

# ZEON

Zeon Group Integrated Report 2023

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### Editorial policy

In compiling the Zeon Integrated Report 2023, we referenced the Guidance for Collaborative Value Creation issued by Japan's Ministry of Economy, Trade and Industry (METI), and also referenced the many suggestions that we had received from customers. Plans, forecasts, etc. that are disclosed in this report have been drawn up based on the currently available information, and contain some degree of risk and uncertainty. Actual performance may vary from these plans, forecasts, etc. due to a variety of factors.



### Reporting period

April 2022 to March 2023 (includes some information after April 2023)

### Reporting scope

Zeon Corporation and Zeon Group companies inside and outside Japan. Some data covers only Zeon Corporation.

### Zeon's information disclosure

The Integrated Report (this report) presents a wide range of information relating to Zeon's business activities and ESG. The Sustainability Report (available only in PDF format) contains detailed information about CSR-related initiatives. More detailed management information is available through our corporate website.

#### • Company information

<https://www.zeon.co.jp/en/company/>

Basic information on Zeon Corporation and Zeon Group

#### • IR materials

<https://www.zeon.co.jp/en/ir/library/>

Presentation material on the final results, Financial Flash Reports, Fact Book

#### • Sustainability materials

<https://www.zeon.co.jp/en/csr/>

Sustainability Report, ESG Data, Corporate Governance Report (Japanese version only)

## Corporate Philosophy = Mission

# Contributing to the preservation of the Earth and the prosperity of the human race

In keeping with its name, derived from the Greek words "geo" (Earth) and "eon" (eternity), **Zeon will contribute to a "Sustainable Earth" and "Safe and Comfortable Life for People"** by providing original technologies, products, and services.

## Sustainability Policy

- We aspire to realize a "Sustainable Earth" and "Safe and Comfortable Life"
- We will firmly maintain fairness and integrity in our activities to be a trustworthy company
- Each of us will think and act proactively for a better future

Based on our corporate philosophy of "contributing to the preservation of the Earth and the prosperity of the human race", sustainability at Zeon means achieving sustainable growth together with society. To achieve this, we will provide products and services that are valuable for solving global and social issues, build trust with our stakeholders through fairness and integrity and have each one of us act proactively thinking how to create a better future for the society and ourselves.



## Message from the Chairman



A handwritten signature in black ink that reads "Kimiaki Tanaka". The signature is fluid and cursive, with a horizontal line underneath the name.

Kimiaki Tanaka  
Chairman  
Zeon Corporation

Since our founding, we have consistently offered world-class products created using our original technologies, based on our corporate philosophy of “Contributing to the preservation of the Earth and the prosperity of the human race.” Used by customers in their manufacturing processes, our materials and technologies are transformed into many different things found all around the world that support our way of life.

We are working toward our Vision for 2030, to be “A company that lives up to societal expectations and the aspirations of employees.” We are now in Phase 2 of STAGE30, our Medium-Term Business Plan that we launched in 2021. As both climate change and global instability increase in severity, the business environment is becoming more uncertain and the pace of change more intense. To continue meeting the expectations of society and achieving growth under these conditions, it is vital that we use our strengths in original technologies to create innovations that neither imitate others nor can be imitated by others. The innovative materials and services we create through the power of chemistry can help solve some of the many social challenges that humankind is now facing. I also believe that we can achieve even greater impact by deepening our connections to society, through activities such as dialoguing with stakeholders and working together with academia.

Our name Zeon is derived from the Greek words for “geo” (Earth) and “eon” (eternity). Our name embodies the very concept of sustainability, and befitting its meaning, we will continue to carefully consider what we can do to help realize a “Sustainable Earth” and “Safe and Comfortable Life,” as defined in our Sustainability Policy.

September 2023

## Message from the President



*Tetsuya Toyoshima*

Tetsuya Toyoshima  
President and CEO  
Zeon Corporation

Tetsuya Toyoshima ● Born in Osaka Prefecture in 1963. Graduated with a master's degree from the Interdisciplinary Graduate School of Science, Osaka City University, in March 1989, and joined Zeon Corporation in April of that year. Appointed General Manager of the Precision Optics Laboratory in June 2009, General Manager of Product Technology of Specialty Plastics & Components in June 2011, Division Manager of Specialty Plastics & Components in January 2013, Corporate Officer and Division Manager of Specialty Plastics & Components in June 2015, Director of Zeon Chemicals Incorporated in June 2017, Senior Corporate Officer and Research & Development Division Manager of the Research & Development Center in June 2020, Director & Senior Corporate Officer and Research & Development Division Manager of the Research & Development Center in June 2022, and present position since June 2023.

## Contributing to the preservation of the Earth and the prosperity of the human race through innovation, together with the 4,000 employees of the Zeon Group

I joined Zeon Corporation in 1989 and was initially assigned to the Research & Development Center as a researcher, but the start of my career was not smooth sailing. I had a lot of great peers and colleagues and loved conducting experiments in the lab, but I felt out of step with my team about what was expected of me and did not really show initiative. I even thought about quitting my job.

The turning point for me came when I took advantage of an internal program that allowed employees to apply for transfers, which was uncommon at the time but offered by the Research & Development Center, where I was first assigned, and transferred to another lab. As a researcher, being able to choose the research I wanted to do and focus on it wholeheartedly was elating and I felt like I had found my place. My second turning point was when I transferred to the Tokuyama Plant. My work was hands-on as a technical staff. I did a lot of different jobs with co-workers working on the manufacturing floor. Although the work was hard, I had a strong sense of how front-line research powered our worksites, and participating in manufacturing was uplifting. I also had great bosses and co-workers, which made my time there a lot of fun. I truly believe that this time in my life led me to where I am today. My third turning point came when I was involved in launching our optical film business, which was a completely new business back then. I had been a researcher, and suddenly being put in charge of a new business was daunting, but based on my experiences so far at Zeon, I also had a hunch that it would be interesting. As it turns out, forming new businesses is deeply satisfying. This was the first of many subsequent projects I was involved in other business divisions, where I experienced first-hand how Zeon creates products that benefit the public at the front lines together with customers.

Looking back now, I almost never spent more than three years in the same workplace. After various experiences working as a researcher, as factory staff, in corporate divisions, and on overseas assignment, Zeon had developed me into the ultimate generalist. Through these experiences, I've been able to work with people from almost every plant, technical division, business division, and operating division at Zeon Corporation.

The proximity of the management team and the worksites, and the close range of everything at Zeon, gives it a compactness that creates excellent responsiveness while still having a good size. With that, the ability to leverage economies of scale is another strength of Zeon.

Our corporate philosophy states that we will contribute to the preservation of the Earth and the prosperity of the human race. Holding discussions with the management team and employees in the process of creating our new Medium-Term Business Plan reaffirmed that this corporate philosophy is truly the reason for Zeon's existence. Now that I am leading Zeon Corporation as president, our aspirations to contribute to the Earth's sustainability and safety and comfort in people's lives that underpin our corporate philosophy have renewed weight for me. Altruistic thinking, involving oneself in activities that directly help others, is as true for an individual as it is for a company, and I believe that acting with altruism will lead to happiness for everyone.

For me, making contributions is about sparking innovation. The mission of the president is to spark innovation originating from Zeon, and the role of the president is to create the systems and company culture that spark innovation and to develop people who will spark innovation. I will first set about doing this by changing stereotypes.

At the same time, I will always keep in mind that I am only one of approximately 4,000 employees of the Zeon Group and therefore what I can accomplish alone is small. As president, I intend to think about what contributions I can make to the preservation of the Earth and the prosperity of the human race together with all employees.

**Contributions =**  
Spark innovation in society

**Mission =**  
Spark innovation originating from Zeon

**Role =**  
Create the systems and company culture that spark innovation. Develop people who will be the spark

## Zeon Group strengths in raw materials using C<sub>4</sub> and C<sub>5</sub> fractions, future issues, and mitigation strategies

The source of Zeon's corporate value comes from raw materials extracted from C<sub>4</sub> and C<sub>5</sub> fractions using proprietary technologies and the combination of conceptual frameworks for fully using extracted components and byproducts, exemplified by our comprehensive use of C<sub>5</sub> fractions, and the technologies to accomplish this.

The C<sub>4</sub> and C<sub>5</sub> fractions left over in the process of separating gasoline and other useful substances from naphtha are not commonly used as raw materials. If we can create valuable materials from them, being able to create raw materials from C<sub>4</sub> and C<sub>5</sub> fractions gives us a competitive advantage. This is our first strength. We have a wide range of technologies that we have improved upon to fully use these raw materials without waste. This is our second strength. Zeon has many other strengths as well, but these two are what make the others possible.

That said, C<sub>4</sub> and C<sub>5</sub> fractions are derived from fossil fuels. As fossil fuel-derived raw materials are the target of increasing criticism in society, the sustainability of using C<sub>4</sub> and C<sub>5</sub> fractions as raw materials will be called into question. Going forward, our greatest challenge will be alleviating the concerns that society has about fossil fuel-derived raw materials while maintaining the competitive advantage we have built.

Facing this challenge, we aim to make our business sustainable by switching specialty products in our portfolio to use raw materials that are recycled or derived from non-fossil fuel sources. For example, Cyclo Olefin Polymer (COP) is an attractive product that is a driver of growth at Zeon, but it is made from fossil fuel-derived raw materials. Manufacturing all COP from raw materials not derived from fossil fuels would increase costs if done today. We are therefore driving creation of a loop where we recycle COP products and supplement only the shortfall in yield with raw materials not derived from fossil fuels—in other words, creation of a circular economy.

As we switch to using raw materials not derived from fossil fuels, we can take advantage of technologies to

extract C<sub>4</sub> and C<sub>5</sub> fractions that we have developed over many years. For example, if we can extract C<sub>4</sub> and C<sub>5</sub> fractions from biomass resources that absorb carbon dioxide through their own growth process, it will enable development of carbon neutral materials and products. We will take our strengths we have built up so far and deploy them for this new mission in society.

How to reconfigure the mix of growth products and commodified products in our business portfolio based on the business life cycle approach, and how to guide innovative new products and businesses to a growth track, are key points. It may sound like a platitude, but we in management are expected to chart the course navigating these major challenges. There are other options apart from creating a recycling system, such as changing the business direction and carve-outs. We will pursue these after holding dialogue with our stakeholders and creating a sufficient level of mutual understanding.

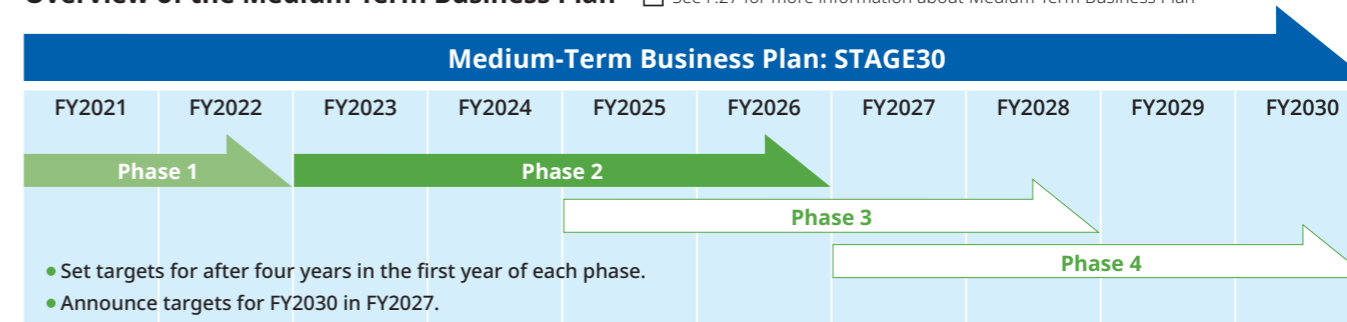
Furthermore, creating company systems and the company culture to bring about innovation is also a major challenge. The foundation for the conceptual frameworks for fully using extracted components and byproducts, as exemplified by our comprehensive use of C<sub>5</sub> fractions, and the technologies to accomplish this that I just mentioned is none other than a company culture that sparks “chemical reactions” between people.

At Zeon, we place value on three principles of conduct: trying things, making connections, and making enhancements. I intend to nurture these principles in our company culture. Making connections is especially key to developing new products and all kinds of technologies related to them. Making connections gives rise to ideas. Specifically, through initiatives to accelerate research and development, including combining knowledge by sharing our internal technology assets and promoting open innovation (moving away from doing everything ourselves), we will continuously enhance our proprietary technologies and create new ones.

See P.45 for more information about Zeon's R&D strategy

## FY2022 performance and the Medium-Term Business Plan —Focus on quantifying targets

Overview of the Medium-Term Business Plan See P.27 for more information about Medium-Term Business Plan



Looking back at the management environment in fiscal 2022, the cost of fossil fuels and other goods surged, the economic environment deteriorated as a result, and the yen experienced extreme depreciation. These and other factors made the last year one of incredible uncertainty not only for Zeon but for companies around the world.

In this situation, we paid close attention to market information and implemented a pricing strategy and supply chain management. While we achieved record-high sales, our operating profit and ROIC were negative year on year.

Starting in fiscal 2023, we are entering the second of four phases in STAGE30, our Medium-Term Business Plan with the target year of fiscal 2030. The current second phase is vital to achieving our 2030 targets, and as such, we have created a plan that includes robust KPI management. In the current business environment, companies need to focus on expectations for SDG contributions and the future uncertainty. These two factors have not changed since the first phase of the Medium-Term Business Plan and are only growing in importance. In such an environment, our corporate philosophy and our vision for 2030 serve as our guiding compass that shows us the direction forward. Conversely, in an era of fast-paced change and uncertainty, flexibly adjusting our activities to achieve our targets is also important. This is why we are quantifying our targets for each phase every four years. Along with this, we are developing two-year rolling plans to quickly course-correct based on the conditions at the time to ensure that we achieve our fiscal 2030 targets. Zeon has many

products that can contribute to the SDGs. I am confident that delivering products and services that will help resolve challenges in society will lead to growth for Zeon, and this growth will create more power at Zeon to resolve challenges in society.

The first phase of our plan, from fiscal 2021 to fiscal 2022, was positioned as our running start, where we considered specific activities to achieve our fiscal 2030 targets, and we did not set specific medium-term target values. Just because we did not have target values, however, does not mean that we were satisfied with the status quo. We pushed ahead with various initiatives, and as a result, we reduced our CO<sub>2</sub> emissions by approximately 11%, achieved an ROIC of 6.6% in our existing businesses, increased sales in new businesses by 2.1 billion yen over fiscal 2019, recorded employee engagement of 48%, and reached a 7% ratio of non-Japanese employees and women executives.

Our target values for fiscal 2030 have not changed in the second phase of our plan. Nor have our three Group-wide strategies. What has changed from the first phase is the addition of “Polish up’ the management base” as a new, fourth Group-wide strategy. Building mutual trust with stakeholders will be vital in order to accurately grasp and meet the expectations of society going forward. To build this trust, our directors must have diverse skills and conduct decision-making with transparency. This could also be considered the mission that Prime Market-listed companies are expected to fulfill. Making the appropriate management determinations will increase our ability to achieve our first three Group-wide strategies.

Strategies and targets (KPIs) of the Medium-Term Business Plan

See P.27 for more information about Medium-Term Business Plan

	Strategies	Targets for FY2026	Targets for FY2030
1	Promote a transformation of <i>monozukuri</i> (manufacturing) to realize carbon neutrality and a circular economy	Ratio of reduction in CO <sub>2</sub> emissions*: <b>29%</b> (compared to FY2019 levels) *Zeon Corporation's Scope 1+2 emissions	<b>50% reduction in CO<sub>2</sub> emissions*</b> (compared to FY2019 levels) *Zeon Corporation's Scope 1+2 emissions
2	"Polish up" existing businesses	Lost time accidents: <b>0</b>	Sales ratio of products that contribute to the SDGs*: <b>40%</b> *tentative name
	"Explore" new businesses	Labor productivity indicator Consolidated operating income per person: <b>11 million yen</b>	Sales ratio of products that contribute to the SDGs*: <b>50%</b> *tentative name
3	Work together to create "stages" to be active on	Net sales indicator: COP: <b>210</b> Battery materials: <b>590</b> (FY2019 as 100)	ROIC for existing businesses: <b>9%</b>
		Net sales of new business: <b>16 billion yen</b>	External collaboration/ Customer themes: <b>10</b> (FY2023-2026 cumulative total)
4	New "Polish up" the management base	Engagement survey item/ Employee engagement: <b>56%</b>	ROIC for existing businesses: <b>9%</b>
		Engagement survey item/ Environment maximizing employee potential: <b>55%</b>	Net sales of new business: <b>+60 billion yen</b> (compared to FY2019)
		ZEON Healthy Behavior Indicator: <b>65%</b>	Employee engagement: <b>75%</b>
		Paid leave utilization rate: <b>70%</b>	
		Ratio of foreign-national and female directors and officers: <b>25%</b>	Ratio of foreign-national and female directors and officers: <b>30%</b>
		Ratio of outside directors and officers: <b>Majority</b>	
		Ratio of female managers: <b>12%</b>	
		Cross-shareholdings as ratio of net assets: <b>Less than 15%</b>	

So then, what specifically are we planning to do? First, regarding executive compensation, we have introduced a stock compensation system linked to the target values in our Medium-Term Business Plan. These targets include not only financial indicators but also ESG and other non-financial indicators. In addition, we are appointing non-Japanese and women executives as well as increasing our ratio of outside executives to create a highly diverse and independent executive team. At the general shareholders meeting in June 2023, we invited two outside women directors to join our Board. These powerful allies bring with them skills that have been lacking at Zeon, and I look forward to them further enhancing our sustainability management. We have also set the target of reducing cross-shareholdings to effectively use resources, which is one aspect of our management foundation. We need to bring in diverse ways of thinking in order to sustainably maintain an advanced management foundation. We have therefore set target ratios for women managers and will also focus on developing future management human resources.

The roles of the Chairman and President are divided so that the Chairman is responsible for governance and human resources, and the President is responsible for creating and executing business policy. Our work spheres are not completely separate, however. I plan to exchange opinions from various perspectives with the Chairman while making decisions.

The IR & SR office was established in fiscal 2021 under the Director & Senior Corporate Officer for Administration to better engage in communication with shareholders and investors. The office makes it easier to deliver input from capital markets to our management team, and regular communication with market participants is also robustly reflected in the second phase of our plan. Going forward, we will implement measures to achieve our targets and manage progress toward the quantified targets, and through this increase our ability to achieve our fiscal 2030 target values.

See P.27 for more information about Zeon's Medium-Term Business Plan  
See P.51 for more information about Zeon's HR strategy  
See P.71 for more information about Zeon's corporate governance

Financial strategy

Starting from the second phase of our plan, we are communicating our financial strategy in detail, which is a first for Zeon. Presenting to our stakeholders how we plan to implement fiscal control aimed at future growth and how much progress we are making toward it will increase understanding for Zeon.

From the second phase, we are actively expanding our new investments, research and development, and stakeholder returns to fortify our businesses and expand new businesses. From fiscal 2023 to 2026, we are cumulatively making investments worth approximately 220 billion yen, including 170 billion yen in new investments and 50 billion yen in sustainment investments, as new investments in new businesses and differentiated products including COP and battery

materials. We plan to sell cross-shareholdings and use interest-bearing debt to raise the capital. Additionally, with the sale of cross-shareholdings, we aim to keep the ratio of cross-shareholdings to net asset under 15% as of 2026. That is not our end goal, and we plan to drive this lower looking to 2030.

Our debt-to-equity ratio is expected to increase due to procuring interest-bearing debt as part of our future investment plans, but we intend to maintain an optimum level of 0.3 or lower.

This will allow us to keep our single-A rating, which will minimize borrowing costs as we strive to increase our corporate value in the medium- to long-term.

See P.35 for more information about Zeon's financial strategy

Sustainability initiatives and assessment of materiality

With our corporate philosophy of contributing to the Earth's sustainability and safety and comfort in people's lives as our mission, we have conducted business activities to make these contributions through our products and services created with proprietary technologies. Our corporate philosophy encompasses the concept of sustainability.

We have established a Group-wide strategy under our vision for 2030, which is to be "A company that lives up to societal expectations and the aspirations of employees." We aim to achieve this vision by working toward the SDGs, in other words, through sustainability management.

We are currently clarifying materiality that serves as the foundation of our sustainability management to realize sustainable growth for Zeon and society. Specifying materiality is like saying what the important issues are in your company. These are not set from the top down, but instead must be expressed in such a way that everyone at Zeon can agree with them. We launched a Group-wide cross-functional project to do this in April 2023. We will assess materiality based on

internal and external trends while incorporating input from our management team and internal feedback. Creating an open assessment process internally and holding discussions are essential. Materiality facilitates greater organic linkage of the activities in our Medium-Term Business Plan and indicators, and will become a major driver for achieving our 2030 targets and further sustainability.

Innovation is key to fulfilling the expectations of society. We believe that the innovative materials and services created by the power of chemistry have the ability to resolve social challenges and fundamentally change the future of the planet and the human race.

It is people that will create this innovation. Innovation is not sparked by only select geniuses. All anyone needs is motivation, an idea, and to take action to make innovation possible. Our HR strategy is to get all employees to create "stages" that allow every employee to demonstrate their talents. With employee motivation as the driver of innovation, we will act with integrity and intention toward realizing sustainability in society.

## 2022–2023 Topics

### 1 Carbon Neutrality

We have started a number of initiatives aimed at shifting our manufacturing to realize carbon neutrality and a circular economy.

#### 1) Energy conversion in plants in Japan

##### Himifutagami Plant

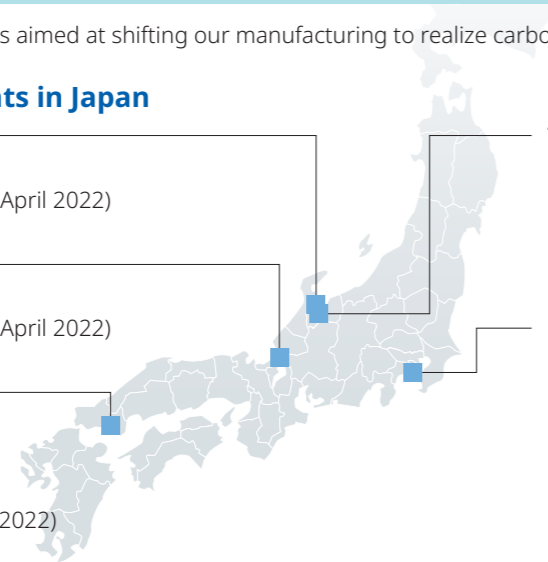
Purchased electric power:  
100% renewable energy (from April 2022)

##### Tsuruga Plant

Purchased electric power:  
100% renewable energy (from April 2022)

##### Tokuyama Plant

Purchased electric power:  
100% renewable energy  
Steam: Purchase of Renewable  
Energy Certificates (from April 2022)



##### Takaoka Plant

Purchased electric power:  
100% renewable energy  
Purchasing of carbon neutral  
LNG (from April 2022)

##### Kawasaki Plant

Purchasing of carbon neutral  
LNG (from August 2022)

#### 2) Major initiatives in communities

- Participating in the Blue Carbon Project of offset credits to support preservation of the Oshima tidal flats (Shunan City) and reduce CO<sub>2</sub> emissions
- Endorsed participation in a global project aiming to achieve carbon neutrality in an industrial area of Kawasaki City
- Jointly proposing the “Basic Study on the Establishment of Ammonia Supply Center at the Shunan Industrial Complex” together with Idemitsu Kosan Co., Ltd., Tosoh Corporation, and Tokuyama Corporation

#### 3) Internal carbon pricing program

- Adopted an internal carbon pricing program in May 2022, where CO<sub>2</sub> emissions are converted into an expense at a level we set and used as a guide in determining environment-related investments

#### 4) Selected for NEDO Green Innovation Fund Projects

- Development of manufacturing technology using carbon recycling for commodity chemicals used in synthetic rubber
- Development of photonic chips for higher performance, energy-saving non-volatile memory
- MATSURI Project aimed at building an industry based on direct use of CO<sub>2</sub> through algae photosynthesis

### 2 Investment, Collaboration, and M&A

● Investees/collaboration partners ■ Acquirees

We are accelerating efforts to create new business in four key areas as stated in our Medium-Term Business Plan: STAGE30.

#### CASE and MaaS

##### ● AM Batteries

U.S.-based startup developing innovative electrode manufacturing processes for lithium-ion batteries

trophic lateral sclerosis (ALS) and other intractable motor neuron diseases

#### Healthcare and Life Science

##### ■ Aurora Microplates, LLC

**Aurora Microplates**  
U.S.-based company that manufactures and sells microplates made from Cyclo Olefin Polymers (COP), which is used in biochemical analysis

##### ■ Edge Precision Manufacturing, Inc.

**Edge Precision Manufacturing**  
U.S.-based company that manufactures and sells microfluidic device prototypes for the healthcare and life sciences markets, with high resolution and high aspect ratio based on proprietary compression molding technology

##### ● Jiksak Bioengineering, Inc.

R&D startup aiming to create a world that can treat amyotrophic lateral sclerosis (ALS) and other intractable motor neuron diseases

#### Telecommunications (5G/6G)

##### ● QunaSys Inc.

Startup engaged in software development for quantum computers

##### ● Aidemy Inc.

Company listed in the Growth Market of the Tokyo Stock Exchange that offers Aidemy Business, an e-learning service for companies to develop DX human resources, and Modeloy, a service supporting operations after AI system development

#### Energy Conservation

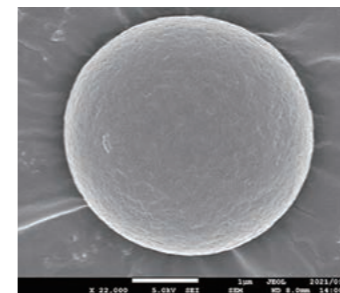
##### ● Visolis, Inc.

U.S.-based startup offering carbon-neutral materials using proprietary approaches that combine biology and chemistry and integrate the capabilities of each

### 3 New Product Development

#### 1) Hollow particles

We have developed new heat-resistant and pressure-resistant micro hollow particles. The white particles have a particle diameter of 2–20 micrometers and porosity that can be controlled 60–80%.



#### 3 features

- ① Shape retention: The polymer itself is heat resistant, pressure resistant, and solvent resistant, enabling retention of its hollow shape even under various molding techniques and in thermosetting resin
- ② Small particles with sharp particle size distribution: The particle diameter of 2–20 micrometers can be controlled. Sharp particle size distribution
- ③ Low density: Hollow layer with porosity of 60–80% can be controlled. The shell is resin, giving it lower density than inorganic materials

#### Anticipated applications

In addition to helping make various structural materials lighter, applications are projected for ducts, hoses, building materials, and other insulating and heat-retaining materials. The hollow shape can be retained even in thermosetting resin, enabling additive resins to have reduced dielectric and reduced dielectric tangent. The material is anticipated to be used in electronic circuit boards and millimeter wave radar circuit boards, where low dielectric properties are required.

#### 2) Highly reliable multi-material adhesive

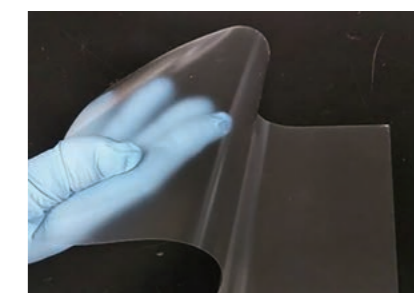
The highly reliable multi-material adhesive we have developed can bond dissimilar materials together and readily peels off with the addition of heat (making it easy to separate materials for recycling). These properties make it an essential material and technology for next-generation mobility.

#### 5 features

- ① Multi-material adhesion: Able to bond diverse materials and dissimilar materials
- ② Water resistance: Low moisture absorption, not hydrolytic
- ③ Electrolytic corrosion resistance: Excellent insulation, low absorbency
- ④ Impact resistance: Excellent flexibility and elongation
- ⑤ Easy to disassemble: Excellent recyclability

#### Anticipated applications

Structural and semi-structural adhesive for mobility/motor insulation film/high-frequency circuit board material



### News Releases

We publish various news releases on our website.

<https://www.zeon.co.jp/en/news/>

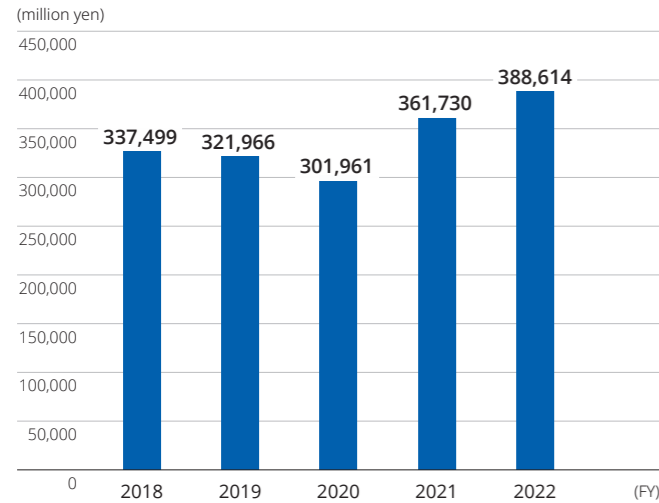
#### From news releases published between April 2022 and June 2023

- Establishment of Sustainability Policy (July 1, 2022)
- Expansion of production line for leaf alcohol at Mizushima Plant, completion ceremony held (July 22, 2022)
- Removed clothing requirement from head office locations (October 12, 2022)
- Completed construction of Integrated Production Center at Takaoka Plant (October 18, 2022)
- Decision to increase Hydrogenated Nitrile Rubber production capacity in the United States (November 30, 2022)
- Received the nano tech 2023 Grand Award (February 7, 2023)
- Zeon Corporation and Nagoya University receive two awards for development of tough functionalized styrenic thermoplastic elastomers (May 12, 2023)

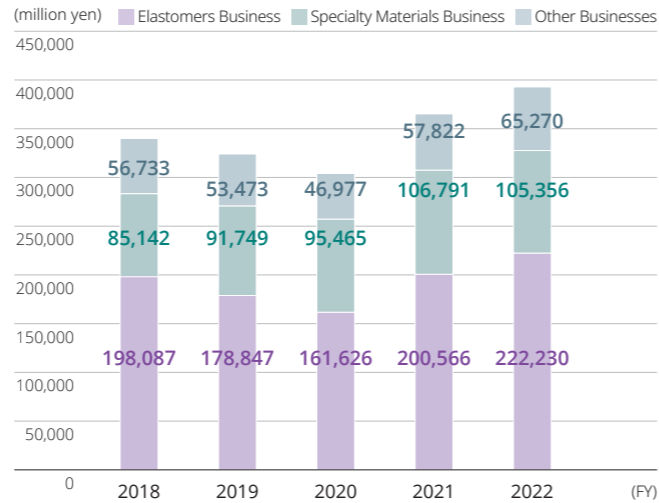


# Financial and Non-financial Highlights

## Consolidated net sales

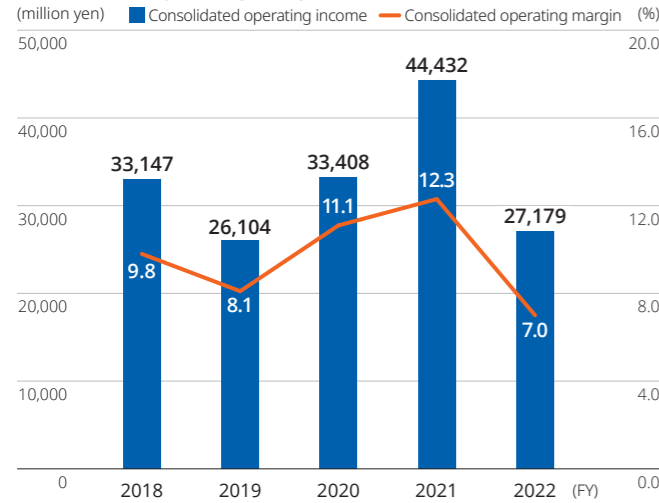


## Segment net sales (consolidated)

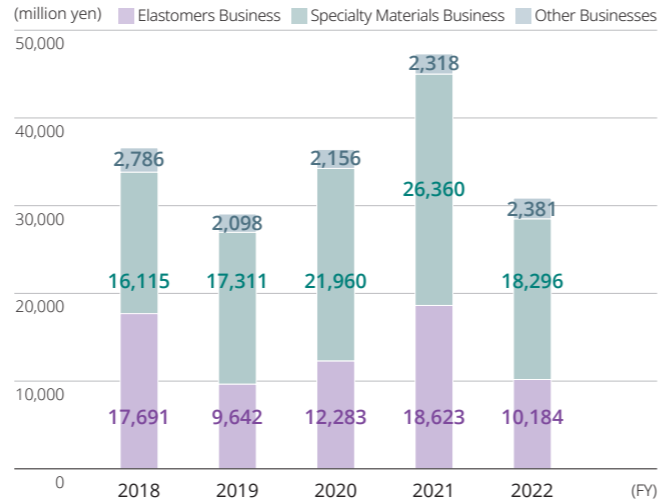


\* Please note that the sum of the sales of individual businesses may not be the same as total consolidated sales due to eliminations or not including the group-wide portion.

## Consolidated operating income and consolidated operating margin

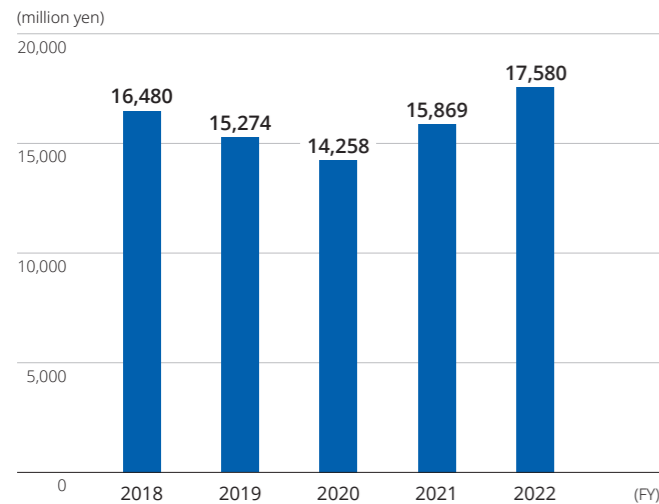


## Segment operating income (consolidated)

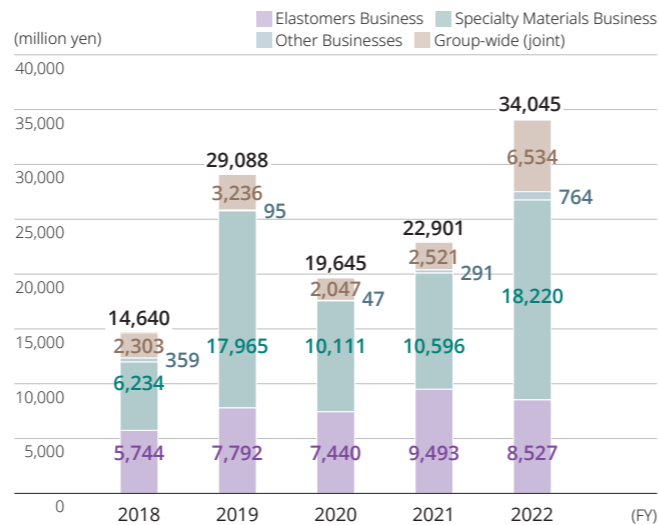


\* Please note that the sum of the operating income of individual businesses may not be the same as total consolidated operating income due to eliminations or not including the group-wide portion.

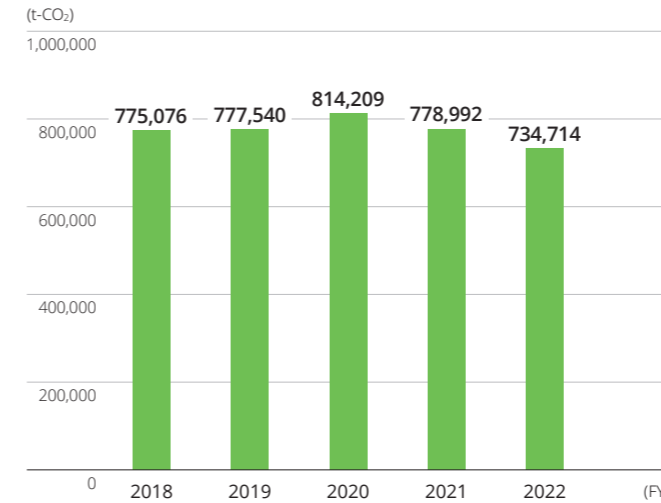
## R&D expenses (consolidated)



## Capital investment by business (consolidated)

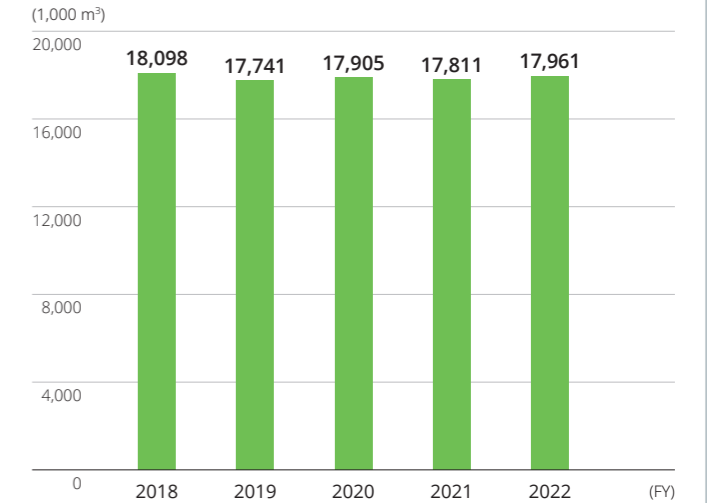


## CO<sub>2</sub> emissions (Non-consolidated, Scope 1+2, estimation based on the GHG Protocol standards)



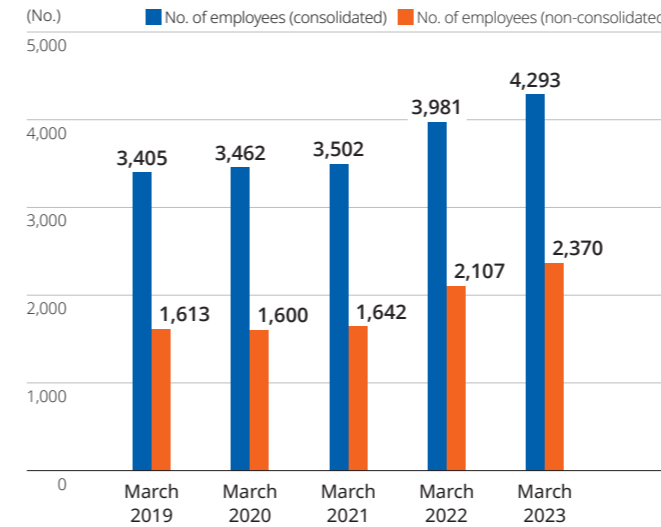
\* CO<sub>2</sub> emissions of Himifutagami Plant and Tsuruga Plant, which had previously been subsidiaries and were incorporated into Zeon Corporation in FY2021 have been added to Zeon Corporation's non-consolidated total for the year FY2019 onwards (because the 2030 target is based on FY2019 and includes the above two plants). Due to changes in the calculation method that have been made in FY2022, some of the past emission volume recorded in last year's report have been adjusted.

## Water resource usage (non-consolidated)

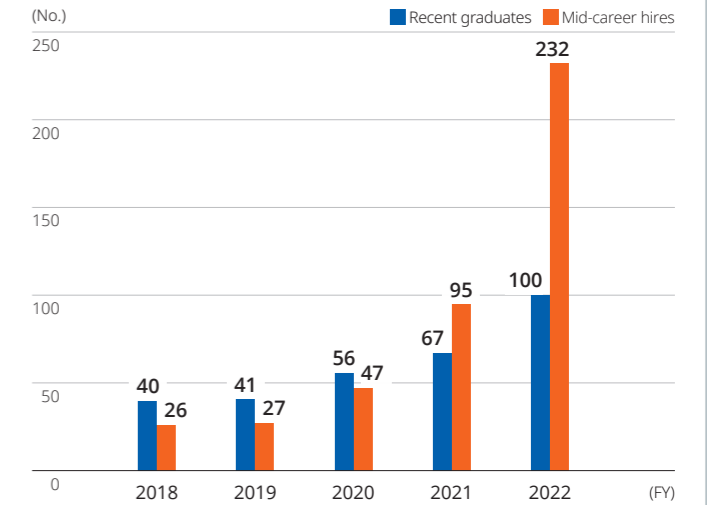


\* Performance of group companies is disclosed on their individual site reports.

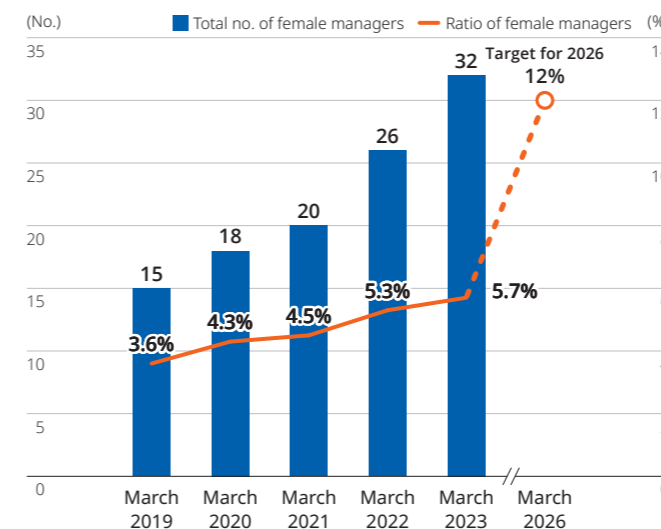
## Number of employees (consolidated/non-consolidated)



## Number of new hires (non-consolidated)



## Ratio and number of female managers (non-consolidated)



## Human capital data for FY2022

### Employee engagement survey results

Employee engagement	48%
Environment for motivating employees	46%

### Wage disparities between male and female employees

Regular employment	78.2%
Non-regular employment	64.6%
Company-wide	74.2%

Share of male employees taking childcare leave: 53%



# Company Profile

**Name:** Zeon Corporation

**Established:** April 12, 1950

**Capital:** 24.211 billion yen (as of March 31, 2023)

**Employees:** 4,293 (consolidated),  
2,370 (non-consolidated)  
(as of March 31, 2023)

**Listed on:** Tokyo Stock Exchange (Prime Market)

**Business segments:** Elastomers Business, Specialty Materials Business, Other Businesses  
For more details about Zeon's businesses, please see P.37 "Business Strategy."

**Head office:** Shin Marunouchi Center Building, 1-6-2 Marunouchi, Chiyoda-ku, Tokyo 100-8246, Japan

**Research laboratories:** Research & Development Center

**Offices:** Osaka Office, Nagoya Office

**Plants:** Takaoka Plant, Kawasaki Plant, Mizushima Plant, Tokuyama Plant, Himifutagami Plant, Tsuruga Plant

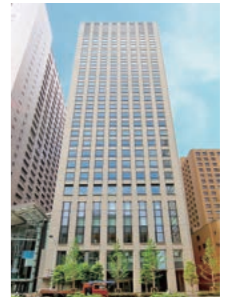
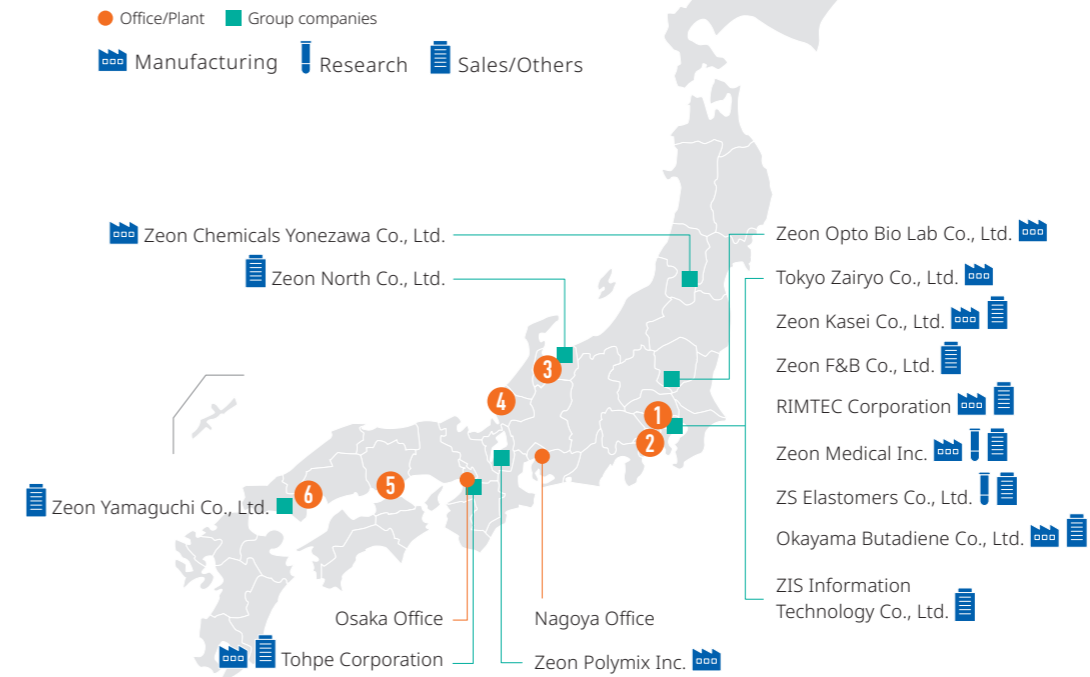


GPI Plant (Mizushima Plant)



Integrated Production Center (Takaoka Plant)

## Network in Japan



1 Head office



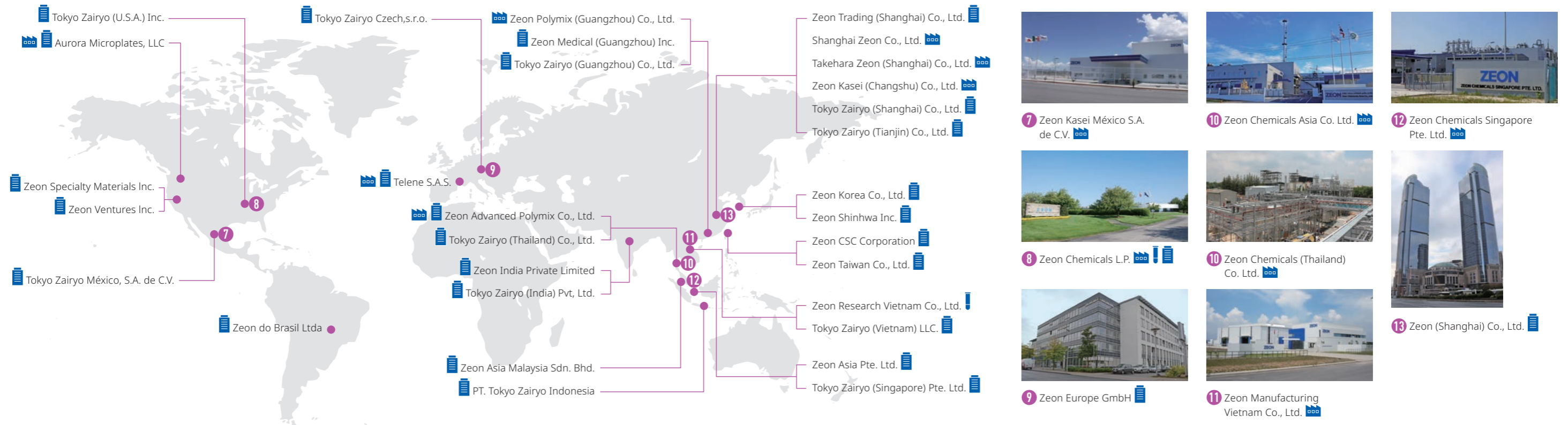
2 Research & Development Center/Kawasaki Plant  
Synthetic rubbers, synthetic latexes, battery materials



3 Takaoka Plant  
Synthetic rubbers, electronics materials, COP

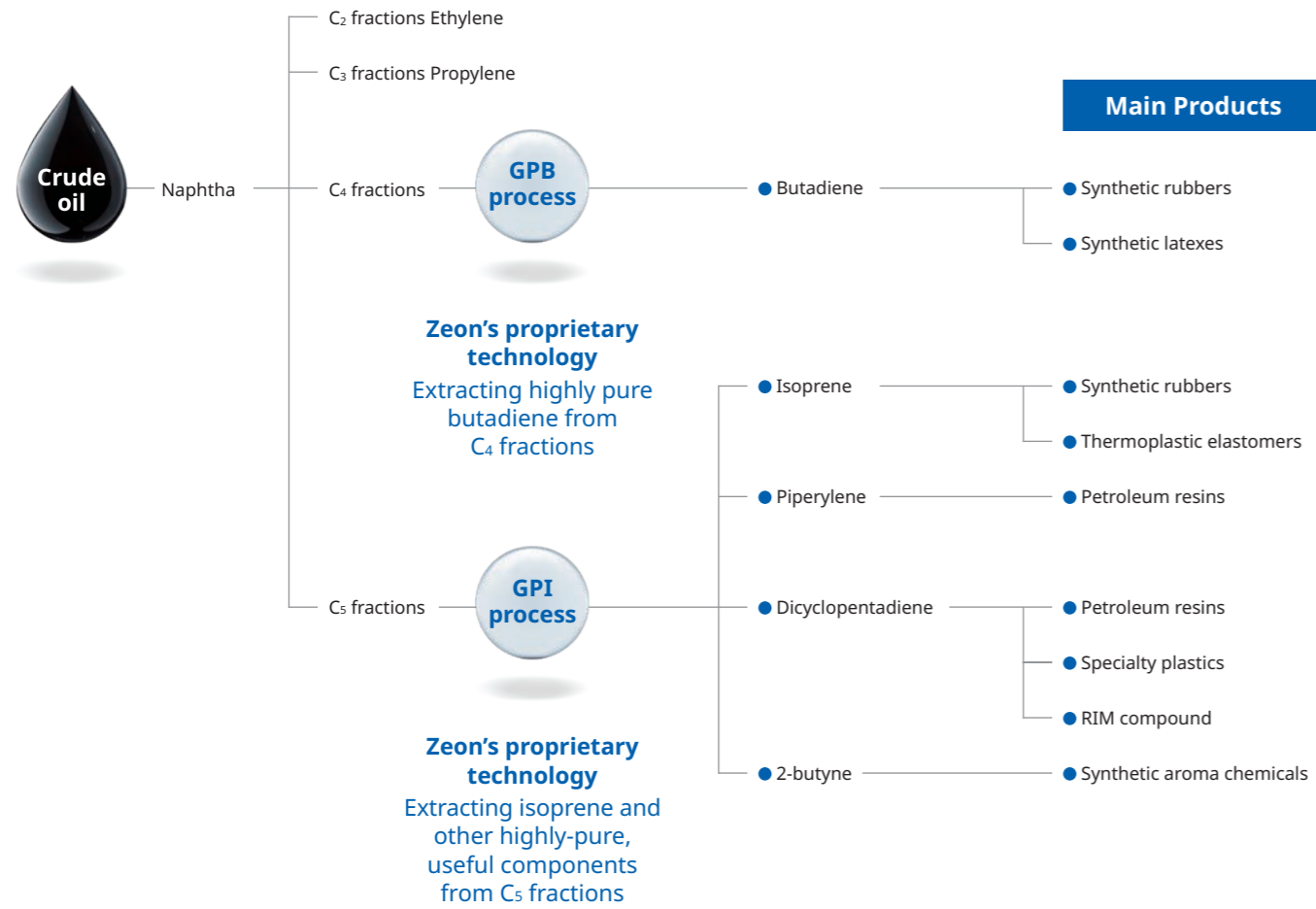
## Network outside Japan (Group companies)

Manufacturing (Blue factory icon), Research (Blue test tube icon), Sales/Others (Blue building icon)



# Business Overview

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



## Product photos



Synthetic rubbers



Synthetic latexes



Petroleum resins



Cyclo Olefin Polymers (COP)



Optical films



Carbon nanotube powder

## Product Applications

### Elastomers Business

In 1959, Zeon became the first company in Japan to mass-produce synthetic rubbers. Comprising three individual businesses—Synthetic Rubber, Synthetic Latex and Chemicals—the Elastomers Business is a solid core business that underpins Zeon's activities.

#### Synthetic rubbers

General-purpose synthetic rubber is used as a raw material for tires. Specialty synthetic rubbers are used for heat-resistant, oil-resistant rubber components that will be in close proximity to an engine.



#### Synthetic latexes

Synthetic latexes are used for gloves (for sanitary and medical use), cosmetic puffs, etc.



#### Chemicals

C<sub>5</sub> petroleum resins and thermoplastic elastomers are used as raw materials for manufacturing adhesives and adhesive tape.



### Specialty Materials Business

Specialty materials are materials and components with high added value thanks to superior macromolecular design and processing technology.

#### Specialty plastics (COP)

Cyclo Olefin Polymers (COP) are used as a material for making optical lenses and medical devices.



#### Specialty chemicals

Synthetic fragrances are used in cosmetic/fragrance products, as well as for food fragrances, etc. We also produce raw materials for pharmaceuticals and agrochemicals, specialty solvents, etc.



#### Optical Films

Film made from COP by extrusion is used as a material in large-sized LCD displays and in mobile device displays.



#### Electronics materials

Coating insulation materials, etching agents and photoresists, etc., for use in semiconductor manufacturing



#### Battery materials

Cathode binders, anode binders and functional layer materials for lithium-ion batteries, etc.



#### Polymerized toner

Electro photographic toner for use with printers, fax machines, digital copiers, and multifunction devices

#### Medical devices

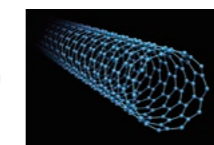
Gastrointestinal medical equipment (catheters, stents, etc.) and cardiovascular medical equipment (FFR devices, IABP balloon catheters, etc.)

### Other Businesses

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

#### Carbon nanotubes

Carbon nanotubes produced using the Super Growth Method. R&D is undertaken in relation to various types of applications for carbon nanotubes, making effective use of their special properties, which include lightness and high strength as well as extremely high levels of electrical and thermal conductivity.



#### Construction materials

Zeon Siding™ is a siding material for external walls which is ideal for both detached houses and apartments (new-build or renovation). Sandam™ sound insulation board provides outstanding soundproofing performance while also making construction easier to complete.



# Driving Value with Technologies

Since our founding, we have focused on creating unique technologies and deploying them in product development. We continue to create unique technologies while meeting the changing needs of the times.

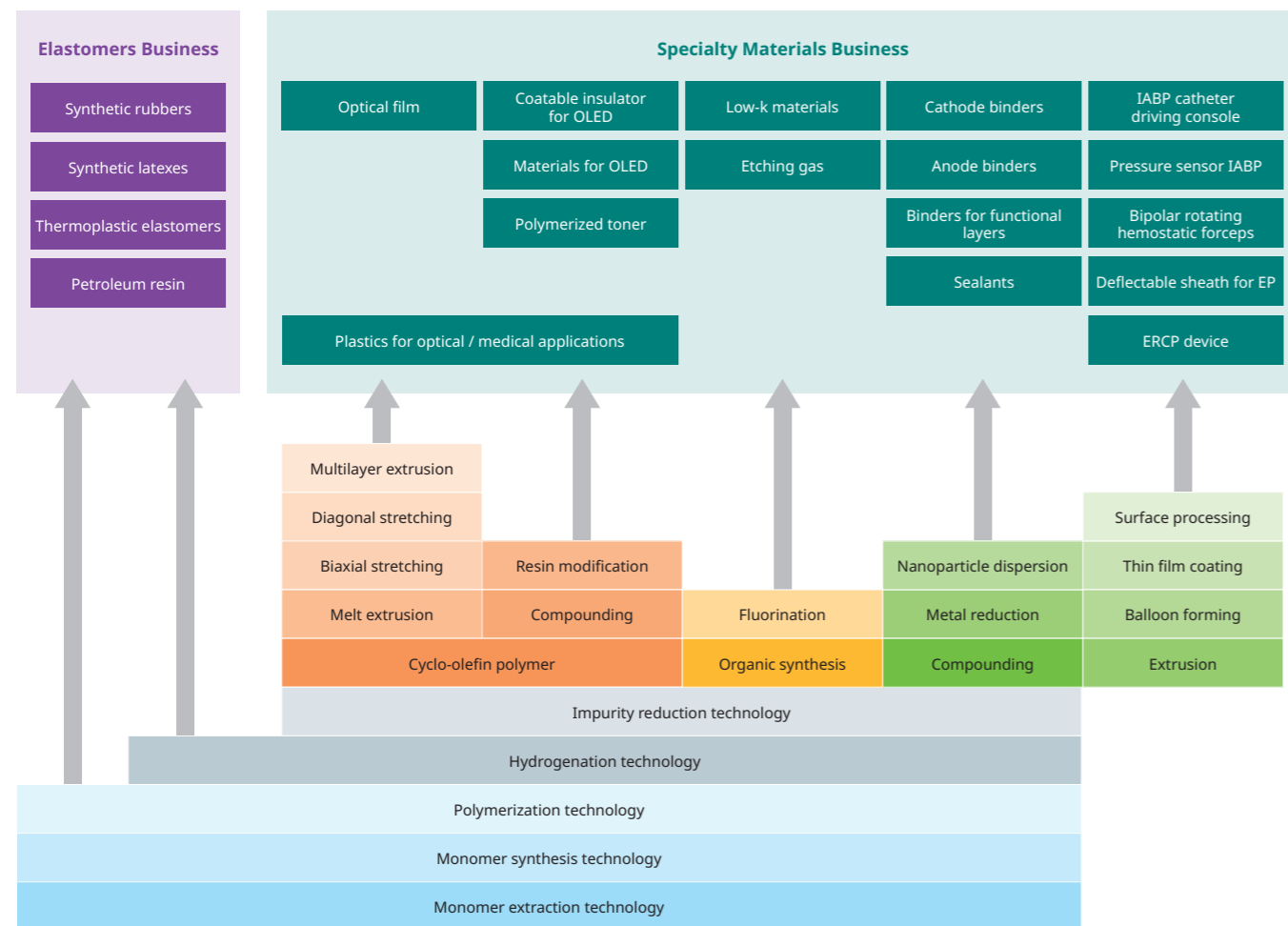
## Wide-Ranging Business Development Based on Core, Basic, and Unique Technologies

Based on monomer extraction technology such as GPB process used to extract highly pure butadiene monomer (raw material of synthetic rubber) from C<sub>4</sub> fractions of naphtha as well as GPI process used to extract isoprene monomer and many other useful components from C<sub>5</sub> fractions, we have developed core technologies including for monomer synthesis, polymerization, hydrogenation, and impurity reduction. We have also created various unique technologies in line with the ongoing expansion of our business.

Our core technologies target business applications and have made our broad, Group-wide expansion possible. Many outstanding products spanning hydrogenated nitrile rubber, Cyclo Olefin Polymer, optical films, and lithium-ion battery binders represent the culmination of these unique technologies.

We will strive to increase the efficiency of our research and development and create new technologies that enable us to continue offering timely new products that benefit society and meet real needs.

### Core technologies and products



## Examples of Value Creation ▶ Optical Films

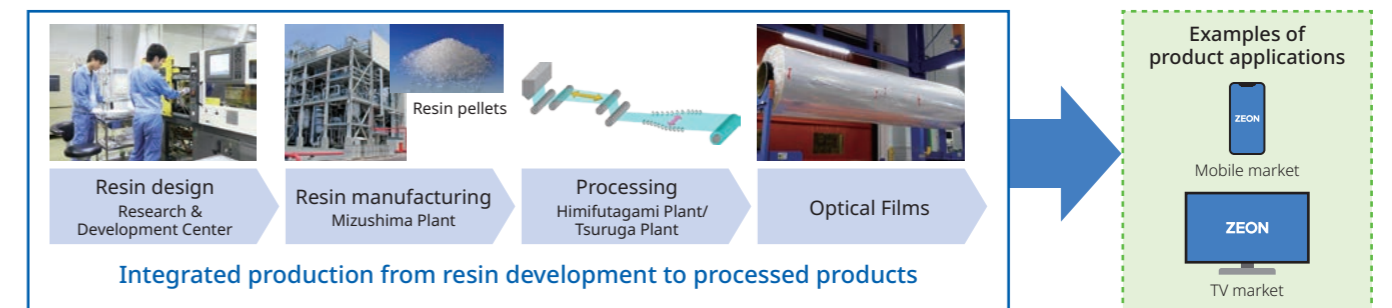
### Vertical Integration of Resin and Processing Technologies

Our optical films are made possible by accumulation of multiple technologies that we have independently developed.

First, our Research & Development Center designs the Cyclo Olefin Polymer raw resin material. The Mizushima Plant handles resin manufacturing technology, and the Himifutagami and Tsuruga plants process the resin into film using sheet

extrusion and various stretching technologies. This is how we are able to internally conduct all processes necessary to produce optical films, from raw material development to manufacturing and processing. This business model enables us to quickly produce the resins that markets need, starting from the resin design stage.

### Vertical integration of resin and film processing technologies



### New Value Contributing to Resource Savings and CO<sub>2</sub> Emission Reductions

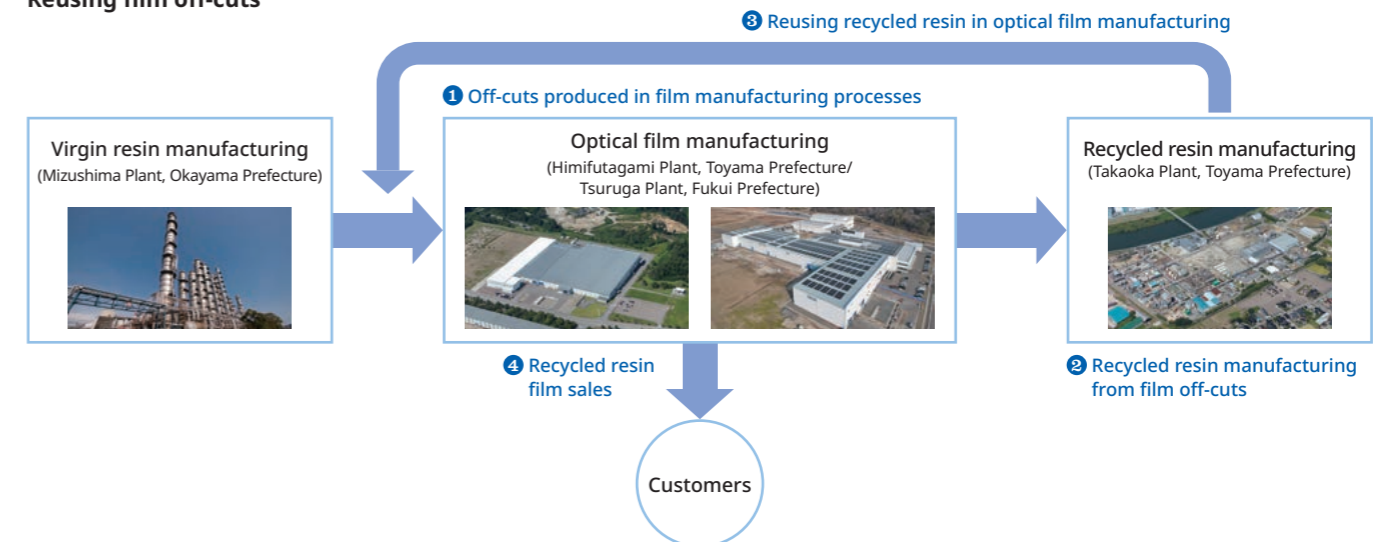
We are conducting initiatives aimed at new value creation from reducing environmental impacts. One such initiative is establishing recycling technology that makes it possible to reuse off-cuts produced in film manufacturing.

Plastic recycling is something we as a society must do to reduce our impact on the environment. Creating the technology to satisfy the quality requirements of precision applications such as optical components is an essential part of this.

New recycling technology that we have developed is able to create resin quality equivalent to virgin resin in terms of transparency, purity, and other properties.

Compared with virgin resin, our recycled resin not only helps reduce waste, it can also reduce CO<sub>2</sub> emissions emitted during manufacturing by around 12,000 tons a year. (Plant currently under construction with completion scheduled in 2024)

### Reusing film off-cuts



# History of Value Creation

The detailed history of the Zeon Group can be viewed on the updated website.  
<https://www.zeon.co.jp/en/company/special/history/>

In the 1950s, Zeon Corporation acquired technologies from B.F. Goodrich Chemical Company in the U.S. and began manufacturing polyvinyl chloride and specialty synthetic rubber (NBR). From the 1970s onwards, Zeon worked to develop original technologies, and generated a wide range of chemical products that used raw materials extracted through the GPB and GPI processes. As a result, the company was able to expand into a wide range of business areas.

From the 2000s onwards, Zeon has pursued higher value for customers and brought chemical products that provide greater functionality into the world. Today, thanks to its proprietary technologies, Zeon has a number of businesses that control high shares of the global market, and is contributing toward solving social and customer issues through its products and services.

## Changes in social circumstances and needs

**1950-**  
 This was the time of the rise of the petrochemical industry, when petrochemical complexes were established and quality and quantity of chemical materials were required for economic growth.

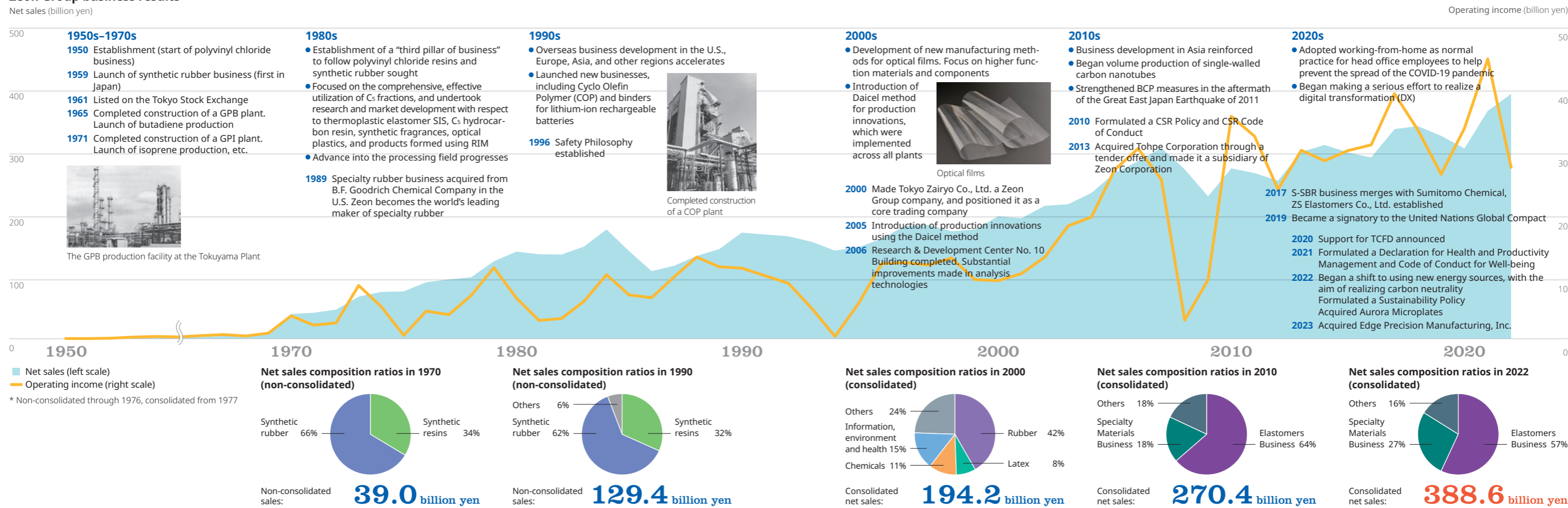
**1970-**  
 In response to the oil crises and the problem of pollution, chemical materials that provide both efficiency and safety were demanded.

**2000-**  
 Higher functional chemical products are needed for the advancement of digitization and advanced information technology.

**2020-**  
 Entering an era of unprecedented demands to reduce environmental impact including carbon neutrality and circular economy.

## Business-related events

### Zeon Group business results



## Examples of technologies and products developed by Zeon

### Prior to the 1960s

- Polyvinyl chloride (PVC)
- Nitrile rubber (NBR)

### 1960s

- Geon Process of Butadiene (GPB)
- Emulsion Polymerized Styrene-Butadiene Rubber (E-SBR)
- Butadiene Rubber (BR)

### 1970s

- Geon Process of Isoprene (GPI)
- Isoprene rubber
- Acrylic rubber
- C<sub>s</sub> hydrocarbon resin

### 1980s

- Powder slush compounds (PSC)
- Ventricular assist device
- VP latex
- Hydrogenated nitrile rubber Zetpol®
- Solution-SBR
- Alicyclic hydrocarbon resin
- Thermoplastic elastomer SIS
- Synthetic aroma chemicals
- RIM products and compounds
- Electron beam resist

### 1990s

- Balloon catheters
- NBR latex
- Binder for lithium-ion batteries
- Cyclo Olefin Polymers (COP) ZEONEX®, ZEONOR®
- ZEORORA® etching gas
- Polymerized toner

### 2000s

- ZeonorFilm® optical film, which is made using the sheet extrusion process, with sequential biaxial film stretching method, and diagonally-stretched retardation
- Polymerized color toner
- Asymmetric SIS
- Cyclopentyl methyl ether, an ether solvent

### 2010s

- Single-walled carbon nanotubes formed using the Super Growth Method
- Microfluidic chip prototype provision service
- SOLAR CARD®
- Technology for creating isoprene from biomass
- Fractional Flow Reserve (FFR) measurement device

### 2020s

- Crystalline Cyclo Olefin Polymer (COP)
- Technology for creating butadiene from biomass
- High thermal interface materials (TIM)
- Cycle Olefin Polymer (COP) recycling technology
- Technology for controlling lithium dendrites using CNT

# Value Creation Flow

Taking the Medium-Term Business Plan (implementation of which began in FY2021) as the foundation, the Zeon Group is contributing toward building a "Sustainable Earth" and a "Safe and Comfortable Life for People" through the provision of unique, innovative technologies and services.

Being aware of social issues and social change



\*VUCA: Volatility, Uncertainty, Complexity and Ambiguity

## Corporate Philosophy = Mission

Contributing to the preservation of the Earth and the prosperity of the human race

## Vision for 2030

A company that lives up to societal expectations and the aspirations of employees

### Management Resources—INPUTS

#### Human capital

• Employees: **4,293**  
(Group-wide, as of March 31, 2023)

- HR development
- A human resources system that encourages employees to challenge themselves

#### Financial capital

- Maintaining stable cash flow
- Capital **24.2** billion yen
- Total assets **522.9** billion yen
- Net assets **339.3** billion yen

#### Manufacturing capital

- Strengthening production capacity
- Within Japan  
**6** plants and **1** research center, and **18** group companies
- Outside Japan  
**42** overseas group companies (including sales companies)

- Risk diversification
- Improving safety

#### Intellectual capital

- R&D expenses: **17.6** billion yen (FY2022)
- Cooperation between research and production
- Strategic acquisition and utilization of intellectual property

#### Natural capital

- Ensuring a stable supply of naphtha (an important raw material)
- Reducing the amount of energy used in production activities

#### Social capital

- Technology support for customers
- Collaboration with local communities

## Zeon's Business Model —VALUE DRIVERS

### Medium-Term Business Plan: STAGE30 —Group-wide Strategy

- Promote a transformation of *monozukuri* to realize a carbon neutrality and circular economy**
- "Polish up" existing businesses**
  - Strengthen COP and battery materials**
    - Increase production capacity
    - Improve resilience
    - Launch new products
  - Ensure the survival of existing SBUs**
    - Elastomers**
      - Strengthen products having a competitive edge
      - Raise the efficiency of each production line
    - Specialty Materials**
      - Bolster our competitive edge by developing products and increasing production capacity
- Work together to create "stages" to be active on**
- "Explore" new businesses**
  - Focus on 4 key areas**
    - CASE and MaaS
    - Healthcare and life science
    - Telecommunications
    - Energy conservation
- "Polish up" the management base**

### Zeon's Strengths and Competitiveness

- A high-level integrated use development model for C4 and C5 fractions, making use of Zeon's unique technologies, including the GPB and GPI processes
- Thoroughly clean plastics manufacturing technology (specialty plastics)
- A comprehensive, integrated development and manufacturing capability that covers every stage from plastics material design through to component manufacturing using Zeon's unique technology (optical film, life sciences business, etc.)
- Simulation technology that supports customer's product development and evaluation activities (battery materials)

### Business Areas

#### Existing Businesses

##### Elastomers Business

- Synthetic rubbers
- Synthetic latexes
- Chemicals

##### Specialty Materials Business

- Specialty plastics
- Optical films
- Specialty chemicals
- Battery materials
- Electronics materials
- Toner
- Medical devices

#### New Businesses

##### Key Areas

- CASE and MaaS
- Healthcare and life science
- Telecommunications (5G/6G)

- Products that can contribute toward solving problems for society, including energy-saving products, etc.

### Core Values

Let's try first

Let's connect

Let's polish up

### SDGs targeted by Zeon



### Value Creation—OUTCOMES

#### Directions for 2030 (what we want to be)

##### Live up to societal expectations

- Continuing to contribute to a sustainable society
- Providing products and services that society cannot do without

##### Live up to the aspirations of employees

- Take vigorous action with the steps "Let's try first," "Let's connect," and "Let's polish up"

### FY2022 Results—OUTPUTS

- Net sales: **388.6** billion yen
- Operating income: **27.2** billion yen

### Targets for 2030







- CO<sub>2</sub> emissions: **50%** reduction (non-consolidated, as compared to FY2019, Scope1+2)
- Sales ratio of products that contribute to the SDGs: **50%**
- Existing businesses: ROIC **9.0%**
- New businesses: Net sales (compared to FY2019) **+60.0** billion yen
- Employee engagement: **75%**
- Ratio of foreign-national and female directors: **30%**

For more details about the Medium-Term Business Plan, see P.27.

# Capital/Risk and Opportunity

## Capital

Under the Medium-Term Business Plan: STAGE30, the Group is working to strengthen its manufacturing and intellectual capital to enhance existing businesses and identify new ones. During phase two of the plan, we will pursue a range of initiatives with a focus on human capital investment.

 <p><b>Human capital</b></p>	<p><b>Employees</b> (consolidated, March 31, 2023) <b>4,293</b></p> <p><b>Personnel development</b></p>	<p>To achieve sustainable growth, we are pursuing initiatives to develop diverse personnel; those who can carry out future management and those who can maintain frontline capabilities.</p> <p>We believe personnel development is crucial to ensure sustainable growth. As such, we are pursuing initiatives to develop diverse personnel to assume future management responsibilities and maintain frontline capabilities. Monozukuri Training Centers are part of the latter initiative. A center was established at the Mizushima Plant in 2009 to enhance frontline capabilities at chemical plants, and is providing technical training for frontline operators, with plans to add technical training for board operators in 2024. Furthermore, we are preparing to introduce a virtual reality simulator for use in skills training in a virtual setting in 2025. Meanwhile, preparations are under way to open another manufacturing training center, at the Himifutagami Plant in 2024, to provide training in film processing for optical films.</p> <p><b>Personnel system that allows employees to be themselves</b></p> <p>We will introduce and upgrade a new personnel system to ensure that rotations of human resources have clear objectives. The system will also include mechanisms to encourage growth and career development, and build environments where employees can demonstrate their individual potential.</p> <ul style="list-style-type: none"> <li>● Introduction of the new personnel system for senior employees</li> <li>● Reformation of the personnel system for managerial staff (managers and specialists)</li> <li>● Reformation of the personnel system for non-managerial staff (planned)</li> </ul>								
 <p><b>Financial capital</b></p>	<p><b>Maintaining stable cash flow</b></p> <table border="1"> <tr> <td>Capital</td> <td>24.2 billion yen</td> </tr> <tr> <td>Total assets</td> <td>522.9 billion yen</td> </tr> <tr> <td>Net assets</td> <td>339.3 billion yen</td> </tr> </table>	Capital	24.2 billion yen	Total assets	522.9 billion yen	Net assets	339.3 billion yen	<p>We will pursue aggressive new investments and R&amp;D in our differentiating products and new businesses, to expand our existing and new businesses, while maintaining stable funding and boosting shareholder return. To enhance capital efficiency and optimize our capital structure, we will utilize funds from the sale of cross-shareholdings and interest-bearing debt as sources of funds.</p>		
Capital	24.2 billion yen									
Total assets	522.9 billion yen									
Net assets	339.3 billion yen									
 <p><b>Manufacturing capital</b></p>	<p><b>Strengthening production capacity</b></p> <table border="1"> <tr> <td>Within Japan</td> <td>6 plants and 1 research center 18 group companies</td> </tr> <tr> <td>Outside Japan</td> <td>42 overseas group companies</td> </tr> </table> <p><b>Risk diversification</b> <b>Improving safety</b></p>	Within Japan	6 plants and 1 research center 18 group companies	Outside Japan	42 overseas group companies	<p>We will seek further competitive advantage through manufacturing that leverages our strengths and proprietary technologies, and through collaboration with external parties as well as with customers.</p> <ul style="list-style-type: none"> <li>● High-degree multiple usage model for C<sub>4</sub> and C<sub>5</sub> produced by our proprietary GPB and GPI methods</li> <li>● Extremely pure resin manufacturing technology (specialty plastics)</li> <li>● One-stop development and manufacturing abilities, from raw resin design to material manufacturing using proprietary technology (optical film, life science business, etc.)</li> <li>● Technology to simulate customers' development and evaluation (battery material)</li> <li>● World's first mass production facility for super-growth carbon nanotubes</li> </ul>				
Within Japan	6 plants and 1 research center 18 group companies									
Outside Japan	42 overseas group companies									
 <p><b>Intellectual capital</b></p>	<p><b>Cooperation between research and production</b> <b>Strategic acquisition and utilization of intellectual property</b></p> <p>FY2022</p> <table border="1"> <tr> <td>R&amp;D expenses</td> <td>17.6 billion yen</td> </tr> <tr> <td>Number of patents held</td> <td>6,150</td> </tr> <tr> <td>In Japan</td> <td>2,431</td> </tr> <tr> <td>Outside Japan</td> <td>3,719</td> </tr> </table>	R&D expenses	17.6 billion yen	Number of patents held	6,150	In Japan	2,431	Outside Japan	3,719	<p>Under unified business, research, and IP strategies, we are acquiring and applying IP to ensure the advantages of new products created from our technology platform, which is based on our original technologies, in our expanding supply chain. By pursuing such initiatives as a research structure to encourage collaboration with production sites, a new cross-thematic research organization, and environments that facilitate collaboration with customers and external parties, we are promoting the development of new ideas and technologies.</p>
R&D expenses	17.6 billion yen									
Number of patents held	6,150									
In Japan	2,431									
Outside Japan	3,719									
 <p><b>Natural capital</b></p>	<p><b>Ensuring a stable supply of naphtha (an important raw material)</b> <b>Reducing the amount of energy used in production activities</b></p>	<p>We see it as our mission to protect the environment, and are promoting the following activities.</p> <ul style="list-style-type: none"> <li>● Promoting a circular economy</li> <li>● Initiatives to reduce industrial waste from plastic products</li> <li>● Initiatives on water resources</li> <li>● Climate change initiatives</li> </ul>								
 <p><b>Social capital</b></p>	<p><b>Technology support for customers</b> <b>Collaboration with local communities</b> <b>CSR dialogue with suppliers</b></p>	<p>In addition to dialogue and collaboration with customers, suppliers, and local communities, we are engaged in activities to educate the next generation, which will be responsible for the future of chemistry in Japan. In response to growing concerns that the young are losing interest in science, we are encouraging children to be curious about chemistry by offering on-site lessons for elementary school students (theme for 2022: generating electricity with small, everyday energy sources) and by creating videos about experiments.</p>								

## Risk and Opportunity

The Group analyzes a broad range of risks, including the volatile business environment and appropriate long-term responses to the external environment. The Medium-Term Business Plan: STAGE30 incorporates group-wide strategies, and we will promote various initiatives based on the key policies.

External environment (risk)	Corresponding strategies	Key policies	Overview
Strengthened requirements and regulations for carbon neutrality	Strategy 1 (carbon neutrality)	Reduce Scope 1 and Scope 2 emissions looking ahead to 2030 Aim to contribute to reduce Scope 3 emissions looking ahead to 2050	To promote the shift to carbon-neutral manufacturing and realize a circular economy, we formulated our first Carbon Neutrality Master Plan and are promoting energy conversion at our domestic plants. In addition, we have launched various initiatives, including the introduction of an internal carbon pricing system and adoption of NEDO's Green Innovation Fund project.
Challenges to raw materials procurement	Strategy 1 (circular economy)	Aim to contribute to reduce Scope 3 emissions looking ahead to 2050 ● Complete preparations for the switch to alternative raw materials ● Lay the foundations for building a circulation-oriented business model	Furthermore, we will continue to promote energy conservation, process innovation, and energy conversion, and prepare for the switch to alternative raw materials such as bio-based materials. We also plan to lay the foundations for building a circulation-oriented business model that employs recycling technology.
Demands to prioritize SDGs	Strategy 1 and 2	Achieve safe and stable manufacturing and promote sustainable <i>monozukuri</i> (manufacturing)	Stable, safe manufacturing is our major mission as a manufacturer. We will ensure this by reforming work styles, providing time for employee education and improvement, and innovating our manufacturing. We will also offer the world many new high value-added products that contribute to SDGs and boost our profitability by enhancing existing businesses. These efforts will promote sustainable manufacturing and, as a consequence, boost labor productivity (consolidated operating income per employee).
Progress in automotive CASE	Strategy 2	● Strengthen resources and mechanisms to spread CVC and M&A throughout the Group	We prioritize the four fields of CASE and MaaS, healthcare and life sciences, telecommunications (5G/6G), and energy conservation, and promote CVC activities in these fields in anticipation of further growth. Moreover, we made two acquisitions in the health care and life sciences field, and promoted external collaboration activities. We will strengthen resources and mechanisms to extend CVC and M&A, and launch new products in new markets through connected manufacturing, sales, and technology. In addition, we will continue to expand external collaboration activities, seeking new businesses by effectively utilizing external knowledge and technologies.
Widespread use of 5G/6G	Strategy 2	● Launch new products in new markets by connecting manufacturing, sales, and technology	
Innovation in health care and life sciences technology	Strategy 2		
Progress in AI/MI	Strategy 2		
Aging labor population	Strategy 3	Create a healthy and motivating work environment	Because the physical and mental health of our employees is a major management resource, we will pursue management activities to promote health and create environments that enable employees to engage in motivated work. To this end, we will evolve our personnel system and disseminate the diversity, inclusion, and belonging (DI&B) concept.
Limited human resource availability in Japan	Strategy 3		
Changing attitudes toward employment and work	Strategy 3		
Progress in diversity	Strategy 3		
Geopolitical risk	Strategy 2	Achieve safe and stable manufacturing and promote sustainable <i>monozukuri</i> (manufacturing)	
			Global geopolitical risk continues to be high, including the situation in Ukraine. In this environment, we will strive to ensure stable raw material procurement and reinforce our global production system to mitigate threats to our business continuity.

# Medium-Term Business Plan

## Overview of the Medium-Term Business Plan: STAGE30

In 2021, we formulated "Vision for 2030" and created company-wide strategies to guide our actions concretely and help us achieve that 10-year vision. We also set FY2030 targets corresponding to each strategy. To meet these targets, we posi-

tioned the two years from FY2021 to FY2022 as Phase 1, and the four years from FY2023 to FY2026 as Phase 2, with the plan to renew every two years.

### Vision for 2030

Living up to **Societal Expectations**

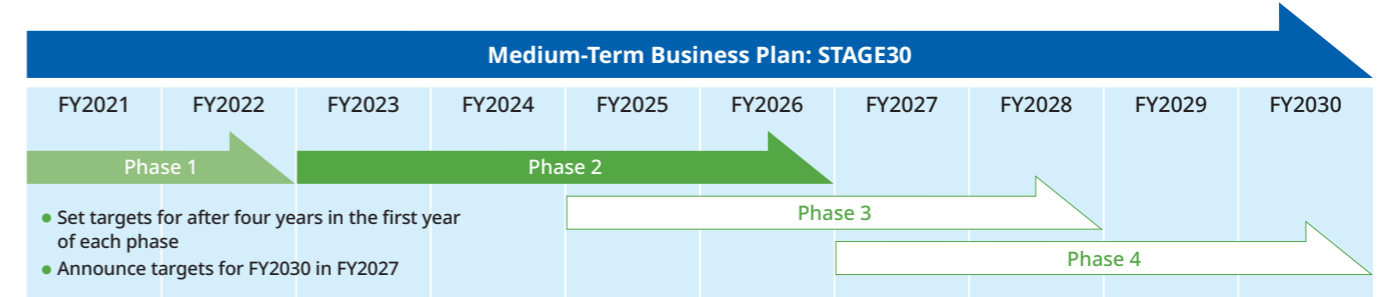
Living up to the **Aspirations of Employees**

### Directions for 2030 (what we want to be)

Continuing to contribute to a sustainable society

Providing products and services that society cannot do without

Take vigorous action with the steps "Let's try first," "Let's connect," and "Let's polish up"



### Looking back on Phase 1 and preparing Phase 2

Although Phase 1 was positioned as a run-up and targets were not set, clear progress was made in the two-year period.

In Phase 2, based on our Sustainability Policy established in 2022, we set a focus on enhancing corporate governance and quantifying target values to further solidify our relationship of trust with stakeholders and meet society's expecta-

tions. Toward that end we formulated Strategy 4—"Polish up" the management base—an extension of Strategies 1, 2, and 3 from Phase 1, and are disclosing our financial strategy as well.

We have additionally set FY2026 targets corresponding to the four corporate strategies and key policies to achieve those targets.

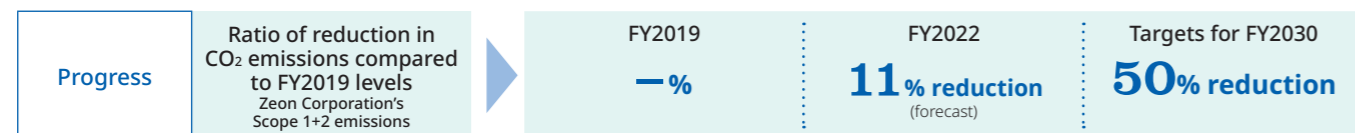
	Strategies	Targets for FY2030	Phase 1 Key Policies	FY2019 (base year)	FY2021	FY2022
1	Promote a transformation of <i>monozukuri</i> to realize a carbon neutrality and circular economy	CO <sub>2</sub> emissions: <b>50% reduction</b> (compared to FY2019 levels) Zeon Corporation's Scope 1+2 emissions	Formulate a master plan for achieving carbon neutrality looking toward the year 2050	0%	—	<b>11% reduction</b>
2	"Polish up" existing businesses	Sales ratio of products that contribute to the SDGs: <b>50%</b>  ROIC for existing businesses: <b>9%</b>	<ul style="list-style-type: none"> <li>Strengthen COP and battery materials</li> <li>Ensure the survival of existing SBUs</li> <li>Focus resources on key areas</li> </ul>	—	—	<b>System introduction in progress</b>
	"Explore" new businesses	Net sales of new businesses: <b>+60 billion yen</b> (compared to FY2019)		6.7%	9.7%	6.6%
3	Work together to create "stages" to be active on	Employee engagement: <b>75%</b>	Providing a greater variety of life choices	—	52%	48%
4	<b>New</b> "Polish up" the management base	Ratio of foreign-national and female directors: <b>30%</b>		—	0%	7%

Phase 2 Key Policies	Targets for FY2026
Reduce Scope 1 and Scope 2 emissions looking ahead to 2030 Aim to contribute to reduce Scope 3 emissions looking ahead to 2050	Ratio of reduction in CO <sub>2</sub> emissions*: 29% <small>* Zeon Corporation's Scope 1+2 emissions</small>
Achieve safe and stable manufacturing and promote sustainable <i>monozukuri</i> (manufacturing)	<ul style="list-style-type: none"> <li>Lost time accidents: 0</li> <li>Sales ratio of products that contribute to the SDGs : 40%</li> <li>Labor productivity indicator Consolidated operating income per person: 11 million yen</li> </ul>
"Polish up" existing businesses	<ul style="list-style-type: none"> <li>Net sales indicator COP: 210</li> <li>Battery materials: 590</li> <li>ROIC for existing businesses: 9%</li> <li>Net sales of new business: 16 billion yen</li> <li>External collaboration/ Customer themes 10</li> </ul>
"Explore" new businesses	
Create a healthy and motivating work environment	<ul style="list-style-type: none"> <li>Employee engagement: 56%</li> <li>Environment maximizing employee potential: 55%</li> <li>Zeon Healthy Behavior Indicator: 65%</li> <li>Paid leave utilization rate: 70%</li> </ul>
"Polish up" corporate governance	<ul style="list-style-type: none"> <li>Ratio of foreign-national and female directors: 25%</li> <li>Ratio of outside directors and officers: Majority</li> <li>Ratio of female managers: 12%</li> <li>Cross-shareholdings as ratio of net assets: Less than 15%</li> </ul>

## Strategy 1

### Phase 1 Achievements

Concerning Strategy 1, in Phase 1 we formulated our initial Carbon Neutrality Master Plan and set reduction targets for 2030 to reach carbon neutrality by 2050. These targets cover Scope 1 and Scope 2 (non-consolidated) together.



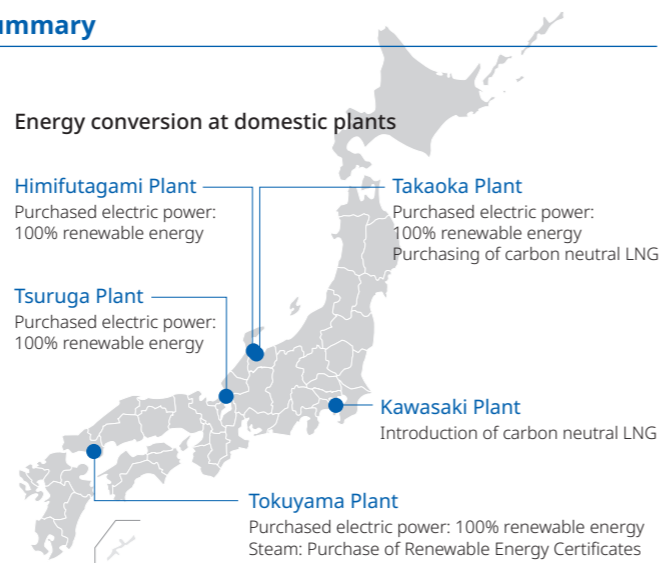
#### Phase 1 summary

#### Realizing the energy shift at five Zeon plants in Japan

In April 2022, we shifted over to only using electric power generated from renewable sources\* for four of our production facilities in Japan (specifically, the Takaoka Plant, Himifutagami Plant, Tsuruga Plant and Tokuyama Plant). In addition, the Tokuyama Plant purchased a Green Heat Certificate. Furthermore, carbon-neutral LNG has been adopted at the Takaoka Plant from April and at the Kawasaki Plant from August. Through these initiatives, Zeon expects to achieve a company-wide reduction in annual CO<sub>2</sub> emissions of around 120,000 tons.

Other production facilities are also considering switching over to renewable energy. We are also examining the potential for making a similar shift at our production locations outside Japan.

\* Electric power generated from renewable sources: Electricity derived from renewable sources such as hydroelectric power, solar power or wind power.



#### Adoption of internal carbon pricing

When it comes to reducing CO<sub>2</sub> emissions, up until now, we have implemented a series of measures that offered high cost-benefit performance. However, in order to achieve further emissions reductions in the future, it will no longer be enough to implement emissions reduction measures based on investment criteria, or on how long it will take to recoup the cost.

We are therefore adopting an internal carbon pricing (ICP) system, and for all capital investment projects we will be reflecting the amount of CO<sub>2</sub> emissions reductions that the project can achieve in our investment decisions, aiming to promote capital investment that contributes toward reducing CO<sub>2</sub> emissions.

- **Internal carbon price**  
10,000 yen/t-CO<sub>2</sub>
- **Scope of system application**  
Capital investment that will lead to an increase or decrease in CO<sub>2</sub> emissions
- **Method of application**  
The increase or decrease in CO<sub>2</sub> emissions accompanying the capital investment project in question will be converted into a monetary amount using the internal carbon price, and this will be taken into account when making the decision as to whether or not to invest in the project.

#### R&D activity relating to carbon neutrality and the circular economy

Three projects were selected as Green Innovation Fund Projects by NEDO (New Energy and Industrial Technology Development Organization).

- **Development of manufacturing technology using carbon recycling for commodity chemicals used in synthetic rubber**  
This demonstration project aims to establish two advanced technologies to produce butadiene and isoprene, which are key synthetic rubber chemicals, based on the recycling of carbon resources such as used tires and biomass at high yield rates, and to implement those technologies in society in the 2030s. (Feb. 21, 2022 press release)
- **Development of photonic chips for higher performance, energy-saving non-volatile memories**  
Zeon Corporation will utilize its carbon nanotube (CNT) technologies to establish CNT-based non-volatile memory (NRAM) that can replace volatile memory (DRAM). The advantages are lower power consumption and lower cost with higher capacity. The goal is to commercialize NRAM in the 2030s. (Feb. 25, 2022 press release)
- **MATSURI Project**  
The MATSURI Project is an initiative led by the Chitose Group, which specializes in the large-scale cultivation and commercialization of algae, that aims to build a new algae-based industry through partnerships with numerous companies. The project aims to facilitate zero carbon emissions by 2050, and Zeon is working as a participating company using microalgae as an energy source from sunlight and CO<sub>2</sub> as a direct raw material for chemical products such as bioplastics and functional materials, and for the commercial production of fuel, food, and feed. (Mar. 27, 2023 press release)

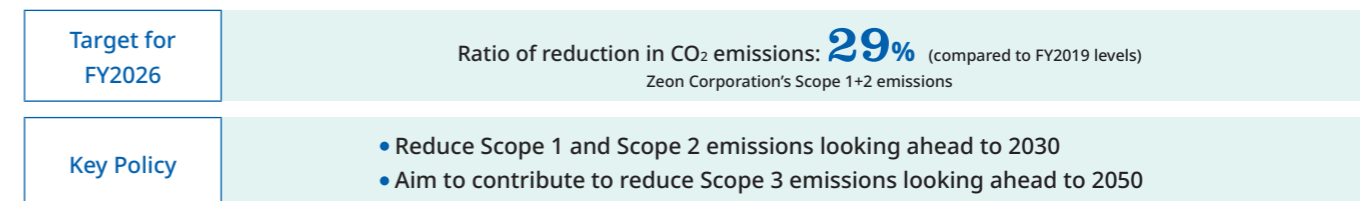
## Strategy 1

### Phase 2 Initiatives

In Phase 2, we will promote energy-saving, process innovation, and an energy shift to reduce Scope 1+2 emissions with a view toward 2030.

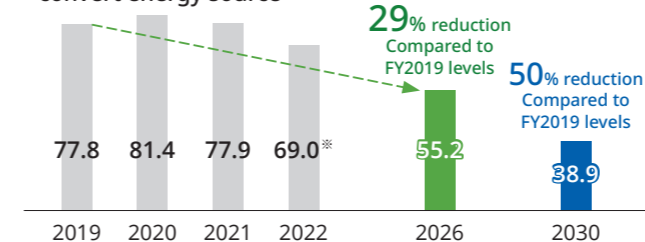
In addition, we will prepare to change raw materials, switching to such materials as ethanol-derived butadiene and

bio-butadiene to reduce emissions and meet Scope 3 targets, aiming to achieve carbon neutrality by 2050. The COP recycling plant is set to go into operation, beyond which we may also expand recycling efforts elsewhere to lay the foundation for building a recycling business model.



#### Reduce Scope 1 and Scope 2 emissions looking ahead to 2030

- Promote energy savings, reform processes, convert energy source



\* Calculation based on greenhouse gas protocol: 735,000 tons

#### Aim to reduce and contribute Scope 3 emissions looking ahead to 2050

- Prepare to change raw material  
➔ Look into manufacturing of ethanol-derived butadiene, bio-butadiene, and bio-isoprene
- Lay the foundation for building a recycling business model  
➔ Look into expanding recycling efforts for other products in addition to COP recycling plant to be put into operation

\* Targets will be updated as necessary to achieve carbon neutrality by 2050.

## Strategy 1 and Strategy 2

### Phase 2 Initiatives

Related to both Strategies 1 and 2, we will invest a cumulative total of 18 billion yen in human resources in Phase 2 (increasing labor costs), while simultaneously reforming work styles, securing time for training and improvement, and innovating production to achieve stable and safe production, which is a prime mission as a manufacturer.

We aim to bring into the world more high-value-added products that contribute to the SDGs and will promote sustainable *monozukuri* (manufacturing) by "polishing up" existing businesses to ensure profitability, which will in turn increase labor productivity (consolidated operating income per person).



#### Achieve safe and stable production

- Invest 18 billion yen\* in human resources  
\* Increase in labor costs vs. FY2022 (cumulative total for FY2023-FY2026)
- Reforming work styles, securing training and improvement time, and promoting innovating production\*

\* The Daicel Method of production innovation

#### Promote sustainable *monozukuri* (manufacturing)

- Promote sales ratio of products that contribute to the SDGs
- Ensure profitability by polishing up existing businesses

#### Improve labor productivity



Strategy 2

"Polish up" existing businesses

Phase 1 Achievements

By "polishing up" existing businesses, we aim to achieve an ROIC of 9% in 2030. Although ROIC has declined temporarily due to proactive investing, we expect ROIC to rise again as a result of those investments.

Specifically, in Phase 1, we increased production capacity

Strengthen COP and battery materials

Particularly with regard to specialty plastics and battery materials, two areas where there is steady high demand, we will be investing aggressively to strengthen productivity and resilience.

- **Strengthening our production capability for specialty plastics**  
Mizushima Plant: Production capacity increased by 4,600 tons per year (July 2021)  
Takaoka Plant: Began work on construction of a recycling facility with production capacity of 6,000 tons per year (due to begin operation in August 2024)
- **Strengthening our production capability for battery materials**  
It has been decided that a new production facility to manufacture binder for lithium-ion batteries will be established by Zeon Chemicals Asia Co., Ltd. (due to begin operation in 2024).

to strengthen our key businesses of specialty plastics (Cyclo Olefin Polymers, COP) and battery materials, and also aggressively increased production capacity in the differentiated product lines we take pride in to ensure the survival of existing SBUs.

Ensure the survival of existing SBUs

We have adopted a strategy of "Bolster our competitive edge by developing products and increasing production capacity," to ensure that existing SBUs survive and flourish.

- **Increasing our production capacity for hydrogenated nitrile rubber**  
With a long-term plan to expand its use in lithium-ion batteries, we decided to increase production capacity by approximately 10% (began operation in 2023) and by an additional 25% (due to begin operation in 2025).
- **Adding new production lines for optical film**  
We are positioning our original polymer design technology and sheet extrusion method as key strengths. We have added a new production line, which is the world's largest retardation film production line (began operation in August 2023).
- **Increasing our leaf alcohol production capacity**  
Leaf alcohol is a material used to make synthetic fragrances that has a wide range of uses in products such as perfumes, shampoos, and soft drinks. Increased production capacity by 400 tons per year (began operation in 2022).

**Optical Films (Tsuruga Plant)**

- Completed in August 2023
- +50 million m<sup>2</sup>

**COP recycling (Takaoka Plant)**

- Planned launch of operations in August 2024
- +6,000 tons

**Zetpol® hydrogenated nitrile rubber (Takaoka Plant)**

- Completed in 2023
- +Approx. 10%

**COP (Mizushima Plant)**

- Completed in July 2021
- +4,600 tons

**Leaf alcohol (Mizushima Plant)**

- Completed in July 2022
- +400 tons

**Battery materials (Zeon Chemicals Asia)**

- Planned launch of operations in 2024

**Zetpol® hydrogenated nitrile rubber (Zeon Chemicals Texas Plant)**

- Planned launch of operations in January 2025
- +Approx. 25%

Strategy 2

"Polish up" existing businesses

Phase 2 Initiatives

In Phase 2, we have further set net sales indicators as target values for COP and battery materials, our key businesses.

We will expand sales of COP beyond optical applications to medical and other fields, and steadily increase sales of battery materials for electric vehicles. To facilitate this, we will promote further business expansion investment plans.

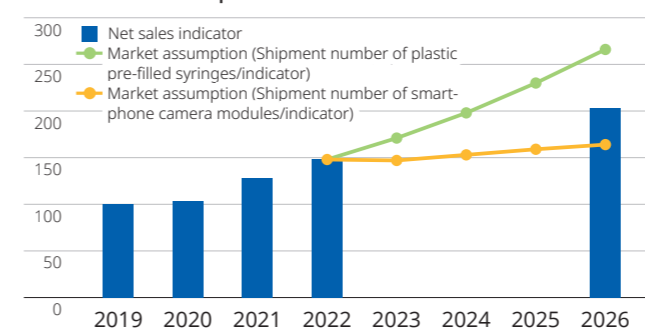
- **COP:**  
Resilience enhancement study underway
- **Battery materials:**  
Establishment of production system in Europe, Establishment of production system in North America



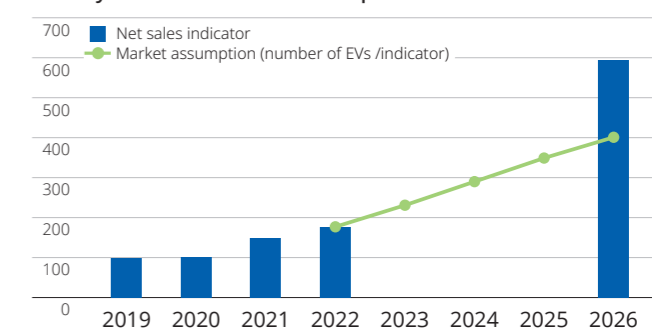
COP will grow steadily in the main applications of optical and medical, and battery materials will steadily capture the growth of the global EV market

Trends in COP and battery materials \* Trends in indicators when FY2019 is 100

COP market assumption and net sales indicator



Battery materials market assumption and net sales indicator



Source: Plastic pre-filled syringes: Knowledge Sourcing Intelligence GLOBAL PREFILLED SYRINGES MARKET - FORECASTS FROM 2021 TO 2026 / Smartphones camera modules: Techno Systems Research Co., Ltd. Market Breakdown of Camera Phone - 1st Half 2022 & 2nd Half 2022 Forecast - / EV: LMC Global Light Vehicle Powertrain Forecast - Quarter 4, 2021

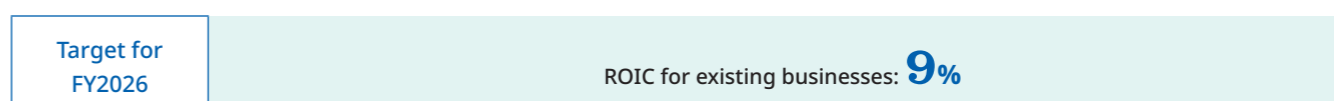
Our existing businesses are the Elastomers Business and the Specialty Materials Business.

We will expand with a focus on our differentiated products—COP and battery materials—and aim to increase the percentage of sales of specialty materials.

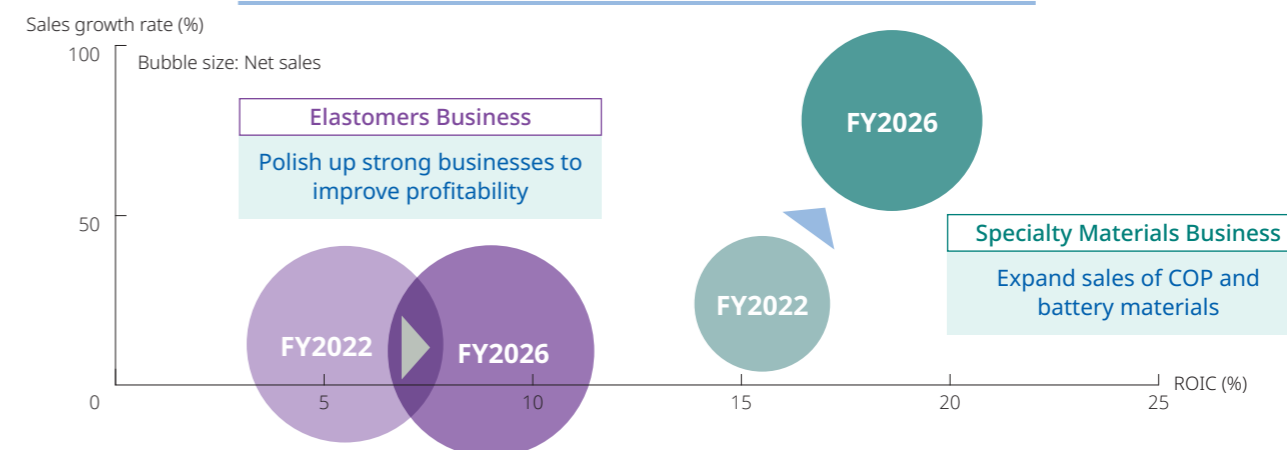
At the same time, we will refine the elastomer materials

business to make it even stronger, looking into structural reforms that focus on profitability and capital efficiency.

In the Specialty Materials Business, we will work to raise the ROIC for our existing businesses all together by increasing sales of COP and battery materials.



Polish up business efficiency based on cost of capital and ROIC



## Strategy 2

"Explore" new businesses

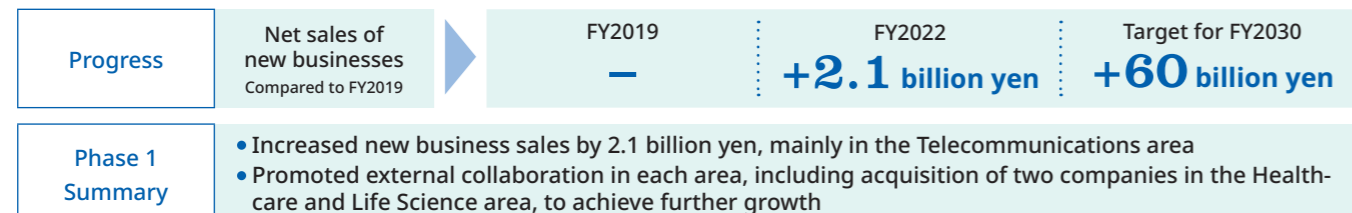
### Phase 1 Achievements and Phase 2 Initiatives

In exploring new areas, we are focusing on four key areas: healthcare and life sciences, CASE and MaaS, Telecommunications (5G/6G), and energy-saving. We are aiming to increase our sales in these four areas by at least 60 billion yen by FY2030 (compared to FY2019).

In Phase 1, we acquired two companies and promoted external collaborations in various fields, aiming for further growth.

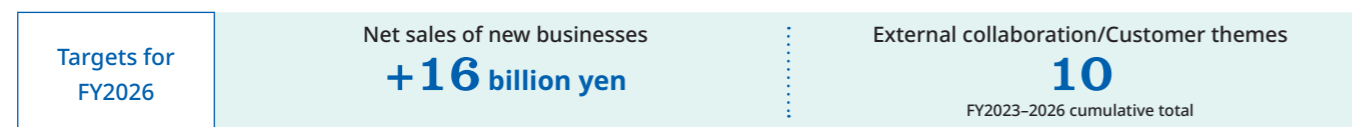
In Phase 2, we will continue to strengthen resources and mechanisms to spread CVC and M&A throughout the Group, and increase external partnerships.

These partnerships will generate knowledge and technologies that will be utilized to great effect and bring about synergies for future product development, helping us to enter new markets through linked manufacturing, sales, and technology.



Four Key Areas ● Investments/partners ■ Acquisitions

<b>CASE and MaaS</b>	● AM Batteries U.S.-based startup developing innovative electrode manufacturing processes for lithium-ion batteries
<b>Healthcare and Life Science</b>	<ul style="list-style-type: none"> <li>■ Aurora Microplates, LLC U.S.-based company that manufactures and sells microplates made from Cyclo Olefin Polymers (COP), which is used in biochemical analysis</li> <li>■ Edge Precision Manufacturing, Inc. U.S.-based company that manufactures and sells microfluidic device prototypes for the healthcare and life sciences markets, with high resolution and high aspect ratio based on proprietary compression molding technology</li> <li>■ Jiksak Bioengineering, Inc. R&amp;D startup aiming to create a world that can treat amyotrophic lateral sclerosis (ALS) and other intractable motor neuron diseases</li> </ul>
<b>Telecommunications (5G/6G)</b>	<ul style="list-style-type: none"> <li>● QunaSys Inc. Startup engaged in software development for quantum computers</li> <li>● Aidemy Inc. Company listed in the Growth Market of the Tokyo Stock Exchange that offers Aidemy Business, an e-learning service for companies to develop DX human resources, and Modeloy, a service supporting operations after AI system development</li> </ul>
<b>Energy Conservation</b>	● Visolis, Inc. U.S.-based startup offering carbon-neutral materials using proprietary approaches that combine biology and chemistry and integrate the capabilities of each



- Strengthen resources and mechanisms to spread CVC and M&A throughout the Group
- Launch new products in new markets by connecting manufacturing, sales, and technology

## Strategy 3

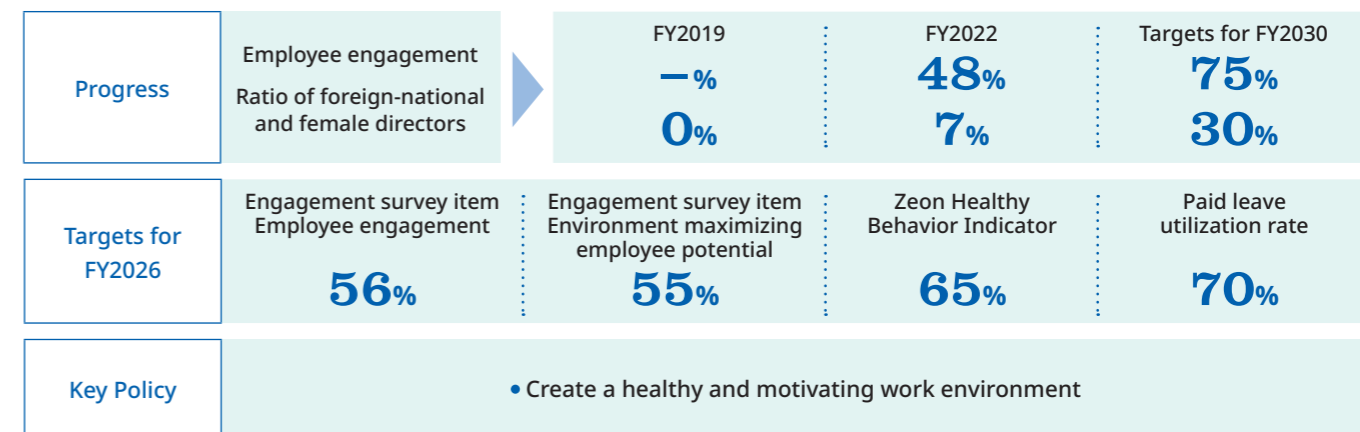
### Phase 1 Achievements and Phase 2 Initiatives

The employee engagement survey that we conducted in 2022 showed that Zeon's employee engagement index stood at just 48%.

The "stages" we aim to create are companies where all employees can realize freedom and well-being and where diverse individuals can demonstrate their strengths. Taking this approach, in Phase 1 we worked on improving systems and the environment to boost employee engagement and provide employees with more life choices. We don't expect these initiatives to produce immediate results, so continuity will be important, and we will continue to promote the initiatives in Phase 2 to make them a significant driving force for our growth.

Furthermore, we consider the mental and physical well-being of our employees to be a crucial management resource for bringing about freedom and well-being, so we have set new Phase 2 targets—the Zeon Healthy Behavior Indicator and paid leave utilization rate, and we will continue to monitor whether the requisite environment is in place for these "stages."

For more details, see P.51



Advance health and productivity management initiatives

Operate a personnel system that allows employees to be themselves

Instill DI&B thinking

## Strategy 4

### Phase 1 Achievements and Phase 2 Initiatives

The ratio of foreign-national & female directors & officers, a target set in Strategy 3, has been set as a target corresponding to the newly formulated Strategy 4 as it relates to the management base.

Additionally, to "polish up" the management base, we aim

to enhance corporate governance, train diverse human resources for future management positions, and refine capital efficiency. Our aim is to achieve a majority of outside directors and officers, a 12% ratio of female managers, and less than 15% cross-shareholdings as a ratio of net assets.



Enhancing corporate governance

Training diverse human resources for future management positions

"Polishing up" capital efficiency

- Strengthening of interrelation between officer remuneration and medium-term plan
- Selection of highly diverse and independent officers
- Reduction of cross-shareholdings
- Operation of new personnel system for managers
- Promotion of training for managers and candidates of manager
- Recruitment of diverse career personnel
- Advanced financial management to support active business investment

\* FY2023 forecast Ratio of foreign-national and female directors and officers: 19% Ratio of outside directors and officers: 50% Introduction of performance-linked remuneration

# Financial Strategy



**The Group will proactively pursue growth investments to enhance corporate value over the medium to long term while maintaining a sound financial position and remaining aware of the cost of capital.**

**Financial targets for FY2026**

Net sales	Operating income	Group ROIC	ROE
<b>510 billion yen</b>	<b>58 billion yen</b>	<b>8%</b>	<b>10%</b>

**Yoshiyuki Sone**  
Director & Senior Corporate Officer Administration

Noting that April 2023 marks 73 years in business for Zeon, our aims remain lofty. We want to enrich people's lives in society and bring environmentally friendly products into the world based on a corporate philosophy of contributing to the preservation of the Earth and the prosperity of the human race, combined with the R&D philosophy of developing unique technologies that neither imitate others nor can be imitated by others.

Our vision for 2030 is to be a company that lives up to

societal expectations and the aspirations of our employees. Outlined in our Medium-Term Business Plan: STAGE30 which began in FY2021, are three core values expressed as "Let's try first," "Let's connect," and "Let's polish up." Following this plan, we intend to engage in a range of reforms as a new challenge for the Group as a whole.

In our financial strategy as well, announced in June 2023, we are taking a fundamentally new approach that is linked to our business strategy outlined in STAGE30.

## Medium-Term Business Plan: STAGE30 ▶ Looking Back at Phase 1

Prior to 2020, before the current Medium-Term Business Plan was initiated, we had solid business performance in both elastomers and specialty materials, with steadily rising sales and profits. We worked to gradually reduce our interest-bearing debt, shifting away from a heavy reliance on interest-bearing debt to improve our financial position. We achieved financial stability, improving our equity ratio, for example, an indicator of financial soundness. The Group did not make large-scale investments owing to the ongoing challenges such as surging plant construction costs and a tough climate for expanding investments with profitability. Furthermore, we prioritized cash reserves to prepare for increased business risks associated with changes in the business landscape due to COVID-19 and other factors. Consequently, our financial condition has become highly secure.

The business environment had been unstable since FY2021, when COVID-19 infections were out of control. Nevertheless, we launched our Medium-Term Business Plan: STAGE30, and have been pursuing new initiatives to achieve our vision for the year 2030.

In the most recent fiscal year of 2022, consolidated net sales were up 26.9 billion yen from the previous year to 388.6 billion yen amid sluggish demand due to a global economic slowdown and global inflation. Consolidated operating income was down, however, by 17.3 billion yen from the previous year to 27.2 billion yen, due to the impact of soaring prices for raw materials and energy. As for our financial position, the D/E ratio was 0.08 (up 0.02 from the end of the previous year), and the equity ratio was 64.3% (down 1.4 percentage points from the end of the previous year), indicating continued stability.

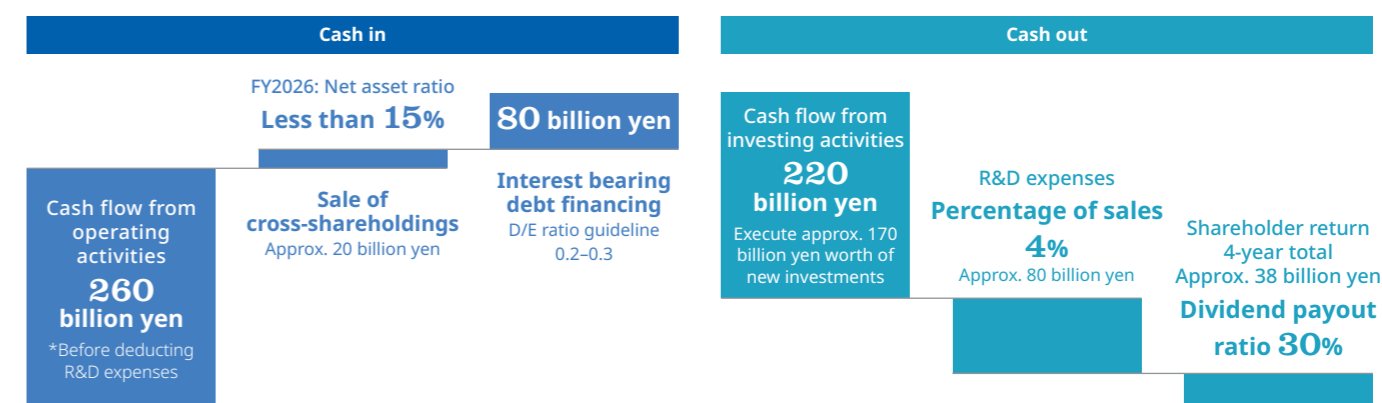
## Medium-Term Business Plan: STAGE30 ▶ Phase 2 Initiatives

In formulating the Phase 2 of STAGE30, we adopted the following policies on cash flow allocation, the pursuit of an optimal capital structure, and shareholder return to promote growth investments, as explained here. The aim is to accelerate the generation of new value for differentiated products such as COP and battery materials and to develop value through new businesses.

### 1 Cash flow allocation (overview of fund procurement and use)

Over the four years of the Phase 2 (FY2023–2026), we expect an operating cash flow of 260 billion yen (before deducting R&D expenses), an investing cash flow of 220 billion yen (including new investments of 170 billion yen), and R&D expenses of 80 billion yen. To strengthen and expand our businesses, we will promote aggressive growth investments and R&D.

Cash flow allocation (as of the announcement of the Phase 2 of Medium-Term Business Plan in June 2023)



\* The difference between cash in and cash out is the increase or decrease in cash and deposits according to the expansion of the business.

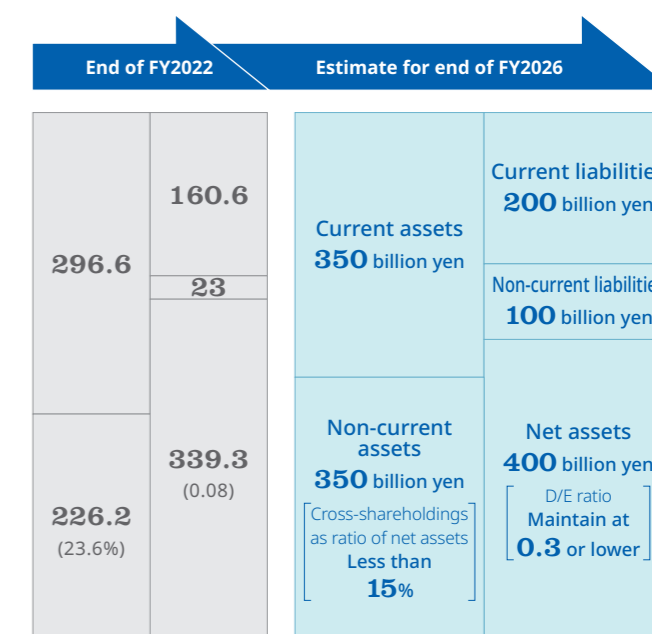
### 2 Pursuit of an optimal capital structure

Funding to support proactive investments and R&D will be covered primarily by operating cash flow from existing businesses. Any shortfall we plan to cover by selling off cross-shareholdings and taking on interest-bearing debt. In addition to generating cash and improving capital efficiency, we will leverage interest-bearing debt to reduce the weighted average cost of capital (WACC), but we will control the D/E ratio, keeping it at 0.3 or lower. Overall, we will maintain consistent financial discipline in light of our credit rating and maintain a sound financial position. At the same time, we will pursue optimization of the capital structure, targeting medium- to long-term enhancement of our corporate value.

### 3 Shareholder returns

Concerning shareholder returns, we will actively pursue stable results and improved performance, aiming to increase dividends in conjunction with medium- to long-term profit growth. We plan to extend our consecutive streak of annual dividend increases from FY2010 to FY2023, and we aim to maintain a dividend payout ratio of 30% or higher (four-year cumulative average from FY2023 to FY2026) while working to steadily bump up dividend levels.

### Optimal capital structure



## Sustainable Growth and Improvement of Corporate Value

To achieve our 2030 vision of a 9% ROIC for existing businesses and meet our financial targets for FY2026, as a Group we need to strengthen and expand businesses that contribute to solutions for societal challenges and lead to the realization of global sustainability. To do this, we will proactively leverage our technologies and products and the organizational strength and talent we have cultivated to date. We will also actively pursue digital transformation (DX)

initiatives and strategic returns through our corporate venture capital (CVC) activities.

Going forward, Zeon will continue to build financial soundness while remaining cognizant of the cost of capital and work to improve our capital efficiency to achieve sustainable growth and improve our corporate value. By so doing, we will fulfill the expectations of shareholders, investors, and all of our stakeholders.

## Message from the Director & Senior Corporate Officer Elastomers and Chemicals Business



**Kazuyoshi Matsuura**  
Director & Senior Corporate Officer  
Elastomers and Chemicals Business

In 1959, we became the first company in Japan to produce synthetic rubbers domestically. Our elastomer materials, primarily consisting of synthetic rubbers, have been a core Zeon business ever since.

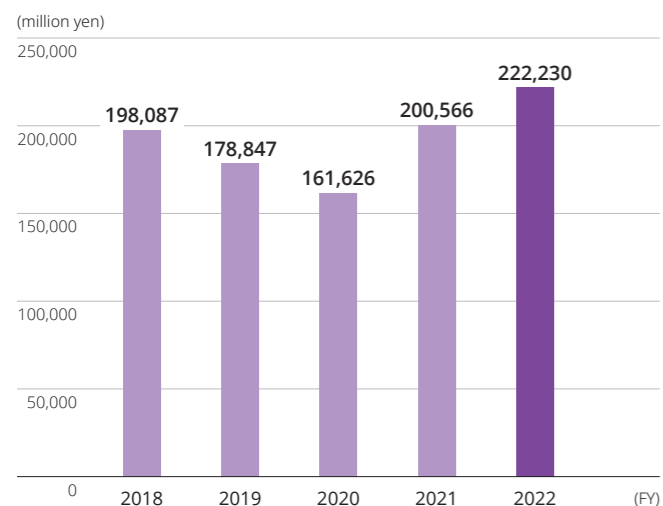
We have supported the world's automotive industry as one of the top global manufacturers of specialty synthetic rubbers. Although this market is forecast to shrink as internal combustion engines, which use many types of specialty synthetic rubbers, get replaced by electric vehicles (EVs), new applications for hydrogenated nitrile rubber are also being created, including use as lithium-ion battery (LiB) binders and timing belts for electric motorcycles. Specialty synthetic rubbers will remain one of our core businesses where we will focus our product and service offerings.

Raw materials and energy will continue to see strong price movement in the near term, and we intend to strengthen our business fundamentals to weather these fluctuations in the external environment, by focusing on capital efficiency and looking at structural reforms in every area.

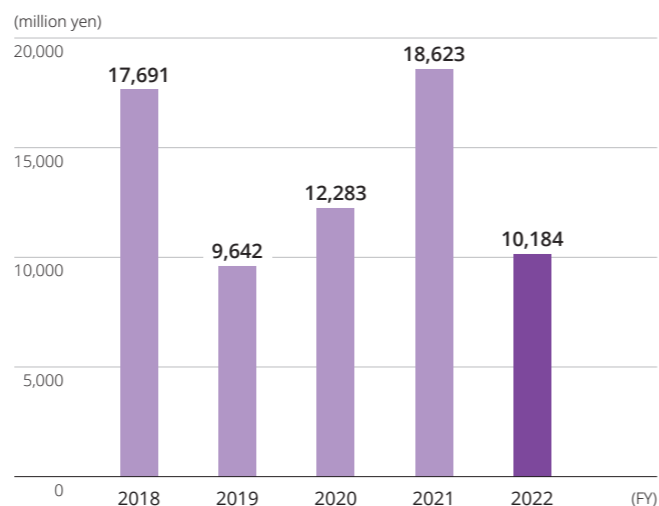
Our battery materials are based on the polymer technologies that we have built up in our elastomer materials business combined with our core technologies including compounding technologies and nanoparticle dispersion technology. This segment is seeing sharp growth with the widespread adoption of binders for LiB batteries. In our current Medium-Term Business Plan, we are executing large-scale investments for business expansion and focusing on developing our global supply structure, including establishing production bases in Europe, the United States, and Asia.

### Elastomers Business

#### Net sales



#### Operating income



## Message from the Director & Senior Corporate Officer Specialty Business



**Yuichiro Konishi**  
Director & Senior Corporate Officer  
Specialty Business Division Manager  
- Specialty Plastics

The Specialty Business develops, manufactures, and sells materials and processed components with high-added value based on advanced materials design and processing technologies. Our leading products are Cyclo Olefin Polymers (COP), optical films, specialty chemical products, and electronic materials.

Of these, we have designated COP, optical films, and specialty chemical products as core products under our strategy for existing businesses in STAGE30, our Medium-term Business Plan, and are driving business growth for these products.

We are driving higher sales of COP in medical applications and targeting higher market share in optical applications with the release of new product grades. We will put a recycling plant into operation and increase our COP production capacity in 2024, and are further reviewing whether to establish a new production base due to the projected higher demand for COP.

As TV screens continue to grow larger, demand is increasing for optical films made from COP that offer excellent stability with low water absorption. To meet this demand, we are planning to expand sales by adding large film production line in October 2023, which manufactures some of the largest optical films in the world with widths of up to 2,500 mm.

To meet the robust demand for specialty chemical products, we are reviewing whether to increase our manufacturing capacity for aroma chemicals and cyclopentanone (CPN), a solvent used in semiconductor manufacturing.

Another key strategy of STAGE30 is new business exploration, where we are accelerating new product development, including potential M&A.

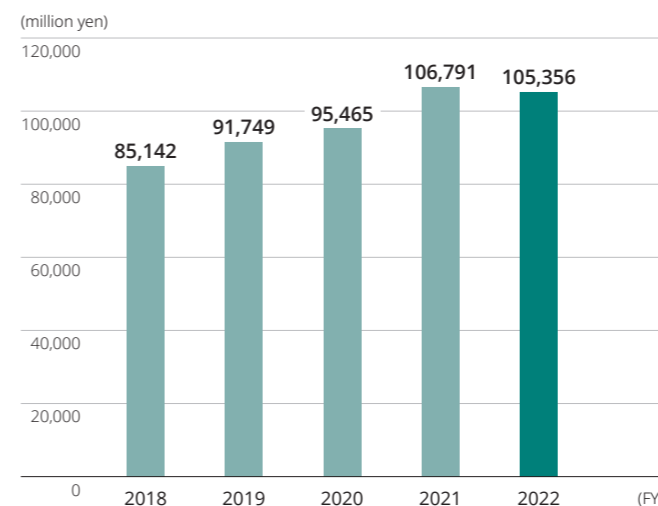
We are augmenting our business for medical evaluation and diagnostic devices, primarily through the acquired companies of Aurora Microplates, a COP microplate manufacturer, and Edge Precision Manufacturing, a COP-based microfluidic device manufacturer.

Looking at new materials, we are targeting expanded sales for new high thermal interface materials (TIM). We also plan to develop processed components using single-walled carbon nanotubes, where we have successfully established mass production.

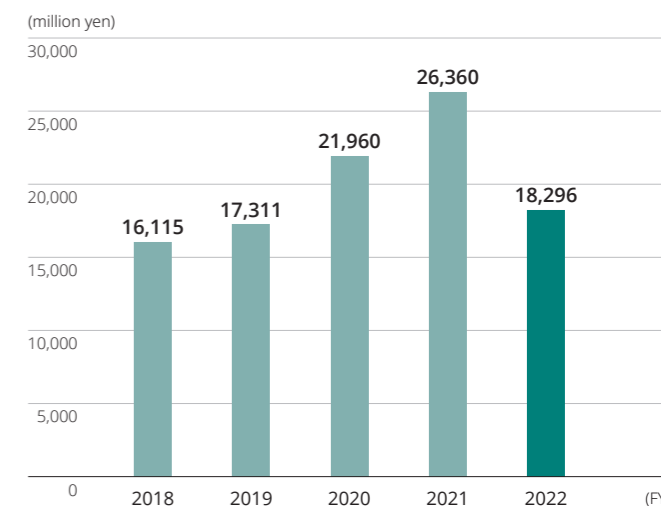
We aim to develop these products and the markets for them as part of achieving the targets set forth in our Medium-Term Business Plan: STAGE30.

### Specialty Materials Business

#### Net sales



#### Operating income



## Elastomers Business

The Elastomers Business mainly handles specialty synthetic rubbers used in the rubber parts found around vehicle engines, general-purpose synthetic rubbers such as those used in tires, and synthetic latexes such as those used in rubber gloves. We offer a wide selection of product types and grades to meet a diverse range of needs.



### Social issues and needs and Zeon products' competitive advantages

Our elastomer materials are used in wide-ranging applications, including tires, rubber components found around vehicle engines (hoses, belts, packing, etc.), and rubber gloves, that are indispensable in our lives today. Our products are absolutely essential to the automotive industry, and stable supply is needed in the medium to long term.

A source of our competitive advantage is the extensive portfolio of products that we have created with our robust product development capabilities fostered over many decades. Our many original products that are unrivaled by others make it possible to offer materials that satisfy a wide variety of needs. We also have strengths that we can leverage from our global supply network and R&D organization as well as from our low-cost, stable procurement system made possible by manufacturing key raw materials using in-house processes.

However, elastomer materials manufacturing processes and processing for rubber products such as tires and hoses produce large amounts of CO<sub>2</sub>. The raw materials themselves also contain large amounts of carbon. We view reducing these amounts of carbon and CO<sub>2</sub> as a social issue whose solutions lead to carbon neutrality and sustainability.

### Future aspirations, issues, and initiatives

While needs for elastomer materials will not change, as cars shift from internal combustion engines to EVs in the future, the quality of the elastomer materials that will be needed is likely to change.

Meanwhile, the push for carbon neutrality is expected to drive up needs for materials that contain lower levels of carbon and that are made from bio-materials, and needs to reduce CO<sub>2</sub> emissions in manufacturing processes and the supply chain as a whole. The push for the circular economy is also expected to drive up needs for more sustainable materials.

Local production for local consumption is expected to gain traction, in part to establish recycling systems and reduce CO<sub>2</sub> emissions in transportation as well as to avoid geopolitical risks.

Based on these conditions, we will focus on development and production of new parts that contribute to carbon neutrality and sustainability as well as establishing the supply structure for them. The mission of our Elastomers Business is not only to supply the needed elastomer materials but also to create new added value and provide it to markets.

## Chemicals Business

The Chemicals Business deploys products that include petroleum resin and thermoplastic elastomers, which are used as raw materials for adhesive tape, labels, and adhesives, as well as polymerized toner, which is used in printers and multifunction office copiers.



### Social issues and needs and Zeon products' competitive advantages

As demand for necessities is growing and diversifying, there will be greater calls to reduce energy and resource loss as well as CO<sub>2</sub> emissions. The Chemicals Business fully utilizes the C<sub>5</sub> fractions that we manufacture and, through dialogue with customers, has focused on offering these products in markets for adhesive tape, labels, disposable diapers, and fuel-efficient tires.

### Future aspirations, issues, and initiatives

The markets for adhesive tape, labels, disposable diapers, and fuel-efficient tires will continue to grow. Combining our polymer design technologies and our know-how in adhesives with the properties of our original products, we will propose and offer new products and services for our customers and supply chain partners. These activities contribute to greater comfort and convenience in people's everyday lives.

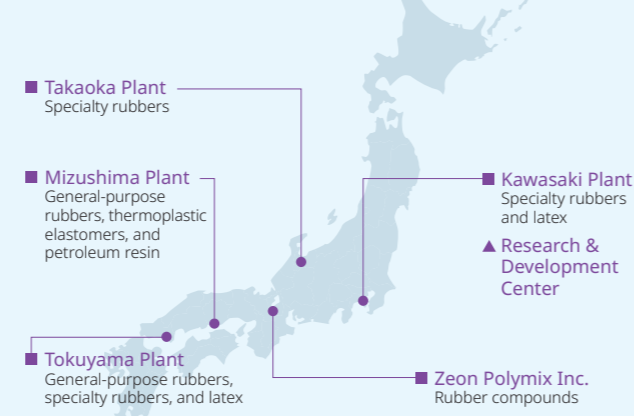
We are also offering and proposing formulations of hot melt adhesive materials with low energy and resource loss, proposing optimum distribution channels based on customer plans, contributing to fuel-efficient tire compounding agents, and offering new materials that are gentle and friendly to people. These initiatives contribute to realizing the SDGs.

We are practicing the concepts of "Let's try first," "Let's connect," and "Let's polish up" emphasized in our Medium-Term Business Plan to meet customers' detailed needs through our routine sales activities and technical services. We will continue to develop our businesses while bringing in new technologies and expertise from outside parties and associates, without insisting on using our own existing technologies or facilities.

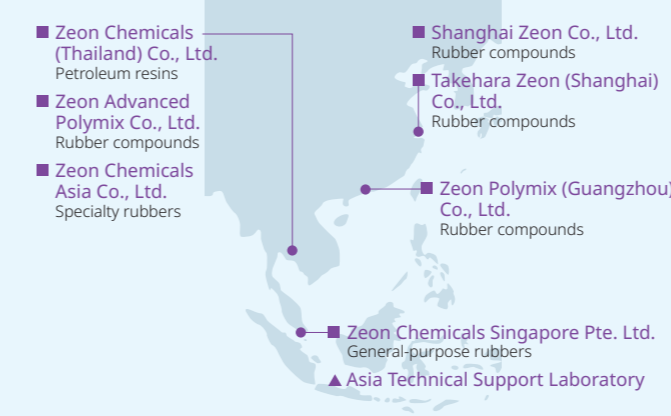
### Production and R&D Locations of Zeon's Elastomers Business and Chemicals Business

- Production location
- ▲ R&D location

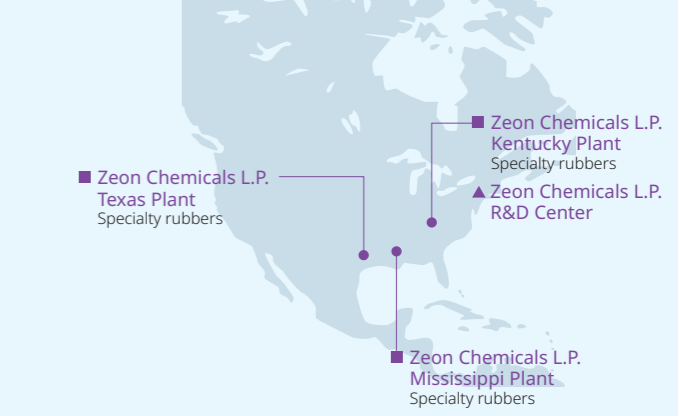
#### Japan



#### Asia



#### Americas



## Specialty Plastics Business (Cyclo Olefin Polymers)

The Cyclo Olefin Polymer (COP) that we independently developed has outstanding optical properties and is used in optical applications such as camera lenses and prisms as well as in the healthcare and biotechnology sectors for its transparency, excellent barrier performance and high purity. It is highly processable and able to be precision molded, and therefore can be used in a wide range of applications.



### Resin sales

#### Social issues and needs and Zeon products' competitive advantages

##### Optical applications

There are strong needs to increase the resolution and thinness of smartphone camera lenses, and we are developing products to meet these needs. The market for medium- and large-sized lenses is expanding along with information technology and automation advances, including for vehicle-mounted lenses, security camera lenses, and VR lenses, and there are more opportunities to use our mass-produced plastic lenses. Zeon products are being increasingly used due to their high transparency, high purity, and high moldability.

##### Semiconductor applications

Along with the miniaturization of semiconductors, needs are growing for materials that have extremely high purity. With their excellent low water absorption and low levels of impurities, we anticipate greater adoption of our products.

##### Healthcare applications

Biomedicines (protein-based therapeutics) are seeing marked growth and demand expansion, and needs for stable packaging and containers that do not affect the pharmaceutical agents are rising. Our COP precisely meets these needs with its low protein adsorption and low leachability of impurities, and is being increasingly used in pre-filled syringes and vials, infusion bags, and testing devices.

#### Future aspirations, issues, and initiatives

##### Optical applications

Our polymers are already widely used as optical lens resin, and we will continue meeting the changing market needs to become the de facto standard in the industry.

We are currently developing a new polymer that offers higher optical performance and durability to meet customer needs.

##### Semiconductor applications

We are working to become the de facto standard for semiconductor manufacturing materials. To increase their adoption, we need to promote the differentiation of our materials from existing materials and increase their recognition as materials able to benefit the semiconductor market.

##### Healthcare applications

By meeting the growing market needs, we aim to become the de facto standard for pharmaceutical packaging.

We will promote the suitability of our COP in various biomedical therapeutics in the market and continue to offer stable supply to further increase our market share. We plan to develop applications for COP leveraging its properties, such as low auto-fluorescence and excellent barrier performance.

### Development and sales of molded products

#### Social issues and needs and Zeon products' competitive advantages

##### Microplates

There are needs to speed up drug discovery and make it more efficient (i.e., high throughput screening technology). We are meeting these needs with the low fluorescence of COP (ultra-low-fluorescent films under development), and with stable supply of our original cell content coating agent (synthetic peptide), resin and film.

##### Microfluidic chips

We are contributing to single-cell analysis by making cell separation more precise through microfluidic chips with high resolution and high aspect ratio to meet needs to increase the speed and efficiency of drug discovery.

#### Future aspirations, issues, and initiatives

##### Microplates

As a vertical integration strategy, we are planning to develop new products and implement a production strategy (i.e., bases, cost reduction) leveraging our original molding technologies for films and molded products. We are currently estimating our cost competitiveness and our manufacturing capacity, including quality, for general-purpose products.

## Specialty Components Business (optical films)

Optical films that use Cyclo Olefin Polymer (COP) as their raw material are found in large flat-screen TVs and displays for many other devices such as smartphones and tablets. Our sheet extrusion process, a world-first film processing technology, upended conventional wisdom with its high productivity and reduced environmental impact. With this manufacturing technology, we rapidly established ourselves as a major player in the optical film sector.

##### Microfluidic chips

Drug discovery is shifting from observing the state of cells to the use of DNA analysis on the level of single cells. When single-cell analysis becomes the mainstream, large volumes of chips will be used as high-precision cell separation devices.

While we are currently only manufacturing prototypes, we have introduced automation technology and are developing technology for mass production.



#### Social issues and needs and Zeon products' competitive advantages

We will contribute to carbon neutrality and reducing CO<sub>2</sub> emissions by using resin produced at our COP recycling plant and by optimizing our transportation systems for procured materials and product shipments. These efforts are also designed to mitigate the "logistics 2024 problem" in Japan, where a shortage of truck drivers is anticipated after drivers' working hours are limited in 2024 when amended labor laws go into effect in Japan.

The display applications that support our business foundation are shifting to larger LCD panels and wider-width polarizing plate products. We are now seeing increasing needs for products produced in our facilities for wide-width manufacturing that we have been working on, and will capture opportunities by maintaining safe and stable operations.

We will expand adoption of our COP resins in new applications by leveraging their low moisture absorption, high insulation, excellent mold release, low adsorption, and other properties. We will also engage in development to capture needs in the areas of energy efficiency, non-PFAS, and advanced ICT.

#### Future aspirations, issues, and initiatives

The keys are to balance business expansion for existing display applications and expansion for new non-display applications where we are exploring opportunities and to establish a business structure that is not overly exposed to market fluctuations for specific applications.

We are currently addressing the following issues.

- Expanding sales of wide-width products, using recycled COP resin
- Addressing the logistics 2024 problem through transportation system optimization
- Developing applications leveraging low moisture absorption, thin film, and advanced optical properties
- Creating new applications
- Increasing the sense of making social contributions and personal growth among people involved in the business through higher engagement

## Battery Materials Business

In the Battery Materials Business, we provide anode binder and cathode binder for lithium-ion batteries (LiB), as well as functional layer materials and battery seal materials. While there has been rapid growth in demand for applications relating to plug-in hybrid vehicles (PHVs) and other types of EVs, we are also developing applications for PCs and mobile devices, as well as for energy storage systems (ESSs) for use with renewable energy.



### Social issues and needs and Zeon products' competitive advantages

As momentum in society builds for carbon neutrality, needs to further improve LiB performance will grow for EVs in mobility applications and storage batteries in renewable energy applications. LiB manufacturers are pursuing development to realize fast charging and discharging, longer lifespans, higher capacity, and high safety at low cost.

Our binder business enjoys advantages in polymer design and mass-production technology cultivated over many years as well as battery evaluation and analysis technology, which we strengthened after LiBs began to appear on the market. Using our battery prototype line, we are developing materials that meet customer needs and proposing processes for them. We are also working with customers, partner companies, universities, and other groups to create value together.

### Future aspirations, issues, and initiatives

While the LiB market's growth rate slowed in fiscal 2022 with the government's cessation of EV subsidies and economic slowdown in China, the market is still expected to see high rates of growth in the future. We are accelerating our global business development to capture current demand in China as well as demand from Europe and the United States, where development using raw materials not procured from China is progressing.

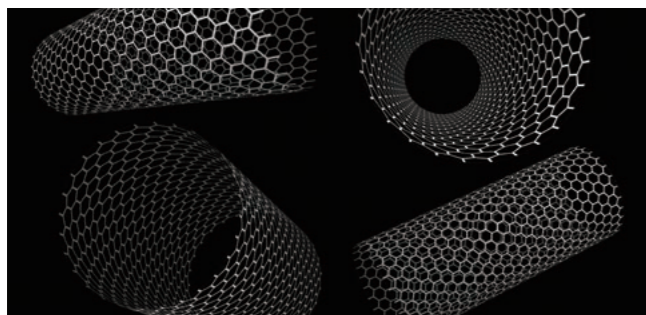
**Product development:** We offer an extensive product lineup of our flagship water-based binders for anodes and heat-resistant separator layers, with the addition of differentiated new products including those with excellent binding and low resistance. Using our experience and achievements in advancing water-based processes, we are shifting existing solvent-based technology to environmentally friendly water-based products, including binders for lithium iron phosphate (LFP) cathodes and AFL® materials for separator joining.

We are also pursuing other unique technology development apart from binders. Along with expanding our existing binder business, we are focusing on business development for new items and exploring related technology. Through U.S.-based Zeon Ventures Inc., we are investing in startups with next-generation battery materials and innovative technologies, and increasing collaboration with companies that have strong synergies with our businesses.

**Global supply:** LiB manufacturers are accelerating moves to shift to local production and consumption due to the impacts of geopolitical risks in battery material sourcing regions, transportation costs, and needs to reduce CO<sub>2</sub> emissions during transportation. We are also planning to produce binders locally in Europe and the United States, in addition to launching operations at Thailand-based Zeon Chemicals Asia Co., Ltd., scheduled for 2024.

## Carbon Nanotubes (CNT) Business

Carbon nanotubes (CNT) are a material invented in Japan that are expected to have a wide range of applications, because of their light weight, high strength, and good electrical and thermal conductivity.



### Social issues and needs and Zeon products' competitive advantages

With the excellent properties they offer, adoption of CNT is anticipated in many sectors, including energy and electronics. Especially in recent years, its importance is being refocused from a carbon-neutral perspective, and demand is expected to grow. Zeon Corporation has created ZEONANO® carbon nanotube products, which are single-walled carbon nanotubes (SWCNT) produced using the Super Growth Method, an innovative method to synthesize SWCNT discovered by the National Institute of Advanced Industrial Science and Technology (AIST). ZEONANO® products offer several advantages, including large surface area, length, and high purity.

## Specialty Materials Business (Chemicals, Electronic Materials)

Globally, we offer synthetic aroma chemicals and specialty solvents made from C<sub>5</sub> fraction derivatives as well as products such as photo resists, electron beam resists, and etching gases in the electronic materials field that includes the semiconductor market.



### Social issues and needs and Zeon products' competitive advantages

It can be anticipated that synthetic aroma chemicals business will continue to see a steady increase in demand for fragrance and flavoring applications, accompanying the population and GDP growth in emerging economies. As a result of increased global environmental awareness, specialty solvents used in chemical synthesis processes need to offer lower environmental impacts.

We are contributing to this with our strong global brand deriving from our ability to provide a stable supply of high-quality synthetic aroma chemicals, and our extensive range of five-membered ring based solvents in the specialty solvent segment.

In the electronic materials sector, we are offering products that leverage original Zeon polymer technology for the semiconductor market, where miniaturization will continue to advance. Our ZEP series of positive electron beam resists was developed for use in next-generation electronic components. The ZEP series' main-chain scission type mechanism allows holes to be cut with more precision, and because the reaction is a simple one, there are few defects.

### Future aspirations, issues, and initiatives

We are focusing on developing new products and expanding business for them. One example of this is expanding business for thermal interface material (TIM) using our elastomer technologies. Compared with conventional grease-based thermal interface materials, our TIM products offer excellent thermal conductivity in the Z axis, high durability, and superior workability. In addition to the high-performance server market, we are also working to develop the market for thermal interface material solutions to address challenges from devices getting smaller and higher-speed communications.

We will increase our production capacity to meet the growing demand and strengthen our initiatives aimed at realizing a circular economy and carbon neutrality.

### Future aspirations, issues, and initiatives

With our CNT-related products, we aim to improve the performance of IoT devices and make our world cleaner through our energy-related products.

We are combining SWCNT with various other materials to develop materials and products with new properties. We have already commercialized conductive silicon rubber for medical use, which integrates SWCNT with silicone rubber. We are proactively conducting joint research with a number of companies and research institutes. By making effective use of the high purity that characterizes our SWCNT, we are developing hybrid materials such as clean, anti-static polytetrafluoroethylene (PTFE) and materials for use in electricity storage devices, such as lithium-ion batteries. We are also developing energy harvesting materials that leverage the large surface area and length of our SWCNT.

In addition, we have started research to commercialize non-volatile memory (NVRAM) using CNT in a New Energy and Industrial Technology Development Organization (NEDO) project. We are aiming to establish NVRAM as an alternative to DRAM that offers low power consumption, higher capacity, and lower cost, with the goal of achieving social implementation in the 2030s. This will contribute to the development of carbon-neutral data centers as well as sustainability in society. In recognition of these initiatives, we received the nanotech 2023 Grand Award at the 22nd International Nanotechnology Exhibition and Conference (for more information, see P.48).

Besides manufacturing and selling SWCNT-related products, we are also working to ensure society's acceptance of carbon nanotubes by evaluating product safety and biodegradability and disclosing this information.

# Research and Development

Our Research & Development Center is responsible for undertaking the Zeon Group's research and development activities. One aspect of our 2030 Vision is to "provide products and services indispensable to society," and to realize this goal, we are proceeding with R&D to "polish up existing businesses" and "explore new businesses."



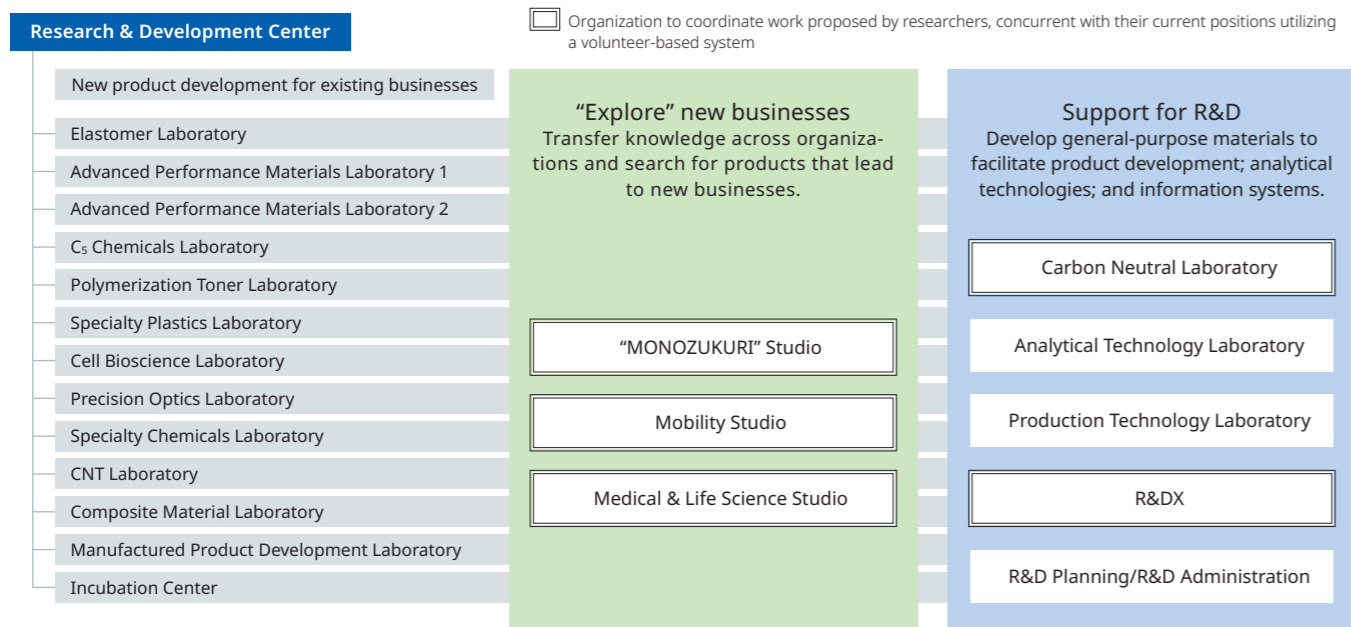
## Aiming to Continue Creating Innovative Products and Services

In order to realize our corporate philosophy of "Contributing to the preservation of the Earth and the prosperity of the human race," the R&D Headquarters mission is to provide, without interruption, innovative products and services that make a positive contribution toward a "Sustainable Earth" and a "Safe and Comfortable Life for People." The R&D strategy that we are following to achieve this goal can be explained in terms of four aspects: Key R&D fields, organizational structure, promotion methods, and effective utilization of human resources.

- Key R&D fields:** We have identified Medical & Life Sciences, Mobility, Telecommunications, and the Circular Economy, as areas where our Group can effectively exercise its strengths to help realize the SDGs.
- Organizational Structure:** In 2021–2022, we have established a number of horizontal, inter-departmental organizations that extend over all of the units under the R&D Center, with the aim of generating new research topics in key fields. These new organizations have researchers from multiple different laboratories assigned to them concurrently with the researchers' regular positions, working collaboratively to explore research topics in key R&D fields. Researchers from diverse backgrounds spur one another on to generate innovative new products and services through cross-departmental collaboration.
- Promotion methods:** The process by which a research topic progresses toward social implementation contains multiple steps, from the initial idea through prototype creation, proof of concept (POC) with the customer, to final implementation. By changing the management methods used at each stage flexibly, from giving researchers complete freedom to come up with initial ideas, through to rigorous progress management after customer POC has been completed, we are able to ensure that good ideas are brought to social implementation smoothly and efficiently.
- Effective utilization of human resources:** Organizations and frameworks are the measures through which the creation of original value takes place, while the key element in actually creating value is people. To enable researchers to fulfill their potential in a self-directed manner, we have increased the range of options available to help them achieve personal growth, for example through the provision of "double-track career paths," and by recruiting members for horizontal, cross-departmental teams. We have also been working to invigorate intra-departmental communication through one-on-one interviews and services to share appreciation and praise.

In addition, by implementing these initiatives in a coordinated fashion, we will be taking on the challenge of realizing a digital transformation (DX) of R&D that allows us to control R&D processes in digital space. By transforming ourselves, we will continue to be an organization that provides an unbroken stream of innovative new products and services in the future.

### R&D system and collaboration structure



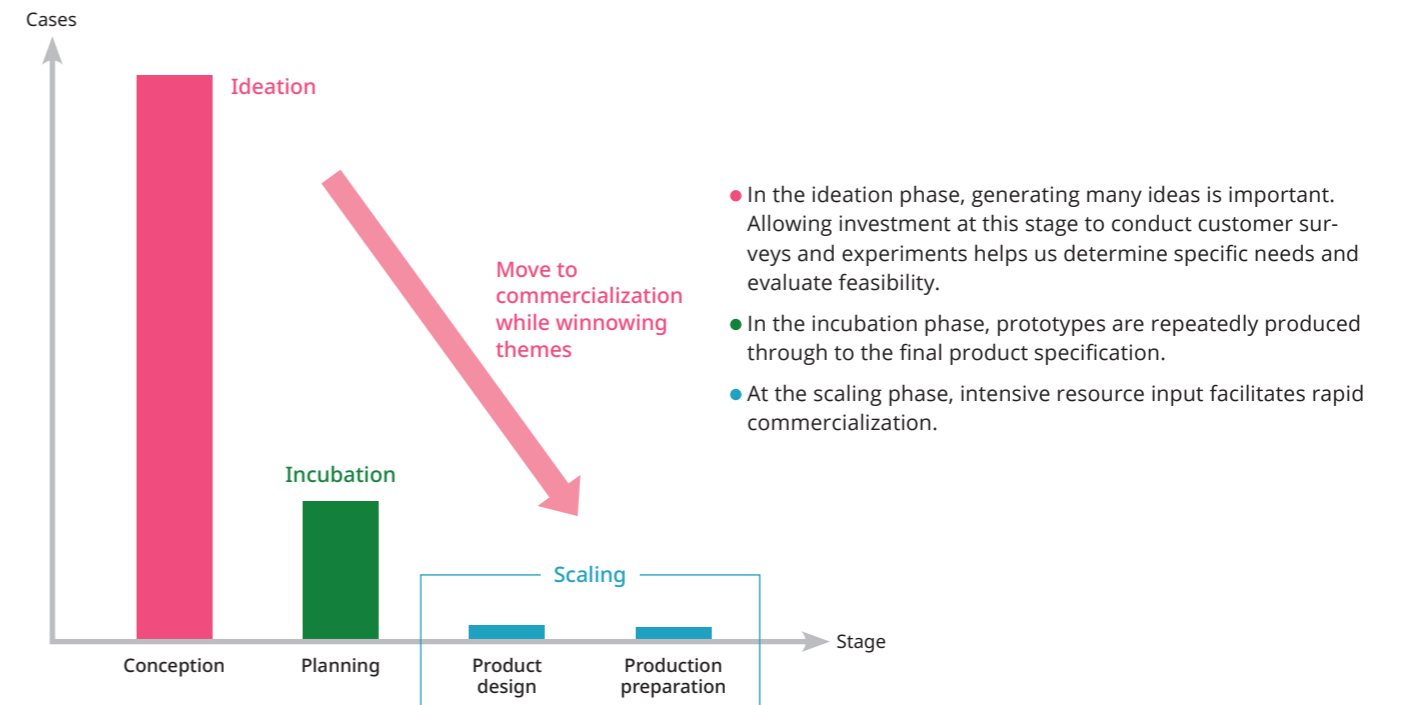
## Working Hypotheses in Developing New Products

We use the Stage-Gate Method and the Quick-Start, Quick-Stop Model (create many new business seeds and discard the ones that don't work) for new product development. This process spans the conception stage, planning stage 1, planning stage 2, product design stage, and production preparation stage.

As a measure to strengthen ideation (conception stage), we launched a dedicated business exploration

organization focused on technology, and a cross-laboratory organization focused on markets, technologies, and challenges. In addition, to facilitate communication, we use free-address office space. Furthermore, we are experimenting with co-creation to deepen ideas by making themes in the conception stage visible throughout the management process.

### Stage-Gate Quick Start, Quick Stop Model



### R&D system and collaboration structure

	Stage	Motivation	Activity	Requirements to proceed to next stage
<b>Ideation</b>	Conception stage	Interesting, if achievable	Inductive reasoning experiment	Proof of concept (POC)
<b>Incubation</b>	Planning stage 1	Goal: customer takes notice of our products	Secure samples Feasibility check Basic patent application	Submit to customer
	Planning stage 2	Goal: customer decides which product(s) to use	Communicate with customers (product planning)	Determine products to be utilized by customer Determine schedule
<b>Scaling</b>	Product design stage	Goal: satisfy all customer needs	Communicate with customers (product design)	Satisfy needs of all customers Complete design guidelines
	Production preparation stage	Goal: stable product supply	Verify process capability Verify cost	Determine process capability Ensure profitability

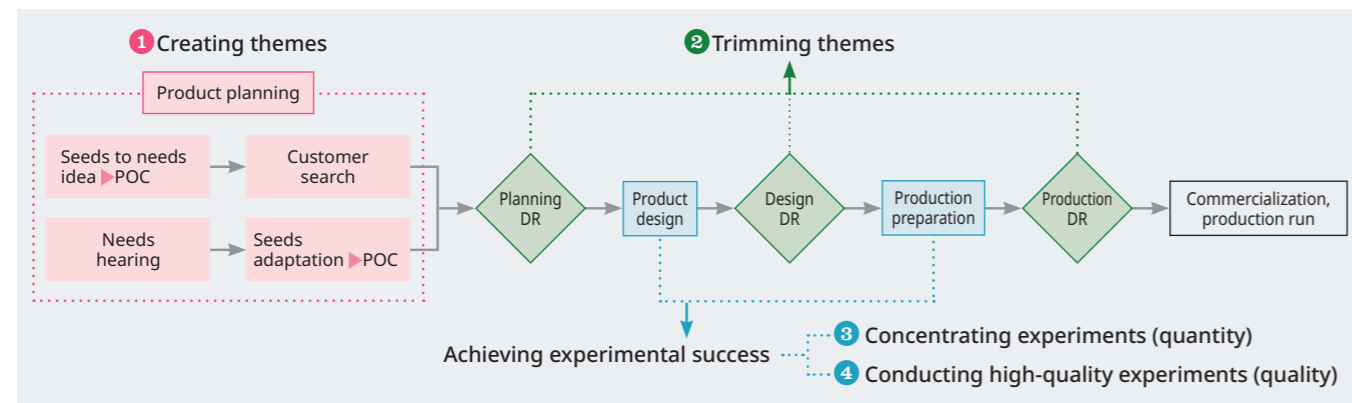


### Data Platform Structuring toward Technology Revolution

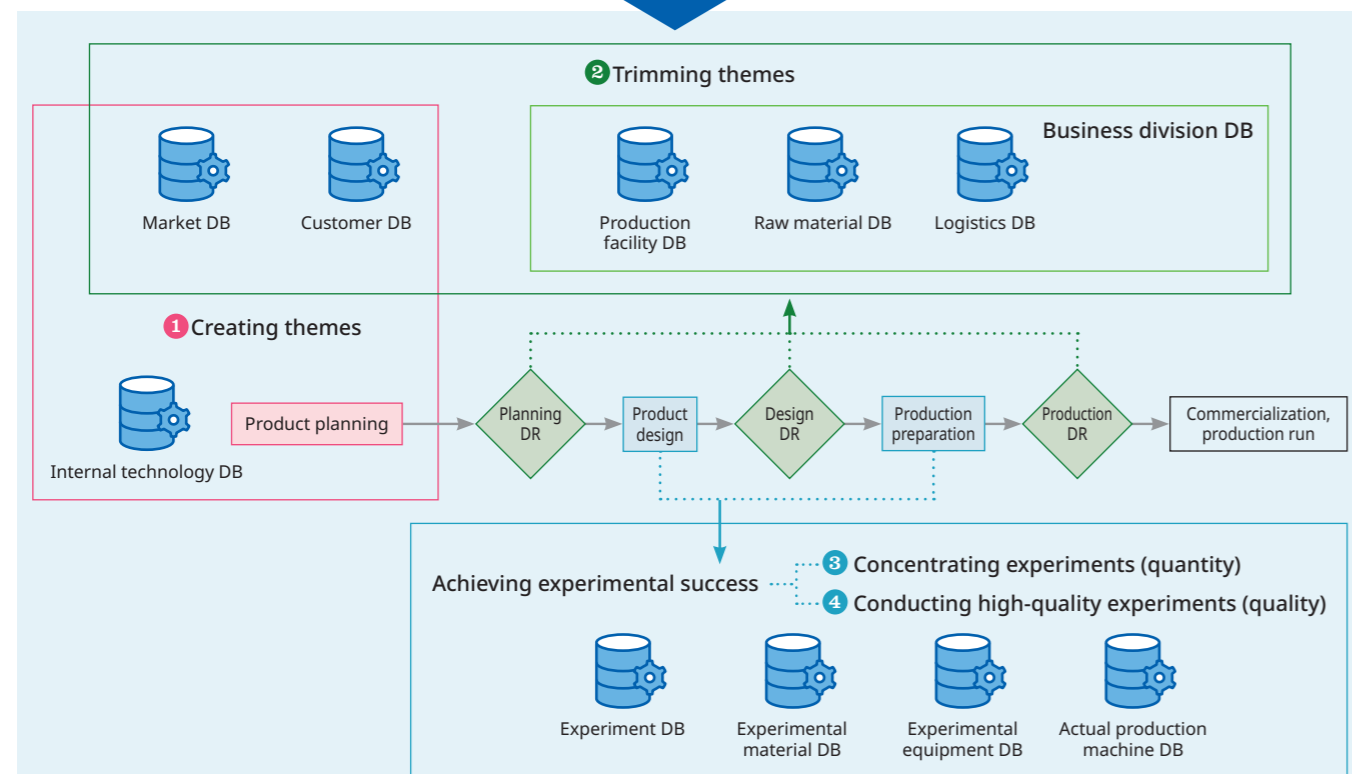
The Digital R&D Promotion Office is a challenge-focused, cross-laboratory organization. The Office conducts activities to enhance R&D content, speed, and efficiency through the power of digital technology. These activities are carried out by volunteer researchers across multiple laboratories who have proposed research themes to be pursued concurrently with their current positions. By building, linking, and utilizing databases (DBs) of various types, we are achieving results in terms of **1 creating themes**, **2 trimming themes**, **3 concentrating**

**experiments (quantity), and 4 conducting high-quality experiments (quality).** Themes are generated from the market DB, customer DB, and in-house technology DB at the Product Planning Stage. During the design review (DR), which encompasses the Planning Stages, Product Design Stage, and the Production Preparation Stage, the generated themes are winnowed with reference to the business unit DB. During product design and production preparation, we utilize DBs of accumulated information relating to experiments and production.

Changing the Content, Speed, and Efficiency of R&D with the Power of Digital



Various DB structuring and impact at each stage



Address main challenge(s) by structuring, coordinating, and using each DB



## nanotech 2023 Grand Award

Zeon Corporation received the nano tech 2023 Grand Award of the 22nd International Nanotechnology Exhibition & Conference, organized by the nano tech Executive Committee (Chairman: Tomoji Kawai, Visiting Professor, Institute of Scientific and Industrial Research, Osaka University). This was Zeon's second Grand Award, after receiving one in 2017. The nano tech Grand Award is given to exhibitors at nano tech in a number of fields whose products and technologies are comprehensively outstanding in terms of being innovative and advanced.

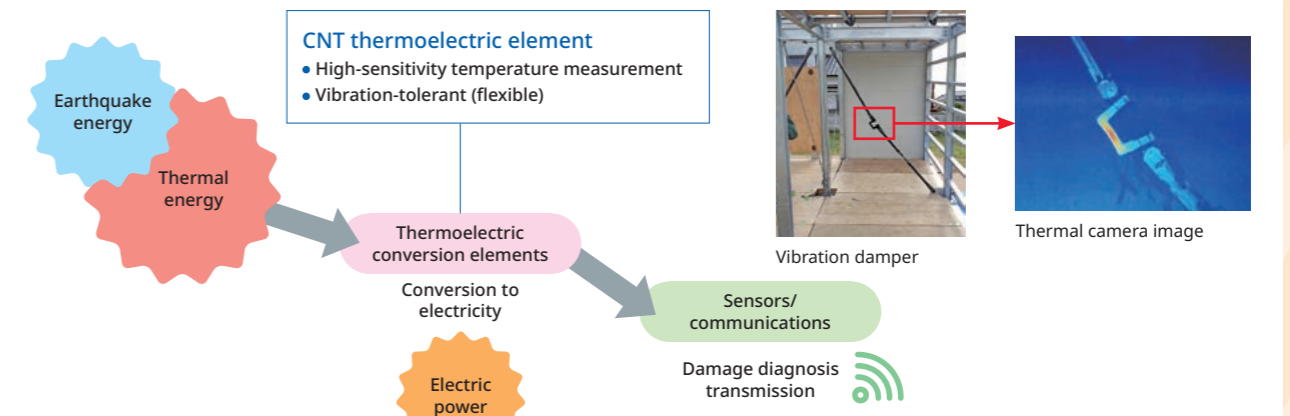
Zeon exhibited a wide range of applications for single-walled carbon nanotubes, including ZEONANO®

single-walled carbon nanotubes and next-generation battery applications. This latest Grand Award recognizes our development of single-walled carbon nanotubes for a wide range of commercial applications. These include the **development of a system that uses thermoelectric conversion elements incorporating our carbon nanotubes to instantaneously detect defects in buildings and thermal piping, such as during disasters, and send a wireless notification.**

A test sample for this system was fabricated in the Osaka district of Beppu City, Oita Prefecture, with verification testing performed with a vibration machine.



The system using thermoelectric conversion elements to instantaneously detect defects in buildings and thermal piping, such as during disasters, and send a wireless notification



Joint research with Tokyo University of Science and establishment of a venture with the University  
Verification test in Oita Prefecture



# Intellectual Property Strategy

## Intellectual Property Strategy

Our basic R&D philosophy is to contribute to society by creating world-leading businesses through developing unique technologies in the specific fields in which Zeon excels. One aspect of our 2030 Vision is to provide products and services indispensable to society, and to achieve this goal, we carry out R&D to “polish up” existing businesses and explore new businesses. With the close integration of our business, research, and IP strategies, we acquire and utilize intellectual property such as patents, design rights, and trademarks, aligning our expanding supply chain to optimize the advantages of new products uniquely developed through the proprietary Zeon technology platform. And to strengthen our IP management, we have established a dedicated unit focused on IP landscapes, and are cultivating the human resources needed to make effective use of a range of IP-related tools that we aim to adopt and utilize more widely.

### Creation of intellectual property

We develop new ideas and technologies through R&D for which we obtain patents and design rights—intellectual property that allows us to maintain and build competitive advantages. We carry out strategic IP activities to create a strong patent network based on growing our patent portfolio and strategic insights gained from environmental analysis using market and competitive information.

### Developing the IP mindset

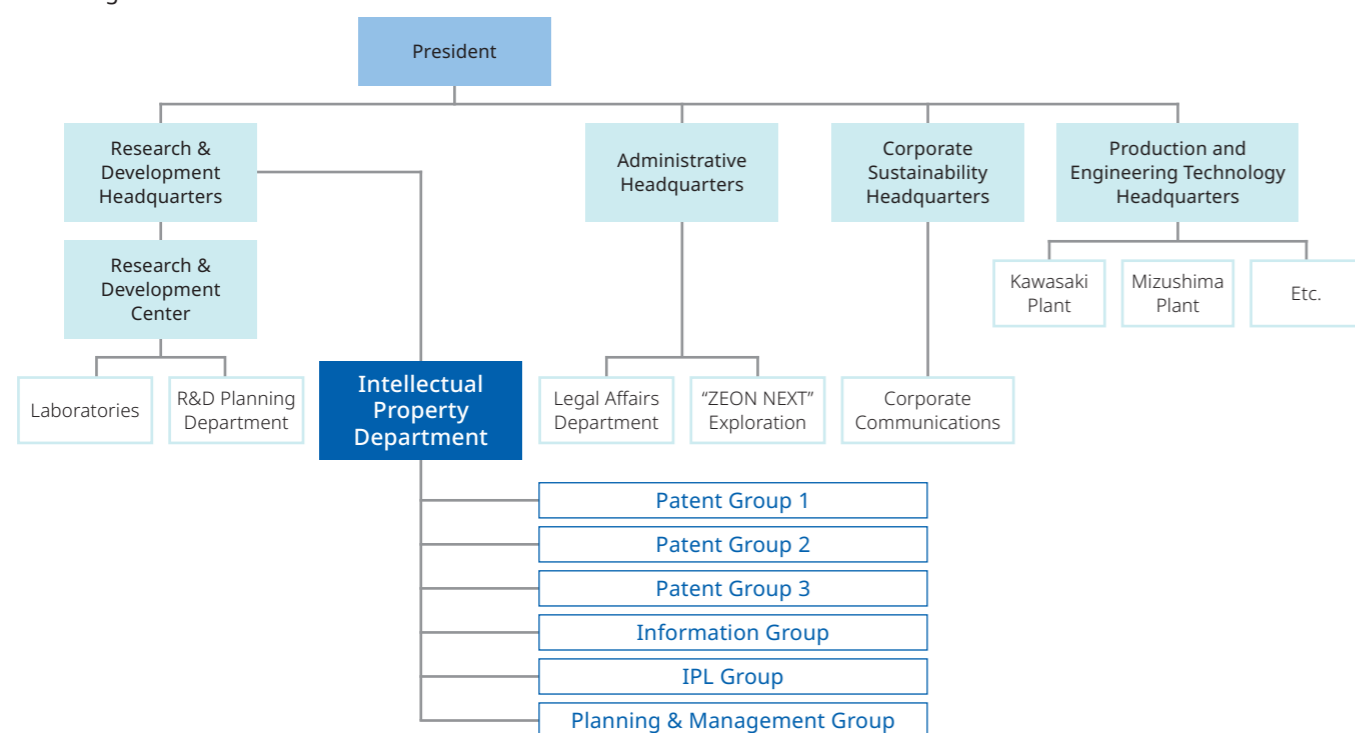
Understanding that intellectual property is the key to strengthening our corporate competitiveness, we are promoting measures to instill an IP mindset among all employees. Specifically, that means conducting training related to intellectual property, sharing information about intellectual property, and introducing a system for the evaluation of IP activities. We also conduct surveys to discover new businesses and technologies that people think can contribute to a sustainable society, as well as to enhance existing product values. The results are reported to management and lead to better formulations of business strategy.

### IP landscapes

In April 2021, a survey group was established within the Intellectual Property Department to explore business opportunities using IP landscapes. It was renamed the IP Landscape Group (IPL Group) in February 2023 (see diagram below).

The IPL Group uses patent analysis tools to efficiently and exhaustively analyze big data patent information, accurately and quickly identifying signs of shifting markets and demands, social issues, and technological trends. These activities aim to develop ideas that will lead to manufacturing that can make an ongoing contribution to a sustainable world. With a business opportunity exploration mission added to the IPL Group, the Intellectual Property Department is now able to work upstream on exploration, complementing downstream efforts on new product development, thereby supporting both new product development and new business creation.

### IP management structure



## Protection and Utilization of Intellectual Property

We regard all intellectual property that emerges from our investment in research and development to be important management resources. The protection and utilization of such intellectual property drive our business growth and the creation of new businesses.

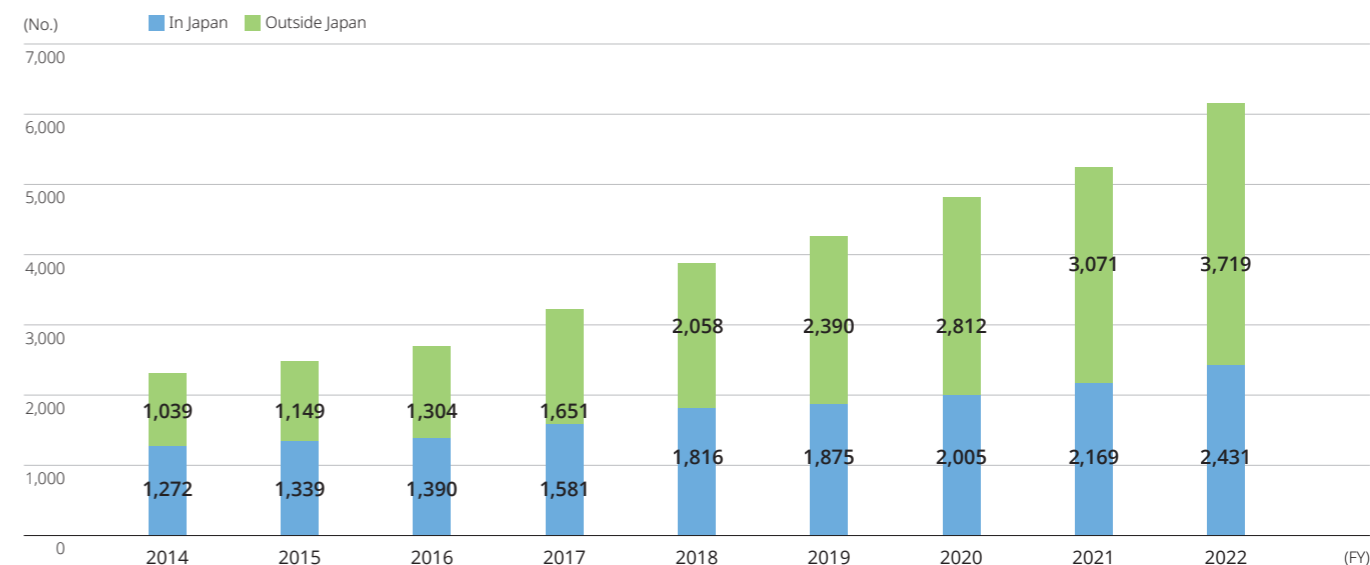
In addition to filing for patents to acquire rights, we are strengthening the protection of our intellectual property in the form of combined knowledge management, especially for production methods and certain knowledge-based technologies that risk being copied upon public disclosure. Additionally, we employ an open/close strategy toward utilizing intellectual property and manage technical information and contracts thoroughly.

We have a strict view of rights infringement, taking measures as appropriate to the situation, whether issuing an infringement notice or granting a license. Concerning counterfeit products in emerging markets, for example, we are working with government authorities and e-commerce site operators to better monitor and crack down on counterfeits. Also, to protect brand value, we manage our logos appropriately within the company and implement brand management to ensure that customers and society are not negatively affected.

### Number of patents held

As a result of these activities, we currently hold approximately 6,150 patents in 35 countries (as of March 31, 2023), placing 16th among 763 companies in the rankings of chemical patent holders conducted by Japanese patent analytics firm Patent Result, Co., Ltd. in fiscal 2021. We plan to continue actively growing and strengthening our patent portfolio, updating it regularly.

### Number of patents held



# Human Resources Strategy

## Work Together to Create “Stages” to Be Active On



**Yoshiyuki Sone**

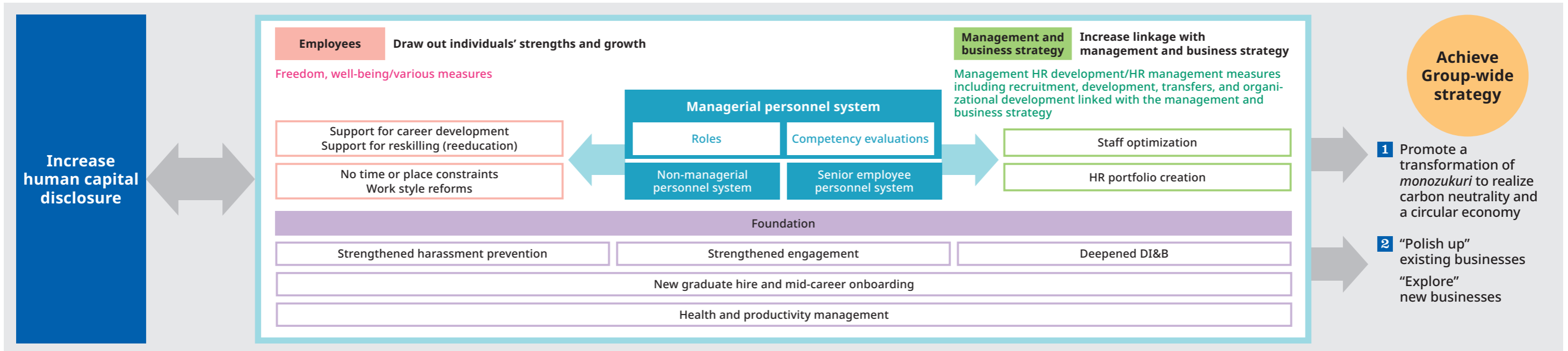
Director & Senior Corporate Officer Administration

Creating platforms for employee excellence together with employees is one of our Group-wide strategies. When all employees have a sense of freedom (having more choices in life) and achieve well-being (having a fulfilling life with both good mental and physical health), they will feel empowered to demonstrate their diverse talents at Zeon. We are taking a two-pronged approach to create these platforms: 1) deepening diversity, inclusion, and belonging (DI&B) and 2) increasing employee engagement.

In the first phase of our Medium-Term Business Plan (FY2021–2022), we focused on developing favorable conditions and creating programs to offer employees a greater variety of options. Our actions included remodeling our head office, expanding remote work, and introducing a cafeteria plan. In addition, the employee engagement survey that we have conducted since fiscal 2021 has revealed issues in areas such as staff resourcing, our internal cooperative framework, and work processes. To address these issues, we have set key performance indicators (KPIs) and are incorporating them into various strategies.

Phase 1 initiatives	Details
Conduct employee engagement surveys	Visualize internal issues, set KPIs Expand survey scope to Group companies
Remodel Head Office	Include latest designs and facilities Create conditions that prompt employees to offer creative ideas
Increase remote work	Support work styles that work with various lifestyles Reduce commute times and support employees' work and private life
Introduce cafeteria plan	Offer optional benefits for health, self-development, leisure, and more that fit employees' individual needs
Introduce and revise various programs	Senior employee personnel system, side-work program, expanded support for child and family caregiving, etc.

Vision for “stages”



## Transforming Human Resources Management to Mobilize Individuals' Strengths and Promote Growth

The second phase of our Medium-Term Business Plan (FY2023–2026) focuses on enhancing corporate governance and developing conditions that promote employee health and motivation. Through this, we will realize our Group-wide strategies of co-creating platforms for employee excellence and enhancing our management foundation. Key areas in our HR strategy include Health and Productivity Management, operating a new personnel system with greater employee empowerment, establishing DI&B principles, and developing diverse human resources to lead business in the future. We will continue taking results-focused actions to achieve our FY2026 targets for the related KPIs.

The new managerial personnel system that we launched in July 2023 began from a system that assigned

grades based on roles. Strategy-based role design makes clear to employees what the HR requirements and necessary career background are, which supports their reskilling and career development. In terms of management and business strategy, the system provides visibility into where we have too many or too few of the needed resources. We can also gain a better understanding of the best people to achieve the Medium-Term Business Plan and tools to build an HR portfolio. This will enable us to implement HR management linked to management strategy that clearly defines what types of human resources we need to recruit, develop, and reassign. This, in turn, contributes to business management and achieving the goals of our Group-wide business strategy.

Strategies	Target for 2026	Measures
<b>3 Work together to create “stages” to be active on</b>	<ul style="list-style-type: none"> <li>Engagement survey item Employee engagement: 56%</li> <li>Engagement survey item Environment maximizing employee potential: 55%</li> <li>Zeon Healthy Behavior Indicator: 65%</li> <li>Paid leave utilization rate: 70%</li> </ul>	<b>Key policy</b> <b>Create a healthy and motivating work environment</b> <ul style="list-style-type: none"> <li>Advance health and productivity management initiatives</li> <li>Operate a personnel system that allows employees to be themselves</li> <li>Instill DI&amp;B thinking</li> </ul>
<b>4 “Polish up” the management base</b>	<ul style="list-style-type: none"> <li>Ratio of foreign-national &amp; female directors &amp; officers: 25%</li> <li>Ratio of female managers: 12%</li> </ul>	<b>Key policy</b> <b>“Polish up” corporate governance</b> <ul style="list-style-type: none"> <li>Training diverse human resources for future management positions</li> </ul>

### Advance Health and Productivity Management Initiatives

We are promoting health and productivity management to realize our Vision for 2030, to be “a company that lives up to societal expectations and the aspirations of employees.” Based on our belief that “employees and their family members are our company’s most indispensable asset,” the ultimate goal of health and productivity management at Zeon is to create

“stages” together with employees where they can demonstrate their individual strengths.

We will continue to promote health and productivity management initiatives with the aim of realizing **freedom and well-being** for all employees.

#### Introducing Zeon Healthy Behavior Indicator

In Phase 2 of STAGE30, our Medium-Term Business Plan, that we launched in fiscal 2023, we created the Zeon Healthy Behavior Indicator (Fig. 1) to set forth our health and productivity management goals. This original index consists of the three

health indicators of a BMI within the standard range, engaging in routine exercise, and not smoking. Key points of this index were making the self-assessment easy to complete and including healthy activities that anyone can do.

Fig. 1 Zeon Healthy Behavior Indicator

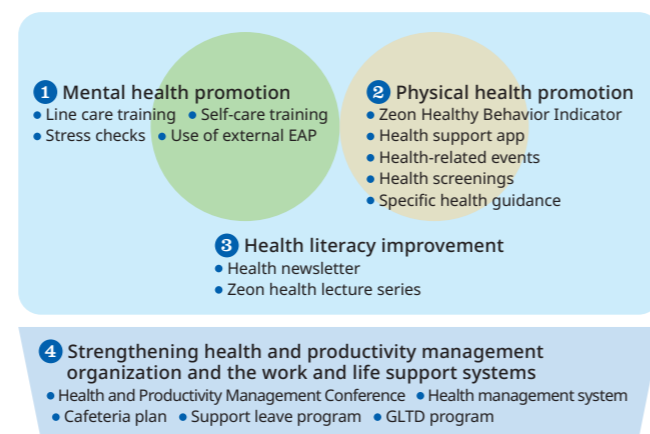


#### Promoting health and productivity management

We have categorized our health and productivity management activities into four main areas. We are implementing health and productivity management by promoting health literacy, which is the foundation for mental and physical health, and enhancing our health and productivity organization and the work and life support systems. (Fig. 2)

The Health and Productivity Management Conference comprising relevant staff from the Head Office and business locations, operates with the aim of having employees become more familiar with our health and productivity management.

Fig. 2 Health and productivity management activity categories

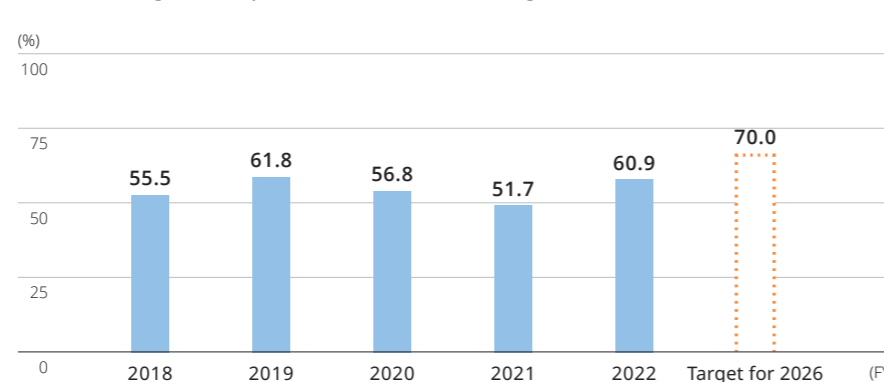


### Initiatives to Create Employee-Friendly Workplaces

#### Improving the rate of taking annual paid leave

We are working to raise the rate of employees taking annual paid leave to 70% by fiscal 2026. As part of this, we are making it easier to take leave, such as by setting up days and periods of time where taking annual paid leave is encouraged and creating programs to enable taking leave in single-hour and half-day increments.

Rate of taking annual paid leave and FY2026 target



### Operating a Personnel System that Allows Employees to Be Themselves

We updated our personnel system in July 2023 to create a job-specific evaluation system for managerial staff. In the former system, grades and compensation were used as stepping stones to managerial roles, based on the person’s ability to perform their duties. More recently, however, the roles (i.e., duties) employees are expected to perform have been

diversifying. To foster employees’ motivation and create “stages” that allow employees to demonstrate their individual strengths, we decided that we needed to transition to a personnel system that draws out employees’ diverse strengths and prompts their growth. This led to the revision of our managerial personnel system.

#### Objectives of revising the managerial personnel system

We revised the system with the following three objectives. The first is to reward employees according to the demands of the role they are expected to perform by creating a multi-track personnel system. In addition to the management roles created based on our existing roles, we introduced specialist roles with grades set by evaluating job performance on an individual basis. We also clearly defined the career paths and set compensation according to the demands of the role.

The second objective is to encourage growth after promotion to a managerial role. We introduced conduct (competency) evaluations that include specific items set for individual roles and are based on demonstrated conduct.

This is designed to increase the transparency of performance evaluations, drive creation of results, and serve as a guide for long-term professional development.

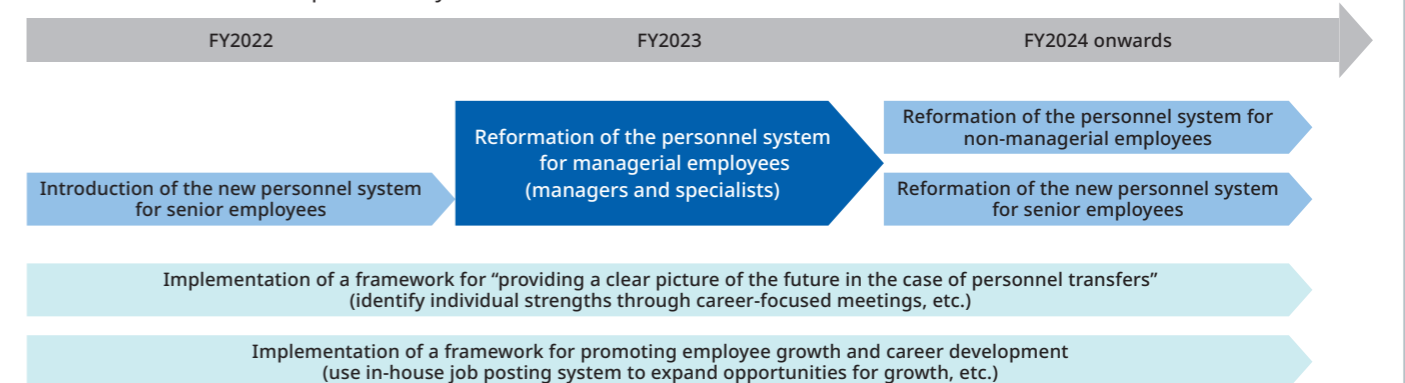
The third objective is to increase career track visibility for employees. By clarifying the requirements of each role, employees have a clearer picture of their career paths and the company can see where there are too many or too few of the resources needed to achieve the management strategy. This information will be used in personnel management to encourage employee growth and determine what types of resources are most need to be recruited, developed, and assigned to roles.

#### HR portfolio supporting the management and business strategy

As part of implementing the new managerial personnel system, we will also build an HR portfolio to support getting the right people in the right positions to achieve our management and business strategy. Clarifying the HR requirements tied to each managerial role is designed to encourage the professional development of young and mid-level employees who want to advance to a managerial position as well as present a clearer picture of available career paths. We are planning to revise the personnel system for non-executive employees in

FY2024 and beyond. In this revision, we will identify issues in work styles and career development through two-way dialogue and review how to support opportunities for young employees to independently develop their careers. We introduced a job-based personnel system in advance when we established the personnel system for senior employees in FY2022, and we plan to revise the system in FY2024 to further clarify the linkage between the new personnel system for managerial employees and careers at Zeon.

#### Flow of reformation of the personnel system



### Training Diverse Human Resources for Future Management Positions

When we assessed gender equality at Zeon using WEPs (seven international principles promoting women's economic empowerment) in March 2022, we found a need to offer greater support for women's career development due to a lack of women role models in management positions. We are therefore reviewing the establishment of a mentor program and a sponsor program to support women employees. We plan to build a framework from these programs for discussing HR requirements and enabling objective evaluations, as well as have this process repeated regularly, with the goal of creating successor development plans for diverse employees who will lead future management.

We are also actively hiring human resources that have diverse career backgrounds. In FY2022, we hired 232 mid-career employees and 100 new graduates to work in many areas of Zeon, including the Research & Development Headquarters, the Elastomers and Chemicals Business Headquarters, the Specialty Business Headquarters, and the Digital Transformation Promotion Division. We are also actively promoting these human resources to managerial roles to create teams with diverse viewpoints. As a means of advancing

gender equality and steadily increasing the ratio of women employees that play a central role in future management decision-making, we aim to continue hiring women each year to fill at least 30% of the roles for new graduate hires at the Head Office. Our workforce is growing from robust hiring levels over the last several years, and we are focusing on onboarding and creating frameworks to retain these new employees and have them demonstrate their individual skills. This includes providing support in their personal life, in-house self-study opportunities, and support for building interpersonal networks, based on two-way communication.

#### Support for women employees

Program	Details
<b>Mentor Program</b>	Women managerial candidates are paired with a woman manager as their mentor, who serves as a sounding board for concerns about management roles, offers detailed career advancement advice, and develops their management mindset
<b>Sponsor Program</b>	This program helps employees develop a management perspective and network with the management team by having them sit in on Executive Committee meetings and other meetings that management attends

### Instilling DI&B Thinking

We are promoting DI&B, with Belonging added to the principles of Diversity and Inclusion. We are conducting both top-down and bottom-up activities with the goal of mobilizing employees while respecting their diversity (D&I) and making everyone at Zeon have a sense of security and trust that they are accepted (Belonging). Creating a culture of DI&B, where everyone is glad they work at Zeon and feels like they have a place to belong, is at its core the process of "creating 'stages' in which all employees can demonstrate their individual strengths" set forth in our Medium-Term Business Plan.



Support for mid-career hires Head Office tour and discussion

#### DI&B initiatives

Initiative	Details
<b>DI&amp;B-related education</b>	Unconscious bias training, self-leadership training, etc.
<b>DI&amp;B promotion project (launched in Dec. 2020)</b>	36 employees Group-wide participated in the FY2023 (6th) session, with various projects conducted
<b>Utilizing senior employees</b>	Lifetime career review training and external intern trial
<b>Connection support/framework for employees to help each other</b>	Career and organization consultation office, mentoring support connecting younger employees with more experienced employees
<b>Support for employees with children</b>	Posting stories on the internal company website about employees' experience taking parental leave, holding parent discussion sessions, and creating a community for employees with children
<b>Support for mid-career hires</b>	Holding networking events and activities to deepen company understanding, such as tours of business locations
<b>DI&amp;B Week</b>	Holding a week-long campaign for all employees, jointly holding the campaign with local companies outside Japan
<b>Dialogue sessions with management</b>	Dialogue sessions between management and DI&B project members (total of 6 sessions held since FY2021)



### Discussion Sessions to Create "Stages" Together with Employees



**Tomohiro Fukagata**  
Division Manager  
- Human Resources

We are working to create "stages" together with employees that allow them to demonstrate their individual strengths in pursuit of achieving our Group-wide strategy.

At the Human Resources Division, we are visiting all Zeon business locations and holding more in-person discussions. Employees from the Head Office and the R&D Center participated in one such frank discussion at our Head Office building on creating these "stages." Highlights from the discussion are below.

#### Career plans



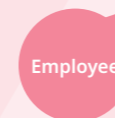
We received feedback from employees that they did not know how to think about their own career plan since they had not really considered one in detail before, and that they felt the need for more training programs to acquire the knowledge and skills they need to achieve their career goals.



In the new managerial personnel system, we have clearly defined the demands of each managerial role. Roles have been categorized into the areas of production, R&D, business, corporate, and DX, and we have presented a model career path for each area. Along with this, we have clearly defined the knowledge, experience, skills, and conduct that is needed for the roles with the intention to have employees design their own career plan. In terms of education, we are looking at creating a framework to allow employees to select the specific educational programs they need themselves to acquire skills and advance their careers.

That said, it is not feasible to expect employees to suddenly come up with their own career plans. We have therefore set up opportunities in fiscal 2023 for employees to think about their careers and tell us their objectives. Through discussions with their manager and others, we are supporting employees to think about their careers on their own. We will also increase opportunities for employees to realize their career goals, including through the in-house job-posting system.

#### Work-style reforms



We have seen a lot of positive feedback from employees about allowing them to choose where they work and the hours they work, about how it increases their productivity and helps them balance taking care of children or other family members. On the other hand, we've also heard from employees about wanting to improve their skills while on parental and childcare leave and their concerns about promotions being postponed.



I would like to further expand the options that are available to employees to better fit their needs, whether they want to improve their skills while on parental or childcare leave or spend that time focusing solely on their children. We are also looking at revising the requirements for promotion in the personnel system grades to no longer take into account the number of years spent in a particular grade.



While we have been actively revising our personnel systems and work styles over the last several years, to employees these changes still do not feel very big.

We will continue to create "stages" together with all employees, including in our personnel systems and frameworks, to create a stronger company that is employee-friendly and a rewarding place to work.

**Thank you for providing this valuable feedback.**

# Sustainability Policy and Dissemination Activities

## Sustainability Policy

- We aspire to realize a “Sustainable Earth” and “Safe and Comfortable Life”.
- We will firmly maintain fairness and integrity in our activities to be a trustworthy company.
- Each of us will think and act proactively for a better future.

Based on our corporate philosophy of “contributing to the preservation of the Earth and the prosperity of the human race”, sustainability at Zeon means achieving sustainable growth together with society. To achieve this, we will provide products and services that are valuable for solving global and social issues, build trust with our stakeholders through fairness and integrity and have each one of us act proactively thinking how to create a better future for the society and ourselves.



### Explanation of the schematic diagram

Zeon's Sustainability Policy can be explained with reference to the schematic diagram shown above. Firstly, the inner arrows ① and ② represent how, by helping to solve social issues and providing new value for society, Zeon itself can also obtain profits in return for providing this value. Arrows ③ and ④ show how continuing to implement a “virtuous circle” can lead to sustainable development for society and continued growth for Zeon. The image in the middle representing two people shaking hands denotes how, by realizing this kind of virtuous circle, the relationship of trust between society and Zeon can be further strengthened.

## Disseminating Our Sustainability Policy

Our Sustainability Policy was established in July 2022, and during the second half of FY2022, briefing sessions to disseminate the policy were attended by all Zeon Group employees in Japan. Briefings were held at Zeon's head office, research laboratories and six manufacturing plants, and at the group companies. During the briefings, the Corporate Sustainability Division Manager presented the policy background, the importance of sustainability for Zeon, and the aim of each aspect of the policy. After the sessions, participants attended a workshop to discuss sustainability and deepen their policy understanding.

In FY2023, we will extend these briefings to international group companies in line with our efforts to disseminate the policy.



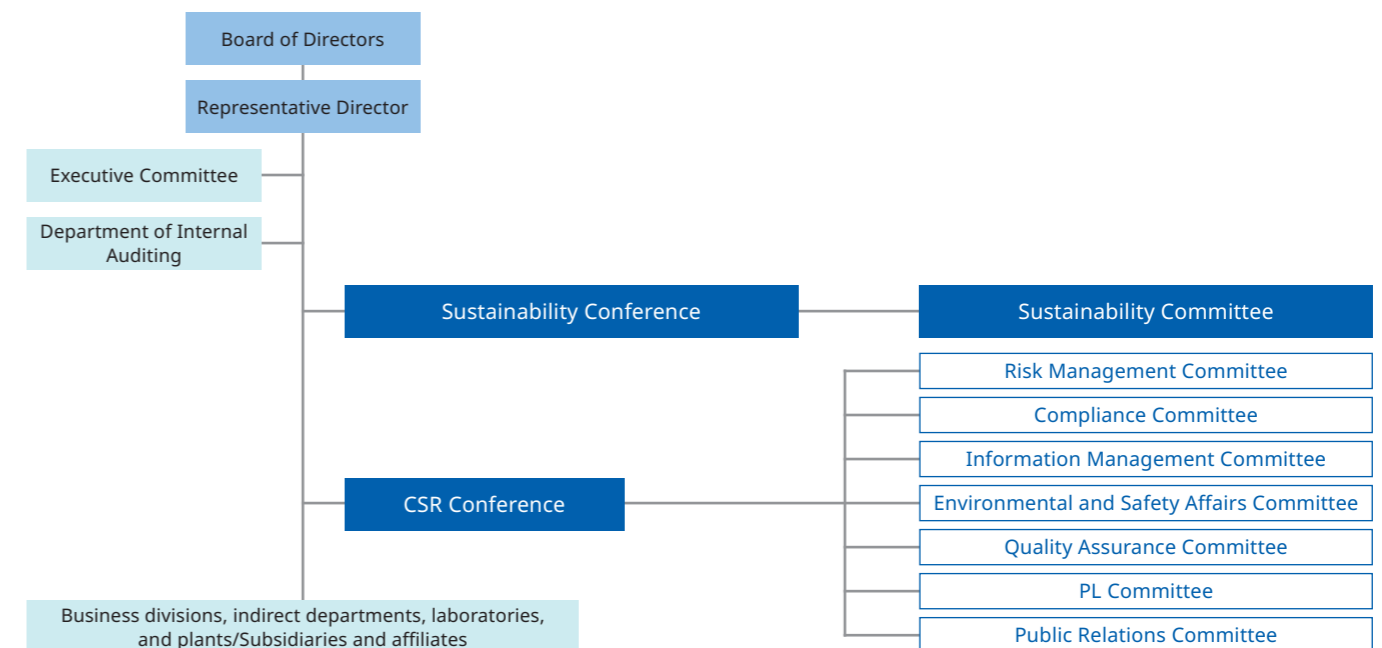
Post-briefing discussion at Sustainability Policy presentation

## Sustainability Management

The Vision for 2030 of the Medium-Term Business Plan, which began in FY2021, is to become a company that lives up to societal expectations and the aspiration of employees. To the end, we are striving to realize sustainability management, and in July 2022, we adopted our Sustainability Policy to replace our previous CSR Policy, to clarify the approach to be used in activities by the Group and its employees. In December 2022, in addition to the CSR Conference, we established the Sustainability Conference and the Sustainability Committee under it to discuss and promote sustainability-related initiatives on a group-wide basis.

The Sustainability and CSR Conferences are chaired by the president, and discuss and take decisions on various measures related to sustainability and CSR, reporting to the Board of Directors as required. Risk management and compliance will continue to be handled mainly by the CSR Conference, while the Sustainability Conference will deal with sustainability-related issues.

### Bodies and committees promoting sustainability



## Activities to Define Materiality

In April 2023, we formed a cross-department project to define materiality, which will be the basis for our sustainability management. We are now compiling preliminary definitions, taking into account internal and external trends and

drawing on the opinions of management and employees. Once the necessary administrative decisions are taken, our aim is to reach a definition of materiality by the end of 2023, and promulgate it internally and externally.

## SDGs Contribution Product Certification (provisional name)

We regard SDGs as societal expectations, and are working to achieve our Vision for 2030 through SDG-related activities. As one such activity, we are considering the adoption of an SDGs Contribution Product Certification (provisional name) to

focus on and reinforce products that contribute highly to SDGs. We are certifying specific products based on provisional criteria, and based on the results and finalized details, anticipate officially introducing the system in FY2024.

# Initiatives Relating to Respect for Human Rights

The Zeon Group positions initiatives relating to respect for human rights as one of the important foundations underpinning sustainability management and is proceeding with initiatives based on the Zeon Group Human Rights Policy established in August 2019.

## Zeon Group Human Rights Policy (excerpt)

(Established August 1, 2019)

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

For the full Zeon Group Human Rights Policy, please visit: <https://www.zeon.co.jp/en/csr/social/>

## Initiatives for FY2022 and Forward

Starting from FY2022, we have begun to implement full-scale human rights due diligence initiatives.

In implementing human rights due diligence, Zeon Corporation, group companies, and the supply chain have been carrying out relevant measures while receiving advice from external experts.

### Zeon Corporation

Zeon Corporation has added "human rights issues in advertising" to the 25 risk categories for human rights listed in "Company Obligations to Respond to Business and Human Rights" (published by the Ministry of Justice's Human Rights Bureau). This issue has become a problem downstream in the supply chain in recent years. We have designated a department to address this and other risks; it is now working to reduce human rights risks group-wide.

## Participating in Activities of the United Nations Global Compact (UNGC)

The Zeon Group endorses the UN Global Compact. We also participate actively in subcommittees of Global Compact Network Japan. We participate in workshops and working groups of the human-rights-related supply chain subcommittee and human rights due diligence subcommittee, and apply the information and knowledge gained through the Group's efforts to actions that ensure respect for human rights.

### Human rights issues we focus on (partial list) and our responses

Risk categories	General risk description/examples	Status of our initiatives
Occupational health and safety	Workers' health is not protected	Continuation of regular health checkups and measures against infectious diseases such as COVID-19
Excessive and unreasonable working hours	Long working hours due to labor shortages and incidents	Continuation of proper understanding of working hours, and making employees aware of working hour consultation services and maximum working hours
Harassment in different forms	Various acts of harassment such as power, sexual and care harassment, and pregnancy discrimination (maternity harassment)	Ongoing implementation of anti-harassment training
Rights of foreign workers	Discriminatory treatment on the basis of being a foreigner	Increased Japanese language learning support for and dialogue with foreign employees
Rights of local residents	Negative impact on local residents due to noise and waste in production activities	Confirmation of the status of initiatives at plants and production sites
Human rights issues in advertising	Advertisements produced promote discrimination	Attendance at human rights seminars for relevant personnel and confirmation with advertising agencies concerning human rights policies
Right to access remedies	Even if a consultation service exists, it is not made widely known	Revision and dissemination of employee concern system rules

### Group companies in Japan

For our group companies in Japan, we have provided education to the management and staff involved with human rights at each company regarding the background of our initiatives and the importance of efforts to promote respect for human rights.

Starting in FY2023, we will begin full-fledged efforts to identify human rights risks at each group company and formulate and implement measures to reduce such risks.

### Supply chain

#### ① Identification of risks at suppliers

We surveyed a total of 262 of our suppliers by having our procurement departments identify those with operations that are likely to involve high risks for human rights, etc., in addition to those in the top 80% or higher by trading amount. We used Global Compact Network Japan's standard Self-Assessment Questionnaire (SAQ) to ascertain the status of initiatives being taken by suppliers and to identify risks.

#### ② Feedback

We sent a feedback sheet to all suppliers who answered the standard SAQ survey, revealing their score in each category (human rights, labor, environment, etc.), along with the average score for all suppliers, their previous scores, and general comments, to encourage those suppliers to improve their CSR initiatives.

#### ③ Supplier engagement

From the suppliers to whom we sent the standard SAQ feedback sheet, we selected 16 for scores that were especially high or low or for their handling of high-risk materials in terms of CSR. We subsequently visited or interviewed those selected to explain the importance of CSR procurement and confirm the status of their initiatives.

As necessary, we ask them to make improvements or request other things through discussions as part of CSR risk reduction activities in the supply chain.

#### ④ Establishing sustainable procurement guidelines

Zeon has CSR Procurement Guidelines based on which we pursue procurement compliant with our corporate social responsibility. In the latter half of FY2023, we plan to flesh out the content of those guidelines in the form of Sustainable Procurement Policy and devise Sustainable Procurement Guidelines that elucidate the environment and human rights and other policies involved in sustainable procurement for Zeon.

With the policy and guidelines in place, we will extend them to our suppliers, thoroughly communicating our approach so that sustainable procurement is practiced thoroughly.

#### ⑤ Establishing supply chain reporting hub

To prevent incidents from occurring in our supply chain that infringe upon laws or regulations, or violate our corporate ethics, we plan to establish a supply chain reporting hub on our website in the second half of FY2023.

### Supplier engagement and feedback

Item	Number of companies	Feedback interview content
Low-scoring companies	5	Explanations of CSR and sustainable procurement initiatives are provided, as well as a detailed review of low-scoring items to identify risks and encourage improvement actions
High-scoring companies	3	Interviews are conducted with high-scoring companies to learn from them and get examples of best practices to apply to sustainable procurement at our company and other suppliers
Companies handling high-risk raw materials	8	Companies that handle raw materials considered to be high-risk from a CSR perspective (such as conflict minerals, palm oil, and silicon) are asked to check their upstream approach and the management status of the target raw materials; and if inappropriate, encouraged to make improvements

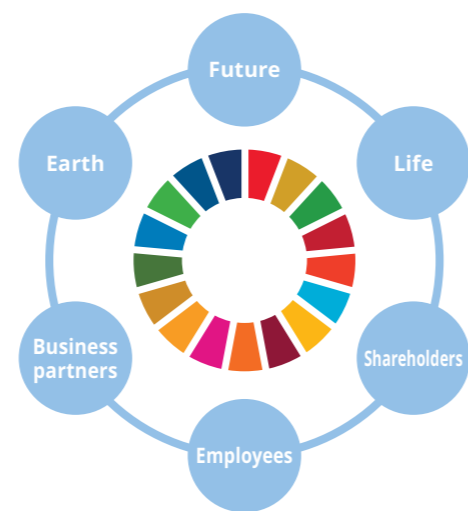
### Future Initiatives in FY2023

We will maintain and develop our initiatives implemented in FY2022, extending these efforts to promote respect for human rights to our group companies outside Japan.

# Stakeholder Engagement

We believe that building relationships of trust with stakeholders is essential in promoting sustainable business activities. This will help us contribute to a sustainable Earth and safe and comfortable lives for people, under our mission of contributing to the preservation of the Earth and the prosperity of the human race.

Our vision for 2030 is to be a company that lives up to societal expectations and the aspirations of employees. In practice, we identify societal expectations as SDGs, incorporating the concept of six-way satisfaction. Of the six, "business partners" refers to our customers and suppliers, "shareholders" refers to our shareholders and investors, "life" refers to people everywhere and their lifestyles, and "employees" refers to the people who work with us at Zeon. To realize our Vision, we will maintain dialogue with stakeholders and efforts to deepen mutual understanding further.



	Stakeholder relations	Main dialogue channels
Customers	We will provide safe, reliable, high-quality products and services that earn customer trust. Moreover, through communication with customers, we will develop products and services that contribute to meeting their challenges, and collaborate to develop sustainable products that satisfy the diverse requirements and expectations of the global market.	<ul style="list-style-type: none"> <li>• Sales activities</li> <li>• Exhibitions</li> <li>• Websites (product introduction/consultation)</li> <li>• Customer satisfaction surveys</li> </ul>
Suppliers	Our goal is to realize a sustainable society throughout our supply chain, by engaging in responsible procurement activities in conformance with our Sustainable Procurement Policy. As such, it is incumbent upon us to build strong partnerships with suppliers. We strive to gain supplier understanding of our procurement policy, and work closely with them to achieve enhanced procurement sustainability. We also monitor the progress of their activities through procurement surveys and interviews.	<ul style="list-style-type: none"> <li>• Procurement activities</li> <li>• Sustainable Procurement Guidelines enhancement and notifications for suppliers</li> <li>• Procurement questionnaire for suppliers</li> </ul>
Shareholders and investors	Our information disclosure is fair, impartial, highly transparent, timely, and appropriate. We strive to bolster our corporate value through dialogue with shareholders and investors, to foster deeper understanding of our management policies and business activities. We also take external opinion seriously, and consider it in our management and information disclosure.	<ul style="list-style-type: none"> <li>• Financial results briefing</li> <li>• Medium-Term Business Plan briefing</li> <li>• General shareholders meeting</li> <li>• Meetings with analysts and investors</li> <li>• Website (IR information)</li> </ul>
Local community	We operate correctly and reliably at each of our locations, and contribute to community development through our business. As a member of the local community, we engage in diverse activities in response to local expectations. We work to create contexts for communication, and based on trust through mutual understanding, collaborate to achieve a sustainable and prosperous community.	<ul style="list-style-type: none"> <li>• Business location visits and internships</li> <li>• Local event participation, support, and hosting (summer festivals, etc.)</li> <li>• Volunteer employee activities (preserving the local environment, etc.)</li> <li>• Chemical experiments classroom and other on-site lessons</li> </ul>
Employees	Our vision for 2030 is to be a company that lives up to societal expectations and the aspirations of employees. To make this vision a reality, we are evolving our personnel system and formulating personnel policies that help every employee demonstrate his or her individual abilities and work with a sense of security and energy. We welcome opportunities for dialogue, and strive sincerely to consider individual opinions.	<ul style="list-style-type: none"> <li>• Get-togethers with young employees</li> <li>• Employee engagement survey</li> <li>• Corporate management policy briefings</li> <li>• Internal portal site and in-house newsletter</li> <li>• Employee concern system</li> </ul>

## Dialogue with analysts and investors: Briefings on company condition

Through such activities as quarterly briefings for analysts and institutional investors, posting detailed financial result materials on our website, and hosting company briefings for individual investors, we are striving to enhance our communication activities beyond one-on-one interchanges. FY2022 activities included an online corporate information session in September, giving the President an opportunity to profile the company condition and outlook.



## Dialogue with local communities: Hosting summer festivals

We host summer festivals, mainly in communities where our plants are located. The COVID-19 pandemic forced us to suspend these activities, but they are being resumed flexibly on a case-by-case basis, beginning in FY2023. As in the past, we will strive to provide these and other opportunities for local residents to participate and interact with our employees.





## TOPICS

### Commitments and external evaluations

We endorse international initiatives and work to further sustainability initiatives and goals advocated by international organizations.

#### Commitments


**The United Nations Global Compact (UNGC)**  
  
 The United Nations Global Compact (UNGC) is a voluntary initiative aimed at realizing sustainable growth, by encouraging companies and other organizations to act as good corporate citizens through the exercise of responsible, creative leadership, under the guidance of the United Nations. In July 2019, we announced our support for the UNGC's ten principles relating to protection of human rights, elimination of improper labor practices, safeguarding the environment, and preventing corruption.

**TCFD**  
  
 Task Force on Climate-related Financial Disclosures (TCFD) was established under the Financial Stability Board (FSB) in response to a request from finance ministers and central bank heads of G20. The TCFD recommendations encourage corporations to recognize their own risks and opportunities in relation to climate change and to incorporate these into their business strategy, with the ultimate goal of having corporations disclose the impact of these risks and opportunities. We expressed our support for the TCFD recommendations in August 2020. We will continue to strive to make a contribution to combating climate change.

**Science Based Targets (SBT)**  
 Refers to corporate greenhouse gas emission reduction targets with five- to ten-year time horizons, consistent with levels required by the Paris Agreement. We have established targets, and SBT certification is pending.

#### External evaluations

**CDP**  
  
 CDP is an international environmental NGO which focuses on three areas: Climate, Water, and Forests. In each of these three areas, CDP administers surveys to business enterprises and gives them one of eight scores: A, A-, B, B-, C, C-, D and D-. In FY2022, more than 18,000 enterprises disclosed data to CDP and Zeon received a B rating. We will continue these efforts and strive for further enhancement.

**EcoVadis**  
  
 EcoVadis assesses the corporate policies, strategies and performance of its participating firms in terms of their impact on the environment, labor practices, human rights, ethical issues and sustainable procurement, by using a platform on which more than 90,000 registered buyers and suppliers in 200 different industries from around 175 countries and regions share data. In FY2022, we received a Bronze rating for being in the top 50% for these initiatives.



# Environment

## Responsible Care Policy

At Zeon Group, we have practiced a responsible care philosophy as a member of the Japan Responsible Care Council (now the Japan Chemical Industry Association Responsible Care Committee) since its inception in 1995. In 1998, we estab-

lished Responsible Care Policy to embody this philosophy. We implement environmental measures and promote improvement initiatives following these guidelines.

### Responsible Care Policy

(Established June 1998)

#### 1 Prioritize the environment and safety

Protecting the environment and ensuring safety are preconditions for all business activities and are the most important priorities. We will work continuously to enact full accident prevention countermeasures, and provide education and training for all employees to prevent safety and environmental accidents.

#### 2 Collect and distribute the latest information on chemical products

We will collect, store and manage the latest information required for the appropriate handling, use and disposal of chemical products, and distribute this information to employees and users.

#### 3 Minimize the discharge of toxic chemicals and waste

We will work to reduce the discharge of hazardous chemical substances, minimize waste, and develop technology for recycling and reusing materials.

#### 4 Promote activities for conserving resources and energy

We will aim to dramatically reduce the amount of energy we use and help alleviate global warming by developing innovative technology and actively promoting resource and energy conservation activities that involve all employees.

#### 5 Take the environment and safety into account when developing new processes and products and performing quality assurance

We will perform thorough environmental and safety evaluations from the initial stages of research, develop technology and products that take the environment and safety into account, and work to maintain and improve the quality of technology and products.

#### 6 Live together with society

We will strictly observe regulations related to the environment and safety, whether the regulations come from the local community, the national government, overseas, or organizations to which we belong. While cooperating in these activities, we will work to enhance our communication with the local community and society in order to convey a better understanding of Zeon's activities and further strengthen the trust that society has in our company.

#### 7 Perform continuous improvements

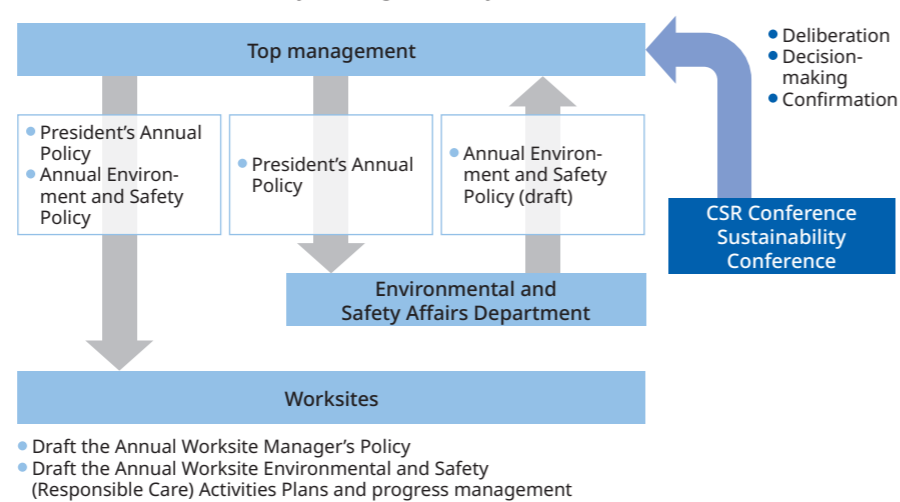
We will continuously improve our environment safety management and technology by operating a Responsible Care Audit, the Safety Management System, an Environment Management System based on ISO 14001, and an Occupational Health and Safety Management System.

## Environmental and Safety Management Systems (Environment)

We have built environmental and safety management systems based on a responsible care policy and have obtained ISO 14001 external certification to pursue environmental management.

Every year we draft policies and activities plans such as the Annual Environment and Safety Policy, based on the President's Annual Policy.

### Environmental and safety management systems (environment)

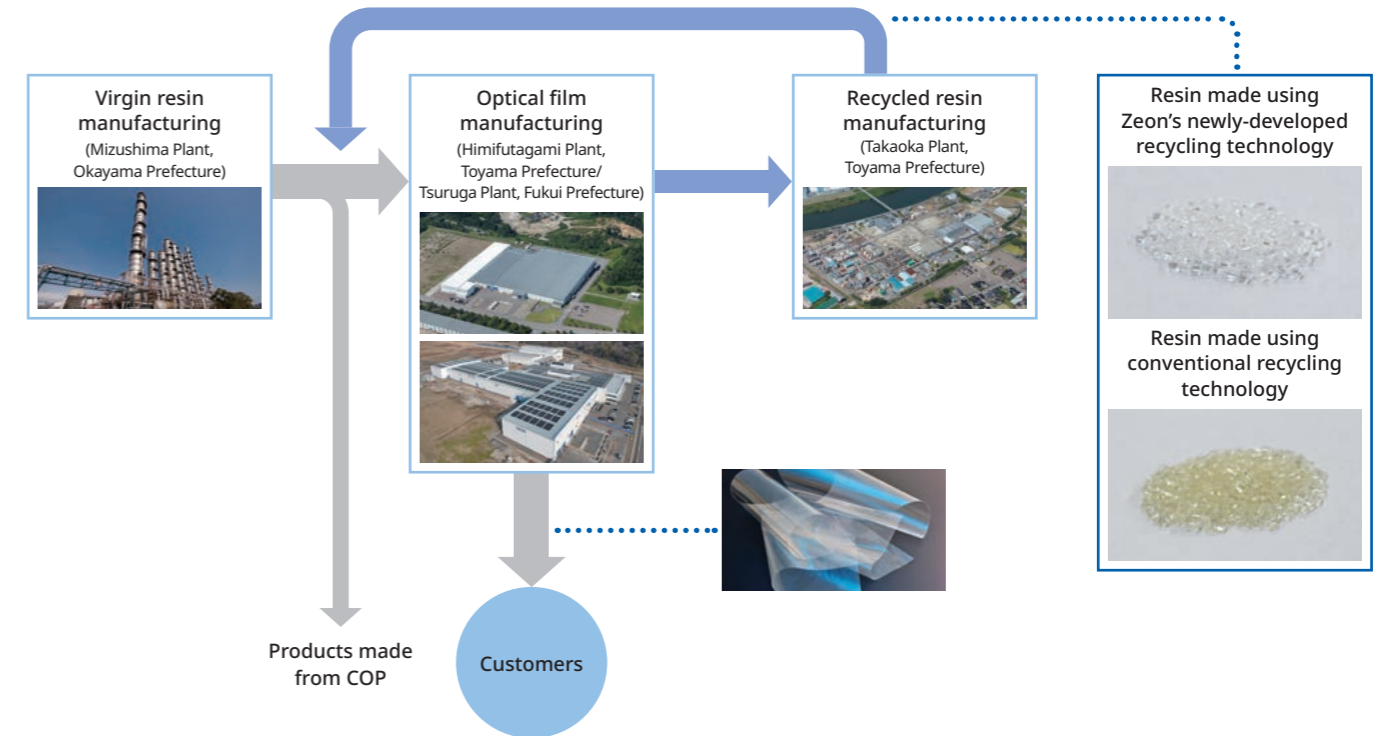


## Promoting a Circular Economy

We implement measures that promote a circular economy, a key social issue today. In January 2022 we developed technology for recycling Cyclo Olefin Polymers (COP). Waste resin can now be recycled to create a product with quality similar to virgin resin while maintaining high transparency and purity, which had previously been difficult to achieve. In October 2022, work began on the construction of a recycling facility

within the Takaoka Plant which will have an annual production capacity of 6,000 tons. The facility is expected to become operational in 2024. We plan to reuse the recycled resin from the plant to manufacture optical film, a plan that will help us to meet the strong demand for optical film we expect in the future while reducing CO<sub>2</sub> emissions.

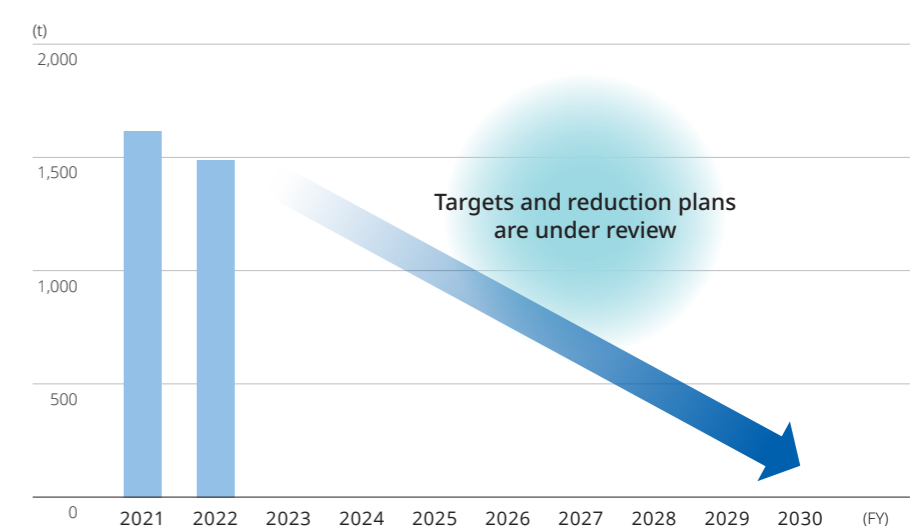
### Flow of COP recycling



## Initiatives to Reduce Industrial Waste from Plastic Products

Article three in our Responsible Care Policy is "Minimize the discharge of toxic chemicals and waste." Under the Act on Promotion of Resource Circulation for Plastics, which came into force in April 2022, Zeon is classified as a business that generates a large amount of industrial waste from plastic products (250 tons or more). We are working to reduce the amount of waste we generate and set up medium- to long term targets and plans to manage waste.

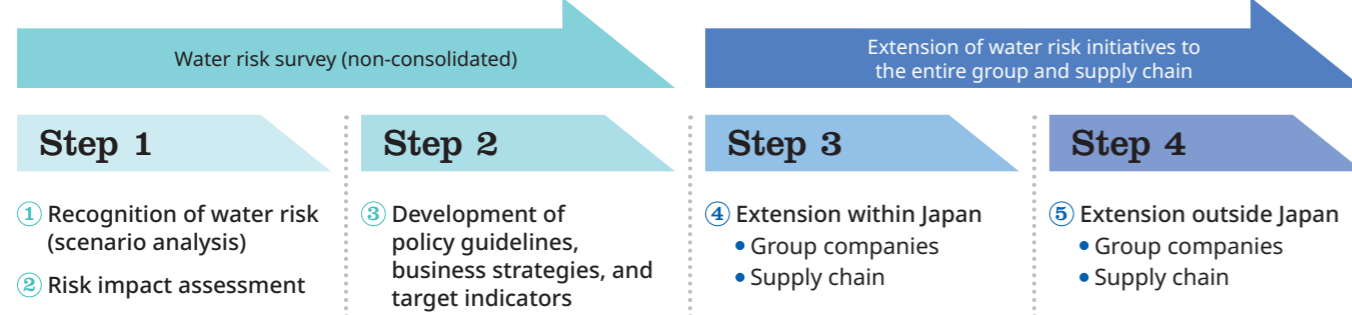
### Amount of industrial waste from plastic products



### Initiatives on Water Resources

Water is indispensable to our manufacturing activities. If water resources were to become depleted or water quality deteriorate, these things would pose a serious risk to both our company and local communities. Out of this understanding, we began initiatives in FY2022 to fully assess water risk. We will proceed going forward with the steps outlined below.

#### Roadmap of initiatives on water resources



- ① Identification of our risks and opportunities concerning water risk
- ② Establishment of Group-wide policies, targets, and indicators for water risk
- ③ Promotion of PDCA for targets and indicators
- ④ Disclosure of our initiatives to stakeholders

### Climate Change Initiatives

As a chemical manufacturer, combatting climate change is a pressing matter that must be addressed. We are reevaluating business activities in which the use of petroleum-based raw fuel was taken for granted until recently and are trying to figure out what steps and measures are needed to achieve carbon neutrality, and taking them.

For the progress of the Carbon Neutrality Master Plan, see P.29  
 For information disclosure in response to TCFD recommendations, see the next page and following

### Collaboration with Local Communities and Society

Article six of our Responsible Care Policy is “Live together with society.” At every one of our business sites we focus on conducting business in a trustworthy way, and we hold dialogues with the local community to ensure that the area’s residents understand our operations and efforts. We work actively to build community ties through beach and river cleanups, weed cutting, etc., to protect the environment and ensure peace of mind for local residents. We also promote integration with the community for the future through initiatives that include holding on-site chemistry classes for nearby elementary school kids and offering work internships.



Beach cleanup (Takaoka City and Himi City, Toyama Prefecture)

## TCFD

### Analysis and Reporting Based on TCFD Recommendations

#### Expressing support for the TCFD recommendations and CO<sub>2</sub> Emission Reduction Initiatives

In August 2020, Zeon Corporation expressed its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Going forward, based on the TCFD recommendations, we will analyze the risks and opportunities that climate change poses to our business and reflect them in our business strategies to strengthen our business foundation, aiming to realize a sustainable society and improve Zeon’s corporate value.

These initiatives are reflected in the group-wide strategy of “Promote a transformation of *monozukuri* to realize a carbon neutrality and circular economy” that is outlined in our Medium-Term Business Plan. We have formulated a Carbon Neutrality Master Plan, with 2050 as the target year, and we are

disclosing the measures that will be adopted to realize this plan and the progress made in reducing CO<sub>2</sub> emissions.

2020	<ul style="list-style-type: none"> <li>• Support for TCFD announced</li> <li>• Implementation, on a trial basis, of analysis of the impact on Zeon’s rubber business of the 2°C and 4°C climate change scenarios</li> </ul>
2021	<ul style="list-style-type: none"> <li>• Analysis of the impact of the 2°C and 4°C climate change scenarios on Zeon’s businesses other than rubber</li> <li>• Reflection of certain elements in the Medium-Term Business Plan</li> </ul>
2022	<ul style="list-style-type: none"> <li>• Formulation of a Carbon Neutrality Master Plan, and presentation of metrics and targets</li> <li>• Promotion of activities aimed at securing SBT certification (group-wide for Scope 1, 2 and 3)</li> </ul>
2023	<ul style="list-style-type: none"> <li>• Promotion of initiatives aimed at achieving the metrics and targets in Phase 2 of the Medium-Term Business Plan</li> <li>• Considering the adoption of an SDGs Contribution Product Certification</li> </ul>

### Disclosure of Zeon’s Activities in Response to TCFD Recommendations

#### Governance

##### a) Board’s oversight of climate related risks and opportunities

In July 2021, we established the Corporate Sustainability Headquarters to promote our sustainability efforts and disclose progress and results. In July 2022, we established a new Carbon Neutral Division under the headquarters, and are promoting a transformation in *monozukuri* to realize carbon neutrality and a circular economy as a Group strategy under our Medium-Term Business Plan. These systems have been established with the approval of the Board of Directors.

Our Sustainability Conference and Sustainability Committee have a system to hold discussions on “response to climate change” as one of the important sustainability issues, and to report on the contents to the Board of Directors as necessary.

##### b) Management’s role in assessing and managing climate-related risks and opportunities

The head of the Corporate Sustainability Headquarters, a company director, oversees the organizational structure described above to address sustainability issues that including climate change to live up to our corporate philosophy of “contributing to the preservation of the Earth and the prosperity of the human race.” The reporting and deliberation on the Group’s actions being taken on the issues are conducted by the Sustainability Conference, and ultimate responsibility for the realization of sustainability is assumed by the representative director, who chairs the body.

To address climate change, we formulated our initial

Carbon Neutrality Master Plan in 2021. The plan calls for identifying the current status of CO<sub>2</sub> emissions and sets reduction targets for emissions to reach carbon neutrality by 2050.

We announced support for the TCFD recommendations in 2020 and have since been taking action in response to TCFD recommendations, including TCFD scenario analysis. Here, we recognize that quantitative disclosure of financial impacts (indicators and achievement status) is a key challenge for the future.

#### Strategy

##### a) Climate-related risks and opportunities the organization has identified over the short, medium, and long term

To understand risks and opportunities related to climate change, in FY2020 we analyzed the impact on Zeon’s rubber business of the 2°C and 4°C scenarios. Further, in FY2021 we conducted the same scenario analyses group-wide.

##### b) Impact of climate-related risks and opportunities on the organization’s businesses, strategy, and financial planning

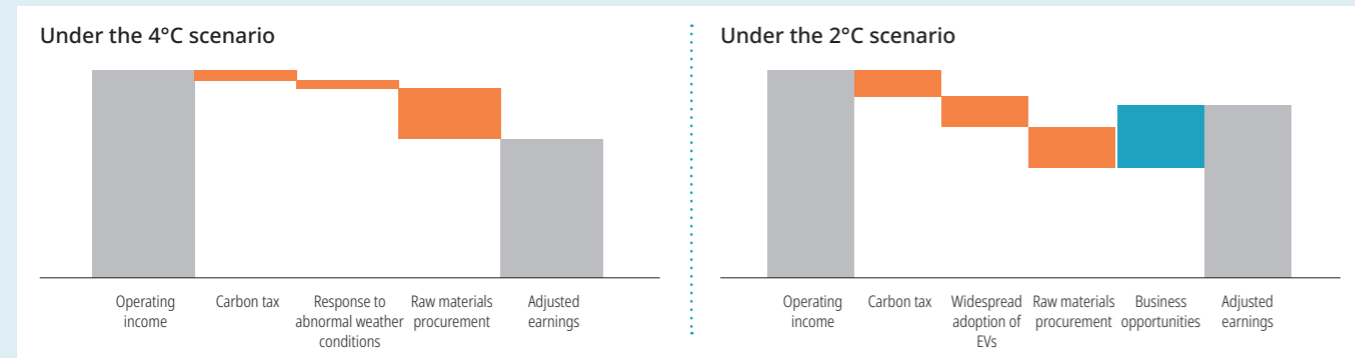
**Evaluate business impacts (impact on financial planning)**  
 The anticipated financial impact on Zeon’s business was analyzed for the 2°C and 4°C scenarios. It was found that, for the 4°C scenario, earnings would fall due to the impact of physical risks and because of rising procurement costs, while for the 2°C scenario, earnings would fall because of the adoption of carbon taxes and the widespread adoption of EVs, but there would also be a positive contribution to earnings from new business opportunities.

**Climate-related risk priority assessment (Identification of risks and opportunities)**

Our climate-related risks and opportunities

Type of risk	Evaluation item		Observations: Risks	Observations: Opportunities	Importance
	Category	Sub-category			
Transition	Policy/Legal	Carbon pricing and carbon tax	• Adoption of carbon taxes (resulting in increased operating costs)	• Increased opportunities for sale of products that contribute toward reducing CO <sub>2</sub> emissions (resulting in increased sales)	Major
		Individual countries' carbon emissions targets/policies	• Increased emissions controls compliance costs (resulting in increased operating costs)	As above	Major
	Industry/Market	Key products/increase or decrease in product prices > Changes in raw materials procurement costs	• Rising raw material prices (resulting in increased operating costs)	• Falling raw material prices (resulting in reduced operating costs)	Major
		Changes in energy demand > Changes in utility costs (fuel and electric power)	• Rising energy prices (resulting in increased operating costs)	• Increased demand for energy (resulting in increased sales)	Major
		Evolution of next-generation technologies	—	Enhanced competitiveness due to technological advances (resulting in increased sales) • Increased competitiveness in the event of successful future development of efficient manufacturing technologies or manufacturing methods that do not use fossil fuels • Securing an advantageous position in the market through the development of biomass-based raw materials, etc. • Development of technologies and products (such as chemical recycling) oriented toward the low-carbon society and the circular economy	Major
Reputation	Changes in customer behavior	Deteriorating reputation of the company's products and of the company itself (resulting in reduced sales)	• Increased opportunities for sale of products that contribute toward reducing CO <sub>2</sub> emissions (resulting in increased sales)	Major	
Physical	Chronic	Rising sea levels	Negative impacts on operations from rising sea levels (reduced sales due to production stoppages and delays and/or increased maintenance and repair costs)	—	Major
		Rising average temperatures	Increased burden of responding to rising temperatures (resulting in increased operating costs) • Reduced capacity utilization rate due to an increase in the incidence of operatives suffering heatstroke • Increased plant restoration costs and safety measures costs • Reduced productivity (due to reduced cooling capability, or reduced GPB and GPI extraction capability) • Higher storage and transportation costs due to increased need for low-temperature storage and transportation of raw materials and products (affecting business divisions)	Increased sales accompanying rising temperatures • Increased demand for medical products due to the spread of certain diseases, heatstroke, etc. • Increased demand for Zeon products due to reduced supply of natural products • Increased demand for plant growth regulators and fragrances • Increased demand for thermal interface materials (TIM) to solve problems with excessive heat generation	Major
	Acute	Increasing seriousness of abnormal weather conditions (trend toward larger typhoons and hurricanes, etc.)	Disruption caused to operations by severe natural disasters (resulting in reduced sales and increased operating costs)	Increased sales opportunities resulting from large-scale natural disasters • Increased demand for gloves resulting from a worsening hygiene environment • Emergence of concerns regarding the existing electric power network as a result of disasters Diversification of the electric power grid, increased demand for storage batteries, and increased sales of battery materials, due to concerns regarding industrial operations and lifestyles	Major

**Group-wide impact assessment**



**c) Resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario**

**Future direction**

Going forward, based on the results of this scenario analysis, we will be implementing response strategies in coordination with the group-wide strategy outlined in the Medium-Term Business Plan. Regarding the decarbonization strategy, we will

be undertaking group-wide examination of policies aimed at making Zeon carbon neutral. With regard to the resource strategy, we will be promoting the circular economy and proceeding with development of products that make use of biomass as raw material. We will also be aiming to expand our businesses by undertaking product development and product portfolio management based on assumptions regarding changes in customers' behavior.

**Risk management**

**a) Processes for identifying and assessing climate-related risks**

Based on the 4°C and 2°C scenario analyses, transitional and physical risks associated with climate change for 2030 and beyond have been identified and classified according to importance.

**b) Processes for managing climate-related risks**

With regard to climate-related risk, we have established a Risk Management office, and climate-related risk is recognized in the group-wide risk management table. As regards the response to risk, the Risk Management office performs risk management, including risk assessment and clarification of appropriate response strategies.

**c) How processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management**

We have a system in place that takes the identified climate change risks and links them to impact assessment results and R&D policies. These influence management policies and the business plans we set up to achieve our vision for the future, taking the form of specific numerical targets incorporated into our three-year plans and annual budgets.

**Metrics and targets**

**a) Metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process**

**Metrics and targets**  
In 2021, we formulated our initial Carbon Neutral Master Plan, which set reduction targets for FY2030 to achieve carbon neutrality by 2050. These targets call for a 50% reduction by FY2030 in the Scope 1+2 CO<sub>2</sub> emissions of Zeon Corporation (unconsolidated) as compared to FY2019. We will update the plan as required in the future. [See P.29](#)

**b) Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks**

In order to be able to disclose Scope 1, 2 and 3 emissions data for the Zeon Group as a whole, we have established a system for determining Scope 1, 2 and 3 data, including that of group companies, and on the basis of these results, we are implementing CDP disclosure and aiming to secure SBT certification.

As a departmental issue, we are focusing in particular on setting metrics and targets for Goal 13 of the SDGs (Take urgent action to combat climate changes and its impacts).

**c) Targets used by the organization to manage climate-related risks and opportunities and performance against targets**

**Initiatives to achieve targets**

We are promoting various initiatives to achieve our goal of reducing CO<sub>2</sub> emissions by 50% in FY2030 from FY2019 levels. Our strategy for reducing Scope 1+2 emissions combines three approaches: ① Energy saving, ② Process innovation, and ③ Energy shift.

The anticipated reduction rates are 10% for energy saving, 10% for process innovation, and 80% for energy shift, so the greatest benefits are expected to be achieved through the shift to new energy sources. Energy shift involves switching over to renewable energy or to fuels that has a non-fossil certificate\* for the fuel used in boilers, etc.

In FY2022, we effected an energy shift at our domestic production sites as shown below. We will continue to carry out reduction measures to achieve our reduction targets for FY2030.

\* Non-fossil certificate: With a non-fossil certificate, the greenhouse gases generated in all processes from extraction through to fuel usage are offset by carbon credits, so on a global scale, use of the fuel in question can be deemed to not generate CO<sub>2</sub> emissions.

**FY2022 initiatives**

- We have switched to 100% renewable energy sources for the electric power purchased for all four production facilities in Japan (Takaoka, Himifutagami, Tsuruga and Tokuyama plants).
- The Takaoka Plant has contracted to purchase carbon-neutral LNG, which produces virtually zero CO<sub>2</sub> emissions.
- The Tokuyama Plant has contracted to purchase Renewable Energy Certificates to reduce CO<sub>2</sub> emissions from steam.
- The Kawasaki Plant began using carbon-neutral city gas supplied by Tokyo Gas and joined the Carbon Neutral LNG Buyers Alliance.



# Directors and Officers

More detailed information can be found in the Corporate Governance Report (Japanese version only).  
<https://www.zeon.co.jp/news/assets/pdf/230707.pdf>

A total of 11 directors, including 5 outside directors, have been appointed since the general shareholders meeting at the end of June 2023.

## Directors



Chairman  
**Kimiaki Tanaka**

Profile  
 April 1979 Joined Zeon  
 June 2005 Zeon Director  
 June 2007 Zeon Director and Corporate Officer  
 June 2011 Zeon Director and Senior Corporate Officer  
 June 2012 Zeon Director and Executive Corporate Officer  
 June 2013 Zeon President and CEO  
 June 2023 Zeon Chairman (current)



President and CEO  
**Tetsuya Toyoshima**

Profile  
 April 1989 Joined Zeon  
 January 2013 Zeon Division Manager – Specialty Plastics & Components Business  
 Zeon Corporate Officer  
 June 2015 Zeon Senior Corporate Officer  
 June 2020 Zeon Director & Senior Corporate Officer  
 June 2022 Zeon President and CEO (current)



Director & Senior Corporate Officer  
**Kazuyoshi Matsuura**  
 Elastomers and Chemicals Business  
 Director – TOHPE CORPORATION

Profile  
 April 1993 Joined Zeon  
 April 2014 Zeon Synthetic Rubber Division Manager – Rubber Sales Department II  
 July 2014 Zeon Corporate Officer  
 June 2017 Zeon Director & Corporate Officer  
 June 2019 Zeon Director & Senior Corporate Officer (current)



Director & Senior Corporate Officer  
**Yoshiyuki Sone**  
 Administration

Profile  
 April 1988 Joined Zeon  
 July 2017 Zeon Division Manager – Specialty Components  
 June 2018 Zeon Corporate Officer  
 June 2020 Zeon Senior Corporate Officer  
 June 2022 Zeon Director & Senior Corporate Officer (current)



Director & Senior Corporate Officer  
**Yuichiro Konishi**  
 Specialty Business Division Manager – Specialty Plastics

Profile  
 April 1991 Joined Zeon  
 July 2011 Joined Solvay Specialty Polymers  
 July 2012 Joined Zeon  
 July 2013 Zeon Division Manager – Electronics Materials Division I  
 July 2015 Zeon Division Manager – Electronics Materials Division; Manager – Taiwan Representative Office, Electronics Materials Division  
 June 2020 Zeon Corporate Officer  
 June 2022 Zeon Director & Corporate Officer  
 June 2023 Zeon Director & Senior Corporate Officer (current)



Director & Corporate Officer  
**Erisa Watanabe**  
 Corporate Sustainability Division  
 Manager – Corporate Sustainability

Profile  
 April 1987 Joined Zeon  
 April 2013 Zeon Production Center Manager – Materials Procurement  
 June 2018 Zeon Corporate Officer  
 June 2022 Zeon Director & Corporate Officer (current)



Outside Director  
**Takao Kitabata**  
 President – Kaishi Professional University

Profile



Outside Director  
**Tadanobu Nagumo**  
 Senior Advisor – The Yokohama Rubber Co., Ltd.

Profile



Outside Director  
**Fumiaki Ikeno**  
 Board Member, Co-Founder, Chief Medical Officer, GP – MedVenture Partners, Inc.



Outside Director  
**Miki Akiyama**  
 Professor – Keio University, Faculty of Environment and Information Studies



Outside Director  
**Saeko Masumi**  
 Lawyer – Sengokuyama Law Firm

## Audit & Supervisory Board Members



Audit & Supervisory Board Member  
**Sachio Hayashi**



Audit & Supervisory Board Member  
**Toru Nishijima**



Audit & Supervisory Board Member (External)  
**Akio Kohri**  
 Adviser – ADEKA CORPORATION



Audit & Supervisory Board Member (External)  
**Nobutake Nishijima**



Audit & Supervisory Board Member (External)  
**Hiroki Kimura**  
 President – Asahi Mutual Life Insurance Company

## Corporate Officers



**Tomoyuki Kose**  
 Plant Manager – Takaoka Plant



**Makoto Watanabe**  
 Plant Manager – Kawasaki Plant



**Tsutomu Eguchi**  
 President – Zeon (Shanghai) Co., Ltd.



**Satoshi Tominaga**  
 Division Manager – Corporate Administration; President – Zeon F&B Corporation



**Yoshinobu Oi**  
 President – Tokyo Zairyo Co., Ltd.



**Hiroshi Yamamoto**  
 Division Manager – Production Center



**Kazuo Nakajima**  
 Division Manager – Legal & Compliance



**Masahiro Nakamura**  
 Division Manager – Energy Materials



**Haruhiko Takahashi**  
 Division Manager – Specialty Materials; President – Zeon Taiwan Co., Ltd.



**Masao Akasaka**  
 Research & Development



**Noboru Watanabe**  
 Plant Manager – Mizushima Plant



**Takahiro Kakihara**  
 Division Manager – Elastomers



**Masayuki Shirakawa**  
 Division Manager – Corporate Planning; General Manager – “ZEON NEXT” Exploration



**Koichi Miyagi**  
 Plant Manager – Tokuyama Plant

PDF Corporate Governance Report (Japanese version only)  
<https://www.zeon.co.jp/csr/concept/pdf/200325073.pdf>

PDF Basic Policy on Corporate Governance (Japanese version only)  
<https://www.zeon.co.jp/csr/concept/pdf/200281514.pdf>

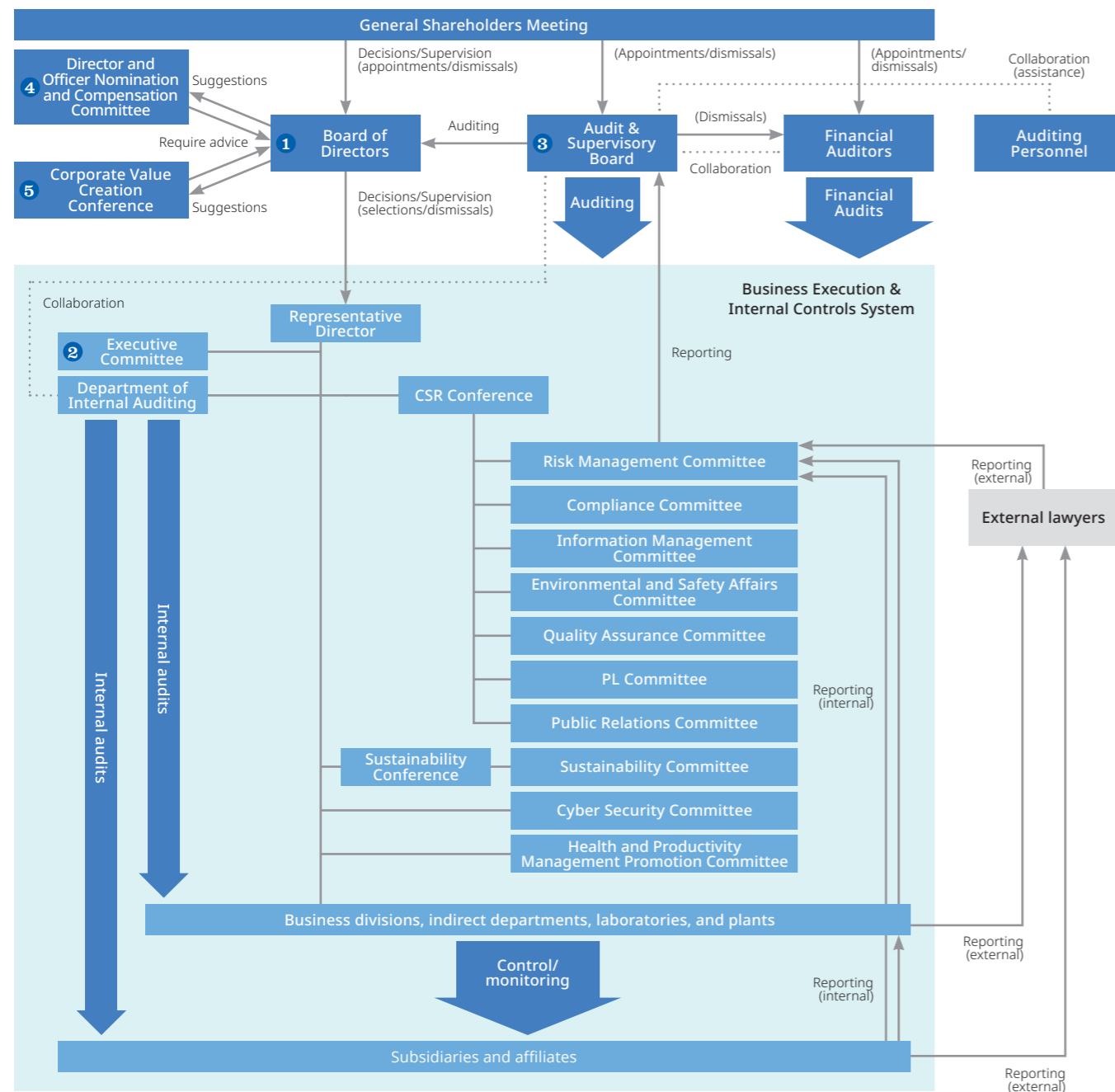
## Corporate Governance

### Basic approach to corporate governance

Zeon aims to increase profits and enhance corporate value on an ongoing basis while respecting and balancing the various interests of its shareholders and other diverse stakeholders. To this end, we are continuing efforts to build a system that enables efficient and sound corporate management through corporate governance.

Maintaining a system of internal control allows us to clarify the functions and roles of each body and company organization and to carry out rapid decision-making and execution. We are also improving corporate transparency through appropriate monitoring and disclosure of business activities and their effects.

### Corporate Governance System (as of July 2023)



### 1 Board of Directors

The Board of Directors meets, in principle, every month with Audit & Supervisory Board members in attendance to ensure compliance with applicable laws and the Articles of Incorporation in the execution of business. In addition to its statutory duties, the role of the Board of Directors is to make important decisions about basic management policy, strategy, and other aspects of business execution. As of July 2023, the Board of Directors consists of 11 directors, including 5 outside directors.

### 2 Executive Committee

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

### 3 Audit & Supervisory Board

The Audit & Supervisory Board comprises five members, including three external members. The Board reports on, discusses, and adopts resolutions on important business matters. In accordance with the auditing guidelines established by the Audit & Supervisory Board, each member audits directors' execution of their duties through various means, such as attending Board of Directors meetings and monitoring business operations, including subsidiaries' operations.

### 4 Director and Officer Nomination and Compensation Committee

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

### 5 Corporate Value Creation Conference

The Corporate Value Creation Conference was established as an advisory body to the Board of Directors, to strengthen the decision-making and oversight functions of the Board with respect to the creation of the Zeon Group's corporate value, and activities aimed at reflecting that value in our market capitalization. The Conference consists of the Chairman, the President, and the following outside directors and external members.

#### Outside Directors

**Takao Kitabata, Tadanobu Nagumo**  
**Audit & Supervisory Board Members (External)**  
**Nobutake Nishijima, Hiroki Kimura**  
**Attorney at Law**  
**Shigeru Nakajima (Nakajima Transactional Law Office)**

Under its chairperson, outside director Tadanobu Nagumo, the Conference engages in discussion that encompasses the sources of corporate value Zeon should defend; analysis of weaknesses that could affect acquisition risk, and measures to be taken

in response; and issues relating to corporate governance, internal controls, and the Company's risk management structure. At the end of the fiscal year, the Conference provides advice to the Board of Directors. It intends to serve as a major driver of corporate value enhancement and creation, and by extension, measures that tend to maximize our market capitalization.

### Evaluating the effectiveness of the Board of Directors

We again conducted our annual survey of directors, outside directors, and corporate auditors, mainly relating to the operation of the Board. We requested a third-party law firm to compile and comment on the responses, and its conclusion was that Zeon's Board of Directors effectiveness can be evaluated as generally high. As such, we judged that the Board's effectiveness was being maintained.

At the same time, the third-party reviewer pointed to the need for unstructured interchange between outside directors and management outside the context of Board meetings, and for more frequent status reports on the Medium-Term Business Plan and sustainability issues. Consequently, we will strive to enhance our effectiveness further by conducting themed discussion sessions to be attended by external directors, relevant internal executive officers, and division heads, as well as through quarterly reporting on the progress of the Medium-Term Business Plan and the status of sustainability initiatives, among other efforts.

### Appointment and dismissal of directors and officers

We nominate individuals for internal director who have the expertise and experience to execute Zeon's management precisely, fairly, and efficiently, with an extensive track record of social trust. We seek to nominate individuals to be outside directors who can supervise management with an independent external perspective, and advise Zeon concerning its activities based on abundant experience and high-level insight.

In nominating candidates for the Board of Directors, the President recommends individuals who meet the above policies with the advice of the Director and Officer Nomination and Compensation Committee, and the Board of Directors reviews and selects the candidates.

Candidates nominated for selection as internal corporate auditors must have the expertise and experience to audit directors' execution of their management responsibilities precisely, fairly, and efficiently, with an extensive track record of social trust. Candidates nominated for outside corporate auditors must be capable of conducting audits from an independent external position, with a foundation of abundant experience and advanced expertise.

In nominating candidates for corporate auditors, the President recommends individuals who meet the above policies with the advice of the Director and Officer Nomination and Compensation Committee, and with approval from the Audit and Supervisory Board, the Board of Directors reviews and selects the candidates.

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

**Balance, diversity, and size of the Board of Directors**

The Board of Directors comprises a diverse range of directors with different backgrounds of knowledge, experience, expertise, and so on, and the number of directors is limited to 15 in accordance with the Articles of Incorporation from the perspective of maintaining an appropriate size to ensure thorough deliberations and prompt and reasonable decision-making as an organizational body.

In order to appropriately reflect in the company's management policies, the opinions of persons with extensive experience and insight, such as outside corporate managers and persons with administrative experience, and to ensure the effectiveness of independent and objective management supervision by the Board of Directors, Zeon appoints several independent outside directors who are not involved in the execution of business.

The table below shows the combination of skills (the so-called skills matrix) the Board of Directors should possess given Zeon's management strategy. It also shows specific skills (maximum three) that each director possesses and that Zeon expects him or her to demonstrate.

**Appointment of women and foreign-nationals to management positions**

Over the past few years, we have been working actively to promote women's empowerment. There has been an increase in the number of female employees in manager or general manager positions, and we are striving to expand the opportunities for female employees to fulfil their potential. As of March 31, 2023, 13.4% of our company's employees were female, and 5.7% of managers were female. In addition, one female director and executive officer who was promoted internally and two female outside directors are in office.

Besides aiming to ensure that the share of recent graduates recruited by the company each year who are women is maintained at least 30%, and if possible higher than this, we are also taking ongoing steps to build an environment conducive to the assignment, appointment and advancement of female employees, including areas such as recruitment, cultivation, and overseas assignments, and to cultivate female employees' ability to manage their own career development. We are aiming to increase the share of employees who are

female to around 20%, and increase the share of managers who are female to around 20%, by 2030, and we will be working to increase the number of female employees who can play a central role in managerial decision-making in the future. In addition, in the second phase of the Medium-Term Business Plan: STAGE30, we have established a quantitative target of 12% female managers by the end of FY2026.

We also strive to hire nationals of diverse citizenship, including some recruited from outside Japan. As of March 31, 2023, we had 29 employees, five of whom were in management positions.



Health management lecture hosted by outside director (July 2023)  
"So that I can be happy: solutions from the Code of Conduct for Well-being"

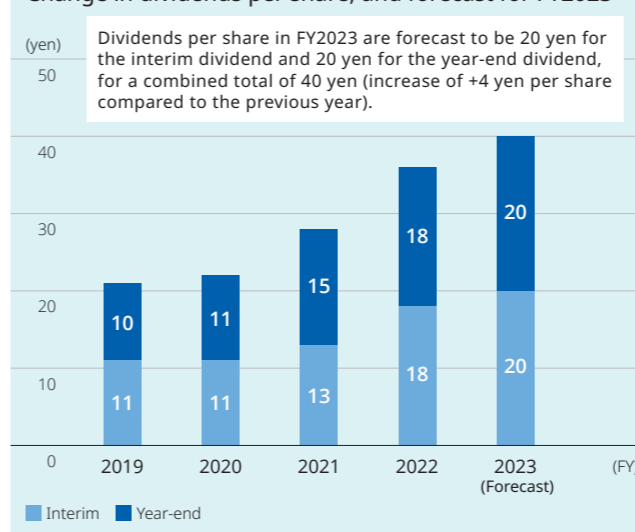
**Policy on the distribution of profit**

Our basic policy is to pay out steady dividends of excess earnings to shareholders. At the same time, phase two of the Medium-Term Business Plan: STAGE30, which was launched in 2023, stipulates that Zeon will maintain a minimum dividend payout ratio of 30%.

In addition, the Company will implement share buybacks flexibly, after considering such factors as market conditions and capital needs.

In principle, we distribute excess earnings twice annually, through interim and year-end dividends. The general shareholders meeting decides the year-end dividend amount, and the Board of Directors decides the interim dividend amount. Retained earnings are leveraged for proactive capital investments, development of innovative technologies, and production innovations.

**Change in dividends per share, and forecast for FY2023**



**Cross-shareholdings**

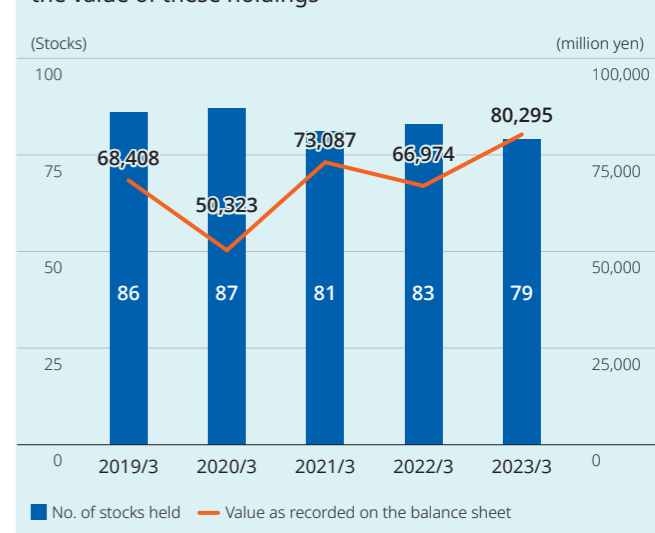
When deciding whether to take cross-shareholdings in other companies, we undertake careful examination to determine whether such shareholdings will help to strengthen our relationship with business partners, local community and other stakeholders, and whether they will contribute toward the enhancement of our company's corporate value over the medium- to long-term. In cases where, after such examination, we do acquire shares in other companies, every year we conduct close scrutiny for each individual stock to examine the appropriateness of the purpose for which the stock is being held, and whether the benefits and risk of holding the stock are commensurate with the capital cost, etc. After a suitability review by the Board of Directors at its meeting held December 28, 2022, the Board determined that all of the Company's stock holdings were appropriate. However, from a financial strategy optimization standpoint, the Board decided to downsize certain of the Company's holdings. By fiscal year-end, the Company had sold all of its shares of six listed stocks, and a portion of a further six stocks, for a total realized value of 4.816

billion yen. At the same time, due to an increase in stock prices late in the fiscal year, the value of cross-held shares listed on the consolidated balance sheet amounted to 80.295 billion yen (23.66% of consolidated net assets).

The FY2026 target for the second phase of the Medium-Term Business Plan: STAGE30 is to reduce cross shareholdings to below 15% of consolidated net assets. As such, we plan to sell additional cross-shareholdings to reach this target.

When making decisions regarding the exercise of voting rights in companies in which we have cross-shareholdings, we make such decisions based on a perspective that emphasizes enhancing the corporate value of the investee company over the medium- to long-term.

**Changes in the No. of stocks held and the value of these holdings**



**Skills table**

		Global management	Finance and accounting	Compliance and risk management	Sustainability and ESG	New business creation	Business overhaul	Sales and marketing	Research and Development	Production and SCM
Kimiaki Tanaka	Chairman	●			●				●	
Tetsuya Toyoshima	President & CEO	●				●			●	
Kazuyoshi Matsuura	Director & Senior Corporate Officer	●					●	●		
Yoshiyuki Sone	Director & Senior Corporate Officer	●	●			●				
Yuichiro Konishi	Director & Senior Corporate Officer					●		●	●	
Erisa Watanabe	Director & Corporate Officer			●	●					●
Takao Kitabata	Outside Director	●		●	●					
Tadanobu Nagumo	Outside Director	●					●			●
Fumiaki Ikeno	Outside Director	●				●			●	
Miki Akiyama	Outside Director			●	●					
Saeko Masumi	Outside Director			●	●					

**Director and officer compensation**

The Company recently updated its executive compensation system to more effectively incentivize the medium- to long-term creation and enhancement of corporate value. For internal directors and executive officers, we expanded the performance-linked share of total compensation. We also introduced the Board Benefit Trust (BBT-RS), a performance-linked stock compensation plan, to clarify the link between compensation and Zeon's sales performance and stock value. These steps are intended to raise awareness of the need to contribute to the enhancement of medium- to long-term performance and corporate value.

Evaluation indicators for performance-linked cash and stock compensation under the updated executive compensation system are summarized below. Though directors remain accountable for short-term performance, the indicators are tied closely to Medium-Term Business Plan goals. This evaluation system will increase the likelihood of creating and enhancing corporate value over the medium to long term.

**Compensation system**

Directors and officers	Compensation structure
Internal Directors	Cash compensation (fixed), cash compensation (performance-linked), stock compensation (fixed), stock compensation (performance-linked)
Corporate Officers	Cash compensation (fixed), cash compensation (performance-linked), stock compensation (performance-linked)
Outside Director	Fixed-amount cash compensation

**FY2022 compensation (former compensation system)**

Directors and officers	Compensation structure
Internal Directors (7 directors)	251 million yen Breakdown: Cash compensation (fixed), 63 million yen; cash compensation (performance-linked), 157 million yen; stock compensation (restricted), 31 million yen
Internal Audit & Supervisory Board Members (2 members)	53 million yen
External Officers (6 officers)	66 million yen

**Compensation category and indicators**

Category	Indicator		
Cash compensation (performance-linked)	Financial indicators	Group-wide sales and operating profit ratio	Performance vs. target, fiscal year
		Business division sales, operating profit ratio*1	
	Non-financial indicators	Divisional and individual challenges	Performance vs. division targets relating to the Medium-Term Business Plan
Stock compensation (performance-linked)	Financial indicators	Group-wide sales, operating profit, and Group-wide ROIC	Performance vs. targets, final fiscal year of each phase of the Medium-Term Business Plan*3
	Non-financial indicators	Medium-Term Business Plan ESG targets*2	Number of targets reached, final fiscal year of each phase of the Medium-Term Business Plan*3

\*1 Applies only to executive business division general managers. For growth businesses and new businesses, the sole indicator is divisional sales.  
 \*2 CO<sub>2</sub> reductions, engagement survey items, female manager ratio, cross-shareholdings to net assets ratio, etc.  
 \*3 Executive officers are allocated a standard number of points for each phase of the Medium-Term Business Plan. After each phase is completed, the relevant points will be calculated by multiplying by an evaluation factor reflecting target achievement or number of units achieved. The weighting of financial and non-financial indicators in stock compensation (performance-linked) is set at 8:2.

**Active dialogue with shareholders and investors**

The IR/SR Office, a specialized department that was established in 2021, is responsible for shareholder and investor communications.

The IR & SR office is not subordinate to any other division, and reports directly to the head of the company's Administrative Headquarters. This enables it to deliver capital market input directly to management, where it can be incorporated responsively into management measures. This system also enables the timely, accurate and unbiased transmission of information to market participants in relation to the results of discussion regarding mat-

ters such as managerial measures.

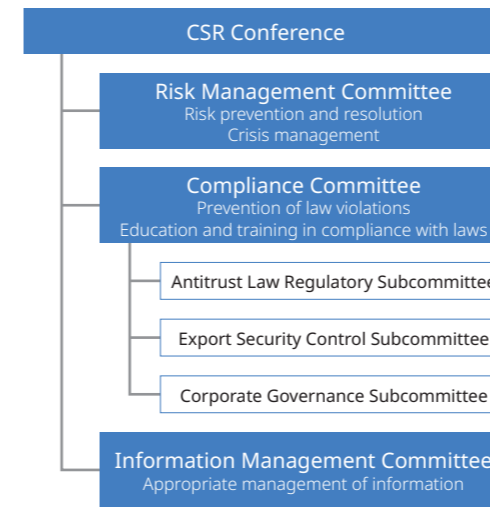
We strive continuously to extend the scope of dialogue beyond one-on-one meetings by holding quarterly financial briefings for investors and small meetings for institutional investors, disclosing IR information on the website, and participating in corporate information sessions for individual investors.

At the general shareholders meeting held in June 2023, besides providing a live video feed for those shareholders who were unable to be present in person, we also provided answers to questions that had been raised prior to the meeting.

**Risk Management**

**Risk management system**

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



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

Number of internal reports in FY2022	4
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**BCP formulation and implementation of related training**

Recognizing the need on business continuity to mitigate the impact of damage from disasters such as earthquakes and severe storm and flood damage, we have formulated a Business Continuity Plan (BCP), and we implement training in order to enhance its effectiveness. During FY2022, emergency drills conducted included one whole-company emergency headquarters drill, one whole-company emergency headquarters secretariat (CMT) drill, and two manufacturing plant drills.

In addition, individual business divisions and factories have formulated their own BCPs, and have put in place systems to facilitate a rapid response in the event of an emergency. We are also making necessary adjustments through Business Continuity Management (BCM) on an ongoing basis, and implementing unique training.

**Structuring our cybersecurity system**

The Cyber Security Committee reports directly to the President. The Committee oversees planned cybersecurity enhancements and provides prompt emergency response. It is also responsible for managing electronic information security. (For structure diagram, see P.71)

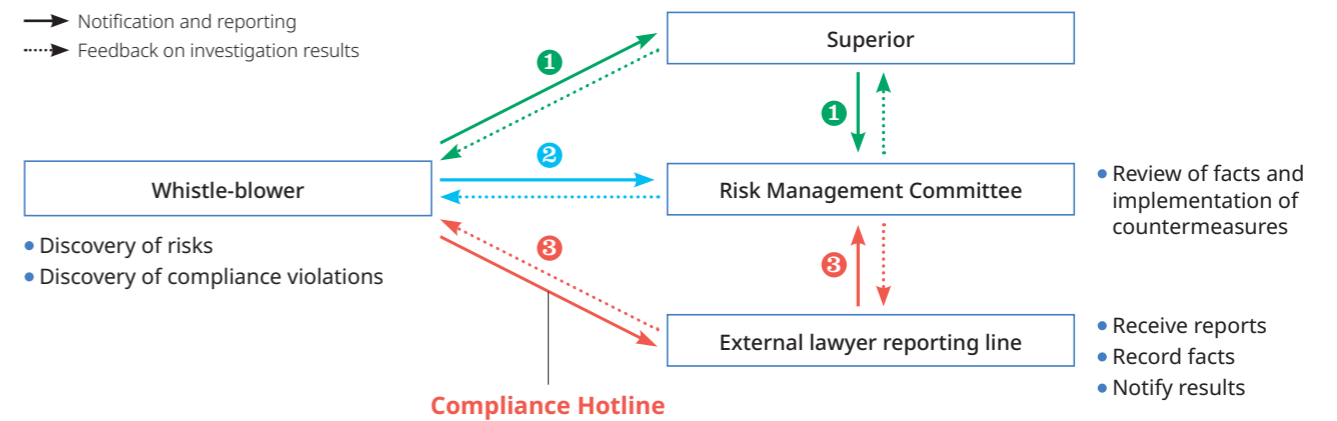
In addition, a Computer Security Incident Response Team (CSIRT) within the Committee ensures prompt response in the event of security incidents.

**Internal reporting system**

We have put in place an internal reporting system, in order to collect information about latent risks as early as possible so that appropriate action can be taken. The channels for reporting risk-related information are not limited to internal channels such as reporting to one's supervisor or directly to the Risk Management Committee. We have also established a Compliance Hotline with an external lawyer as a contact window (see items 1 to 3 in the figure on the right).

(1 - 3 below)

**Internal reporting flowchart**



# Zeon Corporation (consolidated) Data for the Past 11 Years

Fiscal year: April 1 to March 31 of the following year

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>Annual performance</b>											
	million yen										
Net sales	¥ 250,763	¥ 296,427	¥ 307,524	¥ 295,647	¥ 287,624	¥ 332,682	¥ 337,499	¥ 321,966	¥ 301,961	¥ 361,730	<b>¥ 388,614</b>
Operating income	23,696	29,901	28,245	29,856	30,767	38,881	33,147	26,104	33,408	44,432	<b>27,179</b>
Adjusted net income before tax	23,423	32,528	29,791	26,265	30,928	24,853	27,044	27,480	38,158	46,226	<b>14,467</b>
Net income attributable to owners of the parent company	14,750	19,650	19,080	18,079	23,152	13,056	18,458	20,201	27,716	33,413	<b>10,569</b>
Capital investment	23,489	27,111	28,516	27,650	22,122	14,568	14,640	29,088	19,645	22,902	<b>34,045</b>
Depreciation	18,122	17,068	19,439	20,904	20,431	20,539	18,780	17,448	18,154	21,469	<b>20,382</b>
R&D expenses	11,895	12,661	13,627	14,148	13,233	15,103	16,480	15,274	14,258	15,869	<b>17,580</b>
Cash flow from operations	33,061	36,396	34,006	47,599	49,042	54,462	40,393	28,430	56,080	33,140	<b>14,358</b>
Cash flow from investment	(24,858)	(31,513)	(26,767)	(34,847)	(29,121)	(14,951)	(21,426)	(24,570)	(30,239)	(26,436)	<b>(28,899)</b>
Cash flow from financial activities	(10,006)	(10,105)	(12,019)	(9,010)	(15,834)	(11,625)	(23,575)	(8,276)	(8,259)	(11,883)	<b>(2,820)</b>
<b>Financial position</b>											
	million yen										
Total assets	¥ 350,508	¥ 370,872	¥ 399,512	¥ 384,753	¥ 411,415	¥ 443,917	¥ 424,937	¥ 405,131	¥ 448,821	¥ 484,660	<b>¥ 522,868</b>
Tangible fixed assets	108,937	122,721	134,227	138,526	138,058	115,559	102,323	114,791	117,579	118,299	<b>113,924</b>
Interest-bearing debt	66,483	65,565	58,889	57,064	44,677	38,573	24,125	20,960	18,960	18,960	<b>27,960</b>
Net assets	162,057	181,414	215,631	215,586	244,634	259,940	259,156	260,358	298,246	321,836	<b>339,308</b>
<b>Per-share data</b>											
	yen										
Net income per share	¥ 63.81	¥ 85.15	¥ 84.13	¥ 79.86	¥ 104.31	¥ 58.81	¥ 84.06	¥ 92.44	¥ 126.74	¥ 153.22	<b>¥ 49.94</b>
Net assets per share	685.64	783.11	931.34	949.91	1,082.02	1,158.30	1,172.40	1,176.87	1,349.89	1,487.33	<b>1,591.79</b>
Dividends per share	12	13	14	15	16	17	19	21	22	28	<b>36</b>
<b>Key indicators</b>											
Return on assets (ROA)*	7.6%	9.0%	8.1%	8.2%	8.0%	9.6%	8.4%	6.9%	9.1%	10.6%	<b>6.2%</b>
Return on equity (ROE)	10.1%	11.7%	9.8%	8.6%	10.3%	5.3%	7.2%	7.9%	10.0%	10.9%	<b>3.2%</b>
Return on sales (ROS)	9.4%	10.1%	9.2%	10.1%	10.7%	11.7%	9.8%	8.1%	11.1%	12.3%	<b>7.0%</b>

\* ROA is normally defined as net income divided by total assets, but as the numerator varies from company to company, a note has been added for each company. As Zeon discloses Return on Assets (ROA) in its financial flash reports, this has been followed for this report. If the method of disclosure is changed in the financial flash reports in the future, the definition used here will be revised accordingly.



# Financial Data

## Consolidated Balance Sheets

### Assets

	2018	2019	2020	2021	million yen/FY 2022
<b>Current assets</b>					
Cash and bank deposits	¥ 37,534	¥ 32,029	¥ 51,970	¥ 47,271	¥ 30,082
Operating receivables	78,352	71,332	75,688	82,498	83,594
Inventories	71,125	73,203	67,354	93,076	127,452
Other current assets	40,227	37,883	38,236	52,102	55,503
<b>Total current assets</b>	¥ 227,238	¥ 214,447	¥ 233,248	¥ 274,947	¥ 296,631
<b>Fixed assets</b>					
Tangible fixed assets	¥ 102,323	¥ 114,791	¥ 117,579	¥ 118,299	¥ 113,924
Intangible fixed assets	3,197	3,669	3,293	3,249	4,442
Investment securities	81,103	62,118	86,201	80,729	100,113
Other fixed assets	11,077	10,106	8,500	7,436	7,758
<b>Total fixed assets</b>	¥ 197,700	¥ 190,684	¥ 215,573	¥ 209,713	¥ 226,237
<b>Total assets</b>	¥ 424,937	¥ 405,131	¥ 448,821	¥ 484,660	¥ 522,868

### Liabilities and net assets

	2018	2019	2020	2021	million yen/FY 2022
<b>Current liabilities</b>					
Operating payables	¥ 82,414	¥ 65,691	¥ 65,921	¥ 82,994	¥ 86,781
Bonds and loans payable	12,125	10,960	8,960	18,960	27,960
Other current liabilities	35,500	35,759	38,972	36,699	45,846
<b>Total current liabilities</b>	¥ 130,039	¥ 112,410	¥ 113,853	¥ 138,653	¥ 160,587
<b>Non-current liabilities</b>					
Bonds and borrowings	¥ 12,000	¥ 10,000	¥ 10,000	¥ 0	¥ 0
Other non-current liabilities	23,742	22,363	26,722	24,172	22,973
<b>Total non-current liabilities</b>	¥ 35,742	¥ 32,363	¥ 36,722	¥ 24,172	¥ 22,973
<b>Net assets</b>					
Capital stock	¥ 24,211	¥ 24,211	¥ 24,211	¥ 24,211	¥ 24,211
Capital surplus	19,240	19,252	19,150	19,162	19,137
Retained earnings	204,767	220,379	244,301	272,679	268,363
Other	10,938	△3,484	10,584	5,784	27,597
<b>Total net assets</b>	¥ 259,156	¥ 260,358	¥ 298,246	¥ 321,836	¥ 339,308
<b>Total liabilities and net assets</b>	¥ 424,937	¥ 405,131	¥ 448,821	¥ 484,660	¥ 522,868

## Consolidated Statements of Income and Consolidated Statements of Comprehensive Income

	2018	2019	2020	2021	million yen/FY 2022
Net sales	¥ 337,499	¥ 321,966	¥ 301,961	¥ 361,730	¥ 388,614
Cost of sales	240,757	230,055	204,409	241,371	278,971
Gross profit	96,742	91,911	97,552	120,358	109,643
Selling, general and administrative expenses	63,595	65,807	64,144	75,927	82,464
Operating income	33,147	26,104	33,408	44,432	27,179
Non-operating income	3,894	3,813	6,099	5,670	5,172
Non-operating expenses	723	1,173	839	634	958
Ordinary income	36,319	28,744	38,668	49,468	31,393
Extraordinary gains	22	5	108	7	3,077
Extraordinary losses	9,297	1,268	618	3,250	20,004
Income before income taxes	27,044	27,480	38,158	46,226	14,467
Income taxes	8,247	7,130	10,279	12,520	3,858
Net income	18,797	20,350	27,880	33,706	10,609
Net income attributable to non-controlling interests	338	148	164	293	39
Net income attributable to owners of the parent company	18,458	20,201	27,716	33,413	10,569
<b>Other comprehensive income</b>					
Valuation difference on available-for-sale securities	(9,654)	(14,091)	15,893	(4,734)	10,353
Foreign currency translation adjustments	(1,343)	(154)	(1,486)	3,749	7,085
Other	424	(295)	(439)	1,921	892
<b>Total other comprehensive income</b>	(10,573)	(14,540)	13,968	936	18,330
<b>Comprehensive income</b>	8,224	5,810	41,848	34,641	28,939
<b>(Breakdown)</b>					
Comprehensive income attributable to owners of the parent company	7,958	5,571	41,777	34,296	28,622
Comprehensive income attributable to non-controlling interests	266	239	71	346	317

## Consolidated Statements of Changes in Net Assets

	2018	2019	2020	2021	million yen/FY 2022
<b>Capital</b>					
Balance at beginning of period	¥ 24,211	¥ 24,211	¥ 24,211	¥ 24,211	¥ 24,211
Balance at end of period	¥ 24,211	¥ 24,211	¥ 24,211	¥ 24,211	¥ 24,211
<b>Capital surplus</b>					
Balance at beginning of period	¥ 19,240	¥ 19,240	¥ 19,252	¥ 19,150	¥ 19,162
Change in treasury stock of parent arising from transactions with non-controlling shareholders	0	0	(100)	0	0
Transfer to capital surplus from retained earnings	0	0	0	0	7,869
Purchase and disposal of treasury stock	0	12	(2)	12	(5)
Retirement of treasury stock	0	0	0	0	(7,889)
Balance at end of period	¥ 19,240	¥ 19,252	¥ 19,150	¥ 19,162	¥ 19,137
<b>Retained earnings</b>					
Balance at beginning of period	¥ 190,273	¥ 204,767	¥ 220,379	¥ 244,301	¥ 272,679
Cumulative effect of change in accounting policy	0	0	0	(343)	0
Dividend paid	(3,965)	(4,589)	(4,592)	(5,250)	(7,016)
Net income	18,458	20,201	27,716	33,413	10,569
Increase/decrease due to merger	0	0	(1)	103	0
Transfer to capital surplus from retained earnings	0	0	0	0	(7,869)
Change of scope of consolidation	0	0	797	457	0
Balance at end of period	¥ 204,767	¥ 220,379	¥ 244,301	¥ 272,679	¥ 268,363
<b>Treasury stock</b>					
Balance at beginning of period	¥ (12,245)	¥ (17,238)	¥ (17,181)	¥ (17,017)	¥ (23,000)
Purchase and disposal of treasury stock	(4,993)	57	163	(5,982)	(3,914)
Retirement of treasury stock	0	0	0	0	7,889
Balance at end of period	¥ (17,238)	¥ (17,181)	¥ (17,017)	¥ (23,000)	¥ (19,024)
Total shareholders' equity	¥ 230,981	¥ 246,662	¥ 270,644	¥ 293,053	¥ 292,688
Total accumulated other comprehensive income	25,187	10,556	24,625	25,570	43,623
Stock acquisition rights	296	283	141	126	88
Non-controlling interests	2,693	2,858	2,836	3,086	2,910
Total net assets	¥ 259,156	¥ 260,358	¥ 298,246	¥ 321,836	¥ 339,308

## Consolidated Statements of Cash Flows

	2018	2019	2020	2021	million yen/FY 2022
<b>Cash flows from operating activities</b>					
Net income	¥ 27,044	¥ 27,480	¥ 38,158	¥ 46,226	¥ 14,467
Depreciation	18,780	17,448	18,154	21,469	20,382
Finance income and expenses	(2,283)	(2,875)	(2,570)	(2,736)	(3,486)
Changes in assets and liabilities	(8,628)	(11,988)	1,281	(12,457)	(27,601)
Impairment losses	8,606	0	0	2,069	19,390
Other	3,999	6,714	1,917	(13,610)	1,610
Subtotal	47,518	36,779	56,940	40,961	24,762
Interest and dividends income	2,561	2,997	2,614	2,954	3,569
Interest expenses paid	(219)	(132)	(127)	(133)	(99)
Income taxes paid	(10,387)	(11,451)	(5,357)	(10,691)	(13,896)
Other	920	238	2,010	50	21
Cash flows from operating activities	¥ 40,393	¥ 28,430	¥ 56,080	¥ 33,140	¥ 14,358
<b>Cash flows from investing activities</b>					
Payments for purchase/disposal of fixed assets	¥ (12,774)	¥ (23,135)	¥ (24,033)	¥ (24,293)	¥ (27,309)
Payments for purchase/disposal of investments and other assets	(7,606)	(1,987)	(1,790)	(1,921)	(1,699)
Payments for collection of loans and advances	187	(99)	(2,266)	(1,208)	(723)
Net increase/decrease in time deposits	(859)	947	(2,045)	1,077	1,192
Other	(373)	(295)	(106)	(90)	(360)
Cash flows from investing activities	¥ (21,426)	¥ (24,570)	¥ (30,239)	¥ (26,436)	¥ (28,899)
<b>Cash flows from financing activities</b>					
Proceeds from and repayments of bonds and borrowings	¥ (14,378)	¥ (3,165)	¥ (2,000)	¥ 0	¥ 9,000
Cash dividends paid	(3,959)	(4,587)	(4,592)	(5,250)	(7,013)
Payments for purchases of shares of subsidiaries	0	(149)	(1,193)	0	0
Payments for purchase of treasury stock	(5,001)	(1)	0	(6,011)	(3,990)
Other	(237)	(374)	(474)	(622)	(817)
Cash flows from financing activities	(23,575)	(8,276)	(8,259)	(11,883)	(2,820)
Effect of exchange rate changes on cash and cash equivalents	(338)	(232)	320	1,494	1,111
Net increase/decrease in cash and cash equivalents	(4,946)	(4,648)	17,902	(3,685)	(16,251)
Cash and cash equivalents at beginning of period	39,791	34,846	30,198	48,152	44,521
Other increase/decrease	0	0	52	53	0
Cash and cash equivalents at end of period	¥ 34,846	¥ 30,198	¥ 48,152	¥ 44,521	¥ 28,270

# ZEON

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## Online disclosure by Zeon Corporation

Website <https://www.zeon.co.jp/en/>

Company Information  
<https://www.zeon.co.jp/en/company/>  
Corporate profile, Group information, etc.

Investor Relations  
<https://www.zeon.co.jp/en/ir/>  
Integrated Report, financial data, factbooks, etc.

Sustainability <https://www.zeon.co.jp/en/csr/>  
Sustainability Report, etc.



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