Zeon Corporation and Zeon Group (“Zeon”) previously published a stand-alone CSR Report. Since FY 2013, Zeon has published a booklet form of the CSR Report renamed the Corporate Report, which includes an annual report and corporate profile providing overview of Zeon’s general business activities.

The FY 2019 version begins with the Topics section to heighten accessibility to the latest information. The highlights feature Zetpol® in the Elastomer Business and cyclo olefin polymers in the Specialty Materials Business. In the section on Zeon’s Business and Strategy, the business model and social value creation flow of Zetpol® and the Film Business are described as well as expanded information on Corporate Governance.

Get to know Zeon’s special website! 2019

Website http://www.zeon.co.jp/index_e.html

More information about Zeon’s management and operations is available on the Corporate Report. A CSR Report (PDF) with detailed information on initiatives and site reports is available on the CSR activities section of the corporate website and in the Fact Book.

Corporate Report

Zeon Group
2019

Introduction

Chairman

Naozumi Furukawa

Zeon Corporation

Corporate Governance

Interview with the President

Elastomer Business

Specialty Materials Business

Research and Development (R&D)

Corporate Governance

Directors and Officers

Zeon’s CSR

Zeon’s CSR

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Environment

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Zetpol® hydrogenated nitrile rubber for stronger rubber

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Zeon material and products making contributions to society

Company Profile
Zeon Group History
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Editorial policy

Zeon Corporation and Zeon Group (“Zeon”) previously published a stand-alone CSR Report. Since FY 2013, Zeon has published a booklet form of the CSR Report renamed the Corporate Report, which includes an annual report and corporate profile providing overview of Zeon’s general business activities.

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Reporting period
April 2018 to March 2019 (includes some information after April 2019)

Reporting scope
Zeon Corporation and Zeon Group companies inside and outside Japan. Some data covers only Zeon Corporation.
**Corporate Philosophy**

**Zeon is contributing to the preservation of the Earth and the prosperity of the human race**

Zeon, with its name drawn from words signifying the Earth (geo) and eternity (eon), is committed to responsible stewardship of the global environment as the foundation for human prosperity through the development and application of unique, world-leading technologies.

Based on Zeon Group’s corporate philosophy, we have consistently released a steady stream of new products using our pioneering, inimitable technologies. Zeon’s products are incorporated into customers’ final products and support society through their presence all around us.

To fulfill our responsibility to society now and in the future, we are developing our business under our Enterprise Blueprint for 2020 plan with the mission of “Zeon makes the future today through the power of chemistry.”

In FY 2018, we drove expansion of our business foundation and subsequently implemented a series of large investment decisions, including the establishment of new Group companies and expansion of facilities to increase our production scale. In FY 2019, Japan began the new Reiwa era in the Japanese calendar. With a renewed spirit in this new era, we seek further growth and will mobilize all the strengths of the Zeon Group to continue pursuing our Enterprise Blueprint for 2020 as well as contribute to the realization of a sustainable society.

We deeply appreciate your continued support and encouragement.
2018–2019 Topics

The following summarizes Zeon’s major business developments from July 2018 through April 2019. See the related press releases for more detailed information.

### Organization/Business

**Established Zeon Taiwan Co., Ltd.**
Zeon Corporation established Zeon Taiwan Co., Ltd. in July 2018 to sell specialty materials in Taiwan.

**Established Zeon Chemicals Asia Co., Ltd.**
Zeon Corporation established Zeon Chemicals Asia Co., Ltd. in October 2018 to manufacture and sell acrylic rubber in Thailand.

**Established Tokyo Zairyo Czech, s.r.o.**
Tokyo Zairyo established Tokyo Zairyo Czech, s.r.o. in January 2019 to sell molding materials such as resins and elastomers to the Prague market in the Czech Republic.

**Established Zeon Opto Bio Lab Co., Ltd.**
Zeon Corporation spun off the Sano Plant of Optes Inc. and established Zeon Opto Bio Lab Co., Ltd. in April 2019. The company performs molding of plastic products, including prototypes for resin-based microfluidic chips.

**Increased the manufacturing capacity for optical films (ZeonorFilm™). Including retardation films with the world’s largest width**
Optes is increasing the manufacturing capacity of its optical film plants in Takaoka City, Toyama Prefecture, and Tsuruga City, Fukui Prefecture. The new line at the Takaoka Plant is scheduled to begin operations in October 2019. The new line at the Tsuruga Plant is scheduled to begin operations in April 2020 and will be able to produce retardation films with the world’s largest width (2,500-mm class).

### Commendations

**Received the Okochi Memorial Foundation Technology Prize for development of production technology for LCD retardation films**
In March 2019, Zeon Corporation received the Okochi Memorial Foundation Technology Prize from the Okochi Memorial Foundation in recognition of achievements in developing a sheet extrusion process to make films from cyclo olefin polymers using proprietary technology, and stretching technology including diagonal stretching and sequential biaxial stretching to orient film polymers in a fixed direction.

**Certified as White 500 Company for Outstanding Health and Productivity Management 2019 (Large Enterprise category)**
In February 2019, Zeon Corporation was certified as an Outstanding Health and Productivity Management Company in the 2019 Certified Health and Productivity Management Organization Recognition Program, sponsored by the Ministry of Economy, Trade and Industry (METI).

**Became a signatory to the United Nations Global Compact**
In June 2019, Zeon Corporation signed the United Nations Global Compact, a voluntary initiative led by companies and organizations that commits them to implementing business principles to protect human rights, eliminate unfair labor practices, address environmental issues, and prevent corruption.
Launched GRAYNE™, a new series of Zeon Siding™ resin-based home exterior siding featuring a beautiful wood grain finish

Zeon Kasei began sales of GRAYNE™ resin-based home exterior siding, which reproduces the natural beauty, coloring, and feel of wood grain, in September 2018. Resin-based exterior siding is widely used, especially in North America. Compared with ceramic-based siding, resin-based siding offers durability and maintenance advantages and is more resistant to freezing damage in cold regions and salt damage in coastal regions.

Launched a new biliary stent product. Now possible to treat multiple blocked bile ducts

In August 2018, Zeon Medical launched the Hilzo™ Stents Biliary Uncovered Stent, a new biliary metal stent product. The metal stent expands in the bile duct and takes a dendritic shape. This alleviates obstructive jaundice, a condition caused by blocked bile ducts, and improves patients’ quality of life.

Began joint R&D on the environmental biodegradability of carbon nanotubes (ZEONANO®)

Zeon Corporation has begun research on the biodegradability of ZEONANO® by microorganisms in the environment in a research program conducted jointly with the Biomolecular Systems Engineering Course, Biomolecular Engineering Department, Nagoya University Graduate School of Engineering and Friend Microbe Inc. This will aid research on the safety of carbon nanotubes.

Jointly developed new technology to produce isoprene, a tire raw material, from biomass

Zeon Corporation has developed new technology to stably and efficiently produce isoprene monomer from biomass (bioresources) through joint research with the national research and development agency RIKEN and Yokohama Rubber. Production of isoprene from renewable raw materials and not petroleum is anticipated to contribute to climate change mitigation.
Zeon products making contributions to society

Zetpol®, hydrogenated nitrile rubber for stronger rubber

Gasoline-engine cars are said to be assembled from tens of thousands of parts. While cars may look like hunks of metal, in fact they use a lot of rubber parts. Rubber supplied by Zeon plays an important role in the auto industry. Rubber used around the engine in particular must be highly resistant to oil and high temperatures. Zeon offers specialty rubbers with performance that meets various customer requirements, including acrylic rubber, acrylonitrile butadiene rubber, epichlorohydrin rubber, and hydrogenated nitrile rubber. Of them, Zetpol® hydrogenated nitrile rubber developed with proprietary Zeon technology has received very positive reviews for its heat resistance.

Zeon contributes to society with specialty rubbers that improve vehicle performance

Raw material rubber such as Zetpol® produced by Zeon gets assembled in cars through rubber compound manufacturers, parts manufacturers, and car manufacturers. With its high heat resistance, Zetpol® improves parts performance, leading to improved vehicle performance and lighter weight. This in turn leads to energy conservation, CO₂ emission reductions, and resource savings.

Improved materials performance leading to social contributions

Zeon supplies raw material rubber including Zetpol®

Rubber compound manufacturers Kneading

Parts manufacturers Parts production

Car manufacturers Assembly

CO₂ emission reductions Resource savings

Zeon’s technological strengths support the auto industry

The Asia Technical Support Laboratory (ATSL) in Singapore provides technical support in such areas as blending, kneading, and physical property evaluations of rubbers made with local materials for Asian users. This kind of support is made possible by the technology Zeon has built up in the United States, Europe and Japan. Zeon’s technological strengths not only in supplying products but also in providing support tailored to local needs are earning recognition in Asia.
Why Zetpol® specialty cross-linked type is better than conventional products

Specialty rubbers need to offer oil, heat, and cold resistance as well as durability. Improving the performance of one of these properties, however, results in a trade-off of degraded performance for the other properties. Conventional hydrogenated nitrile rubber reduces the carbon–carbon double bonds through hydrogenation to increase heat resistance, but this reduces durability (compression set). Zetpol® specialty cross-linked type adds specialty cross-linking to achieve both heat and compression set resistance.

What is compression set, for which Zetpol® is recognized?

The sealability of gaskets, packing, and seal materials are evaluated using compression set. Rubber is compressed under high temperature, and its compression set, or the percentage that does not recover its original shape, is measured. Zetpol® specialty cross-linked type is able to offer improved heat resistance of 10°C or more over conventional products in compression set. This makes it possible to manufacture high-temperature resistant products that have longer life.

Increased production capacity of Zetpol® specialty cross-linked type

To meet the high demand for Zetpol® specialty cross-linked type, the production capacity of the Kawasaki Plant is being increased, with construction scheduled to be completed in September 2019.
Zeon’s Cyclo Olefin Polymers (COP) have excellent optical and chemical properties. Under the product names ZEONEX® and ZEONOR®, they are widely used in optical lenses, medical and biotechnology applications while earning highly favorable reviews. In April 2019, Zeon Opto Bio Lab Co., Ltd. was established to perform prototype provision services focused on microfluidic chips using COP. The company is able to flexibly complete orders of microfluidic chips and other COP molded products, from one piece to mass-production, in short timeframes. A full package of services for COP molded products, from molding to cutting and joining, is also available. Zeon Opto Bio Lab anticipates receiving orders from research institutes, universities, and startups from Japan, Western countries, Asia, and elsewhere around the world.

Microfluidic chip prototype provision service ➤https://www.zeonoss.com/en/

Microfluidic chip market growth

Microfluidic chips are chips with microchannels and reaction chambers formed using microprocessing technology, and are used in medical products and blood analysis. The global market for the three fields and key applications of medical devices, pharmaceuticals, and in-vitro diagnostics has continued to grow at an annual rate of 17–18% over the last five years. In 2024, the market is forecast to reach a scale of $10 billion. The market for the prototype creation business is considered to account for at least 10% of the microfluidic chip market as a whole.

Microfluidic chips by application  Global market forecast

Source: Materials published by Grand View Research, 2018
Technical characteristics of Zeon’s microfluidic chips

Zeon’s microfluidic chips are also characterized by processing technology that leverages COP’s characteristics. General microfluidic chips are created by bonding two boards together, one with channels and one that acts as a cover, and the adhesive at times impedes analysis. Zeon Opto Bio Lab has developed proprietary bonding technology that does not use adhesive, making analysis possible without the loss of COP’s characteristics. In addition, Zeon Opto Bio Lab is able to perform high-precision cutting at the level of 50 microns as well as cutting that maintains transparency. Mass-production in a clean room is also possible.

Voice

New applications for COP

Sano Plant handles molded products and was spun off from Optes, whose principal business is optical films, to establish Zeon Opto Bio Lab because of the new directions presented by the COP molded products business. “Zeon” was included in the company name, and employee morale is receiving a boost from the launch of the new business venture.

As a behind-the-scenes supporter of research and development, customers reporting their results is also a reason for employees engaged in this business to celebrate. Through customers, Zeon Opto Bio Lab will contribute to better health and safety in society.

Koji Minami
Division Manager, Specialty Plastics Division

Used in medical packaging

Because COP has low adsorption of proteins and other substances, it is being increasingly adopted in various state-of-the-art medical packaging such as pre-filled syringes. Medical service providers also welcome the fact that COP is not readily breakable.

<table>
<thead>
<tr>
<th>Characteristics of Zeon’s cyclo olefin polymers</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>High UV transmittance</td>
<td>COP has excellent transmittance in short wavelength spectrum.</td>
</tr>
<tr>
<td>Low fluorescence</td>
<td>COP allows to perform highly sensitive fluorescence imaging tests.</td>
</tr>
<tr>
<td>Excellent molding properties</td>
<td>COP exhibits excellent moldability allowing for intricately designed devices.</td>
</tr>
<tr>
<td>High chemical inertness</td>
<td>COP demonstrates excellent resistance to acid, alkali alcohol.</td>
</tr>
<tr>
<td>Low level of impurities</td>
<td>COP is extremely pure material.</td>
</tr>
<tr>
<td>Low protein adsorption</td>
<td>COP is very low in protein adsorption.</td>
</tr>
<tr>
<td>Low water vapor transmission</td>
<td>COP provides superior performance for storage stability of substances.</td>
</tr>
<tr>
<td>Low environmental impact</td>
<td>COP can be incinerated and has excellent safety and disposability.</td>
</tr>
</tbody>
</table>
Zeon material and products making contributions to society

Zeon has defined the key development areas of Global Environment, Health and Living, and Smart Devices, and is engaging in new business creation and new product development.

Contributions to the SDGs across all products
Zeon is working to reduce the environmental load of all products during product manufacturing and use (Goal 12), and aims to contribute to societal development and technological innovation through product use (Goal 9).

**Zeon Products Making Contributions to Society**

**Zeon material and products making contributions to society**

**ZeonorFilm TM Optical film:**
ZeonorFilm TM optical film contributes to improved display performance by combining ZEONOR® resin properties including transparency and low water absorption with our world-first sheet extrusion process, film stretching technology, and other film processing technologies.

**ZEORORA ® H HFC solvent:**
Contributes to climate change prevention as an alternative HFC solvent.

**Zetpol® specialty cross-linked hydrogenated nitrile rubber (HNBR):**
Developed a proprietary method to add specialty cross-linking to nitrile rubber hydrogenated to increase heat resistance to improve the rubber’s durability (compression set) and achieve both durability and heat resistance. ➡ P. 5, Highlight 1

**Solution-polymerized styrene-butadiene rubber (S-SBR):**
Improves the performance of fuel-efficient tires and contributes to energy conservation and reduced CO₂ emissions.

**Energy materials:**
Zeon’s binders prevent electrode volume expansion and greatly improve cell life. They also increase the chemical reactions on the surface of the active materials to increase battery output.

**Asia Technical Support Laboratory (ATSL):**
Based in Singapore, ATSL provides technical support in such areas as blending, kneading, and physical property evaluations of rubbers made with locally available agents for Asian rubber manufacturers. ATSL is enhancing Zeon’s presence in Asian markets using the technological strengths Zeon has built up in the United States, Europe, and Japan.

**Global Environment**

**Energy conservation**

**Batteries**

**Power generation**

**Reduction of fossil fuel use**

**Automotive**

Improved performance and extended life of manufacturers’ products made with Zeon’s materials and components contribute to reducing environmental impacts through such ways as energy conservation, mitigating climate change, and reducing waste.
Zeon’s materials, components, and products are useful in daily life and contribute to health and well-being of people.

Prohydrojasmon plant growth regulator: Reduces declines in the production volume and quality of agricultural products due to the effects of climate change (Jasmomate™ Ekizai agrochemical formulation).

Synthetic latex for gloves: Due to concern about allergic reactions from natural rubber proteins, demand is shifting to NBR latex gloves, and the market is expanding.

Cyclo olefin polymer (COP) for onboard sensing cameras: ZEONEX® offers excellent optical properties and stable chemical properties, resulting in its adoption not only in smartphone cameras but also in onboard sensing cameras in automotive hazard detection systems.

Microfluid chip prototype provision service: Microfluid chips that use microprocessing technology to form microchannels and reaction chambers are widely used in medical fields including pharmaceuticals and in-vitro diagnostics. One stop service is also available, from molding to cutting and joining, and able to flexibly support orders from one piece to mass-production. ➡ P. 7, Highlight 2

Thermoplastic elastomer SIS: Used in elastic film for disposable diapers to achieve lighter weight and greater comfort.

Catheters to remove bile duct stones: Zeon’s catheters help lessen patients’ pain and healthcare professionals’ workloads, with a strong reputation in treatment to remove bile duct stones.

ZeonorFilm™ Optical film: ZeonorFilm™ optical film contributes to improved display performance by combining ZEONOR® resin properties including transparency and low water absorption with our world-first sheet extrusion process, film stretching technology, and other film processing technologies.

Pad-type thermal interface material (TIM): TIM using rubber/single-walled carbon nanotube (ZEONANO®) composite achieves low thermal resistance. It increases the thermal conductivity of the heat sink and resolves the heat generation problem of servers and power devices.
**Company Profile**

Name: **Zeon Corporation**
Established: April 12, 1950
Capital: 24.211 billion yen (as of March 31, 2019)
Market capitalization: 364.6 billion yen (as of March 31, 2019)
Total number of shares outstanding: 237,075,556 shares
Employees: 3,405 (consolidated)
1,103 (non-consolidated) (as of March 31, 2019)
Business segments: Elastomer Business, Specialty Materials Business, other businesses (P. 15)
Head Office: Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-8246, Japan
Plants: Takaoka Plant, Kawasaki Plant, Tokuyama Plant, Mizushima Plant
Research laboratories: R&D Center (Kawasaki)
Offices: Osaka Office, Nagoya Office

**Subsidiaries and affiliates in Japan (P. 21):**
Tokyo Zairyo Co., Ltd., Zeon Kasei Co., Ltd.,
Zeon North Co., Ltd., Zeon Yamaguchi Co., Ltd.,
Zeon F&B Co., Ltd., Zeon Chemicals Yonezawa Co., Ltd.,
RIMTEC Corporation, Zeon RIM Co., Ltd.,
Zeon Medical Inc., Opites Inc., Zeon Opto Bio Lab Co., Ltd.,
TFC Inc., Zeon Polymix Inc., Tohpe Corporation,
Zeon Nano Technology Co., Ltd., ZS Elastomers Co., Ltd.,
Tokyo Zairyo (Thailand) Co., Ltd., Zeon Kasei Co., Ltd.,
Tokyo Zairyo (Vietnam) LLC.
Zeon Chemicals Asia Co., Ltd.,
Zeon Advanced Polymix Co., Ltd.,
Zeon Medical (Guangzhou) Inc., Tokyo Zairyo (Shanghai) Co., Ltd.,
Zeon Asia Pte. Ltd., Tokyo Zairyo (Singapore) Pte. Ltd.
Zeon Chemicals L.P., Zeon Specialty Materials Inc.,
Tokyo Zairyo (U.S.A.) Inc.
Zeon do Brasil Ltda.
Zeon Kasei Mexico S.A. de C.V.,
Tokyo Zairyo México, S.A. de C.V.
Zeon Europe GmbH, Telene S.A.S.,
Tokyo Zairyo Czech, s.r.o.
Zeon (Shanghai) Co., Ltd., Zeon Trading (Shanghai) Co., Ltd.,
Shanghai Zeon Co., Ltd., Zeon Polymix (Guangzhou) Co., Ltd.,
Takehara Zeon (Shanghai) Co., Ltd., Zeon Kasei (Changsha) Co., Ltd.,
Zeon Medical (Guangzhou) Inc., Tokyo Zairyo (Shanghai) Co., Ltd.,
Tokyo Zairyo (Tianjin) Co., Ltd., Tokyo Zairyo (Guangzhou) Co., Ltd.
Zeon Korea Co., Ltd., Zeon Shinhwa (Zeshin) Inc.
Zeon CSC Corporation, Zeon Taiwan Co., Ltd.
Zeon Chemicals Singapore Pte. Ltd.,
Zeon Asia Pte. Ltd., Tokyo Zairyo (Singapore) Pte. Ltd.
Zeon Asia Malaysia Sdn. Bhd.
Zeon India Private Limited,
Tokyo Zairyo (India) Pvt. Ltd.
Zeon Chemicals (Thailand) Co., Ltd.,
Zeon Advanced Polymix Co., Ltd.,
Zeon Chemicals Asia Co., Ltd.,
Tokyo Zairyo (Thailand) Co., Ltd.
Zeon Manufacturing Vietnam Co., Ltd.,
Zeon Research Vietnam Co., Ltd.,
Tokyo Zairyo (Vietnam) LLC.
PT. Tokyo Zairyo Indonesia

**Subsidiaries and affiliates outside Japan (P. 17, 19):**

- **[USA]** Zeon Chemicals L.P., Zeon Specialty Materials Inc.,
  Tokyo Zairyo (U.S.A.) Inc.
- **[Brazil]** Zeon do Brasil Ltda.
- **[Mexico]** Zeon Kasei Mexico S.A. de C.V.,
  Tokyo Zairyo México, S.A. de C.V.
- **[Europe]** Zeon Europe GmbH, Telene S.A.S.,
  Tokyo Zairyo Czech, s.r.o.
- **[China]** Zeon (Shanghai) Co., Ltd., Zeon Trading (Shanghai) Co., Ltd.,
  Shanghai Zeon Co., Ltd., Zeon Polymix (Guangzhou) Co., Ltd.,
  Takehara Zeon (Shanghai) Co., Ltd., Zeon Kasei (Changsha) Co., Ltd.,
  Zeon Medical (Guangzhou) Inc., Tokyo Zairyo (Shanghai) Co., Ltd.,
  Tokyo Zairyo (Tianjin) Co., Ltd., Tokyo Zairyo (Guangzhou) Co., Ltd.
- **[South Korea]** Zeon Korea Co., Ltd., Zeon Shinhwa (Zeshin) Inc.
- **[Taiwan]** Zeon CSC Corporation, Zeon Taiwan Co., Ltd.
- **[Singapore]** Zeon Chemicals Singapore Pte. Ltd.,
  Zeon Asia Pte. Ltd., Tokyo Zairyo (Singapore) Pte. Ltd.
- **[Malaysia]** Zeon Asia Malaysia Sdn. Bhd.
- **[India]** Zeon India Private Limited,
  Tokyo Zairyo (India) Pvt. Ltd.
- **[Thailand]** Zeon Chemicals (Thailand) Co., Ltd.,
  Zeon Advanced Polymix Co., Ltd.,
  Zeon Chemicals Asia Co., Ltd.,
  Tokyo Zairyo (Thailand) Co., Ltd.
- **[Vietnam]** Zeon Manufacturing Vietnam Co., Ltd.,
  Zeon Research Vietnam Co., Ltd.,
  Tokyo Zairyo (Vietnam) LLC.
- **[Indonesia]** PT. Tokyo Zairyo Indonesia

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**Consolidated net sales**

<table>
<thead>
<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>(million JPY)</td>
<td>350,000</td>
<td>307,524</td>
<td>295,647</td>
<td>287,624</td>
<td>332,682</td>
</tr>
</tbody>
</table>

**Consolidated operating income**

<table>
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<tr>
<th>Year</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>(million JPY)</td>
<td>50,000</td>
<td>28,245</td>
<td>29,856</td>
<td>30,767</td>
<td>38,881</td>
</tr>
</tbody>
</table>

**Segment net sales (outer circle) and operating income (inner circle)**

- Elastomer Business: 25% (2018), 58% (FY)
- Specialty Materials: 48% (FY), 48% (FY)
- Other Businesses: 17% (FY)
Zeon Corporation was founded as a PVC manufacturer in 1950, established with capital from three Furukawa group companies—Furukawa Electric, Yokohama Rubber, and Nippon Light Metal. Zeon acquired its PVC manufacturing technologies from U.S.-based B.F. Goodrich Chemical Company, which at the time was the global leader in the industry. Zeon continued developing the PVC business until full withdrawal in 2000.

In 1959, Zeon acquired technologies from B.F. Goodrich Chemical Company to operate a specialty synthetic rubber (NBR) plant. This was Japan’s first domestic synthetic rubber plant. Following this, Zeon embarked on the production of general-purpose synthetic rubber (SBR). Zeon thus established its Synthetic Rubber Business for tires and engine components, which it continues to manufacture today.

In the petrochemical industry, which uses crude oil as a raw material, technological capabilities are a key element impacting company competitiveness. Zeon developed the GPB process in 1965 to efficiently extract high-grade butadiene, which is the raw material used in synthetic rubber production, from C4 fractions. In 1971, Zeon developed the GPI process to efficiently extract isoprene, the raw material in isoprene rubber, and other useful components, from C5 fractions.

Zeon licenses its proprietary GPB process technology in countries around the world. This greatly contributes to Zeon’s competitive edge and promotes the Zeon brand globally.
**Developing comprehensive uses for C₅ fractions**

Isoprene rubber is a useful material that can stably achieve the same properties as natural rubber. Many byproducts are derived from the process of extracting isoprene feedstock from C₅ fractions. One advantage of the GPI process is the ability to extract these byproducts at a high degree of purity. Zeon has focused on ways to effectively use these substances. As a result, Zeon subsequently grew its business to include petroleum resins and thermoplastic elastomer SIS in the 1980s, synthetic aroma chemicals and RIM molded products in the 1990s, and Cyclo olefin polymers since the 2000s. These businesses now enjoy a large share of the global market. The technologies gained during this development process are being used in other areas in addition to C₅ fractions.

**Developing more advanced materials and establishing leading manufacturing technologies**

In recent years, there has been growing demand for products with advanced functions that can contribute towards solving social issues, and similar expectations are rising for chemical materials. To meet these expectations, Zeon’s Synthetic Rubber Business developed Zetpol® hydrogenated nitrile rubber, which provides high functionality at a competitive cost and is used in automotive engine components and other applications with severe working conditions. Cyclo olefin polymers, developed from comprehensive use of C₅ fractions, are high-performance materials used in optical films and lenses, and in electrical insulation.

Single-walled carbon nanotubes (SWCNT), in compounds with other materials such as rubber, are able to demonstrate novel properties and performance. Zeon has become the first company in the world to use the Super-Growth method for mass production of SWCNT.
Zeon’s main products are created from raw materials such as butadiene and isoprene, which are extracted from the C₄ and C₅ fractions of naphtha using proprietary Zeon technologies. Business segments are divided into the Elastomer Business, Specialty Materials Business, and other businesses.

Business Overview

Main Products

- Synthetic rubbers
- Synthetic latexes
- Synthetic rubbers
- Thermoplastic elastomers
- Petroleum resins
- Petroleum resins
- RIM compound
- Specialty plastics
- Synthetic aroma chemicals
- Electronics materials
- Energy materials
- Medical devices
- Carbon nanotubes

Applications

- Tires
- Automobile components
- Adhesives
- Traffic paints
- Paints/coatings, Inks
- Fragrances, Food additives
- Gloves for medical use and food processing
- Medical catheters
- Single-walled carbon nanotubes, Composite materials
- Electronics materials
- Toner
- Housing equipment and components
- Lenses, Optical films
- Medical containers
- Large-size molding
- Cosmetic puffs
Zeon's main products are created from raw materials such as butadiene and isoprene, which are extracted from the C_4_ and C_5_ fractions of naphtha using proprietary Zeon technologies. Business segments are divided into the Elastomer Business, Specialty Materials Business, and other businesses.

In 1959, Zeon became the first company in Japan to mass-produce synthetic rubbers. The Elastomer Business is a core business area, providing over 50% of total net sales and operating income. **Main products** Synthetic rubbers, synthetic latexes, chemical products (thermoplastic elastomers, petroleum resins)

Specialty materials refer to materials and components with high added value that have a macromolecular design and are made with processing technology. The three key business areas of the Specialty Materials Business are IT components, energy materials, and medical devices. **Main products** Specialty plastics and components, electronics materials, toners, battery materials, medical devices

Other Businesses
Engineering, packaging materials, building materials, deodorants, RIM formulation, single-walled carbon nanotubes, paints/coatings, trading, etc.
We are continuing to globalize our business since the 1970s. We have set up sales networks in major markets around the world and established a production system for rubber and resin products. In addition, we have R&D facilities in the USA and Europe to meet the local needs quickly. We are also establishing R&D and sales locations in China, a market that is growing rapidly. We are aiming to be a company that, through our local production systems, builds close ties with local communities and contributes to the global society.

Asia as of July 1, 2019
Zeon Kasei (Changshu) Co., Ltd.
Huaguang Road, Changshu City, Jiangsu Province, 215500, China
• Manufacture and sales of powder slush compounds

Tokyo Zairyo (Tianjin) Co., Ltd.
Room 1805, The Exchange Tower 1, 189 Nanjing Road, Heping District, Tianjin, 300051, China
TEL: +86-22-23021278
• Purchase and sales of rubber products, chemical products, etc. (including international trade)

Zeon Korea Co., Ltd.
No.403, 4fl., 36, Teheranno 87-gil, Gangnam-gu, Seoul, 06164, Korea (City Air Tower, Samseong-dong)
TEL: +82-2-539-5525 FAX:+82-2-538-5190
• Sales and import of optical materials, imaging and electronics materials, synthetic resins, and rubber products, etc.

Zeon Shinhwa (Zeshin) Inc.
No.502 CALT B/D (City Airport)22, Teheran-ro 87-gil, Gangnam-gu, Seoul, 06164, Korea
TEL: +82-2-761-7030 FAX:+82-2-786-7221
• Sales of imaging and electronics materials

Zeon CSC Corporation
3F.-2, No.266, Sec. 1, Wenhuang 2nd Road, Linkou Dist., New Taipei City 24448, Taiwan (R.O.C.)
TEL:+886-2-2609-2156 FAX:+886-2-2600-6413
• Sales of optical materials

Zeon Taiwan Co., Ltd.
10F, No.209, Sec.1, Civic Blvd., Datong Dist., Taipei City 103, Taiwan (R.O.C.)
TEL:+886-2-2181-1620
• Sale of electronics materials

Zeon India Private Limited
Unit Number: 708, 7th Floor, Time Tower MG Road, Sec-28, Gurugram, Haryana, India – 122002
TEL: +91-124-4229461 FAX: +91-124-4229462
• Import, sales, and marketing of synthetic rubbers and other Zeon products

Tokyo Zairyo (India) Pvt., Ltd.
Time Tower, Unit No.708, 7th floor, Sector-28, M.G Road, Gurugram-122002, Haryana, India
TEL:+91-124-4229-9011 FAX:+91-124-4270-9005
• Purchase and sales of synthetic rubbers, chemical products, etc. (including international trade)

Zeon Chemicals (Thailand) Co., Ltd.
3 Soi G-14, Pakom-Songkhro Road, Tambol Huaypong, Amphur Muangrayong, Rayong 21150, Thailand
TEL:+66-3-968-5973~5 FAX:+66-3-968-5972
• Manufacture and sales of rubber compounds (CM)

Zeon Advanced Polymix Co., Ltd.
111/2 Soi Nikom 13, Moo 2 T.Makhaminhko, Nikompattana District Rayong 21180, Thailand
• Manufacture and sales of rubber compounds (CM)

Zeon Asia Malaysia Sdn. Bhd.
Unit 208, Block B, Phileo Damansara II, No.15, Jalan16/11, Off Jalan Damansara, 46350 Petaling Jaya, Selangor, Malaysia
TEL:+603-7957-0308 FAX:+603-7957-0309
• Manufacture and sales of synthetic rubbers, chemical products, etc. (including international trade)

Zeon Asia Vietnam Co., Ltd.
3 Soi G-14, Pakom-Songkhro Road, Tambol Huaypong, Amphur Muangrayong, Rayong 21150, Thailand
TEL:+66-3-968-5973~5 FAX:+66-3-968-5972
• Manufacture and sales of rubber compounds (CM)

Zeon Chemicals Singapore Pte. Ltd.
100 Banyan Drive, Jurong Island, Singapore 627571
• Manufacture and sales of S-SBR

Zeon Asia Pte. Ltd.
331 North Bridge Road, #20-01/02, Odeon Towers, Singapore 188720
TEL:+65-6332-2338 FAX:+65-6332-2339
• Sales, export, and import of synthetic rubbers, synthetic latex, and petroleum resins
Zeon Chemicals L.P.
4111 Bells Lane, Louisville, Kentucky 40211, U.S.A.
TEL:+1-800-735-3388 FAX:+1-502-775-2055
• Manufacture and sales of synthetic rubbers

R&D Center
4111 Bells Lane, Louisville, Kentucky 40211, U.S.A.
TEL:+1-502-775-7765 FAX:+1-502-775-7783

Kentucky Plant
4100 Bells Lane, Louisville, Kentucky 40211, U.S.A.
TEL:+1-502-775-7600 FAX:+1-502-775-7614

Mississippi Plant
1301 West Seventh Street, Hattiesburg, Mississippi 39401, U.S.A.

Texas Plant
11235 Choa Road, Pasadena, Texas 77507, U.S.A.
TEL:+1-281-474-9693 FAX:+1-281-474-0966

Zeon Specialty Materials Inc.
25 Metro Drive, Suite 238, San Jose, CA 95110, USA
TEL:+1-408-641-7889 FAX:+1-408-516-9382
• Sale of advanced materials

Tokyo Zairyo (U.S.A.) Inc.
750 Old Hickory Blvd., Building One, Suite 220
Brentwood, TN 37027
TEL:+1-615-922-4633 FAX:+1-615-942-7424
• Purchase and sales of synthetic rubbers, chemical products, etc.
  (including international trade)

New York Office
333 Mamaroneck Avenue PMB #94 White Plains, NY 10605 U.S.A.
TEL:+1-914-646-7450

McAllen Office
2112 South Shary Rd, Suite #26 Mission, TX 78572
TEL:+1-914-314-8919

Zeon Kasei Mexico S.A. de C.V.
Avenida Santiago Sur 100, Los Jassos, San Luis Potosi, San Luis Potosi, MEXICO, C.P.78420
TEL:+52-1-444-478-5400
• Manufacture and sales of powder slush compounds

Tokyo Zairyo México, S.A. de C.V.
Boulevard Bernardo Quintana 7001 Torre II Suite 807 Colonia Centro Sur, C.P. 76090 Querétaro, Querétaro, México
TEL:+52-442-229-3242 FAX:+52-442-229-3244
• Purchase and sales of synthetic rubbers, chemical products, etc.
  (including international trade)

Zeon do Brasil Ltda.
Rua Arandu, 57/cj 23, São Paulo-SP, 04562-031
TEL:+55-11-5501-2120 FAX:+55-11-5501-2122
• Sales of synthetic rubbers and resins, etc.

Zeon Europe GmbH
Hansaallee 249, 40549 Düsseldorf, Germany
TEL:+49-211-52670 FAX:+49-211-5267160
• Sales, export, and import of synthetic rubbers and resins

Zeon Europe GmbH – Branch in France
ZEON France S.C. 153, Boulevard Hausmann 75008 Paris, France
TEL:+33-1-211-5267-145

Zeon Europe GmbH – Branch in Spain
C/Beethoven, 14, 4º 08021 Barcelona, Spain
TEL:+34-93-183-87-08 FAX:+34-93-183-87-58

Zeon Europe GmbH – Branch in Italy
Via Mauro Macchi, 27, 20124 Milano, Italy
TEL:+39-02-67141701 FAX:+39-02-36680124

Zeon Europe GmbH – Branch in U.K.
Scott Court, Unit 2A, Ocean Way, Cardiff, CF24 5HF, United Kingdom
TEL:+44-1446-725000 FAX:+44-1446-747988

Telene S.A.S.
2, rue Marie Curie - 59910 Bondues, France
TEL:+33-3-20-69-57-10 FAX:+33-3-20-69-57-11
• Development and sales of Telene® DCP-RIM resin

Tokyo Zairyo Czech, s.r.o.
Pekárská 620/3, 186 00 Prague 8, Czech Republic
TEL:+420-221-228-406 FAX:+420-221-228-405
• Procurement and sales of synthetic resins, synthetic rubbers, and other chemical products
Zeon Corporation – Head Office
Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan
TEL: +81-3-3216-1410 FAX: +81-3-3216-1421
• Agency business for life and non-life insurance; loan and factoring business to each group company

RIMTEC Corporation
TEL: +81-3-3216-9551 FAX: +81-3-3216-9556
Plants and R&D Center: Mizushima
• Purchasing and sale of petrochemical materials, packaging containers, logistics equipment, etc.

ZIS Information Technology Co., Ltd.
TEL: +81-3-3216-8500 FAX: +81-3-3216-8534
• Consulting about data processing systems; sales and maintenance of computer and office automation equipment

Zeon Nano Technology Co., Ltd.
TEL: +81-3-3216-1766 FAX: +81-3-3216-1767
• Processing and sales of Carbon Nanotubes and related products

Zeon Elastomer Co., Ltd.
TEL: +81-3-3216-0620 FAX: +81-3-3216-0629
• Sales and R&D of S-SBR

Zeon Medical Inc.
TEL: +81-3-3216-1265 FAX: +81-3-3216-1269
Plant: Takaoka
• Manufacturing and sale of medical devices

Okayama Butadiene Co., Ltd.
Sen-i Kaikan 2F, 3-1-11 Nihonbash-Honcho, Chuo-ku, Tokyo 103-0023, Japan
TEL: +81-3-3278-0721 FAX: +81-3-3278-0722
• Manufacturing of butadiene monomer

Zeon Corporation – Kawasaki Plant
1-2-1 Yako, Kawasaki-ku, Kawasaki-shi, Kanagawa 210-9507, Japan
TEL: +81-44-276-3700 (direct) FAX: +81-44-276-3701

Zeon Corporation – R&D Center
TEL: +81-44-276-3721 FAX: +81-44-276-3720

Zeon Corporation – Takaoka Plant
630 Ogino, Takaoka-shi, Toyama 933-8516, Japan
TEL: +81-766-21-0252 (direct) FAX: +81-766-21-8201

Zeon North Co., Ltd.
351 Ejiri, Takaoka-shi, Toyama 933-0062, Japan
TEL: +81-766-25-1111 FAX: +81-766-25-1114
• Contracting, design, construction, and management for various facilities; sales of industrial materials and equipment, purchase and sale of petrochemical products; testifying environmental measurements, inventory working environment; conducting various analyses

Optes Inc.
422-1 Futagamishin, Takaoka-shi, Toyama 933-0981, Japan
Plants: Takaoka, Himi, Tsuruga
• Manufacture of optical films

Zeon Yamaguchi Co., Ltd.
2-1 Nachi-cho, Shunan-shi, Yamaguchi 745-0023, Japan
TEL: +81-834-21-8501 FAX: +81-834-21-8600
• Purchase and sale of civil engineering materials, packing materials, and various facilities; design and construction, contracting for various plants; environment analysis

Zeon Corporation – Tokuyama Plant
2-1 Nachi-cho, Shunan-shi, Yamaguchi 745-0023, Japan
TEL: +81-834-21-0663 FAX: +81-834-21-0666
• Purchase and sale of civil engineering materials, packing materials, and various facilities; design and construction, contracting for various plants; environment analysis

Zeon Corporation – Kawasaki Plant
1-2-1 Yako, Kawasaki-ku, Kawasaki-shi, Kanagawa 210-9507, Japan
TEL: +81-44-276-3700 (direct) FAX: +81-44-276-3701
Zeon Corporation – Mizushima Plant
2767-1 Kojima Shionasu Aza Niihama, Kurashiki-shi, Okayama 711-8511, Japan
TEL: +81-86-475-0021 FAX: +81-86-475-1169
• Manufacturing and sale of plastic molding products

Zeon RIM Co., Ltd.
2767-22 Kojima Shionasu Aza Niihama, Kurashiki-shi, Okayama 711-0934, Japan
TEL: +81-86-475-0621 FAX: +81-86-475-0620
• Manufacturing, processing and sale of plastic molding products

Zeon Corporation – Osaka Office
Furukawa Osaka Bldg. West 4F, 2-1-9 Dojimahama, Kita-ku, Osaka-shi, Osaka 530-0004, Japan
TEL: +81-6-4797-8220 FAX: +81-6-4797-8225

Tohpe Corporation
1-5-11 Chikkoshimachi, Nishi-ku, Sakai-shi, Osaka 592-8331, Japan
TEL: +81-72-243-6411 FAX: +81-72-243-6415
Plants: Ibaraki, Mie, Kurashiki, Kyushu
• Manufacturing and sale of paints and chemical products

Zeon Corporation – Nagoya Office
Ichigo Fushimi Bldg. 7F, 1-18-24 Nishiki, Naka-ku, Nagoya-shi, Aichi 460-0003, Japan

Zeon Polymix Inc.
1-11-1 Hitozue, Otsu-shi, Shiga 520-2272, Japan
TEL: +81-77-546-1223 FAX: +81-77-546-6099
Plants: Otsu
• Manufacturing compound of synthetic rubber (carbon masterbatches)

Zeon Chemicals Yonezawa Co., Ltd.
3-446-13 Hachimanpara, Yonezawa-shi, Yamagata 992-1128, Japan
TEL: +81-238-29-0055 FAX: +81-238-29-0053
• Manufacturing, processing and sale of aromatic chemicals, the intermediate of medicine and agricultural chemicals and RIM formulation liquid

River Xemex Co., Ltd.
2-11-17 Osachigosho, Okaya-shi, Nagano 394-0082, Japan
TEL: +81-266-21-2131 FAX: +81-266-21-1550
• Manufacture of medical devices

TFC Inc.
34-23-2 Azono, Tsuruga-shi, Fukui 914-0141, Japan
TEL: +81-770-21-1711 FAX: +81-770-21-1775
• Manufacturing of optical films

Zeon Opto Bio Lab Co., Ltd.
234-1 Konaka-cho, Sane-shi, Tochigi 327-0001, Japan
Tel: +81-283-23-7061 Fax: +81-283-23-7054
• Mold processing of plastic products
Zeon’s Business and Strategy

This section describes Zeon’s business and strategy in the Enterprise Blueprint for 2020, with the target of “Over 500 billion yen in consolidated net sales” and the mission “Zeon makes the future today through the power of chemistry.”

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Zeon’s Business and Strategy

Elastomer Business P. 27
Specialty Materials Business P. 29
Research and Development (R&D) P. 31
Corporate Governance P. 33
Further growth and corporate culture transformation to realize the future today

President Kimiaki Tanaka outlines where Zeon Group is today and its outlook for the future in a Q&A format.

Q.1 What is the current situation in terms of the economic environment and for the Zeon Group, and what is the situation in Zeon’s Elastomer Business and Specialty Materials Business?

A.1

[Overview] Achieved sales scale of 330 billion yen for two consecutive years. Improving profitability in the Elastomer Business has been a challenge, while the Specialty Materials Business has seen growth in specialty chemicals, battery materials, and cyclo olefin polymers (COP).

Sales in FY 2018 were higher than the previous fiscal year to post a new record high for two consecutive years. Nevertheless, challenges related to profit remained.

In the Elastomer Business, sales volumes both in Japan and globally were brisk with increased revenue. Meanwhile, there were large fluctuations in prices for raw materials, and we were not able to sufficiently reflect these in our product pricing, resulting in decreased profit. (See also → P. 27)

The Specialty Materials Business posted decreased revenue and profit. Sales of optical films for smartphones were flat in part due to customers adjusting their inventories, while sales of specialty chemicals, battery materials, toners, and COP saw steady expansion and were able to compensate for the lackluster sales of optical films. (See also → P. 29)

In FY 2019, the Elastomer Business is expected to continue seeing fluctuations in the prices of raw materials. The Specialty Materials Business is expected to continue seeing fluctuations in the smartphone market. Considering a range of economic issues in Europe and the trade friction between the United States and China, we believe that the FY 2019 business environment will become more challenging, and plan to develop markets and new products with an awareness of the risks.
Our Enterprise Blueprint for 2020 was originally drawn up from a discussion of what we wanted to be in 10 years in our mid-term management plan SZ-20, which started in 2011. We are in the manufacturing industry, so we see sales of our products and services that customers lay out capital to buy as a measure of our social contributions. While setting ambitious sales targets, we aim to achieve the goals of the Enterprise Blueprint for 2020 and have implemented internal reforms of our corporate culture. This framework remains the same in SZ-20 Phase III as well, which is our mid-term management plan from FY 2017 to FY 2020. Through our Taimatsu (Torchlight) activities and Mudadori (waste elimination) activities, I can sense that forward-looking thinking and work autonomy are becoming instilled in our company.

We will maintain our FY 2020 sales targets until the end of FY 2020 and also resolve to continue our efforts until the very end to move close to these targets, based on the ongoing reform of our corporate culture.

Standing on the foundation of our transformed corporate culture, part of our growth strategy in terms of research and development is narrowing down our key development areas to the three areas of Global Environment, Smart Devices, and Health and Living. We introduced a new multi-review process and Innovation Highway framework in 2017, which are currently operating. (See also → P. 31, Research and Development) The multi-review process aims to encourage development of research themes by receiving wide-ranging viewpoints from influential persons inside the company. The Innovation Highway searches for research themes with the potential to become new businesses in the mid- to long term. In the two years starting in FY 2017, close to 100 themes have been explored, and four became research themes in FY 2018. We will continue to conduct this kind of theme exploration.

We are also continuing to look at M&A as a means of discontinuous growth. ZS Elastomer Co., Ltd., established in 2017 with Sumitomo Chemical, is seeking to maximize synergies through the integration of its sales and R&D functions in the S-SBR Business, new product development, further strengthening of its cost competitiveness, and ensuring supply stability. Many other matters are also under discussion, and ones that have not yet been realized will continue to be investigated.
In addition, decisions have been made on a number of capital investments that will facilitate expansion of our production capacity. There were four capital investment decisions made in the Elastomer Business. We established Zeon Chemicals Asia Co., Ltd., which manufactures and sells acrylic rubber in Thailand, expanded the capacity of the Kawasaki Plant for Zetpol® specialty cross-linked type, set up a production plant for high-concentration NBR latex, and set up a production plant for rubber compounds in Thailand. In the Specialty Materials Business, we set up new production facilities for biaxially stretched optical film for TVs in Tsuruga City, and expanded our production capacity for base films in Takaoka City.

In terms of new products, we have released COP with more advanced performance and new products in the Medical Business, and are developing applications for composite materials in the Single-Walled Carbon Nanotube Business, such as O-rings with improved durability and an electromagnetic absorber compatible with 5G. Carbon nanotubes are able to effect a wide range of amazing characteristics, but may only be used in very small amounts depending on the application. We will closely evaluate profitability in each venture as we move forward.

In terms of new services, we began providing locally based technical support for specialty rubbers in 2017 through the Asia Technical Support Laboratory (ATSL) in Singapore. This is contributing to raising Zeon’s presence in the Asian region. The marketability of the microfluidic chip prototype provision service using COP that we undertook in 2017 has been confirmed, and we have established the new company Zeon Opto Bio Lab Co., Ltd. (See also → P. 7, Highlight 2)

These are some of the many activities we have steadily implemented to create results, which can be seen in the tangible form of expanded sales on the scale of 330 billion yen.

FY 2019 is the third year in which we have implemented major measures for diversity. There have been many measures, including communicating information to employees and externally, holding dialogue with mid-level employees, mainly women, and holding managerial trainings. Employee interest is also very high, and I have a renewed sense of the significance of continuing these measures in the future as well. Among them, we are painfully aware of the need for education to reform the awareness of managers. In addition to this, I believe it is very important to create an environment that facilitates mutual understanding, where employees can easily turn to their co-workers and bosses for advice. Programs that are designed to improve work–life balance include a hotline set up for caregiving consultations and the start of a trial work–from–home scheme.

In terms of strengthening CSR, we became a signatory to the United Nations Global Compact and have established a human rights policy.

Regarding corporate governance, there seems to be the need to build on our system in light of recent changes to governance and social factors. We have an established practice of assessing risk in our Risk Management Committee, and also use helplines. People’s efforts are needed to maintain safety, and in the same way people’s efforts are also needed to maintain good governance. We will continue our efforts with this awareness.

Zeon Corporation’s stated company goal is to meet society’s expectations by offering unique products that cannot be imitated by any other company. In other words, we provide new value to society through original technologies and products to simultaneously achieve business profit and meet the expectations of society. Society’s expectations are becoming broader to include aspects such as the SDGs and ESG, and we will meet these expectations as well. In addition, we have not forgotten about meeting the expectations of our employees. We aim to be a company that provides value to all of our stakeholders.
Zeon’s Business and Strategy

Elastomer Business

In elastomers, our main business involves the three fields of synthetic rubber, synthetic latex, and chemical products, the main raw materials of which are C4 and C5 fractions derived from naphtha. In 1959, Zeon became the first company in Japan to mass-produce synthetic rubbers. Even today, the Elastomer Business is the core Zeon business, providing over 50% of total net sales and operating income.

FY 2018 performance in the Elastomers field exceeded the initial forecast for both sales and operating income. Sales in particular recorded a new record high. However, the effects of the trade friction between the United States and China, the sense of unease in oil- and gas-related industries in the United States, and the drop in the general-purpose product market in the second half of the fiscal year held down profits. These trends are predicted to basically continue in FY 2019 as well.

In the Rubber Business, a strong base of demand for the general-purpose rubbers of E-SBR and BR for tires is somewhat lacking, while demand and shipment volumes for S-SBR used in high-performance tires are seeing solid growth. ZS Elastomer, which operates the S-SBR business in a merger with Sumitomo Chemical, integrated its research functions in April 2019 following the sales functions. As a result, sales and R&D are now fully integrated units. Going forward, production fields will also be integrated, with the goal of becoming a more attractive S-SBR supplier for customers.

In the specialty rubber field, acrylic rubber, hydrogenated nitrile rubber (Zetpol®), and NBR are all posting good performance, and we continue to operate at full capacity. Moreover, the increase in the production capacity of the Kawasaki Plant will be completed in fall 2019 to create a structure able to effectively meet expanding demand. In the acrylic rubber segment, we established Zeon Chemicals Asia Co., Ltd., a new manufacturing and sales company in Thailand. We plan to complete construction in spring 2020 to be able to produce rubber on a scale of 5,000 tons annually, and have secured land that can be used to expand our production facilities if demand grows in the future to definitively meet demand in our target priority markets of the ASEAN and Indian regions and the Chinese market.

To enhance our presence as a specialty rubber manufacturer in the target markets, we established a sales company in India in 2015, and the Asia Technical Support Laboratory (ATSL) in Singapore in 2017, which provides advanced technical services in the region. Manufacturing specialty rubber products that are used in high-performance autoparts requires advanced formulation and processing technologies. Even with the same formulations as used in Japan and Western countries, the same quality may not be attained when locally available agents are used. ATSL strives to provide targeted solutions to local customers using locally based approaches and service.

The Chemicals Business continues to operate at full capacity. However, profitability has also declined from worsening market conditions for general-purpose SIS for packaging adhesive tape. We are now shifting the business to higher value-added products. Of these, we have established a strong reputation in the Asymmetric SIS market and have high expectations for future expansion of demand.

We are also engaged in full production for synthetic latexes. For the market as a whole, NBR latex for disposable gloves continues to show the promise of robust growth. We improved our production capacity for special grade for cosmetic puffs, for which we take 90% of the global share, by 20% over FY 2018 to meet growing demand. Going forward, we will focus on development of glove latex for special uses and surgery, which offer higher profitability.

Hiroyuki Hirakawa
Director & Senior Corporate Officer
Elastomers and Chemicals Business
Division Manager – Logistics

Business Overview and Future Strategy
Business conditions (SWOT analysis)

**Strengths (S)**
- Zeon original technologies (polymerization, hydrogenation, modification [specialty cross-linking])
- Global technical support

**Weaknesses (W)**
- Declining advantage of Zeon’s NBR from larger number of players
- Competition for rubbers other than NBR
- Applications limited to engine-powered vehicles

**Opportunities (O)**
- Demand in ASEAN + India (Penetration of engine-powered vehicles in regions with undeveloped EV environments [infrastructure, etc.])

**Threats (T)**
- Of automotive applications, demand is stagnating from the higher proportion of EV
- Country risks as a result of globalization

Key management resources (inputs)

Financial capital —

Manufacturing capital: Original manufacturing technology, manufacturing processes

Intellectual capital: Patents (manufacturing, composition, applications), know-how

Human capital: Hiring and promotion of diverse human resources

Social capital: Manufacturing site locations, local workers

Natural capital: Locating plants and warehouses for convenient shipping to main users

Outcome: What kind of social value does this create?
(From an outside-in perspective)

Through automobiles, we offer new and innovative, inimitable solutions using our original materials technology to contribute to realizing greater comfort and convenience in people’s lives.

Automotive elastomers such as Zetpol® offer excellent durability with heat and oil resistance. We are contributing to improved automotive performance by meeting the demands of automakers who use our elastomers in their engine-powered and hybrid vehicles.

Business model and social value creation of Zetpol®

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**Operating income (ratio)**

<table>
<thead>
<tr>
<th>Year</th>
<th>Income (100 million JPY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>207</td>
</tr>
<tr>
<td>2016</td>
<td>206</td>
</tr>
<tr>
<td>2017</td>
<td>222</td>
</tr>
<tr>
<td>2018</td>
<td>177</td>
</tr>
<tr>
<td>2019</td>
<td>144 (forecast)</td>
</tr>
</tbody>
</table>

**Elastomer Business breakdown (FY 2018)**

<table>
<thead>
<tr>
<th>Segment</th>
<th>Sales quantity (1,000 tons)</th>
<th>Net sales (100 million JPY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubber</td>
<td>355 (↑1%)</td>
<td>1,388 (↑1%)</td>
</tr>
<tr>
<td>Latex</td>
<td>123 (↑5%)</td>
<td>188 (↑2%)</td>
</tr>
<tr>
<td>Chemicals</td>
<td>138 (↑5%)</td>
<td>347 (↑10%)</td>
</tr>
</tbody>
</table>

Elastomers: Higher revenue, lower profit

Higher sales prices increased revenue in the Rubber and Chemicals businesses. The Chemicals Business saw growth in Asymmetric SIS in particular. Profit is improving as a result of price revisions.
Specialty Materials Business

Specialty materials refers to materials and components offering high added value due to their macromolecular design and processing technology.

Focusing on future growth areas, we are positioning IT components (optical, packaging, electronics), energy materials, and medical devices as our three main business areas.

Business Overview and Future Strategy

Performance in the Specialty Materials Business in FY 2018 was largely in line with expectations for both sales and profit.

The Film Business accounts for a large volume of the Specialty Materials Business. Creating growth in the Film Business is key to increasing overall sales. In 2018, we decided to increase the production capacity of our optical film plants in Tsuruga City and Takaoka City. This move is expected to contribute to BCP from plant decentralization and have supplemental effects on the local economies from new employment. The new line at Tsuruga Plant will meet needs for larger LCD panels and be able to produce retardation films with the world’s largest width (2,500-mm class). ZeonorFilm™ enjoys high demand in LCD panels for large-screen TVs from its high dimensional accuracy and other characteristics. In addition, Chinese electronics manufacturers are turning their attention to Africa and other emerging markets in terms of TV sales volumes, and ongoing market expansion is anticipated. We will continue to refine our technologies to remain the preferred supplier.

Demand for small- and medium-sized films for advanced smartphones did not see major growth, but demand continues to gradually increase for educational tablets. Global demand for educational tablets is expected to grow, meaning that the market for films for LCD should see ongoing expansion.

We will continue to develop advanced products that leverage the characteristics of cyclo olefin polymers (COP). The microfluidic chip prototype provision service is seeing stable expansion and was spun off to establish Zeon Opto Bio Lab in April 2019 to build out its structure for medical packaging applications leveraging the property of keeping proteins from solidifying.

Demand for battery materials (energy materials) is also rising sharply with increased demand for electric and hybrid vehicles. The Chinese electric vehicle market has been expanding for some time, and Europe is now seeing rapid expansion, so demand for our battery materials is growing.

Demand for specialty chemicals as a whole remains brisk, continuing the same trend from last year. Cheap specialty chemicals launched by new manufacturers have been weeded out from tightened environmental regulations. Market conditions are recovering, and demand for Zeon’s products is rising.

In the Medical Business, we launched a new catheter for removing bile duct stones and a new bile duct stent in FY 2018. Our guide-wire equipped intravascular pressure sensor continues to perform well. We will also launch new products in FY 2019, mainly in the endoscopic section.

In our Single-Walled Carbon Nanotube Business, we are conducting ongoing research on various composite materials and are beginning to commercialize some materials. These include shale gas O-rings and a pad-type thermal interface material (TIM). We will continue to pursue research to develop products leveraging the characteristics of carbon nanotubes.

Hiroshi Fujisawa
Director & Corporate Officer
Specialty Business
Division Manager – Specialty Chemicals
Business model and social value creation flow of the Film Business

Business conditions (SWOT analysis)

**Strengths (S)**
- Integrated production from monomers to optical films
- Originally developed resins, originally developed film processing technology
- Capabilities enabling rapid deployment of market demands in resin design

**Weaknesses (W)**
- High dependency on display products

**Opportunities (O)**
- Greater penetration of OLED
- Larger LCD
- Display production shift to China

**Threats (T)**
- Maturation of LCD market and increased competition

Key management resources (inputs)

<table>
<thead>
<tr>
<th>Financial capital</th>
<th>Manufacturing capital</th>
<th>Intellectual capital</th>
<th>Human capital</th>
<th>Social capital</th>
<th>Natural capital</th>
</tr>
</thead>
<tbody>
<tr>
<td>—</td>
<td>Original manufacturing technology, manufacturing processes</td>
<td>Method patent of resin and film</td>
<td>Hiring and promotion of diverse human resources</td>
<td>Manufacturing site locations, local workers</td>
<td>Locating plants and warehouses for convenient shipping to main users</td>
</tr>
</tbody>
</table>

The value chain and priority SDGs

- Original manufacturing technology (Sheet extrusion process, etc.)
- Meeting customer needs
- Multiple production sites in Japan
- Creation of employment
- Our film products offer excellent optical properties, low water absorbency, low moisture permeability, outstanding heat resistance, low outgassing, and dimensional stability. They are primarily used in retardation films for LCD panels.

Outcome: What kind of social value does this create?
(From an outside-in perspective)
Greater comfort and convenience in people’s lives
Through LCD and OLED products, we offer new and innovative, inimitable solutions using our original materials technology to contribute to realizing greater comfort and convenience in people’s lives.

Strengthening positive effects

- R&D (Precision Optics Laboratory)
- Raw materials (Mizushima Plant)
- Resins (Mizushima Plant)
- Optical films (Optes)
- Short-term customers (Polarizing plate manufacturers)
- Higher-order customers (Set manufacturers)
- Consumers

Minimizing negative effects

- Extracting raw materials from C5 fraction using original technology
- Product manufacturing with a focus on the environment and quality
Zeon’s Business and Strategy

Research and Development (R&D)

The R&D Center conducts Zeon Group’s R&D activities with a workforce of more than 400 researchers. In addition to the R&D Center’s 10 research buildings located next to the Kawasaki Plant, we have established other laboratories located near production plants. We develop new products and improve existing products through close collaboration with business units to meet the needs of customers. Additionally, we are exploring new materials, developing and using new analysis and simulation techniques, and developing and improving production processes and equipment.

New Systems for More Efficient R&D

It has been two years since we began implementing the Innovation Highway framework and multi-review process. Our most critical mission now is to increase our research output. To do this, it is important that we 1) definitively produce outcomes from our current research themes, and 2) assess whether the outcomes can become large businesses.

The research flow encompasses the three stages of discovery, research, and development, and decisions must be made at each of these stages.

Discovery stage: Select research themes considering their future market potential
Research stage: Produce and evaluate lab samples
Development stage: Create actual products. Evaluate the scale-up from the lab to a plant and stable production.

Using the Innovation Highway, we select themes in the discovery stage based on expert views and market information. Multiple candidates were also proposed last year, and we will continue to explore themes.

In the multi-review process, we review projects at the research and development stages from a range of viewpoints both inside and outside the development division to determine whether they truly meet customer needs and whether there is a market for a commercialized product. We conducted multi-reviews for themes that had reached the development stage up through last year. From this fiscal year, we are moving up our assessments and conducting multi-reviews at earlier stages to enhance efficiency.

In addition, we are selecting and concentrating our limited resources. By selecting themes nearing commercialization, concentrating staff and resources on them, and bringing together our expertise, we are increasing the potential to commercialize products in a shorter timeframe. We are also increasing the potential to rapidly commercialize subsequent products by quickly moving on to tackle the next themes. We are actively using simulation technology and outside research resources as well to further increase the efficiency of research and development.

R&D expenses

<table>
<thead>
<tr>
<th>Year</th>
<th>R&amp;D expenses (100 million JPY)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014</td>
<td>136</td>
</tr>
<tr>
<td>2015</td>
<td>141</td>
</tr>
<tr>
<td>2016</td>
<td>132</td>
</tr>
<tr>
<td>2017</td>
<td>151</td>
</tr>
<tr>
<td>2018</td>
<td>165</td>
</tr>
</tbody>
</table>

Sachio Hayashi
Director & Senior Corporate Officer
Research & Development
Division Manager - Research & Development Center
Changing the research culture

In SZ-20 Phase III, we added the phrase “through employees’ individual growth” to the Enterprise Blueprint for 2020. The FY 2019 policy for the Research & Development Division also places a strong focus on changing how we do research. More than just a slogan of “change,” the policy embodies our strong determination to change. Researchers will change themselves, and we will change Zeon’s research and development as a whole. To achieve this, I am also encouraging our division to get new ideas by going outside and conducting joint research with groups in other industries and conducting activities such as industry–academia–government collaboration.

In our research structure, we have elevated and established the Composite Material Laboratory from a project team. We aim to use the laboratory to speed up product commercialization. Our research and development expenses also remain on the same scale as before. We will invest in a pilot plant for product commercialization and strengthen our analysis function in the Foundation Technology Laboratory.

Intellectual Property Strategy

We always make efforts to expand our intellectual property rights with our policy of “patent first” to enhance our competitiveness and contribute to industry development in line with our corporate strategy. We define “patent first” as filing patent applications based on our patent portfolio strategy prior to product development, product launch announcements, and distributing samples. We also define it as developing products that do not infringe on other companies’ intellectual property rights by conducting patent searches from the early stages of development.

Product differentiation is achieved by strategically protecting individual technologies with multiple intellectual property rights rather than a single application of rights. We will enhance our competitiveness not only for products but also through acquiring intellectual property rights related to manufacturing processes and applications and keeping our manufacturing know-how confidential. We will also rigorously evaluate whether our intellectual property is being used effectively.

Assessing real needs

We are working to more closely and more quickly assess whether customer needs truly match Zeon’s technology seeds. We are seeking to create not materials that would be good to have, but materials that are indispensable. If the materials that are indispensable are only offered by Zeon, we will be selected by customers with the potential to turn the materials into major businesses. This is true differentiation.

In the long term, we are also aware of the momentum in society to move away from petrochemicals and reduce the use of plastics. Together with Yokohama Rubber Co., Ltd., in July 2018 we jointly developed world-first technology to produce isoprene, a tire raw material, from biomass. This is how we view true needs as being part of society’s hopes and expectations, and will pursue uncovering true needs from the wants and needs of a wide range of stakeholders and feeding them into our research and development.
Zeon aims to increase profits and enhance corporate value on an ongoing basis while respecting and balancing the various interests of its shareholders and other diverse stakeholders. To this end, we are continuing efforts to build a system that enables efficient and sound corporate management through corporate governance. Maintaining a system of corporate governance allows us to clarify the functions and roles of each organizational entity within the company and to carry out rapid decision-making and execution. We are also improving corporate transparency through appropriate monitoring and disclosure of business activities and their effects. We are determined to further enhance our corporate governance system to effectively carry out these aims.

**Board of Directors**
The Board of Directors meets, in principle, every month with corporate auditors in attendance to ensure compliance with applicable laws and the Articles of Incorporation in the execution of business. In addition to its statutory duties, the role of the Board of Directors is to make important decisions about basic management policy, strategy, and other aspects of business execution. As of July 2019, the Board of Directors consists of 10 directors, including three outside directors.

**Board of Corporate Auditors**
The Board of Corporate Auditors comprises five members, including three outside corporate auditors. The Board reports, discusses, and adopts resolutions on important business matters. In accordance with the auditing guidelines established by the Board of Corporate Auditors, each corporate auditor audits directors’ execution of their duties through various means, such as attending Board of Directors meetings and monitoring business operations, including subsidiaries’ operations.

**Executive Committee**
The Executive Committee, in accordance with the Executive Committee Rules, comprises the President and executive officers ranked senior corporate officer or above and meets twice a month in principle to examine and make decisions on important business matters after due deliberation involving consultation with attending full-time corporate auditors. Important business matters stipulated in the Board of Director Rules are examined and decided by the Board of Directors.

**Director and Officer Nomination and Compensation Committee**
The Director and Officer Nomination and Compensation Committee is placed under the Board of Directors as an advisory organ for the purpose of strengthening the objectivity and transparency of the Board of Directors functions related to nominating directors and officers and deciding their compensation. The committee is composed of four members, of which two are independent outside directors.
Director and officer compensation

We use a performance-based compensation system as one type of healthy incentive to achieve sustained growth. Individual compensation is decided by the Representative Director after receiving the advice of the Director and Officer Nomination and Compensation Committee.

Director and officer compensation structure

<table>
<thead>
<tr>
<th>Category</th>
<th>Compensation Structure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internal Directors</td>
<td>• Fixed-amount cash compensation</td>
</tr>
<tr>
<td></td>
<td>• Performance-based cash compensation</td>
</tr>
<tr>
<td></td>
<td>• Restricted stock compensation system</td>
</tr>
<tr>
<td>Corporate Officer</td>
<td>• Fixed-amount cash compensation</td>
</tr>
<tr>
<td></td>
<td>• Performance-based cash compensation</td>
</tr>
<tr>
<td>Outside Director</td>
<td>• Fixed-amount cash compensation</td>
</tr>
</tbody>
</table>

Appointment and dismissal of directors and officers

Nominations of candidates for directors and auditors and appointments of corporate officers are made based on the requirements provided in the Basic Policy on Corporate Governance, with advice given by the Director and Officer Nomination and Compensation Committee, a recommendation by the Representative Director, and a decision by the Board of Directors.

In the case of committing a serious violation of the law, or an act violating company policy either intentionally or through gross negligence, or other reason that is cause for dismissal of the director or officer as provided in internal company regulations, the Board of Directors deliberates the case and dismisses the director or officer concerned based on the Companies Act and other legislation.

Evaluating the effectiveness of the Board of Directors

Questionnaires are conducted for directors including outside directors and auditors about the operations of the Board of Directors. Questionnaire responses are analyzed and evaluated by a third-party outside lawyer entrusted to perform the task, who has provided the opinion that our Board of Directors operates with a high degree of overall effectiveness.

Constructive dialogue with shareholders

The Department of Corporate Communications manages dialogue with shareholders, which is overseen by the corporate officer in charge of CSR. Accurate, impartial information is provided in a timely manner. We continue to hold briefings for investors quarterly, expand the materials released on our website, and increase opportunities for dialogue apart from individual meetings, such as participating in company briefings for individual investors.

Risk Management

The Risk Management Committee promotes Zeon’s risk management. Activities to prevent legal violations and ensure legal compliance are conducted under the Compliance Committee. The Information Management Committee promotes the appropriate management of information from when it is received to when it is destroyed.

Internal reporting system

We have implemented an internal reporting system at Zeon to gather information about potential risks at an early stage and make it easier to address them. In addition to our internal reporting line, we have also set up a reporting line with external lawyers.

The Risk Management Committee investigates the facts of reports that are made and responds as appropriate, such as by instructing the internal organization to implement countermeasures based on the results of the investigation.

Internal reporting flow

- **Whistle-blower**
  - Discovery of risks
  - Discovery of compliance violations

- **Risk Management Committee**
  - Review of facts and implementation of countermeasures

- **External lawyer**
  - Report or notification
  - Feedback
  - Receive report, record facts, notify of result

- **Compliance Hotline**
Zeon’s Business and Strategy

Directors and Officers (as of July 1, 2019)

Visit our corporate website for more information
Corporate Governance Report (PDF)
http://www.zeon.co.jp/csr_e/management.html

Chairman
Naozumi Furukawa
Chairman of TOHPE CORPORATION

Profile
April 1967 Joined Zeon
June 1997 Zeon Director
June 1999 Zeon Senior Director
June 2001 Zeon Executive Director
June 2003 Zeon President
June 2013 Zeon Chairman (current)

President
Kimiaki Tanaka

Profile
April 1979 Joined Zeon
June 2005 Zeon Director
June 2007 Zeon Director and Corporate Officer
June 2011 Zeon Director and Senior Corporate Officer
June 2012 Zeon Director and Executive Corporate Officer
June 2013 Zeon President (current)

Director & Senior Corporate Officer
Hiroyuki Hirakawa
Elastomers and Chemicals Business Division Manager – Logistics

Profile
April 1981 Joined Zeon
June 2008 Zeon Corporate Officer
June 2009 Zeon Director and Corporate Officer
June 2015 Zeon Director and Senior Corporate Officer (current)

Director & Senior Corporate Officer
Toru Nishijima
Production and Engineering Technology Division Manager – Production Center

Profile
April 1961 Joined Zeon
June 2009 Zeon Corporate Officer
June 2013 Zeon Senior Corporate Officer
June 2014 Zeon Director and Senior Corporate Officer (current)

Director & Senior Corporate Officer
Sachio Hayashi
Research & Development Division Manager – Research & Development Center

Profile
April 1980 Joined Zeon
June 2015 Zeon Corporate Officer
June 2017 Zeon Director and Senior Corporate Officer (current)

Director & Corporate Officer
Hiroshi Fujisawa
Specialty Business Division Manager – Specialty Chemicals President of TFC Inc. President of Zeon CSC Corporation

Profile
April 1980 Joined Zeon
June 2011 Zeon Corporate Officer
June 2017 Zeon Director and Corporate Officer (current)

Director & Corporate Officer
Kazuyoshi Matsuura
Administration Division Manager – Human Resources, General Manager – Human Resources, General Manager – China Business Administration

Profile
April 1993 Joined Zeon
June 2017 Zeon Corporate Officer
June 2019 Zeon Director and Corporate Officer (current)
Audit & Supervisory Board

Member Shinichi Hirakawa
Member Takeo Furuya
External Member Yuzuru Fujita
External Member Akio Kohri
External Member Nobutake Nishijima
Adviser – ASAHI MUTUAL LIFE INSURANCE CO.
Chairman and Chief Executive Officer – ADEKA CORPORATION
Corporate Advisor – NIPPON TOCHI-TATEMONO Co., Ltd.

Corporate Officer

Corporate Officer Tomoyuki Kose Managing Director of Zeon Kasei Co., Ltd.
Corporate Officer Tetsuya Toyoshima Director & Corporate Officer – Zeon Chemicals Incorporated
Corporate Officer Makoto Yokota Division Manager – Corporate Administration
Corporate Officer Makoto Watanabe Plant Manager – Mizushima Plant
Corporate Officer Takaomi Kawanaka Plant Manager – Kawasaki Plant

Corporate Officer Tsutomu Eguchi Division Manager – Synthetic Latex
Corporate Officer Yoshiyuki Sone Division Manager – Specialty Components
Corporate Officer Erisa Watanabe Manager – CSR Headquarters
Corporate Officer Satoshi Tominaga Division Manager – Corporate Planning

Director Haruo Itoh Adviser – Fuji Electric Co., Ltd.
Director Takao Kitabata Outside Director – Kobe Steel, Ltd.
Director Tadanobu Nagumo Senior Advisor – The Yokohama Rubber Co., Ltd.

Director Tadanobu Nagumo Senior Advisor – The Yokohama Rubber Co., Ltd.
Zeon’s CSR

We ensure compliance and conduct safe and stable production activities. At our global business locations, we conduct business activities together with local residents as a member of the local community.

Zeon’s CSR P. 38
CSR Implementation Plan P. 39
Environment P. 45
Fair Operating Practices/Human Rights P. 46
Labor Practices P. 47
Community P. 49
At Zeon, we regard CSR activities as all activities undertaken to continue being “a company trusted and valued by society.” With all employees acting with an awareness of CSR, we ensure compliance and contribute to the global environment and sustainable development through our corporate activities. In April 2010, we established the Zeon CSR Policy and the more specific CSR Code of Conduct. In January 2011, we established our current CSR Management Framework.

The CSR Code of Conduct was revised in January 2018. This revision clearly specifies Zeon’s commitment to meeting society’s expectations, which represents Zeon’s fundamental approach to CSR, and restructures the CSR activities that Zeon undertakes.

### Zeon CSR Policy (established April 2010)

1. We will ensure compliance and meet society’s needs for safety and security
2. We will contribute to sustainably developing society and protecting the global environment through our corporate activities
3. We will ensure that each and every Zeon person is aware of CSR and acts accordingly

### CSR Management Framework

The CSR Management Framework comprises the CSR Conference and eight committees.

Chaired by the President and held six times a year, the CSR Conference is the chief decision-making body on matters relating to CSR. The CSR Conference is held to review and finalize committee activities, initiatives, and annual activity plans, and to give necessary instruction based on progress reports.

The committees report to the CSR Conference and advance CSR activities in their specific areas. In October 2018, the Information Security Subcommittee, which had been under the Compliance Committee, was moved to under the CSR Conference as the Information Management Committee to improve information security for the Zeon Group.

### Zeon’s CSR Management Framework

- **President**
- **CSR Conference**
  - **CSR Basic Policy Committee**
  - **Risk Management Committee**
  - **Compliance Committee**
  - **Information Management Committee**
  - **Environmental & Safety Affairs Committee**
  - **Quality Assurance Committee**
  - **PL Committee**
  - **Public Relations Committee**

- **CSR Coordination Division**
  - **CSR Promotional Committees at Offices and Group Companies**
  - **Antitrust Law Regulatory Subcommittee**
  - **Export Security Control Subcommittee**
  - **Corporate Governance Subcommittee**

- **CSR Promotion Department**
  - **General Affairs Department**
  - **Quality Assurance Department**
  - **Legal Affairs Department**
  - **Department of Corporate Communications**

### Committee functions

- **CSR Basic Policy Committee**
  Provides guidance and support for CSR Promotional Committee activities. Builds systems to support making social contributions.

- **Risk Management Committee**
  Responsible for systematically preventing potential risks and handling risks that emerge.

- **Compliance Committee**
  Education and training in legal compliance. Oversees three compliance subcommittees.

- **Information Management Committee**
  Plan and implement Group-wide information management and information security measures. This includes audits of information systems and information security education.

- **Environmental and Safety Affairs Committee**
  Plans and proposes environmental and safety measures and monitors their progress.

- **Quality Assurance Committee**
  Activities related to quality assurance. Reviews, takes action on, and make improvements to QA problems.

- **PL Committee**
  Manages prevention activities, training, and emergency response related to product liability.

- **Public Relations Committee**
  Enhances Zeon’s reputation and image through communication activities. Discloses necessary information at appropriate times.
The Zeon Group’s CSR Implementation Plan has been formulated on the basis of ISO 26000, the international standard for CSR. The CSR Implementation Plan specifies the progress that needs to be made in order to realize the Enterprise Blueprint for 2020, in terms of ISO 26000’s Seven Core Subjects. The CSR Implementation Plan shows what measures the Zeon Group is implementing in relation to the Seven Core Subjects, which embody society’s expectations.

In the future, we will further the dissemination of the CSR Implementation Plan both within and outside the Zeon Group, and implement activities aimed at helping all stakeholders to understand Zeon’s CSR measures.

Structure of Zeon Group’s CSR Implementation Plan

ISO 26000 Seven Core Subjects

Society’s expectations

Enterprise Blueprint for 2020 = To meet the expectations of

Zeon Group targets

Activities currently being implemented

Initiatives to achieve our goals

Remaining challenges to achieve the Enterprise Blueprint for 2020

Items for future implementation

Initiatives for the Enterprise Blueprint for 2020

While addressing the remaining challenges stated as “Items for future implementation” in the CSR Implementation Plan, we will monitor how close we are to the Enterprise Blueprint for 2020. We will then consider what we need to do next to achieve the Enterprise Blueprint for 2020 and update the items for future implementation.

Correlation between the SDGs and Zeon’s business activities

A large number of people and organizations are involved in the supply chain, from obtaining the raw materials to production and product supply that form Zeon’s business activities. In this process, there are areas where we can exercise our influence. Many of our products are also used in other products, including automobiles and buildings. There are ways in which our value can contribute to resolving issues faced by society.

Zeon is a company that provides materials to companies, and we contribute to resolving issues faced by society throughout all of our business activities.
1. Corporate Governance  
**Decision-making as an organization**

**Correlation with SDGs:**
- Goal 16: Peace, Justice and Strong Institutions
- Goal 17: Partnerships for the Goals

<table>
<thead>
<tr>
<th>Enterprise Blueprint for 2020</th>
<th>Details of current activities</th>
<th>Future initiatives and targets</th>
</tr>
</thead>
</table>
| _Decision-making with accountability and transparency_  
- Organizational decision-making is conducted appropriately based on internal regulations  
- Business divisions carry out their operations using the PDCA cycle based on policies  
- The process of decision-making takes into consideration social and environmental impacts | △ System to develop internal regulations in the CSR implementation framework (Create internal rules → Apply to routine work)  
△ Operations address corporate governance (details of results below)  
- Zeon Corporation’s Basic Policy on Corporate Governance (Japanese Only)  
http://www.zeon.co.jp/content/200281514.pdf  
- Corporate Governance Report (Japanese Only)  
http://www.zeon.co.jp/content/200323922.pdf | 1. Continue implementing our CSR framework, and periodically revise its operations based on society’s expectations |
| _Corporate governance_  
- Corporate governance functions effectively and reasonably  
- Many business processes are handled using key business systems designed based on internal regulations, and the overall framework creates a very low level of error in processes  
- When risks to corporate governance arise, systems operate to appropriately address the risks under the proper authority | △ Report corporate governance reports (status of system for ensuring appropriateness of business affairs)  
△ Develop work systems  
△ Conduct corporate governance activities to satisfy Japan's Corporate Governance Code | 1. Improve internal control level at Zeon Group companies |
| _Risk management_  
- Established a global crisis management structure  
- The Compliance Hotline is operated appropriately | ■ Create a risk table and periodically revise it  
■ Evaluate risks using the risk table, and conduct the same across the Zeon Group (Japan/global)  
■ Operate an internal reporting system  
■ Continue sending out information and conducting legal education using the CSR Code of Conduct and compliance texts | 1. Evaluate the risk table and give guidance for improvements at divisions and Group companies, and horizontally implement successful cases  
2. Consider business risks broadly and manage them in view of demands and society’s expectations |
| _Business continuity_  
- Independent business continuity management (BCM) activities (establishing a BCM system, periodically revising BCM through drills and other means, etc.) are conducted throughout the Zeon Group, and have become established and reinforced | ■ Examine and establish business continuity management (BCM)  
■ Create and periodically revise various business continuity plans (companywide BCP, division BCP, raw materials procurement BCP, etc.) | 1. Support for establishing an independent BCM structure through drills and other means (support so that individual organizations can create the situation of conducting the PDCA cycle for BCM by themselves) |

2. Human Rights  
**Protect basic rights granted to all people**

**Correlation with SDGs:**
- Goal 1: No Poverty, Goal 2: Zero Hunger, Goal 3: Good Health and Well-Being,  
Goal 5: Gender Equality, Goal 10: Reduced Inequalities

<table>
<thead>
<tr>
<th>Enterprise Blueprint for 2020</th>
<th>Details of current activities</th>
<th>Future initiatives and targets</th>
</tr>
</thead>
</table>
| _Discrimination and vulnerable groups, avoidance of complicity_  
- The section on respect for human rights and prohibition of discrimination in the CSR Code of Conduct has been shared with all Zeon Group companies and Zeon Group business partners, and compliance with the prohibitions on child labor and forced labor are confirmed | ■ Release Zeon Group's CSR Code of Conduct and CSR Procurement Guidelines on the Corporate Report and the Zeon corporate website  
△ Conduct CSR education including reviewing compliance texts, e-learning, and CSR information sessions  
■ Establish a policy specific to human rights and implement it across the Zeon Group | 1. Provide information on the Zeon Group’s CSR Code of Conduct and CSR Procurement Guidelines to business partners (business, procurement, and materials purchasing departments)  
2. Build a database of external reports related to respect for human rights at business partners (supply chain CSR survey database) (CSR Promotion Department) |
### 3. Labor Practices

Based on Japanese law and international standards, fulfill not only our minimum obligations but also establish better work environments and systems for organizations and employees

#### Correlation with SDGs:
- Goal 3: Good Health and Well-Being
- Goal 4: Quality Education
- Goal 5: Gender Equality
- Goal 8: Decent Work and Economic Growth

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<table>
<thead>
<tr>
<th>Enterprise Blueprint for 2020</th>
<th>Details of current activities (△: Completed, ◇: Ongoing)</th>
<th>Future initiatives and targets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employment</strong></td>
<td>△ Set a numerical target for women new graduate hires</td>
<td>1. Further expand employment not tied to gender, nationality, race, age, disability, or other attribute</td>
</tr>
<tr>
<td></td>
<td>△ Hiring of non-Japanese employees (mid-career employees, exchange students)</td>
<td>2. Build a supply chain CSR survey database of labor practices at business partners</td>
</tr>
<tr>
<td></td>
<td>△ Expand re-employment system for employees reaching the age of mandatory retirement</td>
<td></td>
</tr>
<tr>
<td></td>
<td>△ Implementation of employment for people with disabilities</td>
<td></td>
</tr>
<tr>
<td><strong>Labor conditions and social protections</strong></td>
<td>△ Appropriate operation of evaluation and promotion management systems</td>
<td>1. Promote diversity-oriented management</td>
</tr>
<tr>
<td></td>
<td>△ Support for employee skills and career development</td>
<td>1. Appoint more women employees to higher positions</td>
</tr>
<tr>
<td></td>
<td>△ Initiatives for harassment prevention</td>
<td>2. Initiatives to prevent harassment and improve communication competence</td>
</tr>
<tr>
<td></td>
<td>△ MD Committee activities by women members (including dialogue between senior management and women employees)</td>
<td>3. Advance employment of older persons</td>
</tr>
<tr>
<td><strong>Labor conditions and social protections</strong></td>
<td>△ Introduce flex-time systems</td>
<td>2. Develop an education system and expanded curriculum</td>
</tr>
<tr>
<td></td>
<td>△ Advancement of measures to support raising the next generation</td>
<td></td>
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<tr>
<td></td>
<td>△ Childcare support systems (shortened working hours, overtime restrictions and exemptions, sick care leave, working daycare hours, etc.)</td>
<td></td>
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<tr>
<td></td>
<td>△ Return-to-work program for employees taking childcare and caregiving leave</td>
<td></td>
</tr>
<tr>
<td><strong>Occupational health and safety</strong></td>
<td>△ Promotion of health management</td>
<td>1. Further promotion of health and productivity management</td>
</tr>
<tr>
<td></td>
<td>△ Promotion of joint plans with health insurance cooperative</td>
<td>1. Continue to be selected as a White 500 company</td>
</tr>
<tr>
<td></td>
<td>△ Ensure labor hours management and prevent excessive work</td>
<td>2. Enhance mental health education</td>
</tr>
<tr>
<td></td>
<td>△ Environmental upgrades using stress check tests</td>
<td>3. Implement further health promotion initiatives</td>
</tr>
<tr>
<td></td>
<td>△ Provide guidance to prevent lifestyle diseases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>△ Promotion of no smoking measures</td>
<td></td>
</tr>
<tr>
<td><strong>Occupational health and safety</strong></td>
<td>△ Implement the Safety Management Improvement Master Plan</td>
<td>1. Conduct four safety activities (“4R-KY”) at all Group companies (and in the supply chain)</td>
</tr>
<tr>
<td></td>
<td>△ Fully implement deterioration countermeasures and identify footprint measures, and horizontally implement measures arising from cases of accidents at other companies and plants</td>
<td>2. Reinforce specified sources of hazards to prevent safety accidents</td>
</tr>
<tr>
<td></td>
<td>△ Conclude cooperation agreements with local governments (Cooperative Agreement for Disaster Prevention in Industrial Complexes)</td>
<td>3. Advance dialogue activities on safety, the environment, and quality with local communities</td>
</tr>
<tr>
<td></td>
<td>△ Participate in community disaster readiness activities</td>
<td></td>
</tr>
<tr>
<td><strong>Occupational health and safety</strong></td>
<td>△ Plant safety evaluations conducted 100%</td>
<td>Targets</td>
</tr>
<tr>
<td></td>
<td>△ Implement RC audits conducted (once/year or more for all 4 plants)</td>
<td>Plant safety evaluations conducted 100%</td>
</tr>
<tr>
<td></td>
<td>△ Eliminate safety incidents: 2 safety incidents</td>
<td>Implement RC audits (once/year or more for all 4 plants)</td>
</tr>
<tr>
<td></td>
<td>△ Eliminate occupational accidents: 2 occupational accidents resulting in lost work time</td>
<td>Eliminate safety incidents: 0 safety incidents</td>
</tr>
<tr>
<td></td>
<td>△ Improve safety in logistics</td>
<td>Eliminate occupational accidents: 0 occupational accidents</td>
</tr>
<tr>
<td></td>
<td>△ Conduct comprehensive emergency-response drills and monthly drills by our self-defense emergency response teams</td>
<td></td>
</tr>
<tr>
<td></td>
<td>△ Provide guidance to prevent lifestyle diseases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>△ Improve safety in logistics</td>
<td></td>
</tr>
<tr>
<td><strong>HR development and training at workplaces</strong></td>
<td>△ Provide training to enhance accident prevention awareness (4 plants, 1 Group company) (e.g., education using accident case studies, hands-on training)</td>
<td>To improve safety capabilities</td>
</tr>
<tr>
<td></td>
<td>△ Promote the 5S’s→3S’s</td>
<td>1. Conduct four safety activities (“4R-KY”) at all Group companies (and in the supply chain)</td>
</tr>
<tr>
<td></td>
<td>△ Support for employee skills and career development</td>
<td>2. Reinforce specified sources of hazards to prevent safety accidents</td>
</tr>
<tr>
<td></td>
<td>△ Initiatives for harassment prevention</td>
<td>3. Advance dialogue activities on safety, the environment, and quality with local communities</td>
</tr>
<tr>
<td></td>
<td>△ MD Committee activities by women members (including dialogue between senior management and women employees)</td>
<td>Targets</td>
</tr>
<tr>
<td></td>
<td>△ Introduce flex-time systems</td>
<td>Plant safety evaluations conducted 100%</td>
</tr>
<tr>
<td></td>
<td>△ Advancement of measures to support raising the next generation</td>
<td>Implement RC audits (once/year or more for all 4 plants)</td>
</tr>
<tr>
<td></td>
<td>△ Childcare support systems (shortened working hours, overtime restrictions and exemptions, sick care leave, working daycare hours, etc.)</td>
<td>Eliminate safety incidents: 0 safety incidents</td>
</tr>
<tr>
<td></td>
<td>△ Return-to-work program for employees taking childcare and caregiving leave</td>
<td>Eliminate occupational accidents: 0 occupational accidents</td>
</tr>
<tr>
<td></td>
<td>△ Promotion of health management</td>
<td></td>
</tr>
<tr>
<td></td>
<td>△ Promotion of joint plans with health insurance cooperative</td>
<td></td>
</tr>
<tr>
<td></td>
<td>△ Ensure labor hours management and prevent excessive work</td>
<td></td>
</tr>
<tr>
<td></td>
<td>△ Environmental upgrades using stress check tests</td>
<td></td>
</tr>
<tr>
<td></td>
<td>△ Provide guidance to prevent lifestyle diseases</td>
<td></td>
</tr>
<tr>
<td></td>
<td>△ Promotion of no smoking measures</td>
<td></td>
</tr>
</tbody>
</table>

**FY 2018 results**

- No. of employees rehired after mandatory retirement: 15 (88.2%)
- Percentage of employees with disabilities: 2.29%
- Percentage of employees with disabilities: 2.29%
- Percentage of employees with disabilities: 2.29%

**To improve safety capabilities**

1. Conduct four safety activities (“4R-KY”) at all Group companies (and in the supply chain)
2. Reinforce specified sources of hazards to prevent safety accidents
3. Advance dialogue activities on safety, the environment, and quality with local communities

**Targets**

- Plant safety evaluations conducted 100%
- Implement RC audits (once/year or more for all 4 plants)
- Eliminate safety incidents: 0 safety incidents
- Eliminate occupational accidents: 0 occupational accidents resulting in lost work time
- Zero serious accidents without lost work time
- Improve safety in logistics: 0 accidents in logistics
- Implement the above guidelines at Group companies

---

**Details of current activities (△: Completed, ◇: Ongoing)**

- **Occupational health and safety**
  - Promotion of health management
  - Promotion of joint plans with health insurance cooperative
  - Ensure labor hours management and prevent excessive work
  - Environmental upgrades using stress check tests
  - Provide guidance to prevent lifestyle diseases
  - Promotion of no smoking measures

- **Labor conditions and social protections**
  - Create workplace environments in which people are motivated to perform by promoting diversity, implementing fair systems for treatment of personnel, and encouraging dialogue
  - Introduce flex-time systems
  - Advancement of measures to support raising the next generation
  - Childcare support systems (shortened working hours, overtime restrictions and exemptions, sick care leave, working daycare hours, etc.)
  - Return-to-work program for employees taking childcare and caregiving leave

- **Employment**
  - Equal employment opportunities are ensured (employment)
  - Set a numerical target for women new graduate hires
  - Hiring of non-Japanese employees (mid-career employees, exchange students)
  - Expand re-employment system for employees reaching the age of mandatory retirement
  - Implementation of employment for people with disabilities

**Future initiatives and targets**

- Enhance mental health awareness and quality with local communities
- Conclude cooperation agreements with local governments (Cooperative Agreement for Disaster Prevention in Industrial Complexes)
- Participate in community disaster readiness activities
- Plant safety evaluations conducted 100%
- Implement RC audits (once/year or more for all 4 plants)
- Eliminate safety incidents: 2 safety incidents
- Eliminate occupational accidents: 2 occupational accidents resulting in lost work time
- Zero serious accidents without lost work time
- Improve safety in logistics: 0 accidents in logistics
4. Environment
The organization takes responsibility for the environment, and promotes preventive measures

Enterprise Blueprint for 2020
To meet the expectations of society

<table>
<thead>
<tr>
<th>Details of current activities</th>
<th>Future initiatives and targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution prevention</td>
<td>Climate change mitigation and adaptation</td>
</tr>
<tr>
<td>Fair operating practices</td>
<td>Climate change mitigation and adaptation</td>
</tr>
<tr>
<td>Energy conservation</td>
<td>Energy conservation</td>
</tr>
<tr>
<td>Retailers and manufacturers</td>
<td>Go public with the results of environmental impact surveys</td>
</tr>
<tr>
<td>To achieve energy savings</td>
<td>To achieve energy savings</td>
</tr>
<tr>
<td>(△: Completed, △: Ongoing)</td>
<td>(△: Completed, △: Ongoing)</td>
</tr>
</tbody>
</table>

Correlation with SDGs:
- Goal 6: Clean Water and Sanitation
- Goal 7: Affordable and Clean Energy
- Goal 9: Industry, Innovation and Infrastructure
- Goal 12: Responsible Consumption and Production
- Goal 13: Climate Action
- Goal 14: Life below Water
- Goal 15: Life on Land

5. Fair Operating Practices
Ethical organizational conduct in interactions with other organizations

Enterprise Blueprint for 2020
To meet the expectations of society

<table>
<thead>
<tr>
<th>Details of current activities</th>
<th>Future initiatives and targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fair competition</td>
<td>Fair competition</td>
</tr>
<tr>
<td>Fair operating practices</td>
<td>Fair operating practices</td>
</tr>
<tr>
<td>Information is disclosed quickly and appropriately, and market value has increased (including negative information regarding business conditions, CSR, risks, etc.)</td>
<td>Information is disclosed quickly and appropriately, and market value has increased (including negative information regarding business conditions, CSR, risks, etc.)</td>
</tr>
<tr>
<td>Information is disclosed quickly and appropriately, and market value has increased (including negative information regarding business conditions, CSR, risks, etc.)</td>
<td>Information is disclosed quickly and appropriately, and market value has increased (including negative information regarding business conditions, CSR, risks, etc.)</td>
</tr>
<tr>
<td>△ Enact and implement management regulations including those on insider trading and appropriate disclosure</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
<tr>
<td>△ Comply with internal regulations including the Export Security Control Regulations</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
<tr>
<td>△ Appropriately implement regulations to comply with the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade (Antimonopoly Act)</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
<tr>
<td>△ Compliance with the Subcontract Act and the Act for Securing the Proper Operation of Worker Dispatching Undertakings (prevention of falsified contracts)</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
<tr>
<td>△ Build a system that prohibits bribes</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
<tr>
<td>△ Draft the CSR Code of Conduct and the CSR Procurement Guidelines</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
<tr>
<td>△ Employees read the Compliance Textbook and take e-learning courses</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
<tr>
<td>△ Conduct CSR education including holding CSR informational sessions</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
<tr>
<td>△ Hold lectures on legal and regulatory compliance</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
<tr>
<td>△ Legal compliance inspections</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
<tr>
<td>△ Regularly review internal regulations (to satisfy legal amendments)</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
<tr>
<td>△ Become a signatory to the United Nations Global Compact</td>
<td>△ Establish and implement management regulations including those on insider trading and appropriate disclosure</td>
</tr>
</tbody>
</table>

Correlation with SDGs:
- Goal 10: Reduced Inequalities
- Goal 16: Peace, Justice and Strong Institutions

To reduce legal risks
- Ongoing legal training and information sharing using the Compliance Textbook and other materials
- Education on the CSR Code of Conduct
- Ongoing compliance education
- Revise the Compliance Textbook and the CSR Textbook and hold related informational meetings
- Ongoing CSR briefings by the head of the CSR division
- Support the establishment of compliance systems at Zeon Group companies outside Japan (develop in the supply chain)
- Shift from compliance to sustainability (promote understanding among management and establish among employees)

To enhance the corporate brand and value
- Improve the website (IR, CSR information)
- Strengthen the information communications structure (PR)
- Communicate information that supports ESG investment

1. Maintain confidential information management
2. Review and implement measures addressing environmental changes related to information management inside and outside Japan
## 6. Consumer Issues

**Not causing harm to consumers, and not causing consumers to have harmful effects on society**

**Correlation with SDGs:**
- Goal 9: Industry, Innovation and Infrastructure
- Goal 12: Responsible Consumption and Production

### Enterprise Blueprint for 2020

**To meet the expectations of society**

<table>
<thead>
<tr>
<th>Details of current activities</th>
<th>Future initiatives and targets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Protecting consumers’ health and safety</strong></td>
<td></td>
</tr>
<tr>
<td>• Achieve first-rate global standards in both quality and cost</td>
<td></td>
</tr>
<tr>
<td>△ Have a quality management system based on ISO 9001</td>
<td>1. To maintain and expand conditions where Zeon products are chosen</td>
</tr>
<tr>
<td>△ Manage quality assurance risks (product liability lawsuits, supply obligations, product recalls, and credibility loss due to rumors)</td>
<td></td>
</tr>
<tr>
<td>△ Improve processes (reduce losses, improve consistency)</td>
<td></td>
</tr>
<tr>
<td>△ Develop activities for production innovations</td>
<td></td>
</tr>
<tr>
<td>△ Measure customer satisfaction (CS) to understand the current satisfaction level, set targets, and promote improvements</td>
<td></td>
</tr>
<tr>
<td><strong>Sustainable consumption</strong></td>
<td>1. Research and development, manufacturing, and sales that address consumer issues faced by society</td>
</tr>
<tr>
<td>• Developed and launched a series of products that are beneficial to society</td>
<td></td>
</tr>
<tr>
<td>△ Develop business based on business plans</td>
<td></td>
</tr>
</tbody>
</table>

### Enterprise Blueprint for 2020

**To meet the expectations of society**

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<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Social responsibility in the value chain</strong></td>
<td></td>
</tr>
<tr>
<td>• Select business partners based on the CSR Procurement Guidelines and periodically confirm the Guidelines’ status of implementation</td>
<td>1. Develop and establish the CSR Code of Conduct and CSR Procurement Guidelines in the supply chain</td>
</tr>
<tr>
<td>□ Multiple-source</td>
<td>2. Build the supply chain CSR survey database</td>
</tr>
<tr>
<td>△ Comply with laws and regulations on competition including the Antimonopoly Act</td>
<td></td>
</tr>
<tr>
<td>△ Satisfy the RoHS Directive, bans on substances, etc.</td>
<td></td>
</tr>
<tr>
<td>△ Purchasing following the CSR Procurement Guidelines</td>
<td></td>
</tr>
<tr>
<td><strong>Respect for property rights</strong></td>
<td></td>
</tr>
<tr>
<td>• Promoting understanding on the handling of intellectual property rights (including trade secrets)</td>
<td>1. Foster and establish an intellectual property mindset through ongoing compliance and intellectual property education</td>
</tr>
<tr>
<td>• The system of monitoring other companies’ intellectual property rights to prevent violations is functioning properly</td>
<td></td>
</tr>
<tr>
<td>△ Institute regulations on intellectual property rights and intellectual property management</td>
<td></td>
</tr>
<tr>
<td>△ Education using the Compliance Textbook and intellectual property education</td>
<td></td>
</tr>
<tr>
<td>△ Hold meetings on countermeasures for other companies’ patents and patent risk audits as appropriate</td>
<td></td>
</tr>
</tbody>
</table>

### Enterprise Blueprint for 2020

**To meet the expectations of society**

<table>
<thead>
<tr>
<th>Details of current activities</th>
<th>Future initiatives and targets</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community involvement, education, and culture</strong></td>
<td></td>
</tr>
<tr>
<td>• Zeon’s social contributions are understood, receive recognition, and are supported</td>
<td></td>
</tr>
<tr>
<td>△ Develop CSR Core Projects (social contribution activities by Group as a whole, among locations, and at individual worksite)</td>
<td></td>
</tr>
<tr>
<td>△ Communicate CSR activities (reports, website)</td>
<td></td>
</tr>
<tr>
<td><strong>Community involvement</strong></td>
<td></td>
</tr>
<tr>
<td>• An organization for promoting volunteer activities among employees has been established, and employees actively volunteer in various ways</td>
<td></td>
</tr>
<tr>
<td>△ Upgrade and enhance the system for promoting volunteer activities (establish a volunteer leave system)</td>
<td></td>
</tr>
<tr>
<td>△ Introduce volunteer activities and promote and support participation in them (volunteering to support reconstruction from earthquakes, etc.)</td>
<td></td>
</tr>
<tr>
<td><strong>FY 2018 results</strong></td>
<td></td>
</tr>
<tr>
<td>Number of employees participating in volunteer tours: 48 (cumulative total of 473 employees)</td>
<td></td>
</tr>
</tbody>
</table>

**Correlation with SDGs:**
- Goal 4: Quality Education, Goal 9: Industry, Innovation and Infrastructure, Goal 11: Sustainable Cities and Communities, Goal 17: Partnerships for the Goals
### Enterprise Blueprint for 2020

**To meet the expectations of society**

<table>
<thead>
<tr>
<th>Details of current activities</th>
<th>Future initiatives and targets</th>
</tr>
</thead>
<tbody>
<tr>
<td>■ Formulate and utilize disaster recovery support standards</td>
<td>● Maintain and expand exchanges with local communities</td>
</tr>
<tr>
<td>△ Donations and charity activities (Furukawa Scholarship, expenses for community promotions, Red Cross, etc.)</td>
<td>• Support the reconstruction of the Tohoku region</td>
</tr>
<tr>
<td>△ Maintain good community relations and have community exchanges</td>
<td>• Devise and implement ongoing measures to support recovery from disasters</td>
</tr>
<tr>
<td>• Sponsor and participate in community festivals and events including summer festivals at plants</td>
<td>• Actively participate in community activities</td>
</tr>
<tr>
<td>• Community cleanup activities</td>
<td>● Through dialogue with stakeholders including local communities, identify expectations from society, the current level of meeting those expectations, and set targets</td>
</tr>
<tr>
<td>• Plant tours (receive plant visitors, internships)</td>
<td></td>
</tr>
</tbody>
</table>

#### Community involvement

- • Guidelines for coexisting with local communities have been created and are used, and good relations have been built with local communities

- △ Charity activities for NPOs, etc.

- ● Maintain and expand exchanges with local communities

- △ Formulate and utilize disaster recovery support standards

- ● Create budget for charity activities and integrate managing departments

- ● Clarify standards for selecting donation recipients and review multifaceted contributions

#### 17 SDGs in Zeon's value chain

This shows how the 17 SDGs are oriented in the Zeon Group’s value chain. We will review this relationship for each business going forward.

---

**Naphtha**

- Extraction technology
- GPB
- GPI

**Polymerization technology**

- Synthesis technology

- Butadiene
- Isoprene
- Dicyclopentadiene
- Piperylene
- 2-Butyne

**Synthetic rubber and synthetic latex**

- Chemicals
- Specialty chemicals
- Synthetic aroma chemicals
- Cyclo olefin polymers
- Optical films
- Battery binders, etc.

**Tires, Automobile components**

- Gloves, Adhesives, Paints/coatings
- Fragrances, Large-size molding products
- Lenses, TVs, Smartphones
- Batteries, etc.

---

**Raw materials**

- Materials extraction

**R&D**

- Manufacturing

**Sales**

- Processing
- Embedding in final products

**Final product use**

- Final product disposal

---

**Minimizing negative effects**

Recognizing that not conducting activities to contribute to the SDGs runs the risk of damaging our corporate management and corporate value, we seek to minimize these effects.

---

**Strengthening positive effects**

Through activities to contribute to the SDGs, we are able to develop our business in line with the public’s expectations and create corporate value.
Zeon’s CSR

Environment

We established our Responsible Care Policy embodying the principles of Responsible Care* in 1998, and established our Environmental Philosophy in 2001. We set goals for the Zeon Group’s environmental initiatives based on the two approaches of reducing environmental impacts and developing environmentally friendly products, and each plant plans and executes specific environmental initiatives.

Reducing environmental impacts

We comply with emissions standards for substances with environmental impact based on the Japanese Energy Conservation Act, Air Pollution Control Act, Water Pollution Control Act, PRTR Act, and agreements with local authorities (voluntary management standards).

We are taking steps to continue reducing our per-unit CO₂ emissions by an average of 1% per year compared with FY 1990.

Developing environmentally friendly products

At Zeon, we are continuing to conduct R&D with the objective of developing and launching environmentally friendly products.

Up to FY 2018, we have successfully developed S-SBR for fuel-efficient tires, low-temperature fixing toners, cleaning solvents and etching gases with zero ozone depletion potential, and binders for lithium-ion rechargeable batteries.

In the years ahead, we will continue to engage in R&D that attempts to address environment-related social issues.

* Responsible Care: A voluntary initiative by businesses that manufacture or handle chemical substances to achieve continuous improvement in health, safety, and environmental (HSE) performance across the entire life cycle of such substances—from development and manufacture, through distribution and use, and ending in final consumption or disposal—based on the principles of independent decision-making and personal responsibility. These businesses publicly commit to Responsible Care in their business policies, implement HSE-related actions, and strive to improve their HSE performance.
Ensuring compliance is established as the first priority of the Zeon CSR Policy, and we will meet the public’s expectations by having all employees act with awareness of CSR. We endeavor to engage in fair operating practices, and our CSR Code of Conduct clearly defines related matters including compliance with antitrust regulations and a prohibition on entertaining and offering gifts to overseas civil servants. The Compliance Committee advances Zeon’s compliance efforts. The Compliance Committee has three subcommittees, namely the Antitrust Law Regulatory Subcommittee, the Export Security Control Subcommittee, and the Corporate Governance Subcommittee. Each subcommittee is performing its function.

In July 2019, we became a signatory to the United Nations Global Compact, and in August 2019 we established and released the Zeon Group Human Rights Policy. We strive to be a company that understands and accepts diverse values, and where no person is discriminated against based on gender, age, nationality, or other attribute.

**CSR Procurement**

We have established the CSR Procurement Guidelines and Requests to Suppliers, which integrate CSR perspectives into our existing QCD*, and are taking steps to ensure CSR procurement. We are conducting a survey of human rights measures at our business partners, and are working to build a supply chain CSR survey database. Based on this database, we will survey whether there are problems including with the work environment (human rights, health and safety, etc.), environmental destruction, and conflict minerals, and will collect and disclose information about our supply chain. Looking ahead, we will consolidate our approach to supply chain management and build a system for sharing our CSR policies in order to embed CSR procurement throughout the supply chain.

**Zeon Group Human Rights Policy**

We, the Zeon Group, are committed to fulfilling our corporate social responsibilities in respect of human rights and contributing to realizing a sustainable society, based on international codes of conduct on human rights, such as the Universal Declaration of Human Rights, the International Labor Organization (ILO) Declaration on Fundamental Principles and Rights in Labor, and the UN Global Compact.

**Respect for Human Rights**

We will not tolerate acts of discrimination or harassment based on age, gender, place of origin, ancestry, nationality, disability, religion, creed, marital status, employment status, union participation, political views and other differences. We also will not tolerate child labor, forced labor or/and unjustly low wage labor.

**Collaboration with Stakeholders**

We will encourage our customers and business partners to support this policy with us to pursue business activities sharing respect for human rights.

**Prevention and Mitigation of Human Rights Violations**

We will strive to perceive, avoid and reduce any negative impact on human rights that might result from our business activities.

**Response to Human Rights Violations**

We will work on the relief through appropriate procedures when it is found that we have caused or furthered a negative impact on human rights.

**Efforts on Human Rights Issues**

We will provide appropriate education and training to our executives and employees, so that this policy is understood and implemented.

**Disclosure of Information**

We will publicly disclose information on our human rights initiatives under this policy through communication channels such as our website and corporate reports.

*QCD: System of production management that controls and improves quality, cost, and delivery.*
Zeon’s CSR

Labor Practices

In our CSR Code of Conduct, we stipulate respect for human rights and prohibit discrimination. We strive to be a company that understands and accepts diverse values, where no person is discriminated against based on gender, age, nationality, or other attribute.

Based on this policy, we aim to enable every employee* to work with pride by cultivating employees able to continually evolve by pursuing high goals based on independent thinking, building a human resource system in which employees take on challenges without fear of failure and gain a sense of accomplishment, and creating a comfortable workplace environment that values dialogue.

Employment and diversity

Zeon Group respects diversity and strives to be a company in which everyone in our diverse team of employees is able to fully demonstrate their capacities. Our employees today have a range of backgrounds and perform their duties regardless of gender, age, and nationality.

We conduct diversity training for all employees to help create the capacity for diversity understanding. We also support employees who are balancing work with raising children and have acquired the Kurumin mark in Japan in recognition of this, based on the Act on Advancement of Measures to Support Raising Next-Generation Children.

HR development

Zeon’s concept of “being the worker I want to be” embodies “persons to continually evolve by pursuing high goals based on independent thinking.” Personnels are encouraged to set goals to become the worker they want to be, and we are modifying our education and training systems to allow them to bridge the gap between the current reality and their goals and facilitate goal-driven actions on a daily basis. By fairly evaluating what employees have accomplished and rewarding them accordingly, we aim for them to set even higher goals. With every personnel continuing to improve and demonstrating this in actions, we can create an even more capable workforce across Zeon.

* At Zeon, “employees” refers to all workers including full-time and part-time workers.

Zeon Corporation employment information

(non-consolidated, does not include non-permanent employees)

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employees</td>
<td>1,402</td>
<td>211</td>
<td>1,613</td>
</tr>
<tr>
<td>No. of new hires</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New graduate</td>
<td>24</td>
<td>12</td>
<td>36</td>
</tr>
<tr>
<td>Mid-year</td>
<td>13</td>
<td>5</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Percentage of employees with disabilities</td>
<td>2.29%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Re-employment of employees who have reached mandatory retirement age</td>
<td>15 (88.2%)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Includes 21 non-Japanese employees (8 men and 13 women) New graduate: Employees that joined the company in April 2018 Mid-year: Employees that joined the company from April 2018 to March 2019

Advancement of women

In the action plan (plan period until March 2018) for general business operators in the Act on Promotion of Women’s Participation and Advancement in the Workplace, we established targets for the issue of increasing the number of women employees. Based on our new plan, we will promote women’s advancement from FY 2018.

New action plan targets

Target 1: Achieve 30% women hires among new graduate hires
Target 2: Conduct career plan workshops
Target 3: Increase understanding for diversity management

HR development at Zeon

Performance-based reward

The worker I want to be (higher goals)

Evaluation

Education & training

Actions & results

http://www.zeon.co.jp/csr_e/employee.html
A consistently safe work environment is the foundation of all production activities. We formulated our Safety Philosophy in 1997 based on the Responsible Care approach to guide our safety activities. Our Responsible Care Policy established in 1998 also clearly states, “Protecting the environment and ensuring safety are preconditions for all business activities and are the most important priorities.”

Our goal is zero occupational accidents resulting in lost work time and zero serious accidents without lost work time. There were two lost-time occupational accidents in FY 2018. We are focusing on communication between worksite supervisors and workers, safety inspections, and hands-on education in order to achieve a safe and stable production system.

Safety and accident prevention

We conduct safety assessments and audits of plants, and provide training to enhance accident prevention awareness with the goal of achieving zero safety irregularities.

Each year, top management develops a Master Plan for Safety Management Improvements and leads initiatives to improve our Safety Management System based on the belief that ensuring safety is the greatest priority. Senior managers at Zeon visit plants on a regular basis to confirm the progress of improvement initiatives and hold informational meetings with workers to communicate directly with them. Top management visited plants over 41 days in FY 2018.

Safety in logistics

We are working to maintain our achieved goal of zero accidents in logistics. At Zeon, we established Yellow Card Management Rules for transporting hazardous products. These rules require drivers to carry a Yellow Card when transporting such products. We also conduct reporting and communication training for drivers, and each plant offers training on product handling to prevent accidents in logistics.
We believe that contributing to the development of local communities and building strong relationships of trust are crucial to conducting stable business activities and creating improved products and services.

Zeon’s approach to social contributions

We believe that social contributions are essentially carried out through our core businesses. As companies are members of society, however, the complex set of issues faced by society and a company’s activities are not independent of one another. We are therefore undertaking social contribution activities outside of our core businesses to engage with society from a broader perspective.

In 2012, we launched CSR Core Projects, which are initiatives we selected from proposals submitted by Zeon Group companies. CSR Core Projects are activities that focus on social contributions outside the scope of our core businesses and provide employees with opportunities to turn their attention to social issues.

The Head Office plans various activities related to supporting reconstruction from the Great East Japan Earthquake, as well as shared projects that are conducted across multiple plants and subsidiaries. Furthermore, plants and subsidiaries also conduct their own independent projects. We are developing activities in these three broad categories with a focus on their synergistic benefits.

FY 2018 initiatives

Zeon Chemicals L.P. (ZCLP) in U.S.A. has conducted volunteer activities and donation drives for many years.

The R&D team made a donation to a local charity group called the Arrow Fund. The Arrow Fund rehabilitates pets that have suffered abuse and searches for places to take them in.

Zeon Chemicals (Thailand) Co., Ltd. conducts communication activities with the local community, participates in local events, and makes charity donations.

Donated personal computers to local schools.
Zeon places great importance on connections with local communities. Zeon’s plants and Group companies hold various events including summer festivals and welcome opportunities to participate in community events.

### Holding community events

#### Holding summer festivals

Hold annual summer festivals for local residents, employees, and their families at business locations in Japan.

### Cleanup campaigns

With the goal of conducting activities that are beneficial and will please local communities, Zeon’s plant and Group companies conduct community cleanup campaigns around their sites and beyond.

#### Beach cleanup

Zeon Corporation Takaoka Plant, Zeon North, and Optes, all located in the Takaoka region, jointly participated in a beach cleanup organized by the local government.

### Educational support

Zeon’s plants and Group companies offer assistance to educational institutions with internships for high school, vocational high school, and university students, by welcoming plant tours for school groups, and by sending special instructors to give lessons at schools.

#### Internships

Optes accepts local high school students for internships to gain experience in film testing and computer data entry.

### Chemistry classrooms

Based on the motto of “nurturing future Nobel Prize winners in chemistry,” we are holding chemistry experiment classrooms in various areas to communicate the appeal of chemistry to children.

#### Chemistry classrooms

Zeon Chemicals Yonezawa participated in the 2018 Youth Science Festival in Yamagata. Children made aromatic air fresheners using our synthetic fragrances.

### Support for disaster-affected areas

Zeon supports a tree-planting campaign organized by Yokohama Rubber Co., Ltd. by serving as the event’s operations staff at Otsuchi Gakuen school in Otsuchi Town, Iwate Prefecture. We also donate science and technology books to the school library at Otsuchi Gakuen.

#### Tree-planting event

Cooperated in a tree-planting event for local education organized by Otsuchi Gakuen school at Heisei-no-Mori in Otsuchi Town.
Cover photo: Zeon Corporation Tokuyama Plant
Established in 1965, this is the main production plant for synthetic rubbers using butadiene monomers extracted from naphtha. About half of the produced synthetic rubber is exported from the nearby Port of Tokuyama to the United States, Europe, Asia, and other destinations around the world. In 2015, we completed the world’s first mass-production plant for single-walled carbon nanotubes (SWCNTs).

Main products
Butadiene monomers, synthetic rubbers, synthetic latex, polymerized toners, single-walled carbon nanotubes (SWCNTs)