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# The Daicel Group CSR Report 2016

*THE BEST SOLUTION FOR YOU*



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### The Daicel Group CSR Report 2016

Daicel Corporation has published an annual Environmental and Safety Report since fiscal 2000 (year ended March 31, 2001). From fiscal 2007 (year ended March 31, 2008), the scope of reporting was expanded to include social activities, and the report title was changed accordingly to Environmental, Safety and Social Report. From fiscal 2010 (year ended March 31, 2011), emphasis was placed on enhancing the report's content and information relating to the Company's efforts to fulfill its corporate social responsibility. Accordingly, we adopted the title, The Daicel Group CSR Report, and have focused our attention on improving reader-friendliness and understandability while engaging in proactive disclosure.

Also, in order to ensure reliability, Daicel has submitted its reports to the Responsible Care Verification Center of the Japan Chemical Industry Association (JCIA) for third-party verification annually since 2004. The results of this verification are included in the section entitled "Third-Party Opinion."

#### Reporting Period

The Daicel Group CSR Report 2016 reports on the Group's initiatives regarding the economy, the environment, safety, and human resources for fiscal 2015 (April 2015 to March 2016). (Some of the topics covered are from the first half of fiscal 2016.)

#### Organizations within Scope of Reporting

The scope of reporting includes Daicel Corporation and Group companies inside and outside Japan.

In this report, "Daicel" and "the Company" refer to Daicel Corporation, while "the Daicel Group" and "the Group" refer to Daicel Corporation and its Group companies.

In Responsible Care initiatives, "the Company," "other domestic Group companies" and "overseas Group companies" refer to the companies listed under the scope of performance data compiled for environmental and occupational safety.

Overseas Group companies are not included in data for "Distribution Safety," "Process Safety and Disaster Prevention" and "Environmental Management to Prevent Atmosphere and Water Pollution" of "Environmental Preservation."

More detailed information about the Group's scope of reporting and CSR activities is available on Daicel's website under the section entitled "Detailed information on the Responsible Care Initiative."

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

Topics covered on our website are as follows:

- The Responsible Care Initiative/Scope of Data Calculation for Environmental and Occupational Safety Performance
- Total Environmental, Health and Safety Assessment System
- Environmental Management Systems
- Environmental Accounting
- Business Activities and Their Environmental Impacts
- Environmental Preservation
  - Environmental Management to Prevent Atmosphere and Water Pollution
  - Reduction and Recycling of Industrial Waste
  - Environmental Load Data
- Chemical and Product Safety
  - Activities in Chemical Product Safety
  - Emission and Transfer of PRTR\* substances
- Quality Assurance:
  - Status of Quality Management System Certification
- Organizations Covered for Reporting Purposes:
  - Scope of Group Companies

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

\*Pollutant Release and Transfer Register (PRTR): A system to calculate the extent to which the production, use and storage of specific chemical substances results in the release and transfer of those substances into the environment.

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

### ● Basic Philosophy



The Daicel Group's Reason for Being

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

We, and the chemical industry we are a part of, have provided optimal solutions addressing a wide range of issues. With a strong belief in the infinite possibilities chemistry has to offer, we continue to meet the demands of the times by contributing to society the functions it requires and helping to enrich individual lifestyles through the application of proprietary technologies and know-how.

- (1) Integrity and Ceaseless Efforts
- (2) Focus on Creation of New Value (Monozukuri\*)
- (3) Respect for Individuality and Achievements



A Shared Sense of Values

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

#### (1) Integrity and Ceaseless Efforts

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

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

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

#### (3) Respect for Individuality and Achievements

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

\* "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.

The Daicel Group's CSR Activities

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

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

The CAPD Cycle

C (Check):

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



A (Act):

Each division endeavors to improve on the issues revealed by the results of the self-check.

D (Do):

Each division implements its action plans.

P (Plan):

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

Conduct Policy

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

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

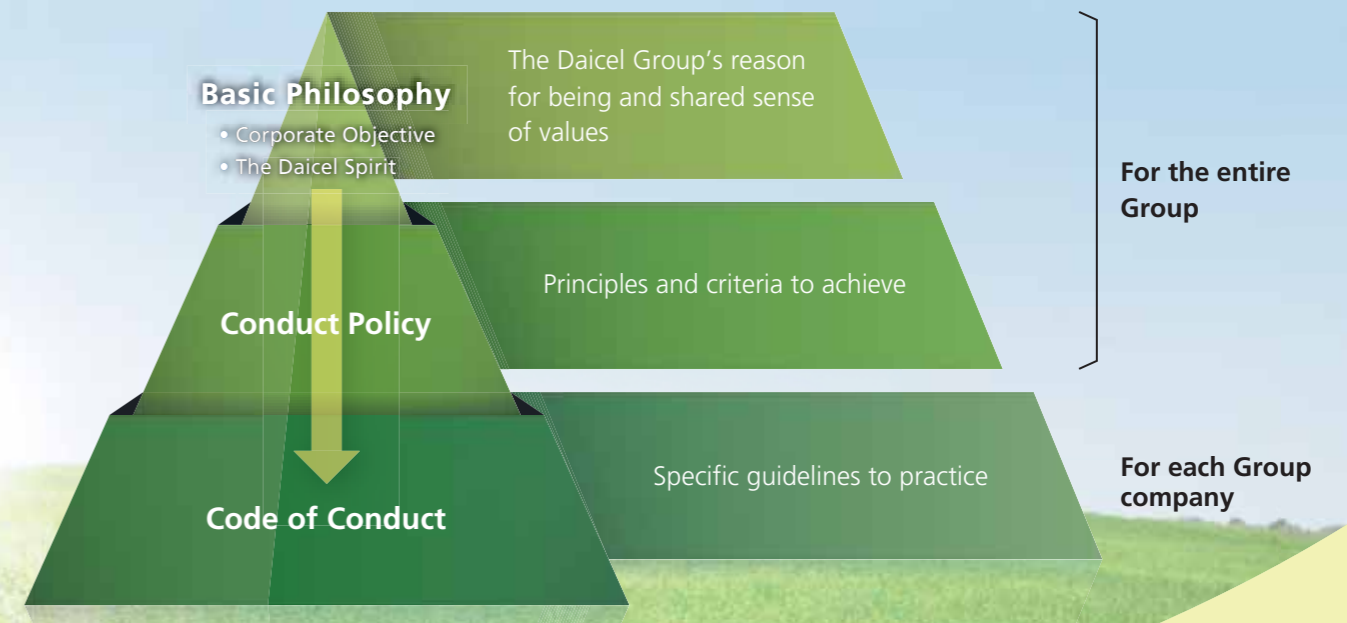
The Daicel Group Conduct Policy:

<http://www.daicel.com/en/profile/policy.html>

The Daicel Code of Conduct:

<http://www.daicel.com/en/profile/standard.html>

Basic Philosophy, Conduct Policy and Code of Conduct





**Misao Fudaba**  
President and CEO, Daicel Corporation

# Daicel continues working to contribute to a better society and an improved quality of life while placing the utmost importance on safety, quality and compliance.

*\*\*"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.*

About the Daicel Group

Daicel was established in 1919 through the merger of eight celluloid manufacturers and has remained committed to "Monozukuri" since its founding. Evolving through a series of challenges and changes, the Daicel Group currently offers unique products and services across a wide range of fields, supported by four businesses: Cellulosic Derivatives, Organic Chemicals, Plastics, and Pyrotechnic Devices.

If we look at the decades before Daicel's founding, stretching back nearly a century, there were times when these companies would cause customers and other members of society worry. What stands out, however, is that the companies would deal with these situations in all seriousness and earnestly work to overcome any issues, and this led to stronger relationships of trust with all stakeholders.

Celluloid was Daicel's main business when it was founded, but currently a small business within the Daicel Group. As time passed, we seized opportunities presented by changing global needs and technologies, keeping alive the spirit of our predecessors who continuously worked to transform the Company, and this has led to Daicel's present composition.

Fiscal 2015, which is the focus of this report, is the midpoint of our long-term Grand Vision 2020, which was formulated in fiscal 2010 and anticipates Daicel's centennial. Some of these measures are only about halfway complete. Still, we hope you can clearly see our continuing devotion to "Monozukuri" that further strengthen our assurance of safety and quality—both of which are the bedrock of Daicel's very foundation. We remain committed to providing solutions and value to society through our sincere actions.

In addition, from fiscal 2016 we will commence the full-scale launch of the Forests for Life initiative, which we began to consider in fiscal 2015. (See page 14 for more details.) Akira Miyawaki, professor emeritus at Yokohama National University, praises the Forest for Life initiative, being of the opinion that creating native forests is similar to fostering talent. I believe that this idea runs through the Daicel Group's human-centric management philosophy. Planting seeds, cultivating saplings, watering them, and nurturing them into a forest: these all help foster talent and are related to building business and society. 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. Eventually, 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. We will continue to promote the creation of forests for life so that Daicel can grow as a corporation and, more than anything, so that we can be the best partner of our customers and local communities.

## Ensuring the Highest Standards in Safety and Quality

Since assuming the position of president, I have maintained that safe operations, product safety and quality assurance—the basics for any manufacturer—are our top priority. Over thirty years ago, in 1982, there was a disastrous explosion and fire at what was then Daicel's Sakai Plant. Since then, every employee has been fully devoted to ensuring another accident like that would never occur, and the entire Daicel Group has been hard at work to ensure the safety and quality of its "Monozukuri."

In the previous fiscal year, there was a small problem. It thankfully did not become a major issue and we have already taken action to prevent recurrences, but we will not stop there. I believe that it is also important to be both physically and mentally prepared in advance of any problem that may arise, whenever that may be, to ensure it does not grow out of proportion. We will continue to focus our efforts on "Monozukuri" that puts safety first to maintain a workplace where we can work in peace while also earning the trust of customers and local residents of surrounding areas.

As for environmental preservation, while the energy outlook is still unclear, I believe that over the long-term conserving resources and energy will be increasingly important. The Daicel Group is continuing to introduce high-efficiency boilers and power generation facilities. And thanks to steady power-saving measures and the introduction of innovative technologies, we expect to achieve our power-saving targets outlined in the medium-term plan. We will keep advancing power conservation from new angles and perspectives going forward. It is necessary for us to diligently

preserve the environment, including locations overseas, as globalization progresses and we continue to launch new projects.

In fiscal 2015, we expanded quality assurance initiatives to the Daicel Group as a whole, dissolved the existing Quality Management Group of the Production Technology Headquarters and established the Quality Management Division. The newly established division will report directly to the president and specialize in carrying out the quality management audit. The Quality Management Division strives to further strengthen quality management systems from a position independent from internal companies, plants and Group companies. To implement "Monozukuri" that is more trusted by customers and meets their expectations, each Daicel Group employee must have a high level of awareness regarding quality. We set the Daicel Group Quality Policy as a goal for all group members and announced it to the entire Group in April 2016.

Going forward, we aim to continue focusing our combined efforts on assuring safety and quality as a company that is widely trusted by society and admired by local communities.

## Initiatives for Corporate Ethics

In fiscal 2015, we promoted activities that outlined our commitment to always responding sincerely to customers and business partners as a priority objective for corporate ethics. That is the foundation of the Daicel Group, which aims to understand customers' true needs and provide them with solutions that exceed their expectations. Daicel realizes that recent reports of altered and falsified quality information constitute a huge issue, with the potential to disrupt our very essence as a manufacturer. We have renewed our appeal to the entire Group to place greatest emphasis on compliance and, as is set out in the Daicel Code of Conduct, provide appropriate product quality information and assure both the safety and quality of our products and services.

In addition, because it is easier for corruption and scandals to occur in a workplace with poor communication, we are working to promote visualization and open communication in our workplace. Greater transparency refers to promoting the sharing of graphs, illustrations, text and other business-related infographics in order to help employees notice problems or improvements. When every

workplace member can see the kind of business operations other members are engaged in and what their status is, they can then offer each other help. Open communication refers to saying what needs to be said to each other, listening carefully to other people's opinions, and responding accordingly. At Daicel, to respect and acknowledge each other, we don't call each other by our titles, such as president or manager; instead we've become accustomed to using the standard Japanese prefix -san, the equivalent of greeting everyone equally on a cordial, but respectful first name basis. This idea is also incorporated into our proactive conduct declaration, which states "I will do it! Do it together! Do it cheerfully!"

Going forward, we will appeal to the importance of compliance when such opportunities present themselves.

- We do the right thing.
- We act fairly and sincerely.
- We build relationships of trust.
- We pay respect to others

With the above statements as the basis of our actions, we aim to continue to earn the trust of society while also growing alongside society.

## A Message to All Stakeholders

Overseas sales now account for over 50% of all net sales at Daicel, and the Group is growing into a business with a truly global network. As for our over 10,000 employees, more than half have a nationality other than Japanese, and with their varying languages, cultures, religions and values, the Group has achieved a great amount of diversity.

For the system to govern this diverse organization, our Board of Directors boasts external directors of various backgrounds and positions who leverage their different areas of specialty, insights and experiences to actively support Daicel's operations.

As we expand our strength of diversity, we will keep striving to steadily grow in this ever evolving global society by sharing across the Group our values, namely that safety, quality and compliance comprise the most important foundation, and reflect these values in each of our specific actions.

We kindly request your continued support and confidence in our corporate activities.

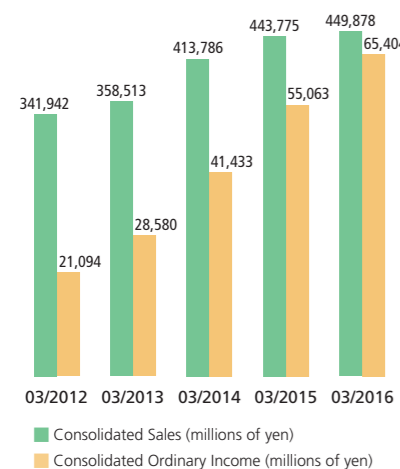
# Overview of the Daicel Group

The Daicel Group includes Daicel Corporation and 76 Group companies (including unconsolidated subsidiary companies). The Company's primary business is the manufacture and sales of cellulosic derivatives, organic chemicals, plastics, pyrotechnic devices and other products. The business segments of Daicel Corporation, its subsidiaries and affiliated companies are shown below.

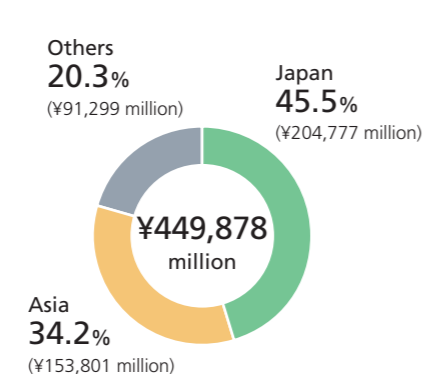
	Principal Products	Principal Group Companies	Number of Employees by Segment
<b>Cellulosic Derivatives</b>	<ul style="list-style-type: none"> <li>Cellulose acetate</li> <li>Acetate tow for cigarette filters</li> <li>CMC (Carboxy methyl cellulose)</li> </ul>	<b>Domestic:</b> Daicel Corporation, Daicel FineChem Ltd. <b>Overseas:</b> Xi'an Huida Chemical Industries Co., Ltd., Ningbo Da-An Chemical Industries Co., Ltd.	 3.0% (318)
<b>Organic Chemicals</b>	<ul style="list-style-type: none"> <li>Acetic acid and its derivatives</li> <li>Caprolactone derivatives</li> <li>Epoxy compounds</li> <li>Photoresist materials for semiconductors</li> <li>Chiral columns</li> </ul>	<b>Domestic:</b> Daicel Corporation, Kyodo Sakusan Co., Ltd., Dainichi Chemical Corp. <b>Overseas:</b> Daicel Nanning Food Ingredients Co., Ltd., Chiral Technologies Europe S.A.S., Chiral Technologies, Inc., Daicel Chiral Technologies (China) Co., Ltd., Daicel Chiral Technologies (India) Pvt. Ltd.	 9.7% (1,036)
<b>Plastics</b>	<ul style="list-style-type: none"> <li>POM (Polyacetal)</li> <li>PBT (Polybutylene terephthalate)</li> <li>ABS</li> <li>Engineering plastic alloys</li> <li>Plastic molded products</li> </ul>	<b>Domestic:</b> Polyplastics Co., Ltd., Daicel Polymer Ltd., Daicel Value Coating Ltd., Daicel Pack Systems Ltd., DM Novafoam Ltd., Daicel-Evonik Ltd. <b>Overseas:</b> Topas Advanced Polymers GmbH, Shanghai Daicel Polymers, Ltd.	 23.1% (2,477)
<b>Pyrotechnic Devices</b>	<ul style="list-style-type: none"> <li>Automobile airbag inflators</li> <li>Emergency-escape systems for aircraft crew</li> <li>Gunpowder</li> </ul>	<b>Domestic:</b> Daicel Corporation, Daicel Safety Systems Inc., Daicel Pyrotechnics Ltd. <b>Overseas:</b> Daicel Safety Systems America, LLC, Daicel Safety Systems (Jiangsu) Co., Ltd., Special Devices, Inc., Daicel Safety Systems (Thailand) Co., Ltd., Daicel Safety Systems Europe Sp. z o. o., Daicel Safety Systems Korea, Inc., Daicel Safety Systems America Arizona, Inc.	 49.2% (5,272)
<b>Others</b>	<ul style="list-style-type: none"> <li>Membrane separation modules for water treatment</li> <li>Transportation &amp; storage services</li> </ul>	<b>Domestic:</b> Daicel Membrane-Systems Ltd., Daicel FineChem Ltd., Daicel Logistics Service Co., Ltd., Daicel Aboshi Sangyo Co., Ltd. <b>Overseas:</b> Daicel (China) Investment Co., Ltd.	 3.5% (372)

\*Altogether there are 10,709 employees. In addition to the number of employees designated by segment in the above pie graphs, there are 1,234 (11.5%) corporate staff common to all segments.

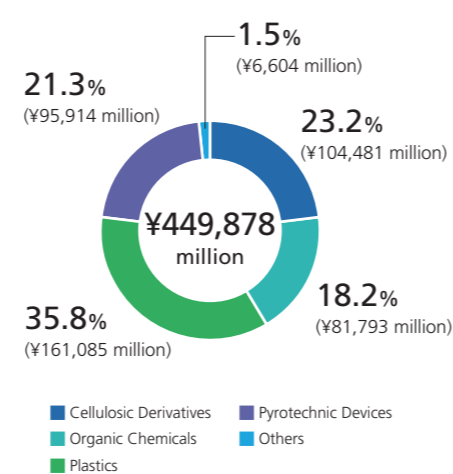
## Sales and Ordinary Income\*



## Sales by Region\*



## Sales by Segment\*



\*Graphs are presented on a consolidated basis for the year ended March 31, 2016.

# Fiscal 2015 Highlights

April 2015

## 14th Daicel Group Responsible Care Promotion Conference Held

The 14th Daicel Group Responsible Care Promotion Conference was held at the Company's Aboshi Plant. Responsible Care refers to activities to proactively ensure safety, health and environmental preservation as a chemical company. This conference is held each year to raise awareness of Responsible Care initiatives—one main component of the Daicel Group's CSR activities. In the fiscal year under review, the keynote speech was presented by the external corporate auditor and lawyer Toshio Takano, who spoke about how to prevent accidents at plants.



## Daicel Group 5th KAIZEN Case Study Meeting Held

The 5th KAIZEN Case Study Meeting was held at the Arai Plant under the concept of be aware, think and act. Eight presentations were given by eight divisions selected from case studies of improved operations from 109 divisions chosen by eight sites in Japan. The eight teams engaged in an exchange of opinions with top management through the question-and-answer sessions. This meeting was an opportunity to ensure KAIZEN activities are conducted in a vigorous manner across the entire Group.



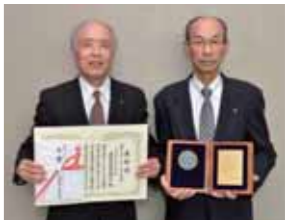
## Production of Cellulose Acetate for Cigarette Filters Commenced at the Ohtake Plant

We began production of cellulose acetate for cigarette filters at the Ohtake Plant. Daicel produces cellulose acetate at two locations: the Aboshi Plant and the Ohtake Plant. The Ohtake Plant has produced only triacetyl cellulose (TAC) for use as protective films for LCDs, but considering the recent supply-demand balance for LCDs and cigarettes, we modified part of the Ohtake Plant's production line and began production of cellulose acetate for cigarette filters. With this modification, we were able to restrain raw material and transportation costs from the Aboshi Plant, which had been supplying the Ohtake Plant for its production of acetate tow for cigarette filters, and ensure a stable supply by having multiple locations engaged in production.

## Received JCIA's 9th RC Grand Prix Award

Daicel's Operation Training Center has received the Responsible Care (RC) Grand Prix Award from the Japan Chemical Industry Association (JCIA). With the aim of further developing and expanding Responsible Care, the JCIA presents the awards to recognize businesses, divisions or individuals for outstanding achievement or contribution to RC activities, with the Grand Prix Award being the highest honor.

We established the Operation Training Center in 2002 and began personnel training in line with the Company's unique manufacturing activities, called Daicel Production Innovation. We have promoted the transfer of techniques and skills across generations while developing a wide range of curricula. Going forward, we will continue to contribute to society and remain committed to high-quality manufacturing activities that ensure safety, health and environmental preservation through the transfer of solid techniques and skills while staying true to our foundations.



May 2015

## Osaka Head Office Relocation

Daicel moved its Osaka Head Office to Tower B of the Tower Front Osaka commercial complex in Kita-ku, Osaka. This site is a more convenient location for our business partners and offers an improved office environment. Therefore, we are promoting a transformation of work styles through greater improvements in internal communication and higher business productivity.

July 2015

February 2016

## Began Labeled Sample Business in India

To meet analysis needs for generic pharmaceuticals and other products in India, Daicel launched a new business to synthesize and sell labeled samples. In addition, in February 2016, we established a new laboratory for these samples in India. Our chiral businesses have bases in Japan, the United States, France, China and India. We not only sell columns for use in analysis, we have expanded our business to include services for isolating chemical compounds and developing methods to analyze pharmaceuticals. With our current venture into the business of labeled samples, which are used in analyses needed to prove that the active ingredients of generic pharmaceuticals are biologically equivalent to existing drugs, we will contribute to pharmaceutical development not just in India but also to the strength of pharmaceutical companies all around the world.



March 2016

## Began Operation of Second Production Base for Automobile Airbag Inflators in the Americas

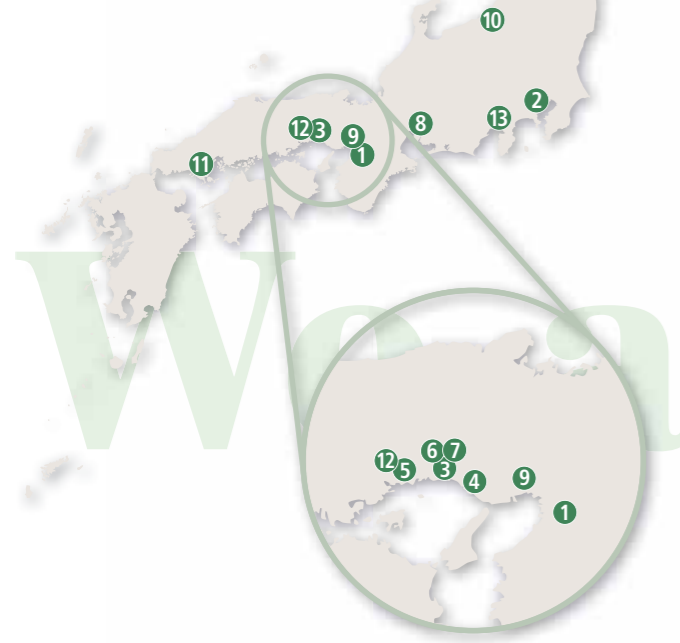
Daicel Safety Systems America Arizona Inc. (DSSA AZ) completed construction of the second inflator production base in the Americas and commenced operations. The Company had been promoting the establishment of this facility in the U.S. state of Arizona as part of efforts to strengthen the automobile airbag inflator business. Located near the Group company Special Devices Inc. (SDI), which manufactures ignition components for inflators, DSSA AZ is utilizing the human resources and knowledge of SDI's management and tapping into synergies with their production technology. With the launch of DSSA AZ, we will expand sales in response to growing demand for airbag inflators in American markets, namely North America, the world's largest market, and the rapidly growing Central and South American markets.



Principal Domestic Locations



1 Osaka Head Office 2 Tokyo Head Office



- 1 **Osaka Head Office:** GRAND FRONT OSAKA Tower B, 3-1 Ofuka-cho, Kita-ku, Osaka 530-0011
- 2 **Tokyo Head Office:** JR Shinagawa East Bldg., 2-18-1, Konan, Minato-ku, Tokyo 108-8230
- 3 **Himeji Production Sector/Aboshi Plant:** 1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1281  
Principal products: Acetic acid, Cellulose acetate, Acetate tow, CMC, HEC
- 4 **Himeji Production Sector/Hirohata Plant:** 12, Fuji-cho, Hirohata-ku, Himeji-shi, Hyogo 671-1123  
Principal products: PS sheet, AS resins, ABS resins
- 5 **Harima Plant:** 805, Umaba, Ibogawa-cho, Tatsuno-shi, Hyogo 671-1681  
Principal products: Automobile airbag inflators, Pilot emergency-escape systems, Rocket propellants, Gunpowder
- 6 **Central Research Center:** 1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1283
- 7 **Himeji Technology Head Office:** 1239, Shinzaike, Aboshi-ku, Himeji-shi, Hyogo 671-1281
- 8 **Nagoya Sales Office:** Meiffice-Meieki Bldg., 26-25, Meieki 4-chome, Nakamura-ku, Nagoya-shi, Aichi 450-0002
- 9 **Kanzaki Plant:** 12-1, Kanzaki-cho, Amagasaki-shi, Hyogo 661-0964  
Principal products: Packaging films, Adhesive films
- 10 **Arai Plant:** 1-1, Shinko-cho, Myoko-shi, Niigata 944-8550  
Principal products: Ketene derivatives, Active ingredients and Intermediates for pharmaceuticals and agrochemicals, Chiral columns, Synthetic resin emulsions
- 11 **Ohtake Plant:** 1-4, Higashisakae 2-chome, Otake-shi, Hiroshima 739-0695  
Principal products: Ethyl acetate, Butyl acetate, 1,3-butylene glycol, Caprolactone, Cellulose acetate, Acetate tow
- 12 **H.R. Training Center:** 14-1, Kouto 3-chome, Kamigori-cho, Akou-gun, Hyogo 678-1205
- 13 **Polyplastics Co., Ltd./Fuji Plant:** 973, Miyajima, Fuji-shi, Shizuoka 416-8533  
Principal products: POM, PBT, LCP, PPS



3 Aboshi Plant 4 Hirohata Plant



5 Harima Plant 6 Central Research Center 9 Kanzaki Plant 10 Arai Plant 11 Ohtake Plant 13 Polyplastics Co., Ltd./Fuji Plant

- ▶ Polyplastics Co., Ltd. JR Shinagawa East Building, 2-18-1 Konan, Minato-ku, Tokyo
- ▶ WinTech Polymer Ltd. JR Shinagawa East Building, 2-18-1 Konan, Minato-ku, Tokyo
- ▶ PTM Holdings, Inc. JR Shinagawa East Building, 2-18-1 Konan, Minato-ku, Tokyo
- ▶ Polyplastics Services Co., Ltd. Located within the Fuji Plant (of subsidiary Polyplastics Co., Ltd.), 973 Miyajima, Fuji-shi, Shizuoka
- ▶ Daicel Polymer Ltd. JR Shinagawa East Building, 2-18-1 Konan, Minato-ku, Tokyo
- ▶ Daicel Value Coating Ltd. JR Shinagawa East Building, 2-18-1 Konan, Minato-ku, Tokyo
- ▶ Daicel Pack Systems, Ltd. Suda-cho MK Building, 2-8-1 Kandasuda-cho, Chiyoda-ku, Tokyo
- ▶ DM Novafoam Ltd. 361-1 Karida, Obuse-mach, Kamitakai-gun, Nagano
- ▶ Kyodo Sakusan Co., Ltd. JR Shinagawa East Building, 2-18-1 Konan, Minato-ku, Tokyo
- ▶ Daicel Arai Chemical, Ltd. 1-1 Shinko-cho, Myoko-shi, Niigata
- ▶ Dainichi Chemical Corp. 23-11 Kuidesaku, Jyobanshimofunao-machi, Iwaki-shi, Fukushima
- ▶ Daicel Safety Systems Inc. 805 Umaba, Ibogawa-cho, Tatsuno-shi, Hyogo
- ▶ Daicel Pyrotechnics Ltd. 760 Hamagawa-machi, Takasaki-shi, Gunma
- ▶ Daicel Membrane-Systems Ltd. JR Shinagawa East Building, 2-18-1 Konan, Minato-ku, Tokyo
- ▶ Daicel FineChem Ltd. Sumitomo Mitsui Banking Corporation Asakusabashi Minami Building, 2-1-1 Bakuro-cho, Nihonbashi, Chuo-ku, Tokyo
- ▶ Daicel Logistics Service Co., Ltd. GRAND FRONT OSAKA Tower B, 3-1 Ofuka-cho, Kita-ku, Osaka-shi
- ▶ Kyoei Shokusan Co., Ltd. GRAND FRONT OSAKA Tower B, 3-1 Ofuka-cho, Kita-ku, Osaka-shi
- ▶ Daicel Aboshi Sangyo Co., Ltd. 1239 Shinzaike, Aboshi-ku, Himeji-shi, Hyogo
- ▶ Daicel Ohtake Sangyo Co., Ltd. 2-1-4 Higashisakae, Otake-shi, Hiroshima
- ▶ Nagano Novafoam Sangyo Ltd. 361-1 Karida, Obuse-mach, Kamitakai-gun, Nagano
- ▶ Daicel-Evonik Ltd. Shinjuku Monolith Building, 2-3-1 Nishi-shinjuku, Shinjuku-ku, Tokyo
- ▶ Daicel-Allnex Ltd. Nihonbashi Front Building, 3-6-2 Nihonbashi, Chuo-ku, Tokyo
- ▶ Kyodo Polymer Co., Ltd. JR Shinagawa East Building, 2-18-1 Konan, Minato-ku, Tokyo
- ▶ Toyo Styrene Co., Ltd. CJ Building, 2-7-4 Nishi-Shinbashi, Minato-ku, Tokyo
- ▶ Toyama Filter Tow Co., Ltd. 3 Kaigandori, Toyama-shi, Toyama

\*The company will move to the above location in August 2016.



1 Topas Advanced Polymers GmbH 2 Daicel Safety Systems Europe Sp. z o. o. 3 Chiral Technologies Europe S.A.S. 4 Daicel Chiral Technologies (India) Private Ltd. 6 Polyplastics Asia Pacific Sdn. Bhd. 12 Ningbo Da-An Chemical Industries Co., Ltd.



13 Shanghai Daicel Polymers, Ltd. 15 Xi'an Huida Chemical Industries Co., Ltd. 16 Daicel Safety Systems America, LLC



Principal International Affiliates of the Daicel Group

- Germany**
  - 1 **Daicel (Europa) GmbH**  
Purchase and sales of products in the European market
  - Topas Advanced Polymers GmbH**  
Production and sales of cyclic olefin copolymer
  - Polyplastics Europe GmbH**  
Sales of engineering plastics
  - LCP Leuna Carboxylation Plant GmbH**  
Production and sales of hydroxybenzoic acid and potassium sulfate
- Poland**
  - 2 **Daicel Safety Systems Europe Sp. z o. o.**  
Manufacture and sales of automobile airbag inflators
- France**
  - 3 **Chiral Technologies Europe S.A.S.**  
Sales of chiral columns and technical services for chiral businesses
- India**
  - 4 **Daicel Chiral Technologies (India) Private Ltd.**  
Sales of chiral columns and technical services for chiral businesses
- Singapore**
  - 5 **Daicel (Asia) Pte. Ltd.**  
Purchase and sales of products in Asian markets
  - Polyplastics Asia Pacific Singapore Pte. Ltd.**  
Sales of engineering plastics
- Malaysia**
  - 6 **Polyplastics Asia Pacific Sdn. Bhd.**  
Manufacture and sales of engineering plastics
- Thailand**
  - 7 **Daicel Safety Systems (Thailand) Co., Ltd.**  
Manufacture and sales of automobile airbag inflators
  - Daicel Safety Technologies (Thailand) Co., Ltd.**  
Manufacture and sales of inflator initiators and micro gas generators
  - Special Devices (Thailand) Co., Ltd.**  
Manufacture and sales of inflator initiators and micro gas generators
  - Polyplastics Marketing (T) Ltd.**  
Sales of engineering plastics
  - Daicel Polymer (Thailand) Co., Ltd.**  
Sales of flame-resistant ABS, ABS alloys and other products
- South Korea**
  - 8 **Polyplastics Korea Ltd.**  
Sales of engineering plastics
  - Daicel Safety Systems Korea, Inc.**  
Manufacture and sales of automobile airbag inflators
- Taiwan**
  - 9 **Polyplastics Taiwan Co., Ltd.**  
Manufacture and sales of engineering plastics
- Hong Kong**
  - 10 **Daicel Polymer (Hong Kong) Ltd.**  
Sales of flame-resistant ABS, ABS alloys and other products
  - Polyplastics China Ltd.**  
Sales of engineering plastics
- Guangxi, China**
  - 11 **Daicel Nanning Food Ingredients Co., Ltd.**  
Manufacture and sales of sorbic acid and potassium sorbate
- Zhejiang, China**
  - 12 **Ningbo Da-An Chemical Industries Co., Ltd.**  
Manufacture and sales of cellulose acetate and acetic anhydride
- Shanghai, China**
  - 13 **Daicel (China) Investment Co., Ltd.**  
Hub of the manufacture and sales organization in China
  - Shanghai Daicel Polymers, Ltd.**  
Manufacture and sales of flame-resistant ABS, ABS alloys, etc.
  - Daicel Trading (Shanghai) Ltd.**  
Purchase and sales of products in the Chinese market
  - Polyplastics Trading (Shanghai) Ltd.**  
Sales of engineering plastics
  - Polyplastics (Shanghai) Ltd.**  
Sales of engineering plastics
  - Daicel Chiral Technologies (China) Co., Ltd.**  
Sales of chiral columns and technical services for chiral businesses
- Jiangsu Province, China**
  - 14 **Daicel Safety Systems (Jiangsu) Co., Ltd.**  
Manufacture and sales of automobile airbag inflators
  - PTM Engineering Plastics (Nantong) Co., Ltd.**  
Manufacture and sales of engineering plastics
  - Polyplastics (Nantong) Ltd.**  
Manufacture and sales of engineering plastics
- Shaanxi Province, China**
  - 15 **Xi'an Huida Chemical Industries Co., Ltd.**  
Manufacture and sales of acetate tow for cigarette filters
- Kentucky, U.S.A.**
  - 16 **Daicel Safety Systems America, LLC**  
Manufacture and sales of automobile airbag inflators
  - Daicel Safety Technologies America, Inc.**  
Production of gas generators for automobile airbag systems
  - Daicel Safety Tube Processing, Inc.**  
Manufacture of automobile airbag inflator parts
  - Topas Advanced Polymers, Inc.**  
Sales of cyclic olefin copolymer
- Pennsylvania, U.S.A.**
  - 17 **Chiral Technologies, Inc.**  
Sales of chiral columns and technical services for Chiral businesses
- New Jersey, U.S.A.**
  - 18 **Daicel (U.S.A.), Inc.**  
Purchase and sales of products in the U.S. market
- Michigan, U.S.A.**
  - 19 **Polyplastics USA, Inc.**  
Sales of engineering plastics
- Arizona, U.S.A.**
  - 20 **Special Devices, Inc.**  
Manufacture and sales of inflator initiators and micro gas generators
  - 21 **Daicel Safety Systems America Arizona, Inc.**  
Manufacture and sales of automobile airbag inflators
- Mexico**
  - 22 **Polyplastics Marketing Mexico, S.A. de C.V.**  
Sales of engineering plastic

# Chronology of the Daicel Group

The Daicel Group has its roots in Dainippon Celluloid Co., Ltd., which was established in 1919 through the merger of eight celluloid manufacturers. Today, the Group specializes in the manufacture and sales of a wide variety of chemical products.

Since our earliest days, we have engaged in photographic film business research and, when our celluloid business was at its peak, led the industry in both the quality and volume of celluloid produced. During this initial period, we also commenced the shift from cellulose nitrate to cellulose acetate as a key raw material in a bid to advance the noncombustibility properties of celluloid while

developing acetate plastics in 1929. In 1935, we took a bold step to commercialize cellulose acetate. This entailed the production of acetic acid (a raw material of cellulose acetate) in-house from carbide. Around the same time, the handling of acetic acid derivatives products led to our entering the organic chemicals field.

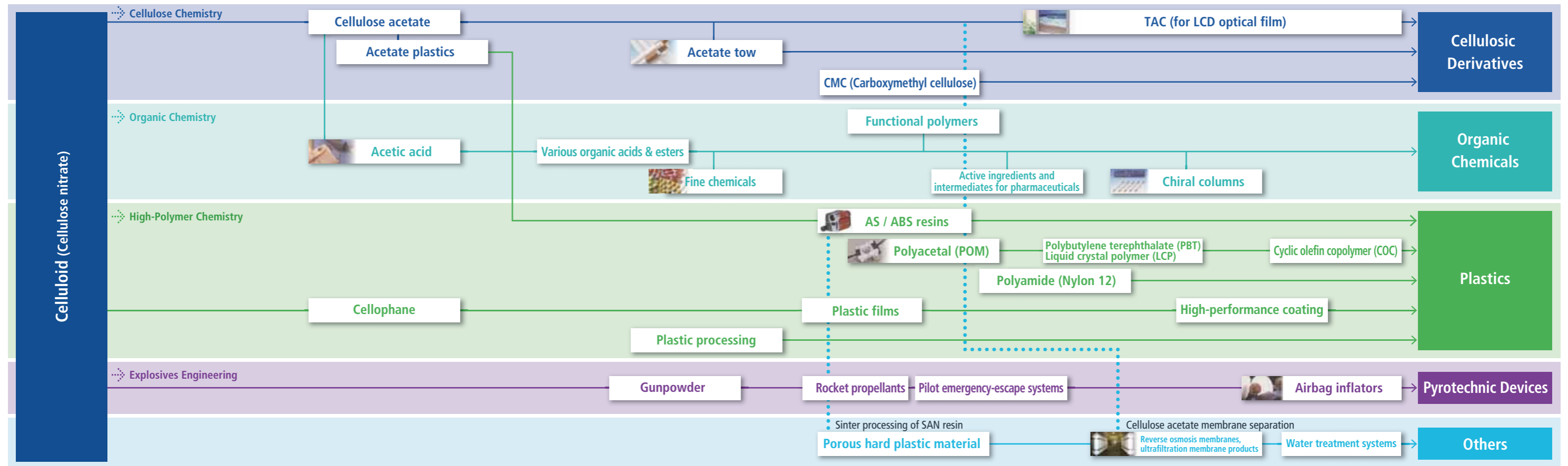
In addition to expanding the organic chemicals business in the 1960s, the emergence of the petrochemical boom triggered our participation in a petrochemical complex project. In 1964, we established Polyplastics Co., Ltd. through a joint venture and, launched an engineering plastics business. Meanwhile, ascertaining

the fact that celluloid serves as a raw material for gunpowder, we entered the pyrotechnic devices business, providing gunpowder and other products. This segment eventually bore fruit with the development of automobile airbag inflators.

With the onset of the first oil crisis, we strove to promote decreased dependence on petroleum-based raw materials through such means as using methanol produced from natural gas in the manufacture of acetic acid. In recent years, with an eye on the establishment of a sustainable chemical industry, we are increasing the use of bioethanol. In line with such environmental efforts, an

ethylamine plant and an ethyl acetate plant began commercial production in 2007 and 2009, respectively.

At present, the Daicel Group's four flagship businesses encompass cellulosic derivatives, organic chemicals, plastics, and pyrotechnic devices. Through these businesses, the Company has attained high global market shares for such products as triacetyl cellulose (TAC) for use as a raw material of films for liquid crystal displays, chiral columns, polyacetal (POM) and automobile airbag inflators. Through the provision of these and many other products, we are contributing to the development of society.



**1908**  
**1908:** History before Establishment of the Company: Sakai Celluloid Company and Japan Celluloid Jinzo Kenshi Co., Ltd. are established.



**1919:** The Company is established. Dainippon Celluloid Company Limited is established through the merger of eight celluloid manufacturers with plants located in Sakai, Kanzaki, Aboshi and Tokyo. The London Olympics are held. / The end of the First World War leads to a postwar recession

**1920s**  
 Following on from celluloid business activities, commenced research into the photographic film business.



The Great Kanto Earthquake strikes (1923) / The crash of the New York Stock Exchange triggers a global depression (1929)

**1930s**  
 Building on research undertaken soon after its establishment, the Company commercializes photographic film. With expectations of a significant leap forward under a structure that is separate from celluloid operations, Fuji Photo Film Co., Ltd. (currently FUJIFILM Corporation) is established and spun off as a photographic film business.



World War II breaks out (1939)

**1940s**  
 Every plant focuses on production of materials for the war effort, and some plants are damaged. After the war, plants that remain free from damage return to production of civilian goods. The company overcomes a crisis involving designated compensation payments and a call for the breakup of the company.



World War II ends (1945)

**1950s**  
 The business of acetate tow for cigarette filters begins full-scale production. Cellulose acetate replaces cellulose nitrate as the base for photographic film, which renders film incombustible. Synthetic polymer type plastics are introduced, and demand for celluloid declines.



Japan signs a peace treaty and regains its independence (1951) / TV broadcasting begins (1953) / Japan's first petrochemical complex opens in Iwakuni (1958)

**1960s**  
 With the rise of the petrochemical industry, Daicel becomes a member of the Iwakuni-Ohtake petrochemical complex and enters the petrochemical business. The polymer business is expanded through the establishment of Polyplastics Co., Ltd.



The Japanese economy enters a period of rapid growth / The Tokaido Bullet Train line opens (1964) / The Tokyo Olympics are held (1964) / The first manned moon landing takes place (1969)

**1970s**  
 Excessive competition emerges in the petrochemical industry, resulting in low revenues, and 20% of employees accept an offer of voluntary retirement. The oil crisis dampens economic growth and the cellophane business undergoes reorganization. Expo 70 is held in Japan (1970) / Okinawa is returned to Japanese control (1972) / The first oil crisis occurs (1973).



**1980s**  
 New acetic acid plant which introduced the methanol carbonylation process was launched. It reduced dependence on petroleum. A foundation for the production of



functional chemicals and fine chemicals is created. The Company enters the automobile airbag inflator business in earnest. The Equal Employment Opportunity Law is enacted (1986) / The Japanese economy enters the "bubble" phase

**1990s**  
 The Responsible Care Initiative is introduced. The Company enters the chiral chromatography business in earnest. The development of functional chemicals and fine chemicals is promoted. Domestic production of acetate tow for cigarette filters is increased and offshore production in China is begun. End of the Cold War / The Great Hanshin Earthquake strikes (1995)



**2000s**  
 The Integrated Production Center is completed in the Aboshi Plant. The automobile airbag inflator business is launched internationally, starting in the U.S.A. Cellulose acetate production is begun in



China. In Japan, manufacturing facilities for cigarette filter tow and cellulose acetate are installed at the Ohtake Plant. Terrorist attack on the U.S. on September 11 (2001) / Japan and Korea jointly host the World Cup of Soccer (2002) / Collapse of Lehman Brothers, the fourth largest securities firm in the U.S. (2008)


**2010s**  
 The Company's name is changed to Daicel Corporation. Steps are taken to acquire an initiator manufacturing and sales company in the U.S. An acetate tow business joint venture is established with Mitsubishi Rayon Co., Ltd. Great East Japan Earthquake (2011)

# Major Applications of Daicel Group Products

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


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

**1 LCDs**



- TAC (cellulose acetate for LCD optical films)

**2 Electrical equipment, office equipment and telecommunication devices**



- ABS and polyamide resins


**3 Packaging and films for snacks and pocket warmers**



- Barrier films for packaging use



**4 Pharmaceuticals/ Pharmaceutical excipients**



- Ketene derivatives, monochloroacetic acid and amines
- CMC
- Excipients for orally disintegrating tablets


**5 Pharmaceutical development**



- Chiral columns



**6 Food trays**



- Polystyrene sheets and finished goods

**8 Household articles**




- Improved sink-corner strainer

**7 Agricultural materials**



- Foamed polyethylene fruit cap

**9 Housing materials**




- Flame-resistant ABS resin

**11 Lithium-ion batteries**




- CMC

**12 Automotive paints**




- Caprolactone and epoxy resins

**13 LED lighting**




- LED encapsulants

**14 Auto parts**

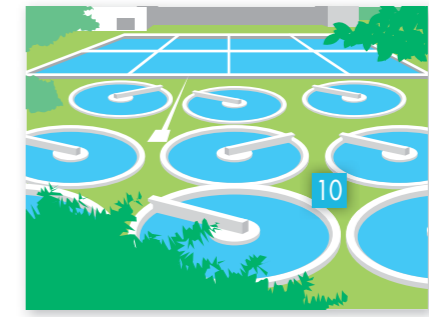


- POM, PBT, PPS, and ABS

**15 Airbag systems**



- Inflators




**10 Water filtration and wastewater treatment**



- Reverse osmosis membranes and ultrafiltration membranes




**16 Cigarette filters**




- Acetate tow, Cellulose acetate

**17 Eyeglass frames**



- Celluloid
- Acetate resin

**18 Polyester fibers**




- Acetic acid

**21 Office equipment and electronic components**



- POM, PBT, LCP and PPS

**20 Printed circuit boards**



- Epoxy compounds

**19 Cosmetics, shampoos and conditioners**



- 1,3-Butylene glycol
- HEC, CELISH



# Creation of Native Forests for Life

## 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-

thing, we will be the best partner of our customers and local communities.

The Daicel Group will celebrate its centennial in 2019. Daicel will remain dedicated to “*Monozukuri*” and continue providing solutions that help people live better lives and enrich society. To cultivate the people needed to accomplish this and to ensure the Company and its plants remain in harmony with society, we decided to undertake the creation of native forests for life as part of our commemorative centennial project.

## Harima Plant Kicks Things off with Tree Planting Festival

After consideration by the preparation committee, in March 2016 we launched the Creation of Native Forests for Life Committee with the president as the chair. On April 9, 2016, we held a tree-planting festival at the Harima Plant to kick off the Daicel Group's creation of forests for life. Around 550 people participated in the festival, from employees of the Harima Plant and other workplaces to their family members and people in the surrounding communities. They planted 2,000 saplings comprising 36 evergreen species, mainly broad leaf species.

Going forward, we will remain involved in the creation of native forests for life at each of the Daicel Group's locations, working with employees and their families, as well as our partner companies and the local communities.



## VOICE

### A Member of the Harima Plant Forest Creation Committee Talks about the Harima Plant's Tree Planting Festival.



**Kenji Umezono**  
General Affairs Manager at the Harima Plant  
Member of the Harima Plant  
Forest Creation Committee

#### Hearing Dr. Miyawaki's Lecture on the Creation of Native Forests for Life

In December 2014, through an introduction from a major business partner, I had the opportunity to hear Dr. Miyawaki's lecture. I went without first really understanding the point of the topic on the creation of native forests for life, but the professor's earnest manner of speaking drew me into the unified ideas concerning life and the environment, and I became increasingly intrigued by the depth of the concepts.

Even still, many employees were doubtful about the project, wondering why we needed to plant more trees at the Harima Plant, which is already surrounded by mountain forests. But the day after the lecture, my eyes were opened thanks to the guidance of the visiting Dr. Miyawaki. I realized that these were not genuine forests. Most of them were manmade. The only forest comprising native Japanese tree species was the area surrounding the Shinto Shrine on the grounds dedicated to the god Inari. Now that it had been pointed out to me, I remembered how difficult it is to clean up all the acorns that fall there. I truly felt that this is actually a forest protected by the local gods. Then in March 2015, we implemented a tree planting test run at the Harima Plant ahead of the rest of the Company. There was some confusion as this was our first attempt, but we created mounds and carried out other preparatory work, eventually planting about 200 saplings.

#### Preparing for the Tree Planting Festival

To prepare for the tree-planting festival at the Harima Plant, we established a subcommittee, holding the kickoff meeting on

March 1, 2016. The general plant manager Mr. Kawaguchi firmly stated this festival should be true to the character of the Harima Plant. Considering this, we strove to ensure the event enabled all attendees to truly feel the wondrousness of planting trees.

Therefore, to make it easier for people outside the Company to participate, we decided to hold the festival in the area around the parking lot instead of on the grounds of the plant. We created mounds totaling about 170 meters in length. If there is a major rainstorm near the plant, this forest will help prevent the surrounding villages from damage.

#### Attending the Harima Plant Tree Planting Festival

On April 9, 2016, the day of the festival, it seemed as if everyone's wish had come true: the sky was perfectly clear from the morning and, as if to complement this with some flowers, the cherry blossoms around the plant were in full bloom. Many guests arrived as soon as we opened the reception. We shortly started activities for the creation of native forests for life. After the president, Mr. Fudaba, gave the opening speech, we introduced the different species of saplings available and, using a presentation board, explained to the children in a loud, clear voice how to plant trees. Around 550 people participated in total and planted 2,000 saplings of 36 species. Thanks to everyone's cooperation, the tree planting festival was a great success.

#### Looking toward the Future

The creation of native forests for life has only just begun. While the excitement of the tree-planting festival was still fresh, some of the members of one division of the Harima Plant came together at the end of April and held a mini tree-planting festival. The members of the division collected acorns from the Inari Shrine I mentioned before and grew them into saplings. Nurturing them with various techniques, these saplings have been able to finally grow small buds. Someday I dream of planting a sapling I grow from an acorn, and I'm getting ready for the next chance.

# CSR Initiatives at Overseas Group Companies



Daicel Safety Systems Europe (DSSE) was established in 2004 in the city of Żarów in the western region of Poland as a European manufacturing base for airbag inflators. Their key phrase is, “We save lives.”

DSSE’s CSR activities can be divided into three main categories: training and education mainly for employees; promoting self-awareness and growth as working members of society through volunteer activities; and communication with local communities, especially cooperating with local schools and universities to strengthen our corporate brand reputation through vocational training for students.

## 1. Employee Education and Training

### a) Education for all employees

Once a month we conduct educational activities, mainly through lectures, on a variety of topics for all employees. The purpose of these activities is to confirm basic internal rules and provide explanations from the Company. Some examples from fiscal 2015 include confirmation of the Help Line (internal reporting system), rules governing business operations, and improvement activities; responding to comments from the suggestion box; and providing education on ethical conduct.

### b) Individualized education and training

We also provide education and training for select individuals according to their aims and needs, mainly in the form of small group discussions. We provide training on internal rules, laws and regulations, and skills. In fiscal 2015, we provided training on knowledge management (transferring skills and knowhow), prevention of bullying and harassment, as well as training on information system security policy.



A class available to all employees



A small group engaged in training

## 2. Employee Voluntary Programs

A distinguishing feature of DSSE’s CSR activities is that they provide assistance in terms of both funding and time for voluntary activities and encourage participation. Every year about 10 people participate in these programs.

Employees propose the activities they wish to implement to the company and, if they receive approval, can be compensated for the cost of the activities and can use some of their working hours for the activities. Through these activities, employees can learn positive attitude in society and the workplace while refining their sensibilities in regard to social problems and gaining awareness of their place in society. Not only do more people become familiar with the name of the company, DSSE, we strengthen our reputation with local communities. To date, employees have conducted a wide range of activities, from raising awareness about traffic safety with pre-school children, providing guidance and support for children’s sports activities, and holding healthy cooking classes

for children using everyday ingredients while teaching them about the importance of breakfast.



Children who participated in the cooking class

## 3. DSSE’s Branding Activities

DSSE collaborates with local high schools and universities to provide vocational training and experience, while providing opportunities for students to better understand DSSE’s businesses, corporate philosophy, culture, social contributions and other pertinent information. As a specific example, we go to high schools and universities to teach students about “Kaizen” operations. We hold classes about promoting operational improvements where we introduce production management methods based on Toyota’s “Kaizen” philosophy. We also hold “Kaizen” Contests where high school students compete in making improvements in their daily activities.

In addition, we hold plant tours for students, but these are not just any tour; to enable students to think about their own

future careers, we really show them behind the scenes so they can see various real-life workplaces as well as people hard at work. At the same time, we introduce our corporate organization, culture and systems so that students understand that DSSE is an attractive place to work. Furthermore, we have an ambassador program in cooperation with universities. We appoint active students as ambassadors to introduce DSSE’s attractive points. We also have a movie-making program in cooperation with high schools. Movies are made from the perspectives of high school students to introduce the collaborative activities between DSSE and high schools.

DSSE is also engaged in a variety of other social contribution activities. For example, we participate as a partner in the regional safety and environmental protection competition held by cities. We are also a major sponsor of a national origami contest, which aims to increase understanding and acceptance of Japanese culture.



A class of “Kaizen”

### VOICE

#### Participating in the Voluntary Program

I was the first employee to participate in the voluntary program. When I heard about the program, I was delighted that the Company was giving its employees this kind of opportunity. I think the key aspects of this program are that the company is supporting and promoting it and, secondly, that it is contributing to local communities.

My ideas are mainly related to local school pupils. Previously, I co-organized parent-child picnics to better understand the local community, and in 2015 I taught students about water source of life. I felt great satisfaction in these activities and encouraged my coworkers to also participate. I first participated three years ago, and now there are more and more employees participating in the program.



**Beata Goldian**  
Production Department

## 4. Evaluation from Society

In 2015, DSSE received four awards that provide proof of the value society places on the activities DSSE continuously conducts, as well as the equal opportunity system DSSE has established whereby men and women can all work fairly.

1. We received the Muflon award, which praised our activities in the field of CSR. This award is organized by Lower Silesia Newspapers in association with cities in Lower Silesia Province and also supported by economic institutions, and decided by vote. It is given to companies that serve as a model for consistently good business performance. DSSE became the first recipient of the award under the CSR category.
2. We received an award from Poland's Ministry of Economy in recognition of various accomplishments, including vocational education, effective collaboration with high schools, and support for schools and students.
3. We received an award from the NGO Women's Faces under the category of "Woman-friendly companies" that care about women, being commended as a non-discriminatory company where women are an active part of the workforce.
4. We received an award from the city of Żarów for our contributions to community activities, cultural activities and sports activities

Though grateful for this recognition, DSSE is not content. Going forward, we aim to not only conduct business operations safely and in compliance with laws and regulations but to also expand our CSR activities to respond to the requests of society, including environmental protection, education for students and children, and cultural contributions.



Receiving the Muflon Award

**VOICE**

**Dominika Ciara**  
General Affairs Manager  
Human Resources

### On Receiving Awards

I was very pleased that we received these national CSR awards. However, these awards praised DSSE's ethical actions and its building platforms to learn, share and promote ideas between employees, local communities, NPOs and other companies. This falls short of recognizing DSSE as a truly responsible and sustainable company.

For CSR, I believe it is important for employees, relevant organizations and many other people to work together and actively come up with ideas and carry them out.



Receiving an award from Poland's Ministry of Economy

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

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

### Daicel Corporation

#### Cellulose Acetate, an Eco-Friendly Plastic Material

Our biomass plastics are made using starch, wood cellulose and other naturally-derived ingredients, while biodegradable plastics are designed to be decomposed by microorganisms into water and CO<sub>2</sub> over time. These materials are collectively referred to as "bioplastics" and attracting growing interests for their eco-friendliness.

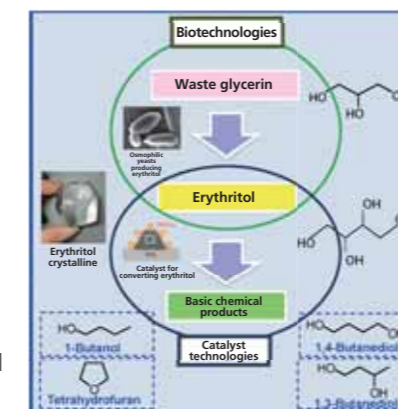
Cellulose acetate is our key product and has long been known for its superior characteristics as a bioplastic material, with its applications ranging from clothing fiber and optical films to such molded products as cigarette filters. Plastics and fibers made using this material are proven to be biodegradable.

Moreover, our cellulose acetate is made of wood pulps procured from forests where a well-organized tree planting policy is in place to secure sustainability. In doing so, Daicel is striving to reduce CO<sub>2</sub> emissions even from this early stage of raw material procurement.

Looking ahead, Daicel will expand the application of cellulose acetate and harness its eco-friendliness, thereby helping preserve the global environment.

#### Basic chemicals prepared by bio and catalytic technology

In fiscal 2015, Daicel's R&D project to produce chemicals from biomass materials was selected as the theme for a CO<sub>2</sub> emission reduction initiative under the auspices of the Japan Science and Technology Agency (JST). In this production process, we apply our biotechnologies to convert glycerin into erythritol, an intermediate with versatile applications. From this intermediate we produce such industrial materials as mono alcohol, diol and tetrahydrofuran by employing catalyst reactions. Going forward, we will endeavor to establish an integrated mass-production method suitable for products ranging from biomass materials to industrial materials.



An integrated industrial process encompassing biomass to chemical products

### Daicel Polymer Ltd. and Daicel FineChem Ltd.

#### CELBLEN EC: Biomass Plastic Made of Wood

Daicel Polymer Ltd. markets CELBLEN EC, a non-edible biomass plastic made using cellulose acetate.

Although cellulose acetate needs to be mixed with a plasticizing agent to supplement its innately poor thermoplasticity, some plasticizing agents have fallen under international restrictions due to concerns over their safety. However, CELBLEN EC is made using only ingredients that were proven safe, ensuring

that customers can use it without any anxieties about product safety.

Efforts are under way to develop markets and technologies for this product in tandem with Daicel FineChem Ltd., a Group company. We created some sample products for Daicel FineChem's lineups, including eyeglass frames and bootstrap films. Going forward, we will apply this product in the automotive field by leveraging its excellent appearance, anti-abrasion properties and superior oil resistance to gasoline.



An eyeglass frame molded using CELBLEN EC

### Daicel Pack Systems, Ltd.

#### "Memory Cushion" Protects Confectionaries

Daicel Pack Systems, Ltd. has developed a "memory cushion," a new paper material for use in cushioning sheets for the packaging of such high-end confectionaries as chocolate and cookies.

While conventional confectionary packaging includes leaflets describing the products and cushioning paper sheets, the "memory cushion" is suitable for leaflet materials while also boasting superior shock-absorbing property. The "memory cushion" simultaneously performs both functions and thus helps reduce paper use.

### Daicel FineChem Ltd.

#### Celmuse™ Photocatalyst Responds to Visible Light

Our titanium oxide photocatalyst boasts superior responsiveness to visible light, including sunlight as well as the relatively dim illumination commonly available from household lighting that uses fluorescent lamps or LEDs.

By controlling the crystalline structure of titanium oxide, the main ingredient of this catalyst, we have realized greater efficiency via physical separation between oxidation and reduction surfaces. Moreover, iron was added as a promoter, leading to higher responsiveness to visible light.

When exposed to illumination from indoor lighting, the titanium oxide photocatalyst efficiently decomposes formaldehyde, other volatile organic compounds (VOCs) and bacteria. Thanks to these features, this product has been garnering a solid reputation in such settings as hotels, hospitals and nursing care facilities as a solution for sick building syndrome. Recently, it was also adopted as a material for such consumer goods as mousepads to enhance their antibacterial and antivirus properties.

Furthermore, we are striving to develop applications in combination with other materials to create anti-odor materials for interior elements (such as tiles, ceiling and blinds) and air purifier filters.



An antibacterial mousepad

## Human Resource Development Initiatives

### Human Resources Policy of the Daicel Group

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

#### "People are the Foundation for Our Success"

##### The Three Core Principles of Our Human Resources Policy

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

### Personnel System to Support Human Resource Development

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

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

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



An interview

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

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

### Educational and Training System Supports Human Resource Development

As a means to promote human resource development, Daicel is strengthening group training. Various educational and training programs have been created to meet employee needs, which vary depending on status and the type of work involved, to maximize their effectiveness.

#### Training for New Employees

We provide all new employees with introductory training as well as training in manufacturing at the production frontlines. Each trainee initially acquires basic corporate knowledge while learning about the Company's policies and various systems at the HR Training Center. Following this, trainees acquire basic knowledge about the actions and behavior required in manufacturing workplaces through on-the-job training at the Operation Training Center and a production site, where they will become acclimated to the eight-hour-shift system. We are also striving to raise trainees' awareness by having them participate in social contribution activities.



On-the-job training (OJT) at the Operation Training Center



Cleanup activity (aimed at supporting the reconstruction of areas hit by the earthquake in eastern Japan)

#### Our Commitment to Technicians

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

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

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

## Globalization Initiatives

### Nurturing Globally Capable Human Resources

As we are striving to nurture human resources capable of succeeding on the global stage, we are offering a language immersion program to new recruits assigned to Daicel head offices.

At Daicel, all new university graduates undergo a three-week language training camp held in the Philippines immediately after they join the Company. As Daicel is engaged in operations in regions around the world, it recognizes employee proficiency in English as a key to successful business. In line with this recognition, this program places the trainees in an environment in which every single conversation must be made without using their mother tongue. The immersion program aims to help them appreciate the importance of communication while encouraging these recruits to pursue self-motivated studies after the completion of the program.

Launched in fiscal 2014, this program welcomed 40 trainees in the first round. They were followed by 44 second-round trainees in fiscal 2015. Efforts are under way to expand the scope of trainees to include employees other than head office staff. We also initiated another language training program in which employees are sent to the United Kingdom. Looking ahead, we will proactively implement initiatives to nurture human resources who can achieve success in international business settings.

### HR Group Meetings

The Human Resources Division at Daicel has been furthering Group globalization with a new series of HR Group Meetings. The meetings are being conducted with the participation of HR department members from worldwide MSD<sup>1</sup> affiliates from Japan, U.S.A., China, Thailand, Korea and Poland, with the aim of achieving two objectives: enhancing the HR management function at MSD affiliates by sharing their current initiatives for mutual inspiration; and formulating and implementing concrete solutions for HR issues common to each participant via the exchange of ideas between HR staff at head offices and affiliates.

Although the first and second rounds were held in Japan, for the third round we held this meeting at SDI<sup>2</sup> for the first time.

The third meeting, held in May 2015, focused on examining training systems for plant workers at SDI, where a unique corporate culture is entrenched. We also shared concrete examples of human resource development initiatives undertaken at MSD affiliates, which put the utmost emphasis on ensuring safety and quality. The meeting was a success, enabling the Group to pool the valuable expertise each participant contributed. The meeting also yielded new initiatives aimed at delivering products with even higher quality.

The fourth meeting centered on the management of plant worker motivation. To ensure an environment in which every Daicel Group employee can take pride in his or her job, each participant shared their HR initiatives, which, in turn, were used to establish standardized practices.

For the upcoming HR Group meetings, we intend to discuss personnel plans for technicians, including recruitment and skill development, with the aim of facilitating further expansion of Group operations.

1. MSD (Motor Vehicle Safety Device): Refers to the Company producing airbag inflators (gas generation devices) and related devices.
2. Special Devices, Inc.: Now serving as one of the Group's key inflator production bases in North America. SDI was acquired by Daicel Corporation and became a Group subsidiary in 2012.

### Technological Networking beyond the Boundaries of Companies

DSST<sup>3</sup> and DSTT<sup>4</sup> are both part of our Thai business network of Aerospace & Defense Systems and the Safety Systems Company. Since 2015, they have engaged in networking in tandem with other business bases belonging to the same in-house company to enhance their technological capabilities. The following comment is from a DSTT member who visited SDI for the first time.



#### Exchanging Expertise with SDI Staff

In May 2015, six of us visited SDI in the United States, with the aim of exchanging technological expertise with SDI staff.

Having observed SDI manufacturing process, some of my fellow visitors were impressed, saying "the production line was compact and working quite efficiently." Drawing on inputs gleaned from this observation, we will implement five measures to improve manufacturing process at DSTT by the end of 2016. We will leverage technological networking to strengthen the technological strength of the Daicel Group.

3. DSST: Daicel Safety Systems (Thailand) Co., Ltd.
4. DSTT: Daicel Safety Technologies (Thailand) Co., Ltd.

### Rallying Groupwide Strength to Launch DSSA AZ

In April 2015, DSSA AZ<sup>5</sup> was established as a new overseas base of the Aerospace & Defense Systems and Safety Systems Company. To accommodate growing requests for inflator production from customers around the globe, efforts are now under way to bring DSSA AZ production facilities online, with staff from SDI, DSSA<sup>6</sup> DSSA AZ and Daicel's Harima Plant together, rallying their utmost strength to accomplish this project. We introduce a comment from a local HR staff member who is closely observing their efforts.



Looking back, we have been facing numerous challenges. Nevertheless, we reached this stage with the help of our colleagues. We are very proud of being a part of the Daicel Group, a great team consisting of spirited workers. We are confident that we can overcome any challenge that comes our way as long as such wonderful people are working alongside us.

5. DSSA AZ: Daicel Safety Systems America Arizona, Inc.
6. DSSA: Daicel Safety Systems America, LLC

### Launching DSSA AZ

For the past one year, we have been striving to launch a new inflator manufacturing base for the Daicel Group. After completing construction on our plant building, we were able to make considerable progress in manufacturing lines thanks to a score of fellow Group employees who devoted themselves to this project.

Before the inception of the project, staff of DSSA AZ (Arizona) visited DSSA (Kentucky) to receive training and lectures on inflator production technologies. DSSA members, including expatriates from Japan, served as tutors. Then, DSSA AZ staff flew to Japan along with DSSA members to master the fundamentals of the inflator production lines to be installed at the Arizona site through intensive training at Daicel's Harima Plant.

In winter 2015, production equipment arrived at our new plant in Arizona. Back in Arizona, DSSA AZ members are now striving to acquire more sophisticated manufacturing techniques under the instruction of Harima Plant members. As they have been undergoing constant training and lectures for a year, we are sure that production will be initiated on schedule.

Looking back, we have been facing numerous challenges. Nevertheless, we reached this stage with the help of our colleagues. We are very proud of being a part of the Daicel Group, a great team consisting of spirited workers. We are confident that we can overcome any challenge that comes our way as long as such wonderful people are working alongside us.

## Optimal Workplace Creation (Personnel Systems, etc.)

### Approach to Diversity

#### Recruiting and Training Activities

In 2015, Daicel recruited 46 university and junior college graduates. Of this total, three newly recruited employees were women. Looking ahead, Daicel will continue to adopt a more assertive approach toward promoting diversity as a part of its recruiting activities.

In addition, the Daicel Group maintains a strict non-discrimination policy and this even extends to the recruiting activities undertaken by local subsidiaries outside Japan. Moreover, our training activities focus on developing individuals in every country throughout the world with a common Daicel spirit. Moving forward, we will reinforce endeavors aimed at promoting diversity and global management through the efforts and performance of our varied workforce.



Employees from the Group's bases around the world participating in the Global KAIZEN Contest

#### Employment of Persons with Disabilities

As a part of its social responsibility activities, Daicel works diligently to achieve the statutory employment rate for persons with disabilities. Simultaneously, 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 such persons in total workforce reached the statutory employment rate (2.0%) in March 2016. In addition, we pay utmost attention in assigning jobs according to the degree of disability, in order to help each individual achieve their best.

#### Continued Employment System

With the aim of promoting the employment of people age 60 and older, Daicel introduced a system for retired employees to continue employment in 2003. In fiscal 2015, 26 of 28 employees who reached the retirement age were employed on a continuous basis under this system. 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 knowledge and experience.

### Efforts to Promote Work-life Balance

#### Our Programs to Enable Fulfilling Personal Lives

Amid the ongoing decline in birthrates and an aging population, Daicel established the following systems to develop a working environment in which employees can work in comfort and with peace of mind.

##### Child-rearing leave

Employees can take leave to focus on child-rearing until the day before their child has reached the age of one (or up to 18 months in certain cases).

##### Extended nursing care leave

Employees can take extended nursing care leave of up to 93 days when full-time nursing care is necessary for family members.

##### Special leave due to personal accident or illness

Employees can acquire special leave of up to 20 days per year, aside from annual paid leave, in the event they have a non-work-related accident or illness and have to be absent from work for over one week.

##### Family care leave

Employees can shift special leave due to a non-work-related accident or illness 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.

##### Reduced work-hour system

Employees can decrease their work hours by up to two hours per day when they need reduced hours due to pregnancy, childbirth (within one year of delivery), child rearing (up to the 3rd grade in elementary school) or nursing care (of family members).

##### Promoting the take-up of annual paid leave

Employees are encouraged to take annual paid leave when drawing up annual plans for each workplace.

##### Region-Specific Employment

We offer region-specific employment positions for those who prefer limited work locations while encouraging them to enhance their specialist skills.

### 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. 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.

#### Information Regarding Human Resources and Labor Services

(As of March 31, 2016)

1. Number of employees				
Full-time employees	Regular employees	Male	1,681	
		Female	192	
	Manager and above	Male	747	
		Female	12	
	Subtotal		Male	2,428
			Female	204
Total			2,632	
Other	Contract employees		245	
	Temporary staff		83	
	Total		328	
2. Average age			42.0	
3. Average service years			17.4	
4. Average number of dependents			0.9	
5. Average annual salary			¥7.38 million	
6. Annual paid leave consumption rate (fiscal 2015)			62.2%	
7. Personnel turnover rate (fiscal 2015)			0.8%	
8. Recruitment (fiscal 2015)	New graduates		79	
	Mid-career		124	
9. Disabled persons employment rate (fiscal 2015)			2.05%	
10. Number of re-employed persons (fiscal 2015)			26	
11. Number of employees who used child-rearing/extended nursing care leave (fiscal 2015)	Child-rearing		6	
	Nursing care		1	
12. Number of employees who used the child-rearing/nursing care reduced work hours system (fiscal 2015)	Child-rearing		4	
	Nursing care		0	
13. Number of labor union members			1,873	
14. Ratio of labor union members to total employees			65.1%	
15. Average age of labor union members			38.7	
16. Foreign national employees			11	

The above data is for Daicel Corporation on a non-consolidated basis

## Workplace Health Promotion (Healthcare Activities)

In 2003, Daicel established Central and Local Healthcare Committees, which represent both labor and management. These committees are working to create workplaces within Daicel where individual Daicel employees can exert their individuality and capabilities and promote health throughout the Company's workplaces.

The Healthcare Committees put forward proposals relating to healthcare, take steps to carry out measures at each workplace and strive to resolve individual issues. Through a process of collaboration, the committees also work to promote physical and mental care.

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

#### Initiatives of the Healthcare Committee

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

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

##### Activities Undertaken by the Recently Established 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 worksites and to promote the sharing of information. The health nurse team meets on a regular basis to exchange information. Not only is this helping to promote mutual education and training, this interaction is a wellspring to better attend to the needs of individual employees and identify preventive measures. These meetings are also a platform from which manuals are prepared and proactive measures are taken to share examples of successful treatment and handling. For employees who relocate between sites, a full range of healthcare consultation services are provided to ensure proper individual advice.

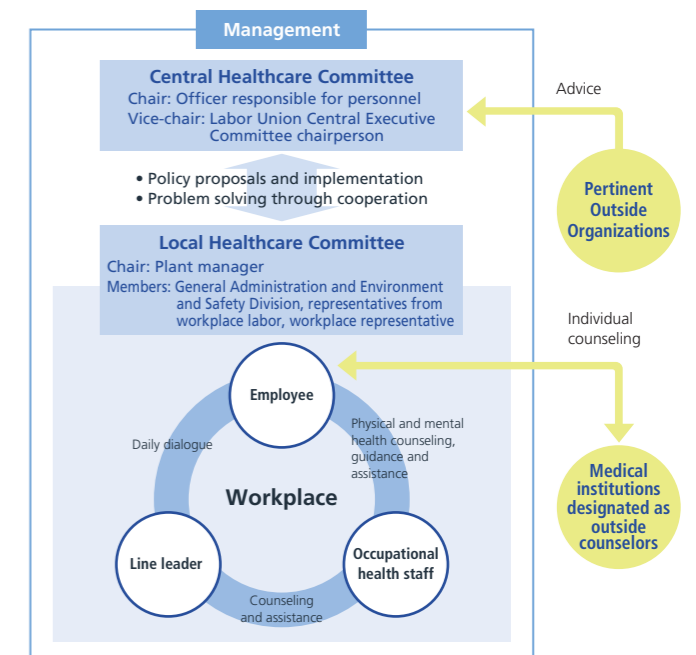
##### Utilizing Psychiatrists Employed Exclusively by Daicel

Daicel began employing its own psychiatrist in order to bolster its follow-up care system for employees who have developed mental health issues. This psychiatrist visits each workplace and arranges consultation services. In addition to supporting the implementation of workplace return programs and mental health training, steps are taken to educate health nurses and to provide information on mental health. Every psychiatrist is assigned a geographical segment for his/her oversight, thereby ensuring that employees in need can receive meticulous care.

#### Measures Aimed at Strengthening Prevention

##### Support for Improving the Workplace Environment and Daily Disease Preventive Measures

Activities undertaken on an individual workplace basis aimed at ensuring a vibrant working environment include a survey to check on workplace health. Survey results are used to support the initiatives of each business unit to improve workplace management as well as other spontaneous activities. Furthermore, we began utilizing the results of a stress check, which has become compulsory for domestic business operators since fiscal 2016. In order to prevent disease on a daily basis, steps are taken to follow up on periodic health examinations, provide health consultation services, and



implement a system of specific medical checkups as well as specific health guidance in coordination with Daicel's corporate health insurance society.

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

In fiscal 2015, Daicel began closely assessing the working status of employees posted overseas, with the aim of realizing more robust health management. Moreover, from fiscal 2014 onward health nurses have been visiting overseas bases, providing guidance, consultation services, and support to employees posted from Japan. Through specialized and professional health guidance and advice, Daicel is helping to improve the health of employees posted from Japan who play an important part in the operations of local subsidiaries.

##### Providing Healthcare Education

Daicel implements training that takes into consideration the status of each employee in an effort to deepen awareness toward the importance of mental and physical health while increasing each employee's ability to cope with stress. Through these means, every effort is being made to maintain a bright and invigorating workplace.



Health nurses give face-to-face consultation to expatriates

## Maintaining Communication with Local Communities

### Nurturing Children for the Future

The Daicel Group works diligently to show children the magic and appeal of chemistry. We make every effort to nurture children for the future.

#### Participating in the 2015 Children's Chemistry Experiment Show

As it did in the previous year, the Daicel Group participated in the Chemistry Day 2015 Children's Chemistry Experiment Show held at Kyocera Dome Osaka. The event is sponsored by the Dream and Chemistry 21 Committee, which is itself made up of four organizations including the Japan Chemical Industry Association, with the aim of letting the general public know the excitement of chemistry.

On this occasion, approximately 30 staff from the Kanzaki Plant and the Central Research Center ran the Company's experiment booth. Arranged around the creation of colorful beads, our experiment used a calcium chloride solution and alginic acid colored with fluorescent paint. Using a dropper, we added the acid into the solution while stirring, thereby creating a soft round bead of approximately three millimeters in diameter. After explaining in an easy-to-understand manner the chemical reaction involved, we had children carry out this experiment on their own. The fruits of this

experiment were presented to the children so they could enjoy their newly created ornaments. As the experiment booth was a roaring success for two days, we were able to communicate the sheer fun of chemical experiments to many children.



Daicel's experiment booth bustling with visitors

### Interaction with the Local Community

To interact with community residents, the Daicel Group hosts facility tours aimed at fostering better understanding of its operations while participating in local cleanup activities.

#### Exchange with Neighboring Community Associations

The Company's Harima Plant has implemented a variety of exchange events to revitalize local communities. Utilizing the date of a local summer festival created an opportunity to collaborate with the neighboring community association. First, 19 volunteers from the plant participated in a "mission cleanup" activity hosted by the association. From early in the morning, they worked alongside association members to collect garbage dumped on the roadside of nearby streets. They were surprised by the volume of garbage, but participants were well pleased after working up a good sweat and sweeping it all away. Second, the plant hosted a facility tour. Although the tour was originally intended only for families of employees, the plant decided to invite members of the community association, thus welcoming 22 people from the association. At night, plant employees were then invited to join the summer festival, where they received words of gratitude from their neighbors. All in all, these Harima Plant employees had a very fulfilling day.



Mission cleanup activity (Harima Plant)

Every year, the Fuji Plant of Polyplastics Co., Ltd. holds an "environmental monitor council," inviting representatives of community residents to participate in presentations and meetings on the Group's environmental activities. A plant tour, held in conjunction, showcased environmental countermeasure equipment and other plant facilities, and included discussions on environmental issues.

The status of this event is reported via the Polyplastics CSR Report.

Moreover, the plant has designated its R&D facility next to the production facility as a tsunami evacuation building. By doing so, the plant is making this building available for annual tsunami evacuation drills in which residents of neighboring communities participate. In addition, plant employees take part in cleanup activities covering public streets adjoining its premises as well as nearby embankment, seashores and windbreak forest.

The plant was selected as the winner of the RC Outstanding Award under the 10th Responsible Care Award program hosted by the Japan Chemical Industry Association (JCIA) in recognition for its longstanding contributions to neighboring communities spanning 40 years.



Left: Kunitomo Yamamoto, department manager, General Affairs Dept., Fuji Plant  
Right: Norihiko Mochizuki, manager, General Affairs Grp., General Affairs Dept., Fuji Plant

#### Hosting Plant Tours for Elementary School Students

In an effort to ensure harmonious co-existence with the local community, the Company's Kanzaki Plant is striving to facilitate communication with neighboring community associations and surrounding companies by participating in such events as exchange meetings. As part of a new initiative, in 2015 the plant took part in local exchange events by offering plant tours in response to a request from Amagasaki City. With nine students from local elementary schools attending the event, plant staff explained what roles the plant's products are playing in society. After giving presentations using such materials as samples of confectioneries wrapped with films manufactured at its production lines, plant staff then let students have a close look at the manufacturing process. This kind of event is intended to allow neighbors to feel more familiar with the plant. It creates a connection by letting them know that such everyday commodities as confectioneries are wrapped with Daicel's films, and that these films are manufactured at the nearby plant.

Looking ahead, the Company will proactively implement these and other initiatives, thereby maintaining robust communication with local societies.



A tour of manufacturing sites

### Initiatives Undertaken by Overseas Group Companies

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

#### Social Contribution Activities Undertaken by SDI

Based in Mesa, Arizona, the United States, Special Devices Inc. (SDI) is striving to promote healthy lifestyles while providing assistance to local sports teams and support groups for persons with disabilities. A number of employees are serving as volunteer coaches for local soccer and baseball teams. Moreover, SDI provides financial assistance to young people who suffer economic hardships so that they can participate in such events as camps. In 2015, SDI supported the Best Buddies program in which mentally or physically challenged youths walk hand in hand and play games with non-disabled adults. SDI gave financial aid to this program in line with its belief that it is important to let persons with disabilities know that they are not alone and that friends are always there for them. Also, SDI employees were actively participating in charity races and events that donate entry fees to charitable organizations.

Going forward, SDI and its employees are committed to fulfilling their responsibilities as good corporate citizens and good neighbors.



Participants in Best Buddies program

#### DSST and DSTT Make Donations to Local Hospitals

Daicel Safety Systems (Thailand) Co., Ltd. (DSST) and Daicel Safety Technologies (Thailand) Co., Ltd. (DSTT) are based in Prachinburi, a rural area where the development of such public infrastructure as hospitals lags behind urban areas. To address this situation, DSST and DSTT are continuously making donations to local hospitals to provide funds for purchasing medical equipment. In addition to the companies' own contributions, their employees also provide generous donations. The Daicel Group sincerely hopes that this initiative will help improve the wellbeing of residents of Prachinburi.



Donation presentation ceremony

#### Cleanup Activities Undertaken by Polyplastics Taiwan

Polyplastics Taiwan Co., Ltd. organized a one-day trip to Tapeng Bay in southern Taiwan, with the objective of undertaking the cleanup of the surrounding seashore. After the employees and their families worked together to collect garbage dumped around the seashore, they also had fun playing games and enjoying other recreation events, which, in turn, facilitated a sense of unity. Looking ahead, Polyplastics Taiwan will step up these and other activities, including social contributions in order for all employees to work as one toward a common objective.



Cleanup activities in Taiwan

## Corporate Governance Framework

Daicel is a company with a Board of Corporate Auditors. Also, by welcoming external directors and allowing them to provide opinions and advice based on their expertise, the Company is working to ensure that the decisions made by its Board of Directors are appropriate and the execution of director duties is effectively supervised. The Company has also adopted an executive officer system. The adoption of the executive officer system has enabled the Company to clearly separate its decision-making, supervisory and business execution functions. Such a clear division of roles has allowed us to bolster our business management structure and, consequently, corporate activities. In addition, Daicel has adopted an internal company system. Through this system, the Company is adhering strictly to a policy of integrated management with respect to the production, sales and R&D functions of existing businesses while improving productivity and strategic functions within its corporate divisions. In this manner, Daicel is reinforcing its product and technology development structure and systems across internal companies as well as horizontally across the Group as a whole.

Based on its corporate auditor system, the Company has established a corporate framework under which its Board of Directors makes management decisions in an efficient manner and fulfills its supervisory functions, and its Board of Corporate Auditors accomplishes its auditing functions. Such a framework has enabled us to keep reinforcing our corporate governance.

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

### Board of Directors

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

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

The term of office for Daicel's directors is one year. Such a short

term of office enables Daicel shareholders to increase their involvement in the appointment of directors. At the same time, it allows us to better clarify the management responsibilities of our directors and thereby reinforce our corporate governance.

### Board of Corporate Auditors

Daicel currently has five corporate auditors, three of whom have been externally appointed. All corporate auditors are required to attend Board of Directors' meetings. In addition, full-time corporate auditors are required to attend meetings of the Management Meeting, the Risk Management Committee and other important organizations, thereby auditing the overall management of corporate affairs.

Meanwhile, the Company's corporate auditors all together form the Board of Corporate Auditors. The Board of Corporate Auditors holds meetings to report, deliberate and make decisions on important issues relating to the Company's audits.

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

Also, as an organization to support audits by corporate auditors, the Company has established the Office of Corporate Auditors. The Office of Corporate Auditors has its own dedicated staff which is independent from the business divisions.

### Management Meeting

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

### Nomination and Compensation Committee

A Nomination and Compensation Committee has been established. This committee is chaired by an external director and is comprised of external directors as well the Company's president. In addition to taking into consideration advice from the chairperson of the

Board of Directors, the Nomination and Compensation Committee reports on the nomination of and compensation paid to directors and executive officers.

### Management Advisory Committee

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

## Internal Control Systems

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

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

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

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

Daicel's report on internal control over financial reporting for fiscal 2015 is disclosed on EDINET, a corporate disclosure system established by the FSA at the following <http://disclosure.edinet-fsa.go.jp/> (Japanese language only)

## Risk Management Initiatives

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

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

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

In fiscal 2015, Daicel implemented Group-wide risk countermeasures aimed at stepping up the prevention of insider trading

and the management of important corporate information. The Company also confirmed the current status of capabilities and steps undertaken to ensure continued operations following a major disaster, thereby preparing Daicel Business Continuity Plan (BCP) with clarified definition of issues to be addressed. Looking ahead, the Company plans to carry out annual emergency drills and address issues identified in such drills by upgrading its BCP.

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

## Communication with Shareholders and Investors

### Basic Information Disclosure Policy

Daicel encourages fair evaluation of its corporate value by fostering an accurate understanding of the Company among its stakeholders, including shareholders and investors. With the aim of building relationships of trust with all its stakeholders, Daicel has opted for a basic policy of disclosing corporate information in a timely, impartial, accurate and proactive manner on an ongoing basis.

### IR Activities

In line with the aforementioned Basic Information Disclosure Policy, Daicel adopts an aggressive approach toward its IR activities. Briefing sessions covering the Company's interim and period-end results are held by the president and senior executives for domestic institutional investors and analysts. The Company also conducts conference calls to present its results for the first and third quarters of each business period. Moreover, Daicel strives actively to promote communication and to ensure that all appropriate parties gain a deeper understanding of the Company and its activities through the use of individual interviews and small meetings. In its efforts to promote a solid understanding of every facet of the Company's operations, Daicel also conducts plant tours on its own initiative and at the request of investors.

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

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

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

### Hosting Plant Tours

On November 27, 2015, Daicel hosted a plant tour for institutional investors and analysts at its Arai Plant, with the aim of communicating accurate corporate information and ensuring that its operations are appropriately evaluated by the stock market. At the event, Daicel representatives had brisk discussions with attendees, who voiced a number of questions and opinions.

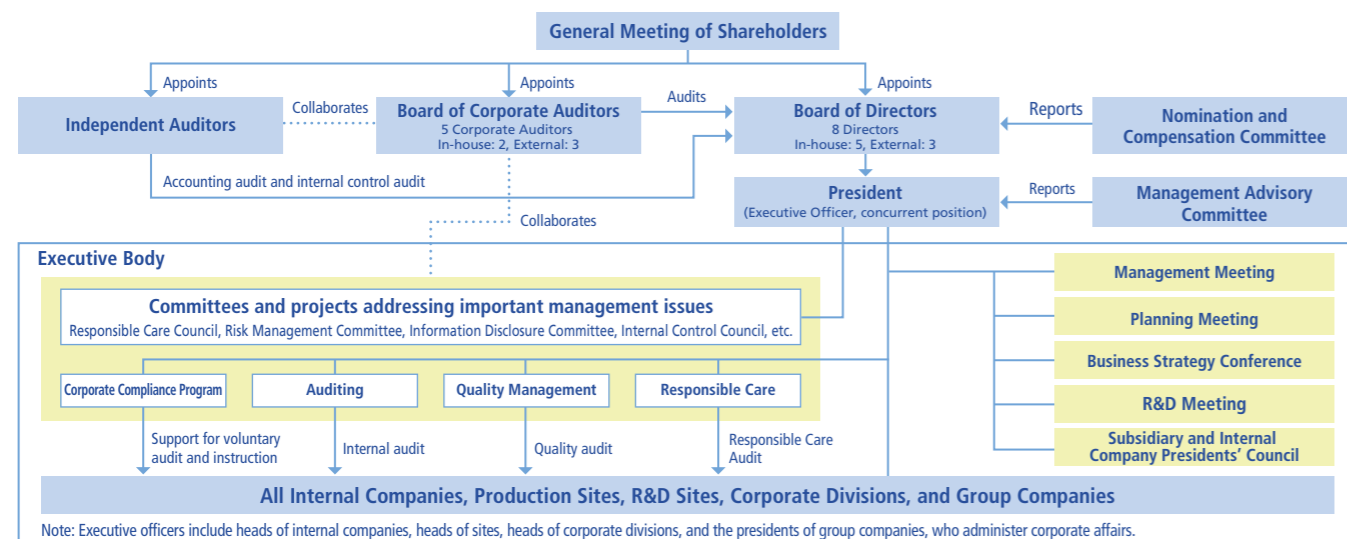
On February 22, 2016, the Company also welcomed individual shareholders to a tour held at the Himeji Production Sector/Aboshi Plant to help them understand the Daicel Group's corporate philosophy and business operations.

Going forward, Daicel will hold various events aimed at showcasing its manufacturing frontlines, where the Company's competitive strengths are clearly in evidence.



A plant tour at the Himeji Production Sector/Aboshi Plant

### Corporate Governance Framework (As of March 31, 2016)



## Corporate Ethics (Compliance) Initiatives

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

### Corporate Ethics Management System

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

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

### Promotion System

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

The Corporate Compliance Program Division provides support to the Company and each Group company. With Group-wide priority objectives for corporate compliance activities being announced at the beginning of every fiscal year, the Division confirms the status and progress of each corporate compliance activity plan and helps to resolve various issues specific to each department and workplace through a process of interactive dialogue and opinion exchange. In this manner, the Division encourages each workplace to raise employee awareness of compliance.

### Fiscal 2015 Group-wide Priority Objectives

- Ensure compliance**
  - ▶ Re-ensure laws and internal regulations
  - ▶ Sincere support of promises made to customers and business partners
  - ▶ Prevent harassment
- Promote "Vocalization" and "Openness" in workplace**
  - ▶ Listen to other's opinions and respond to them
  - ▶ Exchange greetings and pay respect to each other

Stepping up initiatives undertaken in the previous fiscal year, in fiscal 2015 Daicel added a variety of new compliance education materials to its intranet (covering all Group companies in Japan) each month. These materials included the latest news related to compliance, case studies aimed at facilitating group discussions and every-day examples of potential compliance violations depicted in four-panel cartoons as well as compliance quizzes, all of which were designed to facilitate casual compliance classes at workplaces.

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

### Examples of Committees

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

### Legal Compliance System

Daicel has established a Legal Compliance System. Under this system, corporate departments are designated as organizations in charge of ensuring compliance with laws and regulations relating to their respective operations. More specifically, designated corporate departments are tasked with obtaining information regarding related laws and regulations and providing that information to other departments that may be affected. There are 11 corporate departments, including the

Legal Group, designated as organizations responsible for compliance. These departments use the intranet to provide employees with information on revisions to laws and regulations as well as guidelines while also providing education materials.

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

### Education and Training Programs

Daicel systematically provides corporate compliance training at various levels, including new graduate recruits, position-specific corporate compliance training when an employee is promoted, directors and presidents of Group companies. In addition to reconfirming the Company's concept and definition of CSR, training at various levels provides examples of misconduct by Daicel Group as well as other companies. These examples form the basis for discussions and again highlight the importance of corporate ethics.

The Corporate Compliance Program Division conducts corporate compliance training and provides training materials for the benefit of internal departments and Group companies in Japan. Training and training materials were provided at one department at Daicel and two domestic Group companies in fiscal 2015. Also, the Company offers educational programs in such areas a legal compliance in line with its technician training programs that aim to familiarize technicians and engineers with the basic techniques required for fulfilling a manufacturer's responsibility (please refer to page 20), which is to achieve the stable supply of safe products.

Individual departments and Group companies are tasked with obtaining information regarding the laws and regulations directly related to their operations and educating their personnel. In addition, organizations responsible for compliance with laws and regulations continue to hold in-house seminars.

In fiscal 2015, Daicel and its Group companies in Japan and overseas conducted corporate compliance education aimed at ensuring all employees provide sincere support of promises made to customers and business partners and prevent workplace harassment in line with the abovementioned priority objectives.

### Whistleblowing System

With the intent of establishing a system to protect whistleblowers who act in the public interest, Daicel is taking steps to ensure that the employees of each workplace are able to issue reports and hold consultations without difficulty. However, for circumstances where corporate ethics-related issues cannot easily be resolved at the workplace through ordinary reporting to supervisors, the Company has put in place the Corporate Ethics Help Line. This Help Line is not only an in-house system. Daicel has also established an external counterpart through which employees can consult and raise issues with external parties. In this manner, the Company is endeavoring to create a system that is easy-to-use by all employees.

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

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

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

## The Responsible Care Initiative

### Responsible Care: Basic Policies and Implementation System

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

In 1995, Daicel 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 and supplemented and revised the items on the preservation of biodiversity in 2011. Daicel is deeply aware of its responsibility as a corporate citizen to protect the envi-

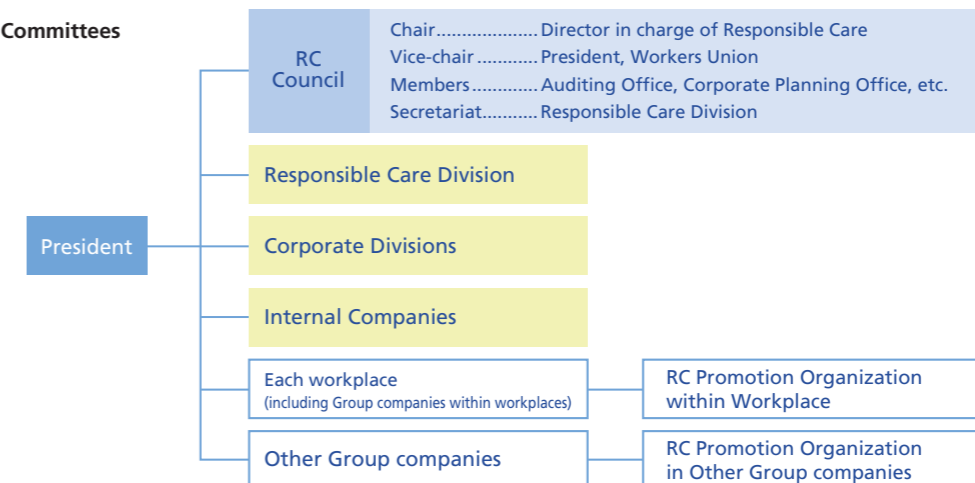
ronment and ensure the health and safety of all those involved with the Company in whatever capacity and every stage of its operations—from the design of products to their manufacture and disposal. With this in mind, the Daicel Group is promoting across-the-board RC activities.

### Basic Policies for Responsible Care

In all aspects of its business operations, Daicel is making the utmost efforts to ensure environmental preservation, process safety and disaster prevention, occupational health and safety, chemical and product safety, distribution safety and dialogue with society in accordance with the Responsible Care Standards of the Japan Chemical Industry Association (JCIA). Daicel is making steady and continuous progress in all of these areas.

1. While strictly abiding by laws and regulations currently in effect, in its business operations, Daicel will strive to uphold the principles of environmental preservation and attention to safety. All employees will be made aware of policy measures and their assistance will be secured during implementation to ensure sustained effort.
2. Daicel will conduct a thorough assessment of its new products' impact on health, safety, and the environment at every stage—development, manufacture, distribution, use, and disposal—prior to installing facilities for their production and introducing them to the market. Daicel will also strive to produce and offer products that take people's health, safety, and the environment into consideration.
3. Daicel will collect and maintain a database of information regarding environmental and safety issues that relate to its products and the substances it handles. To ensure their safe handling and use, the Company will provide all necessary information to users and distributors.
4. Daicel will promote raw material-saving and energy-saving initiatives as well as the recycling of waste products and restraints on their production to protect the environment and economize on the use of limited raw materials.
5. Daicel will seek to constantly raise safety standards to achieve a no-accident, no-disaster record at the manufacturing stage. The Company will ensure that appropriate emergency response procedures are in place, training is undertaken, and, in the event of an accident, appropriate countermeasures are taken at once.
6. Daicel will research, develop, and introduce technologies and products that are healthier, safer, and more environment-friendly than ever.
7. Daicel pledges to strictly abide by regulations in force in the relevant jurisdictions and give due attention to the environmental and safety concerns of the other parties involved when engaging in international transactions involving chemical products, conducting international business, and transferring technologies abroad.
8. Daicel will actively lead and support the environment- and safety-related activities of the Daicel Group companies with the aim of securing a better and safer environment for all.
9. Daicel will participate in and cooperate with environmental preservation activities undertaken by the communities in which it operates and seek to gain the trust and understanding of society as a whole by establishing a dialogue with it on safety and environmental matters.
10. Daicel will deepen its understanding and awareness of the importance of biodiversity conservation and promote biodiversity-friendly activities so that generations to come will be able to receive the benefits of biodiversity.

### Examples of Committees





### Environmental Preservation

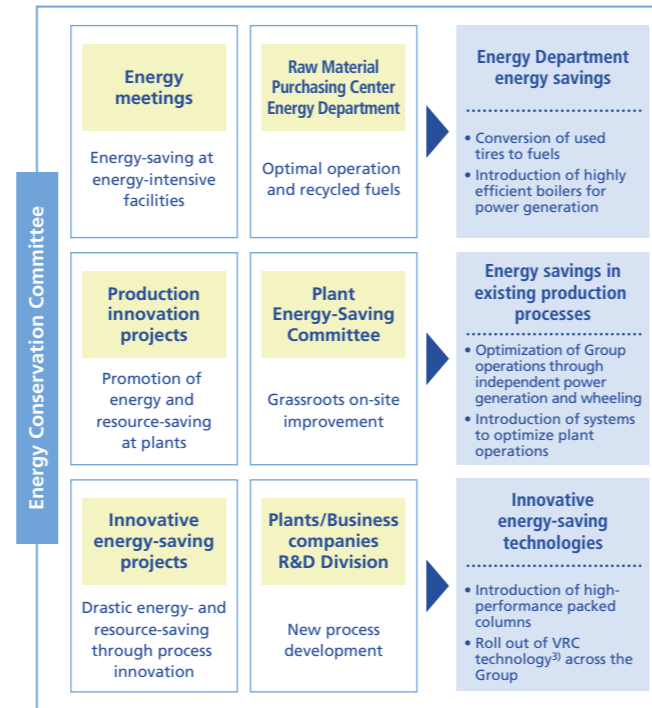
Daicel	<b>Fiscal 2015 Targets</b> <ul style="list-style-type: none"> <li>Promote energy conservation to achieve the fiscal 2020 targets set forth in the Commitment to a Low Carbon Society.</li> <li>Reduce energy intensity by 1% or more from the previous fiscal year.</li> </ul>	<b>2015 Results</b> <ul style="list-style-type: none"> <li>Promoted energy conservation from three angles.</li> <li>Reduced energy intensity by 1% from the previous fiscal year.</li> </ul>	<b>Fiscal 2016 Targets</b> <ul style="list-style-type: none"> <li>Promote energy conservation to achieve the fiscal 2020 targets set forth in the Commitment to a Low Carbon Society.</li> <li>Reduce energy intensity by 1% or more from the previous fiscal year.</li> </ul>
	Other Group Companies	<b>Fiscal 2015 Targets</b> <ul style="list-style-type: none"> <li>Reduce energy intensity by 1% or more from the previous fiscal year.</li> </ul>	<b>2015 Results</b> <ul style="list-style-type: none"> <li>Reduced energy intensity by 3% from the previous fiscal year.</li> </ul>

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

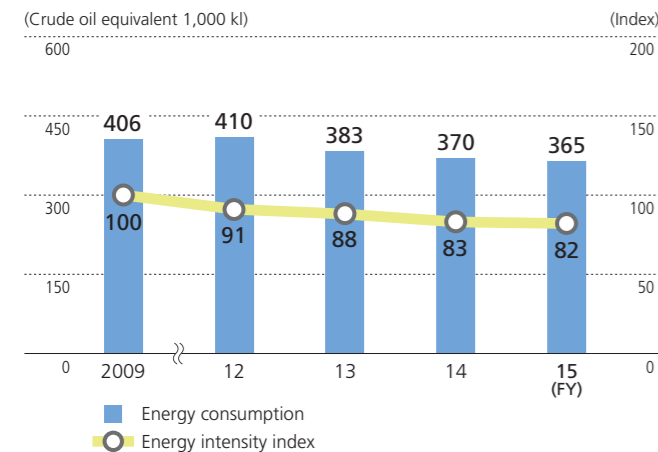
Daicel is a participant in the Nippon Keidanren's Commitment to a Low Carbon Society, which was unveiled on January 17, 2013. Daicel is working to achieve CO<sub>2</sub> emission reduction targets for fiscal 2020 by promoting energy savings. With the Energy Conservation Committee taking the lead, Daicel is promoting energy savings from three angles: Energy Department energy savings; energy savings in existing production processes through production innovation initiatives; and the introduction of innovative energy-saving technologies.

In fiscal 2015, the Group as a whole worked diligently to engage in diverse energy-saving activities. As a result, we reduced the volume of energy consumed by the crude oil equivalent of 5,000 kiloliters from the previous fiscal year, and the CO<sub>2</sub> emissions attributable to energy consumption were down 21,000 t-CO<sub>2</sub>. The energy intensity<sup>1)</sup> index<sup>2)</sup> improved one point, and the CO<sub>2</sub> emissions intensity index improved two points from the previous fiscal year.

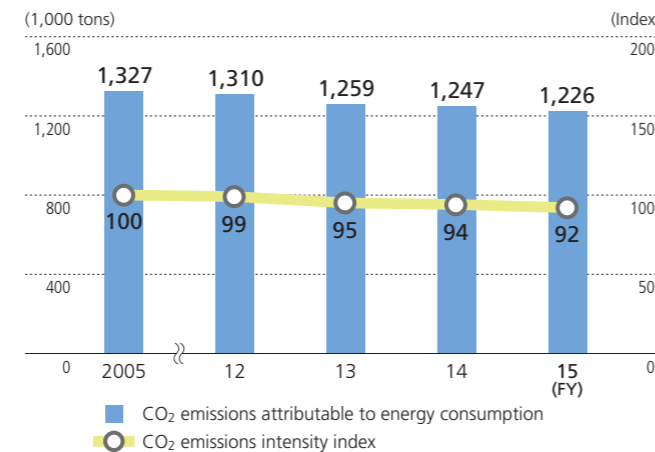
Other and overseas Group companies have identified individual energy-saving targets and are working to reduce energy consumption volumes. Looking ahead, every effort will be made to promote energy conservation and to reduce CO<sub>2</sub> emissions. As a part of the Group's innovative measures, the Group will continue to promote grassroots energy-saving activities, thoroughly review production processes, introduce and develop new technologies, and optimize energy consumption at the Aboshi and Ohtake plants.



#### Daicel's Energy Consumption and Intensity Index



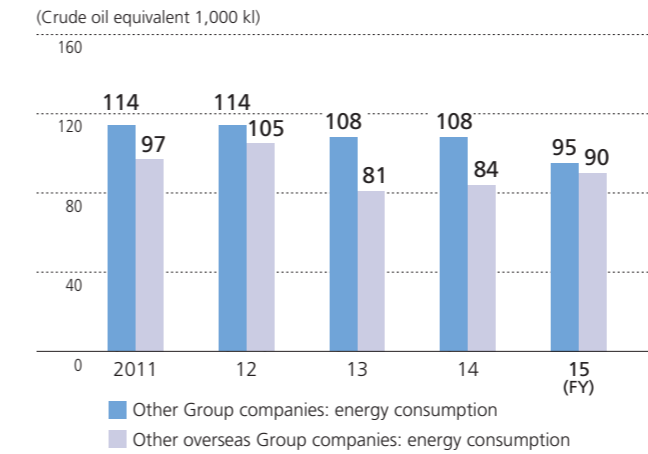
#### Daicel's CO<sub>2</sub> Emissions Attributable to Energy Consumption and CO<sub>2</sub> Emissions Intensity Index



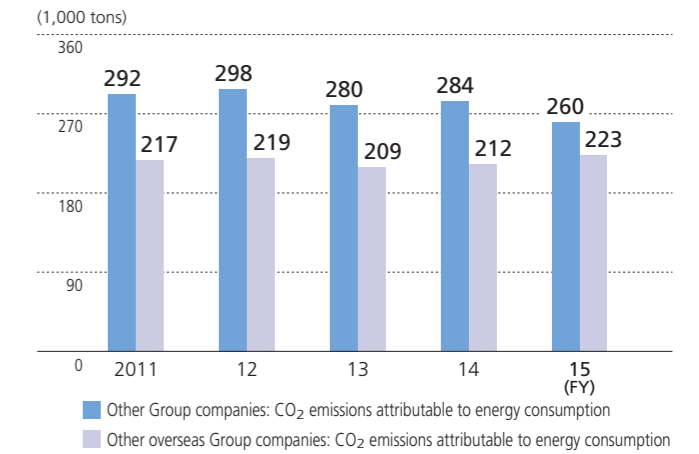
#### What is...?

- Energy intensity:** Energy intensity is defined as the total consumption of electricity, thermal energy and fuels required for manufacturing a specified unit of product. Lower energy intensity indicates higher production efficiency—in other words, greater energy efficiency—which, in turn, presents greater potential for preventing global warming.
- Energy intensity index:** Energy intensity index can be obtained by the following formula: Energy intensity index for a year = Energy intensity for that year / Energy intensity in a standard year × 100
- Vapor recompression (VRC) technology:** This is used to capture heat from low-temperature steam by raising its temperature through compression. This technology is expected to find broad applications in capturing heat from low-temperature emissions.

#### Other/Overseas Group Companies' Energy Consumption



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



More detailed information about the appropriate management of chemical substances, the environmental load from other business activities, the status of environmental management system certification and other topics is available on Daicel's website (<http://www.daicel.com/en/csr/library.html>) under the sections entitled in "Environmental Preservation" and "Chemical and Product Safety" of the "Detailed information on the Responsible Care Initiative."

#### Distribution Safety

<b>Fiscal 2015 Targets</b> <ul style="list-style-type: none"> <li>Aim for zero at-fault logistics accidents.</li> <li>Reduce logistics issues at partner companies by 30% from the previous fiscal year.</li> <li>Achieve at least 1% energy conservation in logistics annually.</li> </ul>	<b>2015 Results</b> <ul style="list-style-type: none"> <li>Maintained zero at-fault logistics accidents.</li> <li>Reduced logistics issues at partner companies by 10% from the previous fiscal year.</li> <li>Increased energy consumption rate from the previous fiscal year.</li> </ul>	<b>Fiscal 2016 Targets</b> <ul style="list-style-type: none"> <li>Aim to maintain zero at-fault logistics accidents.</li> <li>Reduce logistics issues at partner companies by 30% from the previous fiscal year.</li> <li>Achieve at least 1% energy conservation in logistics annually.</li> </ul>
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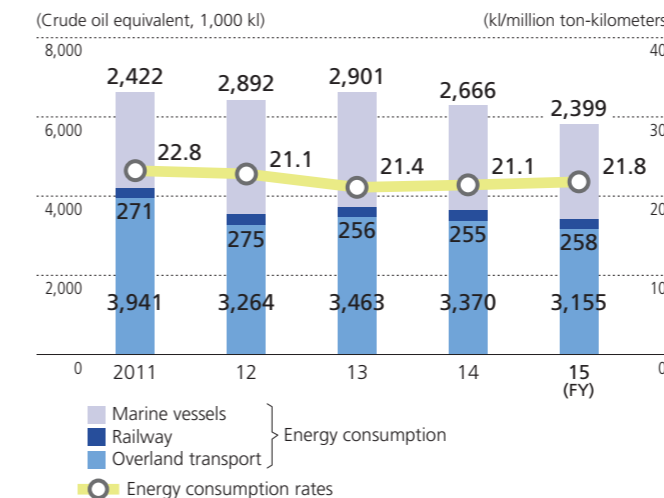
We are continuing activities to reduce logistics-related issues with the aim of securing the industry's highest level of logistics safety and quality.

Daicel Logistics Service Co., Ltd., which is responsible for the distribution function of the Daicel Group, has put in place a basic philosophy that emphasizes efforts to garner the trust and satisfaction of society by providing services that fulfill the needs of its customers anywhere and at any time. Guided by this philosophy, the company works diligently to enhance transportation quality and safety.

In fiscal 2015, Daicel Logistics Service maintained zero at-fault logistics accidents. While the company did not achieve its goal of reducing logistics-related issues at partner companies, it did again manage to make improvements on a year-on-year basis. As for conserving energy in logistics, the company did not meet its stated

goal due in part to a partial modal switch from ship transport to inland transport following a change in the production schedule. Going forward, Daicel Logistics Service will continue working diligently with its partner transport companies to reduce issues and conserve energy. In fiscal 2011, Daicel Logistics Service established the Safety and Quality Education Center and has conducted technical training on safety and quality assurance for indoor forklift operators and truck drivers who handle large volumes of dangerous substances. At the Japan Chemical Industry Association's 10th Annual Responsible Care Awards in 2016, the center won the Outstanding Award in recognition of its initiatives.

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



**The Japan Chemical Industry Association's Outstanding Award for Responsible Care**

Koji Kojima, Head Quarters, Daicel Logistics Service Co., Ltd. (left)  
Susumu Ikeshita, Safety and Quality Education Center, Daicel Logistics Service Co., Ltd. (right)

## Occupational Health and Safety

Category	Fiscal 2015 Targets	2015 Results	Fiscal 2016 Targets
Daicel	<p>Aim for zero occupational accidents</p> <ul style="list-style-type: none"> <li>Strengthen 3S, crisis-identification and hazard prediction activities.</li> <li>Ensure that the pointing and calling occupational safety method is firmly entrenched as standard operating practice.</li> <li>Strengthen general construction work safety measures.</li> </ul>	<p>13 Occupational accidents (11 in previous year)</p> <ul style="list-style-type: none"> <li>Promoted dialogue in workplaces through 3S, crisis-identification and hazard prediction activities.</li> <li>Ensured that the pointing and calling occupational safety method and other safety methods are firmly entrenched as standard operating practice.</li> <li>Published an internal basic rule book regarding construction and began using it.</li> </ul>	<p>Aim for zero occupational accidents</p> <ul style="list-style-type: none"> <li>Ensure compliance with rules and the proper implementation of basic operations.</li> <li>Prevent erosion of past countermeasures.</li> <li>Reinforce countermeasures to prevent heat stress during summer construction.</li> </ul>
Other Group Companies	<p>Aim for zero occupational accidents</p> <ul style="list-style-type: none"> <li>Share information regarding 3S, crisis-identification and hazard prediction activities between companies.</li> <li>Roll out activities aimed at learning from the lessons of the past.</li> </ul>	<p>2 Occupational accidents (2 in the previous year)</p> <ul style="list-style-type: none"> <li>Held casual workplace meetings about safety that included information regarding 3S, crisis-identification and hazard prediction activities.</li> <li>Reconfirmed countermeasures based on cases of past problems.</li> </ul>	<p>Aim for zero occupational accidents</p> <ul style="list-style-type: none"> <li>Share information regarding 3S, crisis-identification and hazard prediction activities between companies.</li> <li>Roll out activities aimed at learning from the lessons of the past.</li> </ul>

## We Are Working Diligently to Upgrade Our Foundation and Prevent Recurrences of Accidents to Achieve of Zero Occupational Accidents

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>4)</sup> and hazard prediction activities.

In fiscal 2015, the Group recorded 15 occupational accidents (13 at Daicel and 2 at other Group companies). While the number of occupational accidents with lost workdays declined year on year, the number of occupational accidents without lost workdays rose. There were still many cuts, scrapes and encounters with hazardous substances in addition to increased slips and falls. Most of these were recurrences of past accidents or similar accidents. We also

saw an increase in the cases of heat stress during construction at business sites outside of scheduled repairs as we worked to expand crisis-identification activities.



A casual meeting about safety

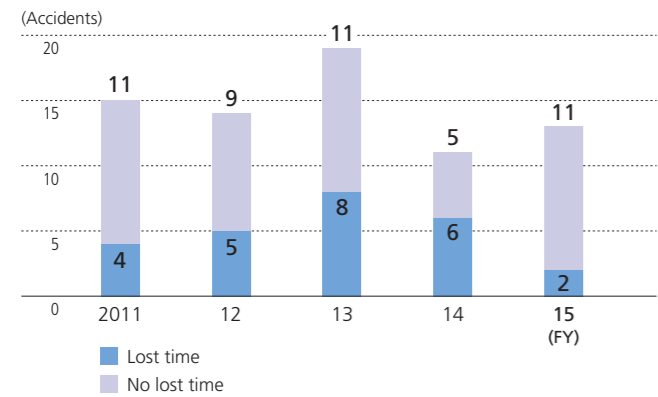
In fiscal 2016, we will continue to upgrade the foundation of production sites and implement hazard simulation training, occupation-based training and leader training, which underpin "Monozukuri," at the Operation Training Center. We will also continue to work diligently to tackle key issues, such as maintaining countermeasures to past accidents and preventing heat stress.

Daicel and Group companies have been holding casual meetings about safety between labor and management since fiscal 2014 with the purpose of fostering unity throughout the Group and heightening awareness and sensitivity about 3S and safety initiatives on the frontline level. In fiscal 2015, the managers of Daicel's Harima Plant, Daicel Pyrotechnics Ltd., DM Novafoam Ltd., Daicel Logistics Service Co., Ltd., Daicel Pack Systems, Ltd., and Dainichi Chemical Corp. gathered together to tour the Harima Plant and exchange opinions, including a group debate.

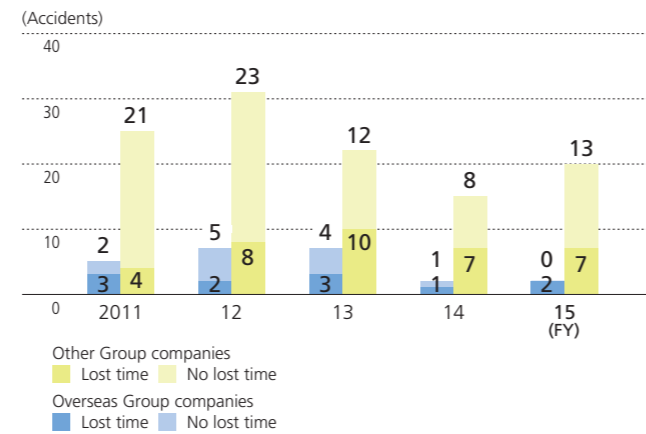
**Top Prize Winners of the Fiscal 2015 RC Poster Contest**

**Risa Yamamoto, Tetsuro Nakanishi and Hisanari Miyaji**  
Cellulose Acetate Group  
Ohtake Cellulose Production Division  
Ohtake Plant, Cellulose Company

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



### Number of Occupational Accidents at Other/Overseas Group Companies:



#### What is...?

- Crisis-identification activities:** Near-accident and near-trouble events are recorded to identify the causes of these events. Hazard prediction activities help eliminate causes of accidents and troubles to create safer working environments.
- Total Environmental, Health and Safety (EHS) Assessment System:** This is the Daicel Group's unique risk assessment system. Under this system, a prior assessment of diverse risks associated with all business operations—including planning, R&D, production, consumption, and disposal—is initiated in order to ensure thorough consideration of

- environmental, health and safety issues.
- General operability studies:** Daicel's original method of standardizing plant operations. This method exhaustively codifies decision-making techniques for how to operate a plant under all imaginable plant and operating conditions, based on sensor and alarm data received during plant operations.
- WSP:** WSP is an abbreviation of Water Soluble Polymer.

## Process Safety and Disaster Prevention

Category	Fiscal 2015 Targets	2015 Results	Fiscal 2016 Targets
Daicel	<p>Aim for zero accidents involving fire, explosions and leaks.</p> <ul style="list-style-type: none"> <li>Conduct a comprehensive inspection of risks and implement countermeasures.</li> <li>Systematically undertake earthquake resistance work as well as liquefaction risk countermeasures.</li> <li>Conduct Group-wide disaster countermeasure exercises pertaining to irregular scenarios based on BCPs.</li> </ul>	<p>13 small-scale accidents</p> <ul style="list-style-type: none"> <li>Conducted a comprehensive inspection of risks and reinforced capabilities to respond to crises.</li> <li>Undertook earthquake resistance work as well as an assessment of liquefaction risks as planned.</li> <li>Conducted whole company disaster countermeasure exercises based on BCPs.</li> </ul>	<p>Aim for zero accidents involving fire, explosions and leaks.</p> <ul style="list-style-type: none"> <li>Undertake improvements using lessons from past issues.</li> <li>Enhance BCPs in light of assessments conducted via drills.</li> </ul>
Other Group Companies	<p>Promote full-fledged use of safety confirmation and emergency call systems.</p> <ul style="list-style-type: none"> <li>Promote full-fledged use of the Total EHS Assessment System including minor changes.</li> </ul>	<p>Conducted disaster countermeasure exercises and strengthened the natural disaster alert system through the emergency call system.</p> <ul style="list-style-type: none"> <li>Promoted full-fledged use of the Total EHS Assessment System including minor changes.</li> </ul>	<p>Implemented rules, procedural comprehensive inspections and countermeasures related to process safety and disaster prevention.</p> <ul style="list-style-type: none"> <li>Establish a system to ensure strict management of changes and alterations.</li> </ul>

## We again prevented any major incidents. We also strategically promoted earthquake, tsunami and liquefaction countermeasures.

### Process Safety and Disaster Prevention Countermeasures

Daicel is promoting risk reduction, trouble reduction and stable plant operations through risk evaluations, the Total EHS Assessment System<sup>5)</sup> and general operability studies<sup>6)</sup>. In fiscal 2015, there were still no major incidents of fire, explosion or leakage of harmful substances that impacted areas in close proximity to the various bases operated by the Daicel Group. Regrettably, the Company did report 13 small-scale accidents, including hazardous material leakage. Every effort was made to ascertain the causes for each incident and to implement appropriate preventive measures. These initiatives have been rolled out across all of the Group's production sites.

### Earthquake, Tsunami and Liquefaction Countermeasures

In fiscal 2015, Daicel continued to assess risks related to earthquakes, tsunamis and liquefaction, and complete analyses of the seismic conditions of its facilities while systematically carrying out structural reinforcement work. In regard to the facilities, we completed structural reinforcement work in line with the Act on Promotion of the Earthquake-proof Retrofit of Buildings. In addition, following the move of the Osaka Head Office, we upgraded our information communication environment during a widespread disaster, including the erection of an outdoor antenna.

### Emergency Drills

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

Complementing these efforts, Daicel also periodically conducts Group-wide disaster countermeasure exercises that address the possibility of a widespread disaster. Carrying on from efforts undertaken in fiscal 2014, those participating in each exercise were not provided with advance warning. In this manner, steps were taken to ensure that exercises were undertaken on as practical a basis as was possible. The exercises were based on a Business Continuity Plan (BCP) for a major earthquake.

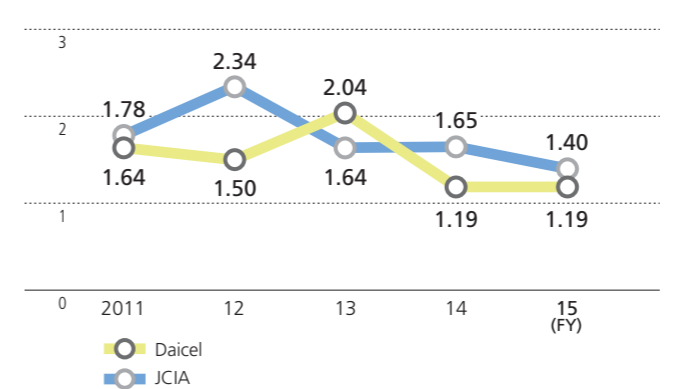
In fiscal 2016, we will continue to implement measures aimed at preventing accidents relating to fires, explosions and leakage. We will also work diligently to mitigate the risks associated with earthquakes and tsunamis and prevent the erosion of past countermeasures.

**Himeji Production Sector Received an Award for Safety from the JPCA**

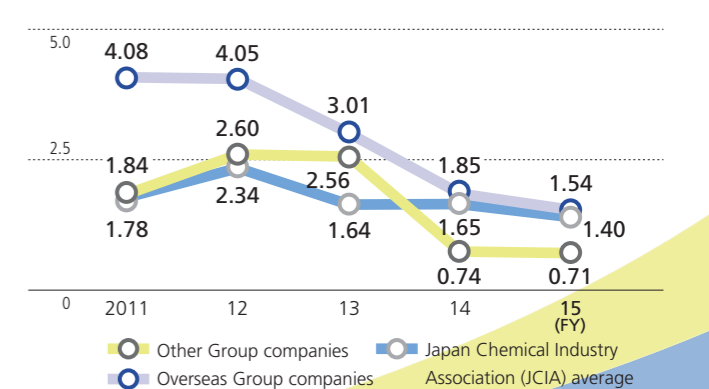
At the Safety Promotion Meeting of the Japan Petrochemical Industry Association (JPCA), Kiyotaka Sumaoka received an award for safety. He is the team leader of WSP<sup>7)</sup> production division at the Himeji Production Sector/Aboshi Plant. He was commended for his exceptional skills and for being an outstanding leader with a record of safety in the workplace under his supervision.

The award ceremony

### Labor Accident Frequency Rate at Daicel: Accompanied/Not Accompanied by Lost Workdays (including partner companies on plant premises)



### Labor Accident Frequency Rate at Other/Overseas Group Companies: Accompanied/Not Accompanied by Lost Workdays



## Quality Assurance

The Daicel Group works hard to provide customers with products and services that we can promise are safe and reliable.

All of the Daicel Group's plants have acquired international standards for quality management systems, including ISO 9001 and ISO/TS 16949 certification (for the automobile industry). Each plant constantly works to offer products that satisfy customers and meet their needs.

Each internal company and Group company is responsible for the quality of their products. Relevant officials from the Company's plants, internal companies and Group companies attend regular quality assurance meetings to ensure the maintenance and improvement of product quality across the Group, mainly by sharing information, including customer requests.

In fiscal 2015, Daicel dissolved the Quality Management Division, which was set up within the Production Technology Headquarters in 2013 to reinforce quality management systems at plants and internal companies. Daicel then established the Quality Management Division. The newly established office reports directly to the president and specializes in carrying out the quality management audit.

In addition, the Daicel Group enacted its Quality Policy as a goal for all group members.

Through these initiatives, the Group aims to provide more satisfying products and meet the expectations of its customers.

### 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.

In an effort to deliver products that fully satisfy customers, we are addressing the issue of acquiring certifications of quality management standards as well as meeting the legal requirements in each field for the following product lineups:

For details of the status of quality management system certification see the Company's 2016 CSR Report under the Quality Assurance section. (<http://www.daicel.com/en/csr/library.html>)

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

## Third-Party Opinion



### ダイセルグループCSR報告書 2016

#### 第三者検証 意見書

2016年6月3日

株式会社ダイセル  
代表取締役社長 札幌 操 殿

一般社団法人 日本化学工業協会  
レスポンシブル・ケア検証センター長

高瀬純治



#### ■ 報告書検証の目的

レスポンシブル・ケア報告書検証は、株式会社ダイセルが作成したダイセルグループCSR報告書 2016(以後、報告書と略す)に記載されている、下記の事項について、化学業界の専門家であるレスポンシブル・ケア検証センターが意見を表明することを目的としています。

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

#### ■ 検証の手順

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

#### ■ 意見

- 1) パフォーマンス指標(数値)の算出・集計方法の合理性及び数値の正確性について
  - ・パフォーマンス数値は本社及び網干工場において、合理的な方法で正確に算出・集計されていることを確認しました。
- 2) 数値以外の記載情報の正確性について
  - ・報告書に記載された情報は、正確であることを確認しました。原案段階では表現の適切性あるいは文章の分かり易さに関し指摘しましたが、現報告書では修正されており、修正すべき重要な事項は認められません。
- 3) レスポンシブル・ケア活動及び CSR 活動について
  - ・トップコミットメントで、安全と品質の確保と、企業倫理が経営の重点方針であることを明言し、今後の取組方針を、グループ社員だけでなく、すべてのステークホルダーにもわかりやすい言葉で具体的に示していることを評価します。
  - ・企業倫理とレスポンシブル・ケアをCSR活動の2本柱として、国内外のグループ会社を含めて幅広くかつ活発に活動し、それぞれ実施結果の確認を行い、次年度の活動目標を定めて継続的にレベルアップを図っていることを評価します。
  - ・2015年度に播磨工場から始めた「いのちの森づくり」活動は、ダイセルグループ社員が工場近隣住民と力を合わせて植樹を行い、緑豊かな森に成長する楽しみを共有し、人と人との和を育む素晴らしい活動です。
  - ・網干工場では、従業員だけでなく協力会社の作業員誰もが工場内の不具合箇所を指摘できる3Sの取り組みを地道に継続され、一つ一つ現場の改善を積み上げて、操業の安全と安定につながっていることを評価します。この取り組みをさらに強化されることを期待します。
  - ・教育訓練センターでは、課長や部長クラスにも運転・保全等の実体験を含めた研修を実施していることを評価します。
- 4) 報告書の特徴
  - ・目次ページの配置変更や略号には解説を付ける等によって、読者にわかりやすい内容になっています。
  - ・海外グループ企業においてCSR活動が活発に行われていることが、写真や文章でわかりやすく記載されています。
  - ・化学品安全の取り組みについて、WEB版だけにしていますが、今後は報告書に記載することを期待します。

以上