



CORPORATE REPORT 2015

**ZEON**

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## Information disclosure at Zeon

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

The Corporate Report contains a wide range of information about management and CSR, while the CSR website contains detailed performance and site reports regarding CSR information. We also disclose more detailed management information on the IR website and in the Fact Book.

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



Website :  
Company Information



Printed brochure :  
CORPORATE REPORT 2015



Website : CSR Activities



Fact Book



Website : Investor Relations

### Report Policy

At Zeon Corporation and the Zeon Group, we used to publish the "CSR Report" so that all of our stakeholders can understand our approach to CSR and activities for the environment. However, from FY2013, we have been issuing the "Corporate Report" in a magazine format, which includes an annual report that provides an overview of general Zeon business activities and corporate information functions.

In our FY2015 report, we have renewed the "Business Profile," which provides a summary of Zeon business activities, and have newly added "Messages from Outside Directors" to enhance the functioning of our governance. Among the highlights of the report are information on our initiatives to reduce our environmental impacts, an update on changing the culture through "*Taimatsu* (torchlight) activities," and commentary on our films business, which is driving our Specialty Materials Business.

We ask for your honest feedback and opinions so that they may be used to improve our activities in the future.

### Period Covered

April 2014 to March 2015  
(also includes some new information from April 2015 and later)

### Organizations Covered

The report covers Zeon Corporation and Group companies in Japan and overseas. Some data only covers Zeon Corporation.

## Zeon Makes the Future Today through the Power of Chemistry

Zeon Corporation has consistently introduced many new products to the world through our original “do not imitate and cannot be imitated” technology all under the corporate philosophy of “Zeon is contributing to the preservation of the Earth and the prosperity of the human race.” These products support our society through their presence all around us.

In order to continue as a company needed by society, we are now advancing business activities under our Enterprise Blueprint for 2020, titled “Zeon Makes the Future Today through the Power of Chemistry.” To achieve our Enterprise Blueprint, it is important that we provide the world with products that not only offer high quality, but can also lower costs to society during both manufacture and use. In recent years, our specialty rubber Zetpol® and S-SBR for use in fuel-efficient tires, our thermoplastic elastomer Quintac®, and our optical film ZeonorFilm™ have earned acclaim and support in the market. In addition, we plan to roll out new products in many fields including energy materials for lithium-ion batteries, medical devices, and carbon nanotubes. We will continue to work toward research and development from a long-term perspective in order to give birth to creative and distinctive new products.

With the world's population surpassing 7 billion people and requiring ever more resources to survive, chemical companies hold the potential for greatly changing the world including its methods of design, social systems, and ways of living through the power of materials. Looking ahead, we will continue creating new products through our unique technologies so that we may contribute to the sustainable development of society and global environmental conservation.

We deeply appreciate your ongoing support and encouragement for Zeon.



A stylized, handwritten signature in black ink, appearing to read 'N. Furukawa'.

Naozumi Furukawa  
Chairman

Since our founding in 1950, Zeon has created novel products by harnessing our R&D capabilities which utilize our proprietary strengths, and by tapping into our collective production technologies to contribute to society through the delivery of superior and unique products and services. “Zeon Makes the Future Today through the Power of Chemistry” - that is the promise of Zeon.




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Corporate Philosophy (Established April 1997)

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

In keeping with its name, which derives from the Greek words “geo” (the Earth) and “eon” (eternity), Zeon will contribute to the sustainable development of people, society and the global environment through innovative world-class technologies.

### Company profile

**Company name:** Zeon Corporation

**Establishment:** April 12, 1950

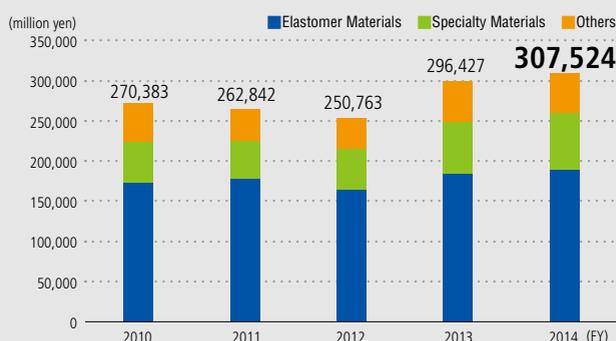
**Capital:** 24.211 billion yen (as of March 31, 2015)

**Market capitalization:** 293.1 billion yen (as of March 31, 2015)

**Total number of shares outstanding:** 242,075,556 shares

**Employees:** 3,216 (consolidated), 1,679 (non-consolidated)  
(as of March 31, 2015)

### Consolidated Net Sales





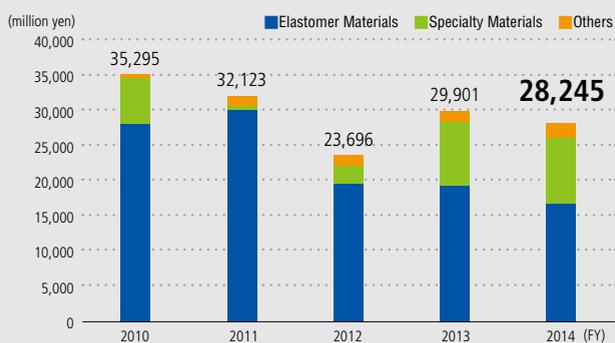

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CSR Policy (Established April 2010)

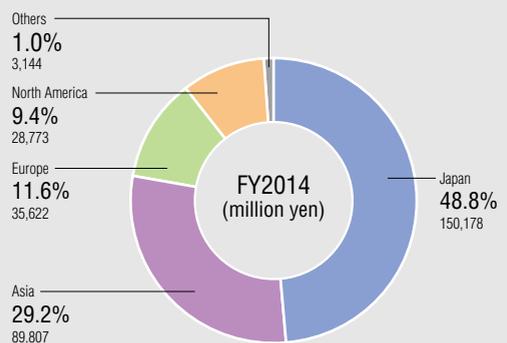
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- We will ensure compliance and meet society's needs for safety and security
- We will contribute to sustainably developing society and protecting the global environment through our corporate activities
- We will ensure that each and every Zeon person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

### Operating Income



### Net Sales by Region



# Business Profile

Zeon products are highly versatile, functional materials used in all kinds of things you see and use every day.

Those excellent qualities have led to many of Zeon's products earning the distinction of being No. 1 globally, including being the "first product of its kind in the world" or having the "world's leading market share."

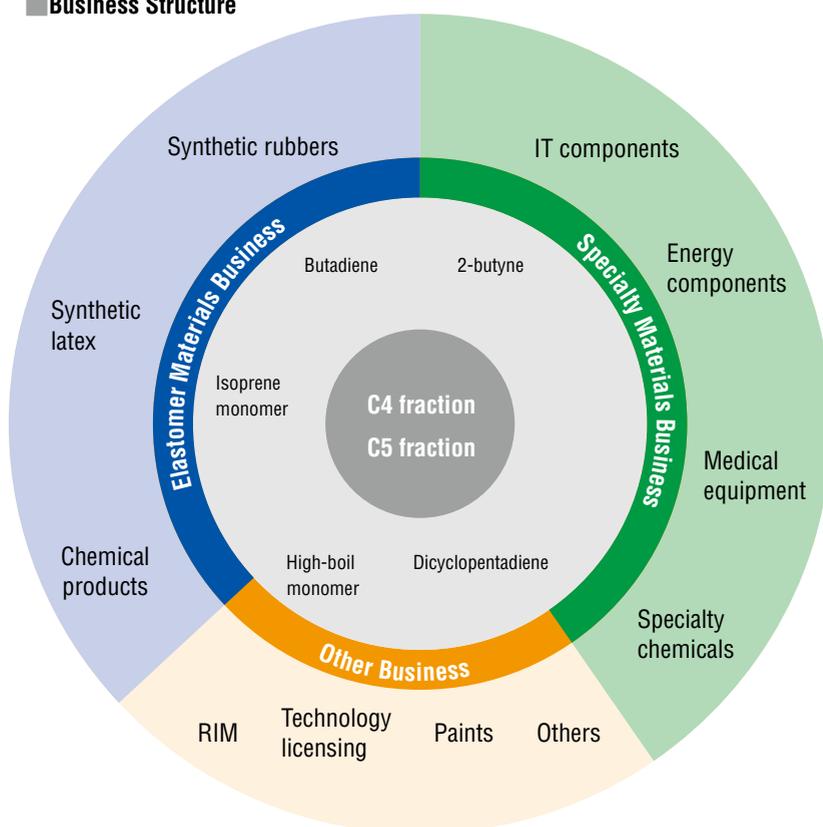


Zeon's main products are made from C4 and C5 fractions, a derivative of distilled naphtha originating from crude oil.

From there, we use substances, such as butadiene and isoprene, which are obtained with proprietary extraction technologies, to manufacture various materials and components.

Our business segment is divided into three parts. The **Elastomer Materials Business** includes a product line that enhances the capabilities of the raw materials, our **Specialty Materials Business** features high value added products manufactured using advanced technology and other processed products, and the third is **Other Business**.

## Business Structure



- ① Tires
- ① Automotive parts
- ③ Road marking



- ② Rubber gloves



- ③ Paper diapers
- ③ Adhesive tape

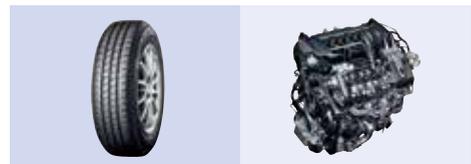


## Elastomer Materials Business

Elastomer materials consist of production in the three fields of synthetic rubbers, synthetic latex and Chemical products. In 1959, Zeon became Japan's first company to mass-produce synthetic rubbers. Even today, the Elastomer Materials Business is our core business, providing 60 percent of the total net sales and operating profit.

### ① Synthetic rubbers

We manufacture synthetic rubbers with a variety of strong points, such as SBR (styrene butadiene rubber), which has excellent wear resistance, BR (butadiene rubber), which has excellent cold resistance and low exothermicity, and IR (isoprene rubber), which has the same performance as natural rubber. We supply these rubbers to major tire manufacturers around the world. We also manufacture and sell specialty synthetic rubbers with excellent heat and oil resistance, such as NBR (nitrile rubber), Zetpol® (hydrogenated NBR), ACM (acrylic rubber) and ECO (epichlorohydrin rubber), as rubber parts for automobile engine compartments.



### ② Synthetic latex

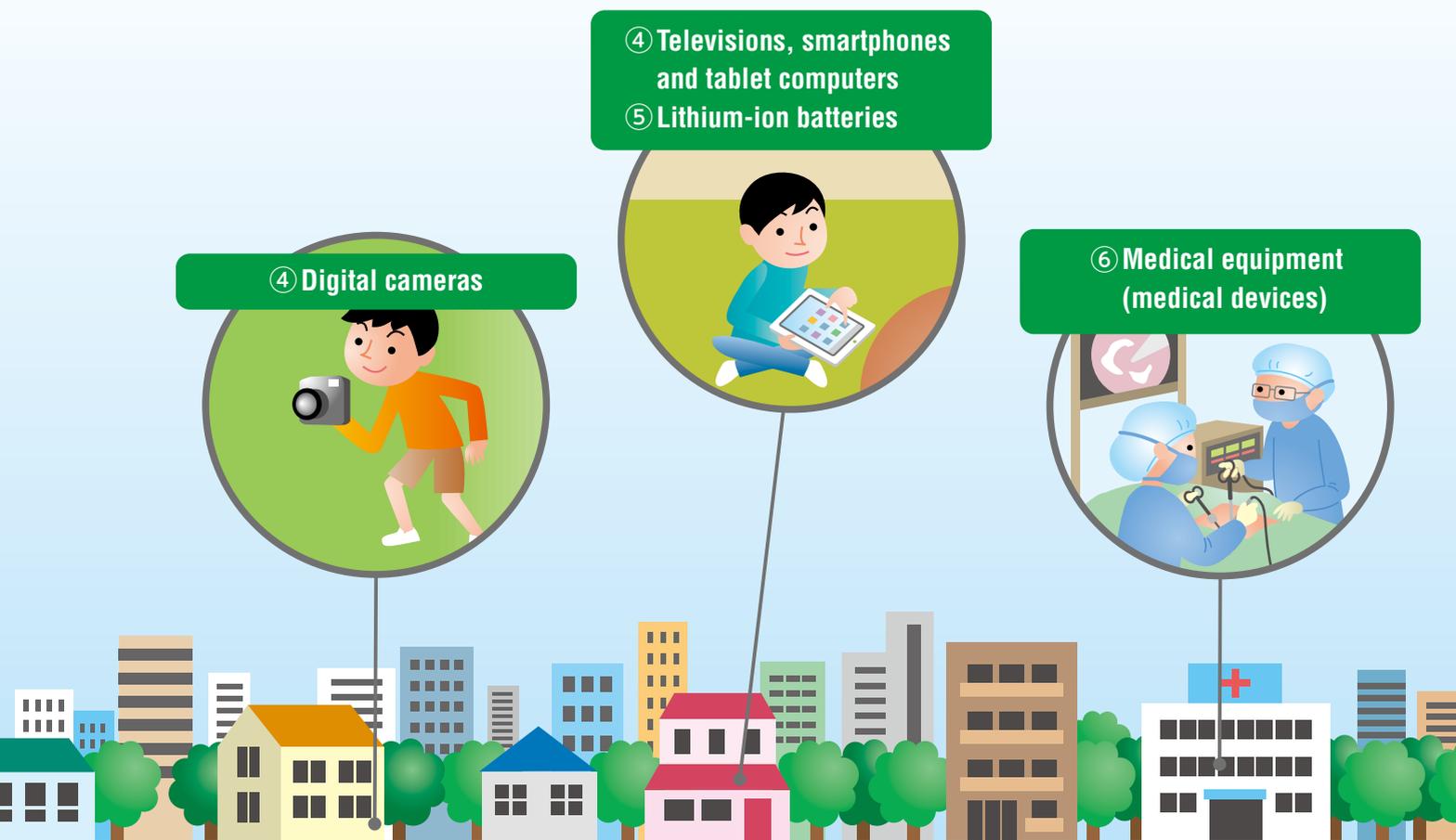
Synthetic latex refers to emulsion-type rubbers and resins. Zeon manufactures and sells NBR latex, a material used in products that require oil resistance, such as disposable gloves and powder puffs; and SBR latex, a material used in products such as paper coating and adhesives; and acrylic emulsion, a material used in textile processing and coatings.



### ③ Chemical products

We manufacture petroleum resins, which are used as materials for adhesive tape and glues, and thermoplastic elastomer SIS (styrene isoprene block copolymer). Petroleum resins are also used in paints for road surface marking (traffic paints). SIS is also used as a material for elastic film in paper diapers.





## Specialty Materials Business

Specialty materials refer to materials and components with high added value that use macromolecular design and processing technology.

Focusing on future growth areas, we are positioning the IT components (optical, packaging and electronic), energy components and medical equipment (medical devices) businesses as the three key business domains.

### 4 IT components

We supply materials and components focusing on optics, packaging and electronics. Cyclo olefin polymers (ZEONEX®/ZEONOR®) excels in optical properties and is used as a raw material in optical components such as small-scale camera lenses. We also manufacture and sell optical films (ZeonorFilm™) for LCD televisions and smartphones, insulation materials for semiconductors, and etching gas for the production of semiconductors.



### 5 Energy components

Lithium-ion batteries are used, for example, in mobile phones and, more recently, in automobiles. In connection to energy components, Zeon mainly manufactures and sells functional binders for lithium-ion batteries and sealing agents for gaskets. Aqueous binders for anodes can restrict the swelling of electrodes, which contributes to heightening the capacity of thin smartphone batteries, etc. We have also successfully developed and can therefore supply environmentally friendly aqueous cathode binders, which are traditionally solvent-based.



### 6 Medical equipment (medical devices)

Zeon is developing an integrated structure for development, manufacturing, sales and pharmaceutical affairs, mainly in the areas of circulatory and gastrointestinal systems. In terms of gastrointestinal systems, we are manufacturing and selling devices for use in endoscopy, including balloon catheters for gall stone removal for circulatory systems, we are manufacturing and selling balloon catheters for IABP among other applications.



## ② Powder puffs

## ⑦ Perfumes



## ⑧ Printing toner



## ⑨ Housing materials

## ⑩ Paints



## ⑦ Specialty chemicals

We manufacture and sell synthetic aroma chemicals as well as chemicals for organic synthesis. Synthetic aroma chemicals are highly-safe substances used in foods, fragrances, and cosmetics. Chemicals for organic synthesis that we produce include solvents for reactions and extraction, solvents for cleaning precision equipment, and solvents for electronic materials development and separation. We also handle chemical products that are used as pharmaceutical and agricultural chemical intermediates and as raw materials for synthetic aroma chemicals.



## ⑧ Polymerized toner

Zeon achieved the world's first polymerized toner produced on industrial scale with ZEOGLOBULE™, a feat made possible through advanced polymer design technology and fine particle control technology cultivated by Zeon through its experience in synthetic rubber and synthetic latex. ZEOGLOBULE™ exhibits excellent transferability and dot reproducibility owing to its uniform spherical forms, yielding higher image quality in page printers. Moreover, the encapsulated structure enables low temperature fixing which contributes to lower energy usage and faster print speeds in page printers.



## Other Business

The Other Business segment consists of businesses being carried out mainly by Group companies, such as the trading, paints/coatings, engineering, Reaction Injection Molding (RIM), packaging materials, construction materials, and the deodorization-related business. It also includes the external licensing of proprietary technologies.

## ⑨ RIM combination liquid and molded items

Zeon manufactures and sells combination liquid used in Reaction Injection Molding (RIM). This resource- and energy-saving molding method utilizes dicyclopentadiene as a raw material and is able to simultaneously perform both polymerization and molding inside the metallic mold. The durability of plastics molded with this method is on par with engineering plastics, and waste material from the process can be used in thermal recycling or as solid fuel. Our combination liquid is utilized in large-size plastic products such as truck and bus bumpers, windcreens, and the housing for residential septic tanks, as well as in household bathroom sinks and bathtub floor surface material.



## ⑩ Paints

Tohpe Corporation joined the Zeon Group in 2013. We plan to prepare a lineup of different types of paints for various applications, and develop paints to suit the needs of our customers.



## Toward the Achievement of Enterprise Blueprint for 2020

President Kimiaki Tanaka explains the status of the Zeon Group and the outlook for its future prospects in a Q&A format.

  
Kimiaki Tanaka  
President



**Q** Please tell us about the recent business environment and the status of Zeon Group.

**A** A severe environment continues to surround market conditions for products in our Elastomer Materials Business. Demand for optical films, part of our Specialty Materials Business, is growing despite significant fluctuations in business results. As the second phase toward achieving Enterprise Blueprint for 2020, we are now engaged in the SZ-20 Phase II Mid-Term Management Plan.

The price of butadiene, the raw material for synthetic rubber, is declining in line with the prices of crude oil and naphtha, and the long slump in the price of natural rubber continues. As a result, market conditions for synthetic rubber remain stagnant. In domestic sales, prices are set in line with the price of raw materials. In overseas sales, however, spot prices prevail and are affected by prices including that of natural rubber, which declined over a short period. With competition from other manufacturers also severe, I believe that we must create a structure for our Elastomer Materials Business that is able to adapt to changes in the market.

At the same time, each sector of the Specialty Materials Business has its respective characteristics. Optical film, which makes a significant contribution to our business results, is subject to variation in demand caused by model changes in televisions and other products; as such, the product is characterized by ups and downs, rather than overall upward-trending performance. Looking at broad trends, demand is rising in the area of extremely high-resolution products, such as 4K and 8K televisions and

smartphones with screens of 350ppi (pixels per inch) or greater. Demand is increasing for ZeonorFilm™, which boasts the performance able to meet that shift to high resolution.

Overall, the impact from elastomer materials-related business, which makes up 60% of sales, is quite significant.

Amid this economic environment, the Zeon Group is tackling issues focused on the achievement of the SZ-20 Phase II Mid-Term Management Plan launched in fiscal 2014 as a second phase toward achieving Enterprise Blueprint for 2020. In terms of management indicators, ROE (return on equity) was 9.8% and ROA (return on assets) was 8.1%. As we aim for consolidated net sales of ¥500 billion in 2020, we are making production efficiency visible for each manufacturing line, along with necessary improvements, in order to enhance profitability. In addition, we are considering making decisions on the continuity of each business while we track ordinary profit and investment efficiency for each manufacturing line.

**Q** What are the current state and future strategies of the Elastomer Materials Business?

**A** We will focus on creating differentiation in product performance, especially in special synthetic rubber, and will closely watch the business. With regard to products for which we have created differentiation, we will consider the raw material procurement environment and the position of customers as we continue to optimize production sites globally.

In Japan, procuring the raw materials for synthetic rubber is becoming increasingly difficult due to the global consolidation of ethylene production. This makes it necessary for us to consider means of procurement from

overseas, yet importing raw materials from overseas increases costs. As an example, we need to make stricter judgments than ever on whether the price of synthetic rubber and the price of its primary raw material, butadiene, are

in proportion.

Even commodity synthetic rubber, with large net sales, is not an exception. To produce and manufacture product ourselves using high-priced raw materials, we must create differentiation in our products' performance.

While differentiation in commodity synthetic rubber is difficult, I believe we should emphasize leveraging our technologies such as improved tire grip and fuel economy. As examples, our specialty rubbers such as Zetpol<sup>®</sup>, NBR (nitrile rubber), and acrylic rubber, and in the S-SBR (solution-polymerized styrene-butadiene rubber) produced at our new Singapore plant.

In acrylic rubber, through our merger with Tohpe Corporation, we are engaged in locally-optimized production at three locations (Kurashiki, Kawasaki and Kentucky) and are increasing profits and creating synergies. Leveraging the heat resistance of acrylic rubber, we will specialize in high-value products with greater differentiation in performance.

Our S-SBR plant in Singapore launched its first line in April 2014 and is now operating at close to full production. The plant will launch its second line in January 2016 and begin full production in the following April, expanding production of differentiated products.

At the same time, ZCEL, our U.K. subsidiary that produces NBR, is considering the suspension of production due to changes in the market environment and long-term uncertainties in procurement of key raw materials in the region. In the end of March 2015, the company announced that it has begun consultation procedures with its employees.

While we perform comparisons of cost differences among our domestic plants, we hope to determine on production sites with overall global optimization in mind. Our policy is to construct plants near sources of raw materials or near customers, including those overseas in order to produce differentiated products as in the case of S-SBR in Singapore.

### Q What are the current state and future strategies of the Specialty Materials Business?

A We are currently seeing significant growth in optical films.

Our aim is to expand business by accelerating research and development in our three main business areas.

The expansion of energy components for lithium-ion batteries and expansion of medical devices are particularly promising areas.

The three main business areas within the Specialty Materials Business are the IT components, energy components, and medical devices. Within IT components, we have further determined three areas: optics, electronics, and implementation. Optical film and ZEONEX<sup>®</sup> makes up the bulk of the optics area. In response to growing demand for optical film, we have expanded our manufacturing facilities in Takaoka, Himi, and Tsuruga. We are also continuing research and development aimed at even higher-value optical films. Together with this, we are pursuing research to further enhance the functionality of raw material resins, and are achieving results.

We will require more time in the electronics and implementation areas, but we hope to continue pursuing research and development here, too, to bring new products to the world.

In energy components, we hold a majority share in anode binders

for lithium-ion batteries, and will expand our product line up to include products such as aqueous cathode binders. While lithium-ion batteries have always presented safety issues, data shows that our new products have greatly enhanced safety through effects such as reducing the swelling of electrodes, while also improving the performance of batteries. Based on such data, we are working to expand our business to meet market demands.

With regard to medical devices, our cardiovascular catheters and digestive system endoscopic instruments are now seeing use. Recently, we have also brought to market new instruments for destroying gall stones through endoscopic surgery for removal from the body. In cardiovascular devices, too, we plan to bring new products to market this year, and are now at the stage where we can anticipate expansion.

### Q Zeon will launch a mass-production plant for single-walled carbon nanotubes (SWCNTs). What is the outlook in this area?

A By mixing SWCNTs into existing materials, we will develop products that display performance not seen before.

This fall, we will complete facilities for mass production of SWCNTs at our Tokuyama Plant. Through mass production, material that had cost tens or hundreds of thousands of yen per gram will become usable industrially at prices quoted per kilogram.

When SWCNTs are mixed with materials, their currently known properties imbue the materials with three qualities: (1) enhanced strength, (2) enhanced thermal conductivity, and (3) enhanced electrical conductivity. By leveraging these qualities and using SWCNTs not only as a strengthening material but

also as the material for devices, we can enable the effective use of heat and other energy that until now has not been effectively used.

The specific form of our materials business using SWCNTs is not yet apparent. We are now at the stage of mixing SWCNTs with various materials to investigate possibilities while we test performance. However, we have come to understand that mixing SWCNTs in a variety of areas enables the development of brand new materials. Our hope is to create products making use of this ability and to expand our business.

**Q** What are your ideas concerning research and development?

**A** We are moving ahead with research and development, with management and R&D acting as one and with speed-to-market always in mind. We hope to continue spending about ¥12 billion per year on research and development.

To achieve our goal of ¥500 billion in consolidated net sales in 2020, we must expand sales of existing products while successively bringing new products and original technologies to market in a form matched to our management strategy. In addition to twice-yearly research and technology presentations, our top management team, including myself, always attends the research hearings that we hold every month. In fact, I visit our laboratories every month or even every two or three weeks, and try to convey in easily understood terms what it is that company management is seeking.

It is also important that we create conditions in which researchers can dedicate themselves to their research. We're moving ahead to procure and install equipment required for research, and to create a structure that reduces the burden on researchers from research-related tasks such as contracts for joint research with universities and other companies. At the same time, we are also working to make research itself more efficient through the effective

use of the knowledge and experience of laboratories as a whole, as well as by ramping up communication across fields of research and, in particular, by creating opportunities for communication with other areas and industries.

Through the preparation of this structure, we will engage in research and development for new product lines that will greatly contribute to the performance of the company. With regard to themes that are close to market launch, management and researchers will share information on progress toward events set within the new product development process, and will work to ensure launch.

For fiscal 2015, we plan to spend ¥13.8 billion on research and development expenses. While we continue scrutinizing the content of research and development, we hope to spend about ¥12 billion per year on the expense.

**Q** What are your ideas concerning training and welfare for employees?

**A** We will educate mid-career employees using a new curriculum. I also want to prioritize employees' health.

I'm of the belief that the capabilities of a company are greatly determined by the degree to which persons around age 40 are making efforts. The question is one of how much they can change themselves to change the company, and how much they can break out of their shells. I believe we have to increase opportunities for educating these core persons.

We have prepared a new educational curriculum, which includes me spending a day to talk about various topics with all staff targeted for promotion. I recall how such lectures by Chairman Furukawa, who was President at the time, were hugely beneficial.

We will also make efforts on behalf of employees' health. No matter how much we standardize our work, our business cannot operate without people versed in fields of research and technology. Apart from sales and profits, I believe it is important that we value the mental and physical health of employees so they can exert their capabilities.

Our efforts here have only begun, but in the internal status reports we hold every three months, I try to not only report on business performance but also talk about health and about the "Taimatsu (torchlight)" that value autonomous thought and activity by employees.



## Messages from Outside Directors

Zeon's Outside Directors, who advise the company on the basis of extensive experience and deep knowledge in their respective fields, have provided the following messages on Zeon and its corporate governance.

I come from a background in the assembly industry known as electrical machinery, with experience and a culture very different from that of Zeon, a chemical company which require huge plants. I believe that my role as an Outside Director is to provide Corporate Officers with opportunities to think about matters from broader perspectives through discussions of ideas drawing on experiences in differing fields.

The things I place importance on in governance are compliance and open management. There was a period when cartel issues were widespread among Japanese companies. I will watch closely to ensure that the company continues to strive for compliance. Zeon must also see to it that the risks in every item for deliberation and other unfavorable items of information are properly disclosed to Outside Directors so that judgments can be made. I believe that the ability to respond in this way is open management.

Fiscal 2015 is my fifth year in the position. Over the past four years, Outside Directors have steadily increased in number and discussions have become more active. With the number of Outside Directors reaching three this year, I anticipate even higher quality debates.



**Haruo Itoh**  
FUJI ELECTRIC CO., LTD.  
Advisor

Starting in the previous fiscal year, I have served for one year as an Outside Director. During that time, it has been my impression that Zeon is a sound company that boasts a very high rate of profit within Japan's chemical industry, actively engages in investment and research and development for the future, and conducts governance properly with no impropriety. I sense a seriousness in the company's will to create good products and contribute to society.

While automobiles and machinery are the mainstay industries driving Japan's economy, it is the materials industry that will support growth from here on out, with chemicals occupying an important position within that materials industry. The competitiveness of each material supports the automobile industry as a whole. I hope to intensively question and advise Zeon, a top player in the materials industry, on its role in the future of Japan's economy, and on whether the company is performing technology development and the R&D from a long-term perspective for future growth, even at the expense of short-term profit.

Moreover, as Zeon's performance is affected for better and worse by factors such as exchange rates, I intend to closely watch for any missteps in company's responses to signs of change in Europe, China, or elsewhere in the global economy.



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

Although I began serving as an Outside Director for Zeon this year, I have served as an outside corporate auditor for four years, during which time I formed the impression that Zeon is a company that properly does what it should in terms of governance. Visiting the company's plants and laboratories, I felt that there was little distance between top management and employees and that the atmosphere was conducive to communication. Moreover, in my capacity as the Chief Executive Officer and Chairman of Yokohama Rubber, I have been able to learn from the operational methods of Zeon's Board of Directors, such as its methods for reporting on deliberation items in the Executive Committee.

As an Outside Director, I hope to not only play a role in the oversight of management, but also to offer counsel that will make a positive difference in management. As I come from a background in chemistry, I have some knowledge of the field. Moreover, in addition to the relationship that exists between the tire manufacturer Yokohama Rubber and the materials manufacturer Zeon, my company also has dealings with other materials manufacturers. While I cannot relate specifics, I believe I can offer ideas to address needs from the standpoint of customers, such as the sort of issues faced by end-product manufacturers, or the friction resistance offered by high fuel-efficiency tires.

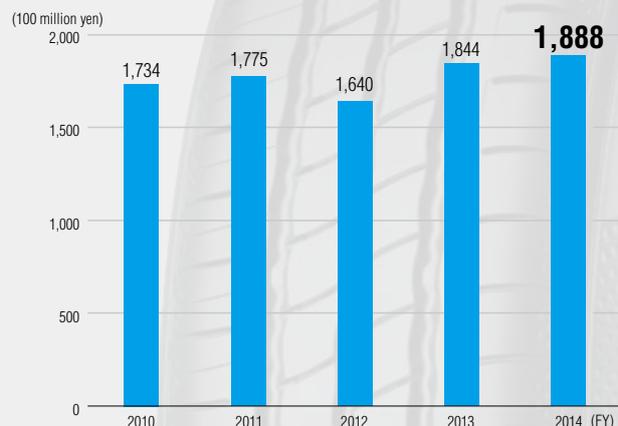


**Tadanobu Nagumo**  
The Yokohama Rubber Co., Ltd.  
Chairman and CEO  
and Representative Director

## Elastomer Materials Business

In elastomer materials, our core business is the three fields of synthetic rubbers, synthetic latex and chemical products, the main materials of which are C4 and C5 fractions derived from naphtha. In 1959, Zeon became Japan's first company to mass-produce synthetic rubbers. Even today, the Elastomer Materials Business is a core Zeon business, providing 60 percent of the total net sales and operating profit.

Transition in Sales (last five years)



**Hiroyuki Hirakawa**

Director & Senior Corporate Officer  
Elastomers and Chemicals Business

## Business Outlook and Future Strategy

In the latter half of fiscal 2014, stagnation in synthetic rubber and natural rubber markets slowed demand and oversupply occurred at the same time, resulting in price and profit constraints for our synthetic rubber business during the fiscal year, despite strong sales of general rubber for tires. At the same time, specialty rubbers delivered steady performance under robust demand.

Even within general rubbers, demand is high for S-SBR\* used as a special rubber in fuel-efficient tires, and we are strengthening production through construction of a second line at our Singapore Plant. Our specialty rubbers are seeing frequent usage in parts for increasingly high-performance automobile engines. Timing belts, a major application for our Zetpol®, are used heavily in diesel engines in Europe, but we anticipate expansion as gasoline engines also shift toward the use of belts around the world. Our new Zetpol® series is used in gaskets and other components of newer engines that require high resistance to heat and pressure. Acrylic rubber is a standard for oil and heat resistant rubber, and enjoys high demand for use in parts such as hoses and sealing gaskets. We are investigating production systems able to further meet new demand, with the possibility of building new plants in accordance with growth. As specialty rubbers are key to our profits, we will construct a production system that is able to preserve quality and provide stable supplies, and will set our strategy along directions that will strengthen our position in competitive specialty rubbers.

Synthetic latex, like synthetic rubber, has been affected by slumping market prices. However, new grades have come to market, and the use of latex is expanding in areas such as surgical gloves. We have also gained a high share in soft non-woven fabrics and powder puffs.

In the area of chemicals, in addition to our thermoplastic elastomer (Quintac®) used in adhesive tape and adhesives, we are working to grow our C5 petroleum resin (Quintone®) business to the No. 1 global position in its field. To respond to high demand, we are strengthening production capacity at the Mizushima Plant from an annual 42,000 to 60,000 tons by the first half of 2016. In the future, we are looking at expansion overseas as well.

For the synthetic rubber business, our Enterprise Blueprint for 2020 calls for “taking a front-runner position globally in synthetic rubbers.” In order to become the supplier able to offer the most value to customers, we are working to boost our presence in China, South Korea, and other Asian markets to achieve the level of presence we have already established in Japan, the U.S., and Europe by working toward speed of delivery and technical service, and by improving the frequency and quality of contact with customers. On the point of structural reform, in order to “change” the customs and culture that we have built throughout the long history of the rubber division, we hope to make use of major personnel rotations to draw out new vitality, and act from the pride and sense of responsibility that are our foundation to fortify the strengths that we currently possess.

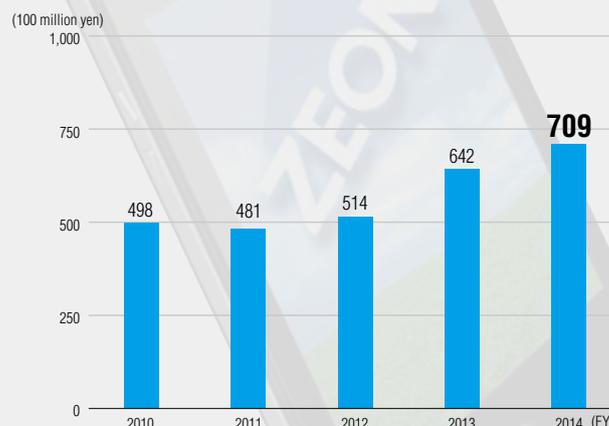
\*S-SBR: Solution-polymerized styrene butadiene rubber

## Specialty Materials Business

Specialty materials refer to materials and components with high added value that use macromolecular design and processing technology.

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

Transition in Sales (last five years)



**Masayoshi Oshima**

Director & Executive Corporate Officer  
Specialty Materials Businesses

### Business Outlook and Future Strategy

In the Specialty Materials Business, we are using unique product concepts based on innovative original technology to produce various high added-value products without being overly influenced by the conditions of the materials market.

Our optical film ZeonorFilm™, an optical component, makes up a large part of our total net sales. While we plan to further grow this field, our aim is to dramatically expand our business in packaging and electronic components, energy components, and medical devices as a key point for the future.

In optical films, demand is high in the area of large-sized products such as large-screen LCD televisions, and our new production line that began operation in February 2015 is transitioning to a high utilization rate. For medium- and small-size products like smartphones, the increasing size of smartphone screens is making up for weakness in tablets, and we believe that growth will continue. Zeon engages in development of films building on our expertise and strength in cyclo olefin polymers. We have won acclaim from customers for our films, a strength that we will continue to leverage. Moreover, to strengthen our competitiveness through higher value-added products, we will engage in development of multi-layer films. (See "Highlight 1: Leading the World: Zeon Film Business," P.19.)

For cyclo olefin polymers, we are developing applications for optical products such as camera lenses and medical product packaging materials such as vials and pre-filled syringes. Adoption of cyclo olefin polymers is expanding due to its superior properties including strength, lightness, and low levels of impurities compared to glass, and its medical applications is an area in which an annual growth rate of approximately 10% can be expected.

In packaging and electronics components, we are continuing research and development of insulation materials and new materials that will enable the further miniaturization of semiconductors, with an eye toward future product commercialization.

After optical film, energy components are the field for which we foresee the greatest expansion. Lithium-ion batteries for smartphones and other portable devices are transitioning from cylindrical and rectangular forms to pouch types. In response, Zeon's battery binders for batteries are highly regarded for their contribution to improving performance and safety, and sales are growing considerably. At present, we boast the world's highest share in anode binders, and are aiming to expand adoption by expanding our lines of products including aqueous cathode binders and ceramic separator components. In the future, we anticipate significant growth in the battery market through the adoption of lithium-ion batteries in automobiles.

In medical devices, from this fiscal year we expect to achieve results from research and development as our reputation in the marketplace grows. We will strengthen this business while continuing to monitor factors unique to the medical market.

## Research and Development (R&D)

The R&D Center, the company's largest operational sector with over 400 researchers, conducts Zeon Group R&D activities. In addition to research buildings 1 through 10 located adjacent to the Kawasaki Plant, we conduct Precision Optics Laboratory and Medical Laboratory next to the Takaoka Plant, Toner Laboratory in the Tokuyama Plant, and Chemical Products Laboratory in the Mizushima Plant. Through close collaboration with business units, we develop new products and improve existing products to meet the needs of customers, while also advancing the search for new materials (New Materials Development Laboratory), development and use of new analytical and simulation techniques (Foundation Technology Laboratory), and new development and improvement of production processes and equipment (Production Technology Laboratory).

R&D Expenses



**Yoshiyuki Mitsuhiro**

Research & Development  
Director & Senior Corporate Officer

### R&D Strategy

Toward the achievement of the SZ-20 Phase II Mid-Term Management Plan, we will “roll out measures to deepen collaboration inside and outside the company, and change our course to enhance output” in the area of R&D as well. With regard to the single-walled carbon nanotubes (SWCNTs) for which we launched full-scale production in FY2015, we, centered within our new CNT Laboratory, plan to strengthen existing collaboration with the National Institute of Advanced Industrial Science and Technology (AIST) and engage in collaboration with other external organizations. While also carrying out similar collaboration in other areas, we will strengthen cooperation across the boundaries of individual research laboratories, and will improve the output of the R&D Center overall.

In order to create the new business seeds that will succeed SWCNTs, we are working to spark individual researchers' motivation and foster a corporate culture that will generate successive ideas for new themes. To create such a corporate culture, regular personnel transfers that lead to new perspectives and ways of thinking is critical. We will regularly perform personnel transfers not only among research laboratories but also among the business units where customer interaction takes place and the plants where we engage in production. Zeon also pursues diversity as a strategy, and is actively engaging the preparation of environments for including work/family balance and the globalization of researchers through hiring overseas.

At monthly research hearings, individual researchers present and discuss about their research themes directly with our top executives and pursue themes' strategic positioning made clear. Moreover, to invest in our future, we will ensure steady R&D expenses of about 12 billion yen per year.

### R&D System



R&D Center

## First mass-production of single-walled carbon nanotubes (SWCNTs) Collaboration among industry, government, and the academia

### 1 Mass production plant starts operation in FY2015

SWCNTs are said to be a “dream come true” due to their advanced mechanical strength and electrical conductivity. However, the cost of the material is high due to difficulties in mass production, and the development of applications has taken long time. Participating in projects of the New Energy and Industrial Technology Development Organization (NEDO) from 2006 and engaging in joint research with the National Institute of Advanced Industrial Science and Technology (AIST), Zeon has developed mass production technology for SWCNTs based on the Super-growth method.<sup>\*1</sup> Building on this technology, in FY2011 we have begun operation of a plant to carry out a mass production trial run within AIST<sup>\*2</sup>, and in 2013 have begun supplying mass-produced samples to customers in Japan. From the second half of FY2015 we will begin plant operation, with plans to market SWCNTs and related products.

<sup>\*1</sup> The New Energy and Industrial Technology Development Organization (NEDO)  
“Carbon Nanotube Capacitor Development Project”

<sup>\*2</sup> 2009 Ministry of Economy, Trade and Industry supplementary budget project

### 2 Applications development

Since 2010, Zeon has also participated in the Technology Research Association for Single Wall Carbon Nanotubes, and through NEDO projects has conducted development of new materials using SWCNTs.<sup>\*3</sup> When produced using the super-growth method, SWCNTs possess properties including long length, high purity, and high surface area compared with other carbon nanotubes, and have been proven to enable the creation of extremely compelling new materials when blended with other materials.

Looking at specific examples, SWCNTs compounded with elastomer materials have resulted in high-durability conductive materials, compound materials enabling microprocessing, and compound materials exhibiting heat conductivity on par with iron. In addition, by compounding SWCNTs with metal materials, an aluminum compound exhibiting heat conductivity of over 800W/m·K and a copper compound offering capacity 100 times that of copper have been developed.

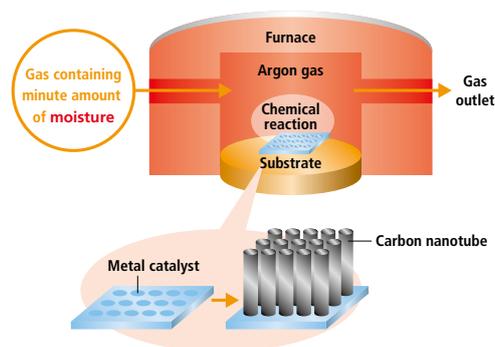
We anticipate that materials with such amazing properties will see application in a variety of fields including energy, electronics, and functional materials.

<sup>\*3</sup> “Development of Innovative Carbon Nanotube Composite Materials for a Low Carbon Emission Society,” “Nano Carbon Material Implementation Project for Achieving a Low-Carbon Society,” The New Energy and Industrial Technology Development Organization (NEDO)

### 3 nano tech 2014 Grand Award

The above initiatives received acclaim at the International Nanotechnology Exhibition & Conference 2014 (nano tech 2014), and received the nano tech 2014 Grand Award Academic-industrial Alliance Award. Zeon will continue to actively promote collaboration among industry, government, and academia to create new businesses around the core material of SWCNTs.

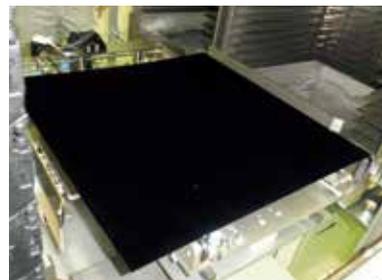
#### Super-growth method



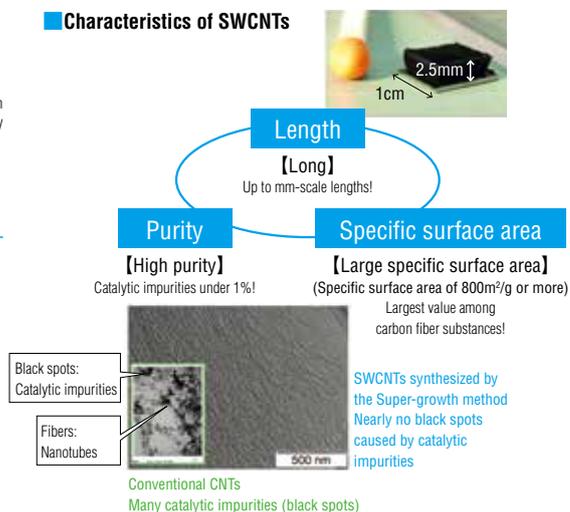
#### Plant



#### SWCNTs manufactured on Substrate



#### Characteristics of SWCNTs

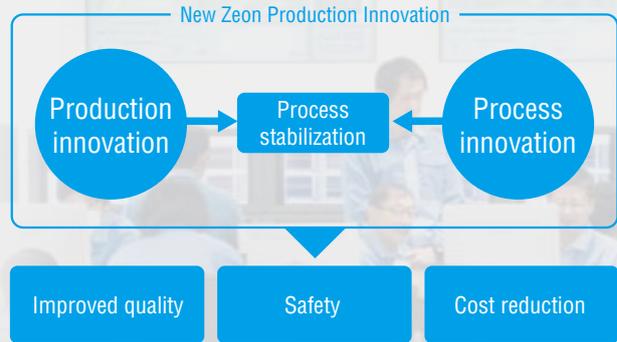


## Production Management and Safety

In order to implement the Enterprise Blueprint for 2020, “Zeon Makes the Future Today through the Power of Chemistry,” it is essential that we both develop groundbreaking new materials and improve production in terms of greater cost competitiveness and stabilized production quality.

Accidents occurring at chemical plants not only affect employees working at the plants, but also they have a strong effect on society, with regard to environmental pollution within the local community, as well negatively influencing customers if the supply of products is interrupted. Therefore, Zeon places safe and secure production as themes of particular importance for management.

New production innovations through process stabilization



**Toru Nishijima**

Director & Senior Corporate Officer  
Division Manager  
Production Center

### Improving Stability and Safety along with Cost Competitiveness through Production Innovation and Process Innovation

Zeon engages in production management innovation primarily from two approaches (as shown above.) “Production innovation” (Daicel’s method of production innovation) is the activity by which we consider every task caused by various changes on the production sites to be a load, consider the purpose of the workload, how it can be more efficient, and standardize the solutions.

At the same time, we are also taking on “process innovation.” By changing some manufacturing processes to something completely new, we can achieve great results in a short period of time, which could not have been done with the conventional line of growth.

Production innovation starts from an on-site perspective by finding and eliminating the causes of existing loads. Process innovation rethinks and “changes” current processes in light of the latest technology. Zeon uses both of these approaches to tackle the challenges of improving quality, safety, and cost competitiveness. This know-how will be extended to the global production system, and will be used to achieve the Enterprise Blueprint for 2020.

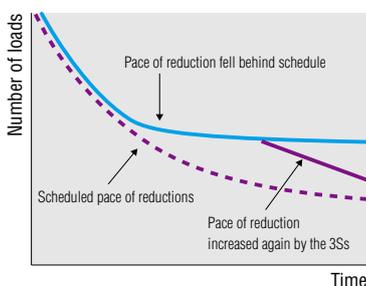
### Discovery of Issues and Acting as a Team through the 3Ss

Last year, our pace of reducing loads through production innovation slowed. In response, we have gone back to basics to actively promote the 3Ss: sort, straighten and scrub. These 3Ss are not tasks at the daily operational level, but are something deeper. As an example, an object placed in front of a window becomes a problem, in that it hinders the window’s original function of letting in sunlight and thus the object needs to be put in order. We consider as a team where to place the object, or whether it is needed at all. If it is necessary to place the object somewhere, we select a location where it can be used conveniently. The result is that both the window and the relocated object can exert their full functionality. Through the 3Ss, problems are discovered (Check), considered and improved as a team (Action, Plan), and the original work (Do) becomes more efficient, in accordance with the CAPD flow. Through this activity, we have made great progress in reducing the loads at work sites.

By applying the same in offices as well, we organize information and the placement of objects. Work and knowledge that were complex or were dependent upon specific staff have come to be shared.

While this step is one of production innovation, it is also a passing down of skills and knowledge. By bringing together the ideas of every person who is involved in things that must be straightened out, we enable a concentration of knowledge which is passed down during our consideration of issues.

**The effect of the 3Ss on reducing load**

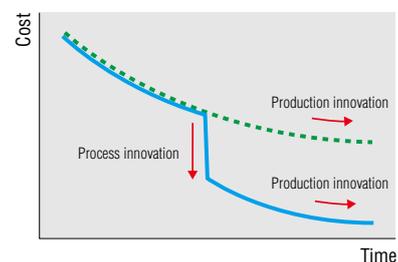


## Setting Our Aim beyond Process Innovation Initiatives

Process innovation seeks significant effects by changing a process itself. “Reducing environmental impacts in plants” introduced on P.21 of this report are examples of this process innovation. In these initiatives, expert staff, other than those on the production site, issue new recommendations, drawing on ideas outside existing lines of thought. Consideration of safety is also of utmost importance in process changes. We are committed to thorough change management that considers the potential for accidents from every angle and then acts to eliminate that potential (see “Topic 1”).

What we are undertaking next is a completely new approach of uncovering and resolving matters that have not yet been made clear as problems. As an example, while “inventory” itself is not a production management issue of the same sort as quality or safety, its buildup creates a management load and rationalization of inventory is a constant issue for management. In response, we have identified inventory as an issue in production management, and believe we can rationalize inventory through process innovation. The initiative is one of resolving, in terms of production management, the issues that crop up when we change our approach. We have only begun the initiative, and results will not be apparent immediately. However, the initiative is one that in the long-run is connected to the roots of our business activities, and is one that we expect will lead to a corporate culture in which workers always strive to uncover issues themselves and always continue changing. We believe it is also a part of our Enterprise Blueprint for 2020.

### The relationship between production innovation and process innovation



### Discovery of new task

(Not problem of a production process)

**Task**

Challenging the solution  
in view of  
production management

## Topics 1

### Safety and Change Management

A lack of “change management” has been suggested as a cause of the recent spate of accidents at chemical plants. When equipment or operational methods are changed to improve equipment or boost production capacity, it is “change management” that envisions and deals with the possible impacts of those changes.

In order to perform more complete change management, it is important to gather and consider the knowledge of more people. However, simply circulating documents among a larger number of people only creates a facade. At Zeon, the people involved with an issue meet face to face and employ techniques such as structuring discussions under a representative system. Moreover, through the “concentration of knowledge” that we build through this direct communication, we intentionally enable people to pass down skills.



## Topics 2

### The Importance of Standardization in Deploying Technology Overseas

Today, in the operation of our plants in Japan, employees of not only Zeon Corporation but also those of multiple Group companies and partner companies divide up a variety of tasks, from transport of materials to production, shipment of products, and maintenance of equipment. Within this arrangement, there exists detailed know-how that is not written into manuals. Examples include our method for fully removing in-shipped raw materials from their drums, and our method for wrapping products for shipping in protective film with no slack. While a plant itself can be operated through the flip of a switch, we require this know-how, born of long experience and through techniques devised by employees, in order to continue the stable creation of quality products without waste.

When establishing new production lines overseas, we work to eventually enable operational management completely through locally-hired human resources. In order to do this, we must collect the aforementioned detailed know-how, from in-shipping of raw materials to shipment of products, and must identify and standardize all of the tasks that people perform.

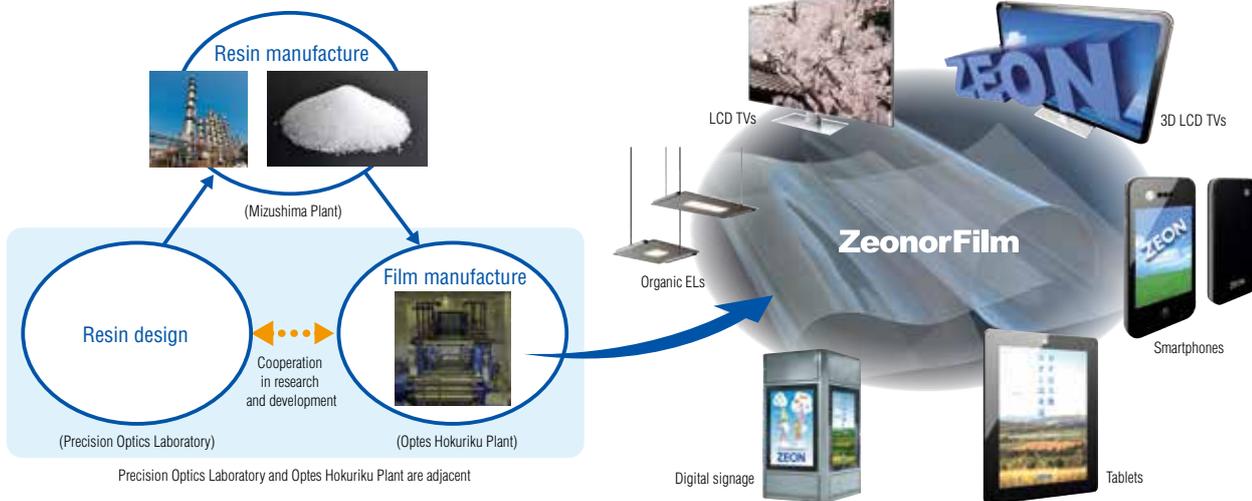


# Leading the World: Zeon Film Business

## Key Points in the Films Business

1. The display market is progressing toward larger sizes and higher definitions, a strength of ZeonorFilm™, while film applications expand in all directions
2. ZeonorFilm™ boasts a high global share in films for displays
3. The manufacturing method utilizes our original technologies, including the world's first sheet extrusion manufacturing process for optical films
4. Zeon performs integrated production, from design to manufacture, of the resin that forms the raw material for films
5. Between 2005 and 2014 Zeon moved its research division closer to the manufacturing department to further strengthen our start-to-finish development capabilities, as well as our production capabilities

## The flow from development to final product



## ▶ Growing the Films Business through Expanding Applications that Leverage Our Film's Unique Properties

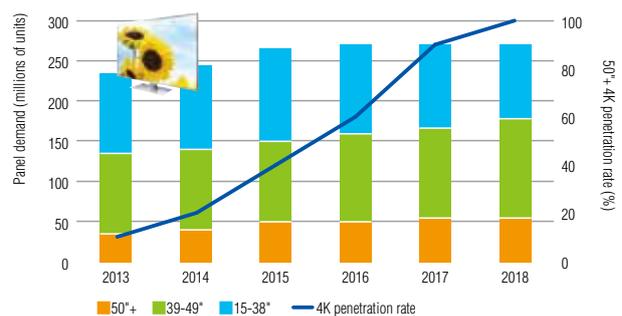
Demand for displays is moving toward large-size and high-definition (4K, 8K, etc.) products. With screens becoming larger in area even when unit growth slows, demand for film remains robust.

Moreover, large-size, high-definition TVs demand higher performance in the optical properties and dimensional stability of films. Zeon commands a high market share in this film sector that requires high performance, and we anticipate that this forte sector of ours will continue to expand.

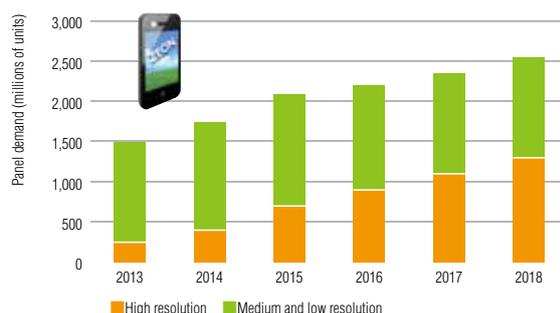
At the same time, the sector of smartphones, tablets, and other small-to-medium size devices is also expanding, and ZeonorFilm™ is finding adoption in touch panels for its heat resistance and diagonal stretching technology.

In future, display devices are expected to go beyond LCDs and to expand into new sectors such as organic ELs, automotive monitors, digital signage, and more. In another very recent application, adoption of our film has begun in light extraction film for light-emitting organic EL screens.

LCD TV panel demand and the 4K market penetration rate of 50-inch and larger TVs (Source: The 28th DisplaySearch Japan Forum)

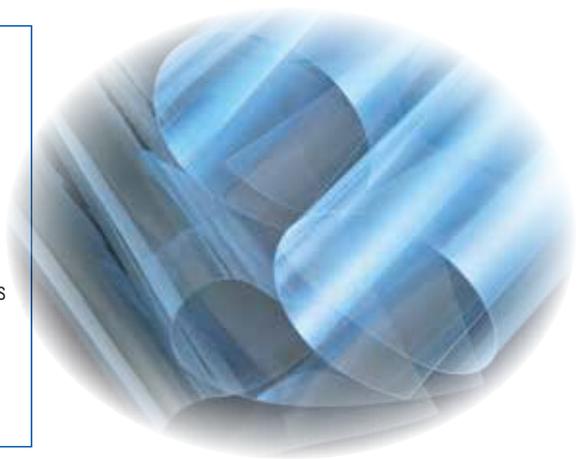


Demand for smartphone and tablet panels, by resolution (Source: The 28th DisplaySearch Japan Forum)



### Characteristics of ZeonorFilm™

- (1) **Excellent optical properties**  
High transparency... Allows brighter screens  
Low birefringence... Optimal for polarizing plates due to stable light emission
- (2) **Low moisture absorption, low permeability**  
Does not absorb water and change dimensions; suited to large screens and outdoor use
- (3) **High heat resistance**  
Suited to touch panels that go through heating processes, or automotive applications used in high-temperature conditions
- (4) **Low outgassing**  
Resists release of moisture or organic substances such as gas, lowering impact on the environment



### ▶ ZeonorFilm™ manufacturing method and characteristics

Unvarying thickness and uncompromised quality are important in optical films. In continual production, Zeon achieves a high level of surface smoothness. Moreover, to eliminate optical defects due to causes such as dust, Zeon produces film in a clean room and performs continuous machinery and final inspection under the eyes of highly-trained inspectors.

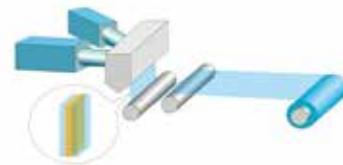
#### Films made using the sheet extrusion process (Low cost, high efficiency)

Converts melted resin directly into film, without the use of solvents.  
For base film used in touch panels, etc.



#### Films made using the multi-layer extrusion process (Low cost, high efficiency)

Melts multiple types of resin simultaneously, layering those to create film.  
Used for viewing angle compensation in small to medium size IPS LCDs, etc.



#### Successive biaxial stretched films (Large size, high resolution)

Stretched successively in the vertical and horizontal directions. Resolves the problem of degraded contrast caused by surrounding light leakage in LCD TVs.



#### Diagonally-stretched films (High resolution, low reflectivity, low cost)

The only product in the world that stretched successively in diagonal direction. Used for viewing angle compensation in smartphones and reflection prevention in organic EL TVs.



### Continuing to lead the world in optical film

ZeonorFilm™ is manufactured by Optes Inc., a company in the Zeon Group. The Optes Hokuriku Plant has manufacturing sites in three locations in the cities of Takaoka, Himi, and Tsuruga, each with multiple manufacturing lines. Demand is extremely robust for high-performance ZeonorFilm™. This spring, our production capacity exceeded 150 million m<sup>2</sup> per year, and we continue to undertake constant efficiency improvements and capacity enhancements.

The competitive advantage of ZeonorFilm™ lies in our original manufacturing technology and in our integrated production that begins with development of resin raw material. Our sheet extrusion process, continuous biaxial stretching process, and diagonal stretching process are technologies not found in other companies. In resin development, we are able to manufacture made-to-order "specialty resins" with compositions matched to film manufacturing conditions or to products. By possessing technologies for both raw material resins and manufacturing processes, we maintain our competitive advantage.

It is through high value-added products, not commodity goods, that we are able to take full advantage of these technical capabilities. By providing the added value that can adapt to higher definitions and larger sizes, we avoid being impacted by the commoditization of appliances.

From 2005, we have gradually moved the Precision Optics Laboratory, our research and development department, to Takaoka. With development and production located near each other, we quickly engage in test production of newly designed resins using actual equipment, and therefore perform development with greater speed.

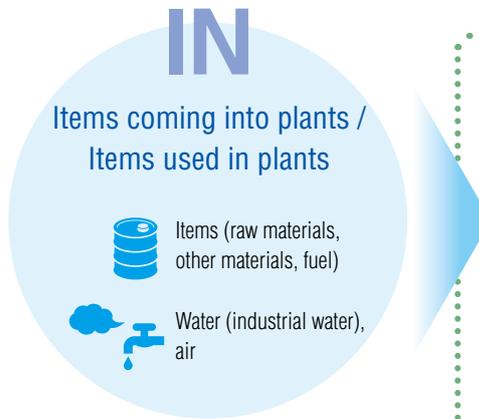
What we value most at the Optes Hokuriku Plant are safety, technology, and people. In order to stably produce high-quality products, we strive for education and equipment that assures a high level of safety, improvement of technological capabilities involving production, and the development of human resources able to embody these efforts. Such on-site work capabilities, along with the growth potential of the market, are what support the future of our Films Business.



**Seiichi Kusumoto**  
Optes Inc.  
Director and Hokuriku Plant  
Manager

# Reducing environmental impacts in plants: Initiatives to improve energy efficiency

In the use of raw materials, energy, water, and other resources in production activities in our plants, Zeon strives to lower impacts on the environment as much as possible. As chemical plants in particular consume a large amount of energy, how to make efficient use of energy is a key theme in terms of both energy conservation and production costs.



## Energy flow in plants

How to efficiently use 100 units of energy?

Energy (Fuel, electricity)

**100**

193,000kL (equivalent in liters of crude oil)



## Conversion to steam and electricity



Boiler / in-house power generation equipment

**90**

(energy conversion efficiency)

**+10**  
Energy conversion loss

The majority of the steam and electricity that power the plant are generated from the boilers and in-house power generation equipment installed in the plant. How efficiently the fuel, the source of energy, is converted to steam and electricity is important.



## Energy efficiency improvements in plants

From 2012 to 2015, we undertook initiatives to improve energy efficiency as we upgraded equipment in our plants in Japan.



### Mizushima Plant (2015) Boiler upgrade and new installation of heat storage combustion equipment

The plant increased thermal efficiency by renewing boilers and installing heat storage combustion equipment.



### Tokuyama Plant (2014) Renewal of boiler turbine in-house power generation equipment

The plant renewed all of its in-house power generation equipment to improve heat recovery efficiency and power generation output. By replacing crude oil with city gas for a portion of its fuel, the plant also reduced CO<sub>2</sub> emissions.



### Kawasaki Plant (2014) Upgrade of co-generation units

Along with an upgrade to new high-efficiency equipment to boost thermal efficiency, the plant enhanced its electrical power generation output and now supplies electricity to a new power utility.



### Takaoka Plant (2014) Upgrade of boilers to compact, high-efficiency boilers

The plant uses steam more efficiently through detailed control. By changing fuel from fuel type A to liquid natural gas (LNG), the plant has reduced CO<sub>2</sub> emissions.



Effects of the initiatives  
(1-year equivalent)

**Energy consumption**  
**13,000kL reduction**  
(crude oil equivalent)

**CO<sub>2</sub> emissions**  
**42,000t-CO<sub>2</sub> reduction**

**Company-wide initiatives for achieving high levels of energy conservation and production activities**

**Yasuhiro Yoshinaga**

Manager, Group of Energy, Production Administration, Production Center

Boilers and in-house power generation equipment are important items of equipment, supplying the steam and electricity that are sources of power. In initiatives that accompany upgrades of this equipment, we scrutinize detailed requirements such as the steam and electricity amounts necessary for each plant, and make plans with an eye toward future demands.

Zeon has established a team of energy experts in the head office, and investigates improvement plans while discussing each plant's specific conditions with plant personnel. In the latest initiatives, completion of new equipment installation was concentrated in 2014 and 2015, but for years prior to the investment decisions, I visited plants many times to work out measures with plant staff.

I hope to make efficient use of the newly completed equipment, and to undertake further energy conservation by visualizing and eliminating hidden sources of wasted energy.



Impetus for attaining the Enterprise Blueprint for 2020

# Creating corporate culture via *Taimatsu* (torchlight) activities

We believe that it will not be easy to achieve the goals in our Enterprise Blueprint for 2020 by relying on our current operations. It is our belief that each individual employee must have the initiative to take action to respond to changes and continue to engage in challenges to meet high goals, even in a rapidly changing environment where the outlook is unclear.

As an initiative to nurture and strengthen the treasured Zeon characteristics (mutual trust and fellowship) and the key sense of value (speed, dialog, and social contribution) shared by all persons in the Group, all departments and Group companies have engaged in the *Taimatsu* activities since July 2012.



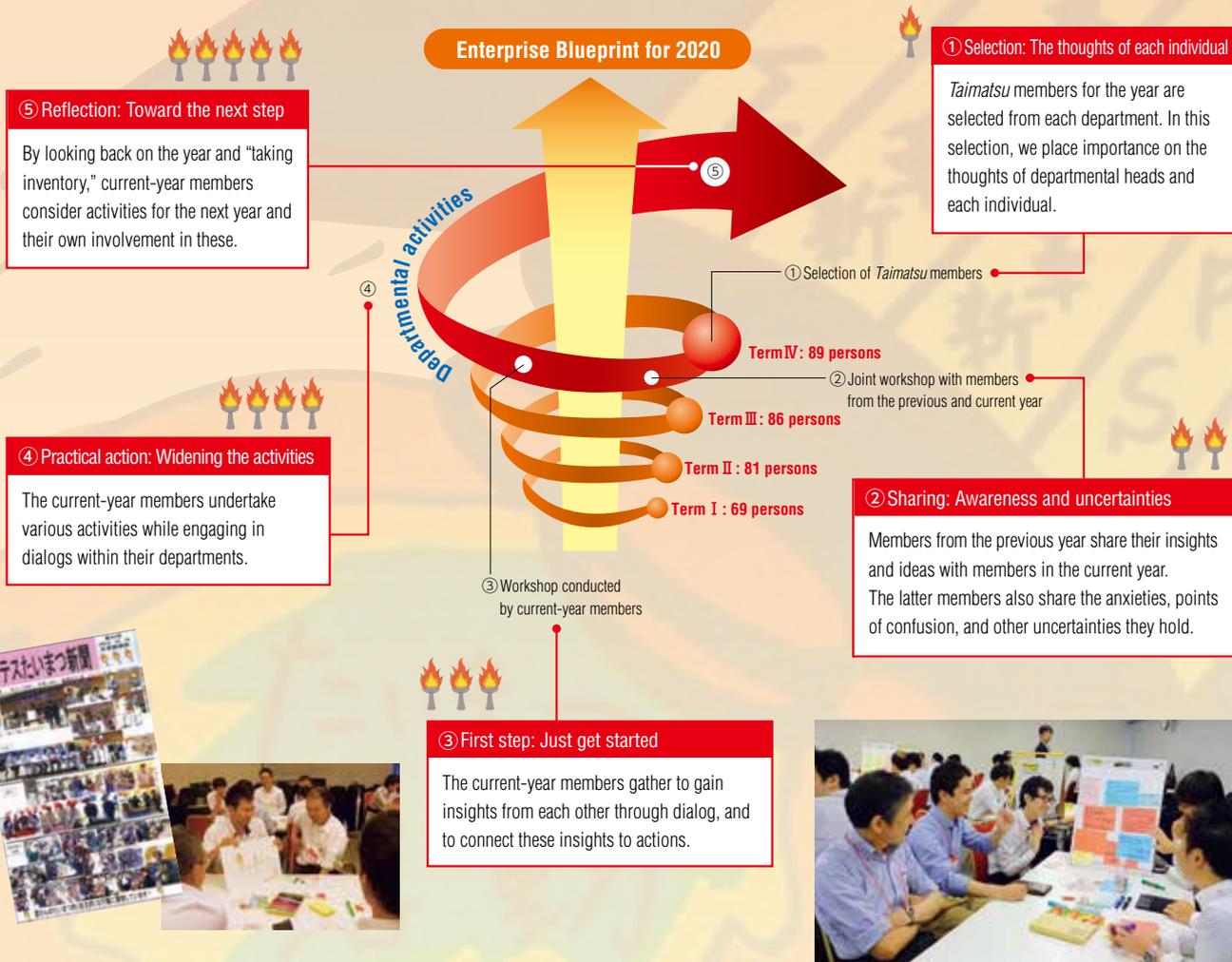
## Taimatsu activities

*Taimatsu* means torchlight, and the *Taimatsu* activities are to achieve the mid-term goal by "Awareness," "Aim" and "Act" with the expression in the words, "What I wish to cherish?" "What I wish to do?" and "What I wish to be." We named it "*Taimatsu* (torchlight)" with our passion, by comparing the scene each member is changing to the scene each member lights a torch then the flames are increasing and expanding.



## An overview of *Taimatsu* activities – Passing on the torch of change in an upward spiral –

*Taimatsu* activities have reached their fourth year (Term IV), with 325 persons (about 10% of all employees) from all departments and Group companies active as *Taimatsu* members.





## Voices of *Taimatsu* members

*Taimatsu* members from Term III engaged in activities under the slogan "Just get started!" Below is a look at the thoughts and realizations of some Term III members.



### Close the laptop and think deeply

Finishing Term III, I realize the importance of closing the laptop and thinking deeply. Most of my work involves using a computer, but by closing the lid to engage in thought and discussion about my work and my department, I started thinking more than ever about how those around me think about the company and about themselves. The ability to quickly transition such questions into action and involve others is a good point of the *Taimatsu* activities, which I hope to expand outward. (Raw Materials and Distribution Supervisory Department)



### I want to help create a corporate culture that allows proactive planning and execution

As a Term III member, I carried out a plan for health promotion and a laboratory study tour group to promote interaction among workplaces. The plan was well received by participants. I hope to create mechanisms for the continuous implementation of such activities, and to help create a corporate culture in which many people can proactively create and execute plans. I also want to make good use of venues like the joint workshop where people light their torches, and connect these to improving awareness in my department. (Zeon Kasei Co., Ltd.)

### Greater participation leads to a more positive attitude

Looking back on the Term III activities, I realize that in a dialog among many people, ways of thinking will differ by individual, with no correct answer. However, the minimum requirement is having a positive attitude toward all things, and I believe that this attitude becomes stronger the more one participates. I hope to make use of my experience as a Term III member to make further positive improvements in myself and create many connections among people. (Optes Inc.)



### Moving to less formal terms of address in email

Our company introduced departments and individuals to all employees in relay fashion. We acted to create an environment more conducive to talking by toning down the formality of terms of address in email. When I think back on why we were able to conduct all sort of activities, in the end it was because we had colleagues who cooperated with one another. By oneself, shyness and embarrassment pose limits. Taking action together creates peace of mind, however, and through dialog, members heighten their "*Taimatsu* awareness" and can generate results. Some colleagues are continuing as Term IV members. Precisely because these are colleagues, under the slogan "*Taimatsu*" I want to offer support from the sidelines so that individual match-like flames become a great fire. (Zeon Medical Inc.)



### A never-ending venue for great personality

At first, I was hazy on what "*Taimatsu*" is, but felt relieved when the Term III members were able to systematically carry out what they had decided via thorough discussion. As Term III members, we met many times and engaged in a lot of discussion. Not surprisingly, I reaffirmed the importance of listening to the opinions and ideas of others, of expressing my own, and of human relationships (i.e., the quality of relationships). I think that *Taimatsu*, as an opportunity to grow through dialog, human relationships, personal thoughts, and experiences, is a never-ending venue for great personality. (Kawasaki Plant)

## Just get Started!



**Taimatsu**

### When I think seriously, the *Taimatsu* starts to burn

The most important thing that I discovered is thinking seriously. What to do in the *Taimatsu* activities is left open, and we're not told what to do. What is the vision to achieve? What do we want to do to get there? Without thinking seriously, nothing changes. Seen the other way, when we start to think seriously about these things, the torch begins to burn. I hope that the "dialog activities" and other activities that we carried out as members will provide everyone opportunity for thinking. (Tokuyama Plant)



### Creating mutual trust through dialog and respect for each other

I took part in activities under the *Taimatsu* poster slogan of "Just get started!" Unfortunately, I engaged in evaluation and reflection on the content of activities more than was necessary, and failed to create a continued flow. However, through the activities I realized that I place importance on the value of talking, respecting each other, and, from these, creating mutual trust. It's my hope that the Term IV *Taimatsu* members will also gain insight into something important through the activities. (R&D Center)



### I'm proud of the activities created by four minds together

My group of four Term III members decided to carry on the thoughts of Term I and II and to have fun undertaking the *Taimatsu* exercises\*. With all of the members openly expressing ideas for how they wanted to do things, we came up with a plan that we could all enjoy. The plan that we four Term III members came up with by putting our minds together is one I'm proud of, and I'm glad I gave it a try! We were able to have fun in *Taimatsu*, and each of us feels that we have grown. (Mizushima Plant)

\*We made a point of calling the activities "exercises."

### Out of the fog and into a patch of blue sky

The baton has passed from Term III to Term IV *Taimatsu* members. Those with experience as *Taimatsu* members now number 325 persons, about 10% of all employees. New members are at first unsure of what to do and feel uncertainty. However, while hearing the words and experiences of those who took part before them, the new members go on to launch their own activities. The number of activities are increasing year by year, and are rich in variety. In this way, I believe that the *Taimatsu* activities, too, have found a patch of blue sky from out of the fog, and people have come to understand the paths and directions they should take. I am certain that the *Taimatsu* activities that we advance together will provide a driving force in reforming our corporate culture toward Enterprise Blueprint for 2020.

#### Yoshiyuki Mitsuhiro

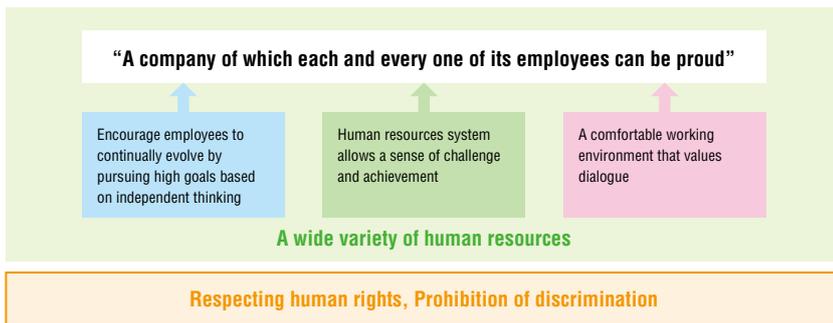
Director & Senior Corporate Officer  
Official in charge of *Taimatsu* activity promotion



## Employment and Human Resource Development

Zeon requires respect for human rights and prohibits discrimination in its CSR Code of Conduct. We strive to be a business that is understanding and accepting of diverse values and where no person is discriminated against based on gender, age, nationality, or other attributes.

We encourage employees to continually evolve by pursuing high goals based on independent thinking, develop human resources systems that challenge them to achieve their potential, and maintain comfortable work environments that value dialogue toward establishing Zeon as an enterprise where every employee\* can work with pride.



\* Zeon refers to all workers as employees, including both full-time and part-time workers.

### Basic Information on Zeon Corporation's Employment Conditions

(unconsolidated; does not include non-permanent employees)

(No. of employees)

	Male	Female	Total
Employees	1,513	166	1,679
No. of new hires			
Newly graduated	31	13	44
Mid-career	6	3	9
Percentage of disabled recruits	2.04%		
Rehiring of retired employees	11 (100%)		

Of which, there is a total of 17 foreign employees (10 male employees and 7 female employees).

Newly graduated: Employees that joined that company in April 2015

Mid-year: Employees that joined the company in April 2014 to March 2015

## Employment Conditions

As of March 31, 2015, employees of Zeon Corporation alone numbered 1,679, while employees of the consolidated Zeon Group numbered 3,216. Zeon works to hire persons with disabilities, particularly in office positions. Zeon Corporation's employment ratio of workers with disabilities was 2.04%, above the statutory minimum of 2.0%. We have also adopted a reemployment system for retired employees that is shared across the Group. We refer to these workers as (Zeon) master employees as a sign of respect. These master employees are given the opportunity to stay with the company to pass on skills and train their successors. All the eleven employees who retired in fiscal 2014 continue to work for the Zeon Group.

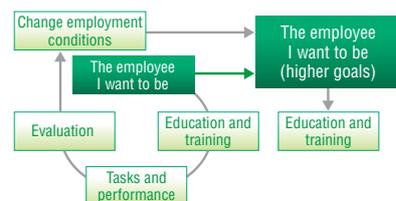
We also engage in support for balancing work with child care, and have acquired the *Kurumin* mark that indicates a "company that supports childrearing" under the Act on Advancement of Measures to Support Raising Next-Generation Children.

## Human Resource Development

Zeon's concept of "being the employee you want to be" refers to employees who think independently and continually adapt themselves to achieve high goals. Employees at Zeon are encouraged to visualize the employees they want to become, while Zeon tailors its education and training practices to help each employee bridge the gap between their current and visualized selves and to take daily steps toward that vision. By fairly assessing the results of those actions and changing how we treat each employee accordingly, we encourage employees to set ever higher goals. All of these concrete, interactive actions to effect change and improvement are harnessed toward creating a more vital workforce across the company.



### Resource Development Flow



For details on our activities, click the following URL.

Relationship with Employees

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

# Environmental Initiatives

## 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

Zeon established its Responsible Care Policy, which embodies the principles of responsible care, in 1998, and established its Environment Philosophy in 2001. Within our environmental initiatives, we have set goals for the Group that are broadly based on the two pillars of eradicating environmental irregularities and reducing environmental impacts, with each workplace planning and executing specific initiatives.

## Eradication of environmental irregularities and reduction of environmental impacts

Zeon has set “Zero environment irregularities\*” as a goal to be achieved every year. With the exception of one negligible infraction of environmental standards that occurred in fiscal 2012, more recently we have maintained this goal of zero irregularities.

With regard to the reduction of environmental impacts, we have set environmental impact reduction targets and are engaging in initiatives in three areas: 1) promotion of a voluntary management plan for air-polluting toxic substances, 2) promotion of a zero-emissions plan for industrial wastes, and 3) strengthening of our company-wide project for energy conservation.

### 1) Promotion of a voluntary management plan for air-polluting toxic substances

Acrylonitrile is the substance subject to PRTR that is the highest volume raw material processed by Zeon, and is also specified as a substance requiring priority action in measures under the Air Pollution Control Law. As such, we are undertaking planned reductions of our emissions of the substance. In fiscal 2014, our emissions volume totaled 11.5 tons, a 0.98% reduction from the previous fiscal year’s target level. By strengthening our implementation of acrylonitrile recovery equipment, we continue working to reduce emissions.

### 2) Promotion of a zero-emissions plan for industrial wastes

Zeon’s workplaces continue to achieve zero emissions of industrial wastes (defined as less than 0.1% of the volume of emissions in fiscal 2007), a goal we first reached in fiscal 2011. For Group companies in Japan, the rate stands at 0.14% of the volume of emissions in fiscal 2007. We will continue striving to bring the volume down to less than 0.1%.

### 3) Strengthening of our company-wide project for energy conservation

Zeon has set a long-term goal of reducing our volume of CO<sub>2</sub> from fuels, as defined by Japan’s Law Concerning the Rational Use of Energy (the Energy Conservation Law), to 80% of our fiscal 1990 level by fiscal 2020. To achieve this, we have set a target of improving unit CO<sub>2</sub> emissions by 1% per year. In fiscal 2014, we achieved our goal with emissions of about 510,000 tons, or about 79% of emissions in fiscal 1990.

(For details, see P21 “Highlight 2: Reducing environmental impacts in plants: Initiatives to improve energy efficiency”)

\*Environmental irregularities: Failure to meet environment-related statutes or voluntary standards. This can also refer to a situation in which standards were met, but might not have been met if normal measures had been taken. It can also refer to a situation in which standards are not set but a complaint was received, or in which failure to act might have resulted in a complaint. (Defined in company rules)



Acrylonitrile recovery equipment



Waste sorting yard



High-efficiency compact reflux boiler



For details on our activities, click the following URL.

Environment

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

## Social Contribution Initiatives

We believe it is very important to contribute to the development of the local community, build strong relationships of trust to operate stable business activities, and produce improved products and services.

### Zeon's Basic Policies on Social Contributions

We believe that traditionally, social contributions are essentially carried out through core businesses. As long as a company is a member of society, the complex set of issues society is facing and corporate activities are not independent of one another. Zeon is embarking on social contribution activities outside the realm of its core businesses to have a broader perspective for engaging with society.

In 2012, we launched CSR Core Projects, which are initiatives we selected from proposals submitted by group companies. The CSR Core Projects are activities that focus on social contributions outside the scope of

core business operations and provide employees with an opportunity to turn their attention toward social issues.

We have planned various activities related to supporting reconstruction after the Great East Japan Earthquake and projects mutually implemented by different offices and group companies. There are also social contribution activities that, to date, have been performed independently by each office and group company. We are developing activities in these three categories while also focusing on synergistic benefits.

#### CSR Core Projects

Projects	Detailed activities	FY2015 Targets
<b>Great East Japan Earthquake restoration</b>		
Restoration volunteer tours	Launched October 2012 Implemented 40 times as of March 2015 (total of 263 participants) Disaster restoration assistance (Minamisanriku, Rikuzentakata), agricultural aid (Iwaki), Fishing aid (Kesenuma), etc.	Ongoing initiative (Frequency goal: 1-2 times per month)
Eat and root for restoration! Campaign	Support restoration of industries by actively using food products grown in disaster-stricken areas Offering a menu of Tohoku-grown foods at the employee cafeteria and Z Plaza (employee lounge)	Ongoing initiative
Participating in the building of a forest embankment to protect lives*	Planted Heisei-no-mori in Otsuchi Town (Sponsored by: Yokohama Rubber/Otsuchi Town, Iwate Prefecture) Sponsor and participant since FY2013	The tree-planting was concluded in FY2015. Our ties with Otsuchi Town continue through activities including post-planting maintenance.
<b>Mutual projects</b>		
Chemistry classroom	Summer vacation events, classes where local residents do experiments while touring our offices Head office: Summer holiday children's chemical experiment show (participating from FY2013) Tokuyama Plant: Experiment class during industrial tourism tour for parents and their children	Development of chemistry classroom (increase in classroom held at offices) Expand the number of experiments conducted (Newly create an experiment package)
Ecocap recycling (Collecting used plastic caps)	Began count at all group companies from FY2012 FY2014 results: 722,000 caps recycled (437,000 in FY2013)	Ongoing initiative
Green purchasing of office supplies	Purchasing office supplies with minimal environmental impact (notebooks, book-binding tape, folders, etc.) Of the 44 items stipulated under the Green Purchasing Law, we switched to 22 items (50%)	Ongoing initiative
<b>Independent projects</b>		
Select topics for each promotional committee	Engaging with the local community Participation in local events: Sponsor and cooperate in various events Clean-up activities Educational support: Internships, dispatch lecturers to schools, etc.	Ongoing initiative

\* Building forest embankments to protect lives

These activities are being carried out to create a forest that will act as an embankment protecting local residents against tsunamis. This consists of piecing together debris from the disaster and soil to build an elevated area along the coastline, which was damaged during the tsunamis triggered by the Great East Japan Earthquake. Various trees native to the area are being planted on the elevated ground to create a multilayer forest.



For details on our activities, click the following URL.

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

Response to Great East Japan Earthquake and Tsunami Disaster  
[http://www.zeon.co.jp/csr\\_e/introduction/earthquake.html](http://www.zeon.co.jp/csr_e/introduction/earthquake.html)

Site Reports  
[http://www.zeon.co.jp/csr\\_e/site/index.html](http://www.zeon.co.jp/csr_e/site/index.html)

### Great East Japan Earthquake reconstruction volunteering



We continue to send employees to areas affected by the Great East Japan Earthquake by looking for employees to sign up for a regular restoration volunteer tour. The company covers the entire cost to actively promote employee participation. We turn "support" into "encouragement," and "encouragement" into "exchange." Given the risk that the memory of the devastation will be forgotten, we believe that it is now even more important to continue to undertake these activities. (Picture: In November 2014, volunteers partook in the Organic Cotton project in Iwaki, Fukushima Prefecture.)

### Cooperating in tree planting in disaster-stricken areas



From 2012, the town of Otsuchi Town (Iwate Prefecture) and Yokohama Rubber Co., Ltd. held a tree planting campaign, Heisei-no-mori, in Otsuchi Town as a model case to create a forest embankment to protect the lives of the local community. Zeon has cooperated with this tree planting campaign since 2013. In 2015, the fourth time we cooperated in the event, 47 employees, including the chairman, partook in this campaign. We, along with local residents, planted 15 different types of tree seedlings. (Picture: Tree planting in May 2015.)

### Chemistry classroom



Based on our motto of "nurturing future Nobel Prize winners in chemistry," we are conducting chemistry experiment classrooms in various regions to teach children that chemistry is fun. It is our desire that children, who are responsible for the future, gain an interest in science, not only chemistry. (Picture: We held an exhibition and workshop called "Amazing Stick-On and Peel-Off Stickers: Let's Make Original Hand Fans" at the "Dream Chemistry 21" Summer Holiday Children's Chemical Experiment Show 2015.)

### Relationship with Society (Educational support)



Our offices and group companies implement exchanges with and offer assistance to various educational institutions. Zeon offers internships for high school, vocational high school, and university students and actively give tours of our plants to school children. We also dispatch part-time lecturers to schools. In FY2014, we took in 35 interns. (Picture: Acceptance of FY2014 interns and on-site practical training at the Optes Hokuriku Plant.)

### Relationship with Society (Event)



Zeon places great importance on connections with local communities. Zeon offices and group companies hold various events, including summer festivals and actively participate in numerous local events. (Picture: The Tokuyama Plant sponsors the Zeon Waraku Odori Dance Festival, which is a regular summer event that was first held in 1974. Every year, more than 2,000 people participate in the festivities. In FY2015, the festival was canceled due to the impact of typhoon.)

### Relationship with Society (Clean-up activities)



With the goal of implementing activities that are helpful and which will make local residents happy, our offices and group companies are embarking on clean-up activities in local communities, not only in areas around our offices and plants. (Picture: Zeon Group employees participating in a joint cleanup in the area around Tokyo Station.)

### Relationship with Society (Activities with the Local Community)



We are carrying out activities with local communities in various regions. Zeon Advanced Polymix in Thailand is aiming for harmony with its community by extending company health checkups to nearby residents, and through activities including donations of stationery to nearby elementary schools, blood drives, cleanups around the plant, tree-planting, and donation drives to aid public facilities. (Picture: Making donation activity to Buddhist priests.)

### Promotion of Cultural Activities



Tohpe Corporation established the Tohpe Dip Art Association to develop cultural businesses incorporating paint and is promoting American flowers (handcrafted flowers made with paint). The association was founded in 1973. There are around 1,000 members nationwide. Exhibitions are held in various areas nationwide every year. (Picture: In June 2015, an exhibition was held at the Ikebukuro Sunshine City Cultural Center.)

## CSR Implementation Plan

The following includes various initiatives in the Enterprise Blueprint for 2020 for each category and other specific initiatives we implemented.

Category	Enterprise Blueprint for 2020	Specific Efforts (FY2014 goals are shown in blue)
Corporate governance	● Mid-Term Management Plan goals have been achieved, and dividend distribution is stable and continuous	● Implement stable distribution of dividends <b>FY2014 forecast of 14.00 yen</b>
	● A world-class risk management system has been built, is being operated throughout the Zeon Group, and has gained the trust of society	● Implement risk management activities in accordance with ISO 31000
	● A business continuity management system is being deployed throughout the Group (various types of business continuity plans (BCPs) have been formed and are revised regularly through training, etc.)	● Formulate business continuity plans (BCPs) and switch to business continuity management (BCM) system
Compliance	● Compliance awareness is widespread and allows Zeon to respond to environmental changes	<ul style="list-style-type: none"> <li>● Revise company rules regularly (in accordance with the revision of laws and regulations)</li> <li>● Hold workshops on legal and regulatory compliance</li> <li>● Simultaneously inspect legal compliance</li> <li>● Consolidate and establish clear and concrete company rules among overseas group companies</li> <li>● Support the establishment of compliance system at overseas group companies</li> </ul>
Information	● Information is disclosed quickly and appropriately (including negative information regarding business conditions, CSR, risks, etc.)	<ul style="list-style-type: none"> <li>● Hold financial results briefing</li> <li>● Publish various reports</li> <li>● Disseminate information via the company website</li> <li>● Hold briefings for individual investors and analysts in Japan and overseas and respond to media inquiries</li> </ul>
	● Information on trade secrets is managed appropriately	<ul style="list-style-type: none"> <li>● Appropriately enforce company rules (information management regulations, personal information protection management rules, etc.)</li> <li>● Provide e-learning courses</li> <li>● Construct and operate information management systems</li> </ul>
Environment, safety, and quality	● All worksites continue to have zero incidents and zero accidents, and are trusted by society	<ul style="list-style-type: none"> <li>● Eradicate security irregularities <b>Implement plant safety evaluation (100%)</b> <b>Implement specialized RC audit (more than once per year for all four plants)</b> <b>Training to boost accident prevention awareness (implement at four plants and one group company)</b></li> <li>● Eradicate security irregularities <b>Zero security irregularities</b></li> <li>● Achieve eradication of industrial accidents <b>Zero occupational accidents resulting in lost workdays and serious accidents without lost workdays</b></li> <li>● Promote logistics safety <b>Zero logistics accidents</b></li> </ul>
	● All worksites have reduced their environmental impact which has gained social appraisal *The numbers to the right are the goals and results for the four domestic plants, unless otherwise specified	● Eradicate environmental irregularities <b>Zero environmental irregularities</b>
		● Reduce environmental impact (promote voluntary control plans for air pollution and toxic substances) <b>Acrylonitrile emissions in FY2013 of 11.7 tons ⇒ reduce to 10 tons</b>
		● Reduce environmental impact (promote zero emission plan for industrial waste) <b>Target amount lower than FY2013 actual of 6.5 tons</b>
		● Reduce environmental impact (promote zero emission plan for industrial waste) <b>Final disposal of domestic group company industrial waste for landfill under 7.5 tons (Final landfill disposal rate: FY2007 emissions standard) 0.3%</b>
	● Reduce environmental impact (fortify companywide energy-saving project) <b>Reduce unit energy consumption to 66% from 67.8% versus the level in FY1990</b> <b>Reduce unit CO<sub>2</sub> emissions to under 67.8% versus FY1990 (below actual for FY2013)</b>	
	● Levels of both quality and cost are the best in the world	<ul style="list-style-type: none"> <li>● Implement a quality management system based on ISO 9001</li> <li>● Management of quality assurance risks (product liability lawsuits, supply obligation risk, product recall risk, and the risk of credibility loss due to rumor)</li> <li>● Improving processes (reducing losses and improving consistency)</li> </ul>
● Procurement is being promoted that includes considerations to reduce environmental impact based on CSR procurement policy	● Determine and understand the state of CSR procurement guidelines, share with business partners	
Human rights and labor practices	● Promote work-life balance (harmony between work and life) to enable people to work and raise children or care of sick parents	<ul style="list-style-type: none"> <li>● Appropriately operate a system to promote child-rearing</li> <li>● Implement program for reinstatement in workplace for employees taking child-rearing or nursing care leave</li> <li>● Introduce flexible work hours, employ discretionary working system for management-related work</li> <li>● Appropriately enforce sexual harassment prevention regulations</li> </ul>
	● The workplace has been revitalized by the promotion of diversity and the fair and equitable treatment of personnel	<ul style="list-style-type: none"> <li>● Appropriately operate human resource systems (individual report and evaluation systems, etc.)</li> <li>● Hire non-Japanese employees (mid-career applicants and students studying in Japan)</li> <li>● Expand rehiring program of retired employees</li> <li>● Support development of employee skills and career</li> <li>● Implement MD Committee* activities by female members (*committee comprised solely of female employees, promote cost cuts)</li> </ul>
Social contribution	● An organization has been established to promote volunteer activities for employees including retirees that allows employees to actively volunteer in various ways	<ul style="list-style-type: none"> <li>● Raise employee social contribution awareness (includes CSR training)</li> <li>● Upgrade and enhance CSR promotion system</li> <li>● Introduce volunteer activities and promote and support participation</li> </ul>
	● There is understanding and appraisal for Zeon's social contributions (Zeon actively participates in and supports environmental protection and social welfare programs being promoted in each country and region)	<ul style="list-style-type: none"> <li>● Materialize and implement CSR activities being promoted by the entire Zeon Group</li> <li>● Materialize and implement CSR activities being promoted by all worksites</li> <li>● Implement CSR activities unique to individual worksites</li> </ul>

In FY2014, in the categories of management and human rights and labor practices, we achieved our goals but in the category of environment and safety there are still issues that require further attention. In FY2015, we continue to work as a unified group to implement these initiatives.

Evaluation: ★★★ Target reached   ★★ Target almost reached   ★ Improvement needed

FY2014 Results	Evaluation	FY2015 Goals
<ul style="list-style-type: none"> <li>Annual dividend 14.00 yen</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Annual dividend 15.00 yen (forecast)</li> </ul>
<ul style="list-style-type: none"> <li>Improved risk management activities in accordance with ISO 31000 (reviewed FY2014 risk list to reflect confirmation and feedback on progress in risk response plan)</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Improve risk management activities in accordance with ISO 31000 (Review list of risks in FY2015 which reflects the horizontal deployment of pronounced risks at other departments)</li> </ul>
<ul style="list-style-type: none"> <li>Promoted the establishment and creation of business continuity plans (BCP)</li> <li>Continued to implement training based on the Earthquake Disaster Response Manual</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Instill and make BCM structure a permanent feature</li> </ul>
<ul style="list-style-type: none"> <li>Fully educated domestic group employees on Japan's Subcontract Act, Antitrust Law, and trade secret management</li> <li>Held workshops on legal and regulatory compliance at each office in Japan and abroad</li> <li>Simultaneously inspected legal compliance: Implementation 100%</li> <li>Gathered suggestions for a CSR and compliance motto</li> <li>Published a Chinese language CSR text</li> <li>Supported establishment and maintenance of compliance systems at Asia group companies</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Revise company rules regularly (in response to revisions to laws, etc.)</li> <li>Hold workshops on legal and regulatory compliance</li> <li>Simultaneous inspection of legal compliance</li> </ul>
<ul style="list-style-type: none"> <li>Financial results briefing: Held quarterly</li> <li>Published annual, semiannual, corporate, and other reports</li> <li>Disseminated appropriate information via the company website</li> <li>Launched Chinese-language version of website</li> <li>Participated in company briefing for individual investors</li> <li>Participated in investment conference for overseas investors</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Financial results briefing</li> <li>Publish various reports</li> <li>Disseminate information via the company website</li> <li>Hold briefings for individual investors and analysts in Japan and overseas and respond to media inquiries</li> </ul>
<ul style="list-style-type: none"> <li>Information security training (e-learning): Enrollment rate 99.9%</li> <li>Information security audit (information security voluntary diagnosis): Response rate 99.7%</li> <li>Revised affiliate regulations in line with completion of information management system</li> <li>Completed information security structure and system at overseas group companies</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Appropriately enforce company rules (information management regulations, personal information protection management rules, etc.)</li> <li>Provide e-learning courses</li> </ul>
<ul style="list-style-type: none"> <li>Implemented plant safety evaluation (100%)</li> <li>Implemented specialized RC audit (more than once per year for all four plants)</li> <li>Provided training to boost accident prevention awareness (implemented at four plants and one group company)</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Implement plant safety evaluation (100%)</li> <li>Implement specialized RC audit (more than once per year for all four plants)</li> <li>Training to boost accident prevention awareness (implement at four plants and one group company)</li> </ul>
<ul style="list-style-type: none"> <li>Two security irregularities</li> </ul>	★☆☆	<ul style="list-style-type: none"> <li>Zero security irregularities</li> </ul>
<ul style="list-style-type: none"> <li>One occupational accident that results in lost workdays</li> </ul>	★☆☆	<ul style="list-style-type: none"> <li>Zero occupational accidents resulting in lost workdays and serious accidents without lost workdays</li> </ul>
<ul style="list-style-type: none"> <li>Zero logistics accidents</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Zero logistics accidents</li> </ul>
<ul style="list-style-type: none"> <li>Zero environmental irregularities</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Zero environmental irregularities</li> </ul>
<ul style="list-style-type: none"> <li>Acrylonitrile emissions totaled 11.9 tons</li> </ul>	★★☆	<ul style="list-style-type: none"> <li>Acrylonitrile emissions under 12 tons</li> </ul>
<ul style="list-style-type: none"> <li>Final landfill disposal was 6.5 tons</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Lower than the 6.5 tons which was the actual for FY2014</li> </ul>
<ul style="list-style-type: none"> <li>Final landfill disposal for domestic group companies: 10.6 tons</li> </ul>	★☆☆	<ul style="list-style-type: none"> <li>Final landfill disposal for domestic group companies of less than 7.5 tons (Final landfill disposal rate: FY2007 emissions standard) 0.3%</li> </ul>
<ul style="list-style-type: none"> <li>Unit energy consumption 63.0% versus level in FY1990</li> <li>Unit CO<sub>2</sub> emissions 65.3% versus level in FY1990</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Unit energy consumption 63.0% versus level in FY1990</li> <li>Unit CO<sub>2</sub> emissions 65.3% or lower versus level in FY1990</li> </ul>
<ul style="list-style-type: none"> <li>Underwent ISO 9001 renewal screening and retained certification</li> <li>Implemented various initiatives to enhance product safety and quality (Details are on our website: Home &gt; CSR &gt; Quality Assurance (Relationship with Customers))</li> </ul>	★★★	<ul style="list-style-type: none"> <li>Using quality assurance risk management as a foundation, aim to build a quality assurance structure that satisfies all stakeholders, including customers, the public, and employees, through the supply of products</li> </ul>
<ul style="list-style-type: none"> <li>CSR Procurement Guidelines and the Requests for Suppliers, were disclosed on the website</li> </ul>	★★☆	<ul style="list-style-type: none"> <li>Share information on CSR procurement with business partners (through discussions, etc.)</li> </ul>
<ul style="list-style-type: none"> <li>Achieved goals set in action plan for employers regarding countermeasures to support the development of the next generation (established in FY2010) and satisfied certain requirements. Accordingly, received the Kurumin accreditation mark from the Ministry of Health, Labour and Welfare as a company that supports child-rearing (Details are on our website: Home &gt; CSR &gt; Relationship with Employees &gt; Creating Workplace Environments that Protect Human Rights and Health)</li> </ul>	★★★	<ul style="list-style-type: none"> <li>(Handled as a daily management activity)</li> </ul>
<ul style="list-style-type: none"> <li>Ratio of employees with disabilities (parent) 2.04% (FY2013 2.18%)</li> <li>Rehiring of retired employees 11 out of 11 retirees (Details are on our website: Home &gt; CSR &gt; Relationship with Employees &gt; Employment and Diversity)</li> </ul>	★★★	<ul style="list-style-type: none"> <li>(Handled as a daily management activity)</li> </ul>
<ul style="list-style-type: none"> <li>CSR briefings held at each office and domestic group companies</li> <li>Supported establishment of CSR Promotion Structure for companies that were newly incorporated into the Zeon Group</li> <li>Number of employees that participated in restoration volunteer tours 13 times and 89 employees</li> </ul>	★★☆	<ul style="list-style-type: none"> <li>Hold CSR briefings</li> <li>Continue to support restoration volunteer work</li> </ul>
<ul style="list-style-type: none"> <li>Created a system for sponsoring social contribution</li> <li>Implemented CSR core projects in each region</li> </ul>	★★☆	<ul style="list-style-type: none"> <li>Operate social contribution sponsor system</li> <li>Continue to hold CSR core projects</li> </ul>

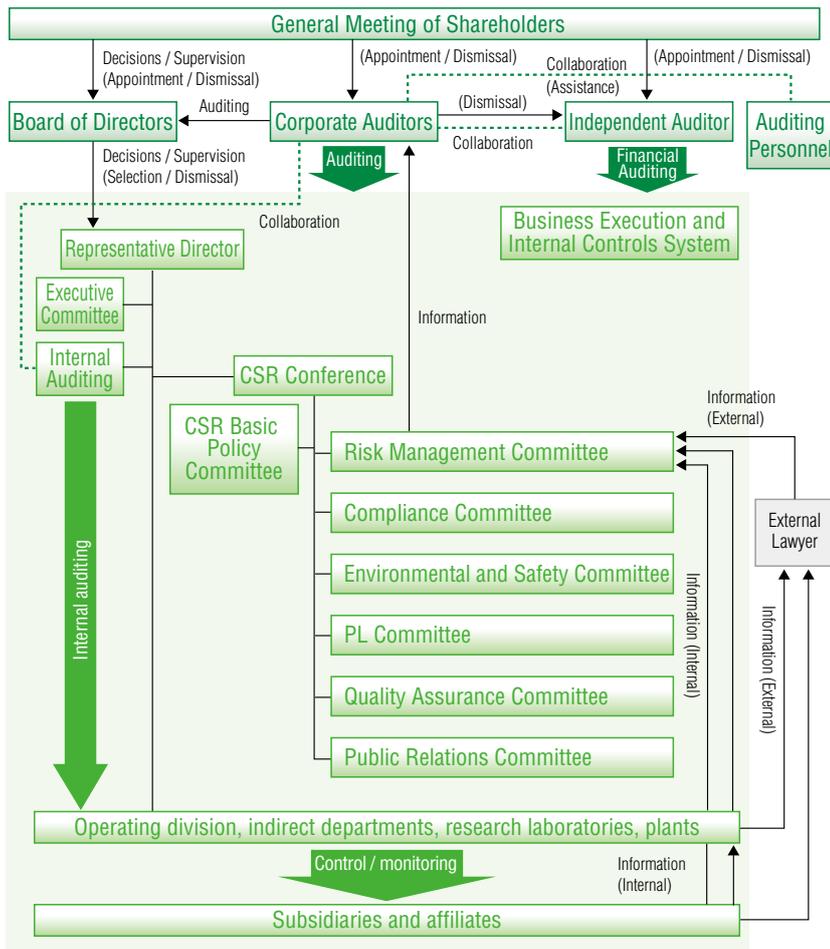


## Corporate Governance

Zeon aims to increase profits and achieve ongoing corporate value enhancement while respecting and balancing the various interests of its shareholders and other diverse stakeholders. To this end, we are making ongoing efforts to establish a system that enables efficient and sound corporate management through corporate governance.

Putting into place a corporate governance system allows us to clarify the functions and roles of each organizational entity within the company and to carry out quick decision-making and execution. We are also improving business transparency through appropriate monitoring and disclosure of activities and their effects. We are determined to further enhance our corporate governance system in order to carry out these functions effectively.

### ■ 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. The role of the Board of Directors besides statutory duties is to make important decisions about basic management policy and strategy and other aspects of business execution. As of October 2015, the Board of Directors consists of 12 directors, including three outside directors.

### ■ Executive Committee

The Executive Committee, in accordance with Executive Committee regulations, comprises the President and executive officers ranked senior corporate officer or above and meets, in principle, twice a month to examine and make decisions on important business matters after due deliberation involving consultation with attending full-time corporate auditors. Important agenda items, as stipulated in regulations for the Board of Directors, 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 resolves important matters. In accordance with auditing guidelines established by the Board of Corporate Auditors, each corporate auditor audits the duties executed by directors through various means, such as attendance at Board of Directors meetings and monitoring of business operations, including subsidiaries' operations.

## Risk Management

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

### ■ Risk Management and Compliance System



## Directors and Officers (as of October 1, 2015)

### Directors



Chairman  
**Naozumi Furukawa**  
Chairman of Tohpe Corporation



President  
**Kimiaki Tanaka**



Director & Executive Corporate Officer  
**Masayoshi Oshima**  
Specialty Materials Businesses



Director & Senior Corporate Officer  
**Hiroshi Takegami**  
Division Manager - CSR



Director & Senior Corporate Officer  
**Yoshiyuki Mitsuhiro**  
Research & Development



Director & Senior Corporate Officer  
**Hiroyuki Hirakawa**  
Elastomers and Chemicals Business  
Division Manager - Synthetic Rubber



Director & Senior Corporate Officer  
**Toru Nishijima**  
Division Manager - Production Center



Director & Corporate Officer  
**Kei Itoh**  
Administration  
Division Manager - Corporate Planning



Director & Corporate Officer  
**Takeo Furuya**  
Division Manager - Corporate Administration  
General Manager - Accounting & Finance  
President of Zeon F&B Co., Ltd.



Outside director  
**Haruo Itoh**  
Advisor - FUJI ELECTRIC CO., LTD



Outside director  
**Takao Kitabata**  
Chairman of Board - Sanda Gakuen Junior  
High School & High School



Outside director  
**Tadanobu Nagumo**  
Chairman and CEO and Representative Director  
of The Yokohama Rubber Co., Ltd.

### Corporate Auditors

Audit & Supervisory Board Member  
**Tadayuki Minami**

Audit & Supervisory Board Member  
**Jun Hasegawa**

Audit & Supervisory Board Member (External)  
**Yuzuru Fujita**  
Supreme advisor of Asahi Mutual Life Insurance Company

Audit & Supervisory Board Member (External)  
**Akio Kohri**  
President - ADEKA CORPORATION

Audit & Supervisory Board Member (External)  
**Nobutake Nishijima**  
Vice Chairman - Total Insurance Service Limited

### Corporate Executive Officer

Senior Corporate Officer  
**Hirofumi Imai**  
Division Manager - Raw Material & Logistics  
General Manager - Raw Material Procurement  
General Manager - Logistics & Transportation

Corporate Officer  
**Hiroshi Fujisawa**  
Division Manager - Specialty Chemicals

Corporate Officer  
**Noboru Yanagida**  
President - Zeon Medical Inc.

Corporate Officer  
**Toshiaki Saya**  
Plant Manager - Tokuyama Plant

Corporate Officer  
**Toshihiro Inoue**  
Division Manager - Synthetic Latex

Corporate Officer  
**Tomoyuki Kose**  
Plant Manager - Mizushima Plant

Corporate Officer  
**Sachio Hayashi**  
Plant Manager - Kawasaki Plant

Corporate Officer  
**Tetsuya Toyoshima**  
Division Manager - Specialty Plastics & Components

## Data Highlights

Herein, we disclose a portion of our earnings data.

For more details on our financial data, please see Fact Book 2015 in the IR section of our website: [http://www.zeon.co.jp/ir\\_e/library/factbook.html](http://www.zeon.co.jp/ir_e/library/factbook.html)

Graphs illustrating our consolidated net sales, operating income, and net sales by region can be found on pages 3-4.

A graph outlining our R&D expenses is on page 15.



## Five-year summarized financial data

(million yen)

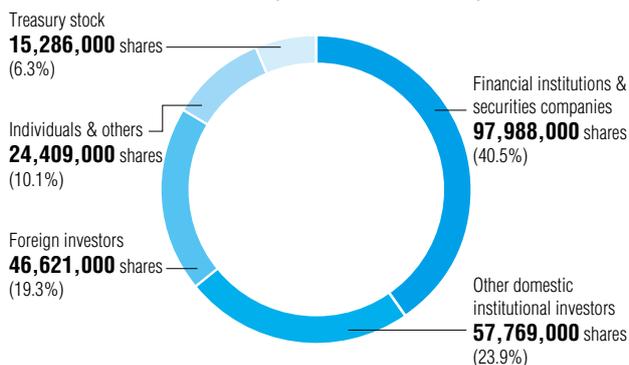
	2010	2011	2012	2013	2014
Net sales	270,383	262,842	250,763	296,427	<b>307,524</b>
Operating income	35,295	32,123	23,696	29,901	<b>28,245</b>
Ordinary income	33,623	31,487	25,212	32,561	<b>31,098</b>
Net income	18,303	19,127	14,750	19,650	<b>19,080</b>
Total assets	290,596	311,925	350,508	370,872	<b>399,512</b>
Net assets	118,767	135,480	162,057	181,414	<b>215,631</b>
Capital expenditures	10,329	22,995	23,489	27,111	<b>28,516</b>
Depreciation & amortization	21,125	19,885	18,122	17,068	<b>19,439</b>
R&D expenses	9,532	11,106	11,895	12,661	<b>13,627</b>
Environmental and Safety Investment*	470	2,670	2,160	3,470	<b>3,649</b>
Social Contribution Investment*	34	101	70	98	<b>98</b>
Operating margin	13.1%	12.2%	9.4%	10.1%	<b>9.2%</b>
Return on Equity (ROE)	16.7%	15.5%	10.1%	11.7%	<b>9.8%</b>
Equity ratio	39.5%	42.5%	45.2%	47.9%	<b>52.9%</b>
BPS	497.05	572.96	685.64	783.11	<b>931.34</b>
Interest-bearing debt	70,863	67,585	67,585	65,600	<b>58,900</b>
Cash flows	8,695	(1,595)	(1,803)	(5,222)	<b>(4,780)</b>
Net cash provided by (used in) operating activities	48,100	32,009	33,061	36,396	<b>34,006</b>
Net cash provided by (used in) investing activities	(9,635)	(27,644)	(24,858)	(31,513)	<b>(26,767)</b>
Net cash provided by (used in) financing activities	(29,770)	(5,960)	(10,006)	(10,105)	<b>(12,019)</b>
Dividend per share (yen)	10.0	11.0	12.0	13.0	<b>14.0</b>
Employees (people)	2,836	2,857	3,163	3,186	<b>3,216</b>
Lost-time accident rates	0.00	0.47	0.46	0.46	<b>0.46</b>
Energy usage (crude oil equivalent, 1,000 kL)	263	256	237	243	<b>226</b>
CO <sub>2</sub> emissions (1,000 tons)	695	670	601	640	<b>631</b>

\*Zeon Corporation only

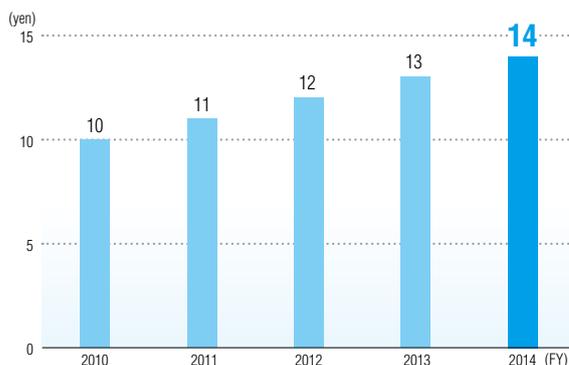
## Stock information

Zeon's shares are listed on the 1st section of the Tokyo Stock Exchange. The company has a total number of common shares outstanding of 242,075,000. As of March 31, 2015, there were 9,807 shareholders (decrease of 1,898 registered shareholders at the end of the previous fiscal year). In accordance with our basic policy to consistently and stably distribute surplus earnings to our shareholders, in FY2014 we paid out a per-share annual dividend of 14 yen, an increase of one yen higher than the previous fiscal year.

### Shareholder information (as of March 31, 2015)



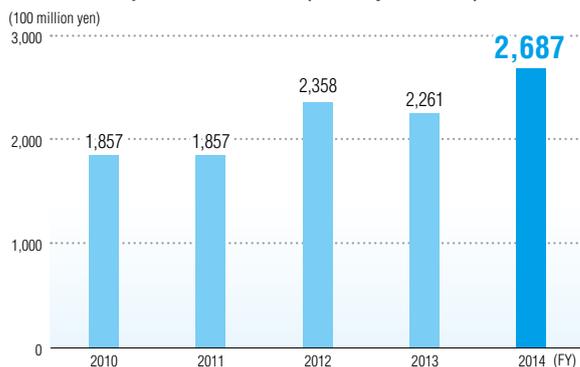
### Dividends



### Share price trends (last day of March)



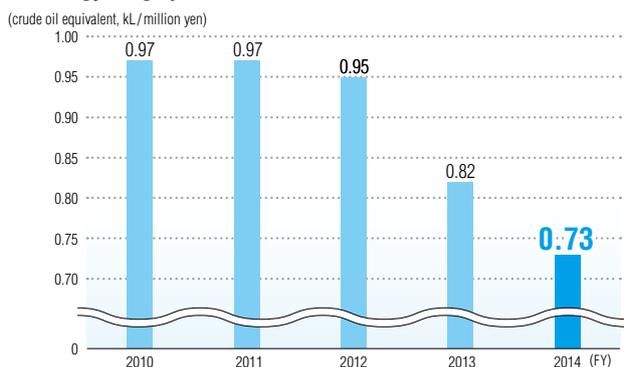
### Market capitalization trends (last day of March)



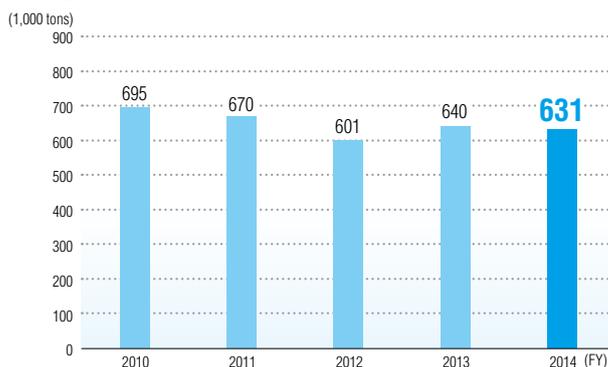
## Environmental information

Each year, we set goals and work to alleviate our burden on the environment. We are moving forward with large-scale investment for a clean fuel conversion program to switch from heavy oils to LNG at our plants to reduce our greenhouse gas emissions and to conserve energy consumption. In FY2009, we achieved the goals for the energy consumption unit, which is a yardstick for energy conservation, set by the Japan Chemical Industry Association (JCIA) (80% of levels in FY1990 by sometime between FY2008-FY2012). Since then, we have set our own independent goals and have been making an average improvement of 1% annually.

### Energy usage per net sales



### CO<sub>2</sub> emissions



## Major Sales & Production Bases

Zeon is continuing with the globalization of its business operations, having first turned its attention to overseas markets in the 1970s.

We are setting up sales networks in major markets around the world and establishing a production system for rubber and resin products. In addition, we have R&D facilities in the US and Europe. We are also building an R&D and sales base in China, a market which is growing rapidly. We are aiming to become a company that, through its local production systems, builds close ties with local communities and contributes to the global society.

### Global bases (as of April 1, 2015)

#### Europe

- Zeon Chemicals Europe Ltd.
- Zeon Europe GmbH
  - Zeon Europe GmbH - Branch in France
  - Zeon Europe GmbH - Branch in Spain
  - Zeon Europe GmbH - Branch in Italy
- Telene S.A.S.



Zeon Chemicals Europe Ltd.  
U.K. Plant  
Business focus | Manufacture and sale of synthetic rubbers



Zeon Europe GmbH  
Business focus | Sale, export, and import of synthetic rubbers and resins



Zeon Polymix (Guangzhou) Co., Ltd.  
Business focus | Manufacture and sale of rubber compounds (CM)



Zeon Kasei (Changshu) Co., Ltd.  
Business focus | Manufacture and sale of PVC powder slush compound



Zeon Chemicals (Thailand) Co., Ltd.  
Business focus | Manufacture and sale of petroleum resins



Zeon Advanced Polymix Co., Ltd.  
Business focus | Manufacture and sale of rubber compounds (CM)



Zeon Manufacturing Vietnam Co., Ltd.  
Business focus | Manufacture and sale of packing containers

#### Asia and Oceania

- Zeon (Shanghai) Co., Ltd.
- Zeon Trading (Shanghai) Co., Ltd.
- Shanghai Zeon Co., Ltd.
- Zeon Polymix (Guangzhou) Co., Ltd.
- Takehara Zeon (Shanghai) Co., Ltd.
- Suzhou Rui Hong Electronic Chemicals Co., Ltd.
- Zeon Kasei (Changshu) Co., Ltd.
- Zeon Korea Co., Ltd.
- Zeon Shinhwa Inc.
- Zeon CSC Corporation
- Zeon Asia Pte Ltd.
- Zeon Asia Malaysia Sdn. Bhd.
- Zeon Chemicals Singapore Pte. Ltd
- Zeon Chemicals (Thailand) Co., Ltd.
- Zeon Advanced Polymix Co., Ltd.
- Zeon Manufacturing Vietnam Co., Ltd.

## Japan (as of April 1, 2015)

- Zeon Corporation
  - Head Office
  - R&D Center
  - Takaoka Plant
  - Kawasaki Plant
- Zeon Kasei Co., Ltd.
- Tokyo Zairyo Co., Ltd.
- Zeon North Co., Ltd.
- Zeon Yamaguchi Co., Ltd.
- Zeon F&B Co., Ltd.
- Zeon Medical Inc.
- Zeon Polymix Inc.
- RIMTEC Corporation
- Tohpe Corporation
- Zeon Chemicals Yonezawa Co., Ltd.
- Ibaraki Zeon Kasei Co., Ltd.
- Okayama Butadiene Co., Ltd.
- ZIS Information Technology Co., Ltd.

- Tokuyama Plant
- Mizushima Plant
- Osaka Office
- Nagoya Office



Zeon Chemicals L.P.  
Kentucky Plant  
Business focus: Manufacture and sale of synthetic rubbers



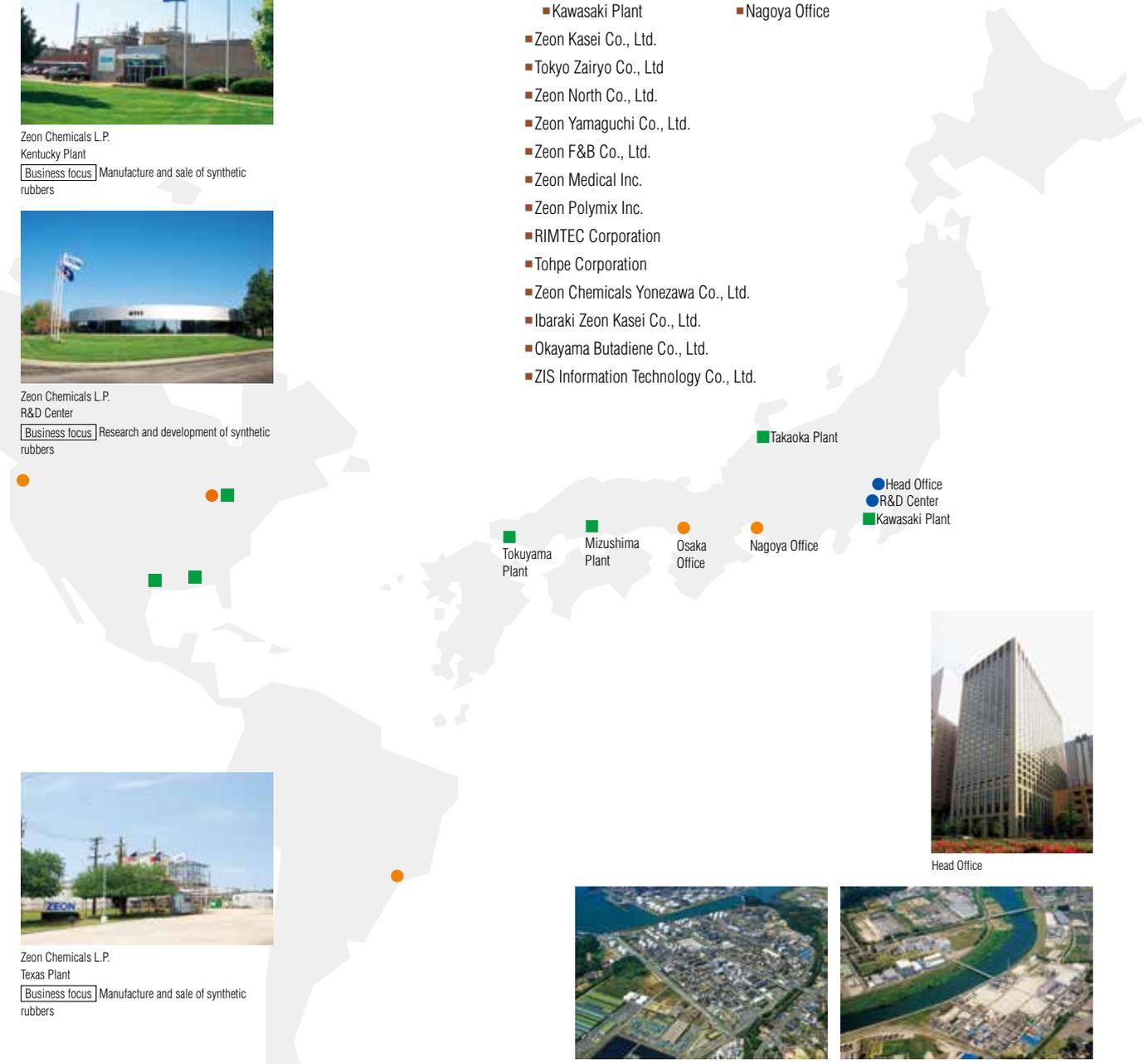
Zeon Chemicals L.P.  
R&D Center  
Business focus: Research and development of synthetic rubbers



Zeon Chemicals L.P.  
Texas Plant  
Business focus: Manufacture and sale of synthetic rubbers

## The Americas

- Zeon Chemicals L.P.
  - Zeon Chemicals L.P. West Coast Office
  - Zeon Chemicals L.P. R&D Center
  - Zeon Chemicals L.P. Kentucky Plant
  - Zeon Chemicals L.P. Mississippi Plant
  - Zeon Chemicals L.P. Texas Plant
- Zeon do Brasil Ltda



Head Office



Mizushima Plant



Takaoka Plant



Tokuyama Plant



Kawasaki Plant/R&D Center

## Group Company Data

### 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

#### R&D Center

1-2-1 Yako, Kawasaki-ku, Kawasaki, Kanagawa 210-9507, Japan  
Tel: +81-44-276-3721 Fax: +81-44-276-3720

#### Takaoka Plant

630 Ogino, Takaoka-shi, Toyama 933-8516, Japan  
Tel: +81-766-21-0252 (Direct) Fax: +81-766-21-8201

#### Kawasaki Plant

1-2-1 Yako, Kawasaki-ku, Kawasaki, Kanagawa 210-9507, Japan  
Tel: +81-44-276-3700 (Direct) Fax: +81-44-276-3701

#### Tokuyama Plant

2-1 Nachi-cho, Shunan-shi, Yamaguchi 745-0023, Japan  
Tel: +81-834-21-8501 (Direct) Fax: +81-834-21-8793

#### Mizushima Plant

2767-1 Kojima Shionasu Aza Niihama, Kurashiki-shi, Okayama 711-8511, Japan  
Tel: +81-86-475-0021 Fax: +81-86-475-1169

#### Osaka Office

Yotsubashi Park Building 3rd Floor, 1-4-10 Itachibori, Nishi-ku, Osaka 550-0012, Japan  
Tel: +81-6-6536-2930 Fax: +81-6-6536-2932

#### Nagoya Office

TAK Building, 3-134 Hongo, Meito-ku, Nagoya 465-0024, Japan  
Tel: +81-52-769-5861 Fax: +81-52-769-5863

### Zeon Group (Consolidated subsidiary)

#### Japan

#### Zeon Kasei Co., Ltd. ●▲■

Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan  
**Business focus** Manufacture and sale of packing materials, packing containers and distribution equipment

#### Tokyo Zairyo Co., Ltd ●▲■

Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan  
**Business focus** Trading

#### Zeon North Co., Ltd. ■

351 Ejiri, Takaoka-shi, Toyama 939-0062, Japan  
**Business focus** Contracting, design, construction and management for various facilities; sale of industrial materials and equipment; purchase and sale of petrochemical products; validating environmental measurement, measuring working environment; conducting various analyses

#### Zeon Yamaguchi Co., Ltd. ■

2-1 Nachi-cho, Shunan-shi, Yamaguchi 745-0023, Japan  
**Business focus** Purchase and sale of civil engineering materials, packing materials, and various facilities; design and construction, contracting for various plants; environment analysis

#### Zeon F&B Co., Ltd. ■

Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan  
**Business focus** Agency business for nonlife insurance; loan and allocating business to each group company

#### Zeon Medical Inc. ▲

Shuwa Shiba Park Building, 2-4-1 Shiba Kohen, Minato-ku, Tokyo 105-0011, Japan  
**Business focus** Manufacture and sale of medical equipment

#### Zeon Polymix Inc. ●

1-11-1 Ishizue, Ohtsu-shi, Shiga 520-2272, Japan  
**Business focus** Manufacture of rubber compounds (CM)

#### RIMTEC Corporation ■

Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan  
**Business focus** Sales of RIM combination liquid and molded items

#### Tohpe Corporation ●■

1-5-11 Chikkoshinmachi, Nishi-ku, Sakai-shi, Osaka 592-8331, Japan  
**Business focus** Sales of paints and specialty materials



## The Americas

### Zeon Chemicals L.P. ●▲

4111 Bells Lane, Louisville, Kentucky 40211, U.S.A.  
 [Business focus] Manufacture and sale of synthetic rubbers

### Zeon do Brasil Ltda ●

Rua Arandu, 57/cj 23, Sao Paulo-SP, Brasil  
 [Business focus] Sale of synthetic rubbers and resins

## Europe

### Zeon Chemicals Europe Ltd. ●

Sully, Vale of Glamorgan, CF64 5ZE, United Kingdom  
 [Business focus] Manufacture and sale of synthetic rubbers

### Zeon Europe GmbH ●▲

Hansaallee 249, 40549 Düsseldorf, Germany  
 [Business focus] Sale, export, and import of synthetic rubbers and resins

### Telene S.A.S. ■

2, rue Marie Curie - 59910 Bondues, France  
 [Business focus] Development and distribution of Telene® DCP-RIM resin

## Asia and Oceania

### Zeon Trading (Shanghai) Co., Ltd. ●▲■

Room 1501, Hongwell International Plaza, No.1600 Zhongshan West Road, Xuhui District, Shanghai, 200235, China  
 [Business focus] Sale, export, and import of synthetic rubbers and chemicals and related products

### Shanghai Zeon Co., Ltd. ●

No. 380, Shennan Road, Zinzhuang Industry District, Minhang, Shanghai, 201108, China  
 [Business focus] Manufacture and sale of rubber compounds (CM)

### Zeon Polymix (Guangzhou) Co., Ltd. ●

Jing Quan 1st Road, Yong He Economic Zone, Guangzhou, 511356, China  
 [Business focus] Manufacture and sale of rubber compounds (CM)

### Zeon Shinhwa Inc. ▲■

504 Diplomatic Center B/D, Nambusoonhwanro 2558, Seocho-Gu, Seoul, 06750, Korea  
 [Business focus] Sale of electronic materials

### Zeon Asia Pte Ltd. ●▲

331 North Bridge Road, #20-01/02, Odeon Towers, Singapore 188720  
 [Business focus] Sale, export, and import of synthetic rubbers, synthetic latex and petroleum resins

### Zeon Chemicals Singapore Pte. Ltd ●

331 N Bridge Rd, Singapore 188720  
 [Business focus] Manufacture of synthetic rubbers

### Zeon Chemicals (Thailand) Co., Ltd. ●

3 Soi G-14, Pakorn-Songkhroard Road, Tambol Huaypong, Amphur Muangrayong, Rayong 21150, Thailand  
 [Business focus] Manufacture and sale of petroleum resins

## Zeon Group (Non-consolidated subsidiary)

## Japan

### Zeon Chemicals Yonezawa Co., Ltd. ▲■

3-446-13 Hachimanpara, Yonezawa-shi, Yamagata 992-1128, Japan  
 [Business focus] Manufacture, processing and sale of aromatic chemicals, the middle objects of medicine and agricultural chemicals, and RIM combination liquid

### Ibaraki Zeon Kasei Co., Ltd. ●▲■

1175 Kamiizushima, bando-shi, Ibaraki 306-0654, Japan  
 [Business focus] Manufacture of processed plastic products (PVC compounds), powdered rubbers and molding products with resin sheet

### Okayama Butadiene Co., Ltd. ■

3-1-11 Nihonbashi Honcho, Chuo-ku, Tokyo 103-0023, Japan  
 [Business focus] Manufacture and sale of butadiene monomer

### ZIS Information Technology Co., Ltd. ■

Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-0005, Japan  
 [Business focus] Consulting about data processing systems; sales and maintenance of computer and office automation equipment

### Optes Inc. ▲

422-1, Futagamishin, Takaoka-shi, Toyama 933-0073, Japan  
 [Business focus] Manufacture of optical film and optical parts; design and manufacture of metallic molding

## Asia and Oceania

### Zeon (Shanghai) Co., Ltd. ■

Room 1502, Hongwell International Plaza, No.1600 Zhongshan West Road, Xuhui District, Shanghai, 200235, China  
 [Business focus] Provide assistance to and exercise control over the Zeon Corporation Group companies in China with regard to such functions as accounting, finance, personnel management, legal, etc.

### Takehara Zeon (Shanghai) Co., Ltd. ●

No. 380, Shennan Road, Zinzhuang Industry District, Minhang, Shanghai, 201108, China  
 [Business focus] Manufacture and sale of silicon rubber compounds (CM)

### Suzhou Rui Hong Electronic Chemicals Co., Ltd. ▲

No. 501, Minfeng Road, Economic Development Zone, Wuzhong District, Suzhou City, Jiangsu, 215124, China  
 [Business focus] Manufacture and sale of photoresist

### Zeon Korea Co., Ltd. ●▲

No. 403, 4Fl., 36, Teheran-ro 87-gil, Gangnam-gu, Seoul, 06164, Korea (City Air Tower, Samsong-dong)  
 [Business focus] Sales and import of optical materials, electronic materials, synthetic resins, synthetic rubbers

### Zeon CSC Corporation ▲

3rd Fl. 266, Sec. 1, Wen Hwa 2 Road, Linkou Dist., New Taipei City 24448, Taiwan, R.O.C.  
 [Business focus] Sale of optical materials

### Zeon Asia Malaysia Sdn. Bhd. ●

Unit 208, Block B, Phileo Damansara II, No. 15, Jalan 16/11, Off Jalan Damansara, 46350 Petaling Jaya, Selangor, Malaysia  
 [Business focus] Sales of synthetic latexes

### Zeon Advanced Polymix Co., Ltd. ●

591 UBCII BLDG, Office No. 2206, 22thFL, Sukhumvit 33rd, Klongton Nua, Wattana, Bangkok 10110 Thailand  
 [Business focus] Manufacture and sale of rubber compounds (CM)

### Zeon Manufacturing Vietnam Co., Ltd.

Land Lot No: IN1-6A and IN1-6B, VSIP Hai Phong Township, Industrial and Service Park, Dinh Vu-Cat Hai Economic Zone, Thuy Nguyen District, Hai Phong city, Vietnam  
 [Business focus] Manufacture and sale of packing containers

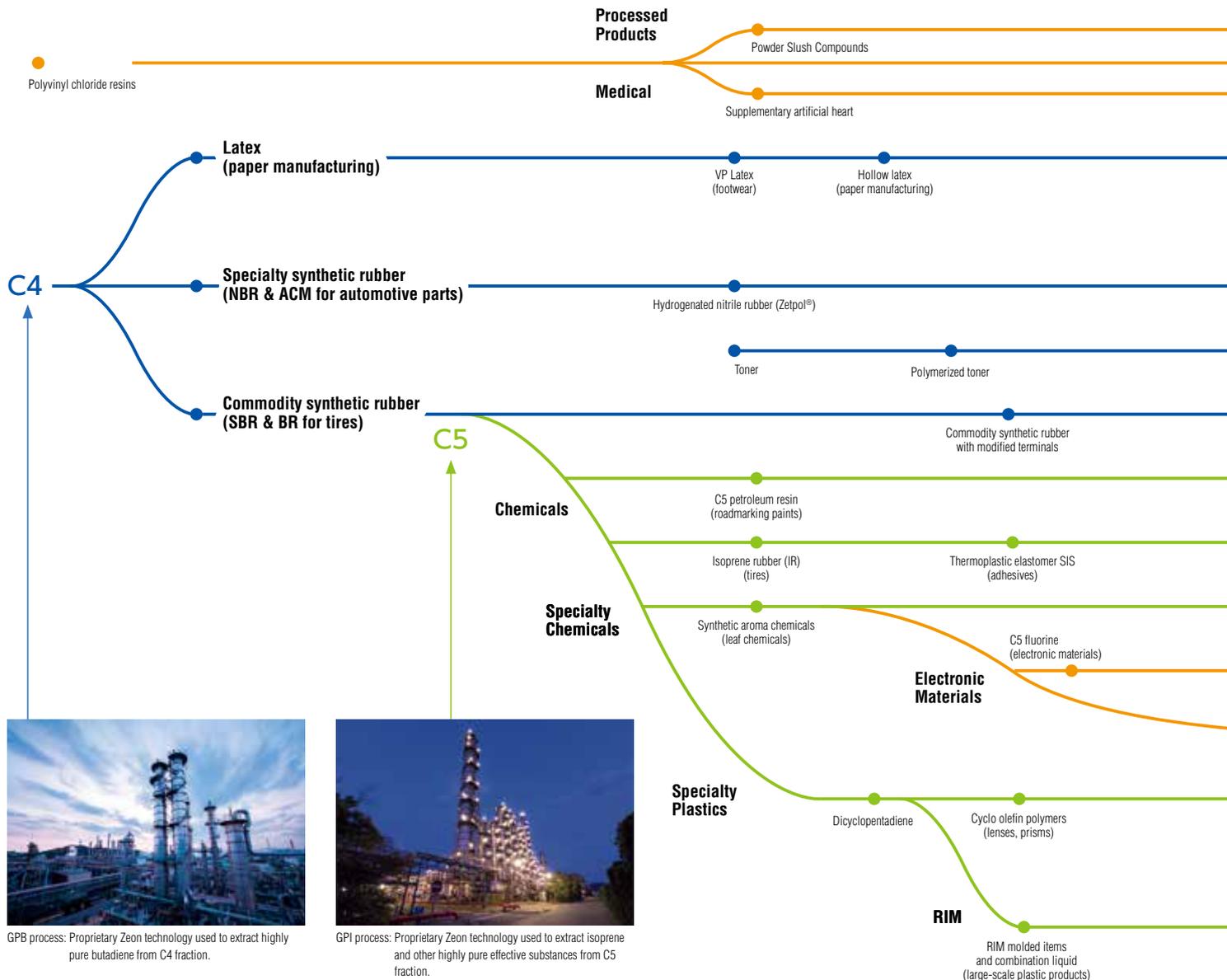
1960 >>>

1970 >>>

1980 >>>

1990 >>>

Overview of our main businesses and product development



Launched PVC and synthetic rubber production

Zeon Corporation was founded as a PVC manufacturer in 1950, established through capital from three Furukawa group companies— Furukawa Electric Co., Ltd., Yokohama Rubber Co., Ltd., and Nippon Light Metal Co., Ltd. The company acquired its PVC manufacturing technologies from BF Goodrich Chemicals Co. in the United States, which at the time was the global leader in the industry. The PVC business was the company's original business pursuit until its withdrawal from the business in 2000.

Furthermore, in 1959, Zeon acquired technologies from BF Goodrich Chemicals to start up a special synthetic rubber (NBR) plant. This was Japan's first domestic synthetic rubber plant. Following this, the company embarked on the production of styrene-butadiene rubber (SBR). Zeon thus established its synthetic rubber business, which produces synthetic rubber for tires and engine components, and which it continues to manufacture today.

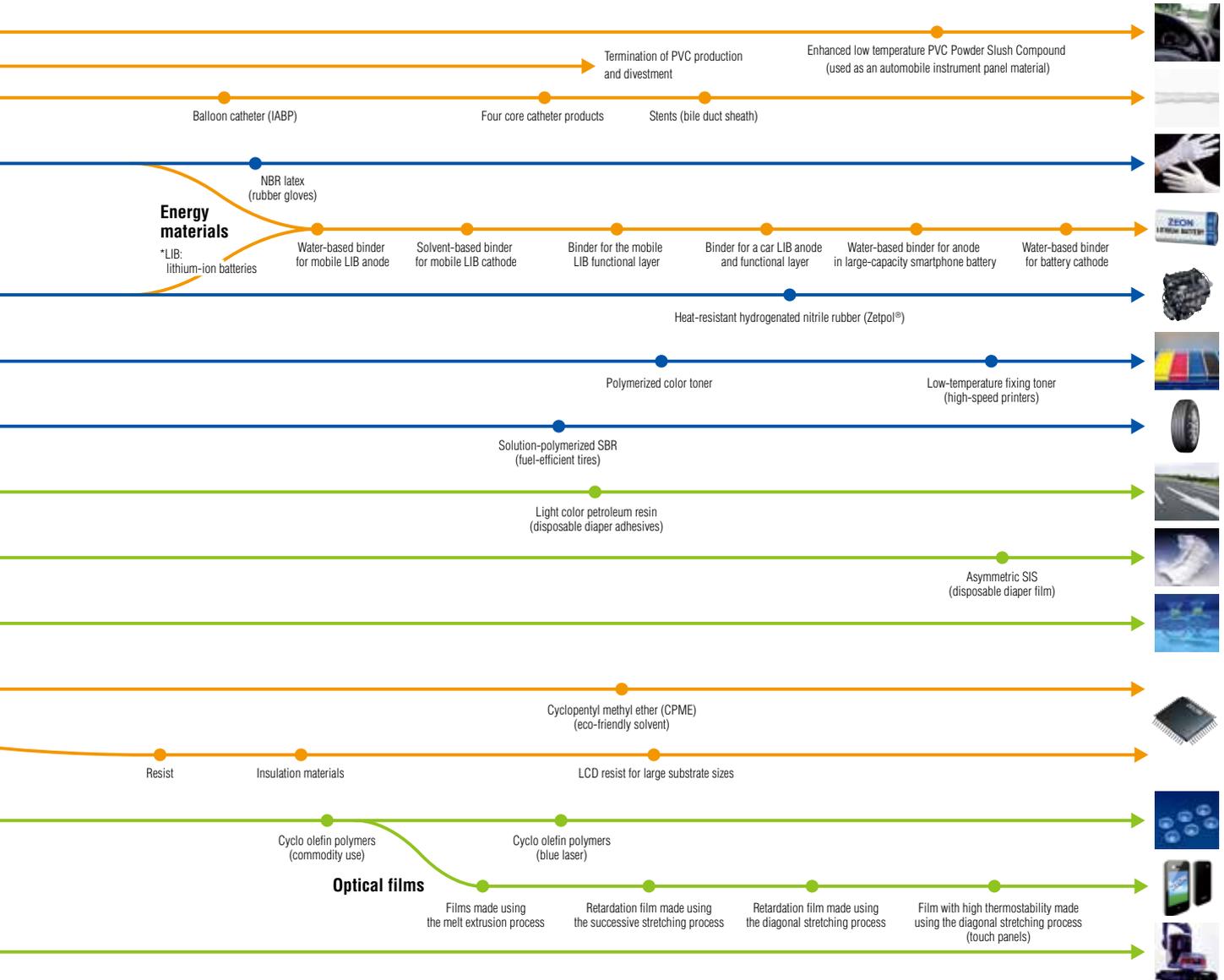
Developed proprietary GPB process and GPI process technologies that lead the world

In the petrochemical industry, which also uses crude oil as a raw material, technological capabilities are a key element impacting the competitive strength of a company. Zeon, aiming to secure butadiene, which is the raw material used for producing PVC and synthetic rubber, developed the GPB process in 1965 to efficiently extract high-grade butadiene from C4 fraction. Moreover, in 1971, the company developed the GPI process, to efficiently extract isoprene, the raw material for isoprene rubber (IR), and other useful components, from C5 fraction.

These are proprietary Zeon technologies. The company is licensing its GPB process technologies to countries around the world. This contributes substantially to the company's competitive edge and promotes the Zeon name around the world.

2000 >>>

2010 >>>



**Developing comprehensive uses for C5 fraction**

Isoprene rubber is a useful material which has the same chemical stability as natural rubber. In the process of extracting feedstock isoprene from C5 fractions, many byproducts are derived, however, the GPI process also has advanced functionality for the separation of these byproducts at a high degree of purity. Zeon has focused on the effective use of these various substances. The process was developed and applied to the production of petroleum resins and thermoplastic elastomer SIS in the 1980s, synthetic aroma chemicals and RIM molded items in the 1990s, and cyclo olefin polymers in and after 2000. As a result, we have grown to be a business that accounts for a large share of the global market. Moreover, the technologies fostered during this development process are being used in areas other than C5 fraction.

**Rolling out higher-grade materials and establishing top-notch manufacturing technologies**

In recent years, there have been calls for sophisticated products which realize energy efficiency in response to environmental problems, and similar expectations are growing for chemical materials. In the synthetic chemical business, Zeon developed a hydrogenated nitrile rubber, Zetpol®. The material achieves both low cost and high functionality and is being used in automobile engine components and other applications with strict requirements. In addition, cyclo olefin polymers, developed from a comprehensive use of C5 fraction, are high-performance materials used in optical films, such as for LCD panels and lenses, and also as a material for electrical insulating.

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ZeonorFilm, ZEOGLOBULE and STEC are trademarks of Zeon Corporation.

# ZEON

**Zeon Corporation**  
**CSR Promotion Department**

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Printed on paper made with wood from forest thinning. "Morino Chonai-Kai" (Forest Neighborhood Association) Supporting sound forest management.

