close relatives and the Group; moreover, to determine whether transactions have taken place between a group whose the substantial majority of voting rights were held by Directors, Audit & Supervisory Board Members, Executive Officers or their close relatives and the Group. The Management Committee confirms the importance and the nature of all transactions taking place between related parties, such as whether the amount of the transaction is large or irregular.

In addition, the Company requires the Board of Directors to deliberate and resolve conflicts of interest regarding transactions involving Directors (through resolutions of the Board of Directors and post-exit reports at every six months).

#### **Principle 3-1**

1) The Company has posted its basic philosophy, long-term vision, and an outline of its medium-term management plan on its website.

2) The Company posts its basic views to corporate governance on its website and describes it in the Securities Report and in Corporate Governance Report I, Article 1.

3) The policies and procedures for determining compensation for Directors and Audit & Supervisory Board Members are described in the Securities Report; in Corporate Governance Report II, Article 1, "Director Remuneration"; and in the convocation notice of the Annual General Meeting of Shareholders.

4) With regard to the appointment of top management executives and the nomination of candidates for the positions of Director and Audit & Supervisory Board Member, the Company makes its decisions according to the report of the Nomination and Compensation Committee composed External Directors, the chairman of the Board of Directors and representative Directors, and chaired by an External Director, and whose majority is External Director. With regard to the selection of Executive Officers, a choice is made from a certain number of candidates following evaluations and consideration of their performance.

With regard to the nomination of Directors, they are eventually selected by the Board of Directors based on the scale of the Company along with due consideration for the candidates' balance and diversity of knowledge, experience, and ability as it relates to the entire Board of Directors.

With regard to the nomination of candidates for Audit & Supervisory Board Member, a decision is made in agreement with the Audit & Supervisory Board with consideration given to the scale of the Company. The Company's Directors also take into account the knowledge, experience, and ability to conduct audits accurately, fairly, and efficiently.

5) The reasons for the nomination and appointment of candidates for the positions of Director and Audit & Supervisory Board Member are presented in the convocation notice for the Annual General Meeting of Shareholders. In addition, the reasons for nomination and appointment of individual candidates for the positions of External Director and Outside Audit & Supervisory Board Member are presented in the Securities Report and in the Corporate Governance Report II, Article 1, "Directors" and "Audit & Supervisory Board."

#### **Supplementary Principle 4-1-1**

The Board of Directors deliberates on important issues as stipulated in laws and regulations, the Articles of Incorporation and the Board of Directors' Regulations. Decision-making and the undertaking of other matters are entrusted to Executive Officers and to the Management Meeting, the decision-making body at the business execution level. The Board of Directors receives reports on the results of decision-making undertaken at the Management Meeting and on the content of important meetings such as the Management Meeting, Planning Meeting, and Business Strategy Meeting, as well as the status of business execution by Executive Officers. Through these reports, the Board of Directors oversees decision-making and business

execution by the Management Meeting and Executive Officers.

**Principle 4-9**

Regarding standards ensuring the independence of External Directors and Outside Audit & Supervisory Board Members from the Company, the Company has established Standards for Independence of External Directors/Outside Audit & Supervisory Board Members, which are presented in the convocation notice for Annual General Meeting of Shareholders; Securities Reports; the Corporate Governance Report II, Article 1, “Independent Directors/ Audit & Supervisory Board Members”; and on the Company website.

**Supplementary Principle 4-11-1**

Company policy is to ensure the members of the Board of Directors have the ability and insight to serve as Directors and have diverse knowledge, experience, and expertise. The Board of Directors is committed to maintaining the scale to make decisions promptly and efficiently while engaging in sufficient and appropriate discussions in meetings. At the present time, the Company considers 10 or fewer members as an appropriate number.

Regarding candidates nominated for the Board of Directors, the Company makes its decisions according to the report of the Nomination and Compensation Committee composed External Directors, the chairman of the Board of Directors and representative Directors, and chaired by an External Director, and whose majority is External Director.

**Supplementary Principle 4-11-2**

Every year, we disclose the concurrent positions of External Directors and Outside Audit & Supervisory Board Members at other companies through the convocation notice of Annual General Meeting of Shareholders.

**Supplementary Principle 4-11-3**

In order to maintain or improve the effectiveness of the Board of Directors, the Company analyzes and evaluates the performance of the Board of Directors once a year through a self-assessment of Directors and Audit & Supervisory Board Members.

Specifically, the Company conducts individual surveys of Directors and Audit & Supervisory Board Members regarding the composition of the Board of Directors; the content of its deliberations, resolutions, and reports and the like; and its operating methods. The Company analyzes and evaluates the results in order to confirm that the Board of Directors is functioning effectively. In addition, the Company uses the opinions of the Directors and Audit & Supervisory Board Members to further enhance discussions on management strategy, provide necessary information for management decisions and supervision, and simplify technical terminology, thus improving the Board of Directors in a timely manner to ensure its increased effectiveness in the future.

**Supplementary Principle 4-14-2**

Directors and Audit & Supervisory Board Members attend external seminars and training sessions in order to acquire the knowledge necessary for the performance of their duties and work tasks in addition to updating their skills and the like. The Company bears the costs of these activities.

Moreover, newly appointed Directors and Audit & Supervisory Board Members (excluding External Directors and Outside Audit & Supervisory Board Members) are required to attend external seminars. The Company also provides annual compliance training for Directors, Audit & Supervisory Board Members, Executive Officers, and other senior employees (excluding external officers). The Company continues to offer opportunities for them to deepen their understanding of the Daicel Group by providing introductory initiatives for the Board of Directors and conducting factory tours for External Directors and Outside Audit & Supervisory Board Members.

**Principle 5-1**

The Company-appointed head of the Corporate Support Center is an Executive Officer responsible for IR, and the Investor Relations & Corporate Communications is responsible for IR. Earnings briefing sessions are held each quarter for shareholders and investors. In addition, the President and Executive Officers responsible for IR provide shareholders and investors with explanations of these earnings reports as well as interim results.

In view of the Company’s shareholding structure, the Company endeavors to engage in dialogue with

foreign investors and participates in conferences for foreign investors sponsored by securities companies.

## 2. Capital Structure

Foreign Shareholding Ratio	More than 30%
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### [Status of Major Shareholders]

Name / Company Name	Number of Shares Owned	Percentage (%)
Japan Trustee Services Bank, Ltd. (Trust Account)	22,612,800	6.67
The Master Trust Bank of Japan, Ltd. (Trust Account)	17,747,300	5.23
Nippon Life Insurance Company	17,402,214	5.13
Toyota Motor Corporation	15,000,000	4.42
National Mutual Insurance Federation of Agricultural Cooperatives	7,779,300	2.29
Japan Trustee Services Bank, Ltd. (Trust Account 9)	7,692,200	2.27
Sumitomo Mitsui Banking Corporation	7,096,176	2.09
The Bank of Tokyo-Mitsubishi UFJ, Ltd.	6,503,097	1.91
FUJIFILM Holdings Corporation	5,769,440	1.70
STATE STREET BANK WEST CLIENT – TREATY 505234	5,446,536	1.60

Controlling Shareholder (except for Parent Company)	---
Parent Company	None

### Supplementary Explanation

[Status of Major Shareholders] is as of March 31, 2018. The Bank of Tokyo-Mitsubishi UFJ, Ltd. changed its legal name to “MUFG Bank, Ltd.” on April 1, 2018.

The Change in Mass Holdings Report provided for public inspection dated September 26, 2016, indicates that the Nippon Life Insurance Company and two other companies held the following shares as of September 15, 2016. However, because the Company cannot confirm the number of shares of real property held as of March 31, 2018, these are not included in the Status of Major Shareholders table above.

Details of Change in Mass Holdings Report

Nippon Life Insurance Company 18,095,000 shares 5.17%

Nissei Asset Management Corporation 2,361,000 shares 0.67%

Mitsui Life Insurance Company Limited 2,594,000 shares 0.74%

Total 23,052,000 shares 6.59%

The Change in Mass Holdings Report provided for public inspection dated August 29, 2016, indicates that the Mitsubishi UFJ Financial Group’s four co-owners held the following shares as of August 22, 2016. However, because the Company cannot confirm the number of shares of real property held as of March 31, 2018, these are not included in the Status of Major Shareholders table above. (Note: The Bank of Tokyo-Mitsubishi UFJ, Ltd. changed its legal name to “MUFG Bank, Ltd.” on April 1, 2018.)

Details of Change in Mass Holdings Report

The Bank of Tokyo-Mitsubishi UFJ, Ltd. 6,503,000 shares 1.86%

Mitsubishi UFJ Trust and Banking Corporation 11,474,000 shares 3.28%

Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. and one other company 4,044,000 shares 1.15%

Total 22,021,000 shares 6.29%

The Change in Change Report pertaining to Mass Holdings Report provided for public inspection dated December 6, 2017, indicates that BlackRock Japan Co., Ltd. and ten other companies held the following shares as of November 30, 2017. However, because the Company cannot confirm the number of shares of real property held as of March 31, 2018, these are not included in the Status of Major Shareholders table above.

Details of Change in Mass Holdings Report

BlackRock Japan Co., Ltd. 4,880,000 shares 1.39%

BlackRock Advisors, LLC 2,134,000 shares 0.61%

BlackRock Fund Advisors 4,179,000 shares 1.19%

BlackRock Institutional Trust Company, N.A. 6,004,000 shares 1.72%

BlackRock Asset Management Ireland Limited and six other companies 4,730,000 shares 1.36%

Total 21,927,000 shares 6.27%

### 3. Corporate Attributes

Listed Stock Market and Market Section	Tokyo Stock Exchange First Section
Fiscal Year-End	March
Type of Business	Chemicals
Number of Employees (consolidated) as of the End of the Previous Fiscal Year	More than 1000
Sales (consolidated) as of the End of the Previous Fiscal Year	From ¥100 billion to less than ¥1 trillion /
Number of Consolidated Subsidiaries as of the End of the Previous Fiscal Year	From 50 to less than 100

### 4. Policy on Measures to Protect Minority Shareholders in Conducting Transactions with Controlling Shareholder

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### 5. Other Special Circumstances which may have Material Impact on Corporate Governance

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## II. Business Management Organization and Other Corporate Governance Systems regarding Decision-making, Execution of Business, and Oversight in Management

### 1. Organizational Composition and Operation

Organization Form	Company with Audit & Supervisory Board Members
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#### [Directors]

Maximum Number of Directors Stipulated in Articles of Incorporation	10
Term of Office Stipulated in Articles of Incorporation	1
Chairperson of the Board	President
Number of Directors	8
Number of Outside Directors	4
Number of Independent Directors	4

#### Outside Directors' Relationship with the Company (1)

Name	Attribute	Relationship with the Company*											
		a	b	c	d	e	f	g	h	i	j	k	
Tadao Kondo	From another company									△			
Masafumi Nogimori	From another company									△			
Kunie Okamoto	From another company									○			
Teisuke Kitayama	From another company					△							

\* Categories for "Relationship with the Company"

- \* "○" when the director presently falls or has recently fallen under the category;
- "△" when the director fell under the category in the past
- \* "●" when a close relative of the director presently falls or has recently fallen under the category;
- "▲" when a close relative of the director fell under the category in the past

- a. Executive of the Company or its subsidiaries
- b. Non-executive director or executive of a parent company of the Company
- c. Executive of a fellow subsidiary company of the Company
- d. A party whose major client or supplier is the Company or an executive thereof
- e. Major client or supplier of the listed company or an executive thereof
- f. Consultant, accountant or legal professional who receives a large amount of monetary consideration or other property from the Company besides compensation as a director/Audit & Supervisory Board Member
- g. Major shareholder of the Company (or an executive of the said major shareholder if the shareholder is a legal entity)
- h. Executive of a client or supplier company of the Company (which does not correspond to any of d, e, or f) (the director himself/herself only)
- i. Executive of a company, between which and the Company outside directors/Audit & Supervisory Board Member are mutually appointed (the director himself/herself only)
- j. Executive of a company or organization that receives a donation from the Company (the director himself/herself only)

k. Others

Outside Directors' Relationship with the Company (2)

Name	Designation as Independent Director	Supplementary Explanation of the Relationship	Reasons of Appointment
Tadao Kondo	○	Mr. Kondo conducted business at Nippon Shokubai Co., Ltd. until June 2012. Nippon Shokubai is a supplier of raw materials and is a sales target for the Company's products.	<p>From the insight and experience he has gained as an executive well-versed in the management of chemical production, Mr. Kondo speaks out proactively regarding management strategy such as M&amp;A policy and cooperation with other companies and others when making important decisions with the Board of Directors from a perspective of fairness and impartiality. He is thus fully capable of fulfilling his supervisory duties. Moreover, he meets the Standards for Independence of External Directors/Outside Audit &amp; Supervisory Board Members stipulated by the Company in [Independent Directors/ Audit &amp; Supervisory Board Members]</p> <p>In light of these facts, the Company has determined that no possibility of a conflict of interest exists with regard to general shareholders and has thus appointed him as an Independent Director.</p>
Masafumi Nogimori	○	Mr. Nogimori was an Executive Officer of Astellas Pharma Inc. until June 2016. This company is a sales target for the Company's products.	<p>From the insight and experience he has gained as an executive well-versed in the management of pharmaceuticals production, Mr. Nogimori speaks out proactively regarding management strategy such as capital structure policy and new business and others when making important decisions with the Board of Directors from a perspective of fairness and impartiality. He is thus fully capable of fulfilling his supervisory duties. Moreover, he meets the Standards for Independence of External Directors/Outside Audit &amp; Supervisory Board Members stipulated by the Company in [Independent Directors/ Audit &amp; Supervisory Board Members]</p> <p>In light of these facts, the Company has determined that no possibility of a conflict of interest exists with regard to general shareholders and has thus appointed him as an Independent Director.</p>

Kunie Okamoto	○	Mr. Okamoto conducted business at Nippon Life Insurance Company until March 2018. This company is a lender to Daicel and holds an insurance contract with Daicel.	From the insight and experience he has gained as an executive well-versed in the management of financial institutions, Mr. Okamoto is expected to speak out proactively when making important decisions with the Board of Directors from a perspective of fairness. He is thus fully capable of fulfilling his supervisory duties. Moreover, he meets the Standards for Independence of External Directors/Outside Audit & Supervisory Board Members stipulated by the Company in [Independent Directors/ Audit & Supervisory Board Members] In light of these facts, the Company has determined that no possibility of a conflict of interest exists with regard to general shareholders and has thus appointed him as an Independent Director.
Teisuke Kitayama	○	Mr. Kitayama conducted business at the Sumitomo Mitsui Banking Corporation, Company's main bank until June 2005 and served as an Executive Officer of Sumitomo Mitsui Financial Group, Inc., the parent company of Sumitomo Mitsui Banking Corporation until March 2011.	From the insight and experience he has gained as an executive well-versed in the management of financial institutions, Mr. Kitayama is expected to speak out proactively when making important decisions with the Board of Directors from a perspective of fairness. He is thus fully capable of fulfilling his supervisory duties. Moreover, he meets the Standards for Independence of External Directors/Outside Audit & Supervisory Board Members stipulated by the Company in [Independent Directors/ Audit & Supervisory Board Members] In light of these facts, the Company has determined that no possibility of a conflict of interest exists with regard to general shareholders and has thus appointed him as an Independent Director.

Voluntary Establishment of Committee(s) Corresponding to Nomination Committee or Remuneration Committee	Established
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Committee's Name, Composition, and Attributes of Chairperson
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	Committee Corresponding to Nomination Committee	Committee Corresponding to Remuneration Committee
Committee's Name	Nomination and Compensation Committee	Nomination and Compensation Committee
All Committee Members	6	6

Full-time Members	0	0
Inside Directors	2	2
Outside Directors	4	4
Outside Experts	0	0
Other	0	0
Chairperson	External Directors	External Directors

#### Supplementary Explanation

Nomination Committees and Compensation Committees are established as bodies that report on the nomination of Directors and Executive Officers and make recommendations on their compensation, under the consultation of the chairperson of the Board of Directors or the Audit & Supervisory Board.

As of June 22, 2018, the composition of the committee was as follows:

Chairman: Masafumi Nogimori, External Director

Member: Tadao Kondo, External Director

Member: Kunie Okamoto, External Director

Member: Teisuke Kitayama, External Director

Member: Misao Fudaba, President & CEO

Member: Masumi Fukuda, Representative Director

#### [Audit & Supervisory Board]

Establishment of Audit & Supervisory Board	Established
Maximum Number of Audit & Supervisory Board Members Stipulated in Articles of Incorporation	5
Number of Audit & Supervisory Board Members	5

#### Cooperation among Audit & Supervisory Board Members, Accounting Auditors and Internal Audit Departments

Audit & Supervisory Board Members regularly receive reports from the Company's internal auditing divisions and the External Auditor. In addition, they collaborate on an "as-needed" basis through exchanges of information and opinions when undertaking company audits.

##### **Collaboration with External Auditor**

In order to strengthen cooperation with the External Auditor, the members of the Audit & Supervisory Board hold meetings about eleven times a year and exchange audit plans with one another. The members have also established a structure to ensure the External Auditor appropriately performs his or her duties (Article 131 of the Ordinance on Company Accounting), interim reports as well as quarterly reviews are issued on the status of audits, reports are issued on the status of audit implementation after the annual closing of accounts, and reports are issued on the status of internal control audits. Audit & Supervisory Board Members provide the External Auditor with explanations of the status of audits conducted by the Audit & Supervisory Board Members.

Audit & Supervisory Board Members are present at internal control interviews of internal audits conducted by the External Auditor.

Audit & Supervisory Board Members consent to audit compensation decisions of the External Auditor. Moreover, they make the decision on whether to reappoint the External Auditor.

Ryo Ichida, Outside Audit & Supervisory Board Member, is qualified as a Certified Public Accountant and Tax Accountant and has considerable knowledge of finance and accounting.

**Collaboration with the Auditing Office**

About every two months the Auditing Office notifies Audit & Supervisory Board Members with respect to the status of internal audits, particularly the status of improvement and evaluation of internal controls related to financial reporting.

**Collaboration with the Quality Management Division**

Audit & Supervisory Board Members interview the Quality Management Division three times a year regarding quality assurance within the Group.

**Collaboration status with the Corporate Compliance Program Division**

In addition to conducting regular meetings with the Corporate Compliance Program Division three times a year, Audit & Supervisory Board Members participate in top management reviews and corporate compliance officer training.

**Collaboration with Responsible Care Division**

Audit & Supervisory Board Members conduct interviews on the activities of the Responsible Care Division twice a year, in addition to participating in the Daicel Group Responsible Care Promotion Conference held annually with an eye to improving the level of awareness and initiatives regarding the Group's philosophy and policy with respect to Responsible Care.

Meanwhile, Outside Audit & Supervisory Board Members receive reports on the content of the state of cooperation with each internal audit division (Auditing Office, Quality Management Division, Corporate Compliance Program Division, and Responsible Care Division) mainly through the Audit & Supervisory Board and provide commentary and opinions as necessary.

Appointment of Outside Audit & Supervisory Board Members	Appointed
Number of Outside Audit & Supervisory Board Members	3
Number of Independent Audit & Supervisory Board Members	3

**Outside Audit & Supervisory Board Member's Relationship with the Company (1)**

Name	Attribute	Relationship with the Company*												
		a	b	c	d	e	f	g	h	i	j	k	l	m
Toshio Takano	Lawyer													
Ryo Ichida	CPA													
Junichi Mizuo	Academic													

\* Categories for "Relationship with the Company"

- \* "○" when the director presently falls or has recently fallen under the category;
- "△" when the director fell under the category in the past
- \* "●" when a close relative of the director presently falls or has recently fallen under the category;
- "▲" when a close relative of the director fell under the category in the past

- a. Executive of the Company or its subsidiary
- b. Non-executive director or accounting advisor of the Company or its subsidiaries
- c. Non-executive director or executive of a parent company of the Company
- d. Audit & Supervisory Board Member of a parent company of the Company
- e. Executive of a fellow subsidiary company of the Company
- f. A party whose major client or supplier is the Company or an executive thereof

- g. Major client or supplier of the Company or an executive thereof
- h. Consultant, accountant or legal professional who receives a large amount of monetary consideration or other property from the Company besides compensation as an Audit & Supervisory Board Member
- i. Major shareholder of the Company (or an executive of the said major shareholder if the shareholder is a legal entity)
- j. Executive of a client or supplier company of the Company (which does not correspond to any of f, g, or h) (the Audit & Supervisory Board Member himself/herself only)
- k. Executive of a company, between which and the Company outside directors/Audit & Supervisory Board Member are mutually appointed (the Audit & Supervisory Board Member himself/herself only)
- l. Executive of a company or organization that receives a donation from the Company (the Audit & Supervisory Board Member himself/herself only)
- m. Others

Outside Audit & Supervisory Board Member's Relationship with the Company (2)

Name	Designation as Independent Audit & Supervisory Board Members	Supplementary Explanation of the Relationship	Reasons of Appointment
Toshio Takano	○	-----	<p>Mr. Takano makes fair and impartial statements about confirmation of questions about the operation condition of internal whistle-blowing system and validity concerning performance from a professional perspective as a lawyer and speaks out proactively regarding the status of the creation of new business and risk management. Using his advanced expertise and insights as a legal professional and the experience cultivated in corporate legal affairs, Mr. Takano plays important role in making important decisions of the Board of Directors and engages in resolutions and consultations with the Audit &amp; Supervisory Board, including the formulation of audit policies. Thus, he fully carries out his audit responsibilities and meets the Standards for Independence of External Directors/ Outside Audit &amp; Supervisory Board Members stipulated by the Company in [Independent Directors/ Audit &amp; Supervisory Board Members]</p> <p>In light of these facts, the Company has determined that no possibility of a conflict of interest exists with regard to general shareholders and has thus appointed him as an Independent Audit &amp; Supervisory Board Member.</p>
Ryo Ichida	○	-----	<p>Mr. Ichida makes fair and impartial statements about confirmation of questions about the operation condition of internal whistle-blowing system and validity from a professional point of view as a certified public accountant</p>

			<p>and licensed tax accountant and speaks out proactively regarding the status of capital investment and risk management. Mr. Ichida plays important role in making important decisions of the Board of Directors and engages in resolutions and consultations with the Audit &amp; Supervisory Board including the formulation of audit policies while using the insights and experience he has gained as a certified public accountant and tax accountant. Thus, he fully carries out his audit responsibilities and meets the Standards for Independence of External Directors/ Outside Audit &amp; Supervisory Board Members stipulated by the Company in [Independent Directors/ Audit &amp; Supervisory Board Members]</p> <p>In light of these facts, the Company has determined that no possibility of a conflict of interest exists with regard to general shareholders and has thus appointed him as an Independent Audit &amp; Supervisory Board Member.</p>
Junichi Mizuo	○	-----	<p>From the insight and experience he has gained as an academic study CSR, corporate governance and business ethics, Mr. Mizuo is expected to speak out proactively from a perspective of fairness in making important decisions with the Board of Directors and in resolutions and consultations with the Audit &amp; Supervisory Board including the formulation of audit policies. He is thus fully capable of fulfilling his supervisory duties. Moreover he meets the Standards for Independence of External Directors/ Outside Audit &amp; Supervisory Board Members stipulated by the Company in [Independent Directors/ Audit &amp; Supervisory Board Members]</p> <p>In light of these facts, the Company has determined that no possibility of a conflict of interest exists with regard to general shareholders and has thus appointed him as an Independent Audit &amp; Supervisory Board Member.</p>

**[Independent Directors/ Audit & Supervisory Board Members]**

Number of Independent Directors/ Audit & Supervisory Board Members	7
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Matters relating to Independent Directors/ Audit & Supervisory Board Members

The Company's Standards for Independence of External Directors/ Outside Audit & Supervisory Board Members is as follows.

The independence of External Directors/Outside Audit & Supervisory Board Members of the Company refers to such a person being independent from the Company's management without falling under any of the following:

1. A person executing the business, etc. ("Executing Person") of the Company (\*1) and its affiliates (hereinafter, "the Group") and their relatives, etc. (\*2);
2. A party for which the Group is a principal business partner (\*3) or an Executing Person thereof;
3. A principal business partner of the Group (\*4) or an Executing Person thereof;
4. A major shareholder of the Company (\*5) or an Executing Person thereof;
5. A director and other Executing Person of an organization (\*6) that has received a certain amount or more of donations or subsidies from the Group;
6. A consultant, certified public accountant or other accounting professional, or lawyer or other legal professional who has received a substantial amount of monetary compensation or other consideration other than director/corporate auditor compensation from the Group (\*7) (if the party receiving such consideration is a corporation, association or other entity, a person belonging to the said entity or a person who has belonged to the said entity in the past three years).

(\*1) An Executing Person refers to those who conduct business operations or conducted business operations within the past three years, including directors (excluding external directors), executive officers and employees.

(\*2) Relatives refer to relatives within the second degree of kinship of those who conduct important business operations, including directors (excluding external directors), executive officers and division managers.

(\*3) A party for which the Group is a principal business partner refers to a business partner group (which means entities that belong to the consolidated group to which the direct business partner belongs; the same shall apply hereinafter) that supplies products and services to the Group, where the business partner group's trading amount with the Group exceeds 2% of the consolidated sales of the business partner group in the any of the recent past three fiscal year.

(\*4) A principal business partner of the Group refers to those who fall under either of the following:

(1) A business partner group to whom the Group supplies products and services, where the Group's trading amount with such group exceeds 2% of the Group's consolidated sales in the any of the recent past three fiscal year.

(2) A financial institution group (which means entities that belong to the consolidated group to which the direct lender belongs) from which the Group has borrowed funds, where the total amount of the Group's borrowings from the financial institution group exceeds 2% of the Group's consolidated total assets at the end of the any of the recent past three fiscal year.

(\*5) A major shareholder of the Company refers to those who directly or indirectly hold voting interests of 10% or more.

(\*6) An organization that has received a certain amount or more of donations or subsidies from the Group refers to public interest incorporated foundations, public interest incorporated associations, non-profit organizations, etc. which receive donations or subsidies of over 10 million yen per year within any of the past three years from the Group.

(\*7) A consultant, certified public accountant or other accounting professional, or lawyer or other legal professional who has received a substantial amount of monetary compensation or other consideration other than director/corporate auditor compensation from the Group refers to those who received such consideration other than Director/ Audit & Supervisory Member compensation of over 10 million yen from the Group in any of the recent past three fiscal year or those who belong to an entity which receives such consideration from the Group in amount exceeding 2% of the said entity's consolidated sales or gross income.

The Company has designated all External Directors /Outside Audit & Supervisory Board Members meeting the qualifications for Independent Directors / Audit & Supervisory Board Members as Independent Directors / Audit & Supervisory Board Members.

[Incentives]

Incentive Policies for Directors	Performance-linked Remuneration / Other
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Supplementary Explanation

The Company has decided to introduce performance-based bonuses as a short-term incentive. It will, therefore, pay bonuses in accordance with the accomplishment of performance indicators designated by the Board of Directors as of July 2018.

From July 2018 onward, the Company has also introduced a Restricted Stock Compensation System as a medium- and long-term incentive for Directors (excluding External Directors), Executive Officers (excluding those serving concurrently as Director) and Subordinate Directors, aiming to step up value-sharing with shareholders and motivate them to contribute more to the improvement in corporate value in the medium- and long-term. Details of this Stock Compensation Scheme are disclosed in the Securities Registration Statement.

(Excerpts from the Securities Registration Statement: Details of the Stock Compensation Scheme)

Eligible Directors etc. shall pay all monetary compensation receivables provided by the Company in accordance with this scheme as property contributed in kind, and the Company's common shares shall be issued to the eligible Directors etc. or disposed of by the Company. The total amount of monetary compensation receivables that the Company provides to eligible directors, etc. in accordance with this scheme shall not exceed 100 million yen per year and the total number of common stock of the Company to be issued or disposed of shall not exceed 125 thousand shares per year (however, in the event that a split of the Company's common stock [including allotment of the Company's common stock without contribution] or a reverse stock split is carried out or any event arises that makes it necessary to adjust the total number of the Company's common stock to be issued or disposed of as restricted stocks, such total number shall be adjusted to a reasonable extent). The amount of payment per share shall be determined by the Board of Directors based on the closing price of the Company's common stock on the Tokyo Stock Exchange on the business day immediately preceding the date of the resolution by the Board of Directors (if no trading is reported on that day, the closing price of the trading day immediately preceding that day), within a scope that it shall not be particularly advantageous to the eligible Directors etc. who take the restricted shares.

In the subscription specified by the Securities Registration Statement, the Company decided to grant a total amount of ¥182,474,528 in monetary compensation receivables for 154,117 common shares and set 30 years of transfer restricted period, after taking into account the objectives of the scheme, duties of eligible Directors etc. and other factors and according to the report by the Nomination and Compensation Committee (chaired by an External Director), the majority of which is represented by External Directors.

Recipients of Stock Options	-----
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Supplementary Explanation

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**[Director Remuneration]**

Disclosure of Individual Directors' Remuneration	No Individual Disclosure
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Supplementary Explanation

Amounts of compensation, etc., for Directors and Audit & Supervisory Board Members of the Company for fiscal 2017 are as follows:  
 Total Amount of Compensation, etc., Per Executive Category, Total Amount of Compensation, etc., by Type and Number of Executives

- Director (excluding External Directors) 4 persons, 233 million yen (including monthly compensation of 190 million yen and bonus of 43 million yen)

- Audit & Supervisory Board Member (excluding Outside Audit & Supervisory Board Members) 2 persons, 57 million yen (including monthly compensation of 47 million yen and bonus of 10 million yen)
  - External Director: 4 persons, 38 million yen (monthly compensation only)
  - Outside Audit & Supervisory Board Members: 3 persons, 30 million yen (monthly compensation only)
- Notes:
1. A resolution of the 152th Ordinary General Meeting of Shareholders held on June 22, 2018, held the amount of compensation for Directors to a maximum of 500 million yen annually (including a maximum of 60 million yen per year for External Directors).
  2. A resolution of the 152th Ordinary General Meeting of Shareholders held on June 22, 2018, held the amount of compensation for Audit & Supervisory Board Members to a maximum of 120 million yen annually.

Policy on Determining Remuneration Amounts and Calculation Methods	Established
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#### Disclosure of Policy on Determining Remuneration Amounts and Calculation Methods

1. Approach regarding Compensation etc.
  - (1) Compensation etc. of Directors and Audit & Supervisory Board Members shall be determined by Board of Directors' resolution for Directors, and Audit & Supervisory Board Members' discussion for Audit & Supervisory Board Members, within the scope of the total amount of compensation etc. approved by the general meeting of shareholders.
  - (2) Compensation etc. of Directors and Audit & Supervisory Board Members shall consist of monthly compensations and bonuses. Their compensation system shall be closely linked with the Company's performance and reflect their duties.  
From July 2018 onward, compensation etc. of Directors shall consist of monthly compensations, bonuses and stock-based compensations, and their compensation system shall be closely linked with the Company's performance and reflect their duties. Compensation etc. of Audit & Supervisory Board Members shall consist of monthly compensations and their compensation system shall reflect their duties.
  - (3) To ensure transparency and fairness with regard to compensation etc., the Company will establish opportunities for the exchange of opinions at the Nomination and Compensation Committee, which is an advisory body, and the Board of Directors.
  - (4) Bonuses will not be paid to External Directors or Outside Audit & Supervisory Board Members.  
From July 2018 onward, bonuses and stock-based compensations will not be paid to External Directors or Outside Audit & Supervisory Board Members.
2. Method of calculating monthly compensation  
In principle, the monthly compensation of Directors and Audit & Supervisory Board Members is a fixed amount paid in accordance with internal rules that are determined by the Directors' duties and job titles in business execution and as to whether or not the Audit & Supervisory Board Members are full-time. Regarding monthly compensation, the Company has revised the compensation to an appropriate and fair level reflective of its business performance, accomplishment of medium- and long-term business plans, and social situation, among other factors.
3. Method of calculating bonuses  
Bonuses for Directors and Audit & Supervisory Board Members are determined each time payment is made after considering business performance in a single fiscal year, accomplishment of medium- and long-term business plans, and social situation, among other factors.  
From July 2018 onward, aiming to step up value-sharing with shareholders and motivate Directors to contribute more to the improvement in the Company's business performance, the Company shall link bonuses for Directors more closely with business performance and pay them in accordance with the accomplishment of performance indicators designated by the Board of Directors.
4. Regarding stock-based compensations  
From July 2018 onward, aiming to step up value-sharing with shareholders and motivate Directors to contribute more to the improvement in corporate value in the medium- and long-term, the Company has introduced a Restricted Stock Compensation System as stock-based compensations for Directors. At the 152nd Annual General Meeting of Shareholders held on June 22, 2018, we adopted a resolution to provide

Directors with monetary compensation receivables not exceeding 100 million yen per year as compensation that serves as property for acquiring restricted stocks.

5. Nomination and Compensation Committee

To ensure transparency, validity and objectivity, the amount of compensation etc. of Directors and Audit & Supervisory Board Members is determined in accordance with the report by the Nomination and Compensation Committee (chaired by an External Director), the majority of which is represented by External Directors.

**[Supporting System for Outside Directors and/or Audit & Supervisory Board Members]**

The Board of Directors (with the attendance of Audit & Supervisory Board Members) also provides a summary of the agenda of all the conference bodies described in the securities report to External Directors in each instance.

With regard to particularly important decisions, the Director in charge provides details of the project to the External Directors in advance and endeavors to provide sufficient information so that the Board of Directors can make appropriate decisions.

In the event an External Director or Outside Audit & Supervisory Board Member is absent from the Board of Directors, the minutes of the Board of Directors are sent to the absent member and a Director later explains any important issues.

**[Retired presidents/CEOs holding advisory positions]**

Information on retired presidents/CEOs holding advisory positions

Name	Job title/ position	Responsibilities	Employment terms (Full/part time, with/without compensation, etc.)	Date when former role as president/ CEO ended	Term
Daisuke Ogawa	Corporate Mentor	1. External activities such as maintaining business relationships with customers 2. Advice based on knowledge and experience on the Company's business	part time, with compensation	June 20,2014	1

Number of retired presidents/CEOs holding advisory positions

1

Others

The Corporate Mentor does not attend any meeting body including the Board of Directors. In addition, the Corporate Mentor is not involved in any decision on management and business execution.

The appointment of Corporate Mentors and its remuneration are decided by the Board of Directors upon the receipt of recommendation issued at the Nomination and Compensation Committee, which is accounted for a majority by External Directors and whose chairperson is served by an External Director.

## **2. Matters on Functions of Business Execution, Auditing, Oversight, Nomination and Remuneration Decisions (Overview of Current Corporate Governance System)**

Daicel is the Company with Audit & Supervisory Board Members. With regard to Directors, by welcoming External Directors and allowing them to apply their expertise by providing opinions and advice, the Company has strengthened the appropriateness of the decisions made by its Board of Directors and the supervision of the execution of Director duties. The Company has also adopted an Executive Officer system. The adoption of this system has enabled the Company to clearly separate its decision-making, supervisory, and business execution functions. Such a clear division of roles has allowed the Company to bolster its business management structure and, consequently, corporate activities. In addition, the Company has adopted an internal company system. Through this system, the Company is promoting various initiatives with the aim of ensuring its corporate departments strengthen collaboration regarding production, sales, and R&D functions, and improving productivity and strategic functions.

The following is an outline of the organization of the Company under the current system.

### **Board of Directors**

Daicel's Board of Directors comprises eight Directors, four of whom have been appointed from outside the Company. The Board of Directors meets, in principle, once a month to make decisions concerning important management issues in line with the regulations for Board of Directors. Furthermore, the Board of Directors supervises the execution of business and business operations. At Daicel, each External Director is tasked with providing advice and supervisory functions according to his or her experience and expertise. The Company's four External Directors have each been designated as Independent Directors. In addition, the Company has concluded a liability limitation agreement with all four External Directors.

The term of office for Daicel's Directors is one year. This short term of office enables Daicel shareholders to increase their involvement in the appointment of Directors. At the same time, it allows the Company to better clarify the management responsibilities of its Directors and thereby strengthen its corporate governance.

### **Audit & Supervisory Board Members**

Daicel currently has five Audit & Supervisory Board Members, three of whom have been appointed from outside the Company. All Audit & Supervisory Board Members are required to attend Board of Directors. In addition, Standing Audit & Supervisory Board Members are required to attend meetings of the Management Meeting, the Risk Management Committee and other important bodies, which thereby enables them to audit the overall management of corporate affairs. Meanwhile, all members of the Company's Audit & Supervisory Board Members together form the Audit & Supervisory Board. This board holds meetings to report, deliberate on, and make decisions on important issues relating to the Company's audits.

Audit & Supervisory Board Members regularly receive reports from the Company's internal auditing divisions and External Auditors. They collaborate through the exchange of information and opinions on an as-needed basis. Regarding the specific circumstances of their cooperation, this is described in "Collaboration Status of Corporate Auditors, External Auditor, and the Internal Audit Division."

The Company has entered into a liability limitation agreement with its three Outside Audit & Supervisory Board Members. All three Outside Audit & Supervisory Board Members have been designated as Independent Audit & Supervisory Board Members.

The Company has also established the Office of the Audit & Supervisory Board as an organization to support audits by Audit & Supervisory Board Members. The Office of Audit & Supervisory Board has its own dedicated staff who are independent from the business divisions.

### **Nomination and Compensation Committee**

The Nomination and Compensation Committee has been established as described in "Voluntary Establishment of Committee(s) Corresponding to Nomination Committee or Remuneration Committee."

### **Management Advisory Committee**

The Management Advisory Committee is in charge of deliberating on such important corporate matters as the formulation of Group strategies and business restructuring based on such strategies. By doing so, the committee serves as an advisory body for the President & CEO. The Committee comprises the President & CEO, Directors (excluding External Directors), and Executive Officers designated by the President & CEO.

The committee convenes these members on an “as-needed” basis.

#### **Executive Officers**

The Company has adopted an Executive Officer System. This system has enabled the Company to isolate its decision-making, supervisory structure, and, consequently, its corporate activities in a clear manner. Currently, this system comprises 25 Executive Officers (four of whom serve concurrently as Directors). Executive Officers include the officers in charge of companies, heads of internal companies, heads of sites, heads of corporate divisions, and the presidents of Group Companies, who administer corporate affairs.

#### **Management Meeting**

Daicel has established the Management Meeting as a body to deliberate on and make decisions prior to its President & CEO implementing the basic corporate management policies formulated by the Board of Directors. The Management Meeting consists of the President & CEO, Directors (excluding External Directors), Audit & Supervisory Board Members (excluding Outside Audit & Supervisory Board Members) and the Executive Officers selected by the President & CEO as its members. The Management Meeting convenes, in principle, twice a month.

#### **Planning Meeting**

Regarding important planning projects of the Business Division, the Planning Meeting has been established as a body focused on discussions by members of the management team. It convenes twice a month, in principle.

#### **Business Strategy Meeting**

The Business Strategy Meeting has been established as a place mainly for members of the management team to discuss issues and problems related to divisions, Group Companies, and development of new businesses. It convenes at least monthly, in principle.

#### **R&D Meeting**

Regarding research and development, the R&D Meeting has been established mainly for members of the management team as a body to discuss various plans such as research and development themes, the staffing system, and external R&D plans and to confirm the progress of R&D themes. It is held four times annually, in principle.

#### **Company and Site Manager Meeting**

The management team receives reports on the current situation and management issues from heads of internal companies, heads of sites, and the presidents of Group Companies. Company and Site Manager Meeting has been established to determine the circumstances of each business and manufacturing site in order to provide support and solve problems without delay. It convenes twice a year, in principle.

#### **Auditing Office**

The Auditing Office (comprising ten staff members) has been established to provide an internal audit function; it conducts regular internal audits on each business division and Group Company.

The Company has entered into a liability limitation agreement with the External Directors and Outside Audit & Supervisory Board Members. The detail of this agreement are as follows:

In assuming liability for the damages stipulated in Article 423 Paragraph 1 of the Companies Act, the individual in question shall be liable for such damages to the extent of ¥15 million or the minimum liability amount set forth in Article 425 Paragraph 1 of the Companies Act, whichever is higher. The above liability limitation applies only in cases where the individual in question has performed the duties resulting in the liability in good faith and in the absence of gross negligence.

### **3. Reasons for Adoption of Current Corporate Governance System**

The Company has established a corporate framework under which the Board of Directors makes management decisions in an efficient manner and fulfills supervisory functions, and Audit & Supervisory Board accomplishes auditing and supervisory functions. Such a framework has enabled the Company to continue

reinforcing its corporate governance.

Within the scope presented in the Report by the Financial System Council's Study Group on the Internationalization of Japanese Financial and Capital Markets (released on June 17, 2009), the Company has recognized that the current status of Daicel falls within the scope of "Cooperation with the Election of External Directors and the Audit & Supervisory Board."

### III. Implementation of Measures for Shareholders and Other Stakeholders

#### 1. Measures to Vitalize the General Shareholder Meetings and Smooth Exercise of Voting Rights

	Supplementary Explanations
Early Notification of General Shareholder Meeting	We issued the convocation notice for the 152nd Annual General Meeting of Shareholders of Daicel Corporation ("the Company") on May 31, 2018, which is 22 days before June 22, the scheduled date of the Annual General Meeting of Shareholders.
Scheduling AGMs Avoiding the Peak Day	The 152nd Annual General Meeting of Shareholders was held on June 22, 2018.
Allowing Electronic Exercise of Voting Rights	As of the Company's 150th Annual General Meeting of Shareholders held on June 17, 2016, voting rights could be exercised via the Internet.
Participation in Electronic Voting Platform	Beginning with the Company's 150th Annual General Meeting of Shareholders held on June 17, 2016, voting rights could be exercised with the Voting Rights Exercise Form provided by ICJ, Inc.
Providing Convocation Notice in English	An English-language translation of the convocation notice (a condensed version of a convocation notice and reference document) was posted on the Tokyo Stock Exchange and on the Company's websites.
Other	Beginning with the 150th Annual General Meeting of Shareholders held on June 17, 2016, the notice of convocation was posted on the websites of the Tokyo Stock Exchange and the Company before the scheduled mailing date for the notice.

#### 2. IR Activities

	Supplementary Explanations
Preparation and Publication of Disclosure Policy	The Company website ( <a href="https://www.daicel.com">https://www.daicel.com</a> ) displays the policy on information disclosure stipulated in the Information Disclosure Regulations, specifically, that information be disclosed (1) voluntarily and proactively, (2) with continuity and consistency, (3) quickly and in a timely manner, (4) accurately and in a useful and easy-to-understand manner, and (5) while ensuring fair information disclosure by the Company.
Regular Investor Briefings for Analysts and Institutional Investors	On November 6, 2017, the President & CEO held a briefing session on the financial results for the first half of the fiscal year ended March 31, 2018. This event was attended by 67 analysts and institutional investors. On May 11, 2018, the President & CEO held a briefing session on the financial results for the fiscal year ended March 31, 2018. This event was attended by 79 analysts, institutional investors, and other representatives. For the release of the first-quarter and third-quarter results, a conference call was held by the department in charge of IR.
Posting of IR Materials on Website	The Company posts its Annual Report, shareholder correspondence, medium-term business plan briefing materials, and other documents on its website ( <a href="https://www.daicel.com">https://www.daicel.com</a> ).
Establishment of Department and/or Manager in Charge of IR	The Company has established the Investor Relations and Public Relations as its dedicated IR department.

### 3. Measures to Ensure Due Respect for Stakeholders

	Supplementary Explanations
Stipulation of Internal Rules for Respecting the Position of Stakeholders	We stipulate respect for stakeholders' viewpoints in the Daicel Group Conduct Policy and the Daicel Code of Conduct, which embodies that idea. The Daicel Group Conduct Policy and the Daicel Code of Conduct are also posted on the Company website ( <a href="https://www.daicel.com">https://www.daicel.com</a> ).
Implementation of Environmental Activities, CSR Activities etc.	The Group focuses on Corporate Ethics Initiatives, such as the securing of compliance with laws and regulations which form the basis of corporate survival, and on the Responsible Care Initiatives that are to voluntarily secure "environment, safety and health" in all processes from the development of chemical substances to disposal, publish the results of activities, communicate with society and communicate. At Daicel Group, putting into practice the Daicel Group Conduct Policy and the Daicel Code of Conduct constitutes CSR Initiatives with the two pillars of Corporate Ethics and Responsible Care Initiatives. Also, all Daicel Group employees are expected to participate in our CSR Initiatives. In other words, our CSR Initiatives are not to be promoted only by some particular individuals or organizations within the Group. The Company publishes an Annual Report ("CSR Report" prior to the 2017 version) in keeping with Company policy to provide an easily readable and easy-to-understand document that actively discloses the state of the Company's initiatives for a wide range of stakeholders. These Annual Reports are also available on the Company website ( <a href="https://www.daicel.com">https://www.daicel.com</a> ).
Development of Policies on Information Provision to Stakeholders	According to the Information Disclosure Regulations, information is to be disclosed (1) voluntarily and proactively, (2) with continuity and consistency, (3) quickly and in a timely manner, (4) accurately and in a useful and easy-to-understand manner, and (5) while ensuring fair information disclosure by the Company.

## IV. Matters Related to the Internal Control System

### 1. Basic Views on Internal Control System and the Progress of System Development

The Company's Basic Policy for Structuring Internal Control System is outlined below.

- 1. System for ensuring that the Directors and employees of the Company and Group Companies (the "Daicel Group") execute their duties in compliance with laws and regulations and the Company's Articles of Incorporation**
  - a. In addition to complying with laws and regulations, the Company will respect the social norms and broad ethical standards required of companies, seek to practice fair and appropriate management, establish the Daicel Group Conduct Policy, and formulate the Daicel Code of Conduct as a concrete action guideline. We will formulate specific action guidelines for Group Companies and confirm their status of implementation.
  - b. We will establish a Corporate Compliance Program Division as an organization promoting the implementation of compliance within the Daicel Group.
  - c. The Corporate Compliance Program Division provides compliance education and enlightenment for raises awareness of Directors and employees of the Daicel Group in keeping with Management Regulations on Corporate Compliance. Additionally, the Division will establish the activity plans of each division and Group companies, track the results of these plans and report it to the Board of the Directors every year.
  - d. The Corporate Compliance Program Division periodically conducts interviews with Group Companies in an effort to monitor the status of compliance among these companies.
  - e. Should a serious compliance issue be discovered, such as a serious violation of laws and regulations, Directors and employees of the Daicel Group would immediately report to the Corporate Compliance Program Division and, in accordance with the report, the officer in charge of the Corporate Compliance Program Division will investigate and take necessary measures in consultation with the President & CEO.
  - f. The Company will establish a whistle-blowing system both inside and outside the Company as a system to detect violations of laws and regulations in the Daicel Group at an early stage and ensure that whistle-blowers do not suffer any negative consequences.
  - g. In order to ensure the reliability of financial reporting, the Company will comply with relevant laws and regulations and establish the necessary system.
  - h. The Daicel Group will adopt a firm stance against anti-social forces, establish a concrete conduct policy to ensure that absolutely no such relationships are formed and ensure this policy is fully disseminated to all employees. The Company will also establish a mechanism for eliminating any contact with anti-social forces by collecting and compiling relevant information.
- 2. System for preserving and managing information related to the execution of duties by Directors**
  - a. The Company will properly manage and preserve the following important documents (including records on electronic media) related to the duties of Directors and maintain these documents in a readable form:
    - i. Minutes of General Meeting of Shareholders
    - ii. Minutes of Board of Directors
    - iii. Financial documents
    - iv. Other important documents related to the execution of duties
  - b. In keeping with the various regulations applicable to information management, the Company will properly manage information by type.
  - c. In keeping with the various regulations applicable to document management, the Company will properly manage and preserve the document specified in 2a. above and other documents, including minutes of various other conferences, and important documents from each department.
- 3. Regulations and other systems concerning risk management in the Daicel Group**
  - a. The Company will establish a Risk Management Committee in order to implement a system capable of appropriate responses to risks to the Daicel Group's corporate activities.
  - b. The Company will adopt various regulations related to risk management in the Daicel Group.
  - c. The Risk Management Committee will conduct annual surveys and evaluations of the state of risk management by the Daicel Group with respect to the various risk management regulations, report to

the Management Meeting and other conferences, and other aspects and will discuss the required response measures. It will also report the results of its work to the Board of Directors.

- d. We will establish, maintain, and improve a reporting system for use in time of crisis and mechanisms that can respond promptly and appropriately, such as setting the Daicel Group's policies in the event of a disaster or accident.
- e. The Daicel Group will formulate a business continuity plan and endeavor to maintain business continuity promptly in the aftermath of a disaster.

**4. 4. System for ensuring efficient execution of duties by the Directors of the Daicel Group**

- a. We will introduce an Executive Officer System to reinforce corporate management through strengthening the business execution system by clarifying the separation of management decision-making and supervisory functions from the Company's business execution functions. The Board of Directors will make decisions on important matters concerning management and supervise the execution of duties by Directors and Executive Officers.
- b. The Company will appoint multiple External Directors to ensure the appropriateness of the Board of Directors' decision-making. Of these, Directors with high independence are specified as so-called Independent Directors.
- c. The Board of Directors will receive the report from the Nomination and Compensation Committee that is chaired by an External Director, to name candidates for the Directors, to select Chairman, President and Executive Officers who execute business operations, and to decide the segregation of duties of the Directors.
- d. The Board of Directors determines the scope of division of duties of the Executive Officers who will execute business operations, and the Directors supervise the execution of efficient operations based on the division-of-business rules that determine the segregation of duties for each important division.
- e. The Company will promote clarification of authority and decision-making procedures for organizations of the Daicel Group and improve the efficiency of execution of duties.
- f. In accordance with the basic philosophy of the Daicel Group, the Company will formulate long-term goals and establish a medium-term plan that sets forth the objectives and targets to be achieved and, through budget management in each fiscal year, will aim to streamline its management toward their steady achievement.
- g. The Company will review the adequacy of the organization and the division of duties as appropriate and will endeavor to conduct business efficiently by organizing projects for the entire Company or issues that extend across the Group.
- h. The Company will regularly convene the Subsidiary and Internal Company Presidents' Meetings, where the Directors and the Executive Officers who execute business operations, including the President, and representatives of key Group Companies attend and share management issues and important information.

**5. System to ensure the appropriateness of operations in the Daicel Group**

- a. Daicel will endeavor to ensure the effectiveness of the internal control within the entire Group, through the establishment of the Internal Control Council, as a body to grasp the status of the entire Group accurately and discuss the policies related to internal control.
- b. In order to strengthen Group management, the Company will appropriately implement Group corporate management regulations that set out procedures of important decision-making among Group Companies and reporting of management status, and identify the divisions responsible for Group Companies. In addition, the Company will endeavor to monitor the conditions and risks facing the Daicel Group through the communication or reporting based on these regulations.
- c. The Daicel Group will establish the Daicel Group Conduct Policy as an ethical code of conduct for the entire Group and will aim to raise awareness of ethics and compliance within the Group.
- d. The Daicel Group will ensure thorough information management through standardization of the system infrastructure and ensure the effectiveness of internal control.
- e. The Auditing Office will work with the Responsible Care Division, the Corporate Compliance Program Division, the Quality Management Division, the Audit & Supervisory Board Members, and the External Auditors to ensure the proper operation of the Daicel Group through audits.

**6. Matters related to employees in cases where the Audit & Supervisory Board Member requests the employees to assist with duties, matters concerning the independence of employees from the**

**Directors, and the matters about the effectiveness of instructions to employees of the Audit & Supervisory Board Members.**

- a. The Company will establish the Office of the Audit & Supervisory Board as an organization to support the duties of Audit & Supervisory Board Members and will immediately select suitable persons if members of the Audit & Supervisory Board request an increase in the members of the Office of Audit & Supervisory Board.
- b. The Company will obtain prior approval of the Audit & Supervisory Board Members concerning decisions on matters concerning personnel authorities such as appointments, transfers, evaluations and promotion of members of the Office of Audit & Supervisory Board.
- c. A member of the Office of Audit & Supervisory Board is will be under the command of Audit & Supervisory Board Members.

**7. Systems for enabling Directors and employees of the Daicel Group to report to the Audit & Supervisory Board Members and for ensuring that audits by the Audit & Supervisory Board Members are conducted effectively**

- a. The President & CEO and Directors who execute business shall report on the status of business execution as needed at important meetings such as the Board of Directors. Regarding reports on the status of business execution at important meetings such as Management Meetings, the Standing Audit & Supervisory Board Member attending such important meetings will report to the Audit & Supervisory Board.
- b. Discussing with the Audit & Supervisory Board Members, the President & CEO will establish a system for reporting to the Audit & Supervisory Board Members, including establishing the rule of items to be reported to the Audit & Supervisory Board Members, and Directors and employees will immediately notify the Audit & Supervisory Board Members of any facts they discover that have potential to cause significant damage to the Company.
- c. The President & CEO will receive the presentation for the basic audit plan for the fiscal year specified by the Audit & Supervisory Board, work to improve the system so that audits of each division and Group Company can be implemented effectively in cooperation with the Auditing Office.
- d. Through periodic meetings with the Audit & Supervisory Board Members, the Auditing Office, the Responsible Care Division, the Corporate Compliance Program Division and the Quality Management Office will exchange opinions and report on the status of the Daicel Group as determined during the course of business.
- e. The Company will establish a system in which the Audit & Supervisory Board Members can confirm reports from Group Companies based on various regulations concerning management of Group Companies.
- f. The Company will establish a system through which the Audit & Supervisory Board Members can confirm the expenses required for the performance of their duties, formulate a budget, and review and redeem the content based on requests from the Audit & Supervisory Board Members.
- g. The Corporate Compliance Program Division will periodically report to the Audit & Supervisory Board Members on the status of internal reporting through a whistle-blowing system with internal and external channels.
- h. Regarding reporting to the Audit & Supervisory Board Members, the Company will ensure that informants do not suffer any negative consequences, due to the reporting actions.

The Company conducted surveys and evaluated the effectiveness of specific activities for each item in the Basic Policy for Structuring the Internal Control System described above. From the results, the Internal Control Council has confirmed the operational status of the basic policy and reported it to the Board of Directors. The following is an outline of the operational status of the basic policy, and the Company has confirmed that the operational status of the basic policy for the current business year is appropriate.

**Compliance**

- Formulation of a corporate compliance fiscal year initiatives plan for each department and Group Company, implementation of the plan, and reporting of the results to the Board of Directors
- Provision of corporate compliance training for executives and other employees and other training related to compliance

- Company's internal whistle-blowing system through helpline works well
- Evaluation of internal controls on financial reporting, and reporting to the Board of Directors

#### **Risk management**

- Review of the risk management status of each department and each Group Company through reporting activities and issuance of a report to the Board of Directors on the management status and risk management at all
- Implementation of comprehensive disaster response drills
- Formulation of a Business Continuity Plan

#### **Efficiency of execution of duties**

- Implementation of resolutions of the Board of Directors and reporting to the Board of Directors according to board regulations
- Provision of advice to the Nomination and Compensation Committee on nominations and compensation and receipt of the report by this committee
- Implementation of effectiveness evaluation of the Board of Directors
- Implementation of various decisions concerning the execution of duties based on consensus

#### **Appropriateness of operations in the Group**

- Surveying specific activities of the Group related to the Basic Policy for Structuring the Internal Control System and monitoring the operational status of the policy
- Involvement in important decision-making activity of Group Companies according to various regulations concerning management of Group Companies, and business management through operation status reports
- Maintenance of core systems in Group Companies
- Implementation of quality management at each business site

#### **Auditing system for the Audit & Supervisory Board Members and effectiveness of audits**

- Confirmation of the independence of members of the Office of Audit & Supervisory Board
- Conducting meetings with the CEO
- Implementation of budget controls and burden of expenses by the Company as necessary

## **2. Basic Views on Eliminating Anti-Social Forces**

The Company's basic approach to the elimination of anti-social forces and its state of development are outlined below.

As stipulated in the Basic Policy for Structuring the Internal Control System, the Company has adopted the Daicel Code of Conduct and has worked to disseminate it as its basic approach to eliminating contacts with anti-social forces as follows:

"We, in cooperation with the police, industrial associations, and regional entities, will take a firm stand against anti-social influences and/or organizations that disturb civil order and safety. We will have no connection with them in any way, either directly or indirectly." We are gathering and compiling information and are developing a mechanism to eliminate anti-social forces.

In addition, the Company has established a specialized department to deal with anti-social forces, responding to cases where there are approaches from anti-social forces, and maintaining close contact with police, lawyers, regional companies, and other specialized external organizations. Thus, the Company has compiled

information on useful countermeasures applicable to anti-social forces and has made Directors and employees thoroughly aware of them.

## V. Other

### 1. Adoption of Anti-Takeover Measures

Adoption of Anti-Takeover Measures	Adopted
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#### Supplementary Explanation

The Company's Policy for Responding to a Large-Scale Purchases of Shares ("the Policy") is outlined below.

As a publicly listed business enterprise, the Company believes that, in principle, the purchase and sale of the Company's shares should be entrusted to the free determination of shareholders and investors in the market; it also believes that a decision to sell the Company's shares in response to a large-scale share purchase offer by specific persons should ultimately be entrusted to the judgment of the Company's shareholders. We will not repudiate a large share purchase offer that contributes to the corporate value of the Company and the common interests of shareholders.

On the other hand, properly determining whether shareholders will respond to an offer to purchase a large number of the Company's shares requires that the purchaser of the large number of shares provide appropriate and adequate information.

The Financial Instruments and Exchange Act includes certain provisions regarding the provision of information by a large-scale purchaser; however, there is no requirement for a large-scale purchaser to provide information in advance of a tender offer, or in the case of purchases in a market where tender offer rules do not apply; moreover, even after a tender offer, there remains a possibility that sufficient information for shareholders to determine whether to continue holding the Company's shares would not be provided. In addition, even where such information is provided, if it is after the tender offer, the possibility exists that sufficient time may not be available for shareholders to consider the matter. As a result, under the legal system of Japan, it is difficult to ensure that sufficient information is provided for shareholders to make an appropriate determination of an offer or that sufficient time is allowed for such consideration in the event of a large-scale purchase offer, and the Company believes a risk exists that shareholders may not be able to appropriately determine whether to accept an offer to purchase a large number of the Company's shares.

In view of these factors, the Board of Directors of the Company has concluded that, in the event of a large-scale purchase offer, necessary and sufficient information about the large-scale purchase should be provided by the large-scale purchaser in advance to enable shareholders to make a determination, and that sufficient time for such determination must be ensured for shareholders to assess whether to accept such a large-scale purchase offer for the Company's shares based on that information.

Considering the above views, the Company's Board of Directors believes that a large-scale share purchase conducted in accordance with certain reasonable rules is consistent with the common interests of the Company's shareholders; therefore, it has decided to establish certain rules in the Policy relating to the advance provision of information ("Large-Scale Purchase Rules").

The Board of Directors of the Company will establish an Independent Committee as a body to prevent arbitrary judgments by the Board of Directors and appropriately implement the Large-Scale Purchase Rules. The Independent Committee will assess (1) compliance with the Large-Scale Purchase Rules; (2) the need to implement countermeasures; and (3) other matters necessary to protect the corporate value of the Company and the common interests of shareholders and will issue recommendations to the Board of Directors. The Board of Directors will carefully compile and publicize their opinions after maximally respecting the recommendations of the Independent Committee. If necessary, the Company may negotiate improved conditions with the Large-Scale Purchasers (those seeking a large-scale purchase with the objective of obtaining 20% or more of the voting rights for a specified shareholder group, or a purchase of the Company's share certificates, etc., resulting in a specified shareholder group obtaining 20% or more of the voting rights) and the Board of Directors may present alternative proposals.

In the event the large-scale purchaser does not comply with the Large-Scale Purchase Rules, the Board of Directors of the Company will take countermeasures and oppose the large-scale purchase in principle with the objective of protecting the corporate value of the Company and shareholders' common interests. Furthermore,

when determining whether to implement countermeasures, the Board of Directors of the Company will respect the recommendations of the Independent Committee to the maximum extent possible. In the event the Independent Committee recommends confirming shareholder will, the Company will respect the recommendation to the maximum extent possible and may confirm shareholder will by votes in writing, holding a General Meeting to Confirm Shareholder Will, or other methods, either before or after the implementation of countermeasures.

If the large-scale purchaser complies with the Large-Scale Purchase Rules, the Company will, in principle, confirm shareholder will regarding whether to implement countermeasures against the large-scale purchase by the large-scale purchaser by votes in writing, holding a General Meeting to Confirm Shareholder Intentions, or other methods. Following confirmation of shareholder will, the Board of Directors of the Company will decide whether to implement countermeasures against the large-scale purchase in accordance with the judgment of shareholders. However, even if the Board of Directors of the Company is opposed to the large-scale purchase, the Board will simply express its opinion opposing the purchase proposal, present an alternative proposal, and present an explanation to the Company's shareholders, etc., and will not implement countermeasures against the large-scale purchase, in principle, if it determines that it is appropriate to entrust the decision of whether to accept the large-scale purchaser's purchase offer to the judgment of individual shareholders. In addition, even if the Large-Scale Purchase Rules have been complied with, if the large-scale purchase is judged to significantly impair the corporate value of the Company or shareholders' common interests, the Board of Directors of the Company may implement countermeasures against the large-scale purchase without confirming shareholder will, with the objective of protecting the corporate value of the Company and shareholders' common interests, while respecting the recommendation of the Independent Committee to the maximum extent possible.

For details on this initiative, please refer to the press release dated May 10, 2017, "Continuation of Policy for Responding to a Large-scale Purchase of Shares of Daicel Corporation (Takeover Defense Measures)" as posted on the Company website (<https://www.daicel.com>).

## 2. Other Matters Concerning to Corporate Governance System

The status of the Company's internal system related to the timely disclosure of Company information is outlined below.

### 1. Basic approach and policy in relation to information disclosure

Under the Daicel Group Conduct Policy, the Company stipulates that it will willingly and justly disclose reliable corporate information. Moreover, under the Daicel Code of Conduct that embodies it, the Company stipulates that it will actively disclose information concerning its corporate finances and the status of its business activities in an appropriate, timely, and clear manner; accurately and properly record and store information on its corporate trading, assets, and expense status using fair accounting procedures based on legal and generally accepted accounting standards; prohibit insider trading; and strive to promote the understanding of its corporate activities by active communication with society.

In addition, under the Company's Information Disclosure Regulations, the Company remains committed to disclosing Company information (1) voluntarily and proactively, (2) with continuity and consistency, (3) quickly and in a timely manner, (4) accurately and in a useful and easy-to-understand manner, and (5) while ensuring fair information disclosure by the Company.

The Company distributes the Daicel Group Conduct Policy and Daicel Code of Conduct in booklet form to all executives and employees, publish its Information Disclosure Regulations on its intranet, and takes steps to disseminate this information extensively through in-house training and the like.

### 2. Information Disclosure System

#### (1) Summaries of financial results and securities reports and the like (Information on settlement of accounts)

With respect to account settlement information, the Accounting & Finance Group and the Investor Relations & Corporate Communications jointly compile the financial statements using source materials submitted by the respective department heads and presidents of Group Companies.

In preparing summaries of financial results and securities reports and the like, in addition to undergoing

audits by the External Auditor for the financial statements created by the above, the Company also reflects the opinions of the Audit & Supervisory Board Members on other matters.

The details of information disclosure regarding summaries of financial results are decided by the Information Disclosure Committee under the chairmanship of the President & CEO. The Officer in charge of the Corporate Support Center reports to the Board of Directors. The Company then immediately discloses such financial reports following deliberation.

Following deliberation by the Information Disclosure Committee, the Management Confirmation Form is submitted to the External Auditor. After the audit report is received from the External Auditor, the Company submits the Securities Report and the like within the deadline for submission following the approval of the President & CEO.

#### **(2) Information on Corporate Decisions**

Regarding material information arising from the decisions of the Company's Board of Directors (or Management Meetings) and decisions of the executive bodies of Group Companies, Information can be grasped in advance by registering matters to be discussed at various meeting bodies held in accordance with the Company's Rules for Approval or Management Regulations for Group Corporate Management in advance. Following sufficient deliberation by each meeting body, the Officer of the Business Support Center and the Investor Relations & Corporate Communications will determine whether the information is material and subject to timely disclosure under Securities Listing Regulations ("timely disclosure regulations, etc.").

When determining whether information is material, the Information Disclosure Committee will determine whether to disclose and will deliberate on the content, timing, method, etc., of information disclosure.

With regard to material information being considered for disclosure, the Company will promptly disclose that information after the Board of Directors and executive bodies have come to a decision on the matter.

#### **(3) Information on Occurrences**

With regard to facts relevant to occurrences at the Company or Group Companies that may be considered material information, the President & CEO, representative Director, officers in charge of relevant departments, and the officer in charge of the Corporate Support Center will disclose such information immediately after the occurrence or their becoming aware of it according to the terms of the Risk Response Rules, PL Accident Response Regulations, and Regulations on Insider Trading.

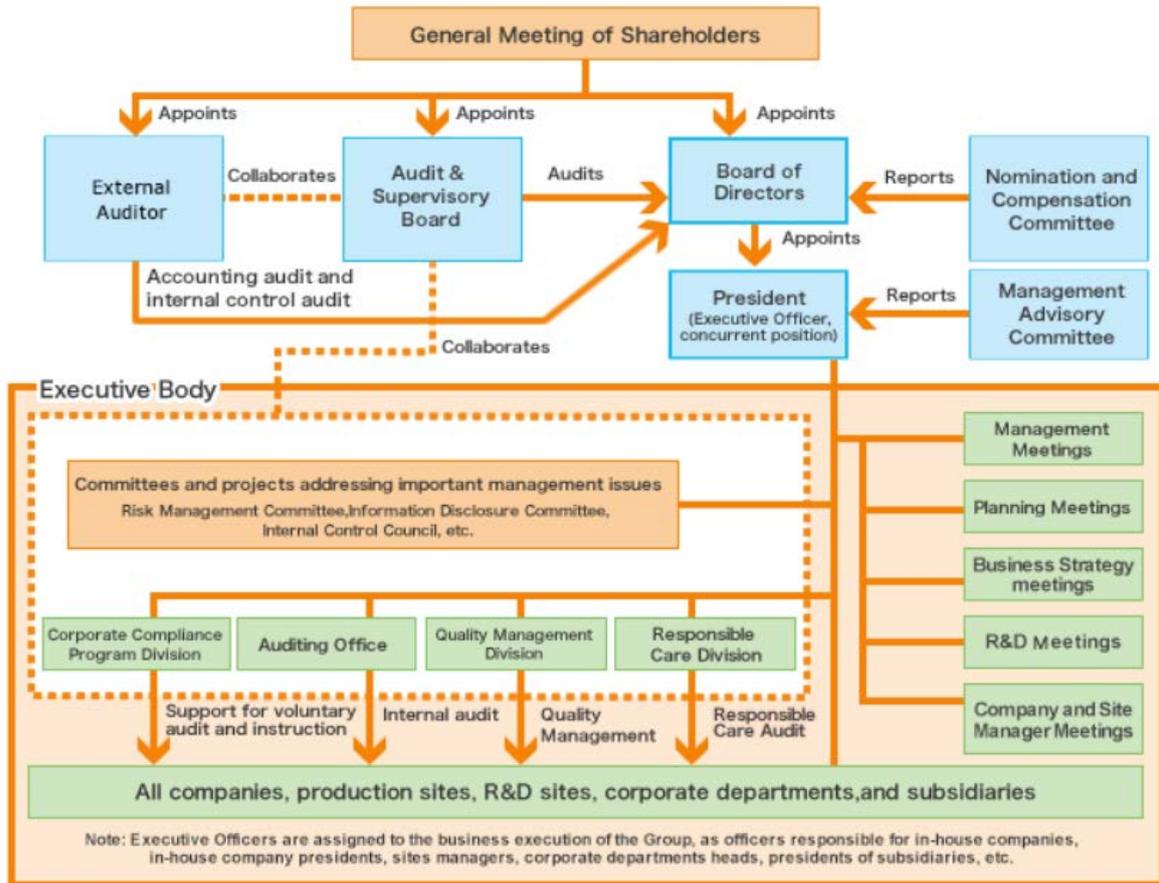
The officer in charge of the Corporate Support Center and the Investor Relations & Corporate Communications will confirm whether a particular case can be classified as material information subject to timely disclosure rules.

If, after due consideration, the information is deemed useful to investors and falls under the category of material information, the Information Disclosure Committee will deliberate on the matter, determine the need for disclosure, and promptly disclose it.

### **3. Management of Material Information**

With respect to the handling of material information prior to timely disclosure, the Officer of the Corporate Support Center, as the administrator, will limit the transmission of such material information according to the Regulations on Insider Trading. In addition to establishing this supervisory method, the Company prohibits the sale and purchase of shares and the like prior to the public disclosure of the material information by the executives and employees possessing this information. The Company is taking steps to prevent insider trading by executives and employees through in-house training and other initiatives intended to raise awareness of the details of its Regulations on Insider Trading.

Daicel Corporation Corporate Governance System



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## Internal Control Systems

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In accordance with basic policy for structuring 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, Daicel has established the Internal Control Council as a body charged with grasping accurately the status of the establishment and management of these systems.

### ● [Basic Policy for Structuring Internal Control Systems](#)

Response to the Financial Instruments and Exchange Act (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.

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## Risk Management Initiatives

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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.

>For more information on risk management initiatives, please visit this [page](#).

[Provisional Translation Only]

The Company provides this English translation of the original Japanese document solely for information purposes, and in the event of any discrepancy between this translation and the Japanese original, the latter shall prevail.

## **Basic Policy for Structuring Internal Control Systems**

- 1. System for ensuring that the Directors and employees of the Company and Group Companies (the “Daicel Group”) execute their duties in compliance with laws and regulations and the Company’s Articles of Incorporation**
  - a. In addition to complying with laws and regulations, the Company will respect the social norms and broad ethical standards required of companies, seek to practice fair and appropriate management, establish the Daicel Group Conduct Policy, and formulate the Daicel Code of Conduct as a concrete action guideline. We will formulate specific action guidelines for Group Companies and confirm their status of implementation.
  - b. We will establish a Corporate Compliance Program Division as an organization promoting the implementation of compliance within the Daicel Group.
  - c. The Corporate Compliance Program Division provides compliance education and enlightenment for raises awareness of Directors and employees of the Daicel Group in keeping with Management Regulations on Corporate Compliance. Additionally, the Division will establish the activity plans of each division and Group companies, track the results of these plans and report it to the Board of the Directors every year.
  - d. The Corporate Compliance Program Division periodically conducts interviews with Group Companies in an effort to monitor the status of compliance among these companies.
  - e. Should a serious compliance issue be discovered, such as a serious violation of laws and regulations, Directors and employees of the Daicel Group would immediately report to the Corporate Compliance Program Division and, in accordance with the report, the officer in charge of the Corporate Compliance Program Division will investigate and take necessary measures in consultation with the President & CEO.
  - f. The Company will establish a whistle-blowing system both inside and outside the Company as a system to detect violations of laws and regulations in the Daicel Group at an early stage and ensure that whistle-blowers do not suffer any negative consequences.
  - g. In order to ensure the reliability of financial reporting, the Company will comply with relevant laws and regulations and establish the necessary system.
  - h. The Daicel Group will adopt a firm stance against anti-social forces, establish a concrete conduct policy to ensure that absolutely no such relationships are formed and ensure this policy is fully disseminated to all employees. The Company will also establish a mechanism for eliminating any contact with anti-social forces by collecting and compiling relevant information.
- 2. System for preserving and managing information related to the execution of duties by Directors**
  - a. The Company will properly manage and preserve the following important documents (including records on electronic media) related to the duties of Directors and maintain these documents in a readable form:
    - i. Minutes of General Meeting of Shareholders
    - ii. Minutes of Board of Directors
    - iii. Financial documents
    - iv. Other important documents related to the execution of duties
  - b. In keeping with the various regulations applicable to information management, the Company will properly manage information by type.
  - c. In keeping with the various regulations applicable to document management, the Company will properly manage and preserve the document specified in 2a. above and other documents, including minutes of various other conferences, and important documents from each department.
- 3. Regulations and other systems concerning risk management in the Daicel Group**
  - a. The Company will establish a Risk Management Committee in order to implement a system capable of appropriate responses to risks to the Daicel Group’s corporate activities.

- b. The Company will adopt various regulations related to risk management in the Daicel Group.
- c. The Risk Management Committee will conduct annual surveys and evaluations of the state of risk management by the Daicel Group with respect to the various risk management regulations, report to the Management Meeting and other conferences, and other aspects and will discuss the required response measures. It will also report the results of its work to the Board of Directors.
- d. We will establish, maintain, and improve a reporting system for use in time of crisis and mechanisms that can respond promptly and appropriately, such as setting the Daicel Group's policies in the event of a disaster or accident.
- e. The Daicel Group will formulate a business continuity plan and endeavor to maintain business continuity promptly in the aftermath of a disaster.

**4. System for ensuring efficient execution of duties by the Directors of the Daicel Group**

- a. We will introduce an Executive Officer System to reinforce corporate management through strengthening the business execution system by clarifying the separation of management decision-making and supervisory functions from the Company's business execution functions. The Board of Directors will make decisions on important matters concerning management and supervise the execution of duties by Directors and Executive Officers.
- b. The Company will appoint multiple External Directors to ensure the appropriateness of the Board of Directors' decision-making. Of these, Directors with high independence are specified as so-called Independent Directors.
- c. The Board of Directors will receive the report from the Nomination and Compensation Committee that is chaired by an External Director, to name candidates for the Directors, to select Chairman, President and Executive Officers who execute business operations, and to decide the segregation of duties of the Directors.
- d. The Board of Directors determines the scope of division of duties of the Executive Officers who will execute business operations, and the Directors supervise the execution of efficient operations based on the division-of-business rules that determine the segregation of duties for each important division.
- e. The Company will promote clarification of authority and decision-making procedures for organizations of the Daicel Group and improve the efficiency of execution of duties.
- f. In accordance with the basic philosophy of the Daicel Group, the Company will formulate long-term goals and establish a medium-term plan that sets forth the objectives and targets to be achieved and, through budget management in each fiscal year, will aim to streamline its management toward their steady achievement.
- g. The Company will review the adequacy of the organization and the division of duties as appropriate and will endeavor to conduct business efficiently by organizing projects for the entire Company or issues that extend across the Group.
- h. The Company will regularly convene the Subsidiary and Internal Company Presidents' Meetings, where the Directors and the Executive Officers who execute business operations, including the President, and representatives of key Group Companies attend and share management issues and important information.

**5. System to ensure the appropriateness of operations in the Daicel Group**

- a. Daicel will endeavor to ensure the effectiveness of the internal control within the entire Group, through the establishment of the Internal Control Council, as a body to grasp the status of the entire Group accurately and discuss the policies related to internal control.
- b. In order to strengthen Group management, the Company will appropriately implement Group corporate management regulations that set out procedures of important decision-making among Group Companies and reporting of management status, and identify the divisions responsible for Group Companies. In addition, the Company will endeavor to monitor the conditions and risks facing the Daicel Group through the communication or reporting based on these regulations.
- c. The Daicel Group will establish the Daicel Group Conduct Policy as an ethical code of conduct for the entire Group and will aim to raise awareness of ethics and compliance within the Group.
- d. The Daicel Group will ensure thorough information management through standardization of the system infrastructure and ensure the effectiveness of internal control.
- e. The Auditing Office will work with the Responsible Care Division, the Corporate Compliance Program Division, the Quality Management Division, the Audit & Supervisory Board Members, and the External Auditors to ensure the proper operation of the Daicel Group through audits.

- 6. Matters related to employees in cases where the Audit & Supervisory Board Member requests the employees to assist with duties, matters concerning the independence of employees from the Directors, and the matters about the effectiveness of instructions to employees of the Audit & Supervisory Board Members.**
  - a. The Company will establish the Office of the Audit & Supervisory Board as an organization to support the duties of Audit & Supervisory Board Members and will immediately select suitable persons if members of the Audit & Supervisory Board request an increase in the members of the Office of Audit & Supervisory Board.
  - b. The Company will obtain prior approval of the Audit & Supervisory Board Members concerning decisions on matters concerning personnel authorities such as appointments, transfers, evaluations and promotion of members of the Office of Audit & Supervisory Board.
  - c. A member of the Office of Audit & Supervisory Board is will be under the command of Audit & Supervisory Board Members.
  
- 7. Systems for enabling Directors and employees of the Daicel Group to report to the Audit & Supervisory Board Members and for ensuring that audits by the Audit & Supervisory Board Members are conducted effectively**
  - a. The President & CEO and Directors who execute business shall report on the status of business execution as needed at important meetings such as the Board of Directors. Regarding reports on the status of business execution at important meetings such as Management Meetings, the Standing Audit & Supervisory Board Member attending such important meetings will report to the Audit & Supervisory Board.
  - b. Discussing with the Audit & Supervisory Board Members, the President & CEO will establish a system for reporting to the Audit & Supervisory Board Members, including establishing the rule of items to be reported to the Audit & Supervisory Board Members, and Directors and employees will immediately notify the Audit & Supervisory Board Members of any facts they discover that have potential to cause significant damage to the Company.
  - c. The President & CEO will receive the presentation for the basic audit plan for the fiscal year specified by the Audit & Supervisory Board, work to improve the system so that audits of each division and Group Company can be implemented effectively in cooperation with the Auditing Office.
  - d. Through periodic meetings with the Audit & Supervisory Board Members, the Auditing Office, the Responsible Care Division, the Corporate Compliance Program Division and the Quality Management Office will exchange opinions and report on the status of the Daicel Group as determined during the course of business.
  - e. The Company will establish a system in which the Audit & Supervisory Board Members can confirm reports from Group Companies based on various regulations concerning management of Group Companies.
  - f. The Company will establish a system through which the Audit & Supervisory Board Members can confirm the expenses required for the performance of their duties, formulate a budget, and review and redeem the content based on requests from the Audit & Supervisory Board Members.
  - g. The Corporate Compliance Program Division will periodically report to the Audit & Supervisory Board Members on the status of internal reporting through a whistle-blowing system with internal and external channels.
  - h. Regarding reporting to the Audit & Supervisory Board Members, the Company will ensure that informants do not suffer any negative consequences, due to the reporting actions.

## — 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.

The Daicel Group Conduct Policy clearly expresses our determination to “conduct honest trade in accordance with the basic principles of fair and free competition.” Moreover, the Daicel Code of Conduct mandates adherence to “compliance with antitrust laws” and “highly transparent political and governmental relationships.” In the course of procurement, the Code states that we shall “conduct business fairly and honestly based on economically rational measures” and, with respect to entertainment and gifts, we will “act with a clear distinction between public and private matters within the scope of sound commercial practice and judgment.” All Daicel Group employees are determined to act in line with the spirit of this Policy and live up to the Code in their day-to-day operations.

At Daicel, the content of position-specific training for employees who have just been promoted encompasses such subjects as compliance with competition laws and anti-corruption measures. Moreover, training is provided to officers and employees who are assigned to Group companies overseas in light of local conditions in the destination. In addition, with the aim of securing strict compliance, some overseas Group companies established additional guidelines and implement training for officers and employees.

# The Responsible Care Management System

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➤ **Basic Policies and Implementation System**

[Click here >](#)

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➤ **Targets, Results and Assessments of RC Activities**

[Click here >](#)

## — The Responsible Care Initiatives

### Responsible Care: Basic Policies and Implementation System

#### The Daicel Group's Basic Policies for Responsible Care

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.

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

In 2017, the Group's Basic Policies for Responsible Care were updated in response to the revision of JCIA's guiding principles.

#### The Daicel Group's Basic Policies for Responsible Care

1. Based on the management policy, we will comply laws and regulations, strive to safeguard the environment, health and safety. For this purpose, we share the specific implementation plans among all the employees and put them into action.
2. We will strive to continually improve environmental, health and safety performance and the security of facilities, processes and technologies throughout the entire chemical lifecycle from development to disposal, and inform society of the results of such efforts.
3. We will further reduce consumption of resources and energy and strive to reduce, reuse and recycle waste.
4. We will protect the environment and people's health and safety by driving continual improvement in chemical product safety and stewardship throughout the supply chain.
5. We will practice risk-based chemical management throughout the entire chemical lifecycle from development and production to use, consumption and disposal and strive to strengthen our chemicals management systems by continual improvement.
6. We will influence the employees and the value chain stakeholders to promote the safe management of chemicals within their own operations.
7. We will strengthen our stakeholder relationships by understanding and responding to stakeholder concerns and expectations about safer operations and products as well as openly communicating about our performance and products.

8. We will put Daicel Group's overall efforts into continually improving initiatives for the environment, health and safety in order to meet stakeholder's expectations.
9. We contribute to the sustainable development of society by developing and providing unique and innovative technologies and other solutions.
10. We will promote biodiversity-friendly activities in order to pass on the wealth of nature to future generations.

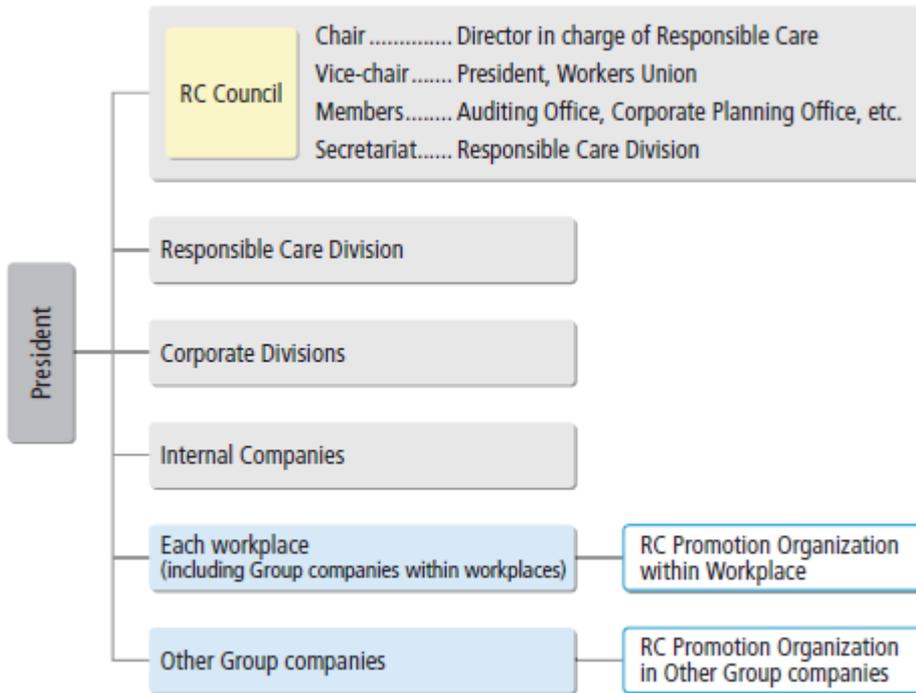
## — Implementation System for Responsible Care

The Daicel Group is implementing RC activities on the following five fronts: “occupational health and safety,” “process safety and disaster prevention,” “environmental preservation,” “chemical and product safety,” “distribution safety” and “Communication with Society” To better promote these activities, Daicel has in place the RC Council in accordance with its Rules on the Implementation of Responsible Care. The council 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 in addition to representatives from Daicel's Responsible Care Division who serve as a secretariat for the council.

The council thus discusses and determines such matters as basic policies and targets for RC activities as well as the content of annual RC implementation plans while engaging in auditing in accordance with the Rules on Responsible Care Audits.

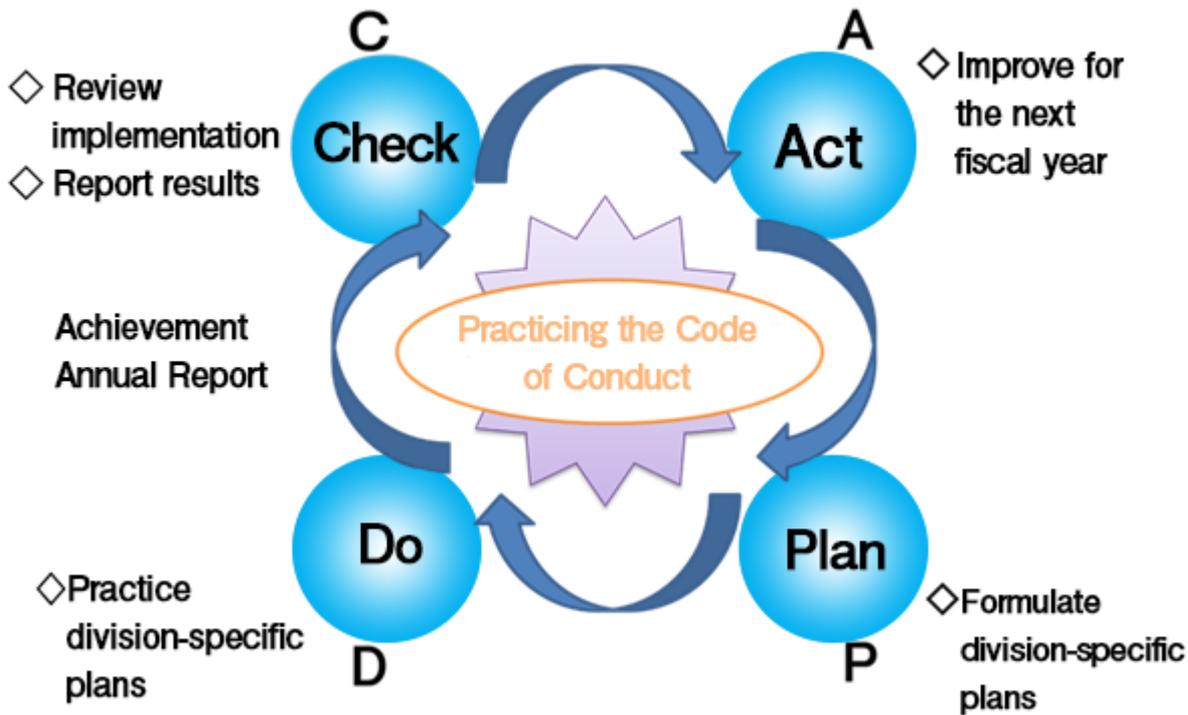
To recognize outstanding contributions to RC activities, the council selects recipients for in-house prizes that are given to both individuals and business units at the Daicel Group Responsible Care Promotion Conference. The selection process is undertaken each fiscal year in accordance with Rules on the Responsible Care Council, with the aim of determining applicants who are deemed to have exemplified best practices.

In addition, employees across the Daicel Group in charge of RC-related duties meet regularly to discuss relevant topics to promote RC activities. For example, individuals charged with supervising the Environment and Safety divisions of each Daicel business site hold periodic meetings, while those in similar positions at other Group companies also meet regularly, to exchange their insights. Furthermore, representatives from the Responsible Care Division tour each business site to hold special meetings to discuss priority RC issues, communicating instructions from the RC Council, providing advice to their peers and confirming progress in RC activities undertaken by each division.



## — Responsible Care Audits

The RC activities undertaken by Daicel and other Group companies are subjected to periodic RC audits in accordance with the Rules on Responsible Care Audits. The auditors are appointed by the director in charge of RC. In addition, secretariat members of the RC Council also take part in auditing. RC audits are thus conducted at each business site, with the aim of assessing progress on annual RC action plans and identifying issues to be addressed in the pursuit of planned targets. These audits are expected to help auditees enhance the level of their RC activities. Findings from RC audits are reflected in targets and plans for the upcoming fiscal year, thereby supporting a CAPD cycle to achieve continuous improvement.



## — Responsible Care Global Charter

The International Council of Chemical Associations (ICCA), an international responsible care activity organization, put in place the Responsible Care Global Charter in 2005 with the aim of promoting sustainable development within the chemical industry while contributing to society as a whole through responsible care activities. In complete agreement with the goals and principles of the Charter, Daicel became a signatory in 2008. In order to more specifically detail the issues requiring attention with respect to the management of chemical product safety, improvements in the quality of life through the delivery and use of chemical products, and contributions to sustainable development in an easier to understand manner, ICCA revised the Charter in 2014. In the same year, Daicel again declared its support of the revised version of the Responsible Care Global Charter and confirmed its participation as an ongoing signatory.



## — Total EHS Assessment System

In the late 1980s, the Daicel Group began to introduce comprehensive assessments in the Organic Chemicals business segment as a system for evaluating risk in its business activities. Since 1995, the Daicel Group has administered its Total Environmental, Health and Safety Assessment System ( “Total EHS Assessment System” ).

Under the Total EHS Assessment System, a prior assessment of diverse risks associated with all business operations in new plans—including R&D, production, consumption and disposal—is initiated in order to ensure thorough consideration of environmental, health and safety issues in new plans.

The Group’s Total EHS Assessment System has the following features.

1. The system evaluates the new plan based on prescribed standards for eight items: legal compliance, chemical safety, environmental preservation, occupational health and safety, operational safety at facilities, product safety, distribution safety and safety of production outsourcing, purchasing and sales.
2. New plan indicates all new changes include establishment and modification of facilities, changes in matters related to manufacturing, etc.
3. The system defines two types of assessments: “Corporate Total EHS Assessment,” which covers new plans that may cause a significant impact on management, and “Division Total EHS Assessment,” which is undertaken by each division. After evaluating new plans based on their scale and risk with an overall assessment rank (I and II), the Group determines items subject to assessment and designates individuals to serve as assessment executors and final evaluators in accordance with the overall assessment rank.
4. With regard to the adoption of a new process and/or increased production volumes, we carry out a “Technical Assessment” and “Equipment Design Assessment,” underscoring the importance of design specifications for technologies and facilities. After discussing the results of these assessments, a Corporate Total EHS Assessment is undertaken.

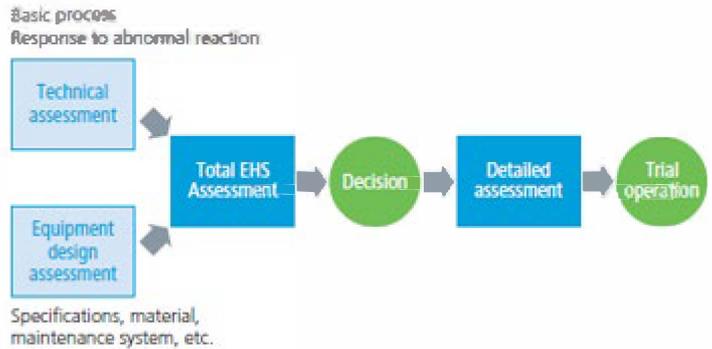
In addition, the Daicel Group began undertaking the “ProductCrisis Assessment” in FY2016/3 with the aim of reinforcing product safety assessments. The “ProductCrisis Assessment” specifies risk associated with current product safety measures in place while assessing the status of such steps as monitoring and incident responses. In fiscal 2017, the Group initiated “ProductSafety Advisory Meetings,” inviting a team of third-party specialists to conduct risk assessment.

The number of Corporate Total EHS Assessments that evaluate new plans deemed to have a significant impact on management, including those undertaken to assess new plans for overseas production bases, has reached approximately 800 since the system was introduced.

### Details of New Plans

- > New product launches
- > New projects
- > Establishment, expansion and renovation of facilities
- > Changes in matters (e.g. raw materials, synthesis methods, processes) related to manufacturing
- > New contracts/changes in distributors, customers and sales applications
- > Acquisition and transfer of properties and equipment
- > New contracts/changes in manufacturing outsourcing and purchasing/sales
- > New/change in waste management

### Relationship of technical and equipment design assessments to Total EHS Assessment System



## Breakdown of Total EHS Assessment System

### Categories of the Total EHS Assessment System

Legal compliance	Evaluate conformity with laws, regulations and agreements signed between relevant administrative authorities and each business site
Chemical safety	Evaluate hazards posed by all chemical substances handled
Environmental preservation	Evaluate based on conformity with prevailing environmental preservation standards
Occupational health and safety	Evaluate conformity from the viewpoint of preventing occupational accidents
Operational safety at facilities	Evaluate risk of fire, explosion and other facility accidents Assess results of other evaluations and fitness of relevant facilities
Product safety	Evaluate products for risk of causing health hazard
Distribution safety	Evaluate distribution safety
Safety of production outsourcing, purchasing and sales	Evaluate from perspectives of the environment, safety and preventing occurrence of health problems

# Targets, Results and Assessments of RC Activities

		FY2018/3 Targets	FY2018/3 Results	Assessment	FY2019/3 Targets	
Environmental Preservation	Global warming countermeasures	Daicel (note)	<ul style="list-style-type: none"> <li>Promote energy conservation to achieve the FY2021/3 targets set forth in the Commitment to a Low Carbon Society.</li> <li>Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by Energy Saving Act).</li> </ul>	<ul style="list-style-type: none"> <li>Achieved a reduction of approximately 400,000t-CO2 against the GHG reduction target for 2020 (Business as Usual basis).</li> <li>Reduced energy intensity 6 percentage points from the previous fiscal year.</li> </ul>	○	<ul style="list-style-type: none"> <li>Promote energy conservation to achieve the fiscal 2020 targets set forth in the Commitment to a Low Carbon Society.</li> <li>Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by Energy Saving Act).</li> </ul>
		Other Group Companies (note)	<ul style="list-style-type: none"> <li>Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by Energy Saving Act).</li> </ul>	<ul style="list-style-type: none"> <li>Failed to meet the target of reducing energy intensity by 1% or more due to an increase in energy consumption</li> </ul>	×	<ul style="list-style-type: none"> <li>Reduce energy intensity by 1% or more from the previous fiscal year (based on calculation methods stipulated by Energy Saving Act).</li> </ul>
	Waste reduction and recycling	Daicel	<ul style="list-style-type: none"> <li>Aim for a recycling rate of 75% or more.</li> <li>Reduce landfill indices to not more than 16% of levels recorded in FY 2001 to achieve our FY 2021/3 target ahead of schedule.</li> </ul>	<ul style="list-style-type: none"> <li>Recycling rate declined to 70% due to a decrease in the volume of waste plastics being sold.</li> <li>Reduced landfill indices to 14% of levels recorded in FY2001/3, achieving our FY2021/3 target ahead of schedule.</li> </ul>	△	<ul style="list-style-type: none"> <li>Aim for a recycling rate of 75% or more.</li> <li>Reduce landfill indices to not more than 16% of levels recorded in FY2001/3 to maintain the figure at or below the FY2021 target.</li> </ul>
		Other Group Companies	<ul style="list-style-type: none"> <li>Maintain zero-emission status at all business sites.</li> </ul>	<ul style="list-style-type: none"> <li>Maintained zero-emission status at all business sites.</li> </ul>	○	<ul style="list-style-type: none"> <li>Maintain zero-emission status at all business sites.</li> </ul>

		FY2018/3 Targets	FY2018/3 Results	Assessment	FY2019/3 Targets
Occupational Health and Safety	Daicel	<ul style="list-style-type: none"> <li>• Aim for zero occupational accidents (placing particular focus on preventing injuries due to encounters with hazardous substances and falls).</li> <li>• Ensure compliance with rules and the proper implementation of basic operations.</li> <li>• Implement hazard simulation training at each plant.</li> </ul>	<ul style="list-style-type: none"> <li>• 12 occupational accidents (12 in the previous year),not including heat stress and falls in the course of construction and manual operations associated withproduction. However, the number of injuries due to encounters with hazardous substances increased.</li> <li>• Promoted thoroughgoing compliance with rules and basic operations by, for example, issuing the 3rd edition of the Essence of Safe Operations, a leaflet summarizing basic operations of Daicel production sites.</li> <li>• Launched TRC (Training Center) branch offices at Harima, Ohtake and Hirohata plants, thereby initiating hazard simulation training at these plants.</li> </ul>	△	<ul style="list-style-type: none"> <li>• Aim for zero occupational accidents (placing particular focus on preventing serious incidents, such as encounters with hazardous substances and heat stress).</li> <li>• Utilize TRC branch offices at each plant to enhance the content of hazard simulation training.</li> </ul>
	Other Group Companies	<ul style="list-style-type: none"> <li>• Aim for zero occupational accidents (placing particular focus on preventing injuries due to encounters with hazardous substances and falls).</li> <li>• Share information regarding 3S, crisis-identification<sup>1)</sup> and hazard prediction activities between companies.</li> <li>• Roll out activities aimed at learning from the lessons of the past.</li> </ul>	<ul style="list-style-type: none"> <li>• 3 occupational accidents (4 in the previous year), not including injuries due to falls or encounters with hazardous substances.</li> <li>• Held casual workplace meetings about safety and shared best practices and other information regarding 3S, crisis identification and hazard prediction activities between Group companies.</li> <li>• Implemented educational programs centered on learning from the lessons of the past while verifying the effectiveness of recurrence prevention countermeasures.</li> </ul>	△	<ul style="list-style-type: none"> <li>• Aim for zero occupational accidents (placing particular focus on preventing serious incidents, such as injuries due to encounters with hazardous substances and falls).</li> <li>• Enrich the content of these workplace meetings by, for example, grouping attendees by type of manufacturing operations.</li> <li>• Continue to roll out activities aimed at learning from the lessons of the past.</li> </ul>

		FY2018/3 Targets	FY2018/3 Results	Assessment	FY2019/3 Targets
Process Safety and Disaster Prevention	Daicel	<ul style="list-style-type: none"> <li>• Aim for zero accidents involving fire, explosions and leaks.</li> <li>• Systematically implement countermeasures against facility aging and measures to prevent troubles attributable to human errors.</li> <li>• Develop infrastructure and draw up BCPs<sup>2)</sup> for key products based on BCP guidelines.</li> <li>• Step up security measures using unified standards for the entire Company.</li> </ul>	<ul style="list-style-type: none"> <li>• One serious fire incident and seven minor incidents.</li> <li>• Systematically implemented measures to upgrade aging facilities. Stepped up and measures to pre-vent trouble attributable to human error by, for example, displaying lessons from past incidents.</li> <li>• Established BCP guidelines and ensured that every employee is versed in their content.</li> <li>• Systematically strengthened security measures in accordance with security guidelines.</li> </ul>	△	<ul style="list-style-type: none"> <li>• Aim for zero accidents involving fire, explosions and leaks.</li> <li>• Systematically address issues associated with safety infrastructure and corporate culture.</li> <li>• Enhance BCPs for key products.</li> <li>• Strengthen security measures in accordance with security guidelines.</li> </ul>
	Other Group Companies	<ul style="list-style-type: none"> <li>• Identify priority issues for each Group company and promote measures to tackle such issues.</li> <li>• Step up security measures using unified standards for the entire Group.</li> </ul>	<ul style="list-style-type: none"> <li>• 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.</li> <li>• Systematically strengthened security measures in accordance with security guidelines.</li> </ul>	△	<ul style="list-style-type: none"> <li>• Aim for zero accidents involving fire, explosions and leaks.</li> <li>• Systematically address priority issues for each Group company.</li> <li>• Step up security measures at each Group company in accordance with security guidelines.</li> </ul>

	FY2018/3 Targets	FY2018/3 Results	Assessment	FY2019/3 Targets
Distribution Safety	<ul style="list-style-type: none"> <li>• Aim for zero logistics accidents at Daicel Logistics Services and partner companies.</li> <li>• Reduce logistics-related issues at partner companies by 30% from the previous fiscal year.</li> <li>• Improve energy intensity by at least 1% (based on the calculation method in the Energy Conservation Act).</li> </ul>	<ul style="list-style-type: none"> <li>• Maintained the status of zero logistics accidents at Daicel Logistics Services and partner companies.</li> <li>• Reduced logistics-related issues at partner companies by 21% from the previous fiscal year.</li> <li>• Improved energy intensity index by 0.3 points.</li> </ul>	△	<ul style="list-style-type: none"> <li>• Aim for zero logistics accidents at Daicel Logistics Services and partner companies.</li> <li>• Reduce logistics issues at partner companies by 20% from the previous fiscal year.</li> <li>• Improve energy intensity by at least 1% (based on the calculation method in the Energy Conservation Act).</li> </ul>

		FY2018/3 Targets	FY2018/3 Results	Assessment	FY2019/3 Targets
Chemical Safety Initiative	Response to REACH <sup>3)</sup> regulations	<ul style="list-style-type: none"> <li>Secure compliance with REACH regulations in accordance with their time frame.</li> </ul>	<ul style="list-style-type: none"> <li>Promoted registration of products being exported in annual volumes of 1 ton or more based on REACH's regulatory timeframe.</li> </ul>	○	<ul style="list-style-type: none"> <li>Complete registration of products being exported in annual volumes of 1 ton or more based on REACH's regulatory timeframe.</li> </ul>
	Initiatives to secure compliance with other chemical regulations	<ul style="list-style-type: none"> <li>Remain apprised of the latest developments and trends in chemical regulations and act appropriately to secure responsiveness to such regulations.</li> </ul>	<ul style="list-style-type: none"> <li>Regularly researched information on the revision of chemical regulations in Japan and overseas while holding in-house meetings to share such information.</li> </ul>	○	<ul style="list-style-type: none"> <li>Remain apprised of the latest developments and trends in chemical regulations and act appropriately to secure responsiveness to such regulations.</li> </ul>
	Management of chemical substance information	<ul style="list-style-type: none"> <li>Register new chemical products with the D-CLiK<sup>4)</sup> database and update product information based on additional testing results.</li> </ul>	<ul style="list-style-type: none"> <li>Registered new chemical products with the D-CLiK database and updated this information based on additional testing results.</li> </ul>	○	<ul style="list-style-type: none"> <li>Register new chemical products with the D-CLiK database and update product information based on additional testing results.</li> </ul>
	VOC <sup>5)</sup>	<ul style="list-style-type: none"> <li>Achieve VOC emissions of not more than 40% (medium-term target) of levels recorded in fiscal 2000.</li> </ul>	<ul style="list-style-type: none"> <li>VOC emissions were 67% of levels recorded in fiscal 2000.</li> </ul>	×	<ul style="list-style-type: none"> <li>Achieve VOC emissions of not more than 40% (medium-term target) of levels recorded in fiscal 2000.</li> </ul>
	PRTR <sup>6)</sup>	<ul style="list-style-type: none"> <li>Maintain the level of PRTR substance emissions to not more than 40% (medium-term target) of levels recorded in fiscal 2001.</li> </ul>	<ul style="list-style-type: none"> <li>PRTR substance emissions were 23% of levels recorded in fiscal 2001.</li> </ul>	○	<ul style="list-style-type: none"> <li>Maintain the level of PRTR substance emissions to not more than 40% (medium-term target) of levels recorded in fiscal 2001.</li> </ul>

※Assessment criteria :

◎→Succeeded by meeting or exceeding targets (100% or more)

○→Nearly achieved targets (80% or more)

△→R Failed to meet targets (40% or more)

×→Results fell far short of targets (less than 40%)

## What is...?

- 1) 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.
- 2) 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.
- 3) 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.
- 4) D-CLik: A unique database Daicel has developed to manage chemical substance information.
- 5) VOC: VOC stands for Volatile Organic Compounds. Some of the most well known examples include toluene, xylene and ethyl acetate.
- 6) 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.

# Scope of Data Calculation for Environmental and Occupational Safety Performance

Data calculation in this section includes business sites and Group companies that conduct production and logistics operations.

- **Daicel Corporation ("the Company"):** Business sites of Daicel Corporation and workplaces of domestic Group companies located within Daicel's plants
- **Other Group Companies:** Business sites of domestic Group companies located outside Daicel's plants
- **Overseas Group Companies:** Daicel's overseas Group companies

**DM Novafoam Ltd.**

- Aomori Plant
- Nagano Plant
- Okayama Plant

**Harima Plant**

- Daicel Corporation
- Daicel Safety Systems Inc.
- Daicel Logistics Service Co., Ltd.

**Ohtake Plant**

- Daicel Corporation
- Daicel-Allnex Ltd.
- Daicel Ohtake Sangyo Co., Ltd.
- Daicel Logistics Service Co., Ltd.

**Innovation Park (Central Research Center)**

**Aboshi Plant, Himeji Production Sector**

- Daicel Corporation
- Daicel-Evonik Ltd.
- Daicel FineChem Ltd.
- Daicon Membrane-Systems Ltd.
- Daicel Logistics Service Co., Ltd.
- Daicel Aboshi Sangyo Co., Ltd.
- Kyodo Sakusan Co., Ltd.

**Arai Plant**

- Daicel Corporation
- Daicel FineChem Ltd.
- Daicel-Allnex Ltd.
- Daicel Arai Chemical, Ltd.

**Daicel Pyrotechnics Ltd.**

- Takasaki Plant
- Gunma Giant Shooting Practice Range

**Daicel Pack Systems, Ltd.**

- Isezaki Plant

**Dainichi Chemical Corp.**

- Iwaki Plant

**Polyplastics Co., Ltd.**

- Fuji Plant
- R&D Center
- Technical Solution Center

**Daicel Logistics Service Co., Ltd.**

- Kanto Logistics Center
- Kansai Logistics Center

**Kanzaki Plant**

- Daicel Corporation
- Daicel Value Coating Ltd.

**Hirohata Plant, Himeji Production Sector**

- Daicel Corporation
- Daicel Polymer Ltd.
- Toyo Styrene Co., Ltd.

**Jiangsu Province, China**

- Daicel Safety Systems (Jiangsu) Co., Ltd.

**Shanghai, China**

- Shanghai Daicel Polymers, Ltd.
- Daicel Chiral Technologies (China) Co., Ltd.

**Shaanxi Province, China**

- Xi'an Huida Chemical Industries Co., Ltd.

**France**

- Chiral Technologies Europe S.A.S.

**Poland**

- Daicel Safety Systems Europe Sp. z o. o.

**India**

- Daicel Chiral Technologies (India) Private Ltd.

**Thailand**

- Daicel Safety Systems (Thailand) Co., Ltd.
- Daicel Safety Technologies (Thailand) Co., Ltd.
- Special Devices (Thailand) Co., Ltd.

**Kentucky, U.S.A.**

- Daicel Safety Systems America, LLC
- Daicel Safety Technologies America, Inc.
- Daicel Safety Tube Processing, Inc.

**Pennsylvania, U.S.A.**

- Chiral Technologies, Inc.

**Arizona, U.S.A.**

- Special Devices, Inc.
- Daicel Safety Systems America Arizona, Inc.

**South Korea**

- Daicel Safety Systems Korea, Inc.

**Zhejiang Province, China**

- Ningbo Da-An Chemical Industries Co., Ltd.

**Guangxi, China**

- Daicel Nanning Food Ingredients Co., Ltd.

### The 17th Daicel Group Responsible Care Promotion Conference Held

From fiscal 2000, Daicel Group has joined Daicel president, directors and company chiefs, presidents of group companies, trade union representatives, representatives of each department, etc. meet to Daicel Group RC Promotion Competition is held.

In FY 2018, we held at the innovation park on April 5, about 100 people participated. Message from the president, RC chairperson and RC vice chairperson and explanation of implementation plan for this fiscal year from RC chief. In addition, three cases that including 16 people were awarded outstanding achievements for RC activities from the RC chairperson.

This time, Mr. Masaki Nogimori of former presidents of the Astellas Pharma Co., Ltd., the outside director, gave a lecture on the subject of "what the company should do about safety".



### Global Safety Meeting

Over the two days of September 26 and 27, 2017, 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.



## ★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.

# Environmental Preservation

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➤ Global Warming Prevention

[Click here >](#)

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➤ Environmental Management

[Click here >](#)

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➤ Reduction and Recycling of Industrial Waste

[Click here >](#)

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➤ Initiatives to Reduce Emissions of Chemical Substances

[Click here >](#)

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➤ Creation of Native Forests for Life

[Click here >](#)

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➤ Environmental Accounting

[Click here >](#)

# Global Warming Prevention

The Daicel Group is striving to reduce CO<sub>2</sub> emissions and energy consumption in various ways, with the Energy Conservation Committee spearheading these efforts.

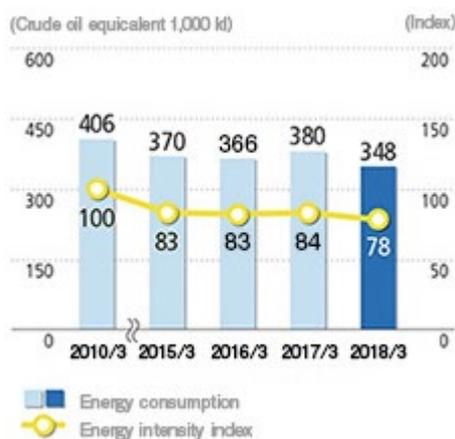
In FY 2018/3, the energy intensity index<sup>1)</sup> improved approximately six percentage points year on year. This was mainly attributable to an increase in the volume of used tires mixed into boiler fuel at the Ohtake Plant and the effect of newly installed gas turbines that are now in full operation at the Arai Plant. Moreover, the emissions intensity index, which is based on CO<sub>2</sub> 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 FY 2021/3. Based on this commitment, the Company achieved its target of curbing CO<sub>2</sub> emissions to 1,580,000 tons ahead of schedule.

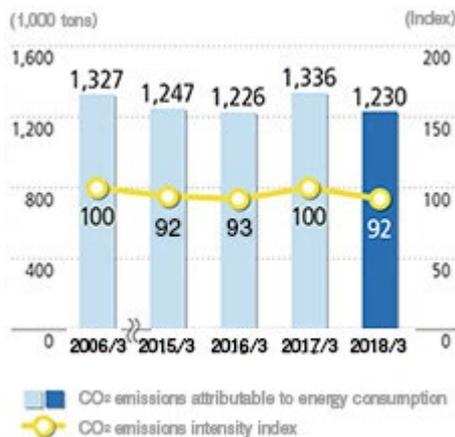
As for other Group companies, energy consumption volumes grew compared with the previous fiscal year. On the other hand, the figures recorded at overseas Group companies (note) stayed virtually flat year on year.

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 CO<sub>2</sub> emissions.

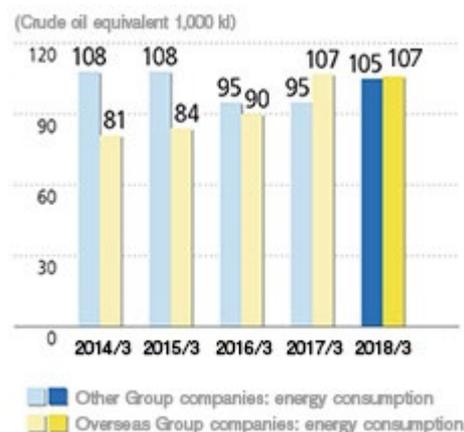
## Daicel's Energy Consumption and Intensity Index



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



## Other/Overseas Group Companies' Energy Consumption



- 1) 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

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## Innovative Energy-Saving Technologies Aimed at Reducing Energy Consumption

Daicel looks well beyond efforts to improve and refine its existing technologies when putting in place energy-saving measures. For example, the Company works to comprehensively review its production processes and to develop new technologies.

Distillation processes tend to account for around 40% of general energy consumption in the chemicals industry. This is also true for Daicel's operations. As a result, uncovering new distillation process energy-saving technologies will go a long way toward reducing energy consumption. The distillation process utilizes high-temperature thermal energy while, on the other hand, generating large volumes of low-temperature exhaust heat energy which is released unused. With this in mind, a truly beneficial distillation process energy-saving technology must focus not only on reducing high-temperature thermal energy usage, but also on the effective recovery and reuse of low-temperature exhaust heat energy.

Daicel has launched an innovative energy-saving technology project and has been promoting cross-sectional activities throughout every level of the Company. These efforts have led to the creation of an improved Petlyuk process and vapor recompression (VRC) technology to reduce the energy consumption of distillation towers. Although Petlyuk and VRC technologies have been used for other applications, Daicel is the first in the world to verify their use in chemical plants.

Going forward, we will push ahead with energy-saving efforts. To this end, we will leverage membrane separation technologies and novel reaction technologies to realize process innovation aimed at reducing the thermal load of distillation.

Here, we introduce some technological breakthroughs we have already achieved to reduce the energy consumption of distillation towers.

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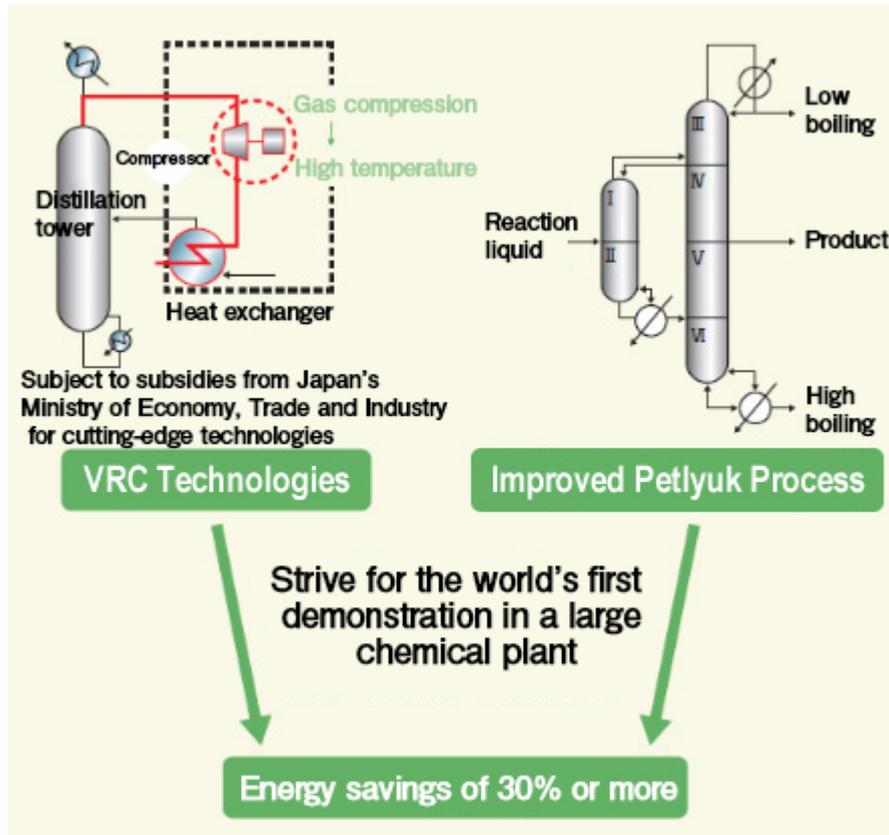
### Case 1: Improved Petlyuk Process

Petlyuk distillation, and its practical application as a dividing-wall column (DWC), is widely recognized as an energy-saving technology. However, the introduction of a DWC has been limited to the complete replacement of distillation towers. Unable to utilize existing facilities, a DWC initiative entails massive amounts of capital expenditure.

By refining Petlyuk technology, Daicel developed a new process technology that enables application through improvements to existing distillation towers. Since 2014, this technology has been applied at the Arai Plant to the Company's acetic anhydride manufacturing facilities.

## Case 2: VRC Technologies

Expectations are mounting that VRC technology will become ubiquitous to recover heat as high-temperature steam by compressing the exhaust heat inherent in low-temperature steam. While this technology has been widely used in aqueous-system simple distillation processes, there have been no examples of its application in organic solvent distillation processes. Aiming to do just this, Daicel has been working with a compressor manufacturer to develop a compressor that would enable the use of the VRC technology in organic solvent distillation processes. Verification is now underway using a prototype distillation process.

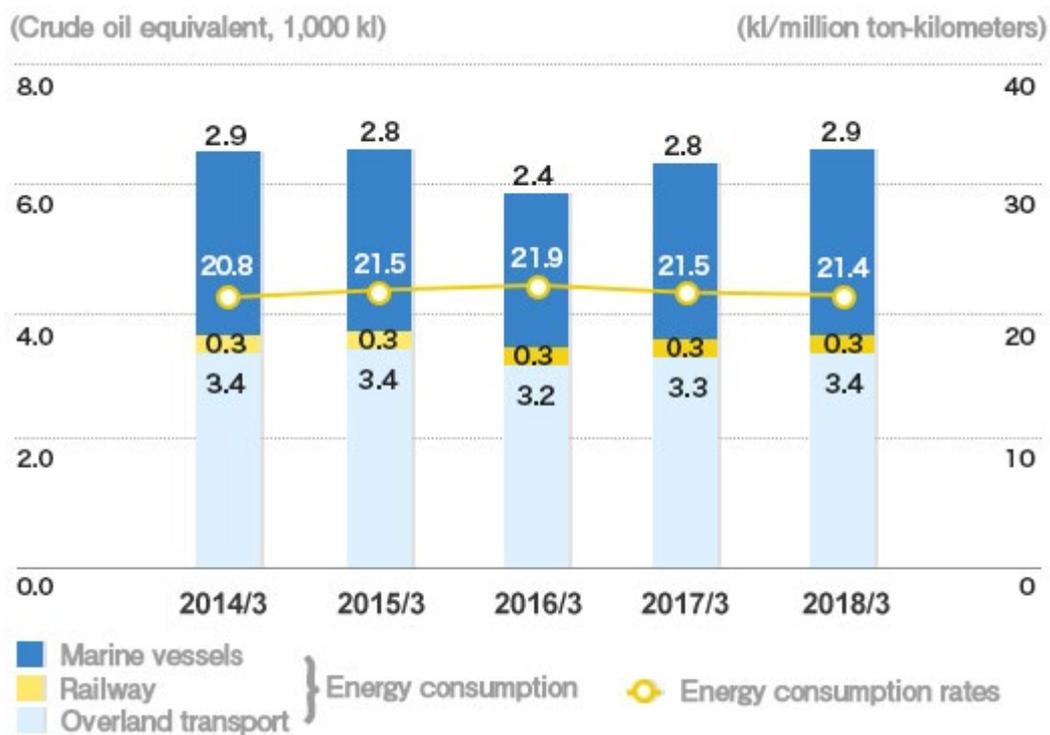


## — Initiatives to Reduce the Environmental Impact of Logistics Operations

The Daicel Group is striving to step up its measures to secure distribution safety and enhance the quality of its logistics operations. Simultaneously, the Group is engaged in efforts to curb energy consumption associated with product transportation by, for example, promoting a modal shift<sup>2)</sup> and container round use.<sup>3)</sup>

As for conserving energy in logistics, the Company improved its energy intensity index 0.3 of a percentage point year on year, despite increases in energy consumption attributable to domestic vessel and land transportation.

### Daicel's Energy Consumption and Energy Consumption Rates in Logistics Operations

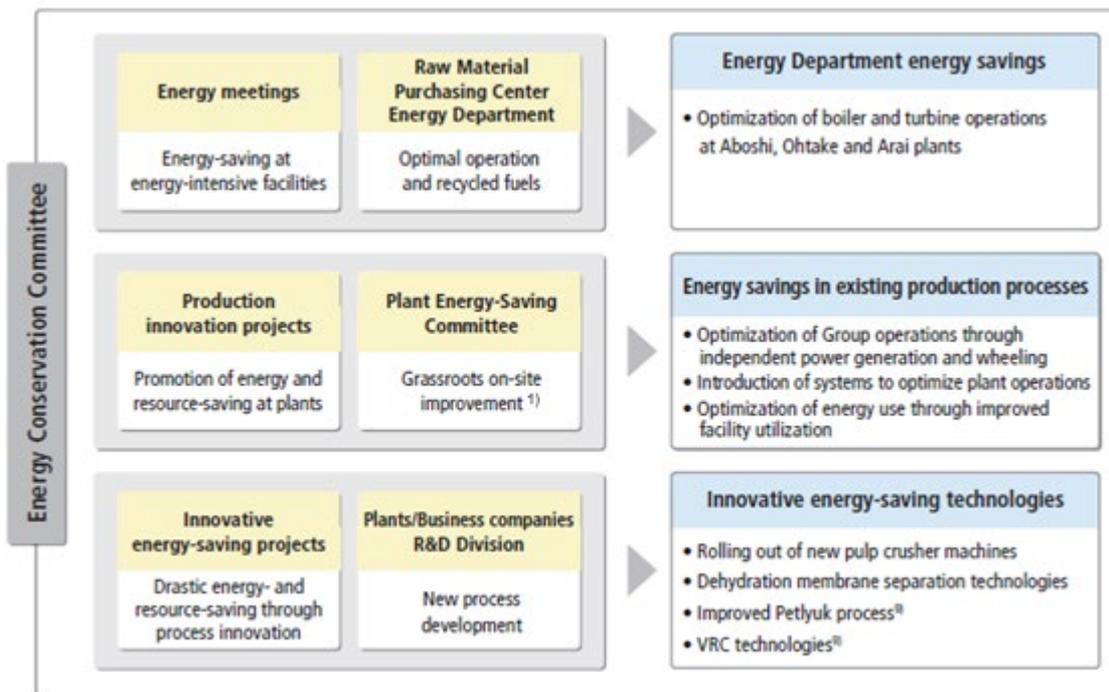


### What is...?

- 2) Modal shift: The shift from truck-based goods transportation to more environmentally friendly marine and railway transportation.
- 3) Container Round Use: The practice of using devanned import containers for exports, without returning them to the shipping companies.

## — Our Structure for Promoting Energy–Saving Initiatives

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 CO<sub>2</sub> emissions. With representatives from all relevant divisions attending this committee, these efforts transcend organizational boundaries and are aimed at yielding results from the following three angles: Energy Department energy savings; energy savings in existing production processes through production innovation initiatives; and the introduction of innovative energy-saving technologies.



[\\*For more details, please also visit Daicel's website and see the page titled "Global Warming Prevention."](#)

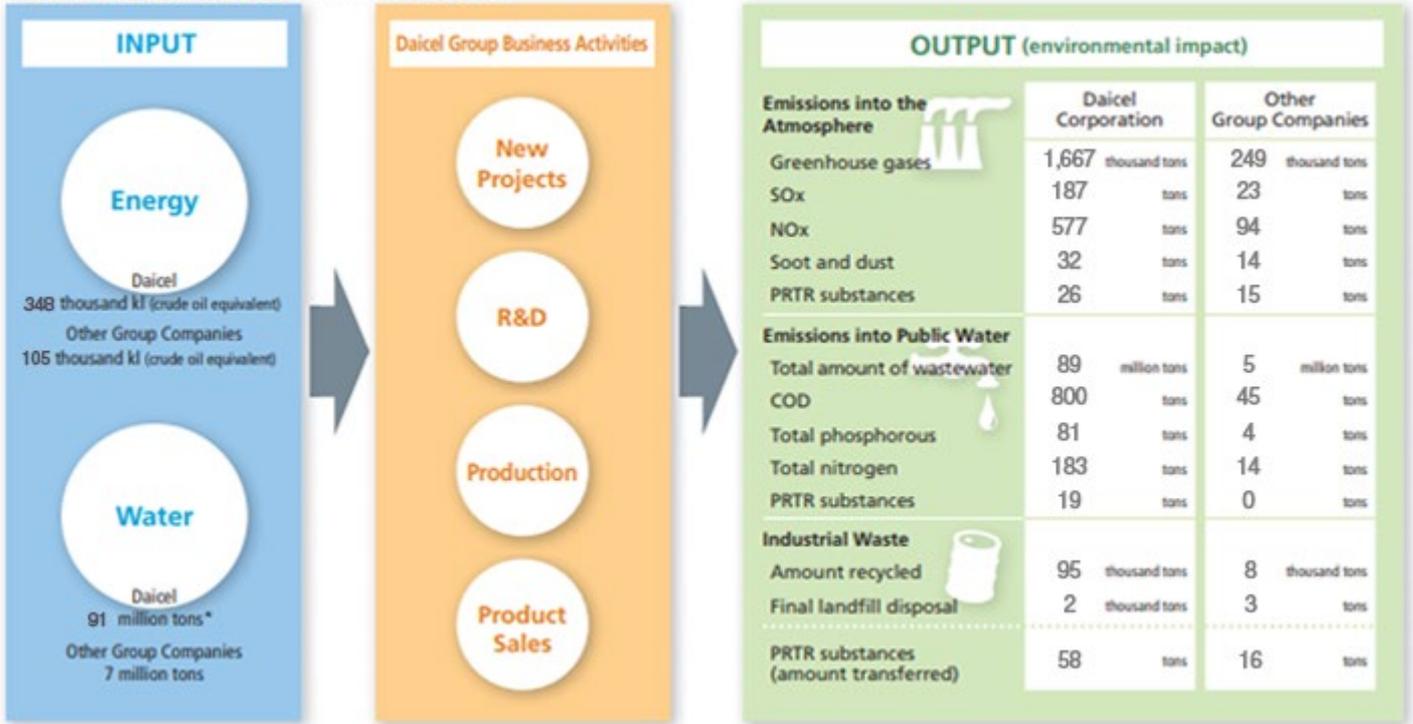
### What is...?

- 1) 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.

# Environmental Impact of Business Activities

FY 2018/3 environmental impact data recorded by Daicel and other Group companies in Japan

## Environmental Impact of Business Activities



※Includes 37 million tons of seawater for cooling

## — Environmental Load Data

FY 2018/3 environmental impact data recorded by Daicel, other Group companies in Japan and those in countries overseas

### 1) Environmental Load Data for Daicel Corporation

Item			Kanzaki Plant	Aboshi Plant	Hirohata Plant	Harima Plant	Arai Plant	Ohtake Plant	Innovation Park
Water usage		(1,000 tons)	250	31,132	455	273	15,990	43,278 ※	39
Energy usage (crude oil equivalent)		(kiloliters)	7,821	194,864	11,724	11,352	28,330	92,700	1,305
SOx emissions		(tons)	0	124	0	5	12	46	0
NOx emissions		(tons)	0	221	2	9	46	299	0
Soot and dust emissions		(tons)	0	19	0	0	3	10	0
Greenhouse gas emissions		(1,000 tons)	14	601	23	26	61	939	3
COD (BOD) emissions		(tons)	9	328	1	0	66	396	0
PRTR substances	Emitted	(tons)	6	4	9	3	6	16	0
	Transferred	(tons)	29	3	1	16	4	5	0
Landfill disposal		(tons)	649	272	22	2	760	76	48

\*Includes 36,000,000 tons of seawater

## 2) Environmental Load Data for Other Group Companies

		Polyplastics Co., Ltd.	Dainichi Chemical Corp.	DM Novafoam Ltd.	Daicel Pack Systems Ltd.	Daicel Pyrotechnics Ltd.	Daicel Logistics Service Co., Ltd.
Water consumption	(1,000 tons)	6,498	376	38	180	2	4
Energy consumption (crude oil equivalent)	(kiloliters)	100,764	1,110	2,206	789	14	334
SOx emissions	(tons)	21	0	2	0	0	0
NOx emissions	(tons)	91	2	1	0	0	0
Soot and dust emissions	(tons)	14	0	0	0	0	0
Greenhouse gas emissions	(1,000 tons)	242	2	5	0	0	0
COD (BOD) emission	(tons)	44	1	0	0	0	0
PRTR substances	Emitted	(tons)	14	0	0	0	0
	Transferred	(tons)	6	10	0	0	0
Landfill disposal	(tons)	0	0	0	3	0	0

## 3) Environmental Load Data (Overseas Group Companies Jan. to Dec.2017)

Item		Ningbo Da-An Chemical Industries Co., Ltd.	Daicel Nanning Food Ingredients Co., Ltd.	Xi'an Huida Chemical Industries Co., Ltd.	Shanghai Daicel Polymers, Ltd.
Water consumption	(1,000tons)	528	203	213	37
Greenhouse gas emissions	(1,000tons)	83	17	70	3

Item		Daicel Safety Systems (Thailand) Co., Ltd. Daicel Safety Technologies (Thailand) Co., Ltd.	Special Devices (Thailand) Co., Ltd.	Daicel Safety Systems (Jiangsu) Co., Ltd.	Daicel Safety Systems America, LLC Daicel Safety Technologies America, Inc. Daicel Safety Tube Processing, Inc.
Water consumption	(1,000tons)	199	9	133	12
Greenhouse gas emissions	(1,000tons)	16	2	20	15

Item		Daicel Safety Systems Europe Sp. z o. o.	Daicel Safety Systems Korea, Inc.	Special Devices, Inc. Daicel Safety Systems America Arizona, Inc.	Chiral Technologies, Inc.
Water consumption	(1,000tons)	2	3	22	0
Greenhouse gas emissions	(1,000tons)	2	1	8	1

Item		Chiral Technologies Europe S.A.S.	Daicel Chiral Technologies (China) Co., Ltd.	Daicel Chiral Technologies (India) Private Ltd.
Water consumption	(1,000tons)	0	3	0
Greenhouse gas emissions	(1,000tons)	1	1	0

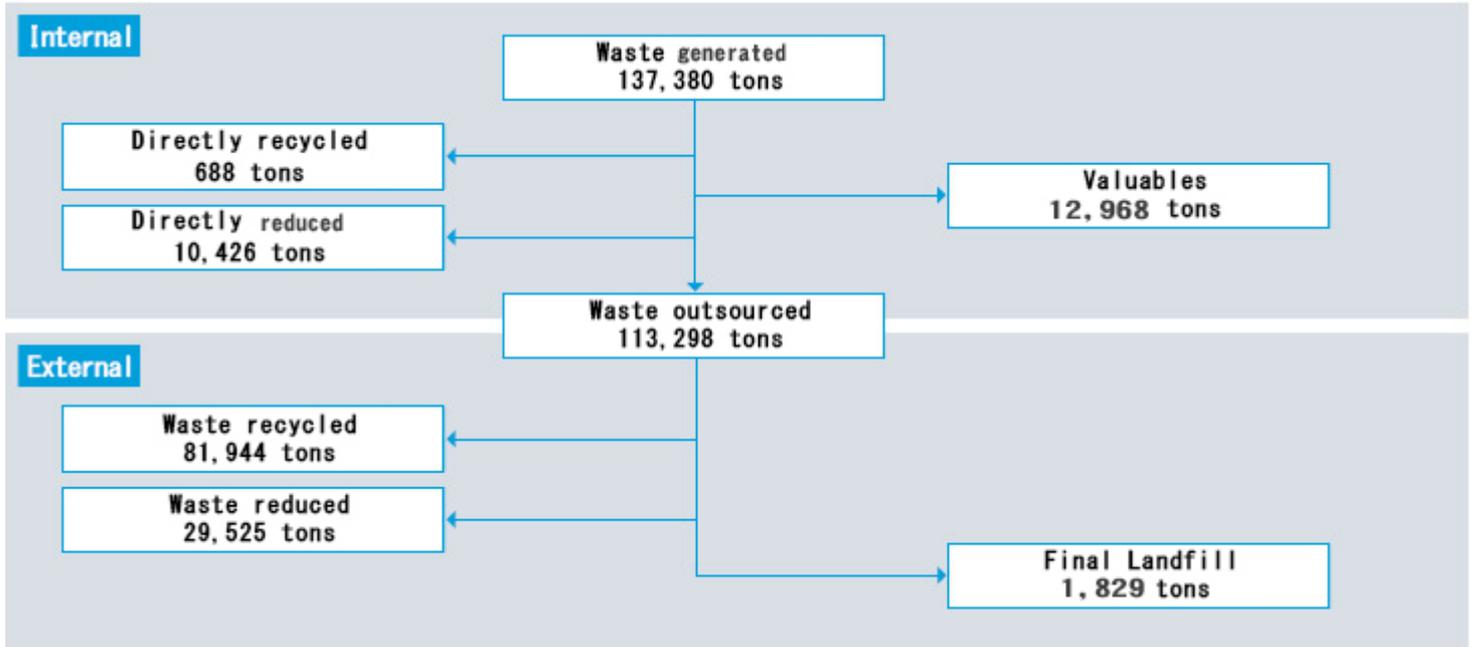
## — The Status of Environmental Management System Certification

[Click here to check the list of certified facilities](#)

# Reduction and Recycling of Industrial Waste

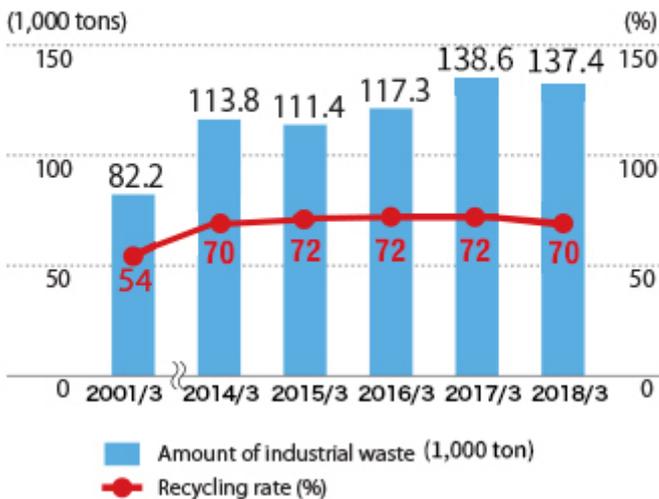
Daicel is a participant in the Nippon Keidanren Voluntary Action Plan on the Environment for a Recycling-Oriented Society. In line with this plan, the Company is striving to achieve two targets set for FY 2021/3, namely, raising the waste recycling rate to at least 75% and reducing landfill indices to not more than 16% of levels recorded in FY 2001/3.

## Waste Flow (FY 2018/3)

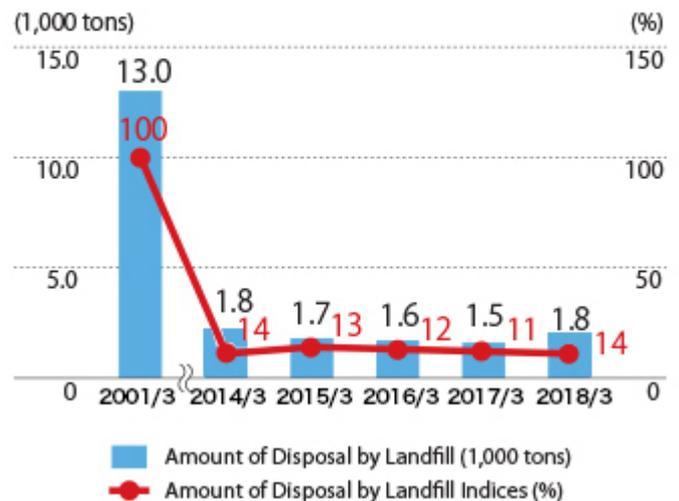


In FY 2018/3, the amount of industrial waste generated by Daicel decreased by approximately 1,200 tons compared with the previous fiscal year. This was due mainly to the effect of newly installed boilers that are now in full operation at the Arai Plant. The recycling rate fell 2 percentage points year on year to 70%. In addition, although the Company met its target for landfill indices, the figure rose 3 percentage points year on year to 14%. This was attributable to such factors as an increase in the volume of sludge solids (the Arai Plant) and a decrease in the volume of waste being sold (the Kanzaki Plant).

## Daicel Amount of Industrial Waste and Recycling Rate

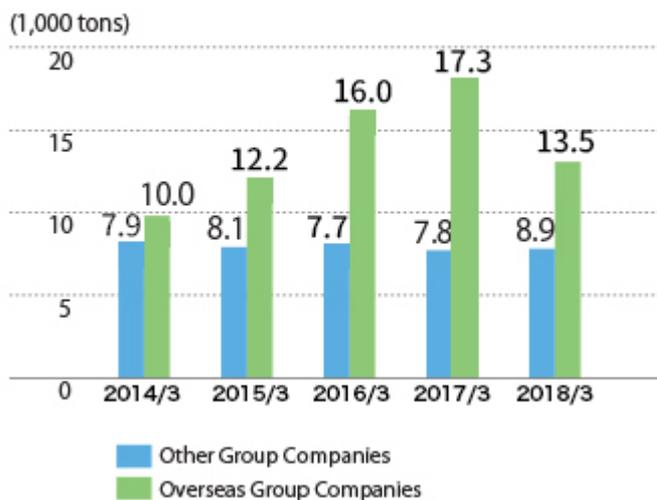


## Daicel Amount of Disposal by Landfill and Landfill Indices

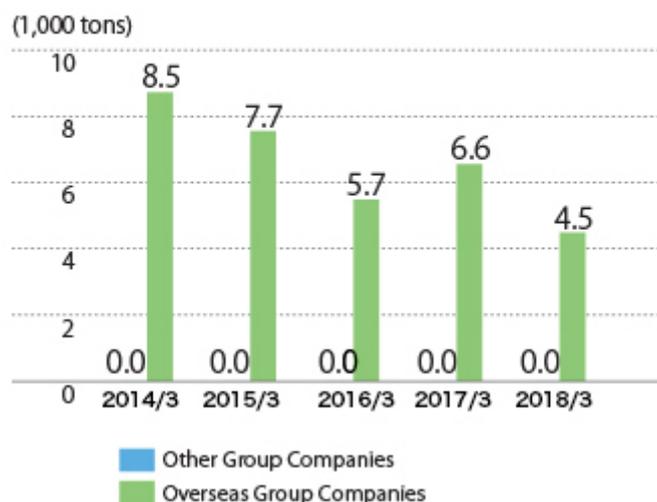


The total amount of industrial waste generated by other Group companies in Japan slightly increased compared with the previous fiscal year. The total amount of industrial waste generated by overseas Group companies decreased year on year. This was mainly attributable to a successful switchover of waste processing methods employed by Ningbo Da-An Chemical Industries Co., Ltd. in an effort to reduce the volume of industrial waste. During FY 2018/3, all six Group companies in Japan maintained zero-emission status.

### Amount of Industrial Waste at Other Group and Overseas Group Companies



### Amount of Disposal by Landfill at Other Group and Overseas Group Companies

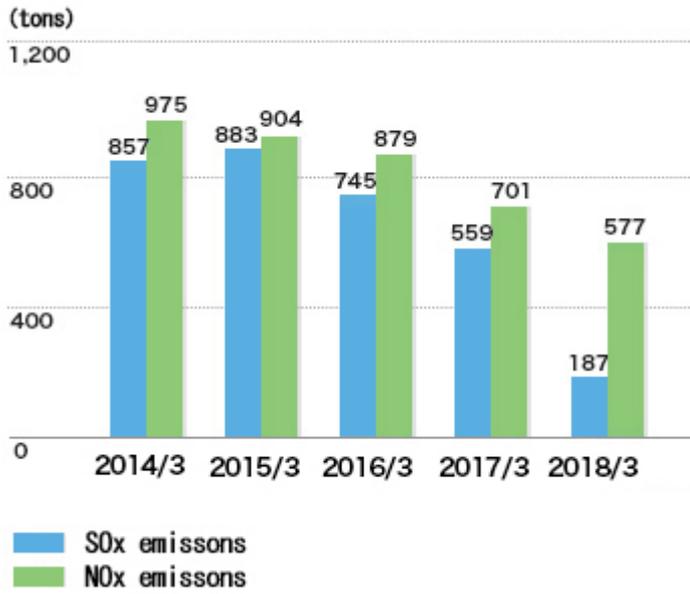


## Environmental Management to Prevent Atmosphere and Water Pollution

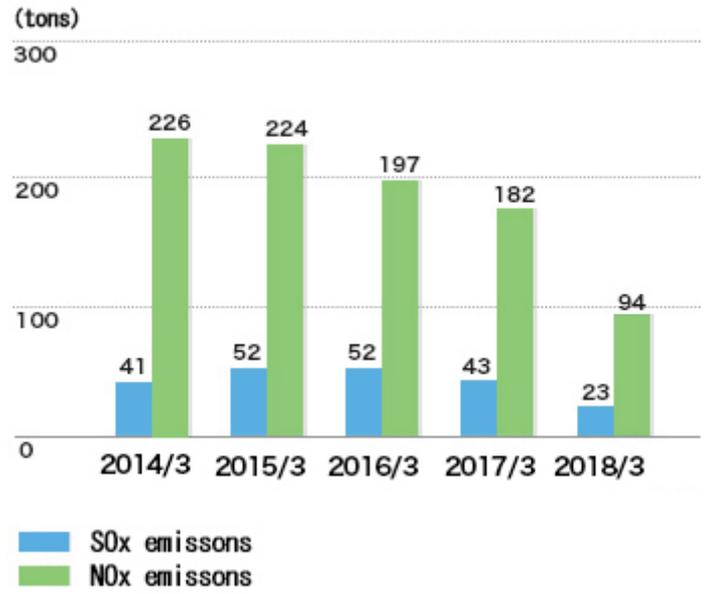
Daicel and other Group companies in Japan strictly adhere to regulatory requirements as well as other requirements determined through negotiations with local governments and municipalities with regard to total emission volume and the density of specific substances. Setting voluntary management targets that are below these requirements, the Group thus works to preserve the environment.

As a result, the Group successfully reduced total emission volume in all of the following items compared with the previous fiscal year.

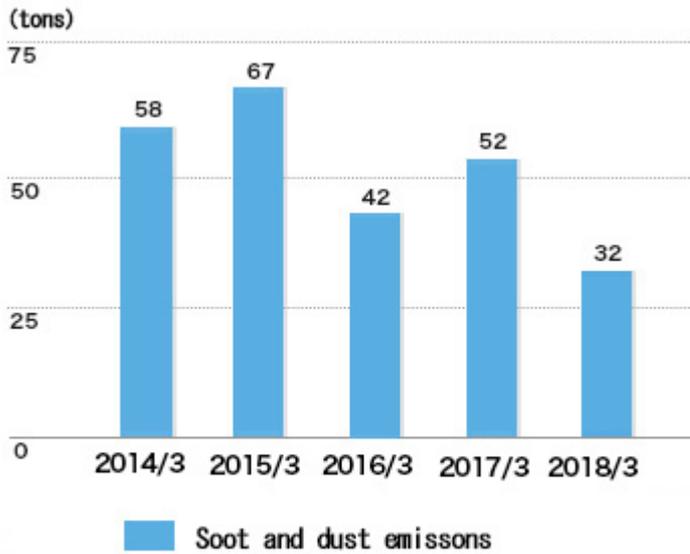
### Daicel's SOx/NOx Emissions



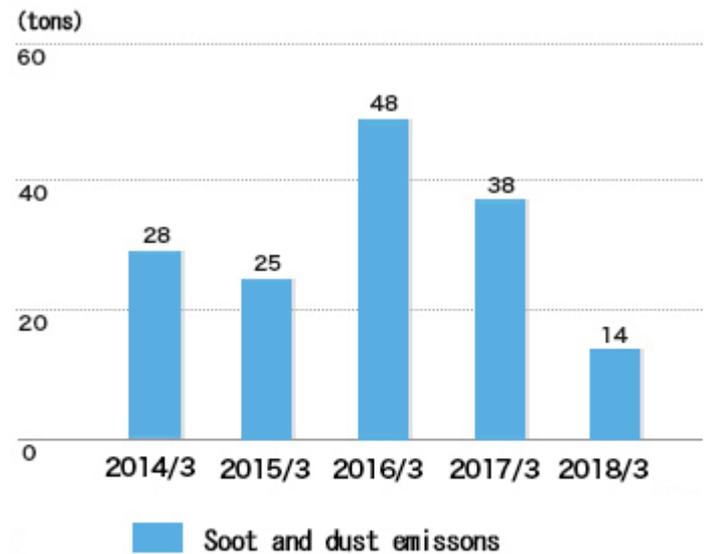
### SOx/NOx Emissions at Other Group Companies



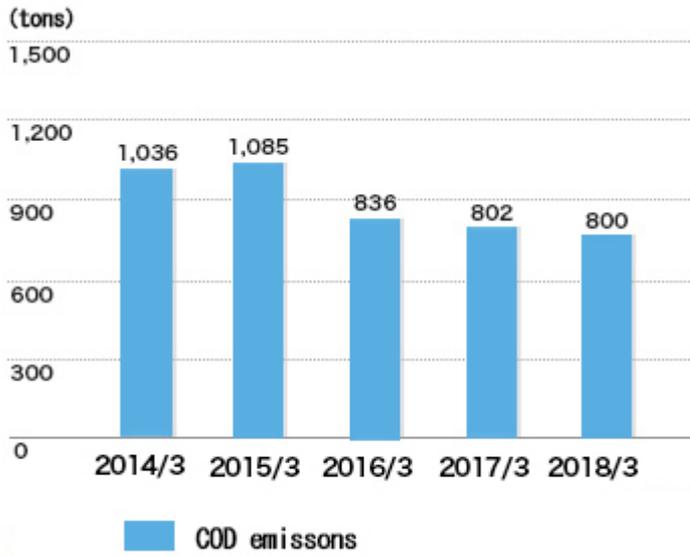
### Daicel's Soot and Dust Emissions



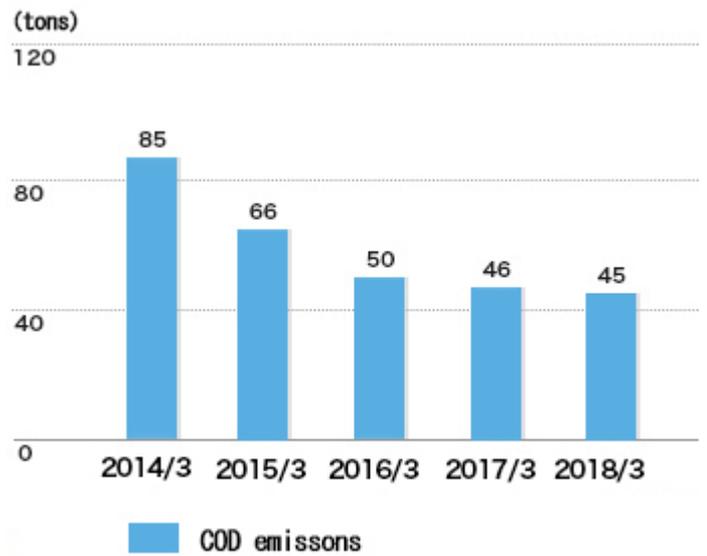
### Soot and Dust Emissions at Other Group Companies



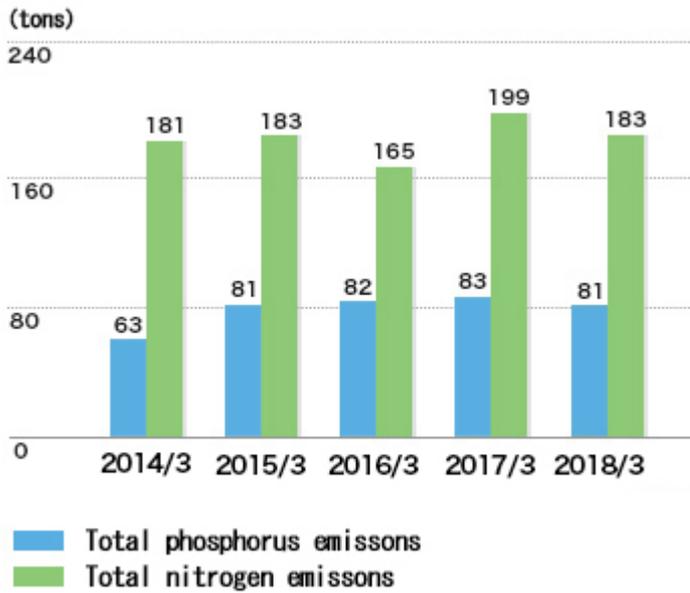
### Daicel's COD Emissions



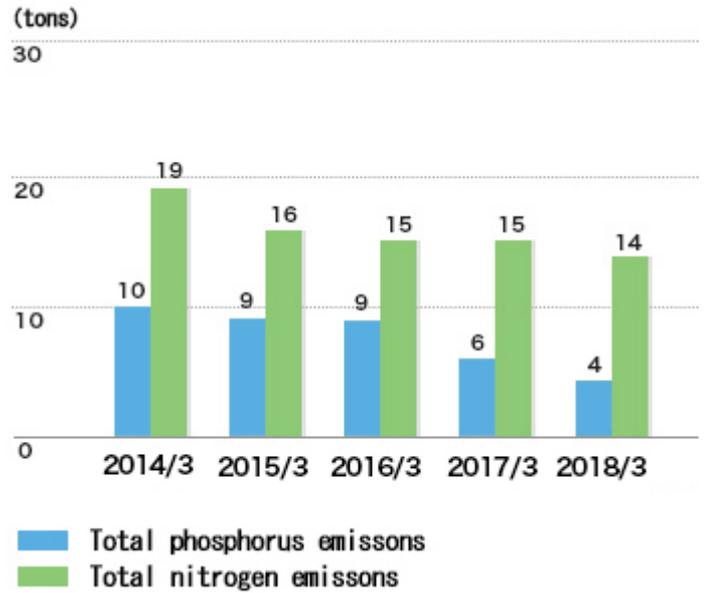
### COD Emissions at Other Group Companies



### Daicel's Total Phosphorus/Nitrogen Emissions



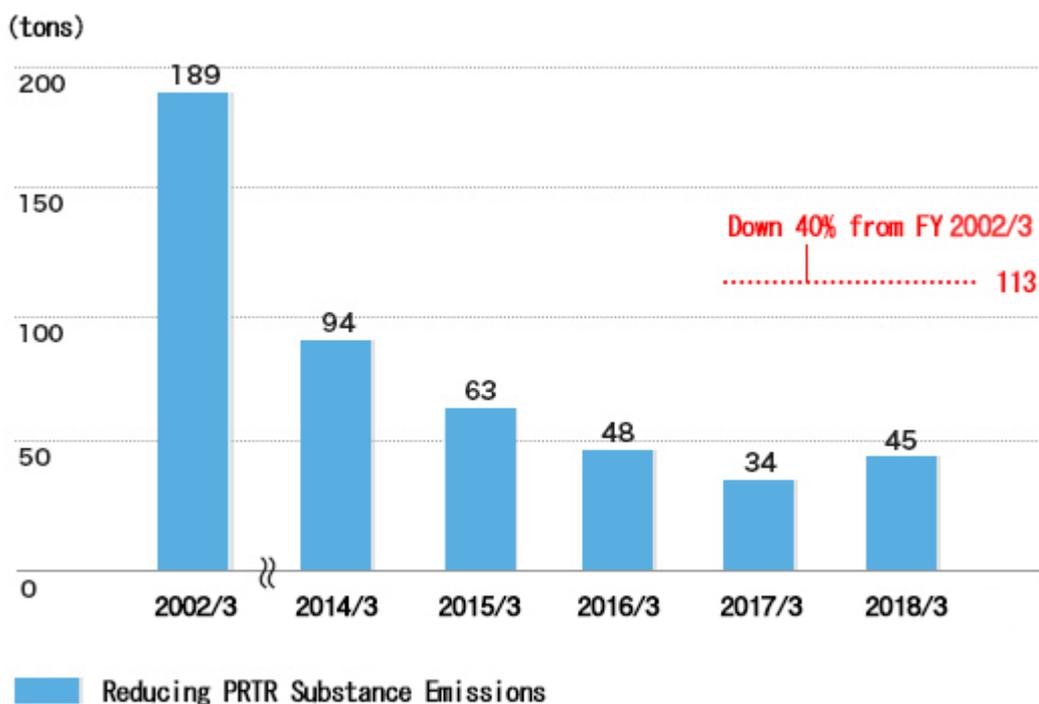
### Total Phosphorus/Nitrogen Emissions at Other Group Companies



## Reducing PRTR Substance Emissions

In FY 2018/3, Daicel achieved its medium-term target of maintaining total emissions of chemical substances, specified by Japan's Act on Confirmation, etc. of Release Amounts of Specific Chemical Substances in the Environment and Promotion of Improvements to the Management Thereof (the so-called PRTR act), at 40% of levels recorded in FY 2002/3 or below. However, emission volume was actually up approximately 11 tons year on year, reflecting such factors as a temporary alteration in emission methods due to production adjustments. Of 462 substances requiring mandatory registration, Daicel handled 60 substances.

### Reducing PRTR Substance Emissions



## Emission and Transfer of PRTR Substances for Daicel Corporation※1

Ordinance-designated number	Substance	Total emissions	Emissions				Transferred	
			Emissions into atmosphere	Emissions into water	Emissions into land	Business site landfill disposal	Sewage	Off-side
1	Zinc compounds(water-soluble)	2.6	0.0	2.6	0.0	0.0	0.0	0.0
9	Acrylonitrile	0.3	0.3	0.0	0.0	0.0	0.0	0.0
10	Acrolein	5.5	0.0	5.5	0.0	0.0	0.0	0.0
12	Acetaldehyde	1.9	0.6	1.3	0.0	0.0	0.0	0.0
28	Allyl alcoho	1.3	0.0	1.3	0.0	0.0	0.0	0.0
31	Antimony and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	0.7
56	Ethylene oxide	0.8	0.3	0.5	0.0	0.0	0.0	0.0
58	Ethylene glycol monomethyl ether	0.4	0.0	0.4	0.0	0.0	0.0	0.0
67	2,3-Epoxy-1-propanol	2.5	0.0	2.5	0.0	0.0	0.0	0.0
135	2-Methoxyeth acetate	0.1	0.0	0.1	0.0	0.0	0.0	0.0
186	Dichloromethane	0.4	0.4	0.0	0.0	0.0	0.0	4.1
240	Styrene	4.3	4.3	0.0	0.0	0.0	0.0	0.0
243	Dioxins ※ 2	0.7	0.0	0.7	0.0	0.0	0.0	0.2
277	Triethylamine	0.9	0.5	0.4	0.0	0.0	0.0	0.0
300	Toluene	15.4	15.4	0.0	0.0	0.0	0.0	29.0
308	Nickel	0.2	0.0	0.2	0.0	0.0	0.0	2.9
351	1, 3-Butadiene	0.1	0.1	0.0	0.0	0.0	0.0	0.0
375	2-Butena	0.5	0.0	0.5	0.0	0.0	0.0	0.0
392	n-Hexane	3.5	3.1	0.4	0.0	0.0	0.0	18.3
400	Benzene	0.3	0.3	0.0	0.0	0.0	0.0	0.5
405	Boron compounds	2.8	0.0	2.8	0.0	0.0	0.0	0.0
423	Monomethylamine	0.5	0.0	0.5	0.0	0.0	0.0	0.0
461	Triphenyl phosphate	0.0	0.0	0.0	0.0	0.0	0.0	0.1
	Others ※ 3	0.2	0.1	0.1	0.0	0.0	0.0	2.0

※1 The threshold for amounts handled was 1 ton/year/workplace.

※2 Unit for emissions and transfer of Dioxins is mg-TEQ/year.

※3 Substances with emissions below 0.01 ton per year are consolidated under Others.

### Emission and Transfer of PRTR Substances by Other Group Companies※4

Ordinance-designated number	Substance	Total emissions	Emissions				Transferred	
			Emissions into atmosphere	Emissions into water	Emissions into land	Business site landfill disposal	Sewage	Off-side
4	Acrylic acid and its water-soluble salts	0.0	0.0	0.0	0.0	0.0	0.0	0.4
13	Acetonitrile	0.0	0.0	0.0	0.0	0.0	0.0	3.8
31	Antimony and its compounds	0.0	0.0	0.0	0.0	0.0	0.0	1.0
150	1,4-Dioxane	0.0	0.0	0.0	0.0	0.0	0.0	0.9
151	1, 3-Dioxolane	6.7	6.7	0.0	0.0	0.0	0.0	0.0
238	Hydrogenated terphenyl	0.0	0.0	0.0	0.0	0.0	0.0	0.5
270	Terephthalic acid	0.0	0.0	0.0	0.0	0.0	0.0	0.9
271	Dimethyl terephthalate	0.0	0.0	0.0	0.0	0.0	0.0	2.4
277	Triethylamine	4.6	4.6	0.0	0.0	0.0	0.0	4.0
300	Toluene	0.2	0.2	0.0	0.0	0.0	0.0	0.1
342	Pyridine	0.0	0.0	0.0	0.0	0.0	0.0	1.2
411	Formaldehyde	3.0	3.0	0.0	0.0	0.0	0.0	0.0
415	Methacrylic acid	0.0	0.0	0.0	0.0	0.0	0.0	1.0
	Others ※5	0.3	0.2	0.1	0.0	0.0	0.0	0.0

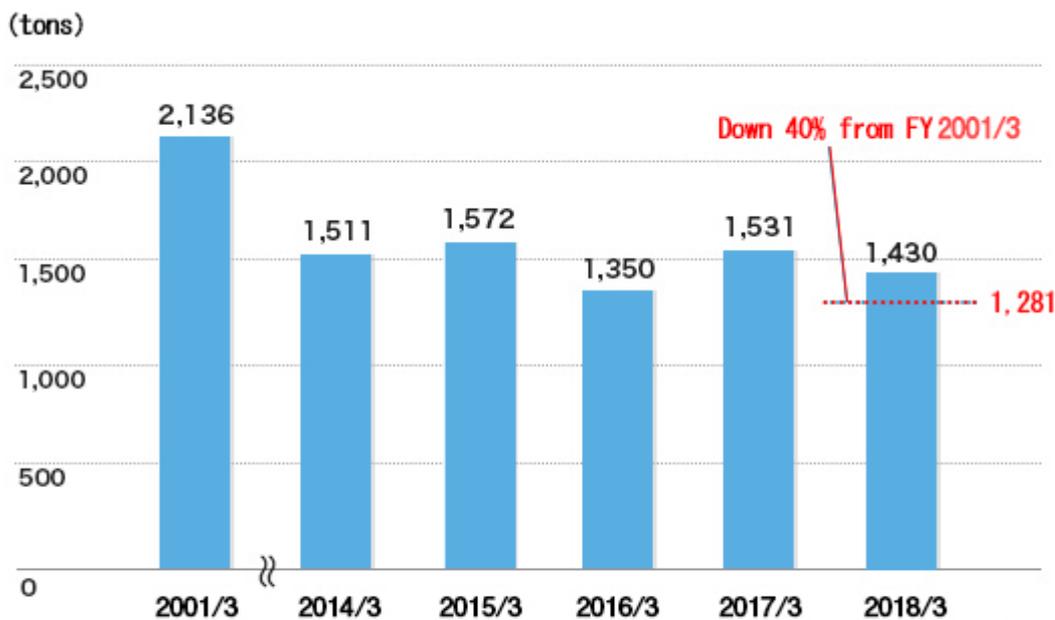
※4 The threshold for amounts handled was 1 ton/year/workplace.

※5 Substances with emissions below 0.01 ton per year are consolidated under Others.

## — Reducing of VOC Emissions

In FY 2018/3, the volume of acetone emissions from the Aboshi and Ohtake plants, both of which run facilities for manufacturing acetate tow for cigarette filters, decreased year on year. This was due mainly to improvement in the acetone absorption capacities of activated carbon. However, the Company failed to meet its medium-term target of curbing emission volume to not more than 40% of levels recorded in FY 2001/3. Nevertheless, we will continue to strive to reduce emissions to achieve this target.

### Reducing Volatile Organic Compound (VOC) Emissions



## — Appropriate Control of PCBs

In compliance with the Waste Management and Public Cleansing Act and the Act on Special Measures Concerning Promotion of Proper Treatment of PCB Wastes, the Daicel Group conforms to appropriate practices for the storage and management of transformers, capacitors, stabilizers of lighting equipment and other machinery containing polychlorinated biphenyls (PCBs), and is systematically disposing of the waste.

In FY 2018/3, the Company disposed of low-concentration PCB waste from stabilizers and transformers, which had previously been stored at the Ohtake and Aboshi plants, respectively, at pollution-free treatment facilities certified by the national government.

## — Initiatives Aimed at Preserving Biodiversity

Biodiversity provides numerous direct and indirect benefits every day, yet human activities are placing significant stress on the Earth's ecosystems. This stress is causing a rapid increase in endangered species, threatening biodiversity.

Given these circumstances, protecting biodiversity and using biological resources in a sustainable manner is indispensable to enable future generations to benefit from nature's richness.

In FY 2011/3, Daicel joined the Japan Business and Biodiversity Partnership, which was jointly established by Nippon Keidanren, the Japan Chamber of Commerce and Keizai Doyukai (the Japan Association of Corporate Executives) in conjunction with the 10th Conference of the Parties (COP10). In FY 2012/3, the Company clarified its commitment to preserving biodiversity and, to this end, incorporated initiatives for biodiversity conservation into the Daicel Group's Basic Policies for Responsible Care.

Also, Daicel's R&D divisions established in-house rules to ensure that their research and development activities are undertaken in conformity with the Law concerning the Conservation and Sustainable Use of Biological Diversity through Regulations on the Use of Living Modified Organisms (Cartagena Protocol).

## — Forests for Life Initiative



In FY 2017/3, Daicel launched the Forests for Life initiative as part of its efforts to preserve biodiversity, stepping up the Company's global warming countermeasures centered on curbing CO<sub>2</sub> emissions and energy consumption.

## — What are Native Forests for Life?

Dr. Akira Miyawaki is a professor emeritus of Yokohama National University and a plant ecologist who advocates for and practices revitalization of natural forests on the land where they originally stood, thus preserving ecosystems adapted to the local regions. Over 40 million trees have been planted in Japan and around the world through initiatives promoting the creation of resilient forests that help mitigate the effects from earthquakes, floods and other natural disasters. Many companies and organizations are participating in these efforts using his unique method of planting trees. Using the Miyawaki method, diverse trees are interspersed throughout the area with a focus on potential natural vegetation, which is vegetation that is adapted to each of the local natural environments.

## — Daicel Group's Creation of Native Forests for Life

The Miyawaki method is not just about planting different varieties of trees; another important characteristic is the participation of people from the local communities, including the children. Dr. Miyawaki believes that people grow through the creation of forests. Some grow from doing—planting and implementing the creation of native forests for life—while others grow from actively learning about ecology.

Planting seeds, cultivating saplings, watering them, and nurturing them into a forest: these all help foster talent and are related to building business and societies. In addition, the method of interspersing various types of trees to closely resemble the natural makeup of forests parallels promoting a dynamic global workforce of diverse people.

In short order, the sapling surpasses the height of the person who planted it and goes on to surpass the life of the person as well. Similarly, the business also surpasses the abilities of the person who launched it. The creation of the forests for life helps foster talent and fostering talent helps business to grow and forge ahead into the future. This is exactly related to the vision the Daicel Group is aiming for. More than any anything, we will be the best partner of our customers and local communities.



## — Purpose behind the Forests for Life Initiative

### ① Restoring natural vegetation through mixed planting

Natural forests consist of a wide variety of wooden species. Like one of these forests, we aim to become a stronger organization, with each staff member playing a role and supporting each other through forest development activities.

### ② Strengthening cooperation with local communities

We build ties with people in neighboring communities by preserving the environment surrounding these communities and help them understand our manufacturing activities and business operations by interacting with them through tree planting.

### ③ Contributing to biodiversity conservation

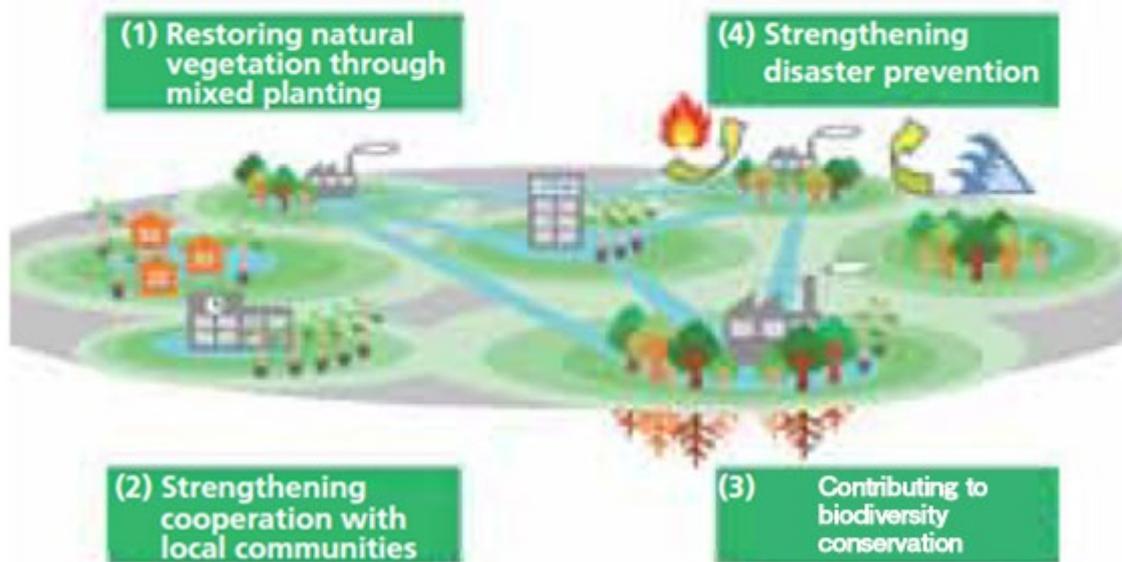
We help realize a low-carbon society while striving to preserve the global environment.

### ④ Strengthening disaster prevention

We create forests that will, in turn, prevent fires from spreading, mitigate the fallout of natural disasters and reduce noises from human activities.

## Purpose behind the Creation of Native Forests for Life

### What the creation of native forests for life aims to accomplish.



## — Recent Events Related to the Forests for Life initiative

In March 2016, the “Creation of Native Forests for Life Committee” chaired by the president. On April 9, 2016, we hosted a tree planting ceremony at the Harima Plant as a kickoff event for the Forests for Life initiative for the entire Daicel Group. This event was followed by similar tree planting ceremonies at the Arai and Ohtake plants, both of which invited employees’ family members, representatives from partner companies and residents of neighboring communities to take part in tree planting.

Business Site	Date	Location of tree planting	Number of tree planted	Number of species
Ohtake Plant	April 14, 2018	Areas surrounding the office building	2,000	36
Arai Plant	September 30, 2017	Areas surrounding the truck gate	1,272	30
Harima Plant	April 9, 2016	Areas surrounding parking lot No. 1	2,052	36

## — A Tree Planting Ceremony at the Ohtake Plant (2018)

On April 14, 2018, a tree planting ceremony was held at the Ohtake Plant as part of the Forests for Life initiative. This ceremony was the third event of this kind, following two tree planting events held at the Harima and Arai plants. Despite cloudy weather, approximately 550 people, including unaffiliated guests, attended the event and collaborated in planting 2,000 seedlings of trees. Looking ahead, each Daicel Group business site will engage in the Forests for Life initiative, acting in partnership with employees, their families, partner companies and fellow community members.





## — The Forests for Life Initiative as Part of Introductory Training

In FY 2018/3, Daicel incorporated the Forests for Life initiative into curriculum for introductory training for new recruits, educating them with regard to purposes behind this initiative. We also have them engage in tree planting as part of hazard prediction training.



### New recruits engaging in training



# Environmental Accounting

Daicel has introduced an environmental accounting system to quantitatively measure costs associated with environmental preservation activities and results yielded from these activities in terms of economic value or physical mass. By doing so, the Company is striving to ensure that its environmental preservation activities are efficient and effective.

In FY 2018/3, we invested approximately ¥490 million in measures to preserve the environment. Total investment in the environment accounted for 3.2% of total investment, compared with 5.4% in the previous fiscal year. This was attributable to the absence of major investments in energy-saving measures, which have almost been completed.

FY 2018/3 investments in the environment included approximately ¥170 million, which accounted for 35% of total investment in the environment, for the renewal of freezers and boilers. We also invested approximately ¥180 million in pilot reaction facilities as part of R&D aimed at developing environment-friendly technologies.

The economic benefits resulting from environmental preservation activities grew, with cost reduction effects of resource-saving initiatives amounting to approximately ¥1,190 million compared with approximately ¥230 million in the previous fiscal year.

We will continue to assess these impacts through environmental accounting and promote environmental preservation.

<b>Time period for reported totals</b>	April 2017 to March 2018
<b>Calculation method for reported totals</b>	Calculated according to the Environmental Accounting Guidelines, Year 2005 Edition, published by the Ministry of the Environment of Japan and the Environmental Accounting Guidelines for the Chemical Industry, published by the Japan Chemical Industry Association (JCIA)
<b>Amounts invested</b>	Actual sums for capital investment in environmental preservation in FY 2018/3.
<b>Cost amounts</b>	The totals for actual expenses of equipment depreciation, maintenance, management and labor related to environmental preservation.
<b>Economic effects resulting from environmental preservation activities</b>	Indicated as monetary benefits only and do not include risk avoidance effects or de facto effects. Economic effects attributable to reductions in energy costs are presented as the effects of energy cost reductions over a 12-month period realized through energy-saving initiatives.

## Environmental Preservation Costs

Classifications		Amounts invested (Millions of yen)	Cost (Millions of yen)	Items
(1) Business area costs		277	6,033	<ul style="list-style-type: none"> <li>Environmental preservation costs of controlling the environmental impact of our production and service operations that occur within business areas (business area costs)</li> </ul>
Breakdown	① Pollution prevention costs	87	1,901	<ul style="list-style-type: none"> <li>Investments and costs associated with the prevention of air and water pollution, control of harmful substances,</li> <li>Levies for pollution-related health damages</li> </ul>
	② Global environmental preservation costs	170	2,294	<ul style="list-style-type: none"> <li>Costs associated with the introduction of energy-saving facilities (such as new boilers and freezers), capital expenditures for fuel conversion and depreciation costs associated with these facilities</li> <li>Costs associated with thermal pinch analysis and other energy-saving initiatives</li> </ul>
	③ Resource recycling costs	20	1,838	<ul style="list-style-type: none"> <li>Costs associated with resource-saving initiatives, recycling and the appropriate treatment and disposal of industrial waste, etc.</li> </ul>
(2) Upstream and downstream costs		21	311	<ul style="list-style-type: none"> <li>Costs associated with initiatives to curb the environmental impact of upstream or downstream operations supporting our production and service activities (such as costs for the disposal of automobile airbag inflators)</li> </ul>
(3) Administrative costs		0	617	<ul style="list-style-type: none"> <li>Costs for maintaining the environmental management systems, performing environmental measurements and providing environmental education in addition to costs associated with divisions in charge of environmental management, etc.</li> </ul>
(4) R&D costs		176	578	<ul style="list-style-type: none"> <li>Costs associated with R&amp;D work for reducing the environmental impact of products and technologies (such as the development of eco-friendly products)</li> </ul>
(5) Community activities costs		11	32	<ul style="list-style-type: none"> <li>Costs attributable to environmental promotion activities, participation in community events and payments of association fees, etc.</li> </ul>
(6) Environmental damage costs		0	3	<ul style="list-style-type: none"> <li>Costs for environmental preservation related to environmental damage and environmental remediation costs, etc.</li> </ul>
Total		485	7,574	

Items	Amount (Millions of yen)	Environmental Rate (%)	Remarks
Capital expenditures in the applicable period	15,160	3.20%	Ratio of environmental investment
R&D expenditures in the applicable period	13,919	4.20%	Ratio of environmental protection research and development expenses

## — Economic Effects (Monetary Benefits) Resulting from Environmental Preservation Activities

	Item	Amount (Millions of yen)
<b>Economic effect</b>	①Cost reduction through energy conservation	959
	②Cost reduction through resource conservation	1,185
	③Benefits obtained by recycling	398
	④Reduction of expenses for waste treatment or disposal	41
	Total	2,583

# Occupational Health and Safety

At all of its workplaces, the Daicel Group is promoting various activities to upgrade the foundation of production sites and ensure safety is put first. For example, the Group is promoting 3S [Seiri (tidying), seiton (putting everything in order) and seisou (cleaning)] activities, crisis-identification activities<sup>1)</sup> and hazard prediction activities.

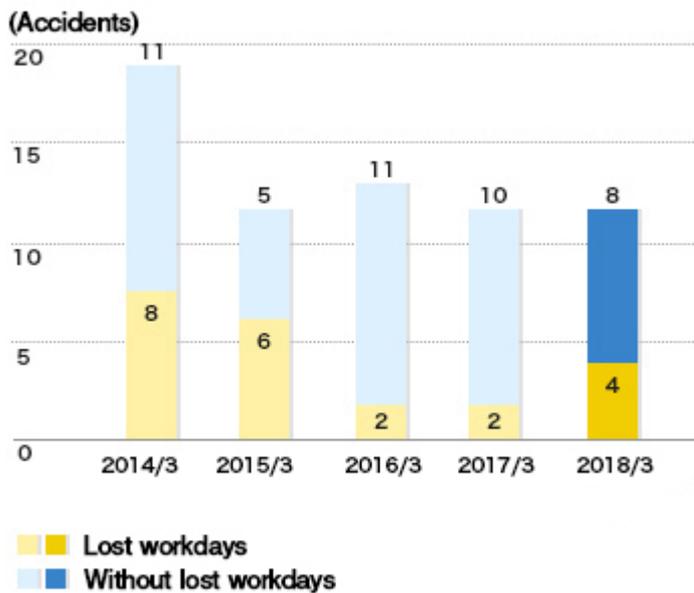
## FY 2018/3 Records of Occupational Accidents

In FY 2018/3, 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.

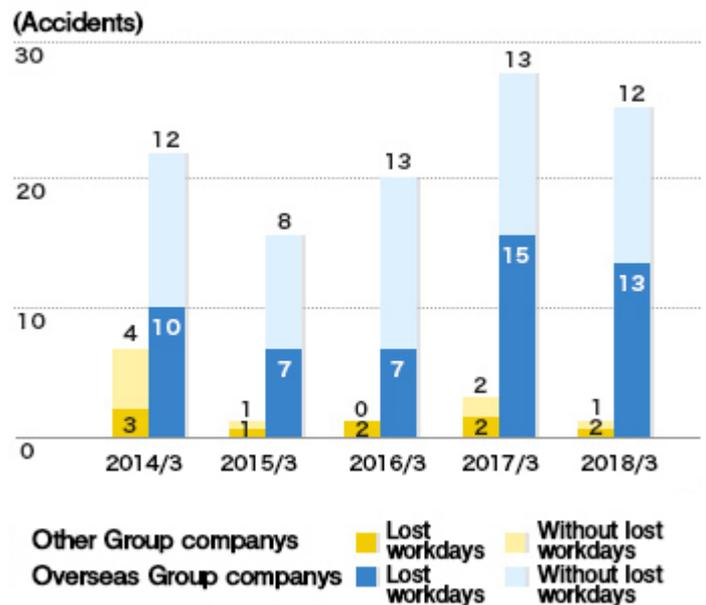
These accidents did not include those attributable to heat stress in the course of construction and manual operations associated with production. In the previous fiscal year multiple instances of these accidents were reported, but we successfully reversed this trend. This was, we believe, attributable to the success of our concerted efforts involving health nurses, facility engineers, production staff and safety administrators at each plant who worked together in tandem with representatives from partner companies to step up worksite patrols, provide employee education, utilize Wet Bulb Globe Temperature (WBGT) meters to carefully maintain the workplace environment, and ensure that workers operating in a high temperature environments maintained appropriate intake of salt and water.

However, these accidents did include injuries attributable to encounters with hazardous substances. Since Daicel previously experienced a serious accident involving hazardous substances, we have positioned reducing these incidents to zero as a priority issue. Therefore, we will rally the entire strength of the Group to address this issue while also striving to prevent the recurrences of other types of accidents, such as falls.

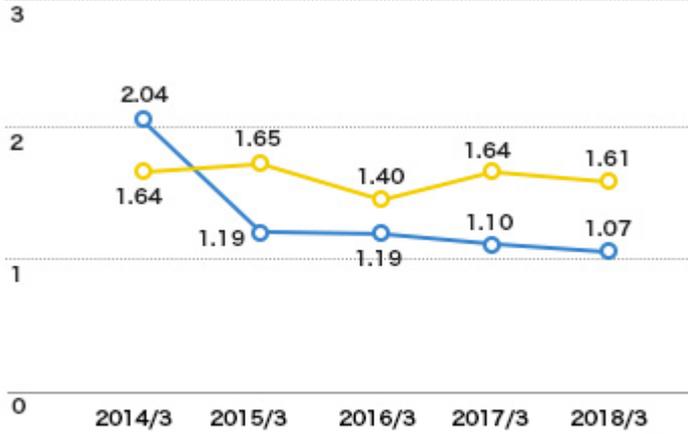
**Number of Occupational at Daicel:  
(including partner companies plant premises)**



**Number of Occupational at Other :  
Over Group Companies:**

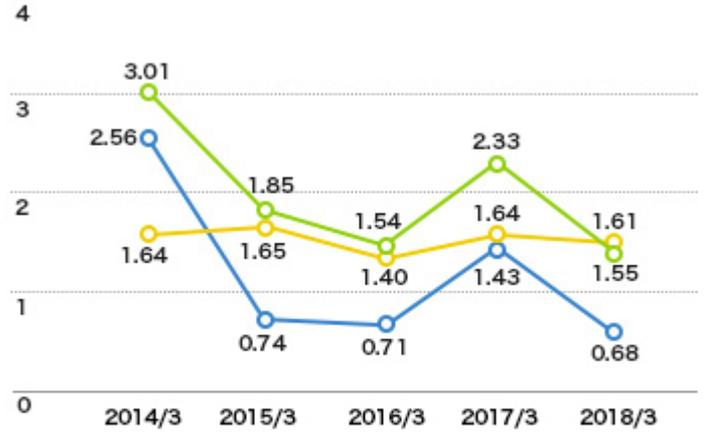


Occupational Accident Frequency Rate at Daicel : with/without lost workdays(including partner companies on plant premises)



○ Daicel  
○ Japan Chemical Industry Association(JCIA) average

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



○ Other Group companys  
○ Overseas Group companys  
○ Japan Chemical Industry Association (JCIA) average

Worksite patrol to prevent heat stress



## Topics: Daicel Staff Chosen to Receive an Award from the Hiroshima Prefectural Association for the Safety of Hazardous Materials

Mr. Yasuo Takeuchi, who serves at the Ohtake Plant, was recognized by the Hiroshima Prefectural Association for the Safety of Hazardous Materials. He was commended for his contribution to the safe management of hazardous materials. Mr. Takeuchi serves as the general manager of the FT Group of Ohtake Cellulose Production Division, which plays a key role in supporting Daicel's Cellulose Company. Since joining the Company, he has accumulated a longstanding track record in the safe handling of such materials, and therefore was chosen to receive an award from the association.



### What is...?

- 1) 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.

## — Structure for Occupational Safety and Health Education

To help develop employee skills, Daicel's Operation Training Center (TRC) provides human resource development programs and serves as a facility to nurture frontline manufacturing operators and their mentors as well as engineers. The TRC is in charge of practical staff education centered on instilling basic operations of the Daicel Group's production sites and providing hazard simulation training. It also provides historical context to illustrate the purpose and reason behind the establishment of current in-house rules and regulations.

In addition, each Daicel Group business site conducts training sessions aimed at addressing issues specific to their operations in terms of occupational health and safety, environmental preservation and chemical management. To supplement these training programs, in FY 2018/3 we established TRC branch offices at multiple production sites. This move is intended to develop hazard simulation training programs that are more suited to the individual conditions of each business site by employing takeaways from past incidents. Here, we introduce the TRC branch office put in at the Ohtake Plant.

## Ohtake Plant TRC Branch Office

This branch office installed new dedicated facilities for hazard simulation training. This was done with the cooperation of senior production operators who helped identify potential worksite dangers in a clearly visible manner and design these facilities by employing their knowledge of past incidents. The branch office also prepared educational video materials that simulate the actual incidents. In addition, these veterans are serving as “storytellers” who remind their younger peers of the importance of safe operations.

### Examples of hazard simulation training facilities

A facility that simulates the experience of falls



A facility that simulates the experience of being hung



## — Periodic Exchange Meetings for Supervisors of Environmental and Safety Divisions across the Group

Individuals charged with supervising the Environment and Safety divisions of each Daicel business site hold periodic meetings, while those in similar positions at other Group companies also meet regularly. With representatives from Daicel’s Responsible Care Division also attending, these meetings focus on discussing the content of and progress in Responsible Care (RC) implementation plans prepared by each Group business site based on the Group’s overarching plans while exchanging information on safety, environmental and chemical regulations, and participants’ insights into other RC-related topics.

## — Special Meetings to Discuss Priority RC Issues

Representatives of Daicel's Responsible Care Division periodically tour business sites of the Company and those of other Group companies to hold special meetings to discuss priority RC issues. To help promote RC activities across the Group, these meetings are aimed at confirming progress in RC implementation plans at each business site, sharing issues these sites are confronting, assessing countermeasures in place to prevent troubles in terms of occupational and facility safety, disaster prevention, and discussing the status of their initiatives to address environmental concerns.

## — Safety Exchange Meetings for Group Members

Since FY 2015/3, we have been holding casual exchange meetings aimed at fostering a sense of unity among Group members and heightening the awareness of those who take on frontline operations with regard to 3S and other safety assurance initiatives. With the labor union and management acting in collaboration, these meetings are attended by forepersons and mid-level managers from Daicel production sites and other domestic Group companies. The sessions usually involve a tour of plant facilities and small-group discussions to help participants exchange their insights.

Fiscal year	Location
2018/3	Okayama Plant, DM Novafoam Ltd.
2017/3	Hirohata Plant
2016/3	Harima Plant
2015/3	Aboshi Plant

### A facility tour organized as part of a safety exchange meeting for Group members



## — The Essence of Safe Operations

Daicel has established numerous in-house rules on manufacturing safety. To summarize basic operational rules that should be practiced by all frontline operators, we issued the first edition of the “Essence of Safe Operations” in FY 2014/3. This leaflet aims to provide Daicel Group employees in charge of manufacturing with unified guiding principles that they should be fully aware of, deeply contemplate and use to address safety issues. This pocket-size leaflet boasts well-organized content designed to provide readers with quick references anytime and anywhere. We are regularly updating the leaflet while maintaining a policy of making it easier to read.

In FY 2018/3, 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 FY 2018/3, 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.

## — Earthquake, Tsunami and Liquefaction Countermeasures

Taking a systematic approach, Daicel has been pushing ahead with assessments of risk associated with earthquakes, tsunamis and liquefaction, as well as the analyses of seismic conditions at its facilities and structural reinforcement of these facilities. In FY 2016/3, we completed structural reinforcement work in line with the Act for Promotion of Renovation for Earthquake-Resistant Structures. Currently, efforts are under way to equip these facilities with greater earthquake resilience based on Daicel's in-house standards.

To enhance our preparedness for earthquake, tsunami and liquefaction risks, we also erected satellite communication antennas at the Osaka Head Office, the Tokyo Head Office and the Innovation Park. This is an example of our efforts to upgrade our information network infrastructure to secure communication between key business sites at times of widespread disasters. Also, all Group business sites in Japan introduced systems for safety confirmation and emergency calls.

## — Emergency Drills

The Daicel Group 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 other members of communities surrounding our business sites. These drills are conducted on a regular basis in tandem with municipal fire departments.

Complementing these efforts, Daicel also periodically conducts Groupwide disaster countermeasure exercises that address the possibility of a widespread disaster. As in the previous fiscal year, without giving participants advance warning, we conducted one such exercise in FY 2018/3. In this manner, we ensured that exercises were undertaken on as practical a basis as was possible.



Having established its Basic Policies for Responsible Care (RC), the Daicel Group is striving to realize a sustainable society. Also in line with these policies, Daicel aims to ensure the safety of its chemical products in all stages of its operations, ranging from the manufacture and use to disposal, and throughout its supply chain while striving to mitigate risk associated with these products. To this end, the Company is committed to maintaining robust information disclosure with regard to its chemical products

## — Chemical Substance Management

### Initiatives to Maintain Compliance with International Chemical Regulations

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

The Company completed all the phase 1 to 3 registrations of its products designated under the European Union's REACH<sup>1)</sup> regulations, complying with regulatory timelines specified by these regulations based on the volume of substances being manufactured or exported.

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

### Provision of Chemical Information

Since Daicel aims to ensure that customers can always use its products with confidence, the Company maintains compliance with GHS<sup>2)</sup> and such regulations as the Industrial Safety and Health Law, preparing mandatory SDS<sup>3)</sup> for every product in the Company's lineup and making these sheets available to customers. In addition, Daicel discloses SDS for its mainstay products via its website.

In addition, Daicel is a participant in GPS/JIPS<sup>4)</sup> both of which are voluntary initiatives promoted by the Japan Chemical Industry Association (JCIA) aimed at reinforcing risk-based chemical substance management at companies. Based on the results of risk assessments on its chemical products, Daicel prepares and posts Safety Summaries on the GPS Chemicals Portal Site run by the International Council of Chemical Associations (ICCA).

Furthermore, the Company declared its support of "chemSHERPA<sup>5)</sup>" a private-public information communication scheme developed by Japan's Ministry of Economy, Trade and Industry in an effort to promote the standardization of communications about the chemicals included in products.

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## Consolidated Management of Chemical Information

Through Daicel's unique chemical information management data bank called D-CLik, the Company unified information on raw materials, intermediates and finished products with regard to their physical, chemical, and hazardous properties and relevant regulations. The data bank helps the Company rigorously assess risk associated with its products and other chemicals it handles, efficiently prepare SDS and labels for these substances and promptly furnish relevant information to customers.

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## Employee Education on Chemical Substance Management

To ensure the appropriate management of chemical substances, we provide all employees who handle chemical substances with educational programs themed on risk and hazardous properties of chemical substances, appropriate methods for handling these chemicals, and laws and regulations applied to them. Also, those working at administrative divisions are subject to periodic compliance training aimed at keeping them apprised of chemical regulations enforced in Japan and overseas.

### What is...?

- 1)** 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.
- 2)** GHS: Globally Harmonized System of Classification and Labelling of Chemicals that provides rules regarding the presentation of hazard information of chemical substances and precautions for their handling based on globally harmonized classification and labeling methods.
- 3)** SDS: Safety Data Sheet, a document providing information on the properties of chemical substances and instructions about their handling.
- 4)** GPS/JIPS: GPS/JIPS stands for Global Product Strategy/Japan Initiative of Product Stewardship. It refers to voluntary actions of the chemical industry promoted by the Japan Chemical Industry Association (JCIA) and based on the chemical management strategy of the International Council of Chemical Associations (ICCA). Through these actions, the industry conducts risk assessments of chemical products, creates safety summaries to easily explain the results to people outside the industry, and makes these summaries available to the public.
- 5)** chemSHERPA: A communication scheme for chemical substance information. The chemSHERPA aims to ensure the appropriate management of content of chemical products while communicating information regarding their ingredients throughout supply chains based on unified list

Daicel Logistics Service Co., Ltd. is responsible for the distribution function of the Daicel Group. As a specialist in logistics, this company handles a range of logistics-related operations, from transport, storage, import and export to on-premises logistics, while boasting an extensive network encompassing regions across Japan as well as a wealth of know-how it has accumulated over 70 years. Leveraging all these strengths, Daicel Logistics Service is striving to provide optimal services to meet diverse customer needs.

In FY 2018/3, Daicel Logistics Service and its partner companies maintained zero-accident status in the course of logistics operations. Although the number of logistics issues (e.g., shipping and delivery errors and customer complaints; defined by Daicel Logistics Service's standards) decreased 21% compared with the previous fiscal year, the company failed to meet its target of decreasing the number 30% year on year.

## — Safety and Quality Education Center

In 2011, Daicel Logistics Service opened the Safety and Quality Education Center on the premises of the Kansai Logistics Center Amagasaki Sales Office. This move was intended to step up its efforts to maintain distribution safety and quality, both are essential to earning customer trust. Since then, this facility provides training programs aimed at enhancing the operational skills of tank truck drivers and plant staff in charge of loading and unloading of cargos, utilizing unique curriculum prepared by Daicel Logistics Service. As of March 31, 2018, a total of approximately 900 trainees completed training at the facility.

In recognition of these initiatives, in FY 2017/3 Daicel Logistics Service was chosen by the Japan Chemical Industry Association (JCIA) to receive an Outstanding Award under the JCIA's 10th Annual Responsible Care Awards Program.

### Award ceremony held as part of a JCIA symposium



※Note: For more detail about the Safety and Quality Education Center, please also visit the corporate website of [Daicel Logistics Service](#).

## — Pursuing Customer Satisfaction

The Daicel Group aims to bring the best solutions to the global market. To this end, the Group is striving to develop a world-leading ‘Monozukuri’ while making the most of its creativity to accurately meet the latest needs of customers and society as a whole.

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

## — 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 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.

## — Initiatives to Enhance Product Quality

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### 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.

\*Instead of a plan, do, check, and act (PDCA) cycle, which is a more popular methodology for making improvement, Daicel has adopted a CAPD improvement cycle, to avoid the risk of overlooking crucial facts and realities that often lies in the initial planning stage.

[Quality management system certification acquired by Daicel Group companies](#)

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### Across-the-Board Quality Assurance Initiatives

In FY 2016/3, 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 FY 2017/3 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 Assurance Initiatives Employing Leading-Edge Technologies

To live up to customer expectations, Daicel is engaged in relentless efforts to enhance product quality. To this end, Daicel is incorporating leading-edge technologies that help it earn customer trust and confidence in terms of quality. For example, Daicel became the first in the world to develop and introduce an IoT-driven image analysis system into its manufacturing process. This system has been introduced at the Harima Plant's production lines for inflators, a key component of automobile airbags that protect lives of drivers.

As this system preemptively detects operational errors, the plant is now equipped with an environment in which operators are relieved from undue anxiety of making mistakes. Moreover, thanks to AI-based image analysis, the system is capable of managing the quality of each product unit being manufactured, instead of inspecting only random samples from the entire batch. Thus, the Harima Plant has significantly enhanced the level of its quality assurance.

In addition, we have initiated a horizontal rollout of this system at the Daicel Group's six overseas plants.

For more detail, please refer to our Annual Report 2018 for its Special Feature article, "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 —."

The Daicel Group Annual Report—CSR & Financial Report can be viewed in the CSR Library of Daicel's website.

For more detail, please refer to our Annual Report 2018 for its Special Feature article, ["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 —."](#)

[The Daicel Group Annual Report—CSR & Financial Report](#) can be viewed in the CSR Library of Daicel's website.

# 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. Inflator 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.

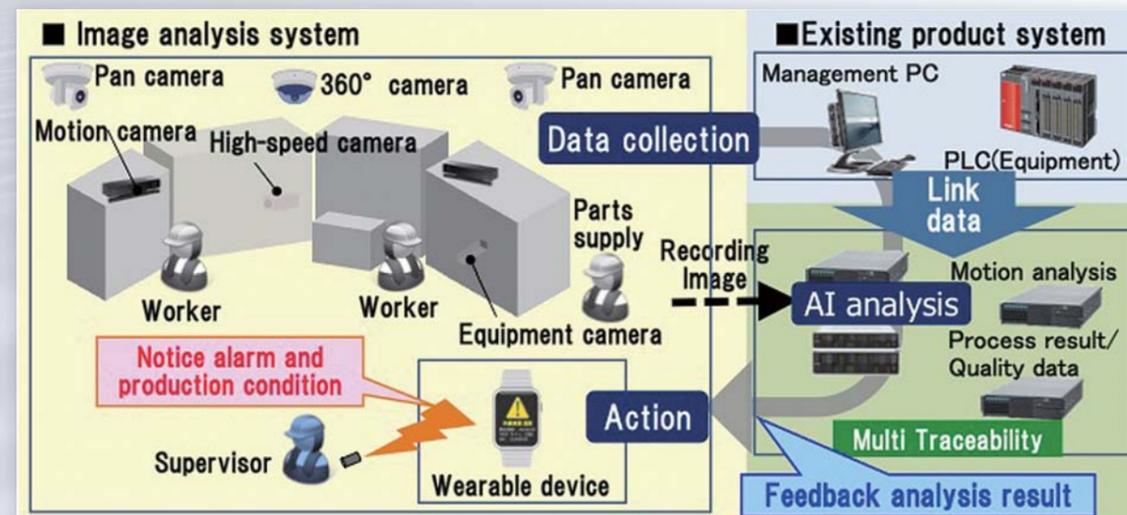
## Product quality assurance by "all point management," instead of "representative management"

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

# Together with Our Suppliers

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➤ Basic Purchasing Policy

[Click here >](#)

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➤ Daicel Group CSR Purchasing Guidelines

[Click here >](#)

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➤ Procurement of Raw Materials, Fuels and Components

[Click here >](#)

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➤ Equipment Procurement

[Click here >](#)

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

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### 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.

Note: These policies have not been set forth in the form of a contract and should not be construed as an offer of a contract.

To help realize a sustainable society, the Daicel Group aims to fulfill its corporate social responsibilities in tandem with all of its supply chain constituents. To this end, we established the Daicel Group CSR Purchasing Guidelines in line with our Basic Purchasing Policy, specifying CSR issues where we encourage our suppliers to adopt a proactive stance. Suppliers' support of and cooperation with these guidelines are prerequisites for business transactions with the Daicel Group.

The Daicel Group CSR Purchasing Guidelines encompass the following items.

## 1. Compliance with laws, regulations and social norms

- In the course of business activities, we shall comply with laws, regulations and social norms with regard to such matters as business transactions, labor management, environmental preservation, safe operations and intellectual property, thereby living up to higher standards of corporate ethics and fair business conduct.
- In addition to complying with laws and regulations enforced in the countries and regions where we operate, we shall also respect the cultures and customs of these local communities.
- We shall not provide or receive entertainment and gifts that can be deemed to exceed the scope of sound commercial practice and social norms.

## 2. Respect for human rights and the working environment

- We shall not condone forced labor, child labor, under-paid labor or any other inhuman labor practice.
- We shall eliminate discrimination within our workforce and strive to offer equal opportunity and realize fair treatment of employees.
- We shall prevent workplace harassment, bullying and violence.
- We shall respect the rights of our employees and, to this end, provide adequate wages while appropriately managing their working hours.

## 3. Occupational safety and health

- We shall prevent occupational accidents and diseases by offering a safe and sanitized working environment and by paying close attention to the management of employee health.
- We shall formulate emergency countermeasures by anticipating possible accidents and disasters, with the aim of protecting employee safety.

## 4. Environmental consideration

- We shall strive to reduce the environmental impact of our operations by, for example, reducing resource and energy consumption in the course of production, packaging and distribution and by curbing emissions of CO<sub>2</sub> and industrial waste.
- We shall pursue business operations that give due consideration to the protection of the global environment and the conservation of biodiversity.

## 5. Sound business management

- We shall strive to engage in sound and transparent business management and appropriately disclose corporate information with stakeholders, with the aim of establishing sincere relationships based on a spirit of mutual interest, respect and trust.
- We shall not provide any benefit to antisocial forces while strictly prohibiting the provision or receipt of undue gain attributable to such fraudulent activities as insider trading.

**6.** The pursuit of product quality and product safety as well as improvement in technologies

- We shall strive to meet customer requirements with regard to product quality and safety in addition to providing accurate information about our products and services.
- We shall strive to develop products and solutions through the pursuit of new technologies and better quality.

**7.** Stable supply and flexibility to remain responsive to changes

- We shall deliver our products on time and strive to maintain stable supply.
- We shall formulate business continuity plans to secure our preparedness to emergencies, including natural disasters and operational accidents.

**8.** Information security

- We shall put in place security measures to combat network threats, with the aim of ensuring that none of our systems are damaged by such threats or exploited by hackers to harm others' systems.
- We shall appropriately protect the personal information we handle whether it pertains to customers, employees or other third parties.
- We shall maintain the appropriate management of confidential information we receive from customers or other third parties, striving to prevent the leakage of such information.

**9.** Contribution to community and society

- We shall develop collaborative relationships with local communities and strive to contribute to the development of society.

**10.** Promotion of CSR initiatives in which all supply chain constituents play their roles

- We shall proactively push ahead with CSR initiatives while disclosing the status of such initiatives.
- We shall ask our business partners to join our efforts to promote CSR, with the aim of encouraging our entire supply chain to engage in CSR.
- We shall engage in responsible purchasing practices, observing purchasing regulations that are in place to address social issues related to specific materials, e.g. conflict minerals regulations.

[Daicel Group CSR Purchasing Guidelines](#)

## **Daicel Group CSR Purchasing Guidelines**

To help realize a sustainable society, the Daicel Group aims to fulfill its corporate social responsibilities in tandem with all of its supply chain constituents. To this end, we established the Daicel Group CSR Purchasing Guidelines in line with our Basic Purchasing Policy, specifying CSR issues where we encourage our suppliers to adopt a proactive stance. Suppliers' support of and cooperation with these guidelines are prerequisites for business transactions with the Daicel Group.

The Daicel Group CSR Purchasing Guidelines encompass the following items.

### **1) Compliance with laws, regulations and social norms**

- In the course of business activities, we shall comply with laws, regulations and social norms with regard to such matters as business transactions, labor management, environmental preservation, safe operations and intellectual property, thereby living up to higher standards of corporate ethics and fair business conduct.
- In addition to complying with laws and regulations enforced in the countries and regions where we operate, we shall also respect the cultures and customs of these local communities.
- We shall not provide or receive entertainment and gifts that can be deemed to exceed the scope of sound commercial practice and social norms.

### **2) Respect for human rights and the working environment**

- We shall not condone forced labor, child labor, under-paid labor or any other inhuman labor practice.
- We shall eliminate discrimination within our workforce and strive to offer equal opportunity and realize fair treatment of employees.
- We shall prevent workplace harassment, bullying and violence.
- We shall respect the rights of our employees and, to this end, provide adequate wages while appropriately managing their working hours.

### **3) Occupational safety and health**

- We shall prevent occupational accidents and diseases by offering a safe and sanitized working environment and by paying close attention to the management of employee health.
- We shall formulate emergency countermeasures by anticipating possible accidents and disasters, with the aim of protecting employee safety.

### **4) Environmental consideration**

- We shall strive to reduce the environmental impact of our operations by, for example, reducing resource and energy consumption in the course of production, packaging and distribution and by curbing emissions of CO<sub>2</sub> and industrial waste.
- We shall pursue business operations that give due consideration to the protection of the global environment and the conservation of biodiversity.

### **5) Sound business management**

- We shall strive to engage in sound and transparent business management and appropriately disclose corporate information with stakeholders, with the aim of establishing sincere relationships based on a spirit of mutual interest, respect and trust.
- We shall not provide any benefit to antisocial forces while strictly prohibiting the provision or receipt of undue gain attributable to such fraudulent activities as insider trading.

### **6) The pursuit of product quality and product safety as well as improvement in technologies**

- We shall strive to meet customer requirements with regard to product quality and safety in addition to providing accurate information about our products and services.
- We shall strive to develop products and solutions through the pursuit of new technologies and better quality.

## **7) Stable supply and flexibility to remain responsive to changes**

- We shall deliver our products on time and strive to maintain stable supply.
- We shall formulate business continuity plans to secure our preparedness to emergencies, including natural disasters and operational accidents.

## **8) Information security**

- We shall put in place security measures to combat network threats, with the aim of ensuring that none of our systems are damaged by such threats or exploited by hackers to harm others' systems.
- We shall appropriately protect the personal information we handle whether it pertains to customers, employees or other third parties.
- We shall maintain the appropriate management of confidential information we receive from customers or other third parties, striving to prevent the leakage of such information.

## **9) Contribution to community and society**

- We shall develop collaborative relationships with local communities and strive to contribute to the development of society.

## **10) Promotion of CSR initiatives in which all supply chain constituents play their roles**

- We shall proactively push ahead with CSR initiatives while disclosing the status of such initiatives.
- We shall ask our business partners to join our efforts to promote CSR, with the aim of encouraging our entire supply chain to engage in CSR.
- We shall engage in responsible purchasing practices, observing purchasing regulations that are in place to address social issues related to specific materials, e.g. conflict minerals regulations.

## Introduction of Procurement: Raw Materials, Fuels and Components

### Raw Materials and Fuels

■ For information or suggestions regarding raw materials and fuels, please contact below:

#### Raw Material Purchasing Center c/o Daicel Corporation

JR Shinagawa East Building  
2-18-1, Konan, Minato-ku, Tokyo 108-8230, Japan  
Phone: +81-3-6711-8301  
Fax: +81-3-6711-8308

#### Raw Materials

##### Organic and alcohol-based raw materials

methanol, ethanol, NPA, IPA, butanol, cyclohexanone (ANON), cyclohexanol, EO, MEG, DEG, Diethylene Glycol Monoethyl Ether, PO, PG, acetone, IPE, hexane, heptane, MEK, 1.4BG, THF, PTMG, MMA, MAA, HEMA, HEA, Vinylcyclohexene, Durene, Trimethyl

##### Other materials

Pulp

##### Inorganic and electrolytic raw materials

Liquid ammonia, urea, sulfuric acid, nitric acid, hydrogen peroxide (60%/35%), magnesium hydroxide, phosphoric acid, diammonium phosphate, tungstic acid, titanium oxide, caustic soda (liquid/solid), hydrochloric acid, calcium chloride, soda ash, activated charcoal

##### Raw materials for plastics

SM, AN, vinylidene chloride resin

#### Fuels

##### Aboshi Plant

Coal, Low-sulfur Bunker A fuel oil (0.1% maximum sulfur content)

##### Aboshi Plant

Bunker A fuel oil (0.1% maximum sulfur content), Natural gas

##### Ohtake Plant

Coal, Bunker C fuel oil (3.5% maximum sulfur content, 1000 cst maximum viscosity), Scrap tire chips (50 mm max, beads removed), Low-sulfur Bunker A fuel oil (0.1% maximum sulfur content)

##### Harima Plant

Low-sulfur Bunker A fuel oil (0.1% maximum sulfur content)

### Components

■ For information or suggestions regarding components relating to Automobile Airbag Inflators, please contact below:

#### Procurement of Aerospace & Defense Systems / Safety Systems Company c/o Daicel Corporation

Grand Front Osaka Tower-B,  
3-1, Ofuka-cho, Kita-ku, Osaka 530-0011, Japan  
Phone: +81-6-7639-7231  
Fax: +81-6-7639-7238

For information regarding equipment procurement, please contact:

**Engineering Center Procurement Group**

**c/o Daicel Corporation**

**Phone: +81-6-7639-7381**

Grand Front Osaka Tower-B,

3-1, Ofuka-cho, Kita-ku, Osaka, Japan

## — General Meeting of Shareholders

Daicel posts the convocation notice for its Annual General Meeting of Shareholders on its website prior to distributing it by postal mail, aiming to provide shareholders with sufficient time to examine the agenda items. Moreover, as we would like as many shareholders as possible to exercise their voting rights, we offer voting alternatives via postal mail or the Internet for those who are unable to attend the meeting.

We have considered the Annual General Meeting of Shareholders as a valuable opportunity to engage with our shareholders. To facilitate their further understanding of initiatives of the Daicel Group, we are striving to provide easy-to-understand answers to questions voiced by shareholders.

At the Annual General Meeting of Shareholders held on June 23, 2017, we set up an exhibition booth outside the venue with the aim of showcasing the Daicel Group's products and technologies. After the closure of the meeting, we invited attendees to join a casual gathering aimed at facilitating interaction between shareholders and Daicel's officers and directors. This enabled Daicel's executives to engage in in-depth dialogue with attendees.

## — 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.

[Disclosure Policy](#)

## — IR Activities

In line with the aforementioned 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 FY 2018/3, 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 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.

[For Investors](#)

<b>Events</b>	<b>Occasions (FY2018/3)</b>	<b>Content</b>
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 persons	1	The Investor Relations department held an individual business briefing for security company sales representatives

# Together with Employees

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➤ Human Rights Protection

[Click here >](#)

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➤ Human Resource Management

[Click here >](#)

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➤ Human Resource Development

[Click here >](#)

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➤ Diversity Promotion

[Click here >](#)

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➤ Creating an Inclusive Workplace

[Click here >](#)

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➤ Initiatives to Help Employees Maintain Mental and Physical Health

[Click here >](#)

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➤ Employee Data

[Click here >](#)

## — Basic Approach

Respect for human rights is an integral part of all business activities undertaken by the Daicel Group.

[The Daicel Group's Basic Philosophy](#), [Daicel Group Conduct Policy](#) and [Daicel Code of Conduct](#) declare our determination to maintain legal compliance, high ethical standards and sound judgment in the course of our business conduct. Moreover, the Philosophy, Policy and Code make it clear that all workplaces at the Daicel Group must be healthy, inclusive, and free of discrimination and harassment, with due respect being paid to the diversity, personality and individuality of every worker.

All Daicel Group employees are well-versed in these precepts. Moreover, each employee is encouraged to proactively make his/her own judgments in line with these precepts and put them into practice throughout the course of day-to-day business activities.

In addition, the Daicel Group Human Resources Policy is “people are the foundation for our success.” This is the fundamental underlying concept for all of the Group's human resource management practices, including recruiting, training, and determining work assignment and working conditions. We have also identified three core principles supporting the 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.”

We are striving to ensure that our Policy and these principles are embraced by all Daicel Group members around the globe.

As such, we are committed to accepting people's diversity in terms of ways of thinking and culture, no matter their countries of origin, and respecting and cooperating with each other. We believe that by doing so, we can maximize the collective strength of the Daicel Group.

※ Please click here. [「Human Resource Management」](#) [「Diversity Promotion Basic Approach」](#)

## — The Labor and Management Charter

Daicel respects basic labor rights, including the rights of workers to organize and collective bargaining. Furthermore, the Company has signed the labor and management charter. Based on the spirit of sincerity and mutual trust, this charter aims to foster a healthy relationship between labor and management, nurturing collaborative efforts to develop the Company's business and improve labor conditions.

## Summary of the Labor and Management Charter

- The Company and the Union shall understand each other's position and make decisions through negotiations and discussions based on respect for human life and dignity.
- The Company shall give latitude to Union activities and will not discriminate against its employees due to such Union activities.
- The Company and the Union shall eliminate managerialism and respect employees' humanity. Employees shall contribute to the Company's business on their own will through efforts to enhance productivity.
- The Company shall treat employees in a fair and appropriate manner with the aim of making the maximum use of the capabilities of each employee.

## — Human Resource Policy

Having unveiled the Group's Human Resource Policy in 2013, Daicel's President delivered the following message to all of his colleagues worldwide, with the aim of ensuring the spirit of this Policy would be shared by every Group employee. Originally written in Japanese, the message was translated into five different languages so that it would be understood by every Daicel Group member around the globe.

On behalf of the Daicel Group, I am pleased to present this human resources policy covering all employees of the Daicel Group worldwide.

Our human resources policy establishes the underpinning for various personnel practices such as recruitment, training and development, placement, and determining appropriate treatment. We, the Daicel Group, have characterized the policy with the phrase "People are the foundation for our success." To start with, no company can exist without people, and many companies emphasize the importance of their employees. The word "people" holds a special significance for us because we deeply believe that people are imbued with infinite power, and we depend on our ability to realize the full potential of this source of power. Sometimes we can expose our world to unknown potential, balancing even the very fate of the company, but our cumulative history has made us the very people we are. I am also convinced that future prosperity cannot be achieved without the contribution of our people, namely, it is people that form the foundation of our success. Herein we reiterate the firm determination of the Daicel Group under our human resources policy, and we are pleased to put these thoughts into a form that all can share.

President & CEO 

# 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.

## — Human Resource Management Guidelines

The Daicel Group has established unified human resource management guidelines for all Group members. Since 2013, the Group has been overhauling its human resource management systems to align them with these guidelines. The guidelines provide overarching human resource management policies to be adhered to by all Group constituents. More specifically, these guidelines specify the Group's fundamental stances as well as mandatory or recommended practices associated with various matters ranging from recruitment, the determination of working conditions, the provision of training and development, the evaluation of employee performance and the maintenance of labor-management relations.

Fundamental stances stipulated in the guidelines include “maintaining compliance with laws and regulations enforced in each country and region as well as in-house rules and corporate ethics” and “facilitating a corporate culture in which employee training is organized and conducted on a Groupwide, division and individual basis.” Recommended practices include the implementation of MBO as a key component of human resource management in terms of employee evaluation. In accordance with these guidelines, some Thai and Chinese subsidiaries have introduced MBO-based evaluation systems, constantly implementing training to ensure that a MBO-based approach to human resource management is embedded.

Looking ahead, we will utilize these guidelines to unify the level of our human resource management practices on a global basis. We will also strive to develop a more robust human resource management system and ensure that it is embraced by all Group members.

In this manner, we strive to help employees enhance their competencies and raise their motivation to perform their duties.

Practices	Objectives	Basic Approach
Recruiting	<ul style="list-style-type: none"> <li>Secure human resources who embrace the Daicel Group's Basic Philosophy and Human Resources Policy (Will, Diversity &amp; Inclusion, Integrity)</li> </ul>	<ul style="list-style-type: none"> <li>Recruit candidates capable of creating new value with strong will and integrity.</li> <li>Maintain a fair and just approach in recruiting regardless of race, nationality and gender of candidates (Diversity &amp; Inclusion)</li> </ul>
Determining working conditions	<ul style="list-style-type: none"> <li>Foster a corporate culture in which efforts and achievements are rewarded</li> </ul>	<ul style="list-style-type: none"> <li>Develop a personnel system that reflects both corporate performance and individual accomplishments in compensation</li> <li>Ensure that each individual is evaluated fairly based on their efforts to practice three core principles (Will, Diversity &amp; Inclusion and Integrity) and their contribution to corporate performance and treated as such</li> <li>Secure fairness and transparency in the course of determining working conditions</li> <li>Regularly verify the appropriateness of the Company's standards for compensation</li> </ul>
Human Resource Development	<ul style="list-style-type: none"> <li>Conduct systematic and effective human resource development programs in line with the Human Resource Policy "people are the foundation for our success"</li> </ul>	<ul style="list-style-type: none"> <li>Nurture human resources committed to carrying out their duties while complying with rules and regulations enforced in each country and region as well as standards for safety and quality</li> <li>Offer higher positions and broader job functions to those who can spontaneously take on their duties with strong will and decisiveness, thereby assisting in their personal growth</li> <li>Provide opportunities to engage in discussions with peers who have different backgrounds and value systems, with the aim of encouraging employees to inspire each other and embrace a broader perspective</li> <li>Motivate employees to engage in self-directed studies and fully support their efforts to enhance their own skills, thereby helping them increase their employability</li> <li>Facilitate a corporate culture in which employee training is organized and conducted on a Groupwide, division and individual basis in a way that assists in the pursuit of each individual's career goals</li> </ul>

<p>Evaluation</p>	<ul style="list-style-type: none"> <li>• Establish a robust evaluation system that ensures the Human Resource Policy and its core principles are embraced across the board and helps nurture capable human resources and maintain appropriate working conditions, thereby solidifying the Company' s foundations for success</li> </ul>	<ul style="list-style-type: none"> <li>• Secure a framework for ensuring the fair evaluation of individual accomplishments</li> <li>• Consider each individual' s attitude in the practice of three core principles (Will, Diversity &amp; Inclusion, and Integrity) and processes leading up to the outcomes of such pursuits</li> <li>• Evaluate employees in a way that facilitates communication between supervisors and their staff and assists in the Company' s human resource development initiatives</li> <li>• Maintain fairness and transparency in evaluation</li> <li>• Implement a robust evaluation system to ensure that employees are evaluated based on objective facts</li> </ul>
<p>Labor relations</p>	<ul style="list-style-type: none"> <li>• Respect the personality of each employee and create a working environment in which everyone can realize their full potential, thereby improving productivity</li> </ul>	<ul style="list-style-type: none"> <li>• Maintain compliance with laws and regulations enforced in each country and region as well as in-house rules and corporate ethics</li> <li>• Accept diversity and make mutual concessions to facilitate communication, thereby creating a favorable working environment</li> <li>• Encourage every individual to contribute to the general well-being and society as a whole throughout the course of their duties, with the aim of creating a company deserving of society' s trust</li> <li>• Ensure that the labor and management are both willing to understand their counterpart' s stance and engage in negotiations and discussions aimed at resolving various labor issues</li> <li>• Focus on maintaining robust communication with employees and creating a sound working environment in which everyone can maintain physical and mental health</li> <li>• Create a favorable working environment to enhance the productivity of the entire organization and maintain optimal staffing</li> </ul>

## — Desirable Traits of Our Human Resources

Of the Daicel Group's many management resources, people are the most important. From around the globe, the Company welcomes a diversity of individuals, each contributing different backgrounds and ways of thinking, who are inspired by the Daicel Spirit. Daicel Group employees respect each other and seek collaborative work relationships. We believe that in these ways, we can maximize the collective strength of the Daicel Group.

Toward becoming a company that proudly delivers the best solutions to the global market, every Daicel Group employee must, unfettered by title or position, adopt flexible approaches to best fulfill their responsibilities and become an exemplary human resource.

### The Daicel Group Seeks

- Those who value communication with others, respect others and can appreciate new situations and perspectives
- Those who can sustain the passion and focus to fulfill their responsibilities, seeing projects through to completion

## — Basic Approach

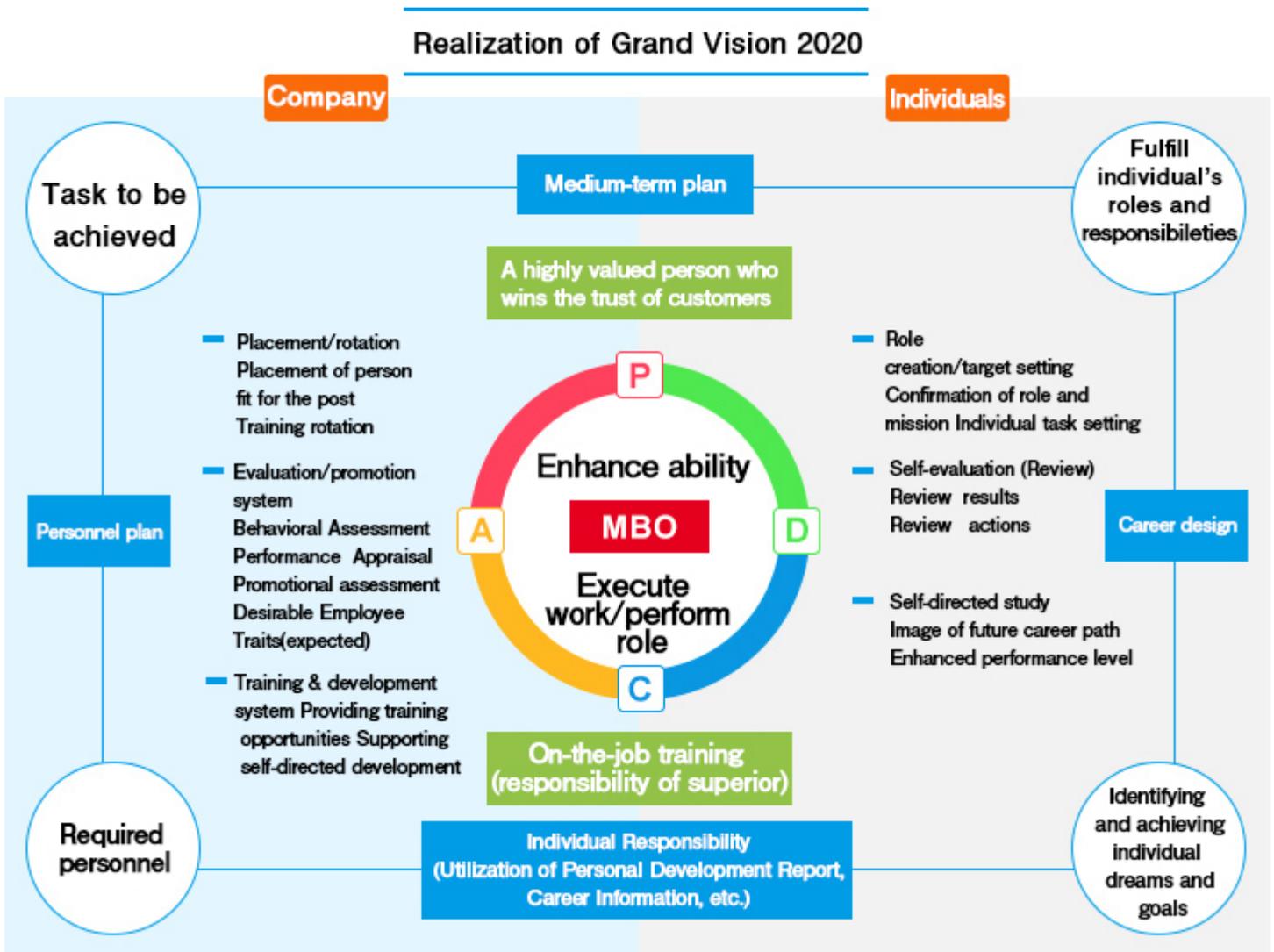
To secure employees who have the aforementioned traits, the Daicel Group defined its basic approach to human resource development as follows.

- Nurturing personnel will help the Company grow.
  - Employees can gain true knowledge and skills through their job.
  - Any attempt to achieve better results will nurture employees.
- Personnel training shall be conducted on a Companywide, division and individual basis, reflecting the roles and responsibilities of the trainees.
  - Based on a corporate culture that trusts and values people, all Daicel employees—both trainers and trainees—shall undergo personnel training in line with their respective posts and responsibilities.

# Systems Supporting Our Human Resource Development Initiatives (Overview)

The various systems and structures in place to support Daicel's human resource development are summarized by the following diagram.

Needless to say, the goals of our human resource development initiatives can only be achieved when we understand the objectives of each system and fully utilize their functions.



## — Human Resource Development Methods

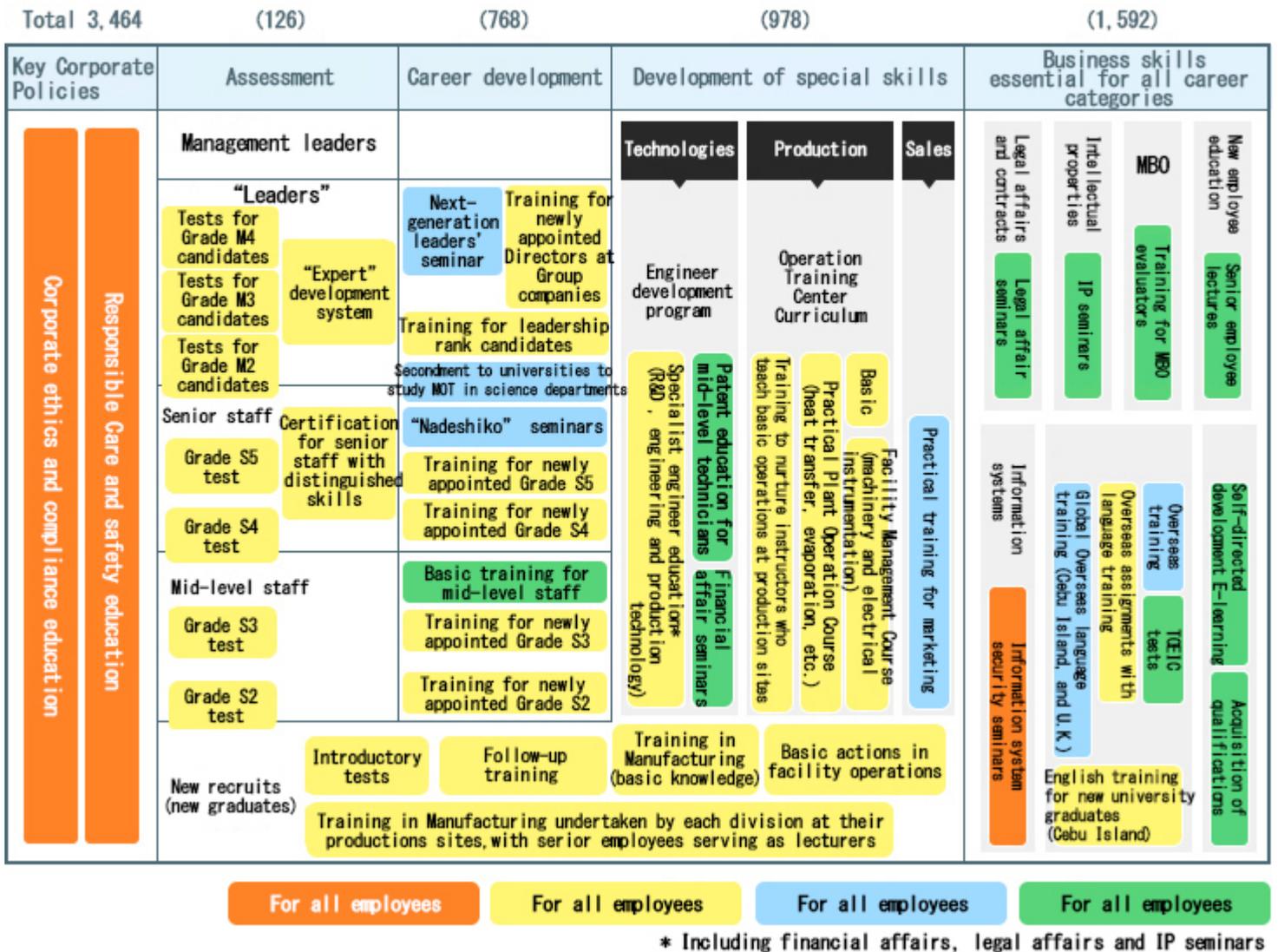
To enhance the skills of its employees, Daicel utilizes a variety of human resource development methods. Fully aware of the objectives of and differences between each method, we engage in human resource development in a way that optimally combines multiple methods to maximize their effectiveness.

Methods	Content
On the Job Training (OJT)	<ul style="list-style-type: none"> <li>• Fundamental component of Daicel's human resource development</li> <li>• Systematically conducted at workplaces in combination with MBO</li> </ul>
Offsite Job Training (Off-JT), e.g. Group seminars	<ul style="list-style-type: none"> <li>• Programs implemented outside of workplaces</li> <li>• Opportunities to gain experience that cannot be acquired via OJT</li> <li>• Active discussions between persons with different ideas help enhance their individuality</li> </ul>
Self-directed development	<ul style="list-style-type: none"> <li>• A fundamental practice that must be embraced by those who seek to achieve personal growth</li> <li>• Continuously achieve self-innovation through individual volition</li> </ul>
Rotation (Change roles or functions)	<ul style="list-style-type: none"> <li>• Help employees gain a broader range of skills and experience and nurture those capable of serving as leaders</li> <li>• Encourage employees to realize their full potential by changing workplaces and duties</li> </ul>
Assessment (Reviewing skills of each individual)	<ul style="list-style-type: none"> <li>• Help employees objectively review their skill set against the standards of the division and the Company</li> <li>• Facilitate self-directed development by helping individuals assess their own strengths and weaknesses</li> </ul>

# Human Resource Development & Training Programs

Daicel utilizes a variety of human resource development programs to support employee skill enhancement.

## Overview of Training Programs in Place ( the number of employees who completed training during fiscal 2017)



Here, we take a closer look at one of the key human resource development programs in place at Daicel.

## Training Programs for New Employees

Daicel provides all new employees with one year of introductory training for manufacturing operations. Through this training program conducted at the H.R. Training Center, new employees initially learn the basic knowledge required of businesspeople while acquiring a fundamental grounding in Company policies and other requirements for Daicel Group members. This is followed by on-the-job training (OJT) at the Operation Training Center and production sites, where trainees are acclimated to the eight-hour-shift system. Through these activities, our new employees acquire the essential knowledge required to perform their duties in a manufacturing workplace.



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## Position-Specific Training

Based on the Company's job rank system, Daicel is implementing position-specific training aimed at nurturing human resources capable of living up to the expectations for their positions and their respective roles and responsibilities. This training encompasses such subjects as corporate ethics, basic legal literacy and other essential knowledge and rules that employees need to know while aiming to help them enhance their communication and management skills.

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## Other Training Programs

In FY 2018/3, we introduced a new training program titled the "Nadeshiko" seminar, which aims to encourage ambitious female employees who aspire to achieve personal growth to take leadership roles and earn greater career success.

Please click [here](#) for more details about the [Nadeshiko](#) seminar.

## — Passing Down the Legacy of Technologies and Skills

Safety and quality assurance are the foundations of manufacturing and of the utmost importance as an ongoing concern. With an eye on safety and quality assurance, the Daicel Group has focused its efforts on long-term human resource development.

In the following articles, we introduce our initiatives at the Operation Training Center, where operators and engineers who will be in charge of the manufacturing line are trained, and the Maintenance Dojo\* initiative, a new training course opened in 2015.

\* Dojo: a Japanese word meaning a place of training

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## Objective and Overview of Operation Training Center (TRC)

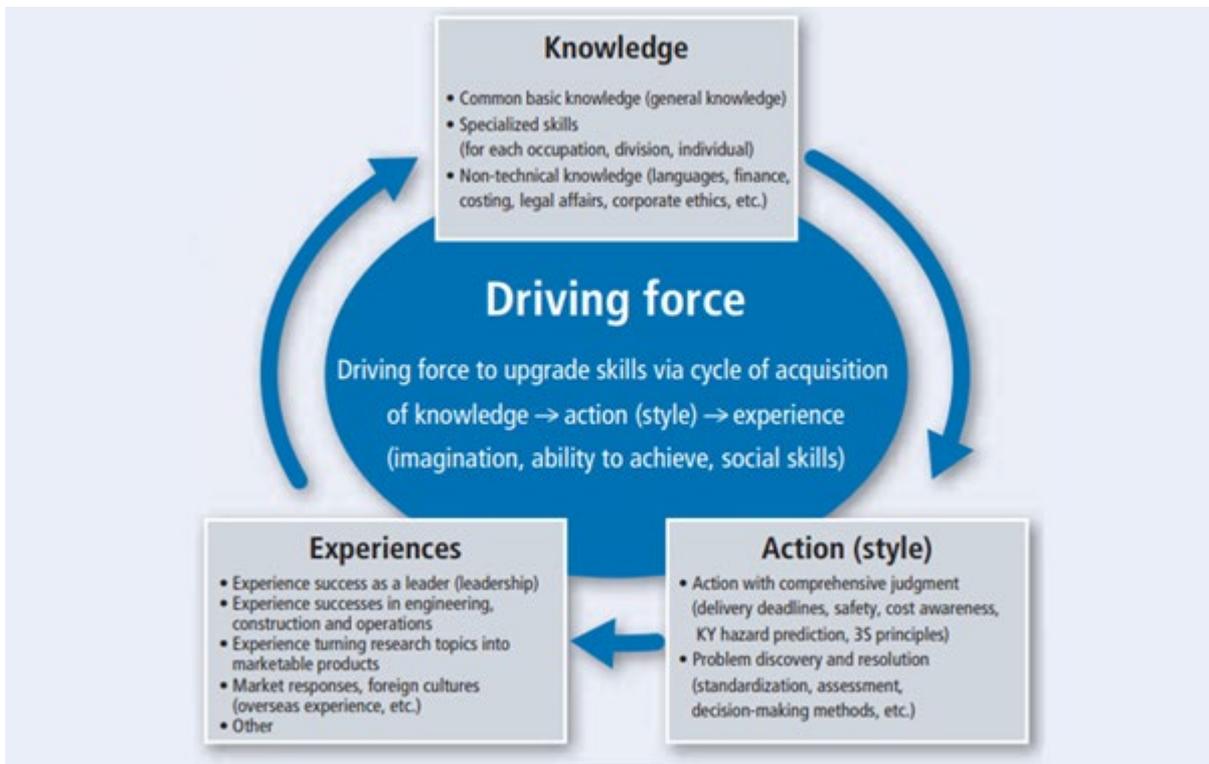
The Operation Training Center was set up in 2002 with the goal of establishing and maintaining "Production Innovation the Daicel Way" and aimed at achieving a broad range of results including, (1) safe and stable operations, (2) dramatically higher productivity, (3) substantially lower manufacturing costs, (4) smoother, more uniform operations and quality stabilization, (5) the passing on of skills and techniques and human resource development, and (6) energy conservation. These will be achieved by going back to the starting point of manufacturing activities that are focused on people, the systemization of the skills and know-how of experienced workers, and enabling anyone to them to practical use. The center is a place for operators to gain hands-on training in the necessary requirements of "knowledge," "experience" and "action."



The center prepares a curriculum that meets Daicel's needs and maintains a small-scale plant where trainees can experience operating a chemical plant, including operating a distributed control system (DCS). With the goal of contributing to safe and stable operations by understanding the structure of equipment used and its proper operation and control, the center provides equipment for instruction purposes including pumps and valves, distillation towers, cutaway models of instruments, distillation tower filling, and packing materials.

In addition, the teaching of basic operations was conducted to reinforce occupational health and safety. At the same time, equipment was introduced that enabled trainees to experience for themselves (1) getting caught and entangled, (2) solvent/dust explosions, (3) static electricity, (4) pressure, and (5) being splashed with liquid chemicals.

This training is not only targeted at new employees, but all levels of operators, engineers and workplace managers (foremen, assistant managers, and general managers).



### Entanglement experience

This equipment teaches about the danger and terror of a rotating body by experiencing the shock of seeing an artificial hand become entangled in a roller.



### Pressure experience

This equipment enables the trainee to actually experience the pressure shown on a pressure gauge through the insertion of pressurized water into pipes of varying diameters. Trainees are able to experience the surprisingly large potential danger inherent in water pressure.



Since the opening of the TRC, every year we have promoted the use of the check, act, plan and do (CAPD) cycle, introducing new education and training programs, and improving curriculum and text content. In March 2013, the new Operation Training Center was revamped to further enhance education and training. The new Operation Training Center has enhanced its training and lab rooms, installed new risk simulation equipment, and added a new curriculum (with educational emphasis on reviewing basic actions) aimed at further improving “safety and quality assurance.”

The number of people who have taken this training since the opening has reached a total of roughly 4,200, of which about 2,400 are operators, nearly 1,500 are engineers, and approximately 340 are students.

The educational curriculum consists of the study of “knowledge,” “experience,” and “action,” which are necessary at every level, through hands-on learning. The texts are wide ranging beginning with the basics of chemical plant operation and moving to unit operation in chemical engineering (axioms and principles), machine management, instrumentation technology, and safety assessment. The importance of safety is reaffirmed in the curriculum. The curriculum also provides a historical perspective including the history of safety and improvement (Daicel Production Innovation), and a review of the background and purpose of systems and rules that were created as a result of lessons learned about past problems.

The curriculum consisted of five courses when first offered, but now includes more than 20 courses. However, taking into account the positive educational effects, the class size (interactive education with about 6 students) continues to be small.

At the Operation Training Center, experience-based education for chemical plants is regularly conducted for Daicel employees as well as university and vocational high school students.

Safety and quality assurance are the basis for manufacturing activities and a matter of the utmost importance for our ongoing business activities. To that end, we need to develop human resources who are capable of achieving them, and therefore it is important that we not stop at acquiring more sophisticated technologies and knowledge, but tirelessly continue every day with the basics and basic actions of manufacturing activities such as greetings; 3S seiri (tidying), seiton (putting everything in order) and seisou (cleaning) activities; crisis-identification activities; and hazard prediction activities. We will maintain our management principle of “start with basics, and return to basics,” which was adopted at the time of our founding, and continue to develop people who support Daicel’s manufacturing activities that are aimed at safety and quality assurance.

## TOPIC: Operation Training Center, Japan Chemical Industry Association (JCIA) Awarded “Responsible Care Award”

Daicel’s Operation Training Center was awarded the Responsible Care Award at the JCIA’s 9th Responsible Care Awards (RC Awards) on May 28, 2015.

To increase and stimulate motivation for responsible care activities, the Japan Chemical Industry Association presents the RC Awards to recognize businesses, divisions, groups or individuals for outstanding achievement or contribution to responsible care activities.

Our award-winning theme was entitled “Operation Training Center—Passing on Skills, Education, and Training in the Process Industry.”

The Operation Training Center was recognized for its turning of the CAPD cycle; improving its education and training programs and curriculum every year since first offering the course in 2002; and for creating Daicel’s own education system, as well as its human resource development initiatives for manufacturing activities.



## Maintenance Dojo

### Background to the Opening of the Maintenance Dojo

From the past, Daicel has taken various initiatives in the area of maintenance of chemical plants. However, around 2007, with the passing of the torch from an older generation to a new one, Daicel has seen several cases of what appears to be a reduction in maintenance technology capabilities, construction management and supervision, acceptance inspection capabilities, and problem analysis capabilities. Therefore, with the aim of improving maintenance technology, the passing on of skills, and raising construction quality, which are all vital for Daicel, we opened the Maintenance Dojo in FY 2016/3 to obtain more practical training. The targets for this training are not only Daicel employees, but workers of partner companies engaged in maintenance work.

## Maintenance Dojo Overview and Initiatives

Core members of our equipment diagnostic engineering serve as supervisors (instructors) at the Maintenance Dojo where maintenance technology is systematized to the needs of Daicel as follows:

1. Specialized maintenance education for maintenance engineers
2. Voluntary maintenance training for operators
3. Technical instruction for workers of partner companies

Offering a practical education that is not limited to imparting knowledge through classroom lectures alone, the educational curriculum consists of the six core areas of “corrosion and deterioration damage analysis technologies,” “welding management technologies,” “non-destructive inspection technologies,” “sealing technologies,” “lubrication management technologies” and “vibration diagnostics technologies.” In addition, technologies and skills acquired at the Maintenance Dojo are put to practical use (construction acceptance inspection) through periodic repair and construction work (SDM construction), thereby improving the level of trainee skills.

### Curriculum (Six Core Areas)

Group Education at the Maintenance Dojo	
<p><b>Corrosion and deterioration damage analysis technologies</b></p> <ul style="list-style-type: none"> <li>• Various properties of metals</li> <li>• Corrosion, degradation and various damage phenomena</li> <li>• Various material testing (tensile test, impact test, etc.)</li> <li>• Various analytical testing</li> <li>• <i>Metallographic observation, fractography</i></li> </ul>	<p><b>Sealing technologies</b></p> <ul style="list-style-type: none"> <li>• Flange sealing technologies</li> <li>• <i>Education and training in tightening of piping flanges</i></li> <li>• Structure and characteristics of gasket seals</li> <li>• Types of mechanical seals and their maintenance</li> <li>• Other shaft seal theories</li> </ul>
<p><b>Welding management technologies</b></p> <ul style="list-style-type: none"> <li>• Welding methods, types and shapes of welded joints</li> <li>• Types of welding defects and their causes</li> <li>• Weld repair, post-weld heat treatment, dissimilar metal weld</li> <li>• <i>Measurement of grooves and excess metal shapes</i></li> </ul>	<p><b>Lubrication Management technologies</b></p> <ul style="list-style-type: none"> <li>• Basics of lubrication management</li> <li>• Oil grease lubricating and oiling</li> <li>• Lubricant degradation management</li> <li>• Contamination management (hydraulic fluid)</li> </ul>
<p><b>Non-destructive inspection technologies</b></p> <ul style="list-style-type: none"> <li>• Common non-destructive inspection technologies</li> <li>• Special non-destructive inspection technologies</li> <li>• Relevant standards and how to judge results</li> <li>• Non-destructive inspection (VT, PT, MT, RT, UT)</li> </ul>	<p><b>Vibration diagnostics technologies</b></p> <ul style="list-style-type: none"> <li>• Types and characteristics of mechanical elements</li> <li>• <i>Simple diagnosis (5 senses inspection, vibration measurement)</i></li> <li>• <i>Pump inspection and maintenance</i></li> <li>• Precision diagnostics (vibration, temperature, sound, etc.)</li> </ul>



**Practice (on-the-job training) in shut down/maintenance (SDM) work**

Black → shared    Blue → specialty    Green → specialty + voluntary  
 Red → specialty + partner companies    *Italic (bold face) training item*

## Case Study Regarding Education and Training for Tightening Pipe Flanges

At the Aboshi Plant, which had already begun education and training in tightening pipe flanges from 2009, we have introduced a skill certification system and made noteworthy achievements in reducing the problem of leakage from pipe flanges. In this education and training, we use a flange tightening skill evaluation device developed in-house. The device is an evaluation system that enables the visualization of a skill by displaying on a computer screen in real time the axial force of a bolt at the time of flange tightening and the surface force of a tightened gasket. From 2015 onward, we have been engaged in full-scale rollout of the Maintenance Dojo at other plants.

### TOPIC: Maintenance Dojo—Transcending the Personnel Training Domain

In order to assure safety and quality in chemical plants, it is important to properly maintain and manage equipment on a daily basis. To that end, it is necessary to accurately identify and evaluate equipment condition and take needed measures at a stage when defects are small. Of course, this is performed by an employee.

Since we view traditional knowledge- and experience-based human resource development as inadequate for developing such employees, we opened a new Maintenance Dojo as a place for practical education in techniques and skills. At this Maintenance Dojo, we are nurturing personnel who can “maintain and manage Daicel equipment with a sense of their own responsibility and with confidence and pride.”



Practice situation at Maintenance Dojo

# — Engineer Development Program

## Programs Aimed at Nurturing Excellent Engineers

Continuous growth is the responsibility of all companies, and product innovation and process innovation are the driving forces that provide this continuous growth. Our technicians play very important roles in promoting product innovation and process innovation. It is, therefore, indispensable that we train our technicians to become a group of professionals.

Believing that the development of each technician is essential to pursuing innovation, we have established a robust technician training system to help young engineers enhance their skills.

## Professional Career Track

In FY 2016/3, we established a separate training system to nurture experts equipped with superior technological capabilities in their respective fields. This program aims to secure the human resources who will, in turn, help the Company surmount future challenges. We have cultivated a corporate culture that enables these experts to concentrate on their specialties. As one career option, we have developed a dedicated career track for those who have the perspicacity and willingness to enhance their specialized strengths.

Currently, 12 Daicel employees are on this career track, each playing key roles in their areas of specialty.

### Desirable Traits of Professional Career Track Employees

- Those who are capable of taking key roles as leading authorities in specific areas
- Those who are determined to stay committed to acquiring specialist skills and knowledge at the early stage of their careers

## In-House Certification System for Skilled Experts

In FY 2017/3, we established an in-house certification system aimed at fostering a culture that respects manufacturing techniques and encourages individuals' efforts to develop their skills. Having positioned this system as a key program for nurturing technicians, we have certified a total of 68 employees for their distinguished skills. This in-house certification system provides young engineers with a concrete career target and is expected to better motivate them and help them feel their job rewarding. In this way, we are striving to encourage employees to pursue more sophisticated manufacturing skills, with the aim of raising the overall level of their competencies and developing their know-how.



At the same time, we are committed to ensuring manufacturing safety and quality, which constitute the very foundation of the Company's business, by passing down our legacy of manufacturing skills to future generations. To this end, we will systematically nurture successive new generations.

## — Basic Approach

In line with the Daicel Group Conduct Policy, the Group is actively developing a working environment that respects diversity, personality and the uniqueness of everyone working for our Group companies. 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 “DaiceSpirit,” no matter what country they come from.

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

## — Initiatives to Promote Diversity

### Helping Women Earn Career Success

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.

Note: Please [click here](#) for more details about our initiatives to create a more inclusive workplace that encourages diverse people to pursue success.

## Employment of Persons with Disabilities

As part of its initiatives to fulfill its social responsibilities as a corporate citizen, Daicel maintains the ratio of persons with disabilities in the total workforce above the statutory employment rate of 2.0%. In addition, Daicel systematically recruits persons with disabilities to support the aspirations of these individuals to participate in social activities and to provide motivation in life. As a result, the ratio of persons with disabilities in the total workforce amounted to 2.16% as of March 31, 2018. Furthermore, in order to help each individual achieve their best, we pay utmost attention in assigning suitable jobs according to the degree of disability.

<b>Fiscal year</b>	FY 2016/3	FY 2017/3	FY 2018/3
<b>Ratio of persons with disabilities in the total workforce</b>	2.05%	2.07%	2.16%

※Note: Statutory employment rate: 2.0%

## 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 FY 2018/3, 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. In accordance with revisions to the Law concerning Stabilization of Employment of Older Persons, applying the system to employees seeking to continue work through age 65, Daicel will continue to offer a work environment where veteran employees can make use of their careers, knowledge and experience.

## Creating an Organization That Encourages Women to Earn Success

In FY 2018/3, we introduced a new training program titled the “Nadeshiko” seminar, which aims to encourage ambitious female employees aspiring to achieve personal growth to take leadership roles and earn greater career success.

A total of eight employees became the first enrollees in the seminar, and their supervisors also participated in the training program. Currently, the eight enrollees are taking on issues identified in their respective workplaces. To this end, they have formulated action plans while playing leadership roles in an effort to resolve such issues, with their colleagues acting in collaboration.

Looking ahead, we will continue to encourage women to have a clear vision of their future career paths and offer them opportunities to develop their leadership capabilities. In these ways, we will assist women in their efforts to earn promotions.



"Nadeshiko" seminar First enrollees



Training session

## Inclusion into MSCI Japan Empowering Women Index (WIN)

MSCI



2017 Constituent  
MSCI Japan Empowering  
Women Index (WIN)

In March 2018, the U.S.-based index provider MSCI<sup>1</sup> selected Daicel for inclusion in the MSCI Japan Empowering Women Index (WIN). WIN is one of the environmental, social and governance (ESG) indices utilized by Japan's Government Pension Investment Fund (GPIF)<sup>2</sup> in the course of passive management.

WIN is intended to identify and include only outstanding performers in terms of gender diversity in each business sector. To this end, the WIN selection process involves calculating the gender diversity scores of businesses from multilateral perspectives based on employment data disclosed in accordance with Japan's Act on Promotion of Women's Participation and Advancement in the Workplace<sup>3</sup> and other corporate information.

One of the core principles supporting the Daicel Group's Human Resource Policy is "Diversity & Inclusion: We continue to evolve through the interaction of our diverse personalities." We are convinced that diversity inspires each individual to pursue personal growth, which will, in turn, push forward corporate development.

Guided by this conviction, we are developing an organization that better encourages women to pursue success in addition to introducing a leadership training program for female employees. We believe that the Daicel Group's ongoing initiatives and information disclosure in this field attracted MSCI's attention, thereby leading to its inclusion in the index.

※1. A company that provides such financial services as stock price index calculation and portfolio analysis. MSCI is regarded as one of world-leading firms in the field of ESG indices.

※2. An incorporated administrative agency in charge of administration and management of public pension funds entrusted by the Minister of Health, Labour and Welfare.

※3. This Japanese law mandates that corporations with over 300 employees formulate and publicize numerical targets and action plans toward improving gender equality and disclose information regarding the status of female participation in their workplaces.

## — Basic Approach

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.

### The Outline of the April 2017 Agreement Signed by Management and the Labor Union

#### Full-time employees other than shift workers

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Shorten mandatory working hours from 8 hours to 7.5 hours per business day in April 2018  
Will result in a decrease of approximately 120 hours (or approximately 6.2%) in mandatory annual working hours

#### Shift workers

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Increase annual holidays by 10 days in April 2020  
Expected to result in a decrease of approximately 70 hours (or approximately 3.6%) in mandatory annual working hours

In April 2018, mandatory working hours of full–time employees (other than shift workers) were shortened from 8 hours to 7.5 hours per business day, with their mandatory annual working hours being reduced approximately 120 hours (or approximately 6.2%).

Looking ahead, we will remain committed to encouraging each employee to adopt an even more productive working style that helps them achieve higher performance.

## — Initiatives to Help Realize a Flexible Working Style

Daicel has introduced such systems as flextime, thereby offering an option of embracing more flexible working styles to employees. Looking ahead, we will continue to help employees realize an optimal work–lifebalance and, to this end, encourage each employee to review their ways of working. In these ways, we will seriously consider and devise new working styles that enable them to enhance productivity and achieve higher performance.

### Daicel's Programs to Help Employees Adopt Flexible Working Styles

Life events	Programs available	Details
Pregnancy	Reduced work-hour system	Pregnant employees are allowed to reduce their working hours by up to two hours per day. They are also allowed to use flextime in combination with this program.
Childbirth	Maternity leave	Up to six weeks before childbirth (in the case of a multiple pregnancy, 14 weeks) and eight weeks after childbirth.
	Reduced work-hour system	Employees who give birth are allowed to reduce their working hours by up to 135 minutes per day when they need reduced hours for the first year following delivery. Such employees are also allowed to use flextime in combination with this program.
	Special paid leave for employees whose spouse gives birth	Male employees are allowed to take special paid leave of up to three days when their wife gives birth.
Child rearing	Child-rearing leave	Employees are allowed to take leave to focus on child rearing until the day before their child has reached the age of one year (or up to 24 months in certain cases). In addition, the Company encourages male employees to take child-rearing leave before their child turns one by providing regular wages for five days within the period of child-rearing leave.
	Reduced work-hour system	Employees raising a child in the sixth grade of elementary school or younger are allowed to reduce their working hours by up to 135 minutes per day. Such employees are also allowed to use flextime in combination with this program.
	Allowing employees to work at home	Employees who raise a child in the sixth grade of elementary school or younger are allowed to work at home for up to eight days per month.
	Family care leave	Employees who raise a preschool-age child are allowed to take leave of up to five days per year (in the case of raising two or more preschool-age children, up to 10 days per year) when they need to care for their child due to illness or help their child receive immunizations or undergo health checks.

Nursing care	Reduced work-hour system	Employees who engage in the nursing care of a family member, whose condition meets the government's "nursing-care required" criteria, are allowed to reduce their working hours by up to 135 minutes. Such employees are also allowed to use flextime in combination with this program.
	Allowing Employees to Work at Home	Employees who engage in the nursing care of a family member, whose condition meets the government's "nursing-care required" criteria, are allowed to work at home for up to eight days per month.
	Nursing care leave	Employees who engage in the nursing care of a family member, whose conditions meets the government's "nursing-care required" criteria, are allowed to take leave of up to five days per year (in cases where employees need to engage in the nursing care of two or more family members whose conditions meet such criteria, up to 10 days per year).
	Extended nursing care leave	Employees are allowed to take extended nursing care leave of up to 365 calendar days when a family member's condition requires full-time nursing care under the aforementioned criteria.
Non-work accidents or sickness	Special leave due to personal accident or illness	Employees are allowed to take special leave of up to 20 days per year, aside from annual paid leave, in the event they have a non-work accident or illness and have to be absent from work for over one week.
	Family care leave	Employees are allowed to shift their eligible special leave to family care leave of up to 10 days per year when a family member falls ill for over one week and requires full-time care.
General	Promoting the utilization of annual paid leave	In conjunction with the formulation of annual operational schedules, each workplace designates multiple dates on which employees are encouraged to take annual paid leave.

### Starting to Allow Employees to Work at Home

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.

#### Voice of Employees

### “The Scheme Helps Me Strike an Optimal Balance between Duties and Family Life”

A Leadership Rank Employee, IP Center, Tokyo Head Office : To strike a balance between child rearing and my duties, I work at home around three days per month. As this relieves the hour-long commuting burden, I can do some housekeeping work instead. I feel this is a more meaningful way of using time. In the evening, I go and pick up my child at the childcare center earlier than usual, so I enjoy spending more time with my child. I can also maintain robust communication with my colleagues via e-mail or using a cell phone the Company has furnished, so I don't feel there's anything particularly inconvenient about working at home. Moreover, I think this working style allows me to better concentrate on my tasks and thereby helps me enhance productivity.



## — Daicel's Stipend Systems (Yu Ai Kai Mutual Aid Association)

Items	Detail
Congratulatory stipend for weddings	Stipend is paid when a member gets married.
Congratulatory stipend for childbirth	Stipend is paid when a member or their spouse gives birth to a child.
Congratulatory gifts when a member's child enters school	A gift is presented when a member's child has entered elementary, junior high or high school (Recipients choose a gift from items listed in a catalogue).
Stipend for members at the passing of a family member	Stipend is paid when a family member of a member has passed away. The amount varies by the degree of kinship.
Consolatory stipend for injuries and illness	Stipend is paid when a member takes a leave of absence due to work-related injuries or illness. The amount varies by the required days of leave.
Consolatory stipend for damage attributable to disasters	Stipend is paid when a member's dwelling is damaged by a fire, storm, flood, earthquake or other disaster. The amount varies by the degree of damage.
Stipend for members on leave of absence	Stipend is paid when a member takes a leave of absence due to non-work accidents or sickness, provided that the reasons for such leave meet prescribed in-house criteria stipulated by entities they work for. This stipend is paid based on the required days of leave.
Stipend for subsidizing hospitalization expenses	Stipend is paid when a member or family member is hospitalized at medical institutions where health insurance is applied due to non-work accidents or sickness. This stipend is paid per day of hospitalization and the amount varies by the type of injuries and sickness.
Nursing care support stipend	Stipend is paid when a member applies for a nursing care leave program in place at their respective entity. The amount varies by the length of nursing care leave applied for.

Orphanage education annuity	Following death, an annuity is paid to a member's dependent child or children. This annuity is paid monthly for each child attending elementary, junior high or high school.
Refund upon withdrawal from membership	A refund is paid to members withdrawing from the association, with the sliding amount determined based upon the period of membership.
Survivor's benefits	Benefits are paid to the survivor when either the member or registered spouse passes away.
Social contribution activity awards	A cash award is given to commend individual members (or a group of them) deemed to have made a significant contribution to society.
GLTD insurance	Long-term disability insurance is in place to provide coverage for members who become unable to work for an extended period of time, due to disabilities resulting from injuries or sickness, and are not fully insured by the public insurance system or conventional disability income insurance.

## — 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.

## — Introduction of a “Free-Address” System

Daicel's Tokyo and Osaka head offices as well as the Nagoya sales office boast non-territorial office layouts. Recently, the Company introduced a “free-address”(free-seating) work platform at these offices to facilitate worksite communication and in-house collaboration, stepping up its efforts to promote work style reforms.

In addition, iCube—a part of the Innovation Park, an R&D powerhouse opened in April 2017—is equipped with a large, non-territorial office space designed to spark formal and informal communication between workers and thus provide an innovative working environment for those specializing in such fields as exploratory research, product development, production innovation, process innovation and engineering. This setting helps them inspire one another, boosting

motivation as they work together to push forward with the development of new products and innovative mass-production technologies, as well as the creation and commercialization of new businesses.



## — Daicel Declaration on Health Management

### Daicel Declaration on Health Management

The Company recognizes that the ability of employees to perform 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 sustainable corporate development. Accordingly, Daicel has positioned helping employees maintain mental and physical health as an important management issue.

Daicel makes the following declarations to clarify its commitment to fostering a corporate culture that places the utmost priority on health and thereby pursuing sound corporate management that will, in turn, enable the Company to better contribute to people's well-being and the creation of an affluent society.

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

President & CEO



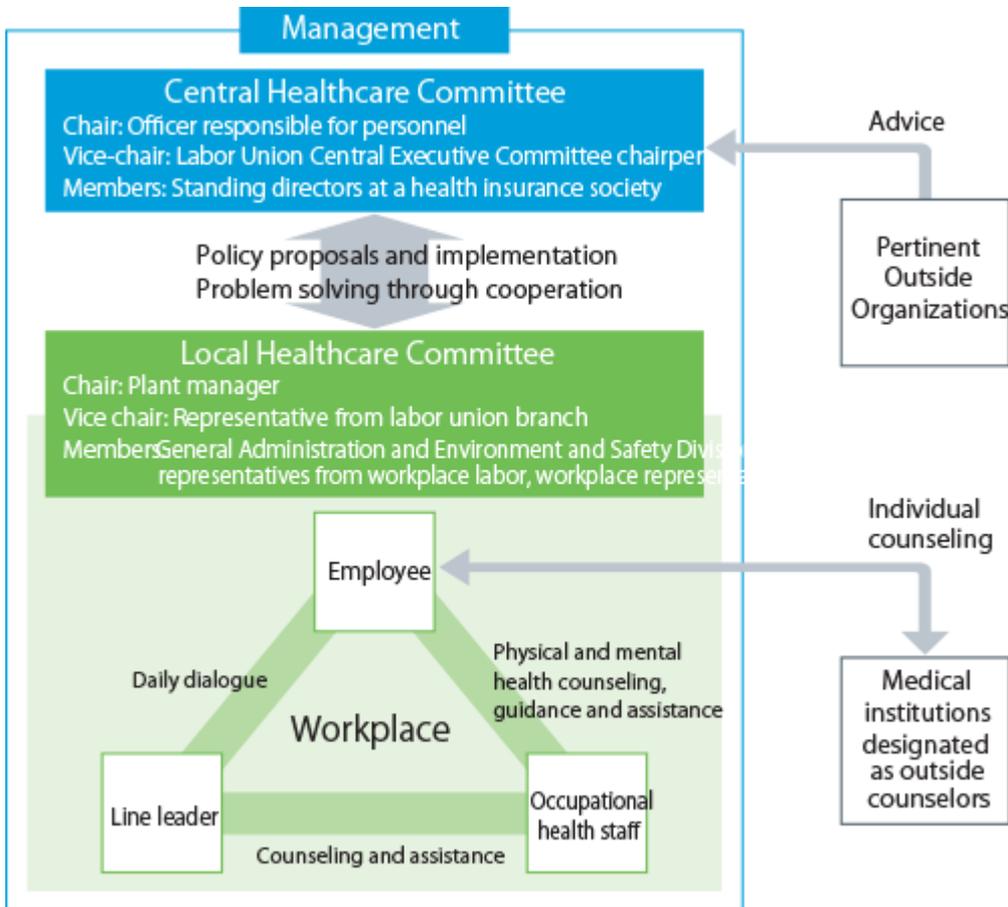
## — Daicel's Organizational Structure for Health Promotion

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

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 preparation of necessary systems. In this way, the committees strive to promote the improved physical and mental health of Daicel employees.

## Initiative 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.



## FY 2018/3 Initiatives

### Strengthening Our Organizational Structure for Health Promotion

#### 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 continuously striving to improve their ability to develop plans and teach the relevant subjects.



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



Each attendee took turns giving presentations

### 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 FY 2018/3 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.

In FY 2018/3, the Company also introduced special training for managers to provide them with basic skills for addressing mental health issues their staff may have, in furtherance of its efforts to counter stress-related problems. Approximately 100 managers participated in training to acquire essential knowledge regarding how to provide staff members with appropriate care and improve their mental health conditions, with external specialists serving as lecturers. The attendees also took part in a hands-on experience workshop aimed at enhancing communication skills. Plans call for implementing similar training at each business site in FY 2019/3 and thereafter.



Training of Harima Plant



Training of Tokyo Head Office

## 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. In line with FY 2018/3 numerical targets announced by the Japanese government, the Company has been 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 has been 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 thus engaged 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 FY 2016/3, Daicel began closely assessing the working status of employees posted overseas, with the aim of realizing more robust health management. In FY 2018/3, 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 overseas. Through specialized and professional health guidance and advice, Daicel is helping to maintain and improve the health of employees posted from Japan who play an important part in the operations of local subsidiaries.

## Selected for “Certified Health & Productivity Management Outstanding Organizations Recognition Program”

In FY 2018/3, the Company was nominated for a government-led recognition program, which ultimately selected Daicel for inclusion in the “Certified Health & Productivity Management Outstanding Organizations.” This program is aimed at drawing positive attention to major corporations and SMEs that boast outstanding track record of health management practices, including those aimed at addressing community-specific health issues and those recommended by Nippon Kenko Kaigi health promotion association.



# Employee Data

			FY 2016/3	FY 2017/3	FY 2018/3
Number of employees	Staff members	Male	1,681	1,757	1,837
		Female	192	213	232
		Total	1,873	1,970	2,069
	Manager and above	Male	747	747	759
		Female	12	15	16
		Total	759	762	775
	Full-time employees	Male	2,428	2,504	2,596
		Female	204	228	248
		Total	2,632	2,732	2,844
		Age 18 or 19	34	35	31
		20s	395	451	481
		30s	515	548	599
		40s	939	871	808
		50s	749	827	925
	Contract employees			245	272
Temporary staff			83	98	91

			FY 2016/3	FY 2017/3	FY 2018/3
Recruitment	New graduates	Male	76	81	79
		Female	3	12	10
		Total	79	93	89
	Mid-Career	Male	106	71	79
		Female	18	11	13
		Total	124	82	92
Promotion to managerial positions	Newly promoted employees	Male	31	20	27
		Female	1	3	0
		Total	32	23	27
Ratio of female employees	Staff members		11.4%	12.1%	12.6%
	Manager and above		1.6%	2.0%	2.1%
	Total		8.4%	9.1%	9.6%
Foreign nationals			11	14	14
Ratio of persons with disabilities in the total workforce			2.05%	2.07%	2.16%
Annual average number of persons with disabilities			60.5	62.5	68.0
Number of labor union members			1,873	1,970	2,069
Ratio of labor union members to total employees			65.1%	65.6%	66.0%
Average service years	Male		18.1years	18years	18years
	Female		15.7years	15.0years	14.5years
	Total		17.9years	17.7years	17.6years

		FY 2016/3	FY 2017/3	FY 2018/3
Employees who took child-rearing leave	Male	0	0	12
	Female	6	1	5
	Total	6	1	17
Ratio of those who took child-rearing leave to total eligible employees	Male	0.0%	0.0%	14.8%
	Female	100.0%	100.0%	100.0%
	Total	6.1%	1.1%	20.9%
Employees who work shorter hours for child rearing	Male	0	0	0
	Female	4	10	1
	Total	4	10	1
Employees who work at home due to child rearing*	Male	-	-	6
	Female	-	-	18
	Total	-	-	24
Employees who took nursing care leave		1	0	0
Employees who work shorter hours for family nursing care		0	0	0
Employees who work at home due to family nursing care*		-	-	1
Annual paid leave consumption rate	Staff members	69.3%	70.0%	70.5%
	Manager and above	42.2%	43.8%	46.3%
	Total	62.2%	63.2%	64.4%
Average age	Staff members	38.7years	38.5years	38.6years
	Manager and above	49.9years	50.3years	50.5years
	Total	42.0years	41.8years	41.8years
Personnel turnover rate		0.8%	1.0%	1.1%

Note: Figures include only employees working at Daicel on a non-consolidated basis.

\*Figures are unavailable for periods prior to the FY 2018/3 introduction of the scheme allowing eligible employees to work at home.

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➤ **Nurturing Future Generations**

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➤ **Communication with Local Society**

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➤ **Social Contribution Activities**

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# Nurturing Future Generations

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.



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.

### Examples of beads created via the experiment



## ■ 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 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.

## Daicel booth at Children's Science Festival



## 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 peek into 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



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. (Hyogo Pref. Japan) is facilitating communication with local residents in various ways to ensure harmonious coexistence with neighboring communities. As it did in 2016, 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**



## Social Contribution Activities

Each Daicel Group member worldwide is active in community engagement, providing donations, participating in volunteer activities and maintaining dialogue with their neighbors.

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

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

### ■ 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 their 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, LLC(DSSA), Daicel Safety Technologies America, Inc.(DSTA) and Daicel Safety Tube Processing, Inc.(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 readied to be sent to children

## ■Financial Assistance to Local Students (DSSC) (China)

Daicel Safety Systems (Jiangsu) Co., Ltd.(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

## ■SDI and DSSA AZ Participate in the “Feed My Starving Children” Campaign (the United States)

A total of 80 volunteers, consisting of employees of Special Devices Inc. (SDI) and Daicel Safety Systems America Arizona, Inc. (DSSA AZ) as well as their families, participated in the charity campaign, “Feed My Starving Children.” This campaign aims to donate food for malnourished children around the world in an effort to eradicate hunger. The volunteers helped by packing food into containers, labeling and shipping the containers, but none of them used machinery in the course of these tasks in adherence to the sponsors' policies aimed at helping participants gain a more memorable experience. Engaging in these acts of manual labor, the volunteers embodied the hopeful possibility that, with their own hands, they are able to save those who are in hunger. They also had opportunities to learn about the reality of hunger in countries around the globe.



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 2017 edition, the Group has also incorporated operating results and other financial information into the content, rebranding the publication as the “DaiceGroup 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.

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## Reporting Period

This report encompasses the Daicel Group’s initiatives during FY 2018/3 (April 2017 to March 2018), though some topics outside the specified period have also been included.

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## Scope of Compilation Data

Taking the Daicel Group as its basis, any references in this report that fall outside that basis are stated in the text. For more details about the organizations subject to reporting for Responsible Care Initiatives (included in the calculation of environmental/occupational safety and health performance data), please refer to this [page](#) [>List of Data Collection Boundaries](#)

We received third-party verification concerning the Responsible Care Initiative reported on this website and the Daicel Group Annual Report 2018–CSR & Financial Report from the Japan Chemical Industry Association.



## 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  
Chief Director, Responsible Care Verification Center  
Japan Chemical Industry Association

# List of Data Collection Boundaries

The Daicel Group consists of a total of 79 companies: Daicel Corporation, its 62 consolidated subsidiaries and 16 other affiliated companies.(As of March 31, 2018)

'In this report, initiatives of the Daicel Group are reported. Reports about Daicel Corporation or other Group company are noted in each text.

'The scope of the Daicel Group varies depending on the content of initiatives. Regarding the initiatives of ① to ③ below, the scope of the Daicel Group reporting is as shown in the table below.

- ① Initiatives reported in 「["Together with Employees"](#)」 (Except ③) 、 [Risk Management Initiatives](#)
- ② [Corporate Ethics \(Compliance\) Initiatives](#)
- ③ Initiatives of the Healthcare Committee reported in 「[Initiatives to Help Employees Maintain Mental and Physical Health](#)」

'For more details about the organizations subject to reporting for Responsible Care Initiatives (included in the calculation of environmental/occupational safety and health performance data), please refer to this [page](#)

## Consolidated Companies

Company Name	Country	①	②	③
DAICEL CORPORATION	Japan	○	○	○
Kyodo Sakusan Co.,Ltd.	Japan	○	○	-
Dainichi Chemical Co.,Ltd.	Japan	○	○	-
Daicel Arai Chemical Ltd.	Japan	○	○	○
Chiral Technologies, Inc.	U.S.A.	○	○	-
Chiral Technologies Europe S.A.S.	France	○	○	-
Daicel Chiral Technologies (China) Co., Ltd.	China	○	○	-
Daicel Chiral Technologies (India) Pvt. Ltd.	India	○	○	-
Daicel ChemTech, Inc.	U.S.A.	○	○	-
Daicel Nanning Food Ingredients Co., Ltd.	China	○	○	-
Polyplastics Co., Ltd.	Japan	○	○	○
WinTech Polymer Ltd.	Japan	○	○	-
PTM Holdings, Inc.	Japan	-	-	-
PolyplaServise Co., Ltd.	Japan	○	○	-
Polyplastics Taiwan Co., Ltd.	Taiwan	○	○	-

Company Name	Country	①	②	③
Polyplastics Asia Pacific Sdn. Bhd.	Malaysia	○	○	-
Polyplastics China Ltd.	China	○	○	-
Polyplastics Marketing (T) Ltd.	Thailand	○	○	-
Polyplastics Asia Pacific Singapore Pte. Ltd.	Singapore	○	○	-
Polyplastics Trading (Shanghai) Ltd.	China	○	○	-
PTM Engineering Plastics (Nantong) Co., Ltd.	China	○	○	-
Polyplastics (Shanghai) Ltd.	China	○	○	-
Polyplastics Korea Ltd.	South Korea	○	○	-
Polyplastics (Nantong) Ltd.	China	○	○	-
Polyplastics USA, Inc.	USA	○	○	-
LCP Leuna Carboxylation Plant GmbH	Germany	○	○	-
Polyplastics Europe GmbH	Germany	○	○	-
Polyplastics Marketing Mexico, S.A. de C.V.	Mexico	○	○	-
Topas Advanced Polymers GmbH	Germany	○	○	-
Topas Advanced Polymers, Inc.	U.S.A.	○	○	-
Daicel Polymer Ltd.	Japan	○	○	○
Daicel Polymer (Hong Kong) Ltd.	China	○	○	-
Shanghai Daicel Polymers, Ltd.	China	○	○	-
Daicel Polymer (Thailand) Co., Ltd.	Thailand	○	○	-
Daicel Pack Systems Ltd.	Japan	○	○	○
DM Novafoam Ltd.	Japan	○	○	-
Daicel Value Coating Ltd.	Japan	○	○	○
Daicel Safety Systems Inc.	Japan	○	○	○
Daicel Safety Systems America Holdings, Inc.	U.S.A.	○	○	-
Daicel Safety Systems America, LLC	U.S.A.	○	○	-
Daicel Safety Systems America Arizona, Inc.	U.S.A.	○	○	-
Daicel Safety Systems (Thailand) Co., Ltd.	Thailand	○	○	-
Daicel Safety Systems Europe Sp. z o. o.	Poland	○	○	-
Daicel Safety Systems (Jiangsu) Co., Ltd.	China	○	○	-

Company Name	Country	①	②	③
Daicel Safety Systems Korea, Inc.	South Korea	○	○	-
Daicel Safety Technologies America, Inc.	U.S.A.	○	○	-
Daicel Safety Tube Processing, Inc.	U.S.A.	○	○	-
Daicel Safety Technologies (Thailand) Co., Ltd.	Thailand	○	○	-
Daicel Safety Technologies (Jiangsu) Co., Ltd.	China	○	○	-
Special Devices, Inc.	U.S.A.	○	○	-
Special Devices (Thailand) Co., Ltd.	Thailand	○	○	-
Daicel Pyrotechnics Ltd.	Japan	○	○	-
Daicel Logistics Service Co.,Ltd.	Japan	○	○	○
Daicel FineChem Ltd.	Japan	○	○	○
Daicen Membrane-Systems Ltd.	Japan	○	○	○
Kyoei Shokusan Co.,Ltd.	Japan	○	○	-
Daicel Aboshi Sangyo Co.,Ltd.	Japan	○	○	○
Daicel Ohtake Sangyo Co.,Ltd.	Japan	○	○	○
Daicel (Asia) Pte. Ltd.	Singapore	○	○	-
Daicel (Europa) GmbH	Germany	○	○	-
Daicel Trading (Shanghai) Ltd.	China	○	○	-
Daicel America Holdings, Inc.	U.S.A.	○	○	-
Daicel (China) Investment Co., Ltd.	China	○	○	-

## Other Affiliated Companies

Company Name	Country	①	②	③
Nagano Novafoam Sangyo Ltd.	Japan	-	○	-
Polyplastics Marketing (India) Pvt. Ltd.	India	○	○	-
Chrom Tech Ltd.	U.K.	-	-	-
Special Devices Japan Ltd.	Japan	-	-	-
Daicel-Evonik Ltd.	Japan	○	○	-
Daicel-ALLNEX Ltd.	Japan	○	○	-
Kyoudou Polymer Co., Ltd.	Japan	-	-	-
Xi'an Huida Chemical Industries Co., Ltd.	China	-	-	-
Toyo Styrene Co., Ltd.	Japan	-	-	-
Toyama Filter Tow Co., Ltd	Japan	-	-	-
Ningbo Da-An Chemical Industries Co., Ltd.	China	-	-	-
Hirohata Terminal Company Ltd.	Japan	-	-	-
Toyoshina Film Co.,Ltd.	Japan	-	-	-
Hayashi Shipping,Co.Ltd	Japan	-	-	-
Shanghai Da-Shen Cellulose Plastics Co., Ltd.	China	-	-	-
Daicel Prosperity (China) Ltd.	China	-	-	-

# List of Declarations and Certifications

[Environmental Management System](#)

[Quality Management System](#)

## — The Status of Environmental Management System Certification

(As of September 2018)

Name of Business Site/Group Company	Certificate No.	Standard	Initial Certification Date
Daicel Corporation (Ohtake Plant)	JQA-EM0492	ISO14001:2015	August 1999
Daicel Corporation (Innovation Park)	JQA-EM0894	ISO14001:2015	June 2000
Daicel Corporation (Himeji Production Sector/ Aboshi Plant)	JQA-EM1229	ISO14001:2015	December 2000
Daicel Polymer Ltd. (Hirohata Plant)	JQA-EM1511	ISO14001:2015	April 2001
Daicel Corporation (Harima Plant)	JQA-EM1683	ISO14001:2015	July 2001
Daicel Corporation (Kanzaki Plant)	JCQA-E-0329	ISO14001:2015	December 2001
Daicel Corporation (Arai Plant)	JCQA-E-0339	ISO14001:2015	December 2001
Polyplastics Co., Ltd. (Fuji Plant)	JQA-EM0414	ISO14001:2015	April 1999
DM Novafoam Ltd. (Head Office/Nagano Plant)	E0309	ISO14001:2015	February 2003
DM Novafoam Ltd. (Okayama Plant)	E0310	ISO14001:2015	June 2004
Daicel Pack Systems Ltd. (Isezaki Plant)	JQA-EM6795	ISO14001:2015	March 2012
Dainichi Chemical Corp.	5067	EcoAction 21 <sup>1)</sup>	June 2010
Daicel Safety Systems America, LLC Daicel Safety Technologies America, Inc. Daicel Safety Tube Processing, Inc.	EMS73483	ISO14001:2015	March 2005
Shanghai Daicel Polymers, Ltd.	170710064/2	ISO14001:2015	November 2005
Daicel Safety Systems (Thailand) Co., Ltd. Daicel Safety Technologies (Thailand) Co., Ltd.	BGK0403863	ISO14001:2015	August 2007
Daicel Safety Systems Europe Sp. z o. o.	AC090 104/ 0673/2587/2014	ISO14001:2015	March 2008
Daicel Safety Systems (Jiangsu) Co., Ltd.	CN08/20581	ISO14001:2015	March 2008
Ningbo Da-An Chemical Industries Co., Ltd.	104389	ISO14001:2015	September 2010

## What is...?

1) Eco Action 21: Environmental management systems promoted by the Ministry of the Environment of Japan. These systems are designed for easy implementation by small and medium-sized corporations. The Institute of Global Environmental Strategies Center for Sustainability (IGES-CfS) serves as the registrar of the certification.

## — Status of Quality Management System Certification

(As of September 2018)

Name of Business Site/Group Company	Certificate No.	Standard	Initial Certification Date
Daicel Corporation (Aboshi Plant, Himeji Production Sector)	JQA-0953	ISO9001:2015 JISQ9001:2015	August 1995
Daicel Corporation (Ohtake Plant)	JQA-1023	ISO9001:2015 JISQ9001:2015	October 1995
Daicel Corporation (Arai Plant)	JCQA-0136	ISO9001:2015 JISQ9001:2015	June 1996
Daicel Corporation (Aerospace & Defense Systems Division, Aerospace & Defense System/Safety Systems Company)	BSK0027	ISO9001:2015 JISQ9001:2015	April 1999
	BSKA0028	JISQ9100:2016 & JISQ9001:2015	June 2003
Daicel Corporation (Harima Plant, MSD Division, Aerospace & Defense Systems/Safety Systems Company)	JQA-2448	ISO9001:2015 JISQ9001:2015	July 1998
Daicel Safety Systems Inc.	IATF:0306358 JQA-AU0033	IATF16949:2016	May 2018
Daicel Polymer Ltd. (Hirohata Plant)	JQA-QM4647	ISO9001:2015 JISQ9001:2015	April 2000
Polyplastics Co., Ltd.	JQA-1283	ISO9001:2015 JISQ9001:2015	May 1996
	IATF:0278946 JQA-AU0071	IATF16949:2016	November 2017
Daicel Corporation (Kanzaki Plant)	JCQA-0530	ISO9001:2015 JISQ9001:2015	August 1999

Name of Business Site/Group Company	Certificate No.	Standard	Initial Certification Date
Daicel-Evonik Ltd. (Aboshi Plant)	JQA-2481	ISO9001:2015 JISQ9001:2015	July 1998
Daicel Pack Systems, Ltd.	JQA-QMA11465	ISO9001:2015 JISQ9001:2015	July 2004
DM Novafoam Ltd. (Nagano Plant)	ASR-Q1169	ISO9001:2015 JISQ9001:2015	February 2003
DM Novafoam Ltd. (Okayama Plant)	ASR-Q1170	ISO9001:2015 JISQ9001:2015	June 2004
Daicel Membrane-Systems Ltd. (Aboshi Plant)	JQA-1577	ISO9001:2015 JISQ9001:2015	February 1997
Daicel Membrane-Systems Ltd. (Tokyo headquarters)	JP11/040306	ISO13485 : 2016 EN ISO13485:2016	December 2011
Dainichi Chemical Corp.	JCQA-0689	ISO9001:2015 JISQ9001:2015	April 2000
Daicel Logistics Service Co., Ltd.	JCQA-0568	ISO9001:2015 JISQ9001:2015	October 1999
Daicel Pyrotechnics LTD.	JQA-QMA13973	ISO9001:2015 JISQ9001:2015	August 2009
Daicel Safety Systems America, LLC	IATF:0326816 86144	IATF16949:2016	August 2018
Daicel Safety Technologies America, Inc.	FM-502734	ISO9001:2015	October 2006
Special Devices, Inc. /Daicel Safety Systems America Arizona, Inc.	IATF: 0290498 2004-0091	IATF16949:2016	February 2018
Daicel Safety Systems (Thailand) Co., Ltd.	10079328	ISO9001:2015	January 2005
	IATF:0299706 10079329	IATF16949:2016	April 2018
Daicel Safety Technologies (Thailand) Co., Ltd.	IATF:0293692 10065029	IATF16949:2016	March 2018
Daicel Safety Systems Europe Sp. z o. o.	IATF:0296456 44 111 070260	IATF16949:2016	March 2018

Name of Business Site/Group Company	Certificate No.	Standard	Initial Certification Date
Daicel Safety Systems (Jiangsu) Co., Ltd.	IATF:0291498 CN 09/20512	IATF16949:2016	February 2018
Daicel Safety Systems Korea, Inc.	IATF:0334829 673109	IATF16949:2016	September 2018
Daicel Nanning Food Ingredients Co., Ltd.	CN10/31437	ISO9001:2015	October 2003
	CN13/31393	ISO22000:2005	January 2007
Ningbo Da-An Chemical Industries Co., Ltd.	93702	ISO9001:2015	December 2009
Xi'an Huida Chemical Industries Co., Ltd.	00117Q36901R5M /6100	ISO9001:2015	July 2002
Shanghai Daicel Polymers, Ltd.	81016587/1	ISO9001:2015	September 1999
	IATF16949:2016	IATF16949:2016	October 2016
Daicel Chiral Technologies (India) Private Ltd.	161016117/1 AQ-IND-RvA	ISO9001:2015	March 2012
Daicel Chiral Technologies (China) Co., Ltd.	Q17CC006R1	ISO9001:2015	January 2014
Topas Advanced Polymers GmbH	341516 QM15	ISO9001:2015	March 2009

# Policy List

Category		Policies
The Daicel Group's CSR Activities		<a href="#"><u>Daicel Group Basic Philosophy</u></a>
		<a href="#"><u>Daicel Group Conduct Policy</u></a>
		<a href="#"><u>Daicel Code of Conduct</u></a>
Corporate Ethics	Corporate Governance	<a href="#"><u>Basic Policy for Structuring Internal Control Systems</u></a>
The Responsible Care Initiatives	The Responsible Care Management System	<a href="#"><u>The Daicel Group's Basic Policies for Responsible Care</u></a>
Together with Stakeholders	Together with Our Customers	<a href="#"><u>Quality Policy for Daicel Group</u></a>
	Together with Our Suppliers	<a href="#"><u>Basic Purchasing Policy</u></a>
		<a href="#"><u>Daicel Group CSR Purchasing Guidelines</u></a>
	Together with Our Shareholders and Investors	<a href="#"><u>Basic Policy on Information Disclosure</u></a>
	Together with Employees	<a href="#"><u>Human Resource Policy</u></a>
		<a href="#"><u>Human Resource Management Guidelines</u></a>

The Daicel Group received the following external evaluation (as of March 31, 2018).

### — MSCI Japan ESG Select Leaders Index

The MSCI Japan ESG Select Leaders Index is determined by MSCI, with constituents chosen from the MSCI Japan IMI Top 500. The selection is undertaken by sector and focuses on corporations that scored high in Environmental, Social and Governance (ESG) performance relative to their peers.



2017 Constituent  
MSCI Japan ESG  
Select Leaders Index

### — MSCI Japan Empowering Women Index (WIN)

The MSCI Japan Empowering Women Index (WIN) is selected by MSCI after calculating the gender diversity scores of each corporation included in the MSCI Japan IMI Top 500. This is calculated from multilateral perspectives based on female employment data disclosed in accordance with Japan's Act on Promotion of Women's Participation and Advancement in the Workplace. The WIN thus only includes corporations with outstanding performance in terms of gender diversity in each business sector.



2017 Constituent  
MSCI Japan Empowering  
Women Index (WIN)

## — “2018 Certified Health & Productivity Management Outstanding Organizations—White 500”

Under “Certified Health & Productivity Management Outstanding Organizations Recognition Program” co-sponsored by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi, the “White 500” are selected from major domestic corporations boasting outstanding track records of practicing robust health management in partnership with health insurance associations.

