



CORPORATE REPORT 2018

**ZEON**

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### Zeon's information disclosure

Basic information on Zeon Corporation and Zeon Group is available on the Company Information section of the corporate website.

This Corporate Report (booklet) contains a wide range of information on Zeon corporate management and CSR. A CSR report (PDF) with detailed information on initiatives and site reports is available on the CSR activities section of the corporate website.

More information about Zeon's management and operations is available on the Investor Relations section of the corporate website and in the Fact Book.

**Website** ▶ [http://www.zeon.co.jp/index\\_e.html](http://www.zeon.co.jp/index_e.html)



### Our TVCM broadcast at Asia



Television commercials designed for Asian audiences are being shown throughout Southeast Asia on satellite TV channels.

### 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 of overview of Zeon's general business activities.

Highlights of the FY 2018 Corporate Report include an introduction to the Zeon Group's CSR measures and medical products business. The Corporate Report is divided into Zeon's Business and Strategy and Zeon's CSR. The Zeon's Business and Strategy section describes the mid-term management plan SZ-20 Phase III and Zeon's value creation model. The Zeon's CSR section includes updated reporting on initiatives based on ISO 26000.

### Reporting period

April 2017 to March 2018 (includes some information after April 2018)

### 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.



Naozumi Furukawa  
Chairman  
Zeon Corporation

A handwritten signature in black ink, appearing to read 'N. Furukawa', written in a cursive style.

Following our 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 to 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 2017, while continuing to develop our business activities and expand our business foundations, we also benefited from external factors such as changes in raw material prices, exchange rates, market conditions, etc., and as a result we posted our highest ever net sales and operating profit.

This year, FY 2018, is the second year of the new mid-term management plan to be completed at the end of FY 2020. In order to realize our Enterprise Blueprint for 2020, and contribute to the creation of a sustainable society, the Zeon Group will be working as a team to develop our business.

We deeply appreciate your continued support and encouragement.

# CSR Implementation Plan measures aimed at the realization of the Enterprise Blueprint for 2020

## CSR Code of Conduct Zeon Group's Goal of CSR

The Zeon Group's goal of CSR is achieved when we are able to answer the question from the society asking "Does the Zeon Group meet the expectations of the society?" "Yes." To meet the expectations of the society means to be a company which provides value to the society and is trusted by the society. Every member of the Zeon Group aims to offer value to the society through our products and services produced with our original technology and to become a company trusted by the society by carrying out safe, secure and sincere activities.

## Zeon CSR Policy and CSR Code of Conduct

To act in a manner that is trusted by the society, we have established the Zeon CSR Policy (cornerstone of values, ethics and actions which every member of the Zeon Group values).

### <Zeon CSR Policy>

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

The CSR Code of Conduct has been established based on the Zeon CSR policy and the corporate philosophy.

The CSR Code of Conduct was formulated in January 2018.  
<http://www.zeon.co.jp/content/000257956.pdf>

Zeon's **CSR Code of Conduct** was revised in January 2018, for the first time in seven years.

Recently, several Japanese companies have experienced quality issue or problems with corporate governance, and there have been growing calls for changes in working practices. The extent to which business enterprises are really meeting society's expectations, and the extent to which they provide meaningful value for society, have been called into question.

This revision of the CSR Code of Conduct has been undertaken to make clear Zeon's commitment to **meeting society's expectations**, which represents Zeon's fundamental approach to CSR, and to facilitate the making of improvements to the CSR activities that Zeon undertakes. In this way, we are redefining, in the clearest possible way, the CSR vision for the Zeon Group as a whole, in line with the ongoing globalization of the Zeon Group's operations.

In order to realize the Enterprise Blueprint for 2020 and meet society's expectations, we will be working to achieve the objectives specified in our CSR Implementation Plan, which represents the practical guidelines for CSR, while continuing to emphasize the Sustainable Development Goals (SDGs) and ISO 26000, which are issues of great importance for society.

## CSR Implementation Plan Measures

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. Examination of 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 be working to further the dissemination of the CSR Implementation Plan both within and outside the Zeon Group, and we will be implementing activities aimed at helping all stakeholders to understand Zeon's CSR measures.

### ● The Zeon Group's CSR Implementation Plan

ISO 26000 Seven Core Subjects	Enterprise Blueprint for 2020 = To meet the expectations of society	Activities currently being implemented	Items that need to be implemented in the future
Corporate Governance	<b>Example in the Labor Practices area: Promoting diversity and using fair, equitable human resources practices to invigorate the workplace. (Recruitment)</b>	<b>Example in the Labor Practices area:</b> · Appropriate operation of human resources systems · Support for employees' capability-building and career development · Prevention of harassment in the workplace · Dialogue between management and female employees etc.	<b>Example in the Labor Practices area: Promoting diversity-oriented management</b> · Proactive recruitment of female employees · Proactive recruitment of foreign nationals · Promoting the employment of senior citizens · Establishment of systematic employee cultivation systems
Human Rights			
Labor Practices			
Environment			
Fair Operating Practices			
Consumer Issues			
Community Involvement			

→ See summary on P.35

## Measures Aimed at Supporting the Realization of the SDGs by 2030

With the realization of the Enterprise Blueprint for 2020 fast approaching, in order to help realize the Sustainable Development Goals (SDGs) that are being promoted by the United Nations, the Zeon Group is formulating targets for 2030 in line with both Zeon's CSR Implementation Plan and the SDGs.

→ For more details, see P.35-40.



### A Message from the CSR Division Manager

Last year, in the process of revising Zeon's CSR Code of Conduct, we undertook the redefining of Zeon's CSR vision, which emphasizes "meeting society's expectations."

The CSR Implementation Plan outlines the Enterprise Blueprint for 2020 in line with ISO 26000's Seven Core Subjects, collates the issues that are currently being faced and that we will be facing in the future, and specifies the direction that we will be taking in terms of implementing activities in line with society's needs that are explicitly linked to the SDGs.

While working to realize the Enterprise Blueprint for 2020, all Zeon Group employees will be demonstrating a firm commitment to the CSR Implementation Plan, so that we can confidently state that the Zeon Group is indeed meeting society's expectations.

**Erisa Watanabe**

Corporate Officer and the CSR Division Manager

# Catheters that contribute towards the enhancement of patients' quality of life through minimally-invasive treatment



When used as a medical term, the word “invasive” refers to something that is harmful to the human body. It is most commonly used to refer to forms of treatment that may cause physical harm; in the case of surgical procedures, using a scalpel is invasive, while in regard to pharmaceuticals, the possible side-effects are invasive. Minimally-invasive treatment is medical treatment that aims to reduce the invasiveness of medical procedures as much as possible. One of the best examples of minimally-invasive treatment is surgery using catheters. With catheter procedures, only a small incision needs to be made in order to insert a catheter into a vein or into the alimentary tract, so by comparison with traditional surgery that required the making of a large incision in the abdomen, the impact on the body is much reduced.

Because minimally-invasive treatment causes less harm to the patient's body, it enhances patient QOL\* by reducing the amount of time that patients need to spend in hospital, and it can also be expected to lead to reduced medical expenses. Zeon Medical Inc., a member of the Zeon Group which is engaged in the manufacturing and sale of medical devices, is contributing towards the expansion of minimally-invasive treatment by developing a range of products, including catheters, in its Cardiovascular and Endoscopic Accessory Businesses.

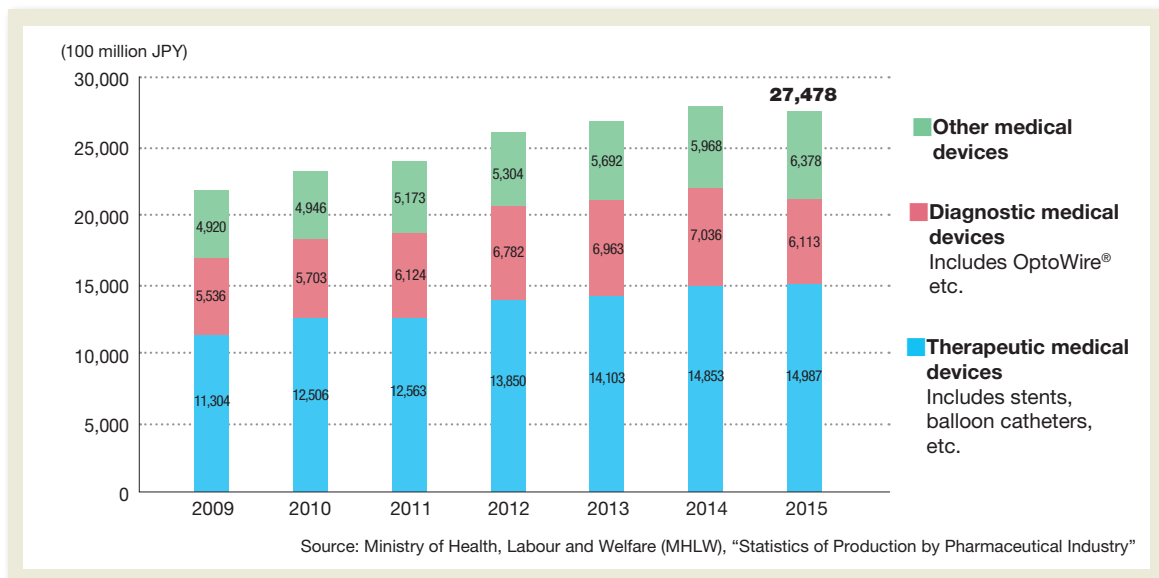
\*QOL: Quality of Life

## The Medical Device Market and Zeon Medical Inc.

The overall size of the global medical device market—including catheters—in 2016 was 36 trillion yen. The U.S. market accounts for over 40% of this total; Japan is the second largest national market, with a market size in excess of 2.7 trillion yen in 2015. The overall rate of growth of the Japanese market has been held back because of the periodic adjustments made to pharmaceuticals pricing in Japan, but in absolute terms the trend is one of continued growth.

There is high demand for minimally-invasive treatment, which contributes to a reduction in overall healthcare expenses while also helping to improve patients' quality of life, and Zeon Medical's business is expected to grow not only in Japan, but also in the wider global market.

### ● The size of the Japanese medical device market



# Heart (Cardiovascular Business)

Heart diseases such as myocardial infarction and angina are caused when arteries running on the heart narrow and become obstructed. Zeon Medical's products are widely used in the diagnosis and treatment of arterial blockage.

## 1 Measuring intravascular pressure

**OptoMonitor®** for inter-arterial measurement of intravascular pressure

**OptoWire®**, a sensor-equipped guide-wire for measuring intravascular pressure

Measuring the intravascular pressure of coronary arteries allows quantitative diagnosis of the extent of arterial blockage.

OptoWire® is the world's first guide-wire type product to incorporate a fiberoptic sensor. This facilitates more precise measurement and more accurate diagnosis. The small touch-panel display design used for OptoMonitor® makes it possible to carry out measurements regardless of the location.



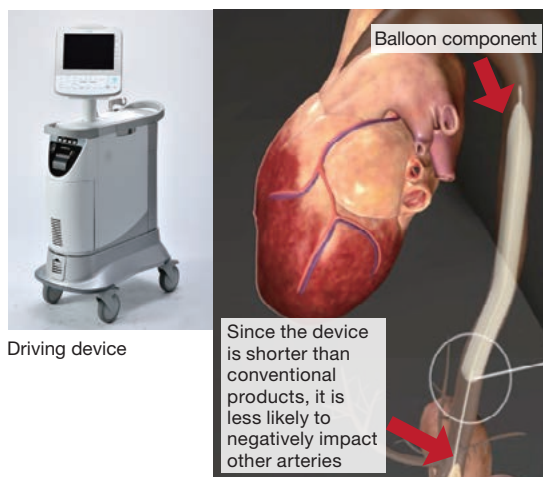
## Helping the heart to function properly

**MEISHU™** for IABP\*

Using a balloon that expands and contracts in line with the rhythm of the heart can provide temporary support for weakened heart pumping function. The utilization of helium gas for the balloon ensures that the balloon can be rapidly expanded and contracted safely.

MEISHU™ is relatively short and thick by comparison with conventional products, which makes it easier to have it expand and contract in close proximity to the heart, thereby enhancing the supporting function while maintaining safety.

\*IABP: Intra-Aortic Balloon Pumping



# Alimentary Tract (Endoscopic Business)

Endoscopes can be inserted into the alimentary tract, making it possible to view the internal organs from the inside. An endoscope can guide a catheter into the body, so that treatment can be performed while being able to clearly view what is going on. Zeon Medical's products are widely used for removing polyps or cancerous tumors from the alimentary tract, for staunching bleeding after operations, for crushing and removing bile duct stones from the bile duct, and for easing blockage of the bile duct.

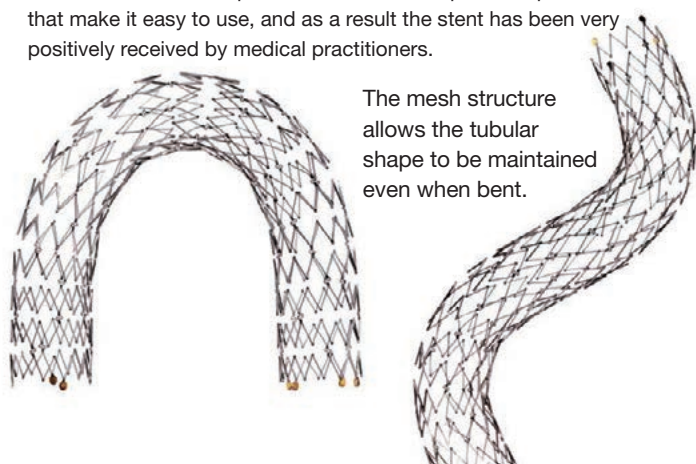
## 2 Easing blockage of the bile duct

**ZEOSTENT™ plus** for bile duct

A stent is a small mesh-like metal tube that is used to expand an artery, trachea, alimentary tract, bile duct etc. from the inside. By placing a stent in the bile duct, it is possible to ease blockage of the bile duct and allow bile to flow more easily.

ZEOSTENT™ plus is made using shape-memory alloy so that it expands by body temperature warming, making it easier to position. The special mesh-like structure enables the stent to maintain its tubular shape even inside the curving bile duct.

The device used to position the stent incorporates special features that make it easy to use, and as a result the stent has been very positively received by medical practitioners.



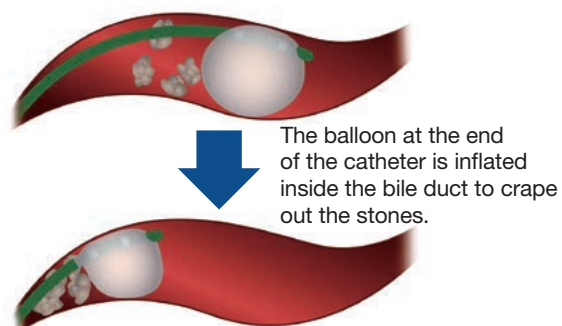
The mesh structure allows the tubular shape to be maintained even when bent.

## 3 Removing bile duct stones

**The Extraction Balloon Catheter** for removing bile duct stones

The balloon at the end of the catheter is inflated inside the bile duct to crush a stone stuck in the bile duct.

Zeon Medical's balloon catheters have been specially designed—in terms of balloon size, shape, and water-squirting capability—to enhance their ability to extract stones. In particular, Zeon Medical's original patented technology allows the balloon to be positioned at an angle.



# Zeon material and products making contributions to society

The value created by Zeon's materials and products contribute to society in many ways. Here are just a few examples.

## Global Environment

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.



### Solution-polymerized styrene-butadiene rubber (S-SBR):

Improves the performance of fuel-efficient tires and contributes to energy conservation and reduced CO<sub>2</sub> emissions.



### Biosynthetic epichlorohydrin rubber (ECO):

The first biosynthetic rubber adopted in automotive vacuum sensing hoses. Contributes to reduced lifecycle CO<sub>2</sub> emissions by switching fossil fuel-derived materials to plant-derived materials.



### 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.



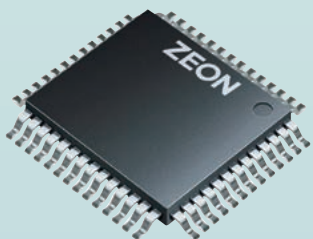
### ZEOCOAT™ Coating-type insulating and protective layer for displays:

With high transparency, low moisture absorption, and low dielectric constant, contributes to reduced environmental impacts by improving display performance and extending the life of electronics components.



### 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).

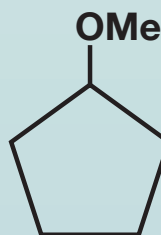


### ZEORORA® H HFC solvent:

Contributes to climate change prevention as an alternative HFC solvent.

### ZEORORA® Etching gas for oxide layers:

Contributes to climate change prevention as an etching gas with low global warming potential.



### Cyclopentyl methyl ether (CPME) Hydrophobic ether solvent:

Low environmental impact since it is easily recovered after use as a solvent and little is disposed of in wastewater.



## Improved Performance

Using Zeon's materials and components can greatly improve product performance.



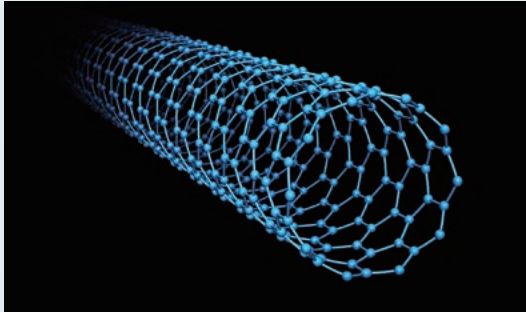
### ZeonorFilm™

#### 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):

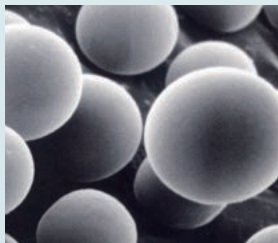
TIM using rubber/single-walled carbon nanotube (ZEONANO®) composite achieves low thermal resistance. It increases the thermal conductivity of the heat sink and resolves the heat generation problem of servers and power devices.



### ZEoglobule™

#### Polymerized toner:

The world's first industrialized polymerized toner. Contributes to improving resolution and print speed with its uniform spherical capsule structure.



## Health and Living

Zeon's materials, components, and products are useful in daily life and benefit health and well-being.



#### Synthetic aroma chemicals:

The raw materials are derived from fossil fuels but have the same chemical structure as natural aromas. They are used in foods, cosmetics, and other products.



#### SIS thermoplastic elastomer:

Used in elastic film for disposable diapers to achieve lighter weight and greater comfort.



#### Synthetic latex for gloves:

Due to concern about allergic reactions from proteins found in natural rubber, demand is shifting from natural to synthetic rubber gloves made with NBR latex and the market is expanding.



#### Cyclo olefin polymers:

COP are used in prefilled medical syringes and contribute to increased safety in medical settings. With properties including light weight, high strength, transparency, high purity, and low protein adsorption.



#### Intravascular pressure-sensing guidewires and monitors:

Zeon's guidewires help lessen patients' pain and healthcare professionals' workloads, because treatment decisions can be accurately made using sensors and a monitor.



#### Catheters for removal of 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.

Name: **Zeon Corporation**

Established: April 12, 1950

Capital: 24.211 billion yen (as of March 31, 2018)

Market capitalization: 364.6 billion yen (as of March 31, 2018)

Total number of shares outstanding: 237,075,556 shares

Employees: 3,328 (consolidated)

1,600 (non-consolidated) (as of March 31, 2018)

Business segments: Elastomer Business, Specialty Materials Business, other businesses (⇒P.13)

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

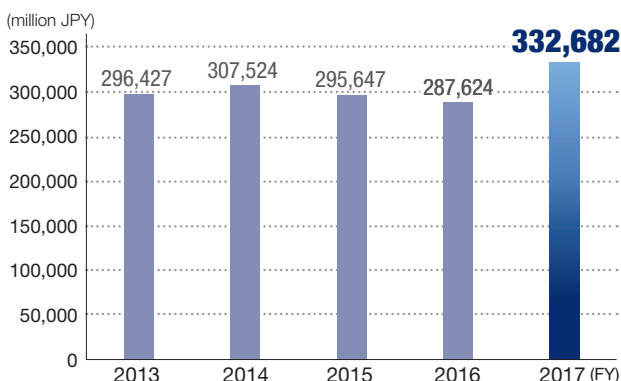
### Subsidiaries and affiliates in Japan (⇒P.17) :

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., Optes Inc., TFC Inc.,  
 Zeon Polymix Inc., Tohpe Corporation,  
 Zeon Nano Technology Co., Ltd., ZS Elastomers Co., Ltd.,  
 Okayama Butadiene Co., Ltd., ZIS Information Technology Co., Ltd.

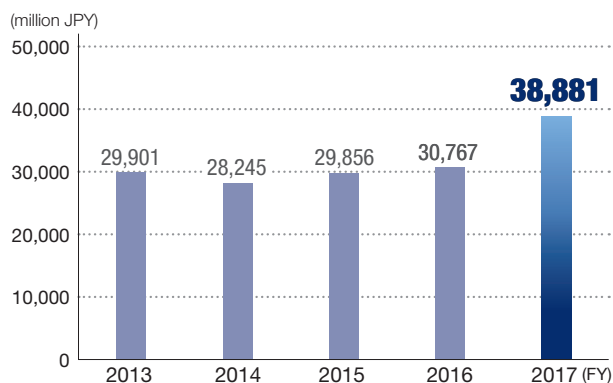
### Subsidiaries and affiliates outside Japan (⇒P.15) :

**[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 Mexico, S.A. de C.V.  
**[Europe]** Zeon Europe GmbH, Telene S.A.S.  
**[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 (Changshu) 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.,  
 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

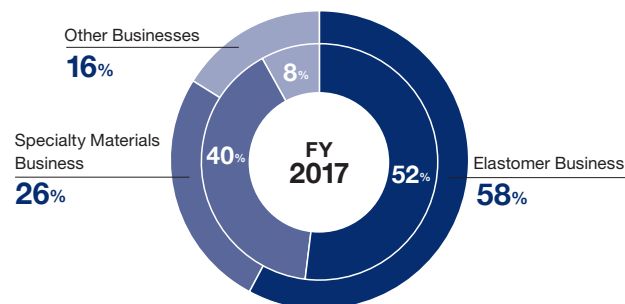
### Consolidated net sales



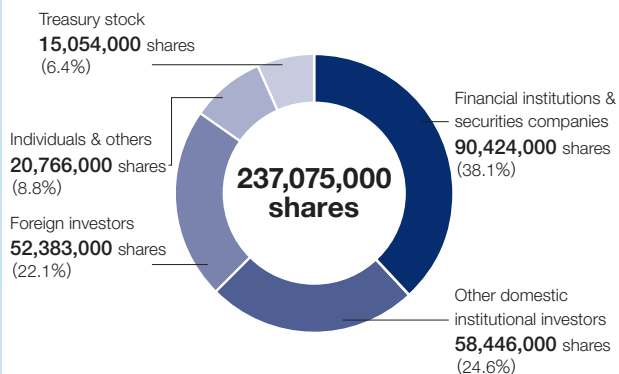
### Consolidated operating income



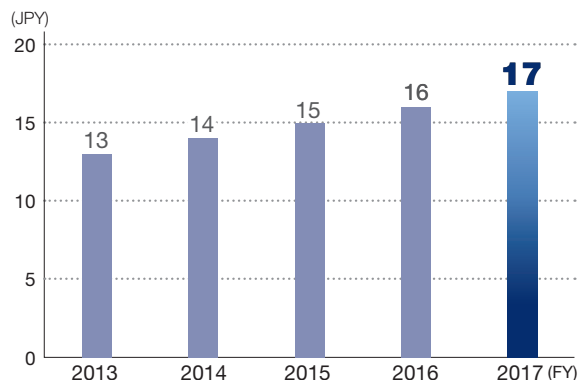
### Segment net sales (outer circle) and operating income (inner circle)



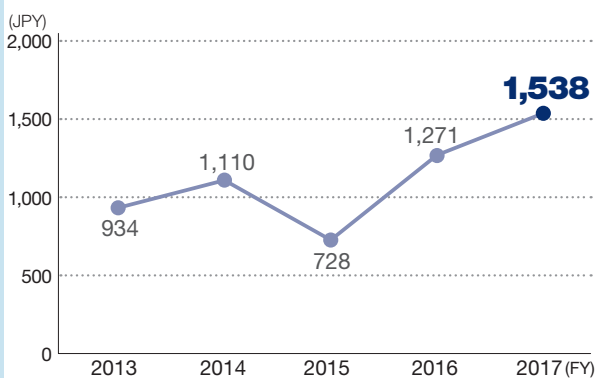
### Shareholder information (as of March 31, 2018)



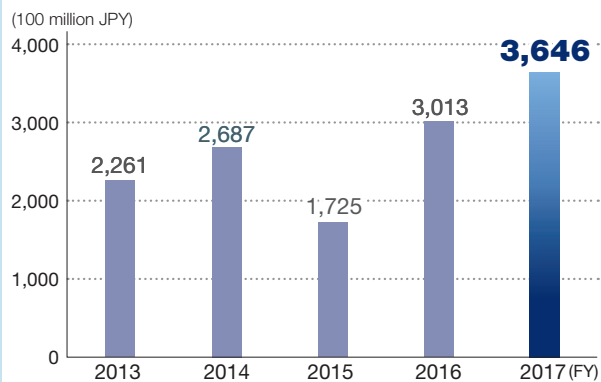
### Dividends



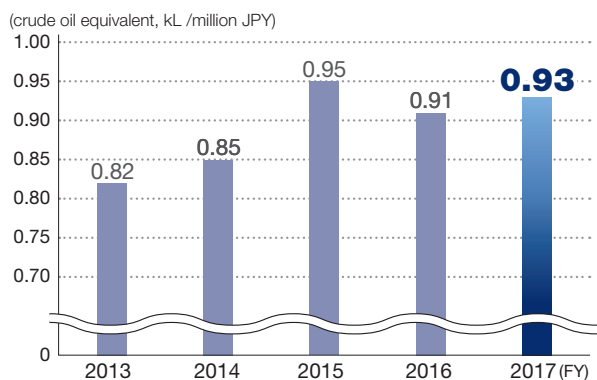
### Share price (closing price on March 31)



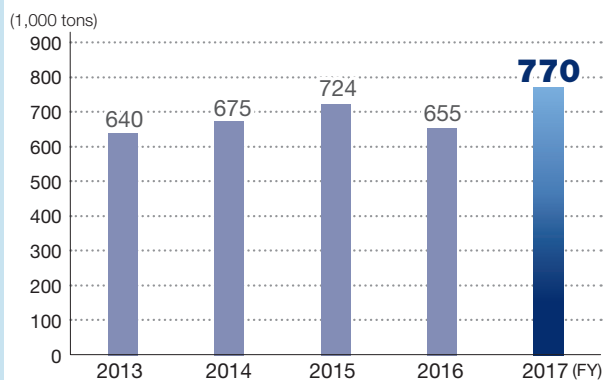
### Market capitalization (as of March 31)



### Energy use per net sales (Zeon Group inside and outside Japan)



### CO<sub>2</sub> emissions (including Zeon Group inside and outside Japan)



# Zeon Group History

## Starting from PVC and synthetic rubber production

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 from its founding until full withdrawal in 2000.

In 1959, Zeon acquired technologies from B.F. Goodrich Chemical Company to operate a special 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.

## World-leading C<sub>4</sub> and C<sub>5</sub> technologies with GPB and GPI processes

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 C<sub>4</sub> fractions. In 1971, Zeon developed the GPI process to efficiently extract isoprene, the raw material in isoprene rubber, and other useful components, from C<sub>5</sub> fractions.

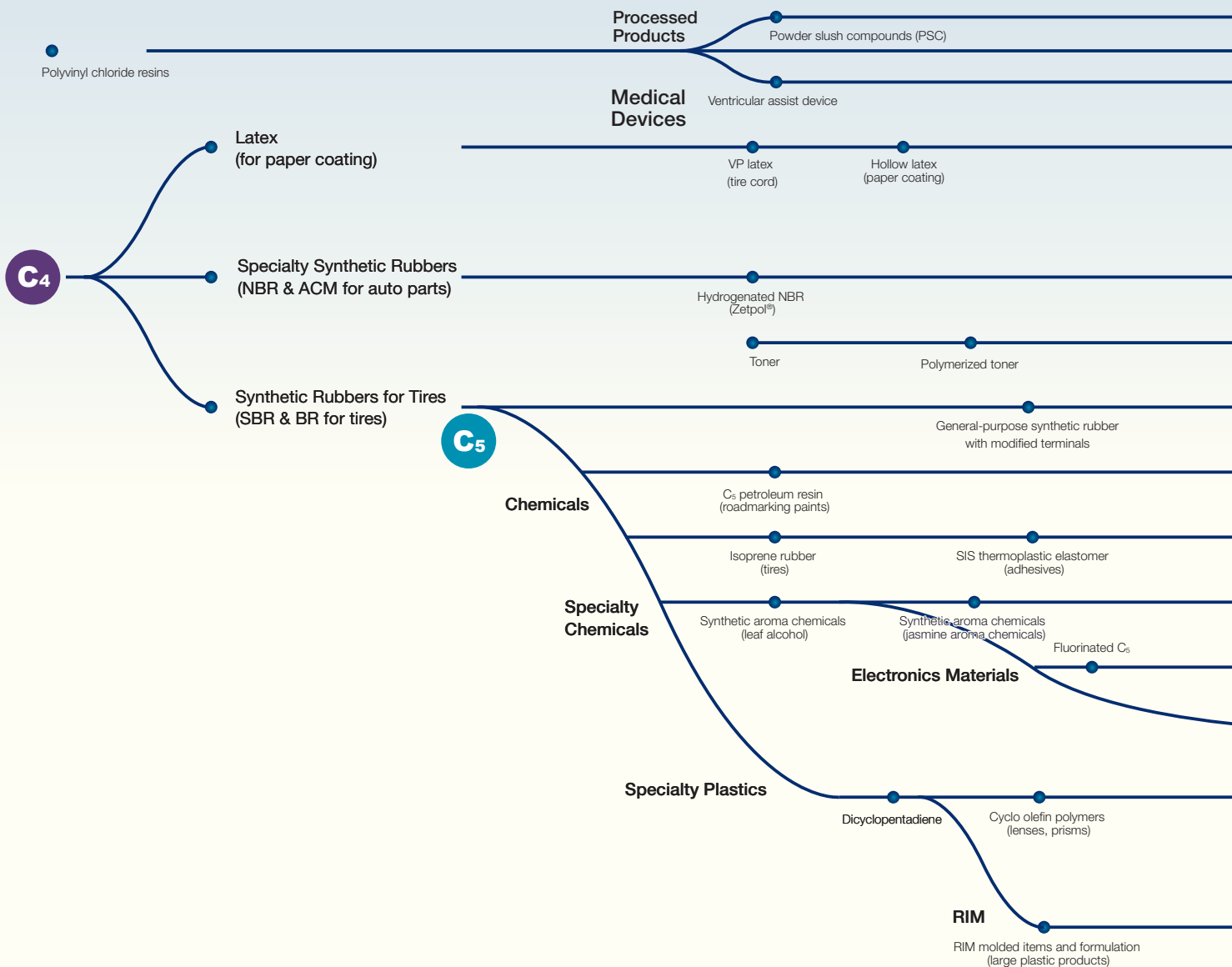
Zeon licenses its proprietary GPB process technology in countries around the world. This greatly contributes to Zeon's competitive edge and promotes the Zeon brand globally.

### Timeline of main businesses and product development

1960 >>>

1970 >>> 1980 >>>

1990 >>>



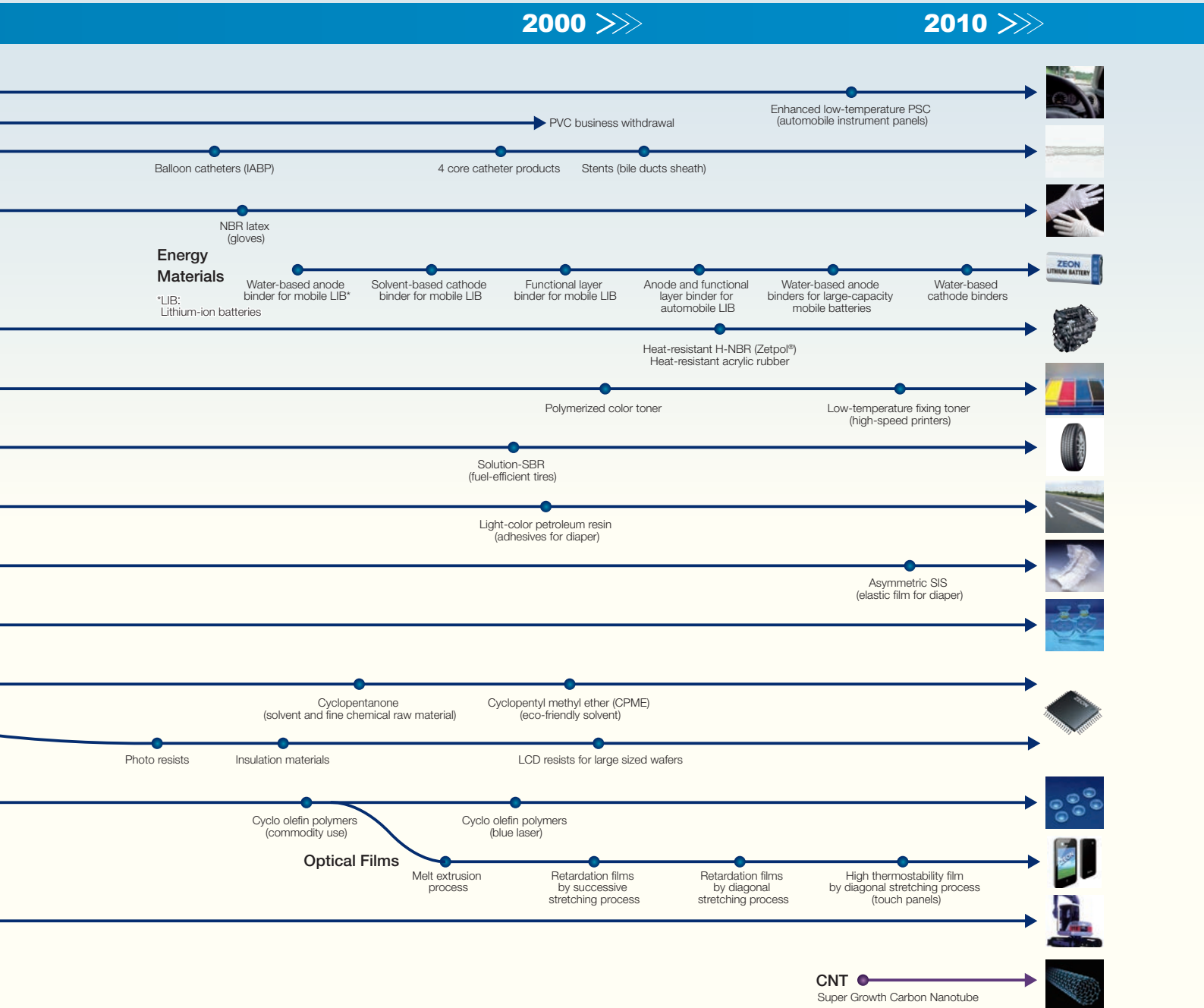
### ■ Developing comprehensive uses for C<sub>5</sub> fractions

Isoprene rubber is a useful material with the same chemical stability as natural rubber. Many byproducts are derived from the process of extracting isoprene feedstock from C<sub>5</sub> 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 C<sub>5</sub> fractions.

### ■ Developing more advanced materials and establishing leading manufacturing technologies

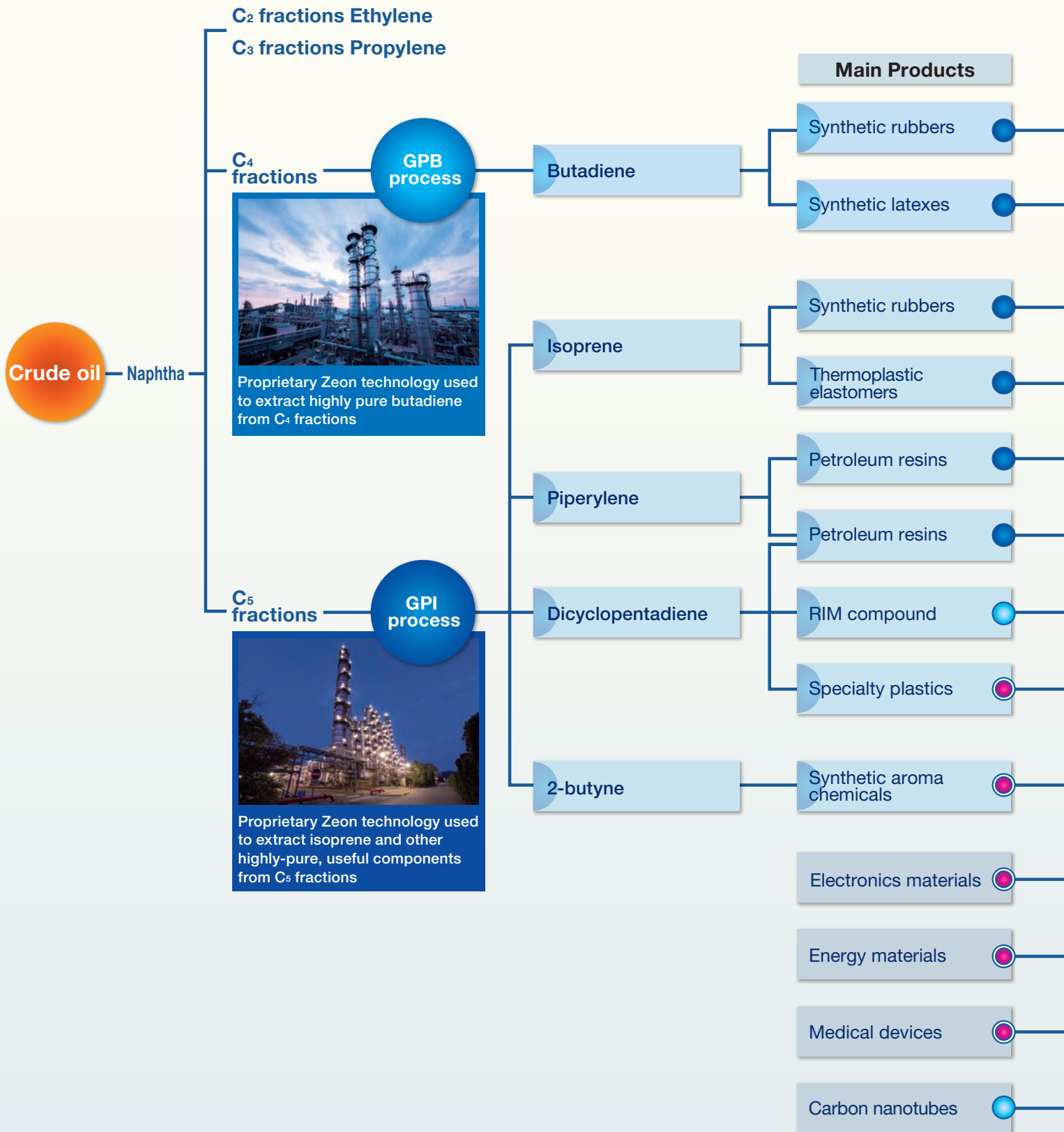
In recent years, there has been growing demand for products with advanced functions that can contribute towards solving the problems affecting society, and similar expectations are rising for chemical materials. To meet these expectations, Zeon's Synthetic Rubber Business developed Zetpol<sup>®</sup> hydrogenated nitrile rubber, which provides high functionality at a competitive cost and is used in automotive engine components and other applications with demanding working conditions. Cyclo olefin polymers, developed from comprehensive use of C<sub>5</sub> 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 Corporation has become the first company in the world to use the Super-Growth method for mass production of SWCNT.



## Business Overview

Zeon's main products are created from raw materials such as butadiene and isoprene, which are extracted from the C<sub>4</sub> and C<sub>5</sub> fractions of naphtha using proprietary Zeon technologies. Business segments are divided into the Elastomer Business, Specialty Materials Business, and other businesses.



## Applications

Automobile components



Tires



Gloves for medical use and food processing



Cosmetic puffs



Automobile components



Tires



Adhesives



Adhesives



Traffic paints



Paints/coatings, Inks

Housing equipment and components



Large-size molding



Lenses



Optical films



Medical containers

Fragrances



Food additives

Electronics materials



Toner



Binders for lithium-ion rechargeable batteries



Medical catheters



Single-walled carbon nanotubes, composite materials



## Business Segments

### Elastomer Business

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)

Elastomer Business

Other

### Specialty Materials Business

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

Specialty Materials Business

Other

### Other Businesses

Engineering, packaging materials, building materials, deodorants, RIM formulation, single-walled carbon nanotubes, paints/coatings, trading, etc.

Social value created from C<sub>4</sub> and C<sub>5</sub>

→ P.7

**Europe**

**Zeon Europe GmbH**

Hansaallee 249, 40549 Dusseldorf, Germany  
 TEL:+49-211-52670 FAX:+49-211-526710  
 • Sales, export, and import of synthetic rubbers and resins

**Zeon Europe GmbH - Branch in France**

ZEON France Succursale française de Zeon Europe GmbH c/o Sofradec 153, Boulevard Haussmann 75008 Paris, France  
 TEL:+49-211-5267-145

**Zeon Europe GmbH - Branch in Spain**

C/Beethoven, 15, 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, Italia  
 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:+44-1446-74798

**Telene S.A.S.**

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

**India**

**Zeon India Private Limited**

Time Tower, Unit No.507, Sector-28, M.G Road, Gurgaon, 122002, Haryana, India  
 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.507, 5th floor, Sector-28, M.G Road, Gurgaon-122002, Haryana, India  
 TEL:+91-124-424-9011 FAX:+91-124-424-9005  
 • Purchase and sales of synthetic rubbers, chemical products, and other products (including international trade)

**Thailand**

**Zeon Chemicals (Thailand) Co., Ltd.**

3 Soi G-14, Pakorn-Songkhroard Road, Tambol Huaypong, Amphur Muangrayong, Rayong 21150, Thailand  
 TEL:+66-3-868-5973~5 FAX:+66-3-868-5972  
 • Manufacture and sales of petroleum resins

**Zeon Advanced Polymix Co., Ltd.**

111/2 Soi Nikom 13, Moo 2 T.Makhamkhoo, Nikompattana District Rayong 21180, Thailand  
 TEL:+66-38-893-565 FAX:+66-38-893-569  
 • Manufacture and sales of rubber compounds (CM)

**Sales office**

591 UBCII BLDG, Office No.2206, 22thFL, Sukhumvit 33rd, KlongtonNua, Wattana, Bangkok 10110, Thailand  
 TEL:+66-2-261-0175 FAX:+66-2-261-0172

**China**

**Zeon (Shanghai) Co., Ltd.**

Room 1904, 2 Grand Gateway, No.3 Hongqiao Road, Xuhui District, Shanghai, 200030, China  
 TEL: +86-21-6167-5776 FAX: +86-21-6040-7258  
 • Provide assistance and exercise control over the Zeon Group companies in China with regard to such functions as accounting, finance, personnel management, legal, etc.

**Shanghai Zeon Co., Ltd.**

No. 380 Shennan Road, Xinzhuang Industry District, Minhang, Shanghai, 201108, China  
 TEL: +86-21-6489-6160 FAX: +86-21-6442-0569 (Push "0" after announcements)  
 • Manufacture and sales of rubber compounds (CM)

**Zeon Trading (Shanghai) Co., Ltd.**

Room 1901-2, 2 Grand Gateway, No.3 Hongqiao Road, Xuhui District, Shanghai, 200030, China  
 TEL: +86-21-6040-7255 FAX: +86-21-6040-7258  
 • Purchase and sales of synthetic rubbers, chemical products, and other products (including international trade)

**Zeon Polymix (Guangzhou) Co., Ltd.**

No. 1 1st Jingqian Road, Yong He Economic Zone, Guangzhou, 511356, China  
 TEL: +86-20-3222-1171 FAX: +86-20-3222-1820  
 • Manufacture and sales of rubber compounds (CM)

**Tokyo Zairyo (Thailand) Co.,Ltd.**

29th Floor Room 2903, Empire Tower 1 South Sathorn Rd., Yannawa, Sathorn, Bangkok, 10120, Thailand  
 TEL:+66-2-670-0285 FAX:+66-2-670-0283

**Singapore**

**Zeon Chemicals Singapore Pte. Ltd.**

100 Banyan Drive, Jurong Island, Singapore 627571  
 TEL:+65-6933-4400 FAX:+65-6933-4413  
 • 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

**Asia Technical Support Laboratory**

61 Science Park Road, #05-09/10 The Galen, Singapore Science Park 2, Singapore 117525  
 TEL:+65-6266-7631 FAX:+65-6266-7712

**Tokyo Zairyo (Singapore) Pte. Ltd.**

331 North Bridge Road, #20-01/02, Odeon Towers, Singapore 188720  
 TEL:+65-6337-5053 FAX:+65-6337-4557  
 • Purchase and sales of synthetic rubbers, chemical products, and other products (including international trade)

**Zeon Kasei (Changshu) Co., Ltd.**

Huangpujiang Road 96, Dongnankaifa District, Changshu City, Jiangsu Province, 215500, China  
 TEL: +86-512-5235-7000 FAX: +86-512-5235-7308  
 • Manufacture and sales of powder slush compounds

**Zeon Medical (Guangzhou) Inc.**

Room 1706A, Goldlion Digital Network Center, No. 138 Ti Yu Dong Road, Tianhe District, Guangzhou, Guangdong, 510620, China  
 TEL: +86-20-2283-6788 FAX: +86-20-2283-6789  
 • Sales, export, and import of medical devices (cardiovascular and endoscopic accessory, etc.)

**Takehara Zeon (Shanghai) Co., Ltd.**

No. 380 Shennan Road, Xinzhuang Industrial Zone, Minhang District, Shanghai, 201108, China  
 • Manufacture and sales of silicon rubber compounds (CM)

**Tokyo Zairyo (Shanghai) Co., Ltd.**

Room 1503, Hongwell International Plaza, West Zhongshan Road 1600, Xuhui District, Shanghai, 200235, China  
 TEL: +86-21-6119-9400 FAX: +86-21-6119-9401  
 • Purchase and sales of synthetic rubbers, chemical products, and other products (including international trade)

**Malaysia**

**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:+603-7956-7069 FAX:+603-7957-1758  
 • Sales of synthetic latexes

**Vietnam**

**Zeon Manufacturing Vietnam Co., Ltd.**

No.109, Road No.10, VSIP Haiphong Township, Tan Duong ward, Thuy Nguyen District, Haiphong City, Vietnam  
 TEL:+84-225-3797-027 FAX:+84-225-3797-028  
 • Manufacture and sales of packing containers

**Zeon Research Vietnam Co., Ltd.**

6th Floor, Building 85 Nguyen Du Str., Hai Ba Trung District, Hanoi, Vietnam 100000  
 TEL:+84-24-3632-0557 FAX:+84-24-3632-0557  
 • Design simulation of optical materials and molded products, and market research for Zeon products in Southeast Asia



We are continuing to globalize our business operations, having first turned our attention to global markets in 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 capable of quickly meeting local needs. 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.

## China

### Tokyo Zairyo (Tianjin) Co., Ltd.

Room 1805, The Exchange Tower 1, 189 Nanjing Road, Heping District, Tianjin, 300051, China  
 TEL: +86-22-23021268 FAX: +86-22-23021278  
 • Purchase and sales of synthetic rubbers, chemical products, and other products (including international trade)

### Tokyo Zairyo (Guangzhou) Co., Ltd.

Room 1208, Goldlion Digital Network Center, No. 138 Ti yu Dong Road, Tianhe District, Guangzhou, Guangdong, 510620, China  
 TEL: +86-20-3878-0671 FAX: +86-20-3878-1336  
 • Purchase and sales of synthetic rubbers, chemical products, and other products (including international trade)

## South Korea

### Zeon Korea Co., Ltd.

No.403, 4Fl., 36, Teheran-ro 87-gil, Gangnam-gu, Seoul, 06164, Korea (City Air Tower, Samseong-dong)  
 TEL: +82-2-539-8565 FAX: +82-2-538-5190  
 • Sales and import of optical materials, imaging and electronics materials, synthetic resins, and synthetic rubbers, 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

### Tokyo Zairyo (Vietnam) LLC.

4th Floor, Building 85 Nguyen Du Str., Hai Ba Trung District, Hanoi, Vietnam 100000  
 TEL: +84-4-3941-3825 FAX: +84-4-3941-3826  
 • Purchase and sales of synthetic rubbers, chemical products, and other products (including international trade)

### Branch of Tokyo Zairyo (Vietnam) LLC in HCMC

Unit 1203, 2nd Fl., CITYVIEW, 12 Mac Dinh Chi st., Da Kao Ward, Dist. 1, Ho Chi Minh City, Vietnam  
 TEL: +84-28-3911-0135 FAX: +84-28-3911-0136

## Indonesia

### PT. Tokyo Zairyo Indonesia

Gedung MidPlaza 2, Lantai 12, Jl. Jend. Sudirman Kav. 10-11, Jakarta 10220  
 TEL: +62-21-574-6454 FAX: +62-21-573-5661  
 • Purchase and sales of synthetic rubbers, chemical products, and other products (including international trade)

## Taiwan

### Zeon CSC Corporation

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

## USA

### Zeon Chemicals L.P.

4111 Bells Lane, Louisville, Kentucky 40211, U.S.A.  
 TEL: +1-800-735-3388 FAX: +1-502-775-2055  
 TEL: +1-502-775-2000  
 • 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.  
 TEL: +1-601-583-6020 FAX: +1-601-583-6032

### Texas Plant

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

### Zeon Specialty Materials Inc.

1731 Technology Drive, Suite 595, 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.

333 Mamaroneck Avenue PMB#394 White Plains, NY 10605 U.S.A.  
 TEL: +1-914-646-7450  
 • Purchase and sales of synthetic rubbers, chemical products, and other products (including international trade)

### Nashville Office

One Brentwood Commons 750 Old Hickory Blvd., Suite 220 Brentwood, TN 37027  
 TEL: +1-615-922-4633 FAX: +1-615-942-7424

### McAllen Office

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

### 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

## Mexico

### 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 Mexico, 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, and other products (including international trade)

## Brazil

### Zeon do Brasil Ltda.

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

# Japan

as of July 31, 2018

1

**Zeon Corporation – Head Office**

Shin Marunouchi Center Building, 1-6-2  
Marunouchi, Chiyoda-ku, Tokyo 100-8246, Japan  
TEL: +81-3-3216-1772 FAX: +81-3-3216-0501

**Tokyo Zairyo Co., Ltd.**

Shin Marunouchi Center Building, 1-6-2  
Marunouchi, Chiyoda-ku, Tokyo 100-0005,  
Japan \*same as follows  
TEL: +81-3-5219-2171 FAX: +81-3-5219-2201  
• Trading

**Zeon Kasei Co., Ltd.**

TEL: +81-3-5208-5111 FAX: +81-3-5208-5290

**Plants: Ibaraki, Yamaguchi**

- Manufacture and sale of PVC compounds, packaging materials, packaging containers, logistics equipment, etc.

**Zeon F&B Co., Ltd.**

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: +81-3-5220-8581 FAX: +81-3-5220-8584

**Plants, R&D Center: Mizushima**

- Sales of formulation liquid for Reaction Injection Molding (RIM)

**ZIS Information Technology Co., Ltd.**

TEL: +81-3-3216-6500 FAX: +81-3-3216-6534

- 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

**ZS 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 Nihonbashi-Honcho,  
Chuo-ku, Tokyo 103-0023, Japan

TEL: +81-3-3278-0721 FAX: +81-3-3278-0722

- Manufacturing of butadiene monomer

2

**Zeon Corporation – Kawasaki Plant**

1-2-1 Yako, Kawasaki-ku, Kawasaki-ku,  
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

3

**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, measurement working environment; conducting various analyses

**Optes Inc.**

422-1 Futagamishin, Takaoka-shi, Toyama  
933-0981, Japan  
TEL: +81-766-32-1590 FAX: +81-766-32-1591

**Plants: Takaoka, Himi, Tsuruga, Sano**

- Manufacturing of optical film and optical parts; design and manufacturing of mold

4

**Zeon Corporation – Tokuyama Plant**

2-1 Nachi-cho, Shunan-shi, Yamaguchi 745-0023,  
Japan  
TEL: +81-834-21-8501 (direct)  
FAX: +81-834-21-8793

**Zeon Yamaguchi Co., Ltd.**

2-1 Nachi-cho, Shunan-shi, Yamaguchi 745-0023,  
Japan  
TEL: +81-834-21-8482 FAX: +81-834-21-8663

- Purchase and sale of civil engineering materials, packing materials, and various facilities; design and construction, contracting for various plants; environment analysis





5

**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

**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

6

**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 Chikkoshinmachi, 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

7

**Zeon Corporation – Nagoya Office**

Ichigo Fushimi Bldg. 7F, 1-18-24 Nishiki, Naka-ku, Nagoya-shi, Aichi 460-0003 Japan  
TEL: +81-52-209-9145 FAX: +81-52-209-9147

8

**Zeon Polymix Inc.**

1-11-1 Ishizue, 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)

9

**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

10

**River Xemex Co., Ltd.**

2-11-17 Osachigoshu, Okaya-shi, Nagano 394-0082, Japan

TEL: +81-266-21-2131 FAX: +81-266-21-1550

- Manufacture of medical devices

11

**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'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."

2017–2018 Topics	P.20
Interview with the President	P.21

## **Zeon's Business and Strategy**

Elastomer Business	P.25
Specialty Materials Business	P.27
Research and Development (R&D)	P.29
Corporate Governance	P.31

## 2017–2018 Topics

The summary of Zeon's major business developments from the second half of 2017 through to the first half of 2018.



**Zeon Specialty Materials Inc. (ZSM) was established to handle the Zeon Group's advanced materials business in Silicon Valley in the U.S.A.**

In October 2017, Zeon Specialty Materials Inc. (ZSM) was established to handle sales of cyclo olefin polymers (COP), optical film, lithium-ion rechargeable battery binder, insulation materials, photo resist and etching gas. By locating ZSM in Silicon Valley, with its flourishing IT sector, it will be possible to respond more rapidly to market needs.



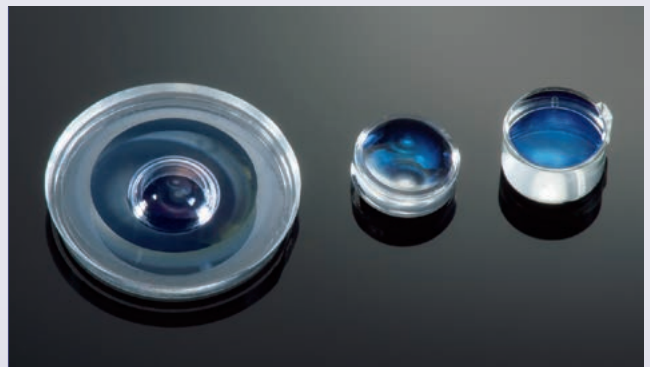
**Zeon has decided to increase production of special cross-linking type hydrogenated nitrile rubber Zetpol®**

In April 2018, it was decided to increase the production capacity of the Kawasaki Plant in order to expand Zeon's special cross-linking type Zetpol® Business. The related construction work is scheduled for completion in September 2019.



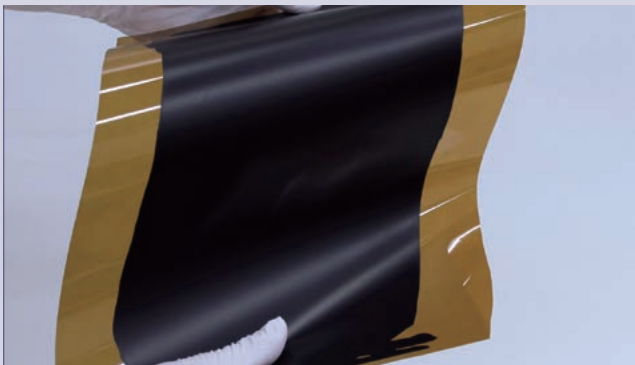
**Zeon Medical Inc. has launched a series of new balloon catheter products**

In December 2017 and May 2018, Zeon Medical Inc. introduced new balloon catheter products for removing bile duct stones. It is anticipated that the new devices, which can be operated by two people compared to three people with conventional products, will help to ease manpower shortages in hospitals.



**Zeon has launched a new type of resin for high heat resistance lenses that are required for automotive sensing cameras**

In October 2017, Zeon launched, a new grade of cyclo olefin polymer designed for use with automotive sensing camera lenses, which require superior heat resistance. Zeon is working to expand the scope of potential uses for ZEONEX®, with an eye on applications relating to automated driving systems.



**Accelerate new business creation and new product development using carbon nanotube (ZEONANO®)**

The pace of R&D work at the Zeon Sunarrow AIST CNT Composite Material Research Center has been accelerated. By creating compounds that combine ZEONANO® with other materials, the Center has succeeded in developing new types of electromagnetic shielding materials and other materials with superior heat resistance and pressure resistance.



**Zeon won the Japan Petroleum Institute Award for Technological Progress for its successful development of a new Cyclopentyl methyl ether (CPME) manufacturing process**

In June 2018, Zeon Corporation was awarded the 2017 Japan Petroleum Institute Award for Technological Progress for the company's development of a process for manufacturing Cyclopentyl methyl ether (CPME) which was commercialized in 2005 and which has maintained stable operation since then, as well as for the spillover effect in relation to the development of other technologies.

## Aiming for further growth and a transformation of the corporate culture in order to realize the Zeon of the future

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

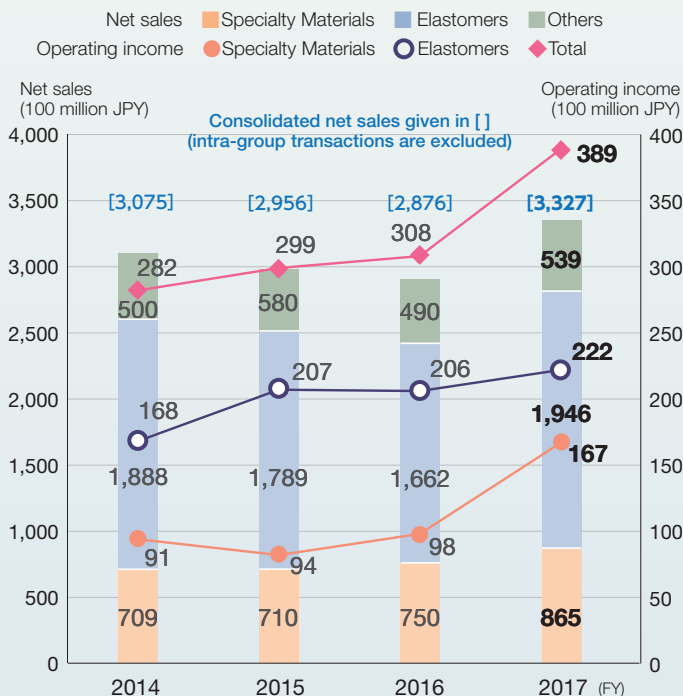
*Kimiaki Tanaka*  
 Kimiaki Tanaka  
 President  
 Zeon Corporation



**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** **[Summary]** Supported by buoyant demand, in FY 2017 Zeon posted its highest ever net sales and profits. Both the Elastomer Business and the Specialty Materials Business saw an increase in sales, and profits rose too.

● Fig.1: Consolidated Results by Segment

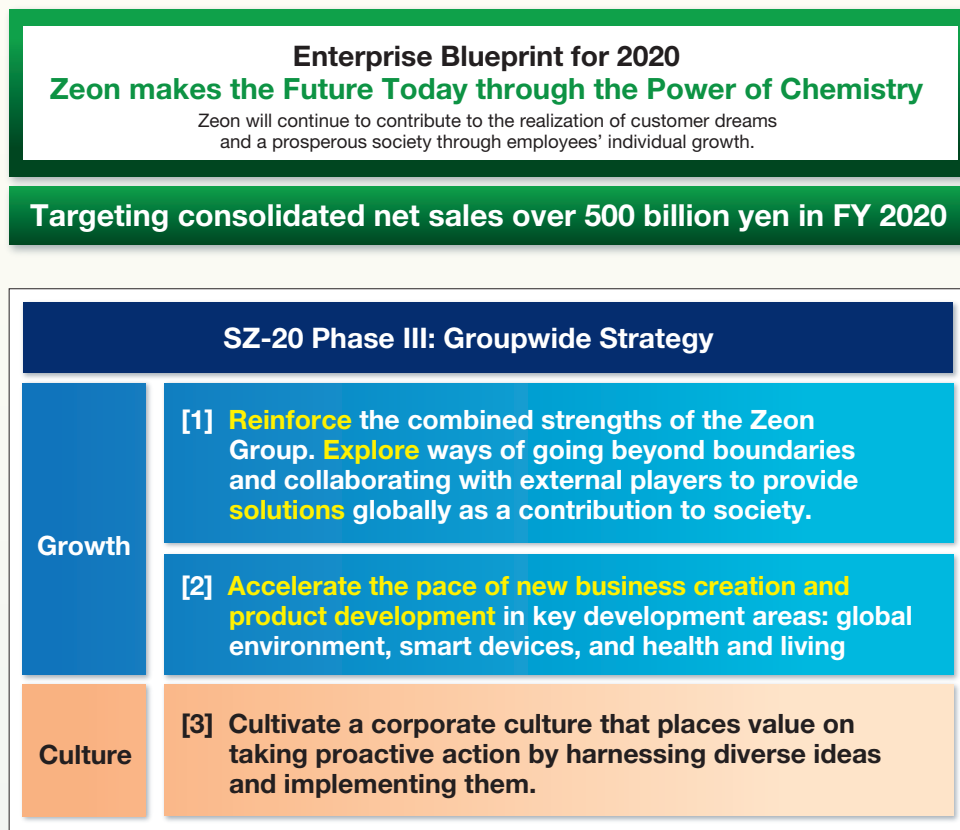


In FY 2017, Zeon's Elastomer Business posted its highest ever net sales and operating profit, thanks to consistently high demand in the rubber market as well as the fall in the price of oil and of butadiene (which is an important raw material), and the depreciation of the yen. Regarding the Specialty Materials Business, the Film Business, which is the largest segment within the business, saw steady growth, particularly for film used in the manufacturing of large-screen TVs; the energy materials and other segments also grew smoothly.

In **the Elastomer Business**, with regard to synthetic rubber, although we had strong sales in both the domestic and overseas markets, the capacity utilization rate for the production of solution-polymerized styrene-butadiene rubber (S-SBR) in Singapore for fuel-efficient tires remained unavoidably low because of the time needed by the client to implement evaluation; as a result, we had to book an extraordinary expense for this in FY 2017. However, the capacity utilization rate is gradually rising, and we will be able to turn this situation around.

In the specialty rubber materials segment, sales of Zetpol®, which has superior heat and pressure resistance, have increased, because demand for mechanical seals for shale gas and oil drilling in the U.S. is rising again.

● Fig.2: The Enterprise Blueprint for 2020 and the Mid-term Management Plan SZ-20 Phase III: Groupwide strategy



In 2017, we established the Asia Technical Support Laboratory (ATSL) in Singapore to provide technical services to local customers. We have hired talent locally, and have conducted training in Japan on how to make synthetic rubber and compounds, and on analysis methods. We have been improving equipment for evaluation, and have already received inquiries from various quarters.

ZS Elastomers Co., Ltd., a joint venture company established by Zeon Corporation and Sumitomo Chemical Co., Ltd. to undertake development and sale of S-SBR, began operation in April 2017, and since then has continued to expand its business scope, generating synergies through the collaboration between our two companies. The goal is to expand the integration of operations to cover every stage up to and including production in the future.

In the film segment, which has the biggest impact on sales revenue in **the Specialty Materials Business**, there has been strong demand for film used for large-screen LCD TVs. Demand for the types of film used in smartphone LCD and OLED displays is heavily affected by smartphone sales, so the goal is to develop film that will be used in a high-selling "hit" smartphone product. Outside the film segment, sales of the resins used in cyclo olefin polymers (COP) have also been buoyant. These have a wide range of applications, including medical devices, optical lenses, semiconductor containers, pre-filled syringes for medical use, etc.

With regard to energy materials, the lithium ion battery binder market is projected to grow by around 4% in 2018. China is the most important market for this product. The battery binder for hybrid vehicles and electric vehicles are growing faster than the binder for smartphone batteries. In addition, lithium ion batteries are

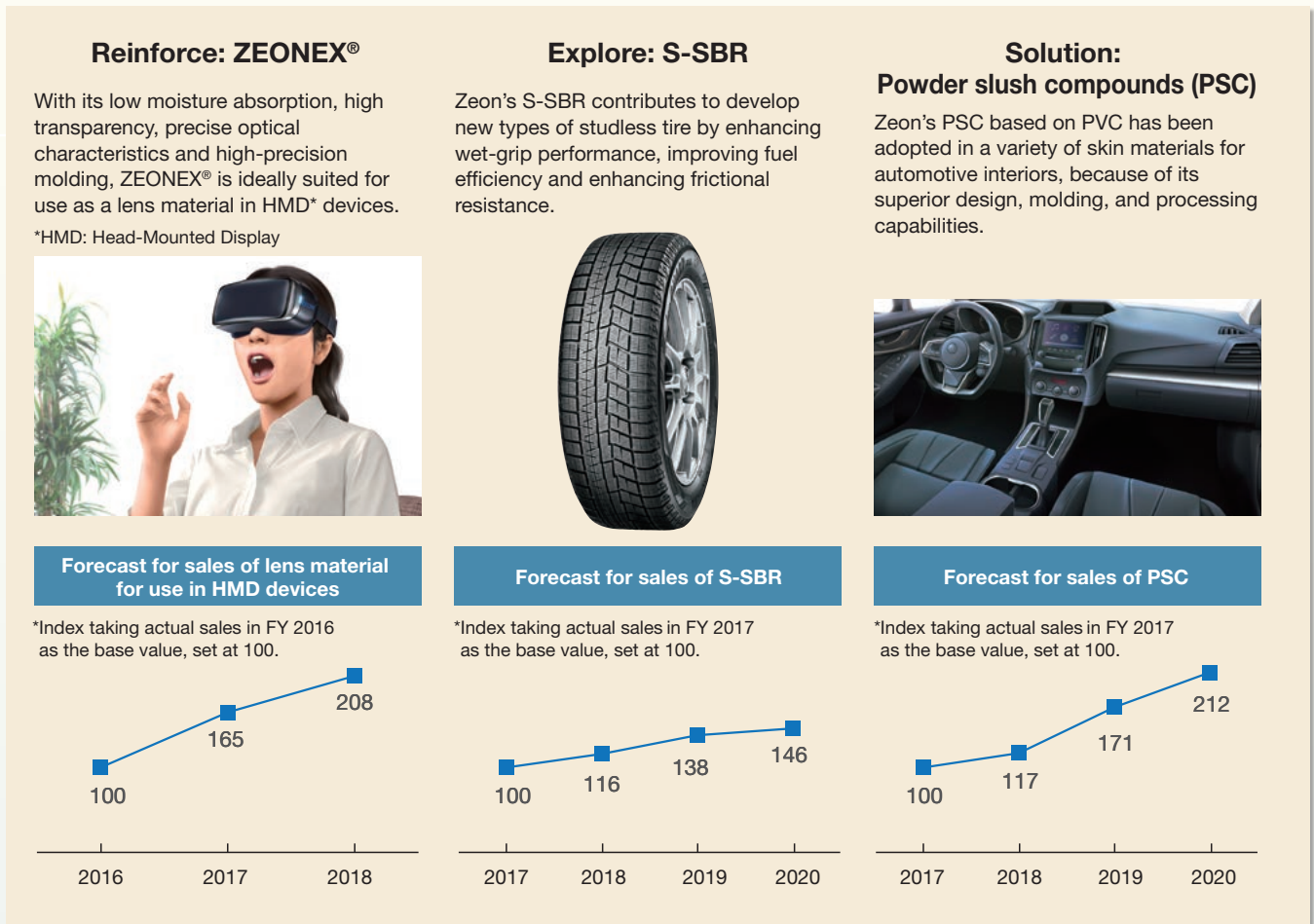
also starting to be used for Energy Storage System (ESS) stationary power sources. Strong growth is anticipated in these types of industrial battery materials. The ESS market in the U.S.A. and Europe offers particularly high potential.

In the chemical products segment, the demand for special solvents used in semiconductor manufacturing and for fragrances is increasing. With regard to fragrances in particular, while this market segment had previously been affected by the impact of emerging materials manufacturers, many of these manufacturers have now withdrawn from the market, resulting in higher demand for Zeon's products.

In the medical device segment, sales of Zeon's Fractional Flow Reserve (FFR) measurement system for examining coronary artery blockage have been brisk. We will continue to roll out new products for the cardiovascular system and the digestive system. **(See also → P.5, Highlight 2)**

Regarding our ZEONANO® single-walled carbon nanotube (SWCNT) product, we are continuing to bring manufacturing costs down, and also developing new product applications. Thermal interface materials (TIM) that use ZEONANO® is expected to start contributing to sales in FY 2019. A method for the low-cost manufacturing of solar cells that uses ZEONANO® for the electrodes instead of platinum has also been developed. Making use of this technology, research is underway with the aim of having devices that use solar power for charging smartphones on sale by 2019.

● Fig.3: Examples of “reinforce,” “explore” and “solutions”



**Q.2** What is being achieved in relation to the objectives of “reinforce,” “explore” and “solution” in the Groupwide strategy for the new mid-term management plan SZ-20 Phase III (Fig.2)?

**A.2** **[Summary]** We are enhancing value-added by satisfying customers' diverse, including latent needs. By reinforcing product functions and exploring new applications, we are generating Solutions (Fig.3).

There are situations where, rather than expecting the customer to specify a particular type of material (such as “X Rubber”), it makes more sense to focus on selling the customer a material that meets the customer's needs, regardless of what type of material that is. For example, you might have a case where the customer asks: “We want something that we can use for this part of the pump, but because there is a lot of heat being generated there, it is going to be affected by friction. Do you have a good material for that?” As long as the material used meets the customer's performance requirements, it doesn't matter whether it is Zetpol®, or NBR, or acrylic rubber. Adopting this kind of approach is vital for boosting sales and growing our businesses. By expanding their knowledge of the wide range of materials that Zeon produces, sales staff can create a wider range of business opportunities.

An example of “**reinforce**”: we added new functionality to our petroleum resin by using Zeon's proprietary hydrogenating technology. Also, the differentiated Asymmetric SIS expands the field of potential applications from conventional SIS. The use of cyclo olefin polymer is growing in the field of Head-Mounted Display

(HMD) lenses, because of its superior optical properties, and also for wafer-handling containers because of its ultra-low out-gassing and low water vapor transmission.

An example of “**explore**”: ZS Elastomer, a joint venture with Sumitomo Chemical, is striving to realize the ideal performance of tires which balance wet-grip performance, fuel efficiency and frictional resistance, by combining both companies' polymer modification and production technology.

As regards “**solutions**”, Zeon's PSC (Powder slush compound) is one example. We tailor material properties to meet customers' needs to offer solutions. In the battery binder segment, we offer materials to satisfy customers' requirements that improve output and cell durability dynamically, etc.



**Q.3**

Regarding the R&D work that Zeon has been undertaking in the three key development areas of Global Environment, Health and Living, and Smart Devices, what is the current status of this R&D activity?

**A.3**

**[Summary]** Zeon has launched a new approach that combines measures for accelerating research activity in the short term with measures for supporting the proposal of new research topics oriented towards the medium and long term. (See also ➔ P.29 R&D)

We are accelerating the pace of new business creation and new product development. In our Latex Business, we have developed new latex products for use in manufacturing surgical gloves and work gloves; we expect to see strong growth in demand for these products, particularly in overseas markets. We are also planning to launch a steady stream of new products in the medical device segment in both FY 2017 and FY 2018. The successful collaborative development of new single-walled carbon nanotube materials has been announced by AIST.\*

In order to facilitate the creation of new business areas through new products, we are adopting new R&D systems. One of these systems is Multi-review, which has been launched with the aim of facilitating the early commercialization of research topics in the form of new product development. Multi-review involves implementing review that brings in researchers from other departments to participate, so that the potential for new product development

can be explored from multiple different perspectives, thereby contributing to earlier commercialization. In FY 2017, this system was used to implement discussion of 17 research topics from different angles.

Another new R&D system is the Innovation Highway. This system relates to medium-term and long-term research topics; it involves determining the feasibility of research topics that have been put forward by individual units by having the topics examined from different perspectives. Over a period of around six months, a total of 65 proposals were examined, of which three have already been selected as formal research topics.

The most important thing is that the adoption of these new systems has invigorated our R&D activity. We anticipate that these measures will help to generate the new businesses that will underpin Zeon's operations in the future.

\*AIST: National Institute of Advanced Industrial Science and Technology

**Q.4**

What is the current situation in terms of measures to promote diversity and CSR regarding the Group-wide strategy of corporate culture cultivation?

**A.4**

**[Summary]** We are addressing the issue of diversity through management-led initiatives. Zeon's CSR Code of Conduct has been revised, and we are implementing measures to strengthen CSR promotion and working to further the reform of our corporate culture. (See also ➔ P.3 Highlight 1, P.34 Zeon's CSR)

Starting from FY 2017, we have been implementing management-led initiatives to foster diversity. We have held several meetings of a working group to discuss issues relating to women's participation and advancement, and I myself have held one-to-one meetings with nine middle-ranking female managers. What was brought home to me by being able to listen to these female managers in person was that they are highly motivated, but they also have significant concerns. This reinforced my conviction that we need to adopt a consistent approach towards addressing this issue, by formulating career plans for female employees and by encouraging supervisors to develop a better understanding of female employees' needs, etc. Since female employees currently account for only a relatively small percentage of all Zeon employees, the first priority is to raise this percentage. We are implementing various measures, starting with an increase in the number of female employees that we recruit, and also working to increase the number of female managers and the number of female employees promoted to corporate officer level, etc.

In January 2018, Zeon's CSR Code of Conduct was revised for the first time in seven years. This revision of the CSR Code of Conduct has been undertaken to make clear Zeon's commitment to meeting society's expectations, which represents Zeon's fundamental approach to CSR, and to clarify Zeon's CSR vision. Over the period 2017–2018, presentations outlining Zeon's CSR—including the approach noted above—were held 26 times within Japan, as well as in three other countries (Singapore, Vietnam and Germany).

So what do we mean when we say that we want Zeon to meet society's expectations? As a manufacturer, Zeon meets society's expectations by providing differentiated products that customers appreciate. At a time when problems with product quality at other

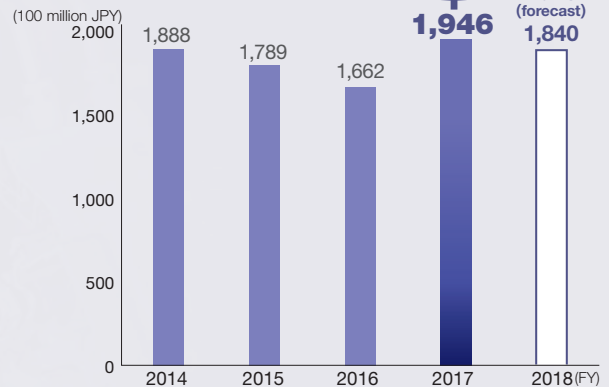
companies are being reported all the time, we regard compliance with laws and regulations as being a basic requirement for doing business. Meeting society's expectations has always been the basis of our CSR, and in the future we will continue to implement this approach thoroughly.



## 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 C<sub>4</sub> and C<sub>5</sub> 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.

### Net sales



### Segment ratio



## Business Overview and Future Strategy

The strategy for the Elastomer Business under the mid-term management plan SZ-20 Phase III is as follows.

- Reinforce competitive businesses by responding globally to growth markets and raising cost effectiveness.
- Explore new opportunities and achieve growth based on Zeon's reputation built in the market and relationships with customers.

In FY 2018, demand both in Japan and in overseas markets remained high, as it had been in the previous year, and our facilities for rubber, latex and chemicals have continued to operate at full capacity. At the same time, however, as the price of raw materials has been tending to rise, making price negotiations (and the timing of these negotiations) with those customers with whom a pricing formula has not been established is particularly important.

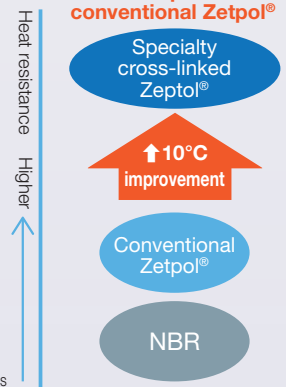
In **the Rubber Business segment**, our Specialty cross-linked Zeptol<sup>®</sup> hydrogenated nitrile rubber—has won high praise for its superior thermal resistance, and has been widely adopted for oil seal applications etc. In 2019, we are increasing the production capacity of the Kawasaki Plant to adequately meet future increases in demand.

Standard Zetpol<sup>®</sup> is widely used in automotive part applications as well as in seals, gaskets, and hoses in construction equipment and high-pressure and high-temperature resistant parts used in drilling

### ● Growth potential for the High Heat Resistance Rubber Business

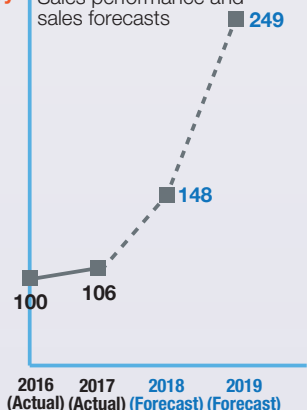
#### Gasket heat resistance comparison

Heat resistance is improved by 10°C compared with conventional Zetpol<sup>®</sup>



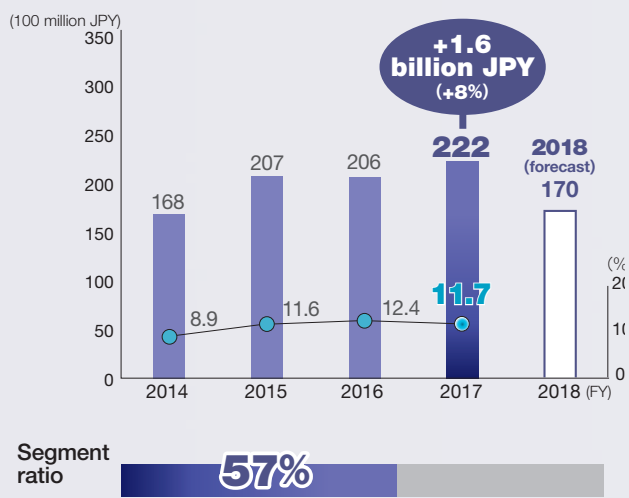
#### Specialty cross-linked Zeptol<sup>®</sup>

Sales performance and sales forecasts



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

## Operating income (ratio)



## Elastomer Business breakdown (FY 2017)

	Sales quantity (1,000 tons)	Net sales (100 million JPY)
<b>Rubber</b>	<b>360</b> (↑17%)	<b>1,380</b> (↑23%)
<b>Latex</b>	<b>130</b> (↑7%)	<b>192</b> (↑8%)
<b>Chemicals</b>	<b>131</b> (↑2%)	<b>347</b> (↑5%)

### Reason for +17% change in rubber sales quantity

General purpose +20%: Japan +2%, global +33%  
Specialty +5%: Japan 0%, global +8%

### Change in specialty rubber ratio

Quantity basis in 2016: 30% → 2017: 27%  
Value basis in 2016: 54% → 2017: 51%

equipment for extracting oil and shale gas. In the oil and gas field, NBR demand corresponding to temperature-range requirements is also recording solid growth.

Compared with the Japanese market, NBR is more often used in construction materials and infrastructure-related products in European and North American markets than in automotive parts applications. We anticipate strong growth in the future. Demand is also expanding for acrylic rubber, mainly for automotive parts applications, and we are seriously examining expanding our production capacity.

Demand for **general-purpose rubber** is also showing solid growth overall. Amid this performance, we recorded an extraordinary expense of 14.723 million JPY as an appraisal loss on the manufacturing facilities of our local company in Singapore that manufactures S-SBR. This loss is the result of delays in transferring manufacturing from our Tokuyama Plant, and lower revenue than initially planned due to intensified competition. Despite this, we are confident that the market for high-performance, fuel-efficient tires using S-SBR will grow substantially in the coming years, and we will continue to focus on S-SBR. We expect ZS Elastomer Co., Ltd., a joint venture between Sumitomo Chemical and Zeon, to create new products attractive to the S-SBR market and customers through the integration of our companies' technologies.

The Asia Technical Support Laboratory (ATSL), which opened in 2017 in Singapore, primarily provides technical support in such areas as blending, kneading, and physical property evaluations of specialty oil- and heat-resistant rubbers used in peripheral automotive engine parts. Rubber processing technology in India and the ASEAN is still in the development stage. Locally available compounding materials and chemical agents are limited, and in many cases the blends developed in Japan, the United States, and Europe cannot be used without modifications. For this reason, blending and processing technologies

that satisfy performance requirements using locally available raw materials are needed. Through technical support, we intend to contribute to the development of the overall rubber processing industry in Asia and increase our presence in the region.

The main applications for NBR latex, which primarily drives sales in our **Synthetic Latex Business**, are gloves and cosmetic puffs. Currently, glove applications mainly consist of disposable gloves. We will augment our glove applications in the future to include higher value-added surgical and work gloves.

Zeon's NBR takes approximately 90% of the global share of the raw material market for cosmetic puffs. We are proud of the superior high quality of our NBR as the raw material in high-end puffs, which are gentle on the skin and create smoother-looking makeup application. We anticipate ongoing growth in the puff market, especially as the population that wears makeup increases in Asian countries.

In our **Chemicals Business**, sales of thermoplastic elastomer SIS are steadily expanding since we increased our production capacity in 2016. Based on our Asymmetric SIS technology, which received the Award of the Society of Polymer Science, Japan (2017), we expanded applications into elastic film for disposable diapers and specialty labels. In addition to improving the smell and color of C<sub>5</sub> petroleum resin, we are developing hygienic materials and automotive applications by leveraging its low-VOC characteristics. In July 2017, we installed hydrogenation facilities in the C<sub>5</sub> petroleum resin manufacturing plant at Mizushima Plant.

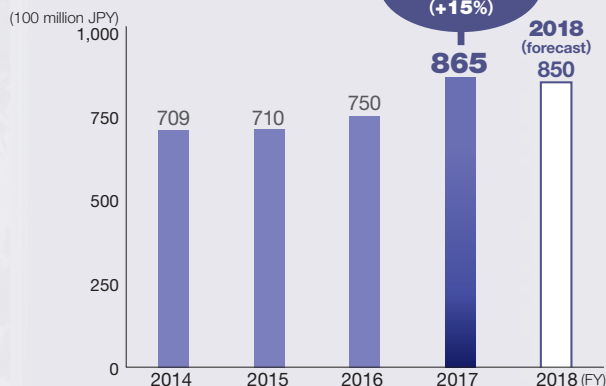
For powder slush compounds (PSC), getting the Zeon Kasei Mexico plant, which started operations in 2017, fully operational is key. Demand for PSC in high-end automotive interiors is steadily expanding, and we are considering opening a fourth plant in addition to our plants in Japan, China, and Mexico.

## 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.

### Net sales



### Segment ratio

26%

## Business Overview and Future Strategy

Our strategy for the Specialty Materials Business in SZ-20 Phase III is as follows.

- **Expand business in step with the speed of market growth and technological progress through focused investment of resources and stronger collaboration with outside players.**

**The Film Business** accounts for a large proportion of the Specialty Materials Business. Creating growth in the Film Business is key to increasing overall sales. For this reason, we increased our production capacity in October 2017. We have

also lowered costs through more efficient use of the cyclo olefin polymer (COP) raw material, leading to higher profit. ZeonorFilm® enjoys high demand in LCD panels for large-screen TVs, and we also anticipate stable growth going forward.

Our sales increased sharply in FY 2017 with the new adoption of films for liquid crystal panels (LCD) and organic EL panels (OLED) for small and medium-sized tablets. We are also currently working on developing films with superior flexibility for foldable devices.

**ZEONEX® and ZEONOR® cyclo olefin polymers** are being used in applications including automotive sensing camera lenses that require high heat resistance, lenses for head-mounted displays that require precise optical characteristics, and semiconductor containers where low impurity and low leachability are critical. Market expansion is anticipated in all of these fields.

Pre-filled medical syringes with the ability to prevent protein solidification have obtained approval for use from the U.S. Food and Drug Administration (FDA), and we are also promoting them in academic circles. In addition, the prototype provision service for microfluidic chips we started in FY 2017 is seeing a steady increase in the number of orders it receives.

Demand for **battery materials (energy materials)** is also rising sharply. A large number of batteries are used in automobiles. With the growing trend of electric vehicles, the market is forecast to grow to a large size. The use of stationary energy storage systems (ESS) as a backup power source in renewable energy power generation systems is growing. ESS are shifting from lead batteries to lithium-ion batteries and their storage capacity is rising, leading to lower costs for renewable energy power generation. Demand for Zeon's energy materials is anticipated to grow as the use of renewable energy expands in the coming years.

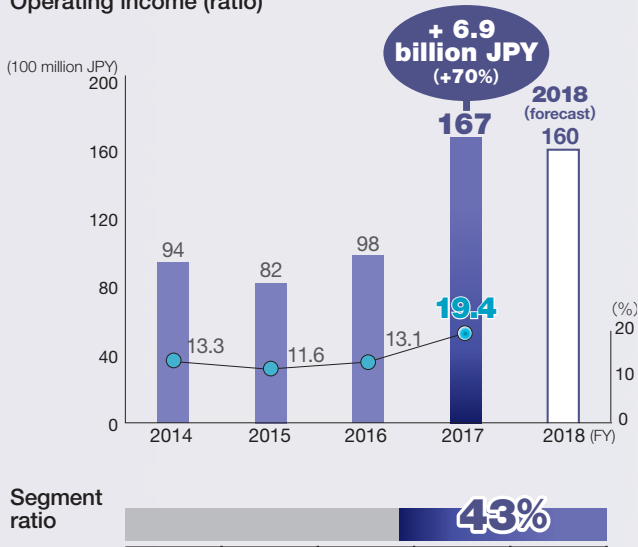
In **Specialty Chemicals**, demand for fragrances is particularly strong. Though emerging manufacturers have



**Hiroshi Fujisawa**

Director & Corporate Officer  
Specialty Business  
Division Manager-Specialty  
Chemicals

### Operating income (ratio)



### Specialty Materials Business breakdown (FY 2017)

	Net sales (100 million JPY)	% change
<b>Specialty chemicals</b>	<b>243</b>	<b>↑17%</b>
<b>Specialty plastics</b>	<b>565</b>	<b>↑15%</b>
<b>Medical, etc.</b>	<b>56</b>	<b>↑10%</b>

- Reason for +17% change in net sales in Specialty Chemicals  
Specialty chemicals +12%, electronics materials +15%, battery materials +34%, toners +2%
- Reason for +15% change in net sales in Specialty Plastics  
COP resins +7%, optical films +18%
- Optical film sales volume: +8%
- Ratio of optical films for small displays (net sales)  
2016: 18% → 2017: 28%

released fragrances, these manufacturers have been weeded out, so demand for Zeon products has risen and sales are increasing.

In the Medical Business, our sensor-equipped guide-wire for measuring intravascular pressure is performing well. In FY 2017, we launched a balloon catheter for removing bile duct stones, and in FY 2018, we launched a new catheter for removing bile duct stones and a new bile duct stent.

(See also → P.5, Highlights 2)

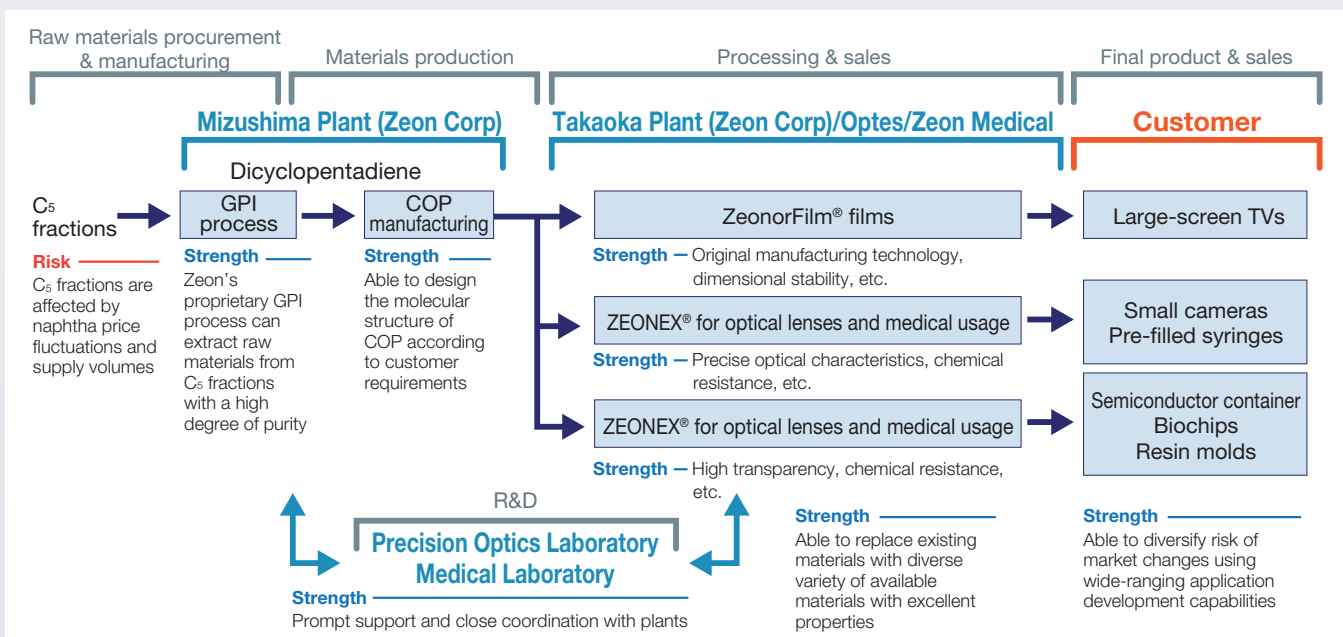
In our **Single-Walled Carbon Nanotube Business**, we are conducting research on composite materials. In February 2018, we announced a corking material that forms a composite with

liquefied rubber and shields electromagnetic waves.

We established Zeon Specialty Materials Inc. (ZSM) in the United States to **sell advanced materials** in North America and Europe. ZSM aims to respond more quickly to market needs in Silicon Valley, where the tech industry is concentrated.

Strengthening information linkages in Zeon Group and having individual customers use multiple Zeon products are key to selling even more products in the future. There are cases of our etching gases being used in a customer's semiconductor manufacturing division and our films being used in its assembly division. As we go forward, we will look at all customer processes and strive to offer a diverse variety of Zeon products.

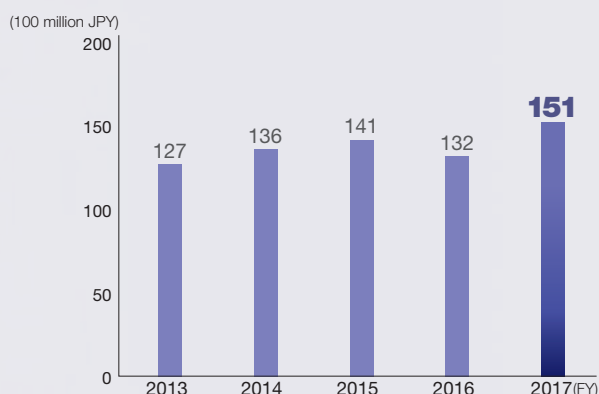
### ● Diagram of business model strategy for products that use COP



## 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.

R&D expenses



## Increasing Development Speed through Selection and Concentration

The companywide strategy established in our SZ-20 Phase III mid-term management plan adopts the keywords of **“reinforce”** and **“explore.”** “Reinforce” refers to how we can combine the internal strengths we possess companywide, while “explore” refers to generating new results from external cooperation. Through these efforts, we will provide **“solutions”** and make contributions to society.

We have set the three key development areas of **the Global Environment, Smart Devices, and Health and Living.** We expect to raise the level of our research findings—in other words our output—in these areas.

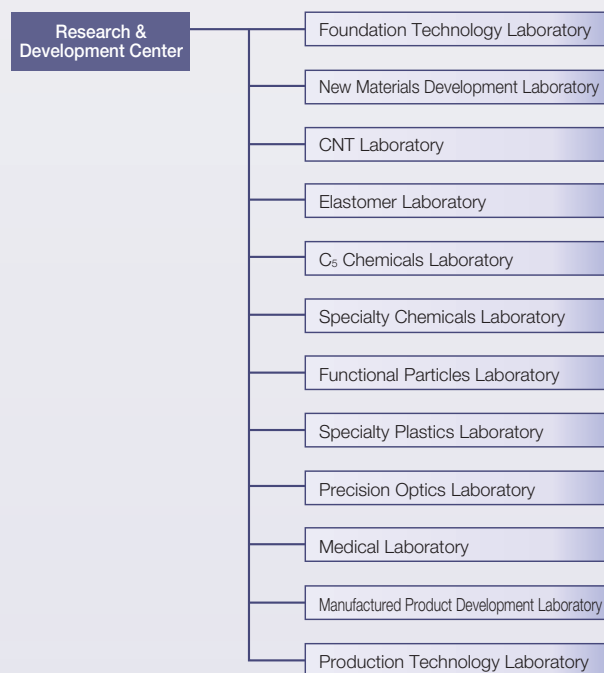
The 2016 reorganization of our research and development structure is gradually producing results. Locating our laboratories next to our plants is contributing to production stability at an early stage.

On the other hand, we must admit that new research findings have not sufficiently contributed to our management performance in recent years. One cause of this is the fact that the technology seeds we currently possess are not the best fit with what society needs. To have our products be well received by customers, they not only need to be of high quality, they also

must fit the cost requirements and the needs of the times when they are launched.

We will therefore efficiently mobilize our resources of people, goods, and money and select and concentrate our research themes to deliver greater results. As part of this, we began using a **multi-review process** in 2017. In this process, we collect a wide range of opinions on individual research themes, including from people in other divisions and outside our company, decide the key performance indicators (KPIs), and conduct evaluations in a short timeframe. Incorporating a diverse range of viewpoints helps us judge whether the individual research theme fits society's needs at the time. We then select and concentrate on research themes where output can be anticipated in the short term.

### ● R&D System



**Sachio Hayashi**

Director & Senior Corporate Officer  
Research & Development  
Division Manager—Research & Development Center

## Strengthening Diversity

Strengthening diversity is a companywide strategy of our mid-term management plan, and this also includes research and development.

We are aiming to achieve innovation through reforms of our company culture. We anticipate that efforts including promoting women's advancement, hiring researchers from countries other than Japan, holding exchanges with outside companies and institutions based on open innovation, and creating research environments that reduce as much as possible the constraints of time and place will prompt researchers to grow professionally through their interactions with a diverse range of people and environments and create a foundation that sparks innovation.

## Intellectual Property Strategy and Technology-Related Communications

As we have been doing, we are working to expand our intellectual property rights with the key phrase of "patent first"\* to enhance our competitiveness and contribute to industry development in line with our corporate strategy. Instead of using our technologies as individual points from which to create intellectual property, we need to strategically connect these points in planes that become intellectual property. In order to make our technologies into intellectual property, we need to strategically connect them in "planes" instead of using them as individual "points." This leads to product differentiation.

We will maintain a high degree of competitiveness based on patents that combine and apply leading individual technologies, including broad conceptual ideas, development of manufacturing processes and applications, and know-how.

Looking to strengthen our intellectual property strategy, we are placing our Intellectual Property Section within the R&D Center as well as assigning staff involved in intellectual property to each laboratory.

It is also important to communicate our technological capabilities to society. While joint research may present some difficulties, we will communicate technical information, primarily through presentations at professional societies and papers published in journals, to increase our presence among specialized professionals.

\*Patent first

At Zeon, we define this as filing patent applications before developing and announcing products and providing samples. In other words, we conduct product development after first considering the potential for filing patents.

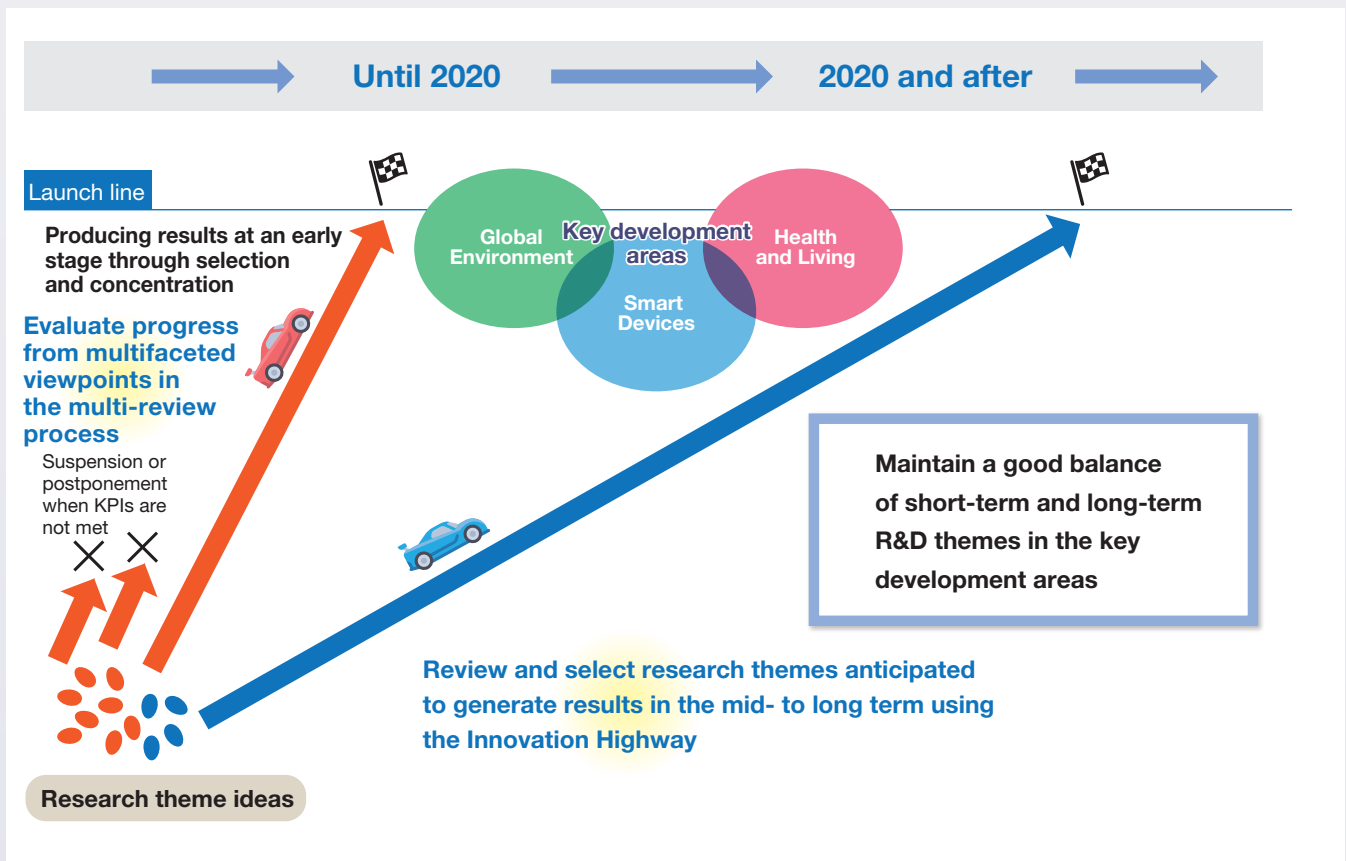
## R&D Based on a Long-term Vision

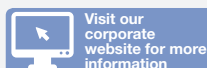
While we have set the Enterprise Blueprint for 2020 as our goal, the year 2020 is merely a milestone on our journey. Key to remaining a company that contributes to society in the future is identifying promising research themes anticipated to deliver results while envisioning our future aspirations in the key development areas. Promising refers to future marketability as well as the potential to create new products by mobilizing our technological assets.

To this end, in 2017 we started using a framework we call **the Innovation Highway**. For newly proposed research themes, we collect opinions from a wide range of viewpoints and determine whether Zeon's technologies can be mobilized and whether we should undertake the research.

We plan to use this framework to more efficiently undertake research and development that achieves our future aspirations in the mid- to long term.

### ● Strengthening output at an early stage and mid- to long-term R&D





Visit our corporate website for more information

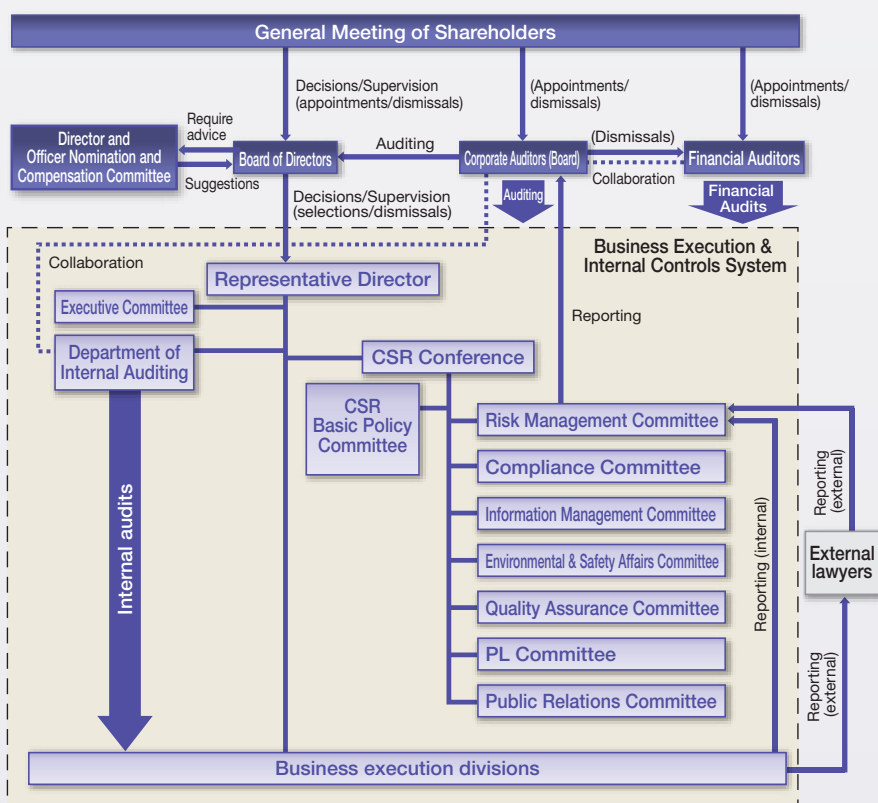
Corporate Governance Report (PDF)

[http://www.zeon.co.jp/csr\\_e/management.html](http://www.zeon.co.jp/csr_e/management.html)

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.

Having 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.

**●Corporate Governance System**



**●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 2018, the Board of Directors consists of 11 directors, including three outside directors.

**●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.

**●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.

**Risk Management**

The Risk Management Committee, the Compliance Committee and the Information Management Committee, along with the subcommittees, namely the Antitrust Law Regulatory Subcommittee, the Export Security Control Subcommittee, and the Corporate Governance Subcommittee, are advancing Zeon's risk management and compliance initiatives.

**●Risk Management and Compliance System**





## Directors and Officers (as of December 1, 2018)

### Directors



Chairman  
**Naozumi Furukawa**  
Chairman of  
TOHPE CORPORATION



President  
**Kimiaki Tanaka**



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



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



Director & Senior Corporate Officer  
**Hirofumi Imai**  
Administration  
Division Manager – Raw Material  
General Manager – China Business  
Administration



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



Director & Corporate Officer  
**Takeo Furuya**  
Carbon Nanotube Business  
Vice president of Zeon Nano  
Technology Co., Ltd.



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



Director  
**Haruo Itoh**  
Adviser – Fuji Electric Co., Ltd.



Director  
**Takao Kitabata**  
Chairman of Board – Sanda Gakuen  
Junior High School & High School



Director  
**Tadanobu Nagumo**  
Chairman and Representative Member of  
the Board – The Yokohama Rubber Co., Ltd.

### Audit & Supervisory Board

Member

**Tadayuki Minami**  
**Shinichi Hirakawa**

External Member

**Yuzuru Fujita**  
Adviser – ASAHI MUTUAL LIFE INSURANCE CO.

**Akio Kohri**  
Chairman and Chief Executive Officer – ADEKA CORPORATION

**Nobutake Nishijima**  
Corporate Adviser – NIPPON TOCHI-TATEMONO Co., Ltd.

### Corporate Officer

**Tomoyuki Kose**  
Plant Manager – Mizushima Plant

**Tetsuya Toyoshima**  
Director & Corporate Officer – Zeon Chemicals Incorporated

**Makoto Yokota**  
Division Manager – Corporate Administration  
President – Zeon F&B Co., Ltd.  
General Manager – Business Innovation Promotion

**Makoto Watanabe**  
Plant Manager – Tokuyama Plant

**Kazuyoshi Matsuura**  
Division Manager – Synthetic Rubber

**Takafumi Kawanaka**  
Plant Manager – Kawasaki Plant

**Tsutomu Eguchi**  
Division Manager – Human Resources

**Yoshiyuki Sone**  
Division Manager – Specialty Components

**Erisa Watanabe**  
Division Manager – CSR

**Satoshi Tominaga**  
Division Manager – Corporate Planning  
General Manager – Corporate Planning



## 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.

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Fair Operating Practices/Human Rights	P.42
Labor Practices	P.43
Community	P.45

# Zeon's CSR



Visit our corporate website for more information

Zeon's CSR

[http://www.zeon.co.jp/csr\\_e/concept.html](http://www.zeon.co.jp/csr_e/concept.html)

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. (See also ➔ P.3, Highlights 1)

**Zeon CSR Policy (established April 2010)**

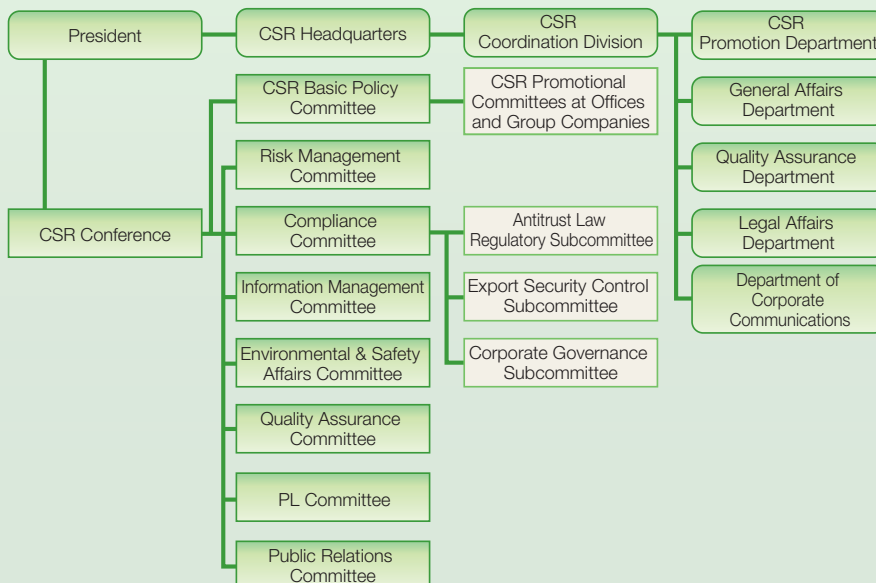
1. We will ensure compliance and meet society's needs for safety and security
2. We will contribute to sustainably developing society and protecting the global environment through our corporate activities
3. We will ensure that each and every Zeon person is aware of CSR and acts accordingly

## 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. The eight committees are the CSR Basic Policy Committee, the Risk Management Committee, the Compliance Committee, the Information Management Committee, the Environmental and Safety Affairs Committee, the Quality Assurance Committee, the PL Committee, and the Public Relations Committee.

### ● Zeon's CSR Management Framework



### ● 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

Planning, implementation status management, and formulation of proposals for improvement, in regard to the appropriate management of information.

#### 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

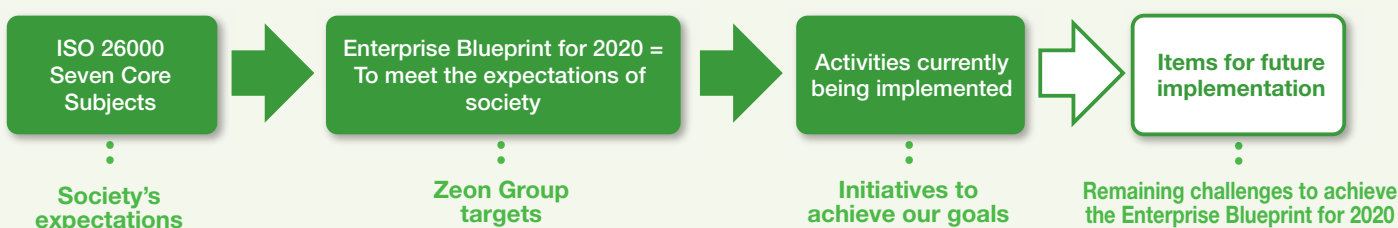
Enhances Zeon's reputation and image through communication activities. Discloses necessary information at appropriate times.

# CSR Implementation Plan

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



## 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.

**Enterprise Blueprint for 2020**

**Zeon makes the Future Today through the Power of Chemistry**

Zeon will continue to contribute to the realization of customer dreams and a prosperous society through employees' individual growth.

## Initiatives supporting the realization of the SDGs by 2030

Adopted at a United Nations summit, the Sustainable Development Goals (SDGs) are a call to action to address critical international issues by 2030.

Taking into consideration a diverse range of social issues from developing and developed countries, the United Nations has set 17 goals and 169 detailed targets. Companies are also

expected to make contributions to achieve these goals.

In accordance with the principles of the SDGs, the Zeon Group is also making contributions to achieve the goals through business activities as a chemicals manufacturer.

**Also see → P.40, “Correlation between the SDGs and Zeon's business activities”**

## SUSTAINABLE DEVELOPMENT GOALS

17 GOALS TO TRANSFORM OUR WORLD



## 1. Corporate Governance Decision-making as an organization



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

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities (■ : Completed, △ : Ongoing)	Future initiatives and targets
<b>Decision-making with accountability and transparency</b> <ul style="list-style-type: none"> <li>Organizational decision-making is conducted appropriately based on internal regulations</li> <li>Business divisions carry out their operations using the PDCA cycle based on policies</li> <li>The process of decision-making takes into consideration social and environmental impacts</li> </ul>	<ul style="list-style-type: none"> <li>△ System to develop internal regulations in the CSR implementation framework (Create internal rules → Apply to routine work)</li> <li>△ Operations address corporate governance (details of results below)                             <ul style="list-style-type: none"> <li>Zeon Corporation's Basic Policy on Corporate Governance (Japanese Only) <a href="http://www.zeon.co.jp/content/200281514.pdf">http://www.zeon.co.jp/content/200281514.pdf</a></li> <li>Corporate Governance Report (Japanese Only) <a href="http://www.zeon.co.jp/content/200323153.pdf">http://www.zeon.co.jp/content/200323153.pdf</a></li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>Continue implementing our CSR promotion structure, and periodically revise its operations based on society's expectations</li> </ol>
<b>Corporate governance</b> <ul style="list-style-type: none"> <li>Corporate governance functions effectively and reasonably</li> <li>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</li> <li>When risks to corporate governance arise, systems operate to appropriately address the risks under the proper authority</li> </ul>	<ul style="list-style-type: none"> <li>△ Report corporate governance reports (status of system for ensuring appropriateness of business affairs)</li> <li>△ Develop work systems</li> <li>△ Conduct corporate governance activities to satisfy Japan's Corporate Governance Code</li> </ul>	<ol style="list-style-type: none"> <li>Improve internal control level at Zeon Group companies</li> </ol>
<b>Risk management</b> <ul style="list-style-type: none"> <li>Established a global crisis management structure</li> <li>The Compliance Hotline is operated appropriately</li> </ul>	<ul style="list-style-type: none"> <li>■ Create a risk table and periodically revise it</li> <li>△ Evaluate risks using the risk table, and conduct the same across the Zeon Group (Japan/global)</li> <li>■ Operate an internal reporting system</li> <li>■ Continue sending out information and conducting legal education using the CSR Code of Conduct and compliance texts</li> </ul>	<ol style="list-style-type: none"> <li>Evaluate the risk table and give guidance for improvements at divisions and Group companies, and horizontally implement successful cases</li> <li>Consider can business risks broadly and manage them in view of demands and society's expectations.</li> </ol>
<b>Business continuity</b> <ul style="list-style-type: none"> <li>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.</li> </ul>	<ul style="list-style-type: none"> <li>■ Examine and establish <b>business continuity management (BCM)</b></li> <li>■ Create and periodically revise various business continuity plans (companywide BCP, division BCP, raw materials procurement BCP, etc.)</li> </ul>	<ol style="list-style-type: none"> <li>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)</li> </ol>

## 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

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities (■ : Completed, △ : Ongoing)	Future initiatives and targets
<b>Discrimination and vulnerable groups, avoidance of complicity</b> <ul style="list-style-type: none"> <li>The section on respect for human rights and prohibition of discrimination in <b>the CSR Code of Conduct</b> 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</li> </ul>	<ul style="list-style-type: none"> <li>■ Release Zeon Group's CSR Code of Conduct and CSR Procurement Guidelines on the Corporate Report and the Zeon corporate website</li> <li>△ Conduct CSR education through means including having employees read compliance texts, e-learning, and CSR informational sessions</li> </ul>	<ol style="list-style-type: none"> <li>Provide information on the Zeon Group's CSR Code of Conduct and CSR Procurement Guidelines to business partners (business, procurement, and materials purchasing departments)</li> <li>Build a database of external reports related to respect for human rights at business partners (supply chain CSR survey database) (CSR Implementation Department)</li> <li>Establish a policy specific to human rights and implement it across the Zeon Group</li> </ol>

### 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

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities (■ : Completed, △ : Ongoing)	Future initiatives and targets
<p><b>Employment</b></p> <ul style="list-style-type: none"> <li>Equal employment opportunities are ensured. (employment)</li> </ul>	<ul style="list-style-type: none"> <li>△ Set a numerical target for women new graduate hires</li> <li>△ Hiring of non-Japanese employees (mid-career employees, exchange students)</li> <li>△ Expand re-employment system for employees reaching the age of mandatory retirement</li> </ul> <p><b>FY 2017 results</b>                      No. of employees rehired after mandatory retirement: 17 (94.4%)</p>	<ol style="list-style-type: none"> <li>Further expand employment not tied to gender, nationality, race, age, disability, or other attribute</li> <li>Build a supply chain CSR survey database of labor practices at business partners</li> </ol>
<p><b>Labor conditions and social protections</b></p> <ul style="list-style-type: none"> <li>Workplaces are re-energized by promoting <b>diversity</b> and the fair and equitable treatment of personnel (appointments)</li> </ul>	<ul style="list-style-type: none"> <li>△ Appropriately implement HR systems</li> <li>△ Support for employee skills and career development</li> <li>△ Harassment prevention</li> <li>△ MD Committee activities by women members (including dialogue between senior management and women employees)</li> <li>△ Implementation of employment for people with disabilities</li> </ul> <p><b>FY 2017 results</b>                      Percentage of employees with disabilities: 2.07%</p>	<ol style="list-style-type: none"> <li><b>Promote diversity-oriented management</b> <ul style="list-style-type: none"> <li>Appoint more women employees to higher positions</li> <li>Appoint more employees who are non-Japanese nationals to higher positions</li> <li>Advance employment of older persons</li> <li>Create a systematic professional development system</li> </ul> </li> </ol>
<p><b>Labor conditions and social protections</b></p> <ul style="list-style-type: none"> <li>Promote <b>work-life balance</b> (harmony between work and life) to enable people to work while also caring for children and/or sick families</li> </ul>	<ul style="list-style-type: none"> <li>■ Introduce flex-time systems</li> <li>■ Develop a shortened work-hours system for childcare and family caregiving</li> <li>■ Draft the general employer's action plan under the Act on Advancement of Measures to Support Raising Next-Generation Children and implement related notifications to acquire the Kurumin mark in Japan</li> <li>△ Childcare support systems (shortened working hours, overtime restrictions and exemptions, sick care leave, breast feeding time, etc.)</li> <li>△ Return-to-work program for employees taking childcare and caregiving leave</li> <li>△ Reduce long working hours</li> <li>△ Implement a work-from-home system on a trial basis</li> </ul>	<ol style="list-style-type: none"> <li>Further pursue dynamic work styles (Promote taking annual paid vacation)</li> </ol>
<p><b>Occupational health and safety</b></p> <ul style="list-style-type: none"> <li>Policies for <b>managing workplace health and safety and the health of employees</b> have been strengthened, work hours are appropriately managed, and the number of people reporting physical and mental health issues is declining significantly.</li> <li>Rate of abnormal results in routine physical exams is at or below standard</li> </ul>	<ul style="list-style-type: none"> <li>△ Include health management in top policy and take steps to maintain and improve the physical and mental health of employees                             <ul style="list-style-type: none"> <li>Conduct mental health education and run a committee for determining returning to work</li> <li>Ensure labor hours management and prevent excessive work</li> <li>Encourage leaving work on time and taking of annual paid vacation</li> <li>Detect changes in health early through stress checks</li> <li>Provide guidance to prevent lifestyle diseases</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>Promote improved physical and mental health for all employees, who are the source of the company's strength                             <ul style="list-style-type: none"> <li>Enhance mental health education</li> <li>Implement company policies and create conditions for better health and well-being</li> </ul> </li> </ol>
<p><b>Occupational health and safety</b></p> <ul style="list-style-type: none"> <li>Increased trust in Zeon to protect <b>local communities' safety and security</b> by conducting emergency drills and other initiatives such as concluding disaster cooperation agreements</li> <li>All worksites have earned public trust by maintaining a safety record of <b>zero incidents and accidents</b></li> </ul>	<ul style="list-style-type: none"> <li>△ Implement the Safety Management Improvement Master Plan</li> <li>△ Fully implement deterioration countermeasures and identify measures to prevent errors, and horizontally implement measures arising from cases of accidents at other companies and plants</li> <li>△ Eliminate safety incidents: Regularly conduct plant safety evaluations and audits</li> <li>△ Eliminate occupational accidents</li> <li>△ Improve safety in logistics</li> <li>△ Conduct comprehensive emergency-response drills and monthly drills by our self-defense emergency response teams</li> <li>■ Conclude cooperation agreements with local governments (Cooperative Agreement for Disaster Prevention in Industrial Complexes)</li> <li>△ Participate in community disaster readiness activities</li> </ul> <p><b>FY 2017 results</b></p> <ul style="list-style-type: none"> <li>● Plant safety evaluations conducted 100%</li> <li>● Implement RC audits conducted (once/year or more for all 4 plants)</li> <li>● Eliminate safety incidents: 2 safety incidents</li> <li>● Eliminate occupational accidents: 2 occupational accidents resulting in lost work time</li> <li>● Zero serious accidents without lost work time</li> <li>● Improve safety in logistics: 0 accidents in logistics</li> </ul>	<p><b>To improve safety capabilities</b></p> <ol style="list-style-type: none"> <li>Conduct four safety activities ("4R-KY") at all Group companies (supply chain development)</li> <li>Reinforce specified sources of hazards to prevent safety accidents</li> <li>Enhance dialogue activities on safety, the environment, and quality with local communities</li> </ol> <p><b>Targets</b></p> <ul style="list-style-type: none"> <li>● Plant safety evaluations conducted 100%</li> <li>● Implement RC audits (once/year or more for all 4 plants)</li> <li>● Eliminate safety incidents: 0 safety incidents</li> <li>● Eliminate occupational accidents: 0 occupational accidents resulting in lost work time</li> <li>● Zero serious accidents without lost work time</li> <li>● Improve safety in logistics: 0 accidents in logistics</li> <li>● Implement the above guidelines at Group companies</li> </ul>
<p><b>HR development and training at workplaces</b></p> <ul style="list-style-type: none"> <li>Have proactively enhanced awareness and made further improvements in the areas of health and safety through comprehensive education</li> </ul>	<ul style="list-style-type: none"> <li>△ Provide training to enhance accident prevention awareness (4 plants, 1 Group company) (e.g., education using accident case studies, hands-on training)</li> <li>△ Promote the 5S's → 3S's</li> </ul>	<ol style="list-style-type: none"> <li>Conduct safety education companywide (supply chain development)</li> <li>Implement the 3S's companywide (supply chain development)</li> </ol>

## 4. Environment

The organization takes responsibility for the environment, and promotes preventive measures



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

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities (■ : Completed, △ : Ongoing)	Future initiatives and targets
<b>Pollution prevention</b> <b>Climate change mitigation and adaptation</b> <ul style="list-style-type: none"> <li>All plants received public recognition for their <b>environmental impact reductions</b></li> <li>Proactively enhance awareness and make further improvements in the areas of the environment and <b>energy conservation</b> through comprehensive education</li> </ul>	<ul style="list-style-type: none"> <li>△ Reduce emissions of hazardous substances, industrial waste, and impacts on atmospheric and water environments</li> <li>△ Improve energy conservation in Responsible Care audits, the Safety Management System, the Environment Management System based on ISO 14001, and the Energy Conservation Implementation Committee</li> </ul> <p><b>FY 2017 results</b></p> <ul style="list-style-type: none"> <li>● Zero environmental incidents</li> <li>● Environmental impact reductions                             <ul style="list-style-type: none"> <li>Per-unit energy consumption: +6%</li> <li>Per-unit CO<sub>2</sub> emissions: +11%</li> </ul> </li> </ul>	<ol style="list-style-type: none"> <li>Conduct environmental management using the multiple systems noted on the left</li> <li>Implement activities companywide to reduce environmental load</li> <li>Identify energy-saving measures and implement them on an ongoing basis</li> <li>Conduct risk assessments of hazardous chemical substances</li> </ol> <p><b>Targets</b></p> <ul style="list-style-type: none"> <li>● Zero environmental incidents</li> <li>● Environmental impact reduction targets                             <ul style="list-style-type: none"> <li>Per-unit energy consumption: -1% average per year</li> <li>Per-unit CO<sub>2</sub> emissions: -1% average per year</li> </ul> </li> </ul>
<b>Climate change mitigation and adaptation</b> <ul style="list-style-type: none"> <li>Products with reduced environmental load continue to be developed and launched in the market.</li> </ul>	<ul style="list-style-type: none"> <li>■ Develop S-SBR for fuel-efficient tire, low-temperature toners, ZEORORA® with zero ODP, and binders for lithium-ion batteries</li> </ul>	<ol style="list-style-type: none"> <li><b>Research and development, manufacturing, and sales that address environmental issues faced by society</b></li> </ol>

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



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

Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities (■ : Completed, △ : Ongoing)	Future initiatives and targets
<b>Fair competition</b> <ul style="list-style-type: none"> <li>Are complying with all laws and regulations, ordinances, agreements, and internal regulations, and acting with <b>high ethical standards</b> based on being a model for society</li> <li>Management policies are broadly understood and <b>compliance</b> awareness is widespread. As a result, by proactively conducting CSR activities and adapting to environmental changes, business continuity as well as sustainable development are achieved</li> </ul>	<ul style="list-style-type: none"> <li>■ Enact and implement management regulations including those on insider trading and appropriate disclosure</li> <li>△ Comply with internal regulations including the Export Security Control Regulations</li> <li>△ Appropriately implement regulations to comply with the Act on Prohibition of Private Monopolization and Maintenance of Fair Trade (Antimonopoly Act)</li> <li>△ Compliance with the Subcontract Act and the Act for Securing the Proper Operation of Worker Dispatching Undertakings (prevention of falsified contracts)</li> <li>△ Regulations in the CSR Code of Conduct and the CSR Procurement Guidelines</li> <li>△ Employees read the CSR Textbook and Compliance Textbook and take e-learning courses</li> <li>△ Conduct CSR education including holding CSR informational sessions</li> <li>△ Hold workshops on legal and regulatory compliance</li> <li>△ Legal compliance inspections</li> <li>△ Regularly revise internal regulations (to satisfy legal amendments)</li> </ul>	<b>To reduce legal risks</b> <ul style="list-style-type: none"> <li>● Compliance with internal regulations</li> <li>● Ongoing legal training and information sharing using the Compliance Textbook and other materials</li> <li>● Education on the CSR Code of Conduct</li> <li>● Ongoing compliance education</li> <li>● Revise the Compliance Textbook and the CSR Textbook and hold related informational meetings</li> <li>● Ongoing CSR briefings by the head of the CSR division</li> <li>● Support the establishment of compliance systems at Zeon Group companies outside Japan (develop in the supply chain)</li> <li>● Shift from compliance to sustainability (promote understanding among management and establish among employees)</li> <li>● Become a signatory to the United Nations Global Compact</li> </ul>
<b>Fair competition</b> <ul style="list-style-type: none"> <li>Information is disclosed quickly and appropriately, and market value has increased (Including negative information regarding business conditions, CSR, risks, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>△ Hold financial results briefings</li> <li>△ Publish various reports</li> <li>△ Release information via the company website</li> <li>△ Hold briefings for individual investors and analysts and respond to media inquiries</li> <li>△ Hold press conferences for mass media outlets and others</li> </ul>	<b>To enhance the corporate brand and value</b> <ol style="list-style-type: none"> <li>Improve the website (IR, CSR information)</li> <li>Strengthen the information communications structure (PR)</li> <li>Communicate information that supports ESG investment</li> </ol>
<b>Social responsibility in the value chain</b> <ul style="list-style-type: none"> <li>Select business partners based on the CSR Procurement Guidelines and periodically confirm the Guidelines' status of implementation</li> </ul>	<ul style="list-style-type: none"> <li>■ Multiple-source</li> <li>△ Comply with laws and regulations on competition including the Antimonopoly Act</li> <li>△ Satisfy the RoHS Directive, bans on substances, etc.</li> <li>△ Purchasing following the CSR Procurement Guidelines</li> </ul>	<ol style="list-style-type: none"> <li>Develop and establish the CSR Code of Conduct and CSR Procurement Guidelines in the supply chain</li> <li>Build the supply chain CSR survey database</li> </ol>

## 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	Details of current activities (■ : Completed, △ : Ongoing)	Future initiatives and targets
<b>Protecting consumers' health and safety</b> • Both <b>quality and cost are globally first rate</b>	△ Have a quality management system based on ISO 9001 △ Manage quality assurance risks (product liability lawsuits, supply obligations, product recalls, and credibility loss due to rumors) △ Improve processes (reduce losses, improve consistency) △ Develop activities for production innovations	1. To maintain and expand conditions where Zeon products are chosen ● Establish systems to definitively reduce complaints, process abnormalities, and defects, prevent defective products from leaving Zeon, create corporate quality trusted by customers, and further improve customer satisfaction ● Develop initiatives for chemical substance regulations ● Develop Zeon's quality management system at Zeon Group companies outside Japan and at outsourcing partners 2. Measure <b>customer satisfaction</b> to understand the current satisfaction level, set targets, and promote improvements
<b>Sustainable consumption</b> • <b>Developed and launched a series of products that are beneficial to society</b>	△ Develop business based on business plans	1. <b>Research and development, manufacturing, and sales that address consumer issues faced by society</b>

## 7. Community

Involvement in and contribution to the community in various forms, from dialogue with local residents to improvement of education and culture in the community and local employment creation



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

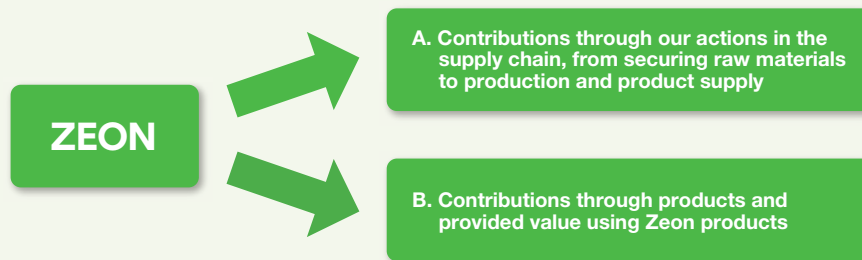
Enterprise Blueprint for 2020 To meet the expectations of society	Details of current activities (■ : Completed, △ : Ongoing)	Future initiatives and targets
<b>Community involvement, education, and culture</b> • Zeon's social contributions are understood, receive recognition, and are supported	△ Develop CSR Core Projects (social contribution activities by Group as a whole, among locations, and at individual worksites)	● Develop the CSR Core Projects based on a defined Zeon Group activity policy
<b>Community involvement</b> • An organization for promoting volunteer activities among employees has been established, and employees actively volunteer in various ways	△ Upgrade and enhance the system for promoting volunteer activities (establish a volunteer leave system) △ Introduce volunteer activities and promote and support participation in them (volunteering to support reconstruction from earthquakes, etc.)  <b>FY 2017 results</b> Number of employees participating in volunteer tours: 60 (cumulative total of 425 employees)	● Raise employee awareness for social contributions • Conduct CSR education including CSR informational sessions • Establish a social contribution policy for the entire Zeon Group (e.g., on water) ● Create a system to support volunteering (volunteer registration system, etc.) ● Create opportunities for social contributions from exchanges with local councils of social welfare, non-governmental organizations and non-profit organizations
<b>Community involvement</b> • Guidelines for <b>coexisting with local communities</b> have been created and are used, and good relations have been built with local communities	■ Formulate and utilize disaster recovery support standards △ Donations and charity activities (Furukawa Scholarship, expenses for community promotions, Red Cross, etc.) △ Maintain good community relations and have community exchanges • Sponsor and participate in community festivals and events including summer festivals at plants • Community cleanup activities • Plant tours (receive plant visitors, internships)	● <b>Maintain and expand exchanges with local communities</b> • Support the reconstruction of the Tohoku region • Devise and implement ongoing measures to support recovery from disasters • Actively participate in community activities ● Through dialogue with stakeholders including local communities, identify expectations from society, the current level of meeting those expectations, and set targets
<b>Technological development and access to technologies</b> Explore the needs of society and cultivate the seeds to meet these needs based on unique technologies and unparalleled products to create new business and make contributions to society.		● Strategy for "reinforce" and "explore" in the Research and Development Division and business divisions



## 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.



## Potential for contributions from Zeon's business activities to the 17 goals and 169 targets that make up the SDGs (examples)


**3** GOOD HEALTH AND WELL-BEING

### 3. Good health and well-being

"Ensure healthy lives and promote well-being for all at all ages"

Target 3.6:  
By 2020, halve the number of global deaths and injuries from road traffic accidents.

➔ **Potential for Zeon contributions**  
Potential for contributions from business related to the auto industry



**9** INDUSTRY, INNOVATION AND INFRASTRUCTURE

### 9. Industry, innovation and infrastructure

"Build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation"

Target 9.b:  
Support domestic technology development, research and innovation in developing countries including by ensuring a conducive policy environment for, inter alia, industrial diversification and value addition to commodities.

➔ **Potential for Zeon contributions**  
Contribute to enhancing product value based on "reinforce" and "explore"




**12** RESPONSIBLE CONSUMPTION AND PRODUCTION

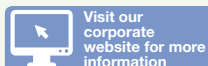
### 12. Responsible consumption and production

"Ensure sustainable consumption and production patterns"

Target 12.4:  
By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment.

➔ **Potential for Zeon contributions**  
Promote reduced consumption and discharge as ongoing independent initiatives





Visit our corporate website for more information

Environment

[http://www.zeon.co.jp/csr\\_e/environment.html](http://www.zeon.co.jp/csr_e/environment.html)

**Environmental Philosophy (established August 2001)**

1. Environmental protection is a mission of a socially responsible organization
2. Our basic belief is that environmental protection can be achieved with innovative technology
3. Environmental protection will be achieved when all employees work together with a sense of mission to overcome challenges

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.

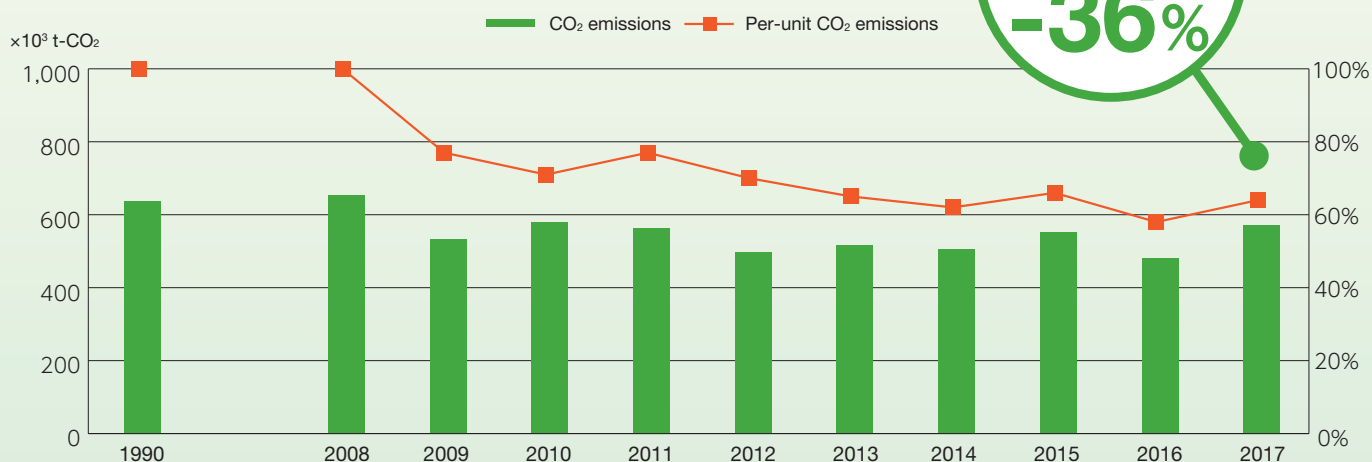
\* Responsible Care: A voluntary initiative by businesses that manufacture or handle chemical substances to achieve continuous improvement in health, safety, and environmental (HSE) performance across the entire life cycle of such substances—from development and manufacture, through distribution and 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.

**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 CO<sub>2</sub> emissions and per-unit CO<sub>2</sub> emissions by an average of 1% per year compared with FY 1990.

**CO<sub>2</sub> emissions and Per-unit CO<sub>2</sub> emissions (FY 1990 comparison)**



**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 fiscal 2017, 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 batteries. In the years ahead, we will engage in R&D that attempts to address environment-related social issues.

**TOPICS**

**Adopted in the latest studless tires for improving fuel economy and wet-grip performance**

In January 2018, Zeon's S-SBR was adopted in the latest studless tires that were announced as a new product. S-SBR improves fuel economy, wet-grip performance, and performance on ice.



# Fair Operating Practices/Human Rights



Visit our corporate website for more information

Fair Operating Practices

[http://www.zeon.co.jp/csr\\_e/suppliers.html](http://www.zeon.co.jp/csr_e/suppliers.html)

Human Rights

[http://www.zeon.co.jp/csr\\_e/humanrights.html](http://www.zeon.co.jp/csr_e/humanrights.html)

## Fair operating practices

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.

### ● 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.

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.

### ● Compliance system



\*QCD: System of production management that controls and improves quality, cost, and delivery.

## Human rights

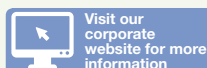
In the provisions of our CSR Code of Conduct, we state respect for human rights and prohibit discrimination. We strive to be a company that understands and accepts diverse values, and where no person is discriminated against based on gender, age, nationality, or other attribute.

### ● Protecting human rights in the supply chain

Respect for human rights and considerations for work environments form part of the Requests to Suppliers section of the CSR Procurement Guidelines.

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.

# Labor Practices



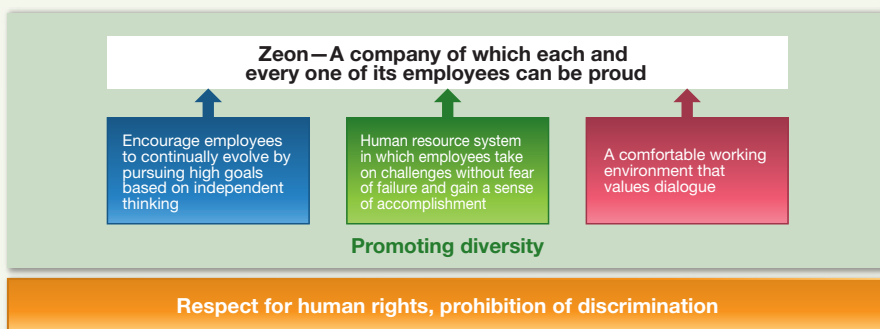
Visit our corporate website for more information

Labor Practices

[http://www.zeon.co.jp/csr\\_e/employee.html](http://www.zeon.co.jp/csr_e/employee.html)

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, and 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.



\*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)

(No.)

	Men	Women	Total
Employees	1,402	198	1,600
No. of new hires			
New graduate	28	10	38
Mid-year	9	3	12
Percentage of employees with disabilities	2.07%		
Re-employment of employees who have reached mandatory retirement age	17 (94.4%)		

Includes 20 non-Japanese employees (9 men and 11 women)  
 New graduate: Employees that joined the company in April 2017  
 Mid-year: Employees that joined the company from April 2017 to March 2018

## 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.

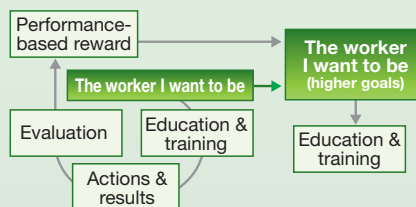
### TOPICS

#### 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



## Occupational safety

### Safety Philosophy (established March 1997)

1. Safety is the foundation of all business activities and the greatest priority
2. Our basic belief regarding safety is that we can prevent all accidents
3. Safety will be achieved by performing the 5Ss\*1 and when everyone takes responsibility for their own actions

\*1 5Ss: *Seiri* (sort), *Seiton* (straighten), *Seisou* (scrub), *Seiketsu* (systematize), and *Shitsuke* (sustain)

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 2017. 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 64 days in FY 2017.

## 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\*2 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.

### TOPICS

#### Holding the Zeon North Safety Conference (every May)

The primary business of Zeon North is plant engineering for the Zeon Group. Zeon North holds a safety conference for representatives of partner companies to deepen cooperation with them, enhancing safety awareness, spreading safety knowledge, and sharing information. Zeon North works together with all of its partner companies with the goal of building a culture in which all on-site workers have a strong awareness of safety and safety is always given the highest priority.



Zeon North Safety Conference



Zeon North Education Center

\*2 Yellow Card: Document describing what to do if an accident occurs during transportation, as established by the Logistics Safety Management Policy of the Japan Chemical Industry Association. The document is called a Yellow Card because it is printed on yellow paper.



Visit our corporate website for more information

Community

[http://www.zeon.co.jp/csr\\_e/community.html](http://www.zeon.co.jp/csr_e/community.html)

Site Reports

[http://www.zeon.co.jp/csr\\_e/sitereport.html](http://www.zeon.co.jp/csr_e/sitereport.html)

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.

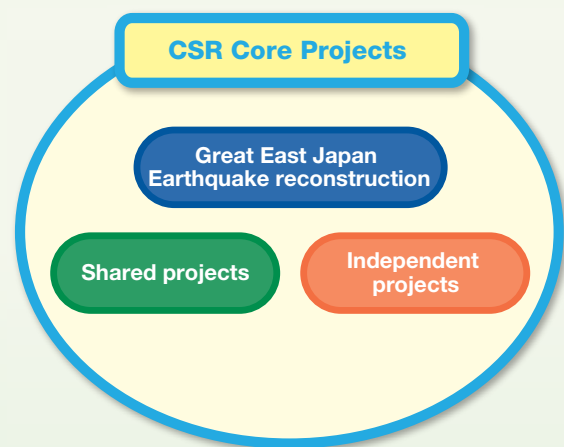
**Zeon's approach to social contributions**

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.

● **Social contributions at Zeon**



**FY 2017 initiatives**

**1 Activities with the local community/ Zeon Chemicals L.P.**

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



ZCLP employees entered the Kentucky Derby Festival Great Bed Races with a bed decorated like a space shuttle and collected donations for the Disabled American Veterans Charity.

**2 Activities with the local community/ Zeon Chemicals (Thailand) Co., Ltd.**

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



Communication activities with the local community.

### 3 Activities with the local community/ Zeon Advanced Polymix Co., Ltd.

Thailand-based Zeon Advanced Polymix Co., Ltd. has made charity donations to neighboring institutions and supported the health management of nearby residents for many years.



Zeon Advanced Polymix received the 2017 CSR-DIW Continuous Award from the Department of Industrial Works (DIW) in recognition of its excellent CSR activities.

### 4 Holding community events

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.



Tokuyama Plant sponsors the Zeon Waraku Odori Dance Festival held every summer. First held in 1974, more than 2,000 community residents participate in the festival each year.

### 5 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.



Takaoka Plant and others in Zeon Takaoka Group jointly participated in a beach cleanup organized by the local government.

### 6 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.



Employees of Mizushima Plant visited local elementary and secondary schools to give lessons.

### 7 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.



Zeon Chemicals Yonezawa participated in the 2017 Youth Science Festival in Yamagata. Staff and children together made aromatic air fresheners by using our synthetic fragrances.

### 8 Donations of books to 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 for local education organized by Otsuchi Gakuen school at Heisei-no-Mori in Otsuchi Town.



Cover photo:

**Zeon Corporation Kawasaki Plant**

Established in 1959, the Kawasaki Plant was the first factory in Japan to begin volume production of synthetic rubber. The synthetic rubber manufactured at the Plant has superior heat-resistance and oil-resistance properties, and is used for automotive components that are in close proximity to the vehicle's engine. The Kawasaki Plant also produces synthetic latex, undertaking small-volume production of a wide range of high-value-added product items such as rubber gloves, cosmetic puffs and non-woven fabrics.

**Main products**

Synthetic rubber and synthetic latex

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**ZEON**

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