



# Chemistry at work

ANNUAL REPORT 2022

Shin-Etsu Chemical Co., Ltd.



## Business Principle

The Group strictly complies with all laws and regulations, conducts fair business practices and creates unrivaled value for society and industry through the provision of key materials and technologies.

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### Editorial Policy

This report is compiled and issued every year so that shareholders, investors, and all other stakeholders can gain an understanding of the Shin-Etsu Group's corporate activities. This report covers Shin-Etsu Chemical Co., Ltd. (Shin-Etsu Chemical) and its consolidated subsidiaries in Japan and overseas. In compiling this report, we referred to the Value Reporting Foundation's (VRF)\* International Integrated Reporting Framework and the Guidance for Collaborative Value Creation developed by Japan's Ministry of Economy, Trade and Industry (METI).

In the 2022 edition of the report, we added pages with information about each of the six types of capital that function as the sources of the Shin-Etsu Group's competitive advantages. We also redesigned the layout of the report so the overall picture of the Group's value creation could be easily digested by readers.

\*The VRF was established in June 2021 through a merger between the International Integrated Reporting Council (IIRC) and the US Sustainability Accounting Standards Board (SASB).

For more detailed information, follow the links below:

 IR Information  
<https://www.shinetsu.co.jp/en/ir/>

 Sustainability Information  
<https://www.shinetsu.co.jp/en/sustainability/>

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# Materials for the Future

Since its founding 96 years ago, Shin-Etsu Chemical has long contributed to the development of society by continually providing high-quality materials and products to meet the needs of the times. With issues in society becoming increasingly diversified, we believe there to be missions that only the Shin-Etsu Group can fulfil as a company in the industrial upstream sector.

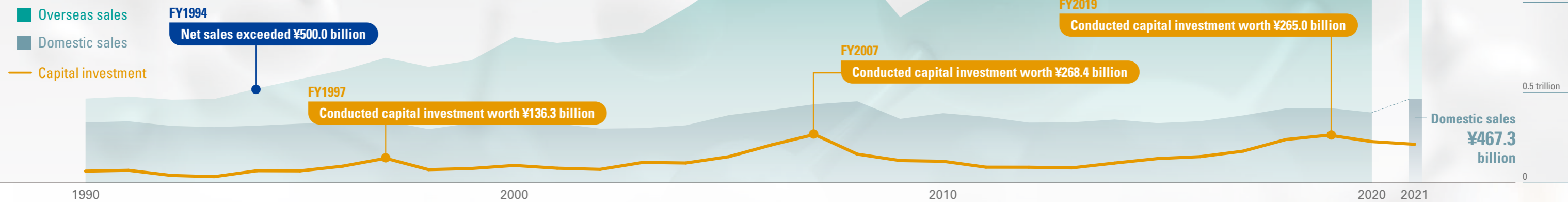
A new material for wearable devices that we brought to market in 2021 harnesses the special characteristics of silicone, thereby eliminating any wearer discomfort and stably collecting electrocardiogram (ECG) signals. By addressing rising demand for home-based medical care, we are helping to bring about a longevity society.

We provide society with materials for the future. By continuing to deliver products of high added value to the world, we seek to contribute to the realization of a sustainable society.



# Continuously creating new value in response to societal demand and changing requirements

Since its establishment in 1926 as Shin-Etsu Nitrogen Fertilizer Co., Ltd., the Shin-Etsu Group has continually transformed its business with an eye to the future, and today holds the top share of the global market for many products, including PVC and semiconductor silicon. The Shin-Etsu Group will therefore continue to create new value in response to societal demand and changing requirements aiming to become a leading global company in products that are fundamental to industry and daily life.



## 1950s-1960s

### Formation of business foundation



Silicone products when production first started

- Launched PVC production
- Began production of silicon wafers
- Started production of silicones
- Launched production of cellulose derivatives

- Development of domestic social infrastructure and increased demand for construction
- Spread of home appliances associated with high economic growth

## 1970s-1980s

### Enhancement of existing businesses and global expansion



Shintech's newly opened PVC plant

- Started production of PVC in Texas, USA
- Overseas expansion of semiconductor silicon business
- Overseas expansion of silicones business
- Began production of rare earth magnets
- Launched production of optical fiber preform

- Development of global social infrastructure and economy
- Development of integrated circuits for semiconductor devices and diffusion of personal computers
- Spread of communication networks toward an information-oriented society

## 1990s-2000s

### New challenges/Corporate structure reform/ Enhancement of international competitiveness



300mm wafer building (Shin-Etsu Handotai's Shirakawa Plant)

- Acquired PVC and cellulose businesses in Europe
- Built two PVC plants in Louisiana, USA
- Started mass production of 300mm silicon wafers
- Began production of silicone monomers and polymers in Thailand
- Commercialized photoresists and photomask blanks businesses

- Increase in infrastructure demand in Europe, the Middle East, and Africa
- Diffusion of cell phones
- Spread of the Internet
- Growth in global awareness of the need to reduce environmental impact

## 2010s-2020s

### New growth strategy development



Shintech's new plant in Louisiana

- Started production of ethylene in the US (ensured stable and flexible product supply by establishing an integrated production system for PVC from raw materials)
- Began integrated production of rare earth magnets in Vietnam
- Started mass production of low-dielectric resins (5G-related products)

- Growth in US housing demand
- Global EV shift
- Development of next-generation high-speed communication technologies (AI, IoT, 5G)

Initiatives of the Shin-Etsu Group

Societal issues and needs

# Promptly responding to changes in economic conditions and the business environment and forging unrivaled strengths

Cementing a dominant position through manufacturing excellence within the triangular link of sales, development, and production.

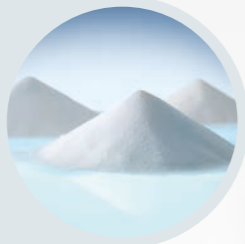
Strength

## 1 Leading Market Share

We hold the leading market share of key materials essential to society, including PVC and semiconductor silicon.

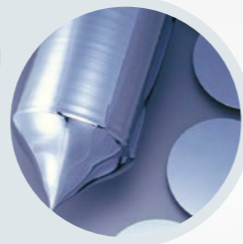
**Polyvinyl chloride (PVC) resins**

**No. 1 globally**



**Semiconductor silicon (silicon wafers)**

**No. 1 globally**



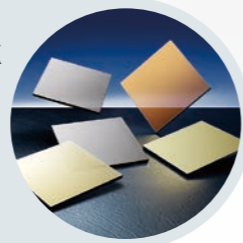
**Synthetic quartz (for photomask substrates for LCD)**

**No. 1 globally**



**Advanced photomask blanks**

**No. 2 globally**



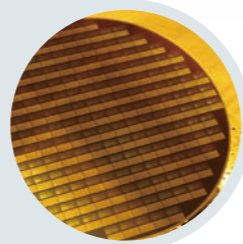
**Synthetic pheromones**

**No. 1 globally**



**Photoresists**

**No. 2 globally**



**Methylcellulose**

**No. 2 globally**



**Silicones**

**No. 1 in Japan  
No. 4 globally**



(Based on Shin-Etsu Chemical research)

Strength

## 2 Earnings Power

Our high level of profitability is driven by tireless efforts aimed at enhancing productivity and our lineup of competitive products.

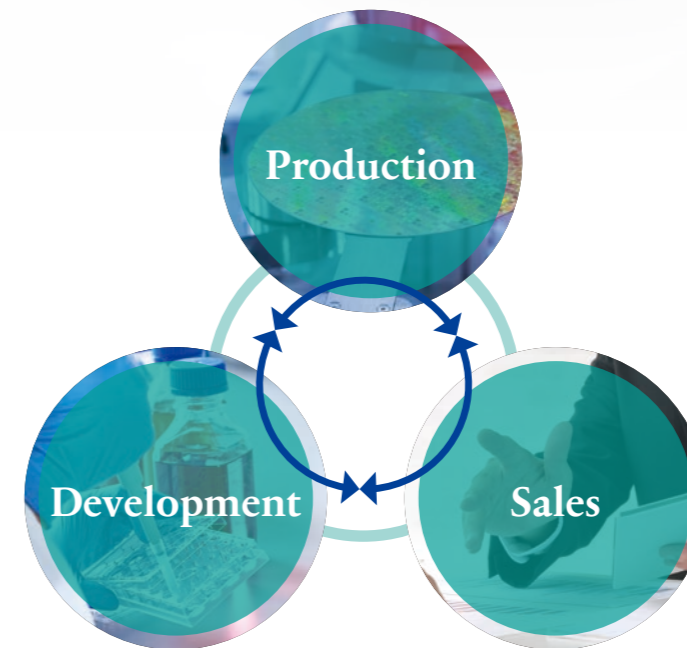
(Fiscal year ended March 31, 2022)

	Operating income to net sales ratio	ROIC	ROE
Shin-Etsu Chemical (consolidated)	32.6%	27.2%	16.3%

Strength

## 3 Triangular Link Manufacturing

The manufacturing of products at Shin-Etsu Chemical is pursued in close concert with customers. This is underpinned by a triangular link between sales, development, and production.



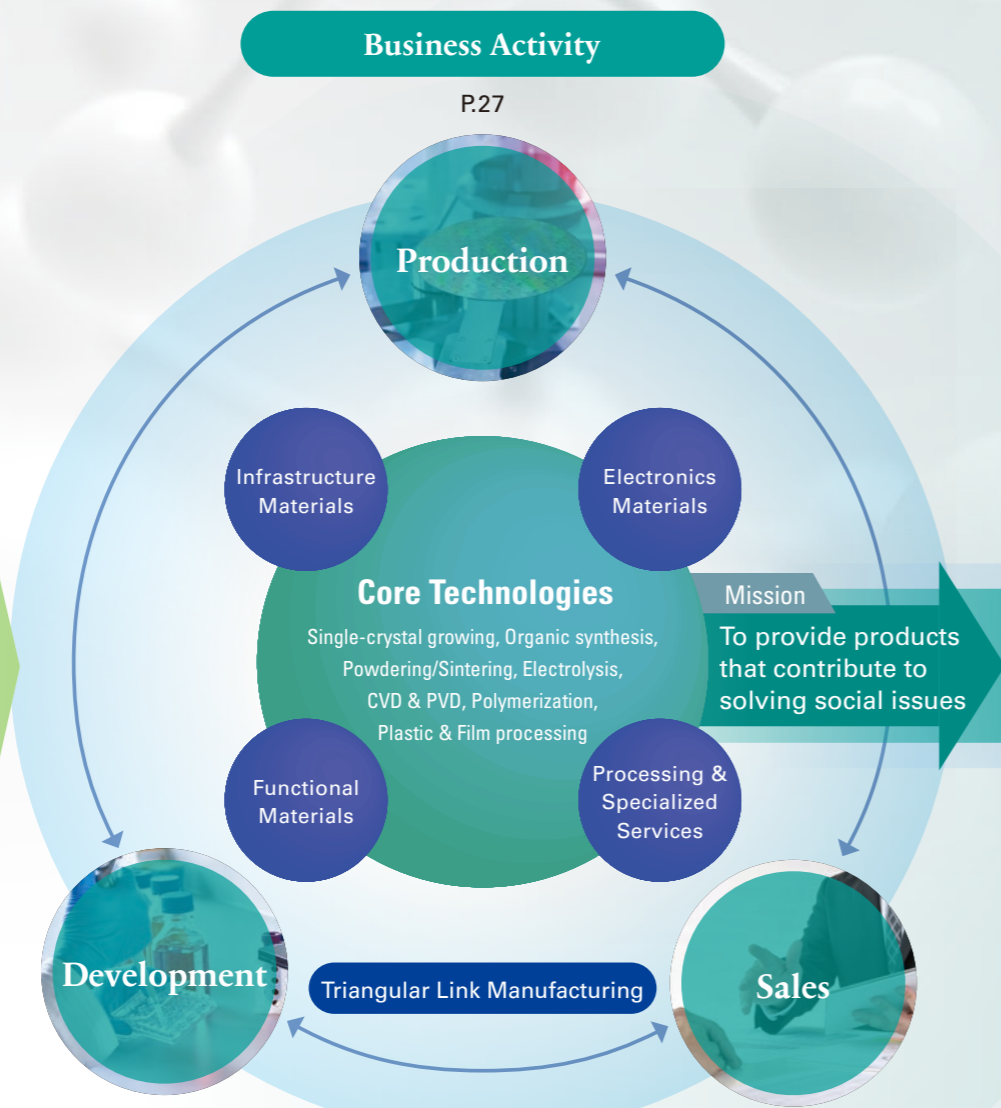
Our research divisions are informed of market needs garnered through sales activities, which ultimately leads to the establishment of research topics. Our development divisions pursue the development of products in line with these topics, while at the same time, they work closely with production divisions to make use of plant facilities and undertake practical development and trial production with a view to the stabilization of quality and volume production. So that this process can be carried out efficiently, all of our R&D centers are located within our plants.

# A value creation process unique to the Shin-Etsu Group

By harnessing its strengths in the triangular link manufacturing of sales, development, and production, the Shin-Etsu Group helps solve societal issues by creating unrivaled value with materials indispensable to industry and people's lives.

## Sources of Our Competitiveness

P.14



## Sustainability

P.46

- Health and safety of employees and contractors
- Energy-saving, resource-saving, and reduction of environmental impacts
- Product quality improvements and product safety control
- Promoting CSR procurement and the diversification of supply sources
- Respect for human rights, the development of human resources, and the promotion of diversity
- Respect for and protection of intellectual property
- Contribution to industry and social initiatives
- Accurate and timely information disclosure and communication with stakeholders

## Value Created

As of March 31, 2022

Operating income **¥676.3 billion**

Net income **¥500.1 billion**

ROIC **27.2%**

ROE **16.3%**

Cash dividend per share **¥400**

Total shareholder return over the past five years **207% (TOPIX144%)**

Market capitalization  
 March 31, 2012 **¥2,065.5 billion**  
 ↓  
 March 31, 2022 **¥7,829.1 billion**

Ratings Moody's Long-term Ratings **Aa3**

Sales composition ratio of environmental products\*1 **approx. 70%**

Greenhouse gas emission intensity (compared with FY1990) **47.1% reduction**

Composition ratio of overseas sales **77.5%**

Intangible asset value ratio\*2 **56.2%**

\*1 Products that contribute to the 14 areas identified by the Japanese government in 2021 as being essential to achieving the goal of carbon neutrality

\*2 An indicator for measuring the value of intangible assets in capital markets  
 Intangible asset value ratio = (intangible fixed assets [book value] + market capitalization - net assets [book value]) ÷ market capitalization

## Vision

### Contribution to the Earth's future

#### Connectivity

##### AI, IoT, 5G, metaverse

Semiconductor silicon, silicones, optical fiber preforms, low-dielectric resins, etc.



#### Smart infrastructure

##### Infrastructure developments

PVC, cellulose derivatives, silicones



#### Productivity enhancement

##### Robots, industrial motors

Semiconductor silicon, rare earth magnets, silicones, etc.



#### Health enhancement

##### Pharmaceutical materials, materials for medical apparatus and equipment

Cellulose derivatives, POVAL, silicones, rare earth magnets



##### Food, sanitation

Synthetic pheromones, cellulose derivatives, photocatalysts



#### Energy/Resource efficiency

##### Electric vehicles

Rare earth magnets, anode materials for lithium-ion batteries, silicones, etc.

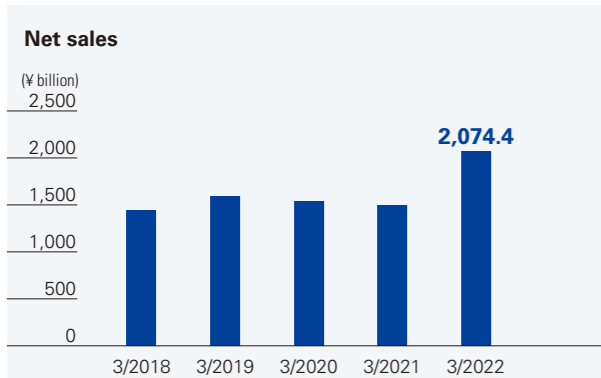


##### Energy-efficient home appliances, renewable energy

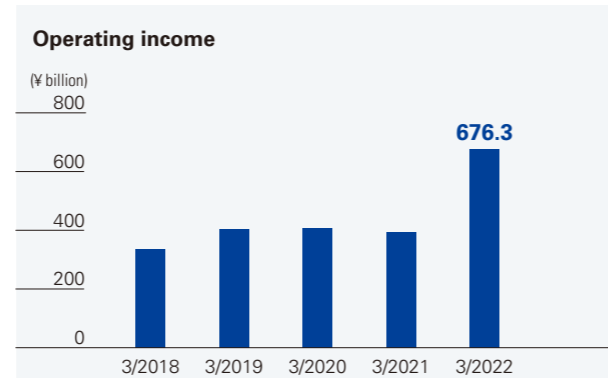
Rare earth magnets, semiconductor silicon, silicones, LED packaging materials, etc.



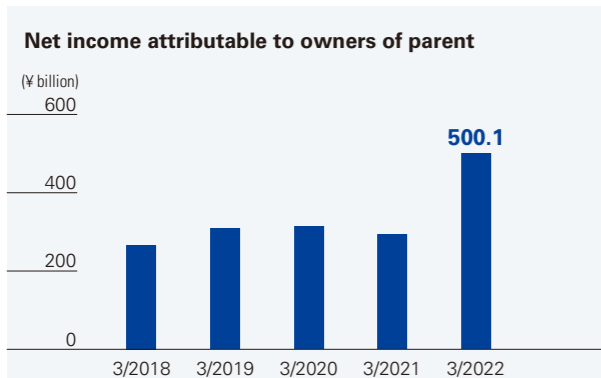
# Financial Highlights



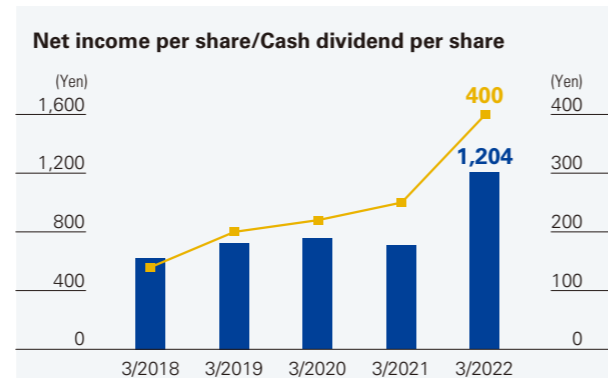
FY2021 consolidated net sales rose 38.6% year on year and exceeded ¥2.0 trillion for the first time owing to strong demand for mainly PVC resins, as well as the impact of price hikes reflecting the higher cost of raw materials.



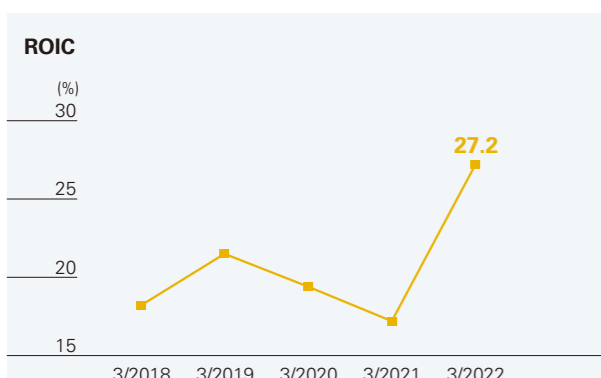
FY2021 consolidated operating income increased 72.4% year on year to a new record high on the back of profit growth in all business segments and notably a sharp increase in profit in the Infrastructure Materials business (3.2 times compared to the previous fiscal year).



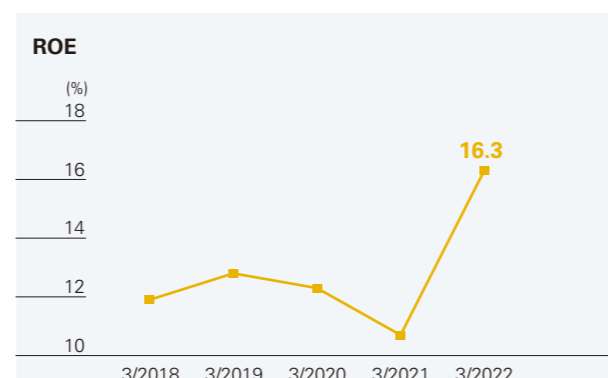
FY2021 net income attributable to owners of parent grew 70.3% year on year to an all-time high, reflecting sharp growth in operating income along with higher equity in earnings of affiliates and foreign exchange gains.



In FY2021, in response to record-high net income per share, we raised our annual dividend by ¥150 from the last fiscal year, marking seven consecutive years of dividend hikes (33.2% payout ratio).

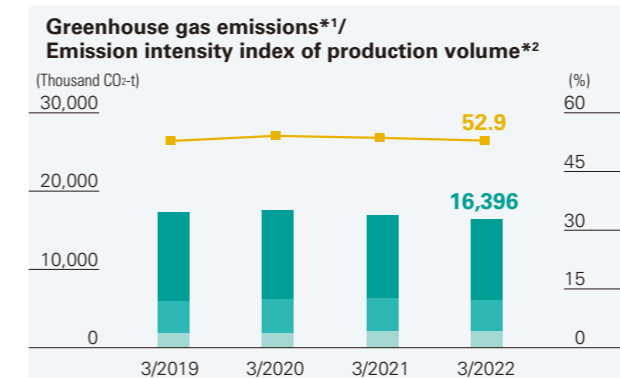


FY2021 ROIC increased 10.0 percentage points year on year on the back of sharp growth in operating income after taxes.



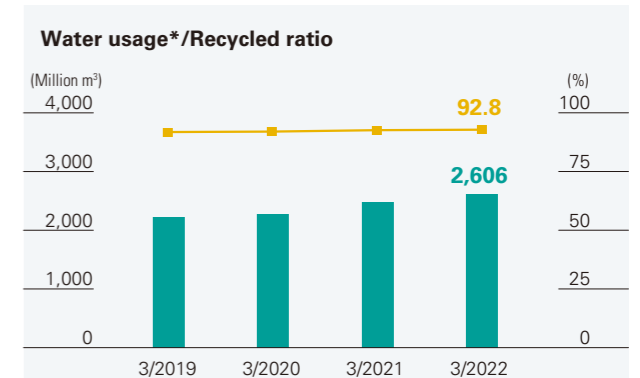
FY2021 ROE rose 5.6 percentage points as a result of sharp growth in net income attributable to owners of parent, despite an 18.3% year-on-year increase in shareholders' equity.

# Non-Financial Highlights



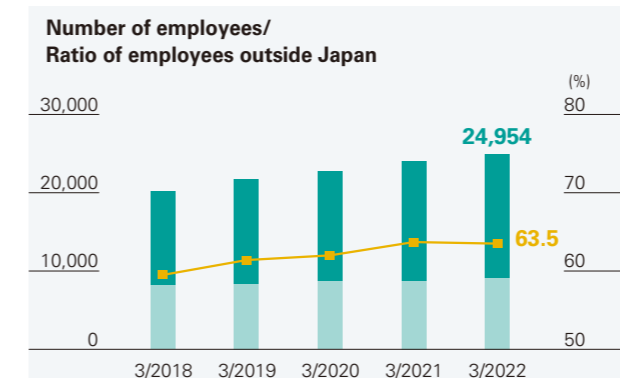
We are using natural gas-fueled cogeneration systems with the aim of achieving our goal of reducing greenhouse gas emission intensity to 45% of our 1990 level by 2025.

\*1 Greenhouse gas emissions were corrected retroactively from previous fiscal years after revision of emission factors, etc.  
\*2 Emission intensity index of production volume reflects Scope 1 and Scope 2.

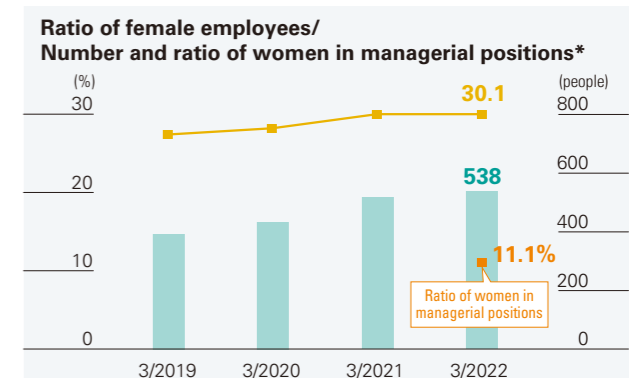


Since manufacturing products requires a large amount of water, we have set a target of "reducing water withdrawal intensity by an annual average of 1%," and are thoroughly promoting the recycling of water and making effective use of rainwater, etc.

\*Total quantity of water withdrawal and recycled water

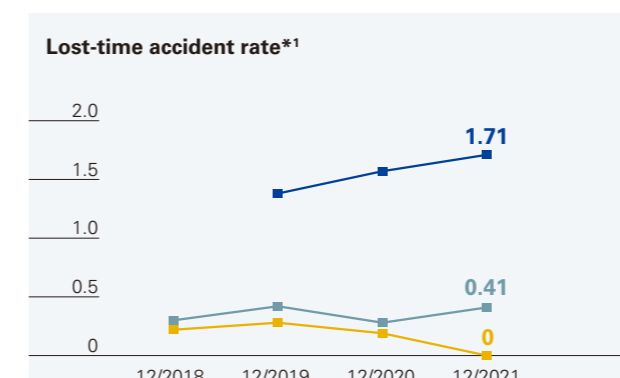


In accordance with international labor standards, each year we survey our consolidated subsidiaries to ensure compliance with laws and regulations, making sure that we respect human rights and properly manage labor and employment in accordance with the laws and regulations of each country and region.



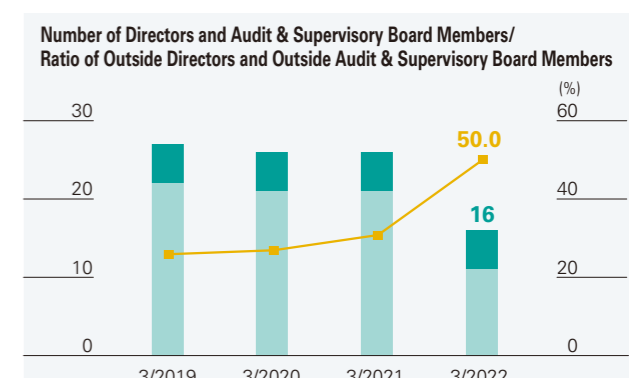
To promote the advancement of women, we have set goals to "increase the hiring ratio of women in administrative positions to 40% and in engineering positions to 10%" and "quadruple the number of women in managerial positions, including junior managers, compared to FY2014."

\*Figures for ratio of women in managerial positions calculated starting from FY2021



Although we had no serious accidents in FY2021, there were 93 lost-time accidents at overseas Group companies, and we promptly implemented countermeasures after analyzing the causes of each of them.

\*1 The lost-time accident rate is calculated per calendar year.  
\*2 Averages for the chemical industry in Japan as compiled by the Japan Chemical Industry Association (JCIA).



In FY2021, we substantially downsized the Board of Directors and raised the ratio of Outside Directors and Outside Audit & Supervisory Board Members to improve our ability to promptly respond to changes in the business environment and strengthen our monitoring functions.

Chairman's Message



**Given the rapidly changing business environment, sales, development, and production will work in harness to enable a stable supply of products and expand our offerings to further enhance corporate value.**

**Aiming to ensure stable product supply as risks emerge around the world**

I would like to express our sincerest gratitude to all our customers, business partners, shareholders, and our local communities for their support and cooperation.

Amid the pandemic that has remained unresolved for the last couple of years, new international tensions have arisen and a variety of risks have asserted themselves. This has led to the destabilization of supply chains for various raw materials and products. Of particular importance in this environment is the stable supply of products. We aim to achieve stable growth together with our customers and society by continuing to provide products of stable quality and quantity.

Our group delivers a wide variety of products worldwide, including PVC essential for social infrastructure and housing construction, silicon wafers used as substrates for semiconductors incorporated into products in a wide range of fields, and silicones used in everything ranging from industrial products to consumer products. In addition to ensuring the stable supply of these products, we are constantly refining their quality and performance.

We are committed to contributing through these efforts to the realization of a sustainable society.

**Shintech has begun the next phase of construction, and the entire Group is committed to enhance production capacity**

To achieve stable growth, it is essential to increase production and sales capabilities. Shintech, a U.S. subsidiary, began operations in 1974 and has worked to expand its production capacity by implementing "full production, full sales in tandem." In December 2021, a new integrated PVC production plant started operations in Louisiana and the next phase of expansion is underway, aiming at completion at the end of 2023, to ensure a stable supply of high-quality products to customers around the world. As demand for semiconductors continues to increase worldwide, our group is focusing further on supplying high-quality silicon wafers while closely paying close attention to demand trends. In addition, in the silicone business, we are investing to increase production capacity in response to growing demand with a focus on advanced functional products.

Our group has long set great store by geopolitical

risks when making capital investments. It is clear from the current international situation that once a country risk becomes apparent, it exceeds the scope that a single company can deal with. For this reason, our group is investing in the United States and other regions with low country risks. Shintech, with firm roots in the United States, is an example of our success that has developed into the world's largest manufacturer of PVC.

**Contributing to the global environment by promoting carbon neutrality in our production processes and supply chain**

In order to achieve sustainable growth over the medium- to long-term, we are committed to contributing to the global environment in parallel with the international community. Our group produces a number of products that contribute to carbon neutrality. For example, PVC contributes to energy savings in homes and offices by providing superior insulation as a building material, including in the form of PVC sashes. Silicon wafers, on the other hand, are an indispensable material for realizing high energy efficiency in all fields through IoT and so on. In addition, our group is responding to the needs of the times and society by innovating existing products and developing new ones, such as providing environmentally-friendly silicone products. At the same time, our group is actively promoting decarbonization in its production processes and supply chains by leveraging its production technologies and expertise.

Based on the policies outlined above, our group will continue to provide products that meet the

expectations of customers, shareholders, and society in order to maximize corporate value whatever the business environment may be. We would like to thank all of you for your continued understanding and cooperation.

Chairman  
Chihiro Kanagawa

### President's Message



**Seizing change as an opportunity for growth, we will deliver the highest level of quality, technology, and practice to become our customers' most reliable supplier.**

#### Overcame geopolitical risks and achieved record results

Our company delivered monumental results in the fiscal year ending March, 2022 (FY2021). The results reflect the underlying strength of our line of products, technology, operational system and our team's professionalism. We again proved ourselves resilient amid various challenges such as the persistent pandemic, natural calamities and geopolitical shocks. We are confident that we have contributed to the well-being of our communities while renewing the records across the top line and the bottom line and in key financial ratios.

In FY2021, revenue and earnings grew in all the business segments. Over the past six years, we increased the earnings at CAGR of 21.1%. We brought ROIC back to 20% strong and ROE higher than a yardstick value. With this performance, we declared an annual dividend of ¥400 per share, which is the highest mark in the company's dividend history and represents 24% of CAGR for the past six years.

In addition, we announced a 100 billion yen's worth of share repurchases. Thus, in total, we returned 266 billion yen to our shareholders. This is a direct result of the company's performance and predicated upon

the solid balance sheet.

It demonstrates our attention to shareholder remuneration.

#### Doing our part as an essential supplier to human life and industries in the world

While our business portfolio is adaptable enough to ensure working well, we will strengthen it and make it fitter and more viable. We consider changes as opportunities for growth. As more changes will occur, we will work with our customers more closely than ever. We are determined, with best-in-class quality, technology and practice, to be a most reliable supplier to all our customers. We will develop numerous products which help solve issues faced by our customers.

The pursuit of carbon neutrality is irreversible. Our business is all in all aligned to helping reduce greenhouse gas emissions. We will commit to further aligning our business to this goal. It is exemplified in our recently announced capital plan of 80 billion yen for silicone derivatives. In every economy, it is imperative to maximize efficiency in this day and age, when human beings pursue sustainable growth and prosperity while reducing the burden on the

environment. We can play a key role to that end. We will develop our product offers with this focus and make contributions in such a manner that the more our products are used, the better the industries and human society become. In addition, we will adopt technologies that are effective in reducing greenhouse gas emissions, as many of them and as soon as we can. We will announce our carbon neutrality plan in the near future. We are determined to do our part as an essential supplier to human life and industries in the world.

#### Building on FY2021 to reach another delivery of good performance

Let me give you a summary of where we are with our business segments.

The Infrastructure Business propelled the earnings at a prodigious rate. FY2021 saw an impressive growth in demand for PVC globally and confirmed our view that the growth will continue in major markets. It is due to rising needs for housing and infrastructures and to the elevated public awareness of the environment. Our capacity expansion by Shintech in North America was put in service last December. Back to back, the construction of the next capacity expansion is under way there.

The Electronics Materials Business grew nicely. Underneath the strong demand, there is a new world developing where everything is being connected with zero latency and the reality and expanded reality coexist. In addition, electrification is surely expanding and what they call green transformation is under way. Furthermore, initiatives for economic security are being taken by major nations. We will play an essential role in every aspect of all these

developments.

The Performance Materials Business expanded in terms of geography and application. We have been busy adding new products and broadening our capabilities for our customers. We add touch points in industries and markets so that our total addressable markets will be greater.

The Processing and Specialized Services contributed to enhancing the synergy within the group.

The results for FY2021 sets a new baseline for FY2022 and, as we speak, we are working on another delivery of good performance.

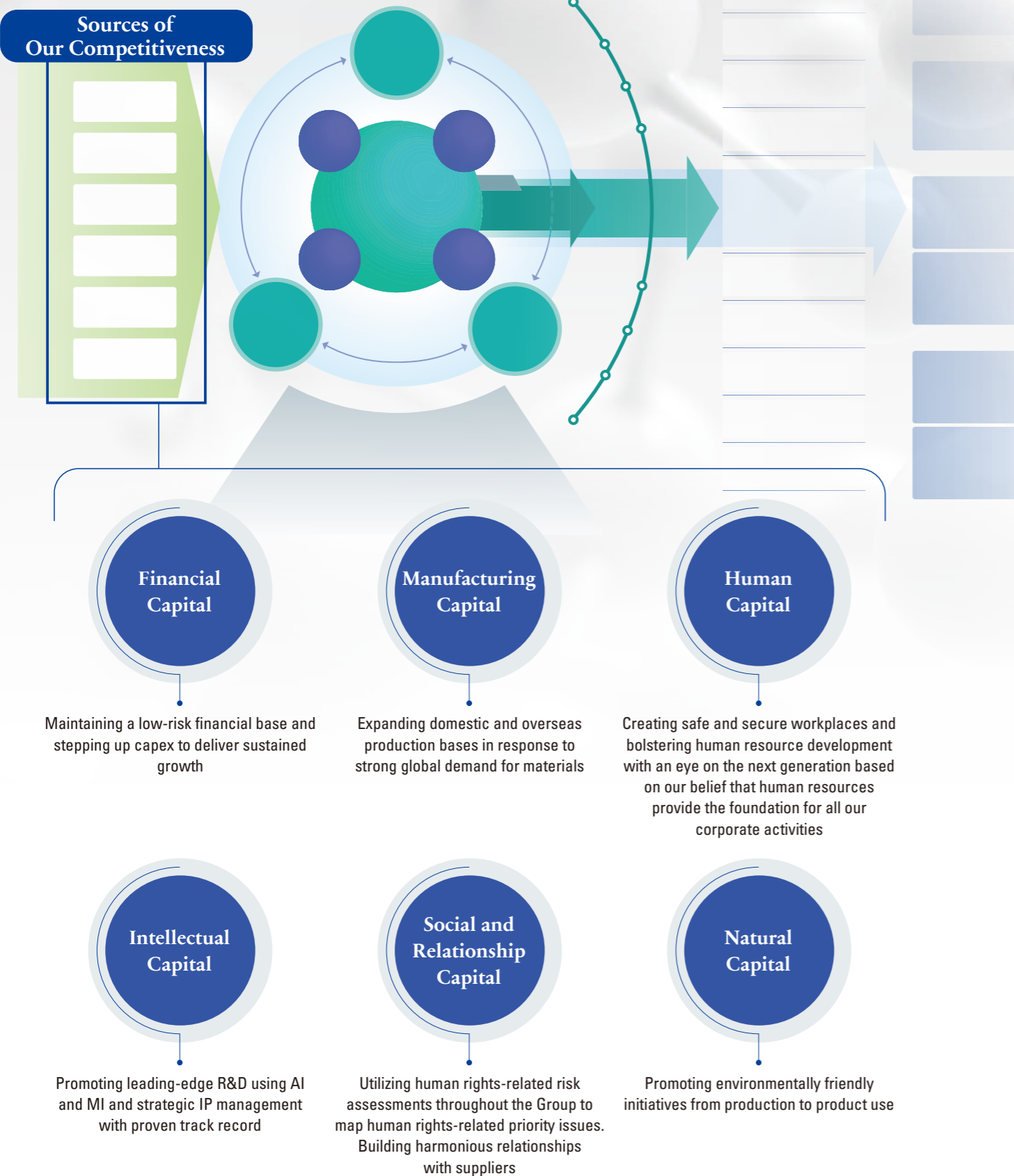
#### To our stakeholders

In order to continue to do what we have been able to do for our customers, our shareholders and the communities where we are in, it is essential that the company continues to grow. We will remain focused on our customers and their needs to be relevant to them, will remain committed to governance to be relevant to our shareholders and will remain responsible to be relevant to our communities.

I sincerely thank our shareholders for your confidence, our customers for their partnership and our entire Shin-Etsu team for their dedication to our operations.

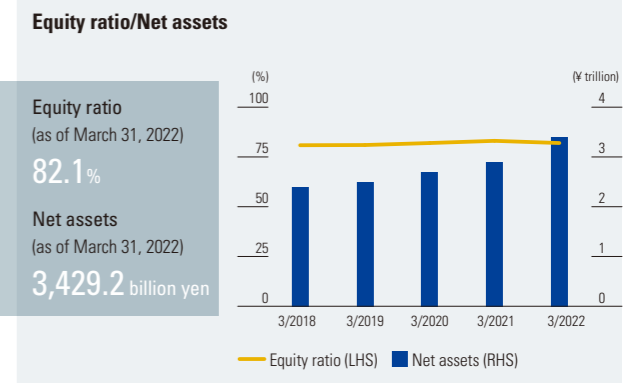
President  
Yasuhiko Saitoh

# Sources of competitiveness that support the sustainable development of the Shin-Etsu Chemical Group



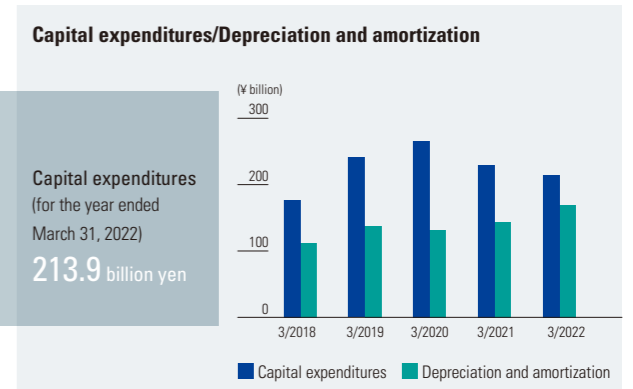
## Achieving high profitability with a solid financial base

Operating income in the Infrastructure Materials business increased 320% year on year in FY2021, while all other business segments posted double-digit profit growth. Net income attributable to owners of parent rose sharply to a record-high ¥500.1 billion (+70% year on year). Total net assets came to ¥3,429.2 billion (+19% vs. end-FY2020), the equity ratio on a consolidated basis topped 80%, and we achieved ROIC of 27.2% and ROE of 16.3% whilst maintaining a low-risk financial base from which we can cope with economic fluctuations despite the increasingly uncertain future outlook.



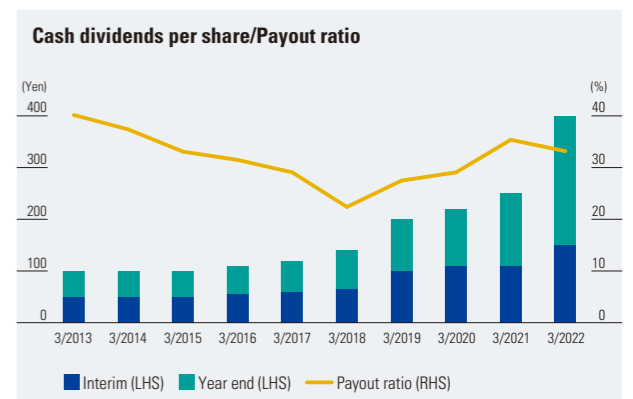
## Ramping up capex with an eye on sustained growth

With a view to strengthening our competitive edge and ensuring sustained growth, we are endeavoring to enhance corporate value by making active and opportune use of internal reserves. At present, the augmentation of PVC production capacity at Shintech is progressing according to plan and we are also aggressively investing in silicon wafers and other businesses in the Electronics Materials segment. We also kicked off a new round of investment in silicones to the tune of ¥80.0 billion. With these investments and others, we have earmarked ¥270.0 billion for capital expenditures in FY2022.



## Seven consecutive fiscal years of dividend hikes; share buybacks scheduled

In addition to focusing on growth in business revenue and maintaining a solid financial base, our basic policy is to target a medium- to long-term payout ratio of around 35% and steadily return the fruits of our business endeavors to our shareholders over the long term. In keeping with this policy, in FY2021 we raised our annual dividend for the seventh year in a row to ¥400 (+¥150 year on year; payout ratio of 33.2%). Also as part of shareholder returns, we plan to buy back and cancel 7 million treasury shares equivalent to 1.7% of shares outstanding (excluding treasury stock), or up to ¥100.0 billion worth. The cancellation of shares is scheduled for November 8, 2022.

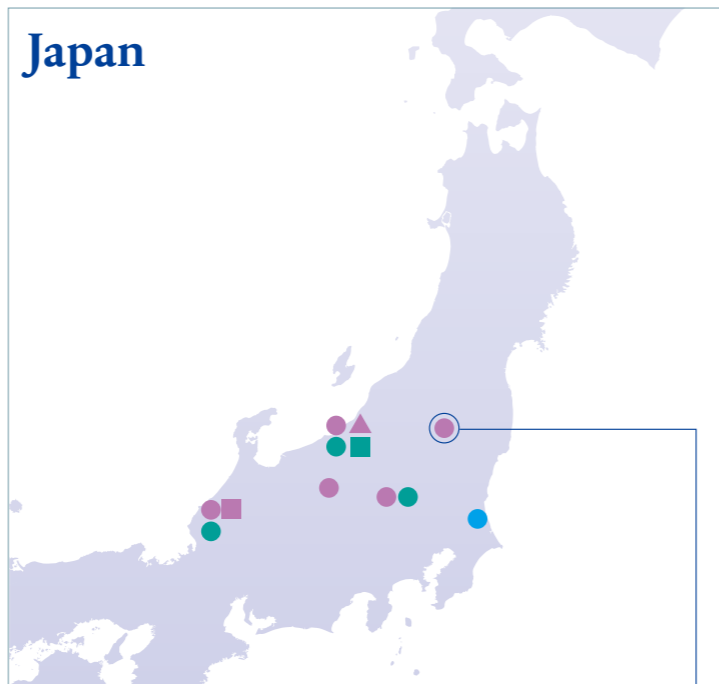
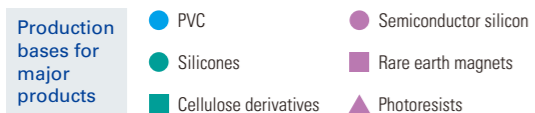


# Manufacturing Capital

Expanding domestic and overseas production bases in response to strong global demand for materials

## Domestic production bases: 16 companies, 27 bases

We have 16 companies, including Group companies such as Shin-Etsu Handotai Co., Ltd. and JAPAN VAM & POVAL Co., Ltd., as well as 27 production bases in Japan, including Shin-Etsu Chemical's four plants in Naoetsu (Niigata Prefecture), Takefu (Fukui Prefecture), Gunma Complex (Gunma Prefecture) and Kashima (Ibaraki Prefecture). Especially in Japan, the R & D division is located on the premises of each plant, which quickly develops products that meet the needs of customers and is the starting point of cutting-edge technology as a mother plant.



## Overseas production bases: 19 countries, 93 bases

In addition to building a local production system directly linked to local demand, the Shin-Etsu Group has 93 overseas production bases in 19 countries to ensure that our production costs are the most competitive in the world. By establishing multiple production bases globally, we are strengthening our ability to ensure a stable supply to our overseas customers, who account for approximately 80% of our sales.

### Message from our production site employee

#### Maximizing production capacity to further boost our competitiveness

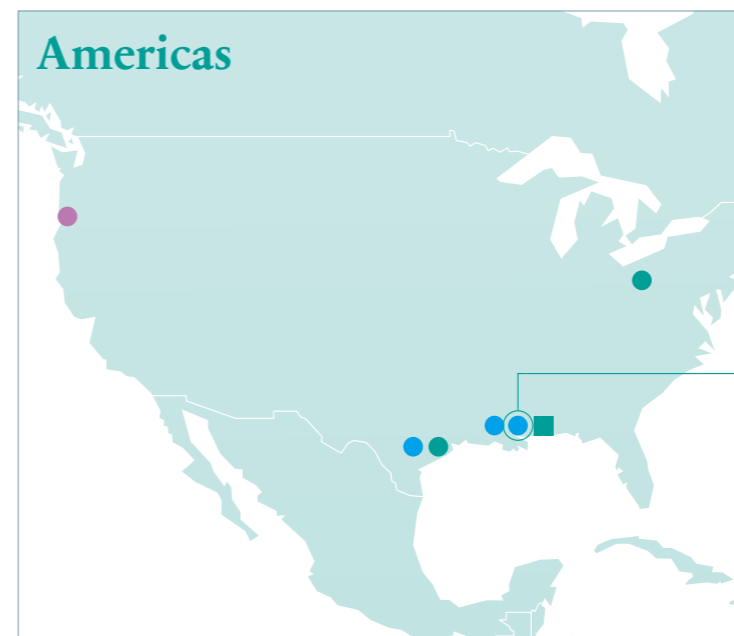
Our ethylene plant, which started up in February 2020 in Louisiana, USA, with state-of-the-art technology and competitive raw materials (ethane) from shale gas, supplies the ethylene needed to produce PVC. One of the challenges we face in further strengthening our competitiveness is to maximize production capacity for further earnings. In addition to daily fine-tuning of operating conditions, we are considering facility modifications to further boost performance. Another challenge is the pursuit of safe and stable operations. We are working to capture problems before they occur through continuous monitoring of equipment condition, while at the same time improving the reliability of equipment that currently requires frequent maintenance.

On the environmental side, we are currently working hard on a project to introduce new monitoring instrument that will help reduce CO<sub>2</sub> emissions in order to improve the operation and management of the exhaust gas flare. I believe that the experience through the design and construction work of production plant from scratch live for good use in current reforming operations.



Technology Department, International Division, Shin-Etsu Chemical Co., Ltd. (on assignment to Shintech Inc.)

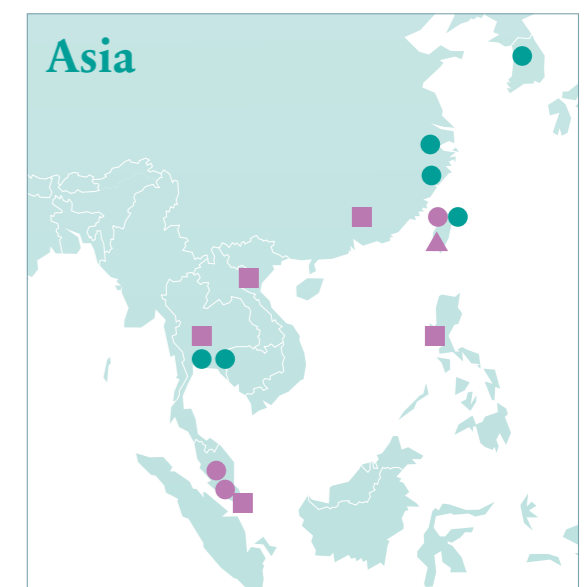
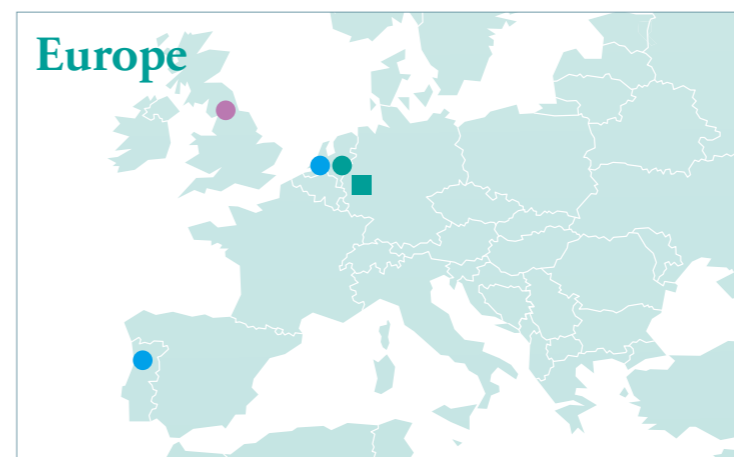
**Hironori Miyaji**



### Shintech Inc.

Plaquemine Plant in Louisiana

Fulfilling global demand for PVC as the world's largest PVC manufacturer



### Message from our production site employee

#### Responding to customer needs by applying new technologies to stabilize quality

Our strength is in our industry leading quality and technological capabilities. I was involved in a project to develop wafers for cutting-edge devices. At the beginning of the development, we were nowhere near a level where we could even consider mass production, but we were able to substantially improve our yield after several years of development. This quality is something that cannot be achieved if any one of the numerous processes, from crystallization to processing to epitaxy, is subpar, and I have come to realize once again that we are a group of professionals.

As we practice the triangular link of sales, development, and production, I believe that the role of production is to respond to the needs of customers captured by our sales team to the best of our ability. One of the most important quality requirements is the flatness of wafers, which requires shape control at the nanometer level\* for 300mm wafers. To achieve this, we design the necessary processes and introduce control technologies and other new technologies to stabilize quality. We make every effort to gain and maintain customer trust in our daily activities.



Wafer Process Engineering Department, Shirakawa Plant, Shin-Etsu Handotai Co., Ltd.

**Shiro Amagai**



### Shirakawa Plant, Shin-Etsu Handotai Co., Ltd.

Key domestic plant for integrated production of semiconductor silicon wafers from crystallization to processing

\* 1 nm is one millionth of a millimeter.

# Human Capital

Creating safe and secure workplaces and bolstering human resource development with an eye on the next generation based on our belief that human resources provide the foundation for all our corporate activities

The Shin-Etsu Group believes human resources provide the foundation for all its corporate activities and is therefore focusing its energy on establishing an environment in which employees can work with peace of mind, developing human resources, and ensuring diversity throughout the Group.

## Key Issues Health and safety of employees and contractors

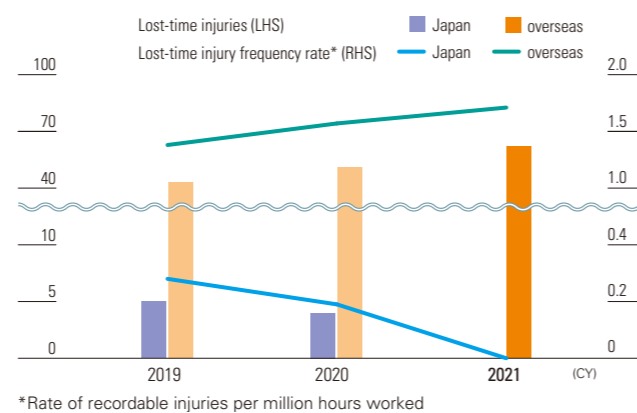
### Creating safe and secure workplaces

In aiming to prevent all serious and lost-time accidents, the Group conducts risk assessments to comprehensively identify risks that could lead to injury or illness and is working to create safe and comfortable workplaces by eliminating or minimizing risks.

### Participants of safety education programs

(FY)	2017	2018	2019	2020	2021
Shin-Etsu Chemical	9,751	11,774	19,411	32,527	39,348
Consolidated companies	24,829	28,013	39,328	46,998	56,236

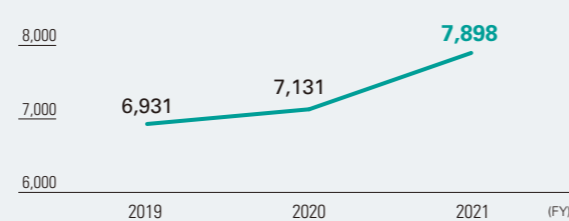
### Lost-time injuries and changes in frequency rate



### Accident prevention initiatives

As a bottom-up initiative implemented at each worksite, the Group accepts suggestions from and listens to the concerns of workers who have experienced close-call incidents themselves and employs measures to address even the slightest of concerns. At the same time, by sharing the information within and outside of the Group, we strive to roll out safety measures as well as preventive measures for similar incidents.

### Suggestions regarding close-call incidents or other concerns



Please visit the following website page for the suggestions disclosed thus far.  
[https://www.shinetsu.co.jp/en/sustainability/esg\\_safety/management/](https://www.shinetsu.co.jp/en/sustainability/esg_safety/management/)

### Physical and mental health of employees

So that employees can work with enthusiasm, we proactively offer health guidance on lifestyle-related diseases, adopt mental health measures, and hold events that aim to improve physical fitness. As for the prevention of COVID-19 infections, we continue to employ as many measures as possible, including temperature checks, the wearing of masks, hand sanitizing, and

the use of online meetings. In addition, we have established a Health Committee at our head office and each of our branch offices, along with a Safety and Health Committee at each plant, and we are working to improve the workplace environment and promote healthy lifestyles based on information and guidance received from our occupational physician.

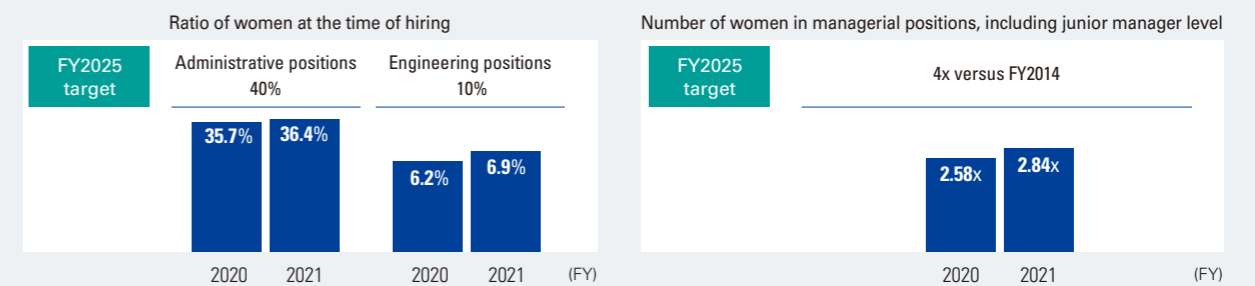
## Key Issues Respect for human rights, the development of human resources, and the promotion of diversity

### Promoting the active participation of diverse human resources

The Group is working to promote the active participation of women and create a workplace environment where employees of all walks of life can work to their full potential. So that we can expand our business globally, we are focused on local recruitment overseas

and the hiring of foreign nationals living in Japan. In April 2019 we raised our mandatory retirement age for employees from 60 to 65 so that more seasoned workers at our production plants can pass on their skills and experience to the next generation.

### Five-year targets and progress (starting in FY2021) in the action plan based on the Act on Promotion of Women's Participation and Advancement in the Workplace



Scope: Employees and seconded employees of Shin-Etsu Chemical

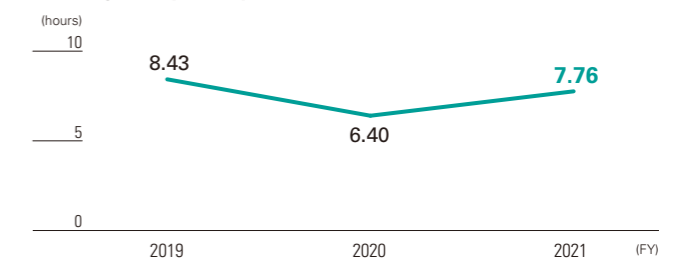
### Human resource development

Based on the thinking that employee growth leads to company growth, the Shin-Etsu Group supports the growth of employees with not only rank-based training, but also various other educational programs for which there is a growing need in light of changes in the business environment. For example, in order to smoothly carry out business operations around the world, we are currently focused on running global communication training sessions with the goal of improving foreign language-based communication skills. Moreover, as part of our efforts to adopt more digital technology, in FY2021 we started running hands-on training and problem-solving AI training so that new recruits and younger employees could acquire digital literacy skills, while mid-level employees could learn data analysis skills needed to solve practical issues.

Even though we implement this kind of systematic training, it is not always uniform because we believe it is important to also offer training that meets the needs of every individual. Especially at

our business sites, we emphasize on-the-job training (OJT) based on the belief that true growth comes from the accumulation of daily experiences. As such, we aim to nurture a workforce that possesses flexible ways of thinking and spontaneity.

### Training time per employee



Scope: Employees and seconded employees of Shin-Etsu Chemical  
 Excludes the auditing student system that was discontinued in FY2021 due to COVID-19.

### Work-life balance

#### Childcare support system

Employees can take childcare leave up until their children turn three. They can also choose to work shorter hours using our short-time work system as long as their children are still attending elementary school. We also encourage employees to make use of our teleworking system. In FY2021, 99 female employees and 88 male employees utilized our childcare leave system.

\*The length of childcare leave differs depending on the laws of each country or region.

#### Nursing care support system

We have established a nursing care support system for employees who care for their families and other important individuals as part of our efforts to create an environment in which employees can balance their work duties with nursing care obligations. In FY2014 we started providing a "Health Management and Nursing Care Support" service and set up a consultation hotline through which employees can seek the advice of external experts. In FY2021, two employees (from all consolidated companies in Japan) utilized our nursing care leave system.

## Intellectual Capital

Promoting leading-edge R&D using AI and MI and strategic IP management with proven track record

The Shin-Etsu Group considers R&D to be an important “asset” as well as a “challenge” to pioneer the future, and we are promoting R&D to meet the needs of the times while asking ourselves what the future world will need. We are also strategically managing the valuable intellectual property (IP) obtained through R&D in order to make effective use of it.

### Accelerate development of new products and technologies by leveraging MI

The Group’s R&D department coordinates with the sales and production departments to bring together a system for developing new next generation products and technologies, as well as a system for quickly developing current products that meet the needs of our customers. At the same time, we are hiring and training engineers and researchers with expertise in artificial intelligence (AI) and computational science, and establishing a system to efficiently search for optimal combinations of materials by leveraging materials informatics (MI), thereby substantially shortening development time compared to the conventional method where researchers repeatedly conduct experiments based on their experience and intuition.

In new product development, we have identified energy, semiconductor-related materials, 5G-related materials, healthcare, and materials that contribute to achieving SDGs and carbon neutrality as priority areas in growth markets where we can leverage our strengths. For example, in the energy field, we are developing SiO (silicon monoxide) anode materials for high-capacity, high-power lithium-ion batteries in anticipation of the widespread adoption of electric vehicles. In the optical communications area, we have developed quartz cloth and low dielectric constant thermosetting resins (SLK series) as optimal materials for electronic devices, circuit boards, antennas, and

radar domes used in the 5G high frequency band, which have been well received by customers. In the healthcare field, we have developed “electrophysiological dry electrodes” using silicone-based materials with excellent biocompatibility for wearable devices, and “high-stretchable wiring materials” that are ideal for wiring in health patches used to acquire biometric information.

In addition, we introduced materials for manufacturing micro-LED displays, the most promising contender for next-generation displays, while our group company Shin-Etsu Engineering has developed equipment that can transfer micro-LED chips quickly and accurately with a simple transfer process, thereby establishing our one-stop supply system covering everything from transfer parts to manufacturing equipment.



Low dielectric constant thermosetting resins (SLK series)



Health patch using Shin-Etsu Chemical's materials for wearable devices. The black-colored parts are the electrophysiological dry electrodes and the gold-colored lines connecting them are the high-stretchable wiring.

### Strategic protection of IP

As the Shin-Etsu Group’s technologies are being used around the world, we protect our IP gained through R&D from infringement by third parties by securing IP rights both in Japan and overseas. We also strategically manage our intellectual assets by, for example, keeping information that should not be disclosed as confidential knowledge. As a result of these efforts, we have received the Clarivate

Top 100 Global Innovators™ award for 11 consecutive years. Global information services company Clarivate (UK) analyzes IP and patent trends based on its patent data, and presents the award to companies and institutions that have protected their unique invention ideas with IP rights, successfully commercialized their inventions, and are leading the world’s businesses.

## Social and Relationship Capital

Utilizing human rights-related risk assessments throughout the Group to map human rights-related priority issues. Building harmonious relationships with suppliers

The Shin-Etsu Group believes human rights management in the supply chain to be crucial to the stable supply of high-quality products to its customers. We therefore spare no pains in undertaking activities that aim to uphold respect for human rights.

### Identifying human rights management in the supply chain as a priority issue

The Shin-Etsu Group observes international standards of conduct, including the Universal Declaration of Human Rights, the ILO\*1 International Labor Standards, and the United Nations’ Guiding Principles on Business and Human Rights. We are also thoroughly dedicated to activities that aim to uphold respect for human rights.

As part of our due diligence\*2 concerning human rights,

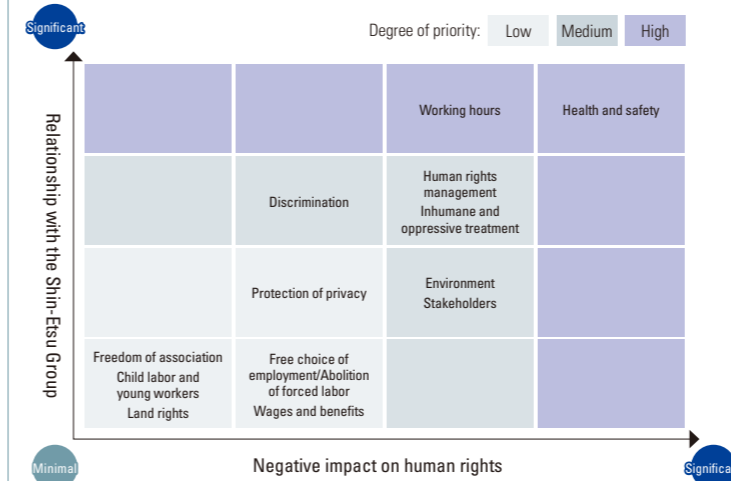
in December 2019, we carried out human rights-related risk assessments at Group companies worldwide. In those assessments, we evaluated the degree of priority of human rights issues from the following two angles in order to identify the issues the Group ought to address first: (1) the potential severity of the impact on human rights; and (2) our relationship with human rights-related risks. Going forward, the human rights issues we must address as matters of priority will be communicated throughout the Group. At the same time, we will be thorough in our approach by keeping tabs on the progress of initiatives undertaken by each Group company.

Also, an analysis of the responses collected from the human rights-related risk assessments revealed that roughly 40% of our Group companies consider human rights management in the supply chain to be important. Since February 2022 we have been assessing, in a phased manner, the sustainability initiatives, including those relating to human rights, implemented by Shin-Etsu Group suppliers.

\*1 International Labour Organization

\*2 Recognize, prevent, and address adverse human rights-related impacts stemming from both inside and outside the Company by repeatedly applying the PDCA cycle, which involves formulating and disclosing human rights policies, assessing the impact of the Company’s business activities on human rights, preventing and rectifying any negative impact, and tracking and disclosing related performance.

#### Priority issues for human rights at the Shin-Etsu Group



### Building harmonious relationships with suppliers

In 2020 we signed up to the Declaration of Partnership Building\*3 framework with the aim of building harmonious relationships with business partners. In particular, when determining transaction prices, we agree to hold discussions with subcontractors so as to include a fair amount of profit for them and make every effort not to request any unreasonable cost reductions. As a result of such initiatives, in the follow-up

survey of 40,000 companies in price negotiations promotion month conducted by METI’s Small and Medium Enterprise Agency in 2021, we garnered a score of 9.71 (the average was 6.86) for price pass-alongs, the highest among the 70 Declaration of Partnership Building framework companies that were evaluated.

\*3 This framework was established by the Council on Promoting Partnership Building for Cultivating the Future, members of which include the chairman of Keidanren (Japan Business Federation), the chairman of the Japan Chamber of Commerce and Industry, the president of the Japanese Trade Union Confederation, as well as related government ministers. Under the framework, the representatives of companies declare to build new partnerships by promoting collaboration and mutually-beneficial relationships with business partners and business providers in the supply chain.

# Natural Capital

## Promoting environmentally friendly initiatives from production to product use

As part of initiatives that contribute to enhancing the value of our natural capital, the Shin-Etsu Group focuses on addressing climate change, conserving water resources, and reducing waste. In particular, addressing climate change, which is becoming increasingly serious, is a global challenge. In May 2019, we expressed our support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), and we are committed to disclosing information in line with these recommendations, as well as reducing greenhouse gas emissions in our business activities to achieve carbon neutrality by 2050. In addition, the Group does not limit itself to reducing the global environmental impact in production processes alone. It also strives to develop products that help reduce environmental burdens when they are used.

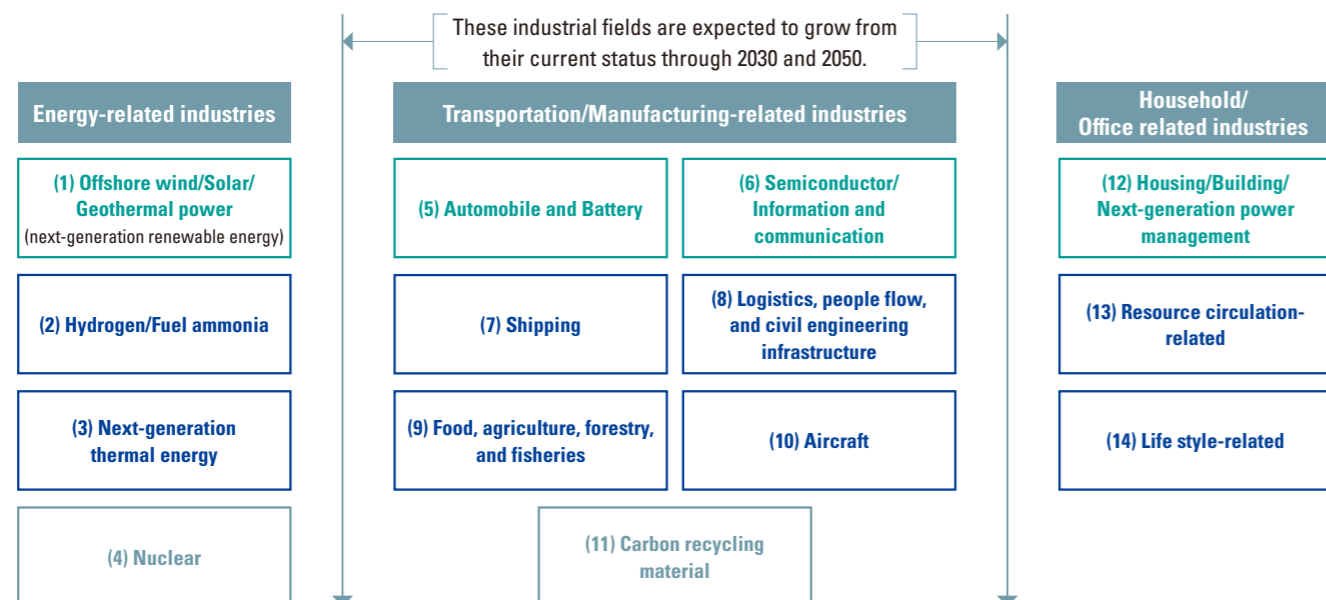
### Shin-Etsu Group's products and technologies that contribute to carbon neutrality

#### Reducing greenhouse gas emissions through products and technologies

The Shin-Etsu Group has a wide range of products and technologies that help reduce greenhouse gas emissions. For example, PVC is used in a variety of fields, including for PVC-framed windows that improve thermal insulation in homes and buildings, and PVC pipes and agricultural films that emit less CO<sub>2</sub> over their entire lifecycle compared to other materials. Silicon wafers and other semiconductor-

related products and optical fiber preforms contribute significantly to the improvement of electronic device performance, the miniaturization of electrical equipment, and energy conservation. Furthermore, silicones are widely used in automobiles, construction, and solar power generation, contributing to the reduction of greenhouse gas emissions. In addition, the technology we have developed to prevent the initial degradation in solar power generation has been adopted by major solar panel manufacturers.

#### 14 growth sectors



Source: Green Growth Strategy Through Achieving Carbon Neutrality in 2050 (announced in June 2021 by the Japanese government) [https://www.meti.go.jp/english/policy/energy\\_environment/global\\_warming/ggs2050/pdf/ggs\\_full\\_en1013.pdf](https://www.meti.go.jp/english/policy/energy_environment/global_warming/ggs2050/pdf/ggs_full_en1013.pdf)

#### Contribution to green growth strategy

In June 2021, the Japanese government announced its Green Growth Strategy Through Achieving Carbon Neutrality in 2050. In the strategy, 14 sectors were identified as strategic areas with future growth potential and where efforts toward carbon neutrality are essential. Approximately 70% of our Group's consolidated net sales in FY2021 came from products related to these 14 sectors.

#### Thoroughly pursuing energy savings

The Shin-Etsu Group has taken on the challenge of thoroughly pursuing energy savings and has substantially reduced energy consumption intensity by 52.9% for the Group as a whole and 46.3% on a non-consolidated basis compared to FY1990. This reduction far exceeds the target set by the Energy Saving Act, which is to reduce energy consumption intensity by 1% per year. We will continue

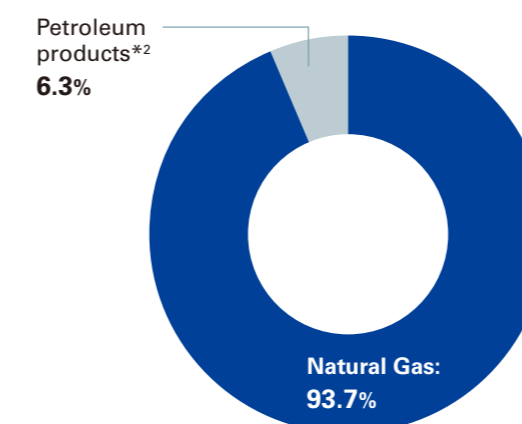
to promote thorough energy saving and creation in order to achieve our goal of reducing greenhouse gas emission intensity to 45% of the FY1990 level by FY2025.

In addition, 93.7% of our Scope 1 energy sources are natural gas, and we do not use coal, which produces substantial greenhouse gas emissions. The rest of our energy comes from petroleum, with liquefied petroleum gas accounting for 4.2%, and heavy oil, kerosene, diesel, and gasoline combining for 2.1%. Furthermore, US-based Shintech Inc., which has the world's largest PVC production capacity, produces PVC primarily from ethylene, which is derived from ethane, a natural gas-derived raw material with low greenhouse gas emissions.

#### Low-carbon products and highly recyclable products

Compared to petrochemical products\*<sup>3</sup>, our main products are characterized by their low-carbon content (the carbon content of PVC is about 40%, and about 30% for siloxane, which is the foundation of silicone, etc.). This means that our products emit less greenhouse gases when incinerated after use compared to other petrochemical products. Furthermore, the material recycling ratio of PVC in Japan is over 30%, which is high among plastics. We also recycle rare earth materials, which are used as raw materials for rare earth magnets. The Shin-Etsu Group is committed to the effective use and recycling of valuable resources.

#### Our scope 1 energy source ratio\*<sup>1</sup>



\*<sup>1</sup> Comparison of each energy source in crude oil equivalent

\*<sup>2</sup> Breakdown of petroleum products: 4.2% for liquefied petroleum gas, 1.2% for kerosene, diesel, and gasoline, 0.9% for class A and C heavy oil

\*<sup>3</sup> Carbon content of notable petrochemical products: 86% each for ethylene, propylene, and butylene; 92% for benzene; 91% each for toluene and xylene.

#### Silicones business to enhance carbon neutrality initiatives

At the Gunma Complex, where the main plants of the silicones business are located, we are investing a total of ¥20 billion to further improve electricity self-sufficiency and reduce greenhouse gas emissions by 14% from the current level, and to expand supply capacity for environmentally friendly products\*<sup>1</sup>. In the silicones business, we have developed millable-type silicone rubber, which does not require post curing (heating) during processing, which has reduced processing time by approximately 90% compared to conventional products and helped customers save energy and improve productivity\*<sup>2</sup>. In addition, low-density type of silicone rubber, which reduces the weight of molded rubber products, contributes to energy saving in a variety of ways.

\*<sup>1</sup> Modified silicone fluids, silicone rubber for molding materials, thermal interface materials, etc.

\*<sup>2</sup> Comparison data for a 2mm sheet



Gunma Complex (Gunma Prefecture), which is increasing its electricity self-sufficiency by adding gas turbines for power generation

# Natural Capital

## Disclosures under the TCFD

Our Group is committed to reducing greenhouse gas emissions in our business activities in order to achieve the global goal of achieving carbon neutrality by 2050. As part of this effort, in May 2019, we expressed our support for the TCFD recommendations and joined the TCFD Consortium. We will continue to enhance our disclosures in

accordance with the TCFD recommendations in the areas of Governance, Strategy, Risk Management, and Metrics and Targets.



### Governance

The Sustainability Committee, which is one of the committees for each material management task in the Group's corporate governance system, is working with each of our business units to address climate change. The Committee is chaired by the President and consists of approximately 60 members, including our directors, corporate officers, department managers, and sustainability officers from Group companies, and promotes activities that integrate business activities and sustainability initiatives.

### Strategy

#### Climate change response

The Sustainability Committee held 43 subcommittee meetings on climate change in FY2021. In addition, the Group's climate change initiatives were reported, discussed, and approved by the Managing Directors' Meeting, which is responsible for discussing and making decisions on business operations. The Shin-Etsu Group is pursuing the following initiatives with the aim of curbing its environmental impact and ensuring the sustainable development of human society.

- 1 Reduction of greenhouse gas emissions through thorough improvements in production efficiency
- 2 Through development, production, and supply of environment-contributing products, contributing to making customers' production processes and society more efficient
- 3 Utilization of renewable energy
- 4 Reduction of greenhouse gas emissions in logistics
- 5 Measures and implementation to reduce the greenhouse gas emissions

### Risks and opportunities posed to our business activities by climate change

In FY2020, we conducted an analysis of our business under scenarios where global warming progresses 1.5°C and 4°C in 2050 and identified risks and opportunities that climate change would pose to our business activities.

### Risk management

The Risk Management Committee works to prepare for and eliminate the various risks surrounding our business, including risks posed by climate change. The Committee is chaired by a managing corporate officer and consists of approximately 20 members, including our directors, corporate officers, and department managers.

Our Group has established Risk Management Regulations to identify potential risks associated with our business activities and address these risks appropriately. The Risk Management Regulations clearly state specific risks, risk management systems, and responses to risks that materialize. The Risk Management Committee reports to the Board of Directors, Managing Directors' Meeting, Audit & Supervisory Board, and relevant parties in a timely manner on important risk management issues, and works to address them appropriately.

### Metrics and targets

#### Medium-term target (FY2025)

**Greenhouse gas emission intensity**  
**45%** (of FY1990 level)

\* In calculating emissions, we use the average CO<sub>2</sub> emission factor for electricity from 2000 to 2009 to make the results of our electricity reduction efforts clear.

In FY2010, we set a medium-term target to reduce greenhouse gas emission intensity to 50% of the FY1990 level by FY2015 to address climate change. To achieve this target, we have introduced innovative technologies, as well as energy saving and cogeneration systems. Furthermore, starting from FY2016, we have set a new medium-term target to reduce greenhouse gas emission intensity to 45% of the FY1990 level by FY2025, and are working to achieve this target.

## Scenario analysis of our business in 2050

### Business Opportunities Stemming from Climate Change: A scenario for a 1.5°C rise

Application	Details	Degree of impact*1
<b>PVC-framed windows</b>	• Demand for PVC window frames (PVC-framed windows) that offer superior thermal insulation will increase along with the spread of large energy-efficient homes	Large
<b>Electric, hybrid, and fuel-cell vehicles</b>	• Demand will increase for semiconductor silicon used in inverter controllers and other power semiconductor devices, automatic driving technology and AI technology • Use of high-performance and compact rare earth magnets that help increase fuel efficiency by reducing vehicle body weight will increase	Large
<b>Wind power generators</b>	• Demand will increase for rare earth magnets that contribute to higher generator efficiency and maintenance cost reduction • Demand for PVC for electric wire coating will increase with the development and expansion of power grids	Large
<b>Air conditioners</b>	• Demand will expand for semiconductor silicon, which is used in inverter control devices attached to compressor motors and contributes to the reduction of power consumption • Demand will expand for rare earth magnets that raise the energy efficiency of compressor motors and reduce power consumption	Medium
<b>Aircraft</b>	• Demand will expand for small and powerful rare earth magnets that are essential for conversion to electric and hybrid power sources; this will contribute to fuselage weight reduction and improved fuel efficiency	Medium
<b>Industrial motors</b>	• Demand will expand for rare earth magnets that raise the efficiency of industrial motors and reduce power consumption	Medium
<b>Service robots</b>	• Demand will increase for semiconductor silicon used in semiconductors for energy-saving robot control motors, as well as in medical and disaster response robots	Medium
<b>Binding agent for plant-based meat substitutes</b>	• Demand for cellulose derivative products used as binding agents for plant-based meat substitutes will grow. Dietary habits centered on plant-based foods will contribute to the reduction of CO <sub>2</sub> emissions	Medium

### Business Risks Due to Climate Change and Countermeasures: A scenario for a 1.5°C rise (transition risk)

Events	Risks to the Company	Degree of impact*1	Countermeasures
<b>Rising electricity prices resulting from tightening regulations on greenhouse gas emissions</b>	• Increase in electricity costs	Large	• Reduce Scope 2 emissions*2 (further promotion of production processes that use less electricity, introduction of high-efficiency equipment, etc.)
<b>Introduction of carbon taxes and establishment of carbon emission quotas around the world</b>	• Payment of carbon tax • Incurring costs of purchasing emission credits to meet carbon emission quotas • Increase in cost of measures to reduce greenhouse gas emissions	Large	• Reduce Scope 1 emissions*2 (further promotion of more efficient production processes, use of energy sources that do not emit CO <sub>2</sub> , etc.) • Use of hydrogen-reduced iron materials as raw material • Establishment and achievement of reduction targets in the absolute amount of greenhouse gas emissions • Collection of information on environmental regulations such as carbon taxes in each country and implementation of countermeasures

### Business Risks Due to Climate Change and Countermeasures: A scenario for a 4°C rise (physical risk)

Events	Risks to the Company	Degree of impact*1	Countermeasures
<b>Increase in the frequency of extreme weather events</b>	• Flooding of production sites • Disruption of the supply chain	Large	• Raising the ground level of production sites, installation of watertight walls around critical facilities • Multiple production sites • Diversification of raw material procurement sources • Securing product inventory • Enrollment in insurance
<b>Increased frequency of flooding caused by changes in precipitation patterns, etc.</b>	• Flooding of production sites • Disruption of the supply chain	Large	• Raising the ground level of production sites, installation of watertight walls around critical facilities • Multiple production sites • Diversification of raw material procurement sources • Securing product inventory • Enrollment in insurance
<b>Introduction of carbon taxes and establishment of carbon emission quotas in some countries</b>	• Payment of carbon tax • Incurring costs of purchasing emission credits and payment of surcharges	Small	• Reduce Scope 1 emissions • Use of hydrogen-reduced iron materials as raw material • Establishment and achievement of reduction targets in the absolute amount of greenhouse gas emissions • Collection of information on environmental regulations such as carbon taxes in each country and implementation of countermeasures
<b>Electricity prices</b>	• According to a scenario analysis by IEA*3 (a scenario with current measures), electricity prices will not rise. Therefore, there is no risk to us.	—	—

\*1 Impact on earnings

\*2 Scope 1: Direct emissions from facilities owned and controlled by the Company (e.g., emissions generated during the combustion of substances such as heavy oil and natural gas)

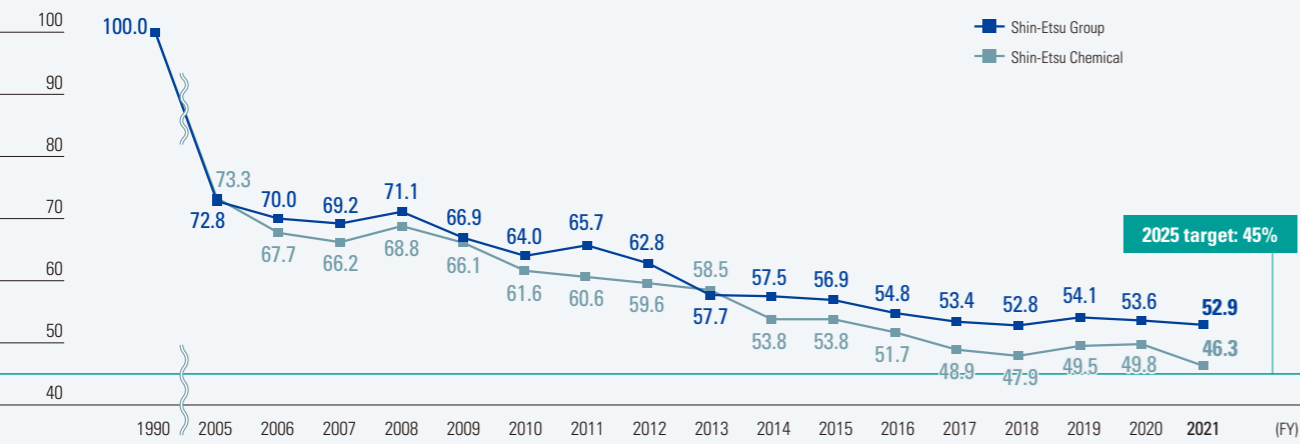
Scope 2: Emissions generated when producing energy purchased by the Company (e.g., emissions triggered when generating purchased electricity)

\*3 International Energy Agency

# Natural Capital

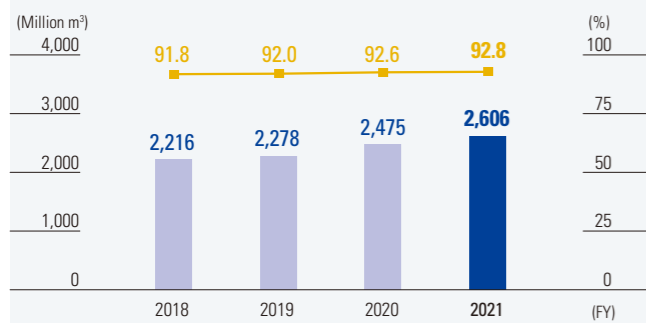
## Indicators about energy-saving, resource-saving, and the reduction of the environmental impact

Changes in greenhouse gas emissions (emission intensity index of production volume relative to FY1990\*)



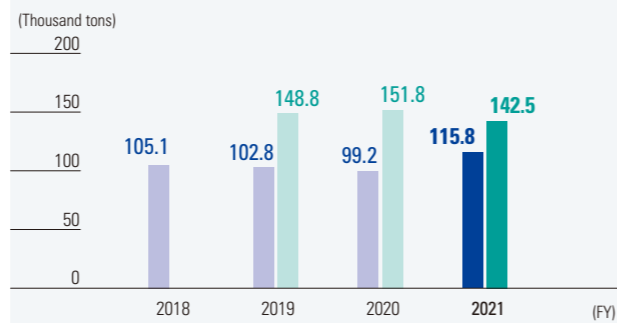
\*Greenhouse gas emission intensity index (FY1990 = 100)

Water usage\*/Recycled ratio



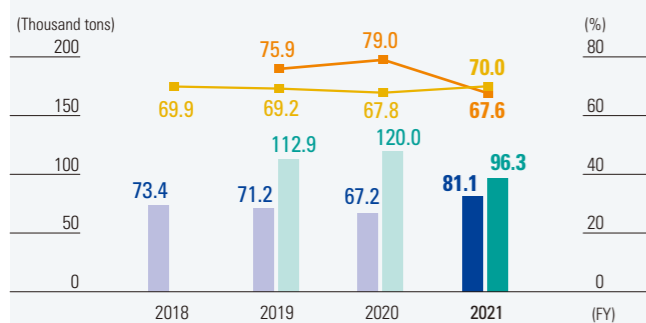
\*Total quantity of water withdrawal and recycled water

Amount of waste generated



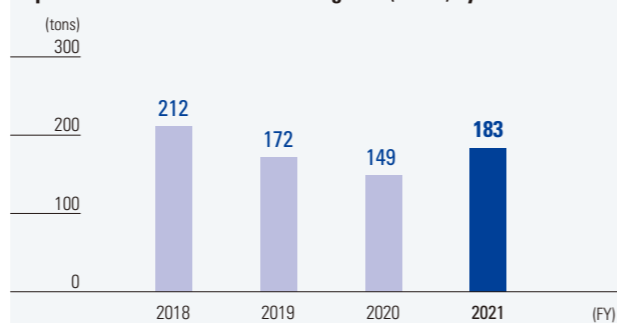
\*FY2018 figures for overseas consolidated companies not shown as they have not yet been calculated.

Amount of waste recycled/Waste recycled ratio



\*FY2018 figures for overseas consolidated companies not shown as they have not yet been calculated.

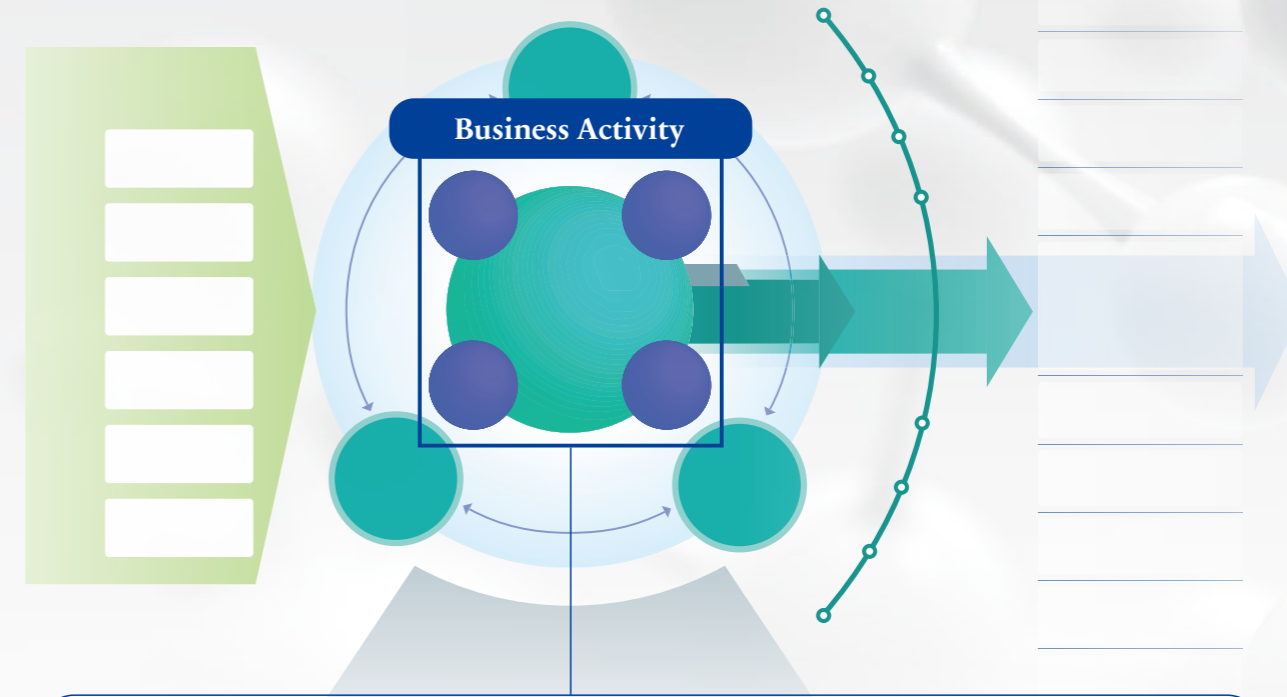
Gross discharge of substances designated under the pollutant release and transfer register (PRTR) system



\*Figures are totals for Shin-Etsu Chemical and domestic consolidated companies based on the PRTR system in the Law for Promotion of Chemical Management.

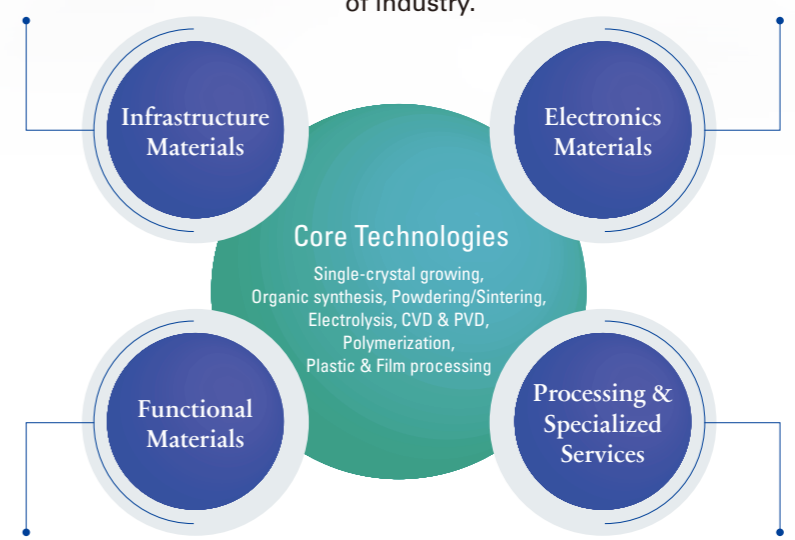
## Business Activity

# Leveraging our core technologies in four business fields to manufacture materials and products that underpin industries and livelihoods



PVC is indispensable to our lives mainly in the areas of infrastructure, housing, and agriculture. We meet global demand for PVC as the world's largest supplier.

In addition to our world-leading share in silicon wafers, we provide various materials that are essential for semiconductor manufacturing. We contribute to the digital transformation and green transformation of industry.



Along with more than 5,000 different types of silicones that support people's lives and industries, we provide a stable supply of high value-added products. We also help alleviate environmental impacts and food shortages.

Meeting the diverse needs of customers by leveraging the advanced technological capabilities developed by the Shin-Etsu Group.



# Infrastructure Materials

PVC is indispensable to our lives mainly in the areas of infrastructure, housing, and agriculture. We meet global demand for PVC as the world's largest supplier.

## Business Overview

In the infrastructure materials business, we provide products indispensable to many aspects of our lives, from pipes for water supply and sewerage systems and other types of infrastructure to housing, agriculture, and daily necessities. These products include PVC, caustic soda, and polyvinyl alcohol (POVAL). PVC, in particular, is a general-purpose resin used widely as an infrastructure material in mainly construction and civil engineering in the form of piping for water supply and sewerage systems and window frames (PVC-framed windows), for example. With three production bases in the U.S., Europe, and Japan, the Shin-Etsu Group has the capacity to produce and stably supply the global market with 4.44 million tons of PVC resin each year.



## Using Our Products to Solve Societal Issues (PVC)

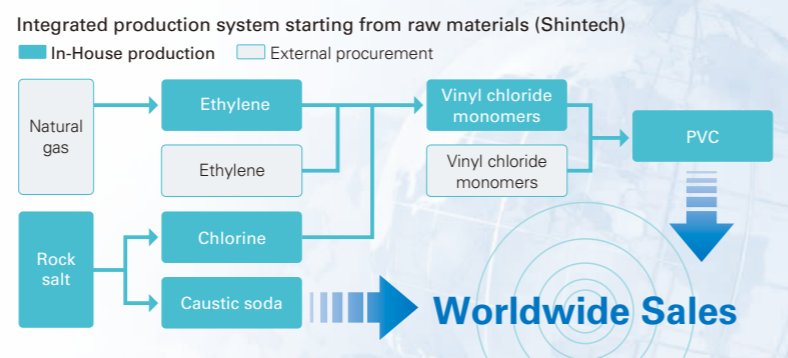
### Protecting the planet by reducing greenhouse gas emissions and expanding social infrastructure to cope with population growth

- Salt accounts for roughly 60% of the raw materials used to make PVC and is a commodity that still exists in abundance throughout the world. As the production of PVC does not rely heavily on petroleum resources, it contributes to the effective use of the planet's limited resources. As such, CO<sub>2</sub> emissions during the PVC production process are lower than other plastics.
- The main applications of PVC are pipes and construction materials. Products made with PVC help conserve resources because they have a longer service life compared to other plastic products (PVC pipes last around 50 years\*).
- PVC-framed windows boast superior thermal insulation and therefore help lower energy consumption and curb CO<sub>2</sub> emissions.
- PVC construction materials are much lighter than materials made from steel, for example, which leads to reductions in the amount of fuel required to transport them and move them into place during construction.
- In Japan, the material recycling rate for PVC is about 33%\*, higher than that for other types of plastic.

\*Source: Ministry of Land, Infrastructure, Transport and Tourism, Vinyl Environmental Council

## Competitive Advantages (PVC)

- World's biggest production capacity
- Stable quality and stable supply to customers
- Favorable raw material circumstances in the US, Energy supply stability
- Integrated production system starting from raw materials (ethylene)
- Three global bases, and production at multiple sites in three locations in the U.S.
- Global sales network



## Major Products and Applications

### PVC

PVC is extremely durable and easy to work with. It can also be easily recycled. For these reasons, it is used widely in items related to our daily existence. For example, PVC pipes in water supply and sewerage systems help extend the useful life of such infrastructure because they do not need to be replaced for at least 50 years.

#### PVC Pipes



#### PVC-Framed Windows



#### Plastic Greenhouses for Agriculture



### Caustic Soda

Caustic soda is a base chemical produced from the electrolysis of salt and is indispensable to various industries for the purpose of alumina extraction, as a raw material in lithium-ion batteries and super-absorbent polymers, and for water treatment.

### Polyvinyl Alcohol (POVAL)

Polyvinyl alcohol (POVAL) has many applications, including adhesives, various types of film, textile treating agents, interlayers of laminated glass, and pharmaceutical additives.

#### Alumina



#### Cathode Materials for Lithium-Ion Batteries



#### Car Windshields

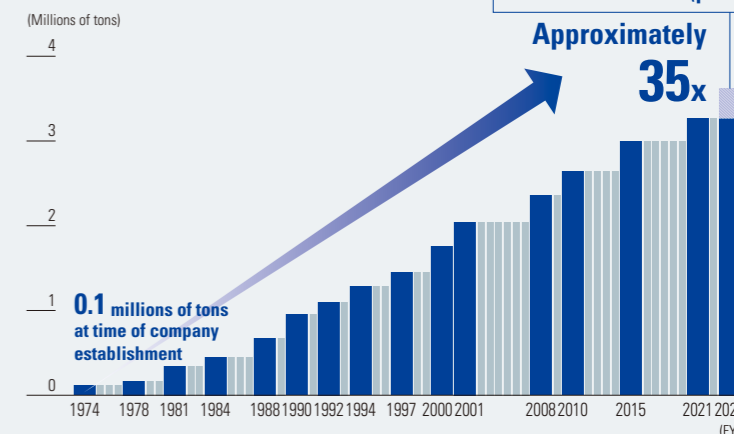


## Topic

### Shintech: Augmenting PVC production capacity

Shintech, one of the Group's subsidiaries in the U.S. and the world's largest manufacturer of PVC, boosted its annual production capacity to 3.24 million tons by bringing online a new plant with an annual production capacity of 290,000 tons at the end of 2021 to meet brisk demand in mainly North America and emerging countries. It also plans to complete the construction of a new plant with an annual production capacity of 380,000 tons by the end of 2023, thereby increasing its total production capacity to 3.62 million tons. In order to stably supply PVC to customers worldwide, in 2020 the company established an integrated production system starting from raw materials, chiefly by producing in-house some of the ethylene required for PVC manufacturing.

#### Shintech PVC production capacity



# Electronics Materials

In addition to our world-leading share in silicon wafers, we provide various materials that are essential for semiconductor manufacturing. We contribute to the digital transformation and green transformation of industry.



## Business Overview

In the Electronic Materials segment, we offer photoresists, photomask blanks, and encapsulant materials used in the semiconductor manufacturing process, while remaining at the forefront of the industry as the world's largest manufacturer of silicon wafers. In addition, we supply rare earth magnets, which are indispensable for reducing the size, weight, and power consumption of motors used in hybrid and electric vehicles, industrial equipment, and home appliances, as well as high-purity synthetic quartz used as a material for optical fiber and large-scale photomask substrates.



## Using Our Products to Solve Societal Issues

### Development of AI, 5G, automated driving, IoT

To achieve fully automated driving and telemedicine, 5G-compatible communication devices and infrastructure are necessary, and many high-performance, energy-efficient semiconductors are used in these devices. Silicon wafers, the substrate material for semiconductors, and various other semiconductor materials provided by the Shin-Etsu Group not only help to enhance performance and reduce the size and weight of electronic devices, but also contribute to improving electric power conservation and efficiency, thereby supporting the expansion and continuous growth of semiconductors on multiple fronts.

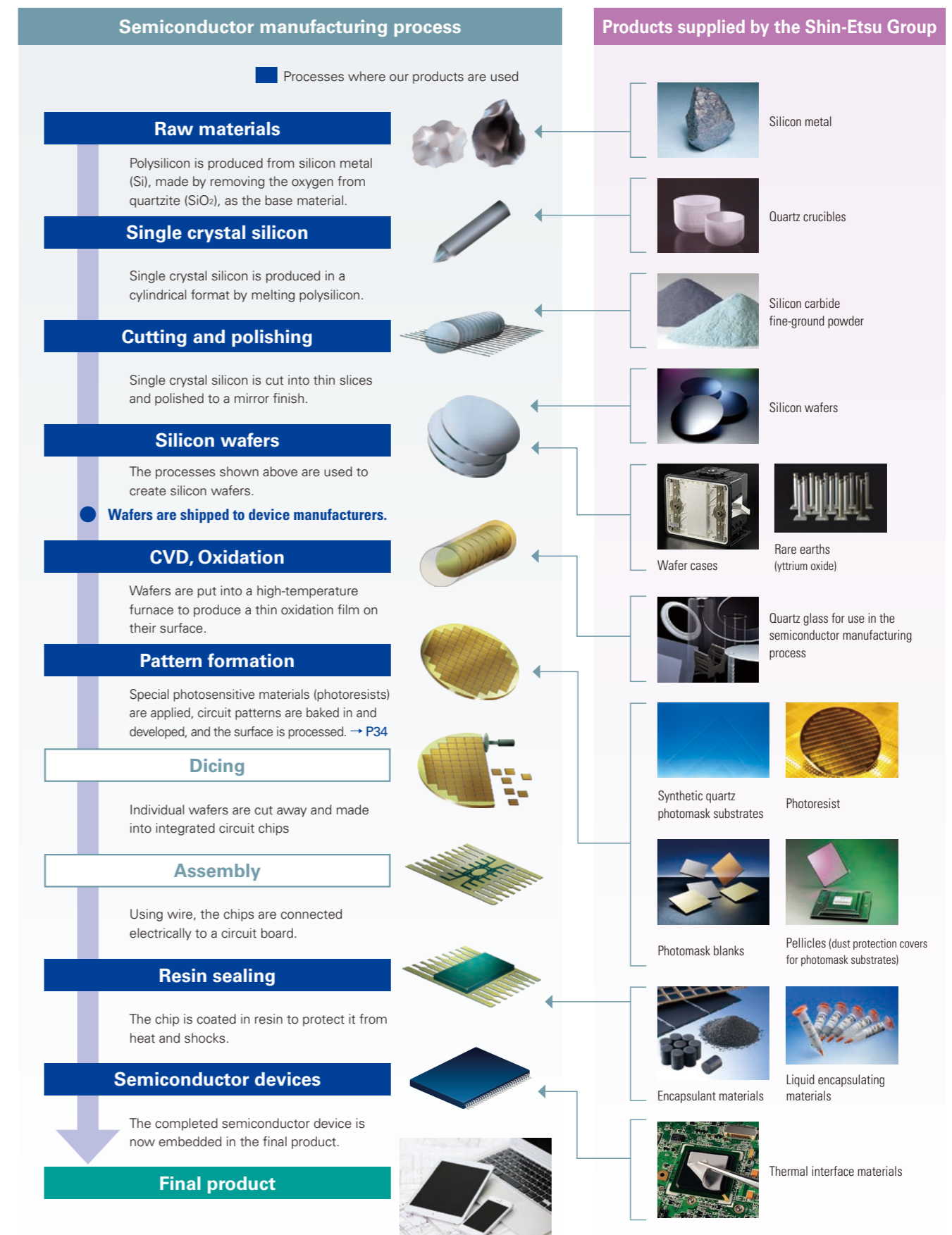
### Providing technologies and materials essential for carbon neutrality

Rare earth magnets, which have about 10 times more magnetic force than conventional ferrite magnets, help enhance motor efficiency and power consumption, contributing to improved energy efficiency and reduced greenhouse gas emissions.

## Competitive Advantages

<b>Overall business</b>	<ul style="list-style-type: none"> <li>Stable quality and stable supply to customers</li> <li>Responding to increasingly sophisticated technological requirements</li> </ul>
<b>Semiconductor-related products</b>	<ul style="list-style-type: none"> <li>Synergies gained from an extensive lineup of semiconductor-related products (competitive edge in development and proposal capabilities)</li> </ul>
<b>Rare earth magnets</b>	<ul style="list-style-type: none"> <li>Stable supply supported by operating multiple production bases and an established integrated production system starting from raw materials</li> <li>Development of products that substantially reduce the use of heavy rare earth materials and promotion of recycling</li> </ul>

## Shin-Etsu Group Products Associated with the Overall Semiconductor Manufacturing Process



Major Products and Applications

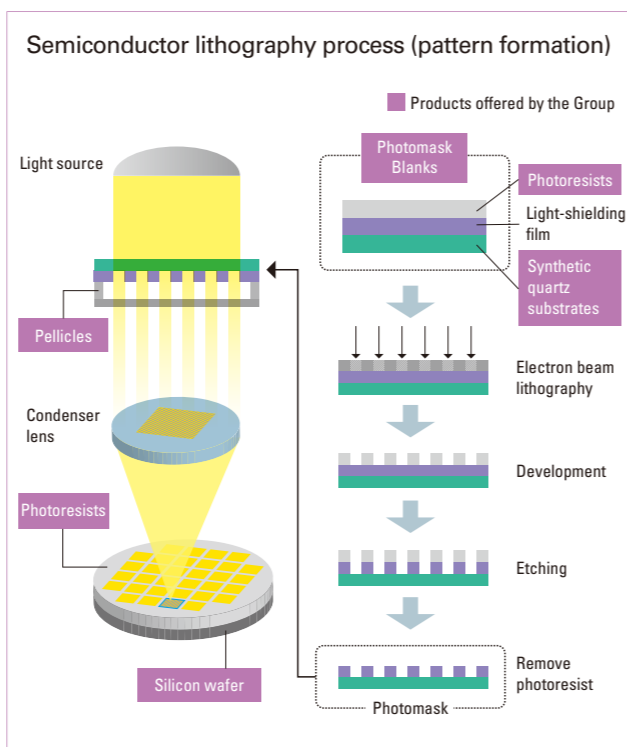
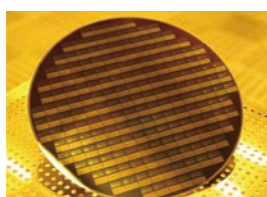
Silicon Wafers

Silicon wafers are the substrate material for semiconductors and are used in all kinds of devices, from smartphones, home appliances, automobiles and other devices that we see in our daily lives, to cutting-edge fields such as AI and IoT. Shin-Etsu Group's silicon wafers, including our quality control and evaluation analysis, have earned high praise from customers around the world, along with our high-precision single crystal technologies, high-end processing technologies, and high-quality epitaxial growth technologies for advanced logic and imaging devices.



Photoresists

A circuit pattern is formed by applying a photosensitive resin to the surface of a silicon wafer and then passing light through a photomask to expose the surface in that pattern. In addition to photoresists for excimer lasers (KrF, ArF) and EUV, we also supply spin-on middle/under-layer hardmasks used in the nanofabrication process.



Photomask Blanks

Photomask blanks are the material that forms a thin metallic film on the surface of a synthetic quartz substrate and serve as patterning templates when drawing circuits on silicon wafers. In addition to providing photomask blanks for use with krypton fluoride (KrF) and argon fluoride (ArF) lasers, Shin-Etsu Chemical has established state-of-the-art photomask blank mass production technologies, including multilayer film structures and permeable membrane structures with excellent light resistance properties.



Rare Earth Magnets

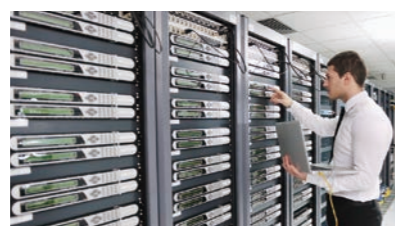
Rare earth magnets are used in products such as automobile motors, power generators, industrial robots, compressor motors for air conditioners, motors for hard disk drives utilized in data centers and other facilities and wind power generator motors. Shin-Etsu Chemical is engaged in the manufacture of these magnets from the separation and refinement of rare earths as raw materials to processing. Furthermore, it is reliably supplying high-quality rare earth magnets with advanced features by means of the development of its own grain boundary diffusion method, which reduces the amount of heavy rare earth used, while maintaining high performance.

Rare Earths

Known as the "vitamins of the high-tech industry," rare earth elements are used in a variety of applications depending on their individual characteristics. They are used in the light-emitting devices installed in diagnostic imaging systems such as CT scanners and contribute to improved testing safety at medical sites.



Electric vehicle

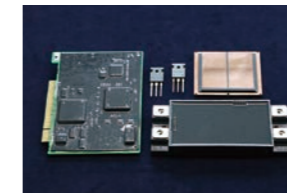


Data center



Encapsulant Materials for Semiconductor Devices

These materials are notable for their superior heat and crack resistance and are used in general semiconductors, automotive power modules and devices for home appliances. Furthermore, the encapsulant materials we have developed for large-scale packaging improve the rate at which materials are effectively utilized, contributing to the reduction of device manufacturing costs.



LED Packaging Materials

These materials offer high transparency, heat resistance, and other excellent properties, and help prevent the degradation of LED brightness over a long period of time.

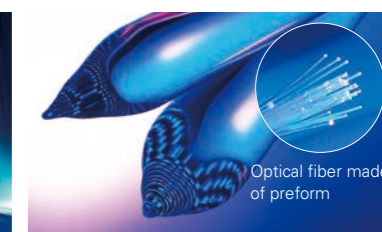


Synthetic Quartz

Synthetic quartz, the key material of optical fiber, provides superior light transmission. In an ordinary glass plate, light attenuates in about two meters. However, synthetic quartz allows light to reach a distance of about 100 km. The Group was the first in the world to mass produce synthetic quartz, which is higher in purity than natural quartz. Due to these attributes, it is used as an optical fiber, a photomask substrate for semiconductor lithography and a stepper lens for semiconductor lithography. In addition, it is used as a large-scale photomask substrate for flat panel display (FPD) lithography.



Large-size photomask substrate for FPD



Preform for optical fiber

Topic

Enhanced photoresist production capacity in Japan and Taiwan

To meet the growing demand and technological evolution of photoresists, which are indispensable for advanced semiconductor manufacturing, we made capital investments totaling 30 billion yen at our production bases in Japan and Taiwan. In the summer of 2019, we started production of photoresist materials in Taiwan, one of the demand centers, to promote efforts to operate multiple production bases and improve supply stability. Furthermore, in February 2021, we added more facilities to boost our production capacity. We are also working to enhance capacity at our Naoetsu Plant (Niigata Prefecture) in Japan, completing construction of a new building in February 2022.



Shin-Etsu Electronics Materials Taiwan Co., Ltd. (Yunlin County, Taiwan), which increased its photoresist production capacity.

Topic

Began mass production of the SLK series of low dielectric constant thermosetting resins for 5G products

In response to the full-fledged rollout of the next-generation 5G communication standard, we have invested approximately 3 billion yen in preparing for mass production of the SLK series of low dielectric constant thermosetting resins. For the first phase, our annual production capacity is 80 tons. The SLK series is a high-strength, low-elasticity resin with low dielectric properties comparable to fluoropolymers, and will be used in electronic devices, circuit boards, antennas, radar domes, and other applications in the superhigh-frequency band of 5G. We will contribute to the development of next-generation high-speed communication technology by developing applications for the 5G market, which is expected to expand going forward.



Low Dielectric Constant Thermosetting Resins (SLK series)

# Functional Materials

Along with more than 5,000 different types of silicones that support people's lives and industries, we provide a stable supply of high value-added products. We also help alleviate environmental impacts and food shortages.



## Business Overview

The Shin-Etsu Group became the first Japanese company to commercialize silicone in 1953. Since then, we have developed over 5,000 different products that leverage the outstanding properties of silicone, and are now Japan's largest silicone manufacturer as well as one of the world's leading manufacturers. We also boast the largest market share in Japan for cellulose derivatives, which have a wide range of applications in the pharmaceutical, food, and industrial fields. Furthermore, as a major manufacturer with production bases in Japan, Europe, and the United States, we also cater to global demand. In the functional materials business, we provide a wide variety of products such as synthetic pheromones, silicon metal, liquid fluoroelastomers, and pellicles that deliver superior functionality that go beyond customer expectations.



## Using Our Products to Solve Societal Issues

### Low environmental impact of silicone

Silicone is made primarily from silicon, the second most abundant element on the earth after oxygen, making it less dependent on petroleum and thus less of a burden on the environment. Silicone's unique properties are used in environmentally friendly products such as electric vehicles, fuel-efficient tires, and solar power generation.

### Addressing food shortages and environmental issues (cellulose derivatives)

Cellulose derivatives are an environmentally friendly material made from natural polymer cellulose. They help address the food shortage caused by population growth, with one of their uses being a binding agent for plant-based meat substitutes.

### Improving food safety (synthetic pheromones)

Synthetic pheromones are an environmentally friendly agricultural pest control agent that has no impact on beneficial insects or other organisms, and helps improve food safety by reducing the amount of insecticides and pesticides sprayed on fields.

## Competitive Advantages

Overall business	<ul style="list-style-type: none"> <li>Ability to develop a variety of high value-added products by leveraging our technological capabilities</li> <li>High quality products and stable supply system</li> </ul>
Silicones	<ul style="list-style-type: none"> <li>Thorough response to customer needs through the triangular link of sales, research, and production divisions</li> <li>Use of advanced technological capabilities and know-how cultivated over approximately 70 years</li> <li>Global production bases and a sales network in 12 countries</li> <li>Continuous expansion of production capacity</li> </ul>
Cellulose derivatives	<ul style="list-style-type: none"> <li>Stable supply system supported by three global bases</li> </ul>

## Major Products and Applications

### Silicones

Silicone is a man-made compound created from silica stone, which is abundantly available on our planet. It is a highly functional material with unlimited possibilities, as it features both inorganic and organic properties and has numerous excellent characteristics, as well as a high degree of freedom in product design. Silicone is used in a wide range of fields, including electricals and electronics, automobiles, construction, cosmetics, healthcare, and foods.

Core raw material used in silicone	Silicone representative configurations	Major characteristics of silicone
<p>Silica Stone (SiO<sub>2</sub>)</p>	<p>Fluids Powders Rubbers Liquid Rubbers</p>	Heat resistance
		Cold resistance
		Adhesion properties
		Defoaming properties
		Electrical insulation properties
		Water repellency
		Release properties
Weather resistance		

### Cosmetics



### Electric Vehicles



### Contact Lenses



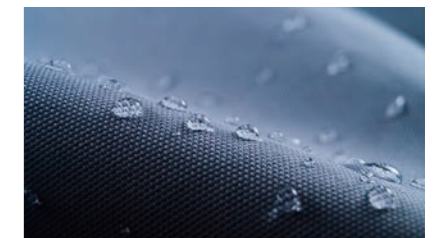
### Buildings



### Plastic Products



### Textile Treatments



## Cellulose Derivatives

Cellulose derivatives are made from natural materials such as pulp and cotton linter. In the pharmaceutical field, it is used, for example, as a coating agent for pills to control where drugs dissolve in the body and to make them dissolve gradually. In industrial applications, cellulose derivatives are used as a molding aid for automotive emission filters, which contribute to the prevention of global warming, and in the food industry, it is used as an additive to thicken, gelatinize, stabilize bubbles and foam, and prevent deformation during cooking.



### Pharmaceutical



### Industrial



### Food



### Silicon Metal

Silicon metal is the main raw material for silicone, semiconductor silicon, and synthetic quartz, and is produced by SIMCOA Operations Pty Ltd in Australia.



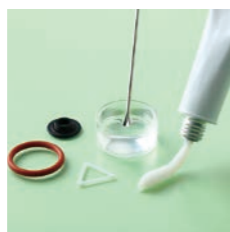
### Synthetic Pheromones

Synthetic pheromones are artificially synthesized from pheromones emitted by insects, and are used as environmentally friendly pest control agents as they obstruct the mating process between male and female pests, thereby suppressing reproduction.



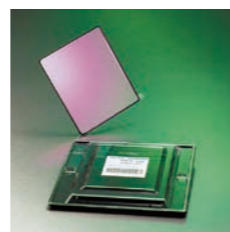
### Liquid Fluoroelastomers SHIN-ETSU SIFEL®

We were the first company in the world to succeed in developing the SHIN-ETSU SIFEL® liquid fluoroelastomers, which by using silicone addition-reaction technology can be made into a form that hardens into a flexible, solid synthetic rubber upon heating. It possesses excellent process ability and such superior properties as resistance to oils, solvents and chemicals together with good durability against heat and stability at cold temperatures, and is used in a wide range of fields, including automotive, aircraft, electronics and optical applications.



### Pellicles

We provide high quality pellicles for use as dust protection covers for photomasks used in both ArF and KrF excimer lasers. In addition to having excellent light resistance properties and uniform rates of light transmittance, our pellicles have been thoroughly treated to ensure low outgassing. With these attributes, our pellicles support the increasingly intricate production of semiconductor devices. Furthermore, we also mass produce ultra-large pellicles used in LCD panel manufacturing.



### Anode Material of Lithium Ion Batteries

SiO is a greatly promising material as an anode material of next-generation lithium-ion batteries that have high capacity and excellent power properties. We have successfully improved battery performance by controlling the structure and surface of SiO particles.



### SOLBIN®

SOLBIN is a copolymer resin from Nissin Chemical Industry Co., Ltd. that is prepared primarily from vinyl chloride and vinyl acetate, which are notable for their superior adhesiveness and solubility. It is mainly utilized in paints, inks and adhesives.



Topic

### Announced capital investment over 80 billion yen to expand production capacity, mainly in high-performance silicone products

As part of the 110 billion yen investment plan for the Silicones business announced in September 2018, we have expanded our production capacity for silicone monomers, an intermediate raw material, by approximately 1.5 times in Japan and Thailand. In addition, we also invested in functional products, which are the final products, as needed. However, in order to meet the strong demand for highly functional products, we decided to make over 80 billion yen in additional capital investments, mainly in our domestic plants. The new facilities will be used for a wide range of fluid-based, resin-based, and rubber-based end products. In addition, we will also promote initiatives to reduce environmental impact and contribute to advanced technologies, such as by newly installing equipment for molding silicone rubber that does not require post cure and equipment for prototyping micro-LED related materials, which will save energy and improve productivity.



Yokonodaira Plant at the Gunma Complex (Gunma Prefecture, Japan), where capital investment to expand capacity is underway.

# Processing & Specialized Services

Meeting the diverse needs of customers by leveraging the advanced technological capabilities developed by the Shin-Etsu Group.

### Business Overview

As a resin processing manufacturer that applies and deploys fundamental technologies in the areas of "materials and compounding," "design," "molding process," and "evaluation and analysis" for various resins such as PVC and silicone, Shin-Etsu Polymer Co., Ltd. meets the diverse needs of customers in a wide range of fields including the automotive, information equipment, semiconductor, packaging material, and construction material-related industries. Shin-Etsu Engineering Co., Ltd. is involved mainly in the design and construction of the Group's manufacturing plants, and its engineering technology also has a strong reputation with customers outside the Group.

### Using Our Products to Solve Societal Issues

- Creating a next generation mobile society by facilitating technological innovations in automobiles, such as the spread of automated driving and environmentally friendly vehicles
- Advancing IoT in society by developing communications infrastructure and improving the performance of facilities and equipment

### Competitive Advantages

- Shin-Etsu Polymer Co., Ltd.**
  - Comprehensive capabilities to handle everything from material development to processing as a member of the Shin-Etsu Group
  - Technological capabilities to create high-valued-added products with core technologies in processing various resins
- Shin-Etsu Engineering Co., Ltd.**
  - Technological capabilities to handle design, construction, and maintenance of domestic and overseas plants in-house

### Mainstay Products and Applications

#### Shin-Etsu Polymer Co., Ltd.

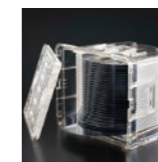
##### Input Devices

Providing input devices for automobile steering, power windows, etc.



##### Wafer Cases

Providing cases for shipping silicon wafers and for inprocess wafer conveyance at device manufacturers.



##### Wrapping Films

Providing PVC wrapping films with superior stretchiness and excellent adhesive properties.



Topic

### Acquired PVC wrapping film manufacturer and seller Kitche Nista Co., Ltd.

On August, 2021, we acquired all shares of Kitche Nista Co., Ltd., which took over the food packaging wrap business of Showa Denko Materials Co., Ltd. We will boost our competitiveness and further strengthen our business foundation by capturing synergies with Kitche Nista, which boasts strong market share in PVC cling wraps for food packaging and development expertise to create high-value-added products.



#### Shin-Etsu Engineering Co., Ltd.

##### Engineering

Shin-Etsu Engineering conducts plant design and construction and equipment maintenance for the Shin-Etsu Group.



##### Vacuum Assembling Equipment

Shin-Etsu Engineering also designs and manufactures vacuum assembling equipment for LCD panels, enabling large-scale liquid crystal panel production.

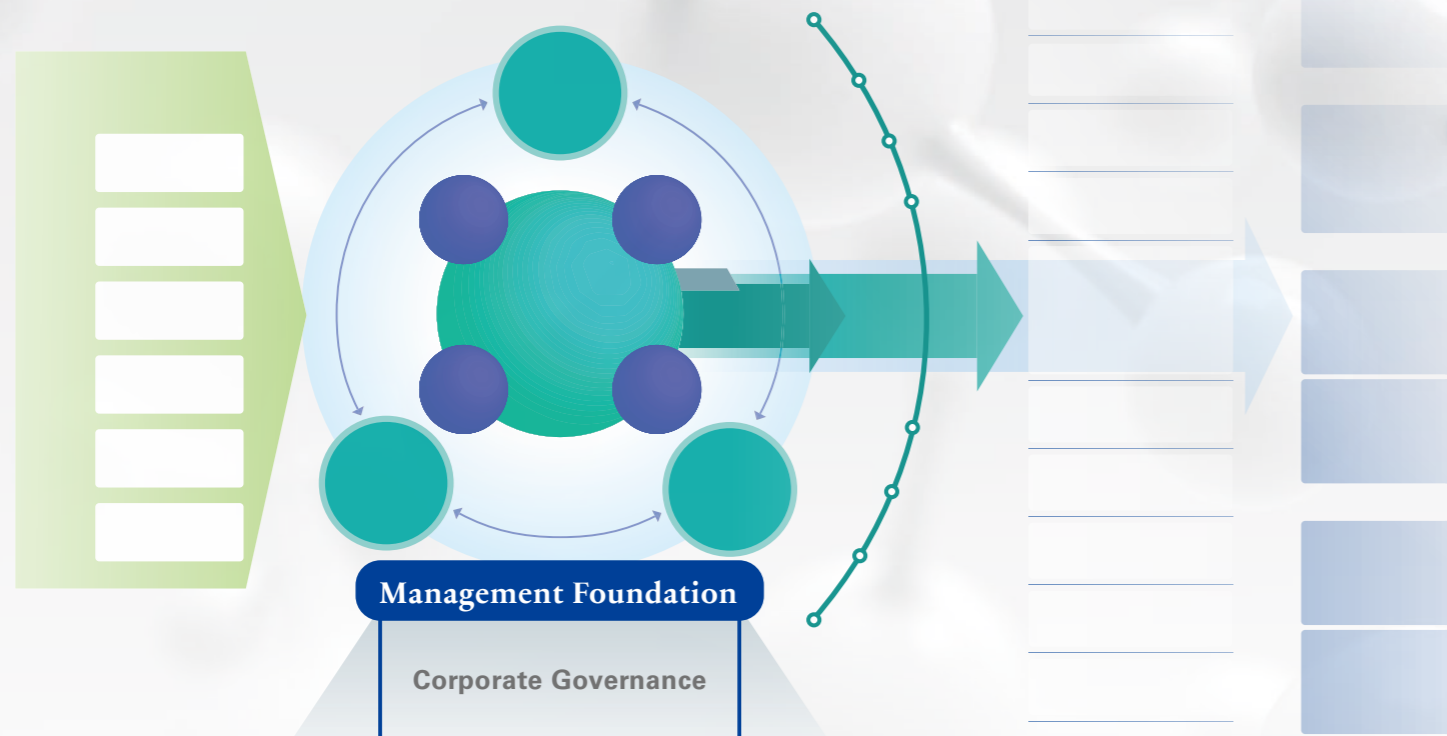


##### Micro LED Chip Transfer Equipment

This equipment transfers micro-LED chips quickly and accurately, thereby promoting the widespread use of micro-LED displays.



# Build a robust corporate governance structure to sustainably increase corporate value



Management Foundation

Corporate Governance

## Three Features of Corporate Governance



Ratio of Outside Directors on the Board of Directors:

45%



Ratio of Outside Directors with Corporate Management Experience:

60%



Attendance ratio of Outside Directors at the Board of Directors Meetings:

98%

## Corporate Governance

### Basic Approach

Our basic management policy is to continuously enhance our corporate value and meet shareholder expectations. To carry out this policy, we have established an efficient organizational structure and various systems designed to respond to changes in the business environment. In addition, to improve transparency in management and strengthen oversight functions, our basic

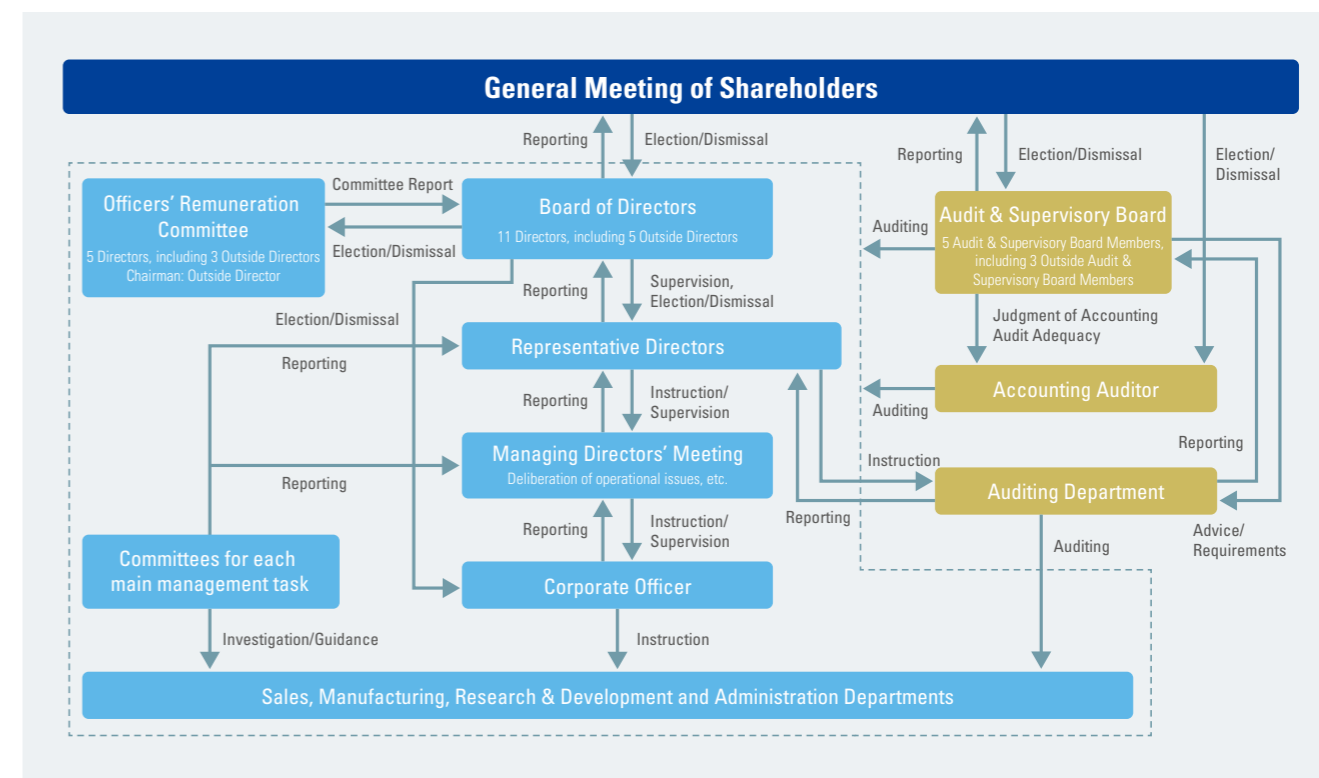
approach to corporate governance is to accurately disclose information to shareholders and investors, and we consider this to be one of our highest management priorities.

For more detailed information, please see the Governance section on the Group's website.  
[https://www.shinetsu.co.jp/en/sustainability/esg\\_governance/](https://www.shinetsu.co.jp/en/sustainability/esg_governance/)

### Corporate Governance Structure

Shin-Etsu Chemical has adopted the Audit & Supervisory Board Member system as its organizational structure, and the Audit & Supervisory Board consists of five members, including three highly independent outside members. The Company strives to enhance human resources and systems that support audits conducted by Audit & Supervisory Board Members and, by ensuring close cooperation between these members and internal audit departments, conducts effective management that enables these members to adequately perform their auditing functions. By conducting thorough oversight of management based on collaboration between its five highly independent Outside Directors, its Audit & Supervisory Board Members and its internal Auditing Department, the Company has established mechanisms that strengthen its management oversight capacity while ensuring effective application of functions performed by its Audit & Supervisory Board Members. We believe that these efforts will enable us to establish a desirable governance system to ensure the confidence and trust from all our shareholders and investors.

In addition to the Board of Directors, we have established the Managing Directors' Meeting to function as another deliberation and decision-making body for business execution. In principle, both organizations meet once per month. The Board of Directors deliberates and makes decisions on important matters related to management, including the Company's basic policies and matters required to be resolved by laws, regulations, and the Articles of Incorporation of the Company. The Managing Directors' Meeting deliberates and makes decisions on all aspects of the Company's operations (excluding matters submitted to the Board of Directors) in order to ensure the speedy and efficient execution of the Company's business operations. Furthermore, the Company has formed the Officers' Remuneration Committee, which is chaired by an Outside Director and serves as an advisory body to the Board of Directors. In these ways, we strive to ensure transparency and appropriateness in the remuneration of officers and the nomination of candidates for directors and Audit & Supervisory Board Members. We have established the position of Corporate Officer.



Officers' Remuneration

Shin-Etsu Chemical established the Officers' Remuneration Committee as an advisory body to the Board of Directors in 2002. The Committee consists of five directors, including three Outside Directors. With Outside Director Toshihiko

Fukui serving as chairman, this Committee comprehensively examines and evaluates every director's contributions to performance and general management each fiscal year and reports results to the Board of Directors.

Basic Fundamental Policy Regarding Remuneration and Its Calculation Method

The remuneration system of Directors shall be designed to contribute to the mid- to long-term enhancement of the corporate value of the Company, and the remuneration of Directors shall be determined by the Board of Directors based on the results of the review and evaluation by the Officers' Remuneration Committee as well as its opinion thereon. The remuneration shall consist of "fixed remuneration" determined as appropriate for each individual's position, job responsibilities, etc., and "performance-based remuneration" that takes into consideration the annual financial performance of the Company as an incentive for the enhancement of corporate value, as well as "stock options" as an incentive for higher motivation and

morale to execute one's duties and to improve performance, and ultimately for the enhancement of shareholder value (stock price-linked remuneration).

On the other hand, the remuneration of Audit & Supervisory Board Members shall be determined through their mutual consultation. The remuneration shall consist of "fixed remuneration" determined as appropriate for each individual's job responsibilities as an Audit & Supervisory Board Member. Outside Directors and Audit & Supervisory Board Members are not entitled to any "performance-based remuneration" or "stock options" as they are expected to perform supervisory and checking functions over management.

Remuneration amount by Director type and its detail, number of applicable Directors (for the year ended March 31, 2022)

Designation	Amount of remuneration, etc. by type (¥ million)			Number of recipients (People)	Amount of remuneration, etc. by type (¥ million)		Number of recipients (People)
	Fixed	Performance-based	Total		Non-monetary remuneration, etc.		
Directors (excluding Outside Directors)	808	489	1,297	16	210	6	
Audit & Supervisory Board Members (excluding Outside Audit & Supervisory Board Members)	36	—	36	2	—	—	
Outside Directors and Outside Audit & Supervisory Board Members	171	—	171	9	—	—	

Notes: 1. Includes ten Directors and one Outside Audit & Supervisory Board Member who retired from the positions effective upon the conclusion of the 144th General Shareholders' Meeting held on June 29, 2021.  
 2. The Officers' Retirement Benefits Program was repealed at the conclusion of the 131st General Shareholders' Meeting held on June 27, 2008.  
 3. The amount of non-monetary remuneration, which consists of stock options, is an expensed amount calculated for the current fiscal year based on the accounting standards. Therefore, it does not represent the amount paid in cash and the amount the Company guarantees to pay in cash, either.  
 4. The above figures for "Fixed remuneration" of the Directors do not include the employee salaries of Directors who serve concurrently as employees. In addition, the above figures for "Performance-linked remuneration" and "Non-monetary remuneration, etc." do not include the employee portion for Directors who serve concurrently as employees.  
 5. The total amount of remuneration issued to Directors (excluding Outside Directors), which consists of fixed, performance-based and non-monetary remuneration, etc., was ¥1,507 million.

Assessment of Board of Directors Effectiveness

At every meeting of our Board of Directors, Outside Directors ask questions and make suggestions regarding agenda items, and there is a lively exchange of opinions and discussion. A total of 13 Board of Directors meetings were held in FY2021, at which matters stipulated by law, the Articles of Incorporation, and the Company's Board of Directors Regulations were discussed, deliberated, and resolved without omission. In addition, the Board of Directors receives

individual opinions each year from Outside Directors regarding the effectiveness of the Board of Directors as a whole. As a result, the Board of Directors of the Company was evaluated as being effective and received valuable feedback on the sustainable development of the Company, including in the areas of "Further Enhancement of Discussions at Board of Directors Meetings" and "Appointment of Female Directors"

Activity Status of Outside Directors and Outside Audit & Supervisory Board Members

	Important concurrent positions (As of March 31, 2022)	Status of activities	Attendance at Board Meetings (Year ended March 31, 2022)
Outside Director <b>Frank Peter Popoff</b>		The Director shared his opinions and practical advice capitalizing on his management experience as CEO of the former The Dow Chemical Company, a U.S. company that has a long history as a global company, which have been of significant importance for the Company to expand its business overseas and enhance its corporate value. He also provided through supervision from an independent standpoint.	Board of Directors Meetings <b>92%</b>
Outside Director <b>Tsuyoshi Miyazaki</b>	Adviser, Mitsubishi Logistics Corporation	The Director shared his beneficial recommendations concerning the importance of intellectual property for sustainable growth and the development of human resources involved in this area, capitalizing on his management experience at Mitsubishi Logistics Corporation, a global logistics company, and based on his wealth of experience and outstanding knowledge as a corporate manager. He also provided through supervision from an independent standpoint.	Board of Directors Meetings <b>100%</b>
Outside Director <b>Toshihiko Fukui</b>	President, The Canon Institute for Global Studies Outside Director, Kikkoman Corporation	The Director shared his beneficial recommendations concerning the Shin-Etsu Group's response to the US economic outlook, etc., capitalizing on his outstanding knowledge and wealth of experience related to global finance and economics as an ex-Governor of the Bank of Japan. He also provided through supervision from an independent standpoint.	Board of Directors Meetings <b>100%</b>
Outside Director <b>Hiroshi Komiyama</b>	Chairman, Mitsubishi Research Institute, Inc.	The Director, who has served as President of the University of Tokyo, as well as in a variety of distinguished positions, shared his beneficial recommendations concerning the use of renewable energy and lowering environmental impact, capitalizing on his outstanding knowledge and wealth of experience in a wide range of disciplines, including chemical engineering, the global environment, and natural resources and energy. He also provided through supervision from an independent standpoint.	Board of Directors Meetings <b>100%</b>
Outside Director <b>Kuniharu Nakamura</b>	Director & Chairman, SUMITOMO CORPORATION Outside Director, NEC Corporation	The Director shared his beneficial recommendations concerning the diversification of raw material suppliers and investment location and risk management to ensure economic security, capitalizing on his management experience at SUMITOMO CORPORATION, a general trading company, and based on his prominent knowledge of and abundant experience in international business in a wide variety of fields. He also provided through supervision from an independent standpoint.	Board of Directors Meetings <b>100%</b>
Outside Audit & Supervisory Board Member <b>Yoshihito Kosaka</b>	C.P.A. Certified Public Tax Accountant Representative Partner, HIYU Certified Tax Accountants' Corporation	At the Audit & Supervisory Board meetings, he shared his comments from a finance and accounting specialist's point of view. In addition, he received reports from directors, employees, and others on the status of execution of their duties and conducted investigations of offices/factories and subsidiaries of the Company, thereby exercising his audit function thoroughly.	Board of Directors Meetings <b>100%</b> Audit & Supervisory Board Meetings <b>100%</b>
Outside Audit & Supervisory Board Member <b>Kiyoshi Nagano</b>	Outside Director, LEC, INC.	At the Audit & Supervisory Board meetings, he shared his comments from an extensive viewpoint based on his management experience at the former Jasdq Securities Exchange, Inc. In addition, he received reports from directors, employees, and others on the status of execution of their duties and conducted investigations of offices/factories and subsidiaries of the Company, thereby exercising his audit function thoroughly.	Board of Directors Meetings <b>100%</b> Audit & Supervisory Board Meetings <b>100%</b>
Outside Audit & Supervisory Board Member <b>Mitsuko Kagami</b>	Lawyer Partner Lawyer, KAGAMI Law Office Outside Director, MEDIPAL HOLDINGS CORPORATION Outside Director, Sotetsu Holdings, Inc.	At the Audit & Supervisory Board meetings, she shared her comments from a legal specialist's point of view. In addition, she received reports from directors, employees, and others on the status of execution of their duties and conducted investigations of offices/plants and subsidiaries of the Company, thereby exercising her audit function thoroughly.	Board of Directors Meetings <b>90%</b> Audit & Supervisory Board Meetings <b>100%</b>

# Risk Management

## Group Risk Management

### Risk Management Committee

We have established a Risk Management Committee consisting of approximately 20 members, including directors, corporate officers, and department managers, to establish a risk management system, develop rules and regulations, and identify and prevent risks that may arise in the course of business activities. In addition, we promote cross-functional activities among divisions and Group companies, including the formulation of business continuity plans, training, and information sharing. Furthermore, important matters in risk management are reported to the Board of Directors, the Managing Directors' Meeting, and the Audit & Supervisory Board.

In FY2021, the Risk Management Committee met three times and monthly meetings were held by the secretariat. At the meetings, manufacturing and quality management risks, as well as risks related to natural disasters, are discussed and shared within the committee in order to enhance risk preparedness. In addition, opinions are exchanged within the committee to formulate priority risk management issues to be addressed in FY2022 onward.

### Risk Management Regulations

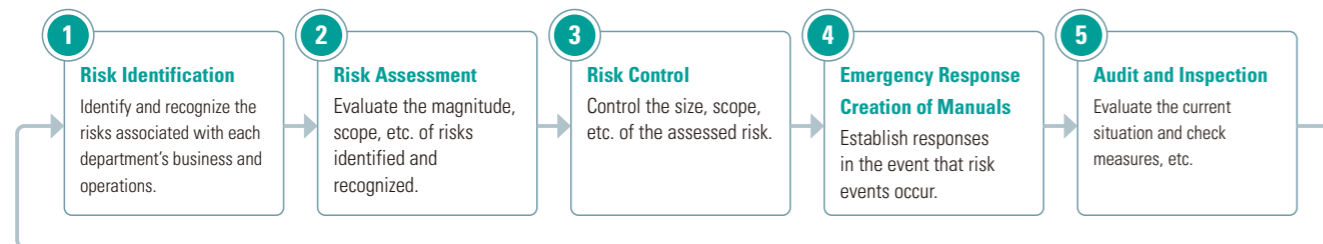
The Company has established Risk Management Regulations that anticipate comprehensive risks that may arise in the course of the Shin-Etsu Group's business activities from a long-term perspective and has established a risk management system and responses to any risks that materialize.

### Risks anticipated in the Risk Management Regulations



### Risk Management Procedures

Risk management is basically carried out following the procedures of the PDCA cycle shown in the diagram below in accordance with the characteristics of each risk.



### Focusing on securing stable procurement by diversifying suppliers

We focus most on country risk when it comes to risk management. The Shin-Etsu Group does not conduct business in areas with high country risk. We also keep country risk in mind when procuring raw materials and focus on securing stable procurement by diversifying our suppliers. In addition, a Group company specialized in IT took the lead in strengthening cyber security measures for all domestic and overseas Group companies. The Risk Management Committee works with each responsible division to address the various risks surrounding the business, including the development and updating of business continuity plans, elimination of risks through contracts, and management of information assets.



Chairman, Risk Management Committee  
**Toshiya Akimoto**

### Business Continuity Plan and Handling in Emergency

The Shin-Etsu Group provides many products which have high market shares or are difficult to replace, and society will be affected if we are unable to supply these products because of a serious disaster or accident. Accordingly, each division and plant has formulated a business continuity plan based on the

Companywide Business Continuity Management Standard to prevent this from happening. In the unlikely event of a disaster or accident, a Disaster countermeasures head office headed by the President will be established to take emergency and recovery actions in accordance with prescribed operational standards.

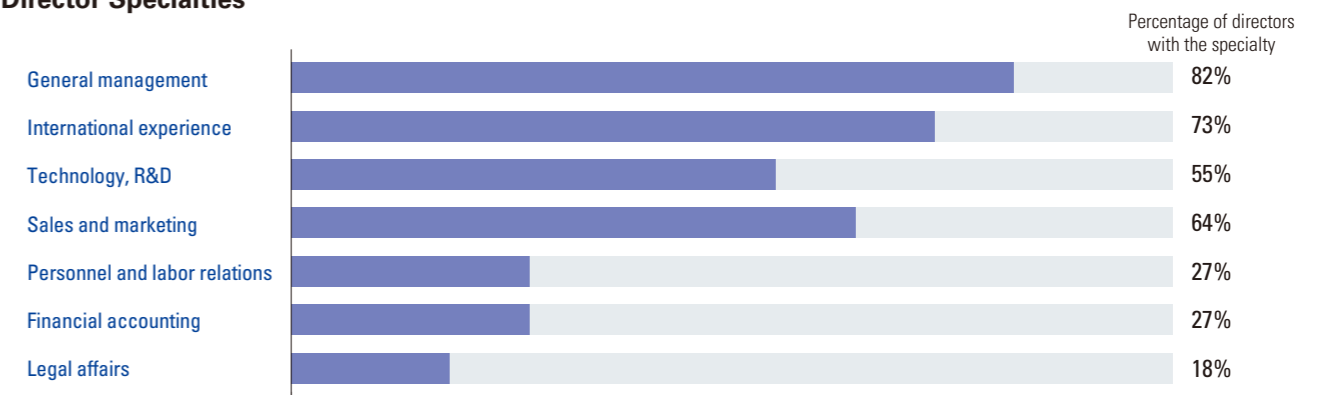
# Management (As of June 29, 2022)

## Board of Directors

<p>Representative Director-Chairman <b>Chihiro Kanagawa</b> Director &amp; Chairman; Founder of Shintech Inc.</p>	<p>Representative Director-Vice Chairman <b>Fumio Akiya</b> In charge of Semiconductor Materials and Technologies Representative Director &amp; President of Shin-Etsu Handotai Co., Ltd.</p>	<p>Representative Director-President <b>Yasuhiko Saitoh</b> Director &amp; President of Shintech Inc. Director &amp; President of Shin-Etsu Handotai America, Inc.</p>
<p>Director, Senior Managing Corporate Officer <b>Susumu Ueno</b> In charge of Special Functional Products Dept.; General Manager, Silicone Div.</p>	<p>Director, Senior Managing Corporate Officer <b>Masahiko Todoroki</b> In charge of Semiconductor Materials Dept., Senior Managing Director of Shin-Etsu Handotai Co., Ltd.</p>	<p>Director – Advisor <b>Shunzo Mori</b></p>
<p>Director <b>Tsuyoshi Miyazaki*1</b> Adviser, Mitsubishi Logistics Corporation</p>	<p>Director <b>Toshihiko Fukui*1</b> President, The Canon Institute for Global Studies; Outside Director, Kikkoman Corporation</p>	<p>Director <b>Hiroshi Komiyama*1</b> Chairman, Mitsubishi Research Institute, Inc.</p>
<p>Director <b>Kuniharu Nakamura*1</b> Director &amp; Chairman, SUMITOMO CORPORATION; Outside Director, NEC Corporation</p>	<p>Director <b>Michael H. McGarry*1</b> Director, Chairman &amp; Chief Executive Officer, PPG Industries, Inc. Director, United States Steel Corporation</p>	

\*1. Indicates an Outside Director as defined in Item 15, Article 2, of the Corporations Law.

## Director Specialties

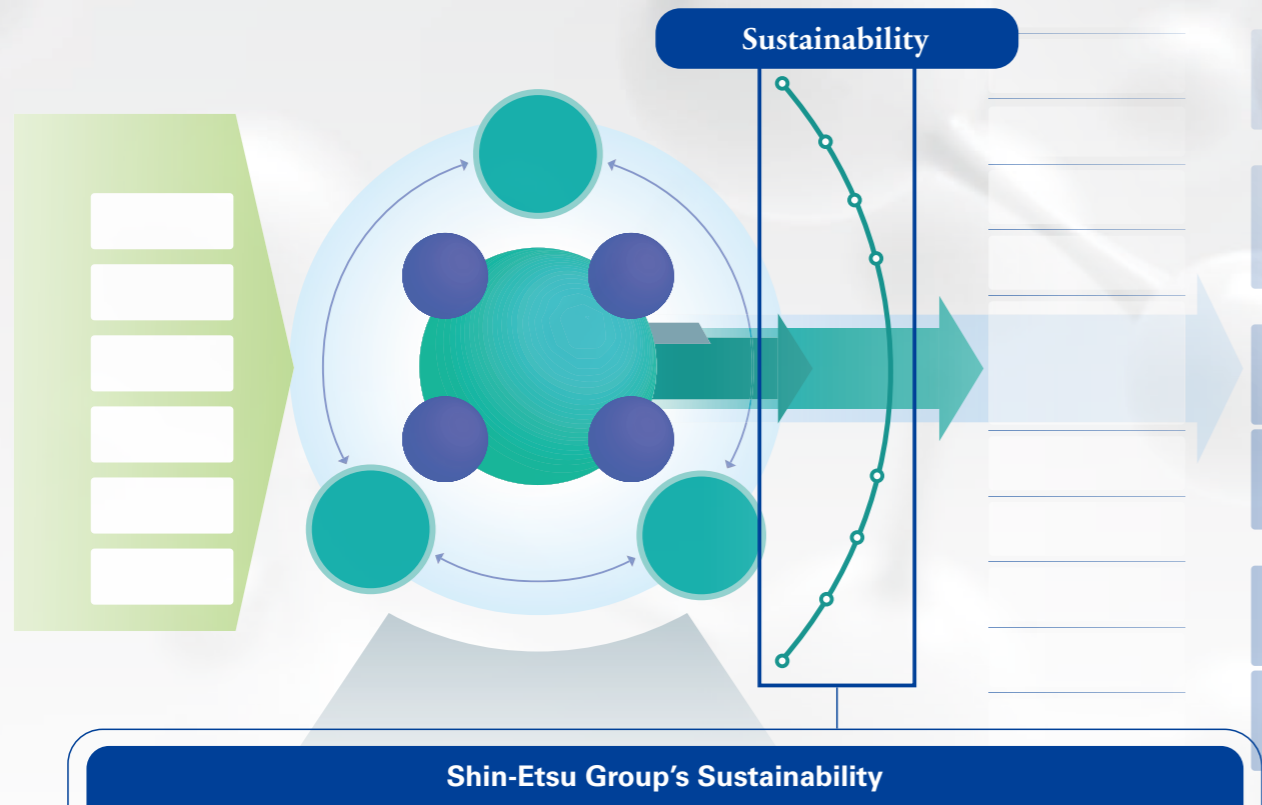


## Audit & Supervisory Board Members

<p>Full-time Audit &amp; Supervisory Board Member <b>Hiroaki Okamoto</b></p>	<p>Full-time Audit &amp; Supervisory Board Member <b>Hidenori Onezawa</b></p>	<p>Audit &amp; Supervisory Board Member <b>Yoshihito Kosaka*2</b> C.P.A., Certified Public Tax Accountant, Representative Partner, HIYU Certified Tax Accountants' Corporation</p>
<p>Audit &amp; Supervisory Board Member <b>Kiyoshi Nagano*2</b> Outside Director, LEC, INC.</p>	<p>Audit &amp; Supervisory Board Member <b>Mitsuko Kagami*2</b> Partner Lawyer, KAGAMI Law Office; Outside Director, MEDIPAL HOLDINGS CORPORATION; Outside Director, Sotetsu Holdings, Inc.</p>	

\*2. Indicates an Outside Audit & Supervisory Board Member as defined in Item 16, Article 2, of the Corporations Law.

# We will create a sustainable society and achieve sustainable corporate growth



What We Strive for

Contribution to the Earth's future

Our Mission

To provide products that contribute to solving social issues

### Business Principle

The Group strictly complies with all laws and regulations, conducts fair business practices and creates unrivaled value for society and industry through the provision of key materials and technologies.

### Basic Sustainability Policy

### The Foundation of Activities

Legal compliance, fair corporate activities	Health and safety of employees and contractors	Energy-saving, resource-saving, and reduction of environmental impact
Product quality improvements and product safety control	Promoting CSR procurement and the diversification of supply sources	Respect for human rights, the development of human resources, and the promotion of diversity
Contribution to industry and social initiatives	Respect for and protection of intellectual property	Accurate and timely information disclosure and communication with stakeholders

## Sustainability Initiatives

The Group views the implementation of its Business Principle and the making of contributions that benefit shareholders, investors, customers, business partners, local communities, employees, and all other stakeholders as its social responsibility. To fulfill this responsibility, we have established a Basic Sustainability Policy and various internal regulations, and are carrying out activities accordingly.

To promote sustainability activities in all aspects of our corporate activities, we have formed a Sustainability Committee consisting of approximately 60 members, including our directors, corporate officers, and department managers, as well as sustainability managers from Group companies, with the president of Shin-Etsu Chemical serving as the chairman.

### Basic Sustainability Policy

The Shin-Etsu Group will:

- 1 Do our best to increase the Group's corporate value through sustainable growth and make multifaceted contributions to society.
- 2 Carry out all of our company activities by always placing the utmost priority on safety.
- 3 Expand those businesses that contribute to the reduction of greenhouse gas emissions.
- 4 Maximize the efficiency of product development and manufacturing, and contribute to higher efficiency of society by supplying our products thus produced.
- 5 Engage in business activities while taking biodiversity into account and seeking harmony with the global environment.
- 6 Strive to respect human rights, assure equality in employment opportunities, and support the self-fulfillment of our employees.
- 7 Appropriately disclose information in a timely manner.
- 8 Carry out healthy, trustworthy, transparent corporate activities based on the integrity of the Group's ethical values.

## Status of Sustainability Initiatives

### Shin-Etsu Group's Priority Measures

The Sustainability Committee has identified the three points listed on the right as priority measures to be undertaken by the Group as part of its efforts to strengthen sustainability activities.

### Priority Measures

- 1 Human Rights Due Diligence
- 2 Response to the Task Force on Climate-related Financial Disclosure (TCFD)
- 3 Integration of SDGs and Management

### Status of Priority Measures

The issues and achievements of sustainability in FY2021 and the activities scheduled for FY2022 are as follows.

Priority Measures	Progress in FY2021	Schedule for FY2022
<b>Human Rights Due Diligence</b> See page 21.	<ul style="list-style-type: none"> <li>Identified human rights risks to be prioritized based on the results of human rights risk surveys</li> <li>Initiated supply chain human rights risk surveys</li> <li>Began looking into constructing a grievance system</li> </ul>	<ul style="list-style-type: none"> <li>Conduct supply chain human rights risk surveys (ongoing)</li> <li>Develop human rights awareness and educational programs</li> </ul>
<b>Response to TCFD</b> See page 24.	<ul style="list-style-type: none"> <li>Conducted a Climate Change Scenario Analysis that targets some of our businesses</li> </ul>	<ul style="list-style-type: none"> <li>Discussed specific measures aimed at achieving carbon neutrality</li> </ul>
<b>Integration of SDGs with Management</b>	<ul style="list-style-type: none"> <li>Set "Contributing to SDGs" as one of the management objectives for FY2021 and promoted it within the company</li> <li>Publish a series of articles related to the SDGs in the company newsletter to deepen the Group's understanding of the topic</li> </ul>	<ul style="list-style-type: none"> <li>Develop and supply products that contribute to SDGs</li> </ul>

### Integration of SDGs with Management

As the diverse products offered by the Shin-Etsu Group also contribute to the achievement of the SDGs set forth by the United Nations, we continued to promote awareness of the SDGs within the company in FY2021. In FY2021, 98.9% of Shin-Etsu Chemical's investment projects involved

contributing to the achievement of SDGs. In addition, investment in energy conservation and CO<sub>2</sub> emission reduction reached ¥1.55 billion, cutting greenhouse gas emissions by a total of 5,107 CO<sub>2</sub> tons.

## Identifying Key Issues (Materiality)

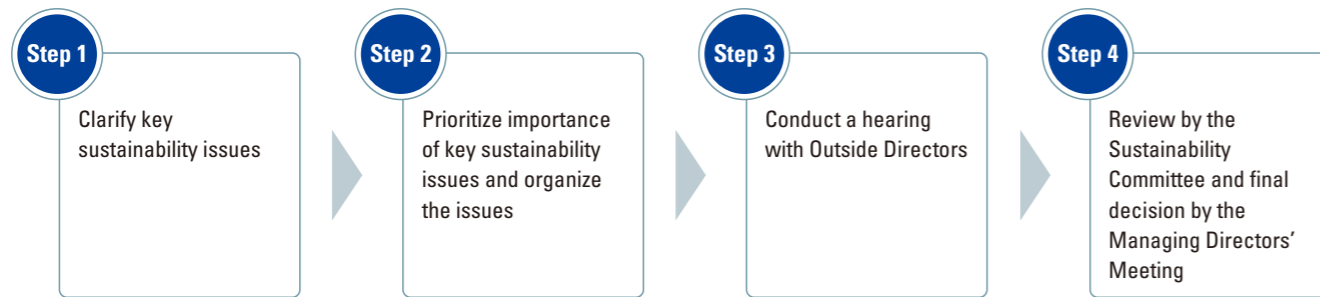
In FY2015, the Sustainability Committee identified “key sustainability issues” that the Shin-Etsu Group needs to focus its efforts on in particular.

Specifically, we (1) reviewed and organized stakeholders for each department and each company; (2) listed key sustainability issues in each department and company with reference to the central themes of ISO 26000; and (3) quantified the importance of each key issue to the Group and to its stakeholders. After identifying key issues using the above three steps, we organized them along two axes: Importance to the Shin-Etsu Group and importance to our stakeholders. Furthermore, based on the opinions and suggestions of the Outside Directors, the Sustainability

Committee reviewed the issues once again, and the nine key issues were identified following deliberations by the Managing Directors’ Meeting, a decision-making body for business execution.

Subsequently, in December 2018, all of our departments and major domestic Group companies reviewed the key issues and their importance, which were then reviewed again by the Sustainability Committee. As a result, we decided to carry on with the key issues we identified in 2015. We continue to view legal compliance and fair corporate activities as the foundation of all of our activities, and focus on these nine key issues.

### Materiality Identification Process



## List of Executives in Charge of Sustainability Initiatives

Position	Name	Current Positions (related to Sustainability)	Key Sustainability Issues
Representative Director-Vice Chairman	Fumio Akiya	In charge of Technologies	Product quality improvements and product safety control
Representative Director-President	Yasuhiko Saitoh	Chairman of Sustainability Committee	
Managing Corporate Officer	Toshiya Akimoto	Vice Chairman of Sustainability Committee	The foundation of all activities: Legal compliance, fair corporate activities
		In charge of Public Relations, Legal Affairs	Respect for and protection of intellectual property
		General Manager of Office for Digitization and Digitalization	Accurate and timely information disclosure and communication with stakeholders
Managing Corporate Officer	Fumio Arai	Chairman of Risk Management Committee	Risk management
		In charge of Purchasing	Promoting CSR procurement and the diversification of supply sources
Managing Corporate Officer	Yukihiko Matsui	In charge of Patents	Respect for and protection of intellectual property
Managing Corporate Officer	Masaki Miyajima	In charge of Business Auditing	Corporate governance
Corporate Officer	Toshiyuki Kasahara	General Manager of Finance & Accounting Dept.	Corporate governance (Fair tax payment, Operation of Group Companies)
		In charge of Office of the President	
Corporate Officer	Yoshimitsu Takahashi	In charge of General Affairs,	Corporate governance
		Environmental Control & Safety and Personnel & Labor Relations	Health and safety of employees and contractors
			Energy-saving, resource-saving, and reduction of the environmental impact
			Respect for human rights, the development of human resources, and the promotion of diversity

## Risks and Opportunities Related to the Key Issues

Key issue	Risks and opportunities (typical examples)	Corresponding initiatives
<b>The foundation of all activities</b> Legal compliance, fair corporate activities	<b>Risks</b> Legal violations, unjust conduct or fraud, damages to corporate value caused by loss of societal trust, etc.	<ul style="list-style-type: none"> <li>Raising compliance awareness through methods including training</li> <li>Thorough bribery and corruption prevention measures, etc.</li> </ul>
	<b>Opportunities</b> Formation of the foundation of corporate value, risk elimination, customer confidence creation, business opportunity expansion, hiring and retaining excellent human resources, etc.	
<b>E</b> Energy-saving, resource-saving, and reduction of the environmental impact	<b>Risks</b> Strengthening of greenhouse gas regulations, raw material price rises, procurement difficulties, etc.	<ul style="list-style-type: none"> <li>Acceleration of environmental burden reduction, response to climate change</li> <li>Water resource conservation</li> <li>Waste reduction, etc.</li> </ul>
	<b>Opportunities</b> Enhancement of competitiveness through environmental burden reduction and productivity improvement, expansion in demand for products that contribute to environmental protection, etc.	
<b>Health and safety of employees and contractors</b>	<b>Risks</b> Impact on local communities and employees caused by accidents and environmental issues, damage to equipment and facilities resulting from natural disasters, impact on operations associated with infectious diseases, etc.	<ul style="list-style-type: none"> <li>Safety training implementation</li> <li>Execution of environmental safety audits</li> <li>Improvement of workplace environments, etc.</li> </ul>
	<b>Opportunities</b> Stable production and higher productivity achieved through accident prevention measures and new process development, etc.	
<b>Product quality improvements and product safety control</b>	<b>Risks</b> Loss of customer trust due to issues concerning product quality or safety, etc.	<ul style="list-style-type: none"> <li>Quality management</li> <li>Quality audits and technical support</li> <li>Product safety management, etc.</li> </ul>
	<b>Opportunities</b> Fostering of customer trust through continuous timely delivery of products at pledged levels of quality, etc.	
<b>Promoting CSR procurement and the diversification of supply sources</b>	<b>Risks</b> Production suspensions and shipment delays caused by difficulties in procuring raw materials, etc.	<ul style="list-style-type: none"> <li>Revision of the Shin-Etsu Group CSR Procurement Guidelines</li> <li>Compliance with the Act against Delay in Payment of Subcontract Proceeds, etc., to the subcontractors</li> <li>Initiatives aimed at eliminating conflict minerals, etc.</li> </ul>
	<b>Opportunities</b> Stable procurement at fair prices through diversified suppliers, gaining trust from customers and society through thorough adherence to CSR procurement, etc.	
<b>S</b> Respect for human rights, the development of human resources, and the promotion of diversity	<b>Risks</b> Human rights violations committed through the Company's business activities or within its supply chain, etc.	<ul style="list-style-type: none"> <li>Fostering employee awareness regarding human rights</li> <li>Promotion of diversity</li> <li>Enhancing work-life balance systems</li> <li>Conducting human rights due diligence, etc.</li> </ul>
	<b>Opportunities</b> Hiring and retaining excellent human resources through business activities grounded in respect for human rights, etc.	
<b>Respect for and protection of intellectual property</b>	<b>Risks</b> Delay in business progress caused by intellectual property infringement, etc.	<ul style="list-style-type: none"> <li>Appropriate management of intellectual property and information assets</li> <li>Cybersecurity enhancement, etc.</li> </ul>
	<b>Opportunities</b> Acceleration of in-house business development by safeguarding and utilizing intellectual property, etc.	
<b>Contribution to industry and social initiatives</b>	<b>Risks</b> Loss of trust when business activities do not align with society's needs, etc.	<ul style="list-style-type: none"> <li>Fund-raising activities</li> <li>Local contribution activities, etc.</li> </ul>
	<b>Opportunities</b> Employment promotion and tax payment through stable business operations, fostering of trust-based relationships with local communities, etc.	
<b>Accurate and timely information disclosure and communication with stakeholders</b>	<b>Risks</b> Damage to corporate value stemming from nondisclosure or incomplete disclosure of information, loss of stakeholder confidence, etc.	<ul style="list-style-type: none"> <li>Timely and appropriate disclosure of corporate information</li> <li>Promotion of dialogue with stakeholders, etc.</li> </ul>
	<b>Opportunities</b> Establishment of appropriate market valuation, corporate value improvement, acquisition of trust from stakeholders and society, etc.	

: For more details regarding our initiatives, please visit our sustainability site. <https://www.shinetsu.co.jp/en/sustainability/>

## Ten-Year Summary

SHIN-ETSU CHEMICAL CO., LTD. AND SUBSIDIARIES for the fiscal years ended March 31, 2013 through 2022

For more detailed information, please see the investor information on our corporate website.

WEB <https://www.shinetsu.co.jp/en/ir/ir-data/>

	3/2013	3/2014	3/2015	3/2016	3/2017	3/2018	3/2019	3/2020	3/2021	3/2022	3/2022
	Millions of yen										Millions of U.S. dollars (Note 1)
<b>For the year:</b>											
Net sales	¥ 1,025,409	¥ 1,165,819	¥ 1,255,543	¥ 1,279,807	¥ 1,237,405	¥ 1,441,432	¥ 1,594,036	¥ 1,543,525	¥ 1,496,906	¥ 2,074,428	\$ 17,003
Cost of sales	769,427	873,879	940,399	930,019	868,404	963,008	1,039,979	987,782	953,203	1,206,425	9,888
Selling, general and administrative expenses	98,938	118,130	129,814	141,262	130,383	141,601	150,352	149,702	151,489	191,680	1,571
Operating income	157,043	173,809	185,329	208,525	238,617	336,822	403,705	406,041	392,213	676,322	5,543
Ordinary income	170,207	180,605	198,025	220,005	242,133	340,308	415,311	418,242	405,101	694,434	5,692
Net income attributable to owners of parent	105,714	113,617	128,606	148,840	175,912	266,235	309,125	314,027	293,732	500,117	4,099
Capital expenditures	86,841	83,155	109,903	134,753	145,647	176,283	240,618	265,018	228,801	213,918	1,753
R&D costs	37,671	43,546	47,165	53,165	49,020	51,768	56,436	48,536	51,264	62,455	511
Depreciation and amortization	80,961	91,445	96,918	100,466	93,087	112,016	137,570	131,172	143,807	168,788	1,383
<b>At year-end:</b>											
Total assets	¥ 1,920,903	¥ 2,198,912	¥ 2,452,306	¥ 2,510,085	¥ 2,655,636	¥ 2,903,137	¥ 3,038,717	¥ 3,230,485	¥ 3,380,615	¥ 4,053,412	\$ 33,224
Working capital (Current assets – Current liabilities)	832,878	981,667	1,100,999	1,170,679	1,232,607	1,324,495	1,358,614	1,446,724	1,551,662	1,960,216	16,067
Common stock	119,419	119,419	119,419	119,419	119,419	119,419	119,419	119,419	119,419	119,419	978
Net assets	1,623,176	1,822,135	2,012,711	2,080,465	2,190,082	2,413,025	2,532,556	2,723,141	2,886,625	3,429,208	28,108
Interest-bearing debt	13,929	15,638	14,328	13,470	14,642	15,814	14,920	30,383	34,456	38,957	319
<b>Per share (Yen and U.S. dollars):</b>											
Net income per share (Note 2)	¥ 248.94	¥ 267.20	¥ 302.05	¥ 349.46	¥ 412.86	¥ 624.28	¥ 725.99	¥ 755.17	¥ 706.76	¥ 1,203.80	\$ 9.867
Diluted net income per share	248.92	267.07	301.98	349.42	412.83	624.10	725.92	755.01	706.26	1,202.75	9.859
Cash dividends	100.00	100.00	100.00	110.00	120.00	140.00	200.00	220.00	250.00	400.00	3.279
Payout ratio (%)	40.2	37.4	33.1	31.5	29.1	22.4	27.5	29.1	35.4	33.2	33.2
Net assets	3,709.19	4,165.28	4,602.80	4,761.48	5,002.16	5,511.98	5,915.47	6,377.93	6,769.72	8,007.24	65.633
<b>General:</b>											
Operating income to net sales ratio (%)	15.3	14.9	14.8	16.3	19.3	23.4	25.3	26.3	26.2	32.6	32.6
Net income attributable to owners of parent to net sales ratio (%)	10.3	9.7	10.2	11.6	14.2	18.5	19.4	20.3	19.6	24.1	24.1
ROIC (%)	8.9	9.4	9.9	11.4	14.0	18.2	21.5	19.4	17.2	27.2	27.2
ROE (%)	7.0	6.8	6.9	7.5	8.5	11.9	12.8	12.3	10.7	16.3	16.3
ROA (%)	9.1	8.8	8.5	8.9	9.4	12.2	14.0	13.3	12.3	18.7	18.7
Equity ratio (%)	82.0	80.6	79.9	80.8	80.3	81.0	81.1	82.1	83.2	82.1	82.1
PBR (times)	1.7	1.4	1.7	1.2	1.9	2.0	1.6	1.7	2.7	2.3	2.3
PER (times)	25.1	22.1	26.0	16.7	23.4	17.6	12.8	14.2	26.3	15.6	15.6
Number of employees	17,712	17,892	18,276	18,407	19,206	20,155	21,735	22,783	24,069	24,954	24,954
Number of shares issued (Thousands)	432,106	432,106	432,106	432,106	432,106	432,106	427,606	416,662	416,662	416,662	416,662

\*"Partial Amendments to 'Accounting Standard for Tax-Effect Accounting'" etc. (ASBJ Statement No. 28, February 16, 2018) were applied from the beginning of the fiscal year ended March 31, 2019. Accordingly, the main management indicators, etc., for the previous fiscal year are those after retroactive application of said Accounting Standard, etc.

Notes: 1. The U.S. dollar amounts represent conversion of yen, for convenience only, at the rate of ¥122 = US\$1, the approximate rate of exchange on March 31, 2022.  
2. The "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29, March 31, 2020) and other standards were applied from the beginning of the fiscal year ended March 31, 2022. Accordingly, the main management indicators, etc., for the current fiscal year are those after application of said Accounting Standard, etc.

# Shin-Etsu Group Companies

Note: The number in parentheses next to each country's name is that country's international telephone country code.

North America				
United States (1)	Shintech Inc.	Production and sales of PVC resin	#3 Greenway Plaza, Suite 1150, Houston, TX 77046, U.S.A.	Tel. 713-965-0713
	Shin-Etsu Handotai America, Inc. (S.E.H. America)	Production and sales of semiconductor silicon wafers	4111 NE 112th Ave., Vancouver, WA 98682-6776, U.S.A.	Tel. 360-883-7000
	Shin-Etsu Silicones of America, Inc.	Production and sales of silicone products	1150 Damar Drive, Akron, OH 44305, U.S.A.	Tel. 330-630-9860
	K-Bin, Inc.	Production and sales of PVC compounds	#3 Greenway Plaza, Suite 1150, Houston, TX 77046, U.S.A.	Tel. 713-965-0713
	Shin-Etsu MicroSi, Inc.	Sales of electronics materials	10028 South 51st St., Phoenix, AZ 85044, U.S.A.	Tel. 480-893-8898
	SE Tylose USA, Inc.	Production and sales of cellulose derivatives	26270 Highway 405 Plaquemine, LA 70764, U.S.A.	Tel. 225-309-0110
	Shin-Etsu Magnetics, Inc.	Sales of rare earths and rare earth magnets	2372 Qume Drive, Suite B, San Jose, CA 95131, U.S.A.	Tel. 408-383-9240

South America				
Brazil (55)	Shin-Etsu do Brasil Representação de Produtos Químicos Ltda.	Sales support of silicone products and cellulose derivatives	Rua Coronel Oscar Porto, 736 – 8º Andar – Sala 84 Paraisópolis São Paulo – SP Brasil CEP: 04003-003	Tel. 11-3939-0690 (silicones) 11-3939-0692 (cellulose derivatives)

Europe				
The Netherlands (31)	Shin-Etsu Silicones Europe B.V.	Production and sales of silicone products	Bolderweg 32,1332 AV, Almere, The Netherlands	Tel. 36-549-3170
	Shin-Etsu International Europe B.V.	Sales of chemical products, electronics materials and others	World Trade Center Amsterdam, Strawinskylaan B-827 1077 XX, Amsterdam, The Netherlands	Tel. 20-662-1359
	Shin-Etsu PVC B.V.	Production and sales of vinyl chloride monomer and PVC resin	Building Noorderhaeve, Noorderweg 68 1221 AB, Hilversum, The Netherlands	Tel. 35-689-8010
Portugal (351)	CIRES, LDA. (Companhia Industrial de Resinas Sintéticas, LDA.)	Production and sales of PVC resin	Rua da Cires nr.8, 3860-160 Avanca, Estarreja, Portugal	Tel. 234-811-200
United Kingdom (44)	Shin-Etsu Handotai Europe, Ltd. (S.E.H. Europe)	Production and sales of semiconductor silicon wafers	Wilson Road, Toll Roundabout, Eilburn, Livingston, West Lothian EH54 7DA, U.K.	Tel. 1506-41-5555
Germany (49)	SE Tylose GmbH & Co. KG	Production and sales of cellulose derivatives	Kasteler Strasse 45, 65203 Wiesbaden, Germany	Tel. 611-962-04
	Shin-Etsu Magnetics Europe GmbH	Sales of rare earths and rare earth magnets	Gerbermuehlstrasse 7, 60594 Frankfurt am Main, Germany	Tel. 69-8700-31611

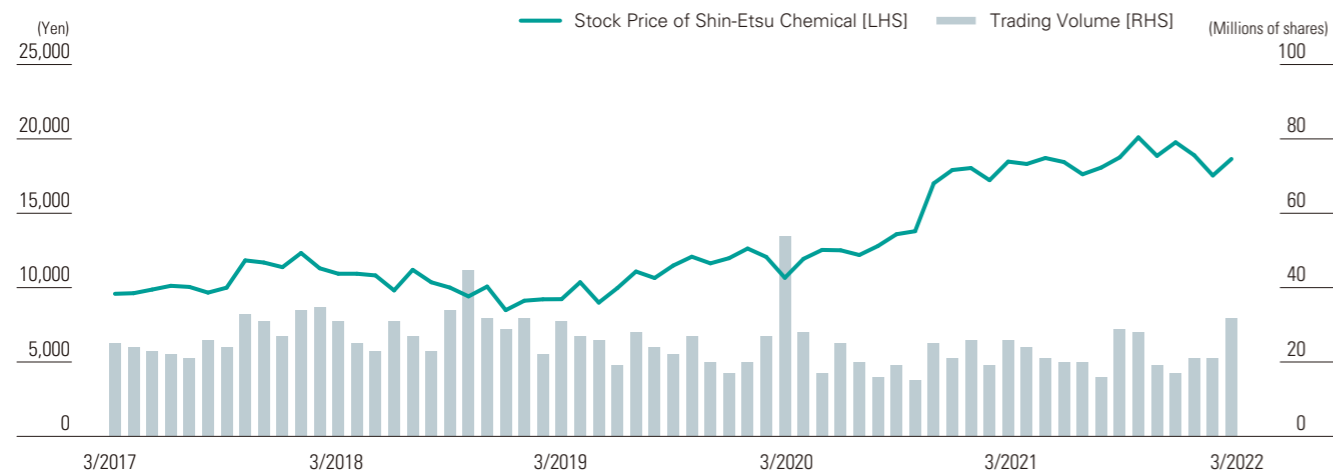
Asia & Oceania				
Malaysia (60)	S.E.H. Malaysia Sdn. Bhd.	Production, processing and sales of semiconductor silicon wafers	Lot No.2, Lorong Enggang 35, Ulu Klang Free Trade Zone, 54200 Selangor Darul Ehsan, Malaysia	Tel. 3-4259-6600
	Shin-Etsu (Malaysia) Sdn. Bhd.	Production and sales of rare earth magnets and VCM	Lot 50, Jalan Serendah 26/17, HICOM Industrial Estate, 40400 Shah Alam, Selangor Darul Ehsan, Malaysia	Tel. 3-5191-2233
	S.E.H. (Shah Alam) Sdn. Bhd.	Production and processing of semiconductor silicon wafers	Lot No.8, Jalan Sementa 27/91, Seksyen 27, 40400 Shah Alam, Selangor Darul Ehsan, Malaysia	Tel. 3-5123-7000
	Shin-Etsu Electronics (Malaysia) Sdn. Bhd.	Production and sales of epoxy molding compounds	Lot 50, Jalan Serendah 26/17, HICOM Industrial Estate, 40400 Shah Alam, Selangor Darul Ehsan, Malaysia	Tel. 3-5192-1081
	Shin-Etsu Electronics Materials Penang Sdn. Bhd.	Technical support for silicone and epoxy products	Lot P22, Phase 4, Free Industrial Zone, Bayan Lepas, 11900, Penang, Malaysia	Tel. 4-6437008
Australia (61)	Simcoa Operations Pty. Ltd.	Production and sales of silicon metal	973, Marriott Road, Wellesley, WA 6233, Australia	Tel. 897-80-6744
Vietnam (84)	Shin-Etsu Electronics Materials Vietnam Co., Ltd.	Production and sales of materials for LED	Plot No. A-7, Thang Long Industrial Park II Yen My district, Hung Yen province, Viet Nam	Tel. 221-3974-880/881
	Shin-Etsu Magnetic Materials Vietnam Co., Ltd.	Production of rare earths and rare earth magnets	Lot CN5.2D, Petro-chemical Area, Dinh Vu industrial Zone, Dong Hai 2 Ward, Hai An District, Hai Phong, Viet Nam	Tel. 225-325-0518
Philippines (63)	Shin-Etsu Magnetics Philippines, Inc.	Production and sales of rare earth magnets	125 East Main Avenue, Special Export Processing Zone, Laguna, Technopark Binan, Laguna 4024, Philippines	Tel. 49-502-3190
Singapore (65)	Shin-Etsu Singapore Pte. Ltd.	Sales of silicone products	1 Kim Seng Promenade #15-05/06 Great World City, Singapore 237994	Tel. 6743-7277
	Shin-Etsu Handotai Singapore Pte. Ltd. (S.E.H. Singapore)	Sales of semiconductor silicon wafers	8 Temasek Boulevard, #21-05 Suntec Tower Three, Singapore 038988	Tel. 6293-5160

Thailand (66)	Shin-Etsu Silicones (Thailand), Ltd.	Production and sales of silicone products	7th Floor, Harindhorn Tower, 54 North Sathorn Road, Bangkok 10500, Thailand	Tel. 2-632-2941
	Asia Silicones Monomer Ltd.	Production and sales of silicone monomer	1 Moo 2 Asia Industrial Estate, Tambol Banchang, Amphur Banchang, Rayong 21130, Thailand	Tel. 38-687-050
	Shin-Etsu Magnetics (Thailand), Ltd.	Production of VCM	60/120, 122, 123 Moo19, Tambol Klongnueng, Amphur Klongluang, Pathumthani 12120, Thailand	Tel. 2-520-4293
Japan (81)	Shinano Electric Refining Co., Ltd.	Production and sales of silicon carbide products	Kanda Urban Bldg., 4-2, Kanda-Tsukasamachi 2-chome, Chiyoda-ku, Tokyo 101-0048, Japan	Tel. 03-5298-1601
	Nissin Chemical Industry Co., Ltd.	Production and sales of synthetic resin emulsions and other products	17-33, Kitago 2-chome, Echizen-shi, Fukui 915-0802, Japan	Tel. 0778-22-5100
	Shin-Etsu Polymer Co., Ltd.	Production and sales of synthetic resin products	Ote Center Bldg., 1-3, Ohtemachi 1-chome, Chiyoda-ku, Tokyo 100-0004, Japan *Effective July 19, 2022	Tel. 03-5288-8400
	Shin-Etsu Astech Co., Ltd.	Construction businesses and sales of chemical products and others	Kamakuragashi Bldg., 2-1, Uchikanda 2-chome, Chiyoda-ku, Tokyo 101-0047, Japan	Tel. 03-5298-3211
	Nagano Electronics Industrial Co., Ltd.	Production, processing and sales of semiconductor silicon wafers and other products	1393, Yashiro, Chikuma-shi, Nagano 387-8555, Japan	Tel. 026-261-3100
	Shin-Etsu Handotai Co., Ltd.	Production and sales of semiconductor silicon wafers and compound semiconductors	Shin-Otemachi Bldg., 2-1, Ohtemachi 2-chome, Chiyoda-ku, Tokyo 100-0004, Japan	Tel. 03-3243-1500
	Kashima Chlorine & Alkali Co., Ltd.	Electrolysis business (production and sales of caustic soda and chlorine)	Towada 3, Kamisu-shi, Ibaraki 314-0102, Japan	Tel. 0299-96-2311
	Kashima Vinyl Chloride Monomer Co., Ltd.	Production and sales of vinyl chloride monomer	Towada 2, Kamisu-shi, Ibaraki 314-0102, Japan	Tel. 0299-96-3415
	Naoetsu Electronics Co., Ltd.	Production, processing and sales of semiconductor silicon wafers	596-2, Jonokoshi, Kubiki-ku, Joetsu-shi, Niigata 942-0193, Japan	Tel. 025-530-2631
	Naoetsu Precision Co., Ltd.	Production, processing and sales of photomask substrate and other electronics materials	Aza-Gokawari 935-1, Shibukakihama, Ohgata-ku, Joetsu-shi, Niigata 949-3115, Japan	Tel. 025-534-4980
	Shin-Etsu Quartz Products Co., Ltd.	Production and sales of quartz glass products	Shinjuku San-ei Bldg., 22-2, Nishi-Shinjuku 1-chome, Shinjuku-ku, Tokyo 160-0023, Japan	Tel. 03-3348-1912
	Shin-Etsu Film Co., Ltd.	Production and sales of films for condensers and other applications	1-5, Kitago 2-chome, Echizen-shi, Fukui 915-0802, Japan	Tel. 0778-23-8066
	Shin-Etsu Engineering Co., Ltd.	Engineering services for plant construction and produce mechatronics systems for the production of flat-panel displays (FPDs) such as LCDs and PDPs	Comfort Yasuda Bldg., 9, Kanda-Nishikicho 2-chome, Chiyoda-ku, Tokyo 101-0054, Japan	Tel. 03-3296-1080
	JAPANVAM & POVAL Co., Ltd.	Production and sales of vinyl acetate monomer and polyvinyl alcohol	11-1, Chikko Shinmachi 3-chome, Nishi-ku, Sakai-shi, Osaka 592-8331, Japan	Tel. 072-245-1131
Korea (82)	Maruki Chemical Ind. Co., Ltd.	Production, processing and sales of synthetic resin sheets and synthetic leather	Naka 403-14, Shirosi-shi, Chiba 270-1406, Japan	Tel. 047-491-9566
	Tatsuno Chemical Industries, Inc.	Production, processing and sales of various types of synthetic resin	Asahi-Sumida Bldg. 6F, Narihira 1-21-9, Sumida-ku, Tokyo 130-0002, Japan	Tel. 03-5637-2022
	Shin-Etsu Silicone Korea Co., Ltd.	Production and sales of silicone products	GT Tower 15F, 411, Seocho-daero, Seocho-gu, Seoul 06615, Korea	Tel. 2-590-2500
China (86)	Shin-Etsu Advanced Materials Korea Co., Ltd.	Sales of photoresists and photomask blanks products	Keungil Tower 17F, 223, Teheran-ro, Gangnam-gu, Seoul 06142, Korea	Tel. 2-6964-7750
	Zhejiang Shin-Etsu High-Tech Chemical Co., Ltd.	Production and sales of silicone products	No.66, Lizheng Road, Jiashan Economic Development Zone, Zhejiang Sheng 314116, China	Tel. 573-8475-5071
	Shin-Etsu Silicone (Nantong) Co., Ltd.	Production and sales of silicone products	Tongdalu 85, Economic & Technological Development Area, Nantong City, Jiangsu Province, P.R. 226017, China	Tel. 513-5108-8688
	Shin-Etsu Silicone International Trading (Shanghai) Co., Ltd.	Sales of silicone products	29F Junyao International Plaza, No.789, Zhao Jia Bang Road, Shanghai 200032, China	Tel. 21-6443-5550
	Shin-Etsu Silicone International Trading (Shanghai) Co., Ltd. Guangzhou Branch	Sales of silicone products	Room 2409-2410, Tower B, China Shine Plaza, 9 Linhexi-road, Tianhe, Guangzhou, Guangdong, China 510610	Tel. 20-3831-0212
	Shin-Etsu Technology (Suzhou) Co., Ltd.	Sales of rare earth magnets	Block4, No.1 of Qiming Road, Suzhou Industrial Park, Jiangsu 215126, China	Tel. 512-6276-3270
	Shin-Etsu (Jiangsu) Optical Preform Co., Ltd.	Production and sales of preforms for optical fiber	No.8, Runhua Road, Ligang Zhen, Jiangyin, Jiangsu 214444, China	Tel. 510-8609-6060
	Shin-Etsu (Jiangyin) Optical Preform Trading Co., Ltd.	Sales of preforms for optical fiber and purchase and sales of raw materials for preforms	No.8, Runhua Road, Ligang Zhen, Jiangyin, Jiangsu 214444, China	Tel. 510-8609-6108
	Shin-Etsu YOFC (Hubei) Optical Preform Co., Ltd.	Production and sales of preforms for optical fiber	Extra No.1 Changfei Avenue, Jiangnan Salt & Chemical Industrial Park, Qianjiang, Hubei, China	Tel. 728-670-9777
	Taiwan (886)	Shin-Etsu Silicone Taiwan Co., Ltd.	Production and sales of silicone products	11F-D, No.167, Tun Hua N. Road, Taipei, 105406 Taiwan, R.O.C.
Shin-Etsu Handotai Taiwan Co., Ltd. (S.E.H. Taiwan)		Production, processing and sales of semiconductor silicon wafers	No.12, Industry East Road 9, Hsin-Chu Science Park, Hsin-Chu, 30075, Taiwan, R.O.C.	Tel. 3-577-1188
Shin-Etsu Opto Electronic Co., Ltd.		Production and sales of compound semiconductors	3F, No.10 Dusing Rd 1, Hsin-Chu Science Park, Hsin-Chu, 30078, Taiwan, R.O.C.	Tel. 3-578-4566
Shin-Etsu Electronics Materials Taiwan Co., Ltd.		Production and sales of photoresists products	No.28, Kejia 6 Rd., Douliu City, Yunlin County 64057, Taiwan R.O.C.	Tel. 5-551-1122

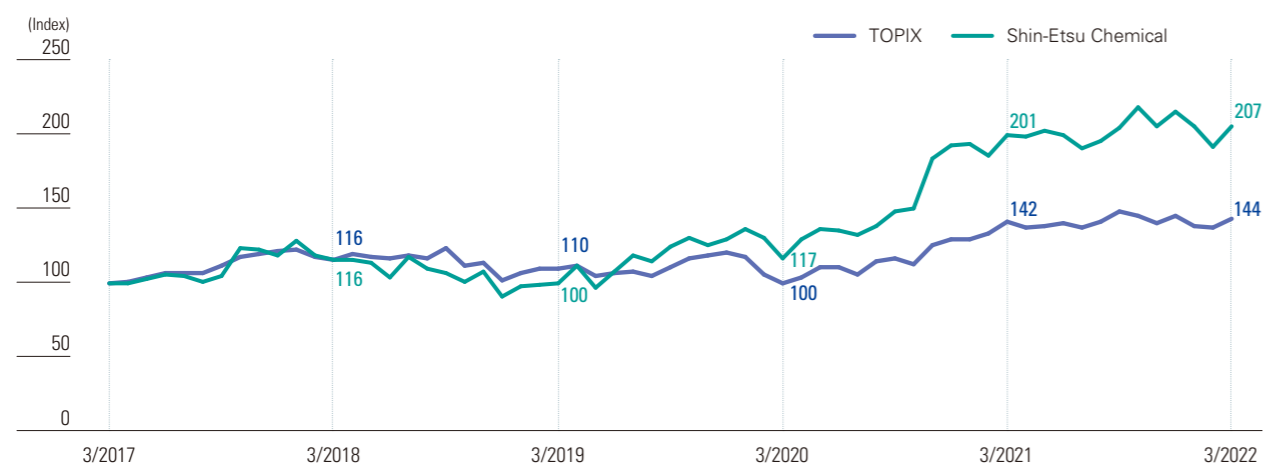
Note: The Shin-Etsu Group consists of 145 companies as of March 31, 2022.

## Investor Information

### Stock Price Movement over the Past Five Years



### Total Shareholder Return over the Past Five Years



Notes: 1. Stock index of Shin-Etsu Chemical and TOPIX (March 31, 2017 = 100)  
 2. This index shows the rate of return taking into consideration the dividend as of March 31, 2022, and the stock price when an investment was conducted on March 31, 2017. Investment performance including dividends has been added to the Shin-Etsu Chemical stock price and indexed at 100 as of March 31, 2017. The TSE Stock Price Index (TOPIX), which is a comparative index, also uses indexed data and is indexed in the same way.

### Major Shareholders (As of March 31, 2022)

(\*Rounded down to the nearest 1,000.)

Name of Shareholder	Number of Shares Held (Thousand shares*)	Holding Ratio (%)
The MasterTrust Bank of Japan, Ltd. (Trust Account)	83,450	20.1
Custody Bank of Japan, Ltd. (Trust Account)	26,690	6.4
Nippon Life Insurance Company	16,669	4.0
JP MORGAN CHASE BANK 385632	16,608	4.0
The Hachijuni Bank, Ltd.	11,790	2.8
Custody Bank of Japan, Ltd. [Trust Account 4]	11,760	2.8
Meiji Yasuda Life Insurance Company	10,687	2.6
SSBTC CLIENT OMNIBUS ACCOUNT	9,877	2.4
GOVERNMENT OF NORWAY	9,256	2.2
STATE STREET BANK WEST CLIENT - TREATY 505234	5,940	1.4

Note: The holding ratios are computed net of the treasury shares (1,218,008).

## Corporate Information

### Corporate Data (As of March 31, 2022)

Company Name	Shin-Etsu Chemical Co., Ltd.	
Head Office	4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-0005, Japan.	
Date of Establishment	September 16, 1926	
Capital	¥119,419 million	
Number of Employees	24,954 (Consolidated)	
Common Stock	Number of Shares Authorized	1,720,000,000
	Number of Shares Issued*	416,662,793
	*Includes 1,218,008 treasury shares.	
	Share Unit of Exchange	100 stocks
	Number of Stockholders	56,329
Stock Listings	Tokyo, Nagoya (Ticker Code: 4063)	
Fiscal Year-End	March 31	
Ordinary General Meeting of Shareholders	June	
Transfer Agent	Mitsubishi UFJ Trust and Banking Corporation	
Contact	Public Relations Department Phone: +81-3-6812-2340 Fax : +81-3-6812-2341 e-mail : sec-pr@shinetsu.jp	

### Third-Party Evaluations

Note: The inclusion of Shin-Etsu Chemical Co., Ltd. in any MSCI index, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement or promotion of Shin-Etsu Chemical Co., Ltd. by MSCI or any of its affiliates. The MSCI indexes are the exclusive property of MSCI. MSCI and the MSCI index names and logos are trademarks or service marks of MSCI or its affiliates.

### Overall Picture of Communication

	Dialogue	Report	Website
Financial information	<ul style="list-style-type: none"> <li>Announcement of financial statements</li> <li>General meeting of shareholders</li> <li>Briefings for individual investors</li> <li>For securities analysts and investors</li> </ul>	<ul style="list-style-type: none"> <li>Annual securities report</li> <li>Quarterly report</li> <li>Business report</li> </ul> <p>(The aforementioned three reports are published in Japanese only.)</p>	<ul style="list-style-type: none"> <li>IR Information</li> </ul> <p><a href="https://www.shinetsu.co.jp/en/ir/">https://www.shinetsu.co.jp/en/ir/</a></p>
Non-financial information	<ul style="list-style-type: none"> <li>Financial results briefings</li> <li>Individual meetings</li> <li>Business briefings</li> <li>Factory tours</li> </ul>	<ul style="list-style-type: none"> <li>Annual report</li> <li>Sustainability report</li> </ul>	<ul style="list-style-type: none"> <li>Sustainability Information</li> </ul> <p><a href="https://www.shinetsu.co.jp/en/sustainability/">https://www.shinetsu.co.jp/en/sustainability/</a></p>



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