Long-term Vision, Vision 2030

Aiming to Double the Group's Business by 2030 Centered on ESG Management

Vision 2030, the Group's Long-term Vision, presents the vision statement of Innovation for the Earth, which incorporates the Group's resolute will to continuously drive innovation as a means of supporting the basis of LIFE and continuing to create peace of mind for generations to come to realize a sustainable society.

This Vision lays down the four domains of Residential (Housing), Advanced Lifeline (Social Infrastructure), Innovative Mobility (Electric/Mobility), and Life Science (Health and Medical), and aims to double the scale of our business by 2030 through the expansion of existing business while taking on the challenge of new domains along the strategy axis of business growth, reform, and creation centered on ESG management.

Working to double the Group's business, we will seek to increase sales and operating profit based on our contribution to solving social issues in each domain, and endeavor to deliver more sustainable contributions by engaging in operations that take into consideration the Group's management capability to sustain business.

Expand contributions to solving social issues through expansion of existing businesses and new business creation through business growth, reform and creation, centered on ESG management

Vision Statement

Innovation for the Earth

To realize a sustainable society, we support the basis of LIFE and will continue to create "peace of mind for generations to come."

Targets

(Numerical Targets)
(Strategic Direction)

Sales: ¥2 trillion
Operating profit margin: 10% or higher

Business growth, reform and creation, centered on ESG management

Business Domain

Social Issues

Zero carbon and a recycling society are achieved
(Production that uses labor, resources and the environment sustainably)

Healthy lives are ensured and social services are improved
(Realization of a healthy and well-served society)

Access to safe water and sustainable energy are ensured
(Use of water and energy resources)

Sustainable infrastructure, Town and Community Development, residential environments and communication environments are provided
(Provision of disaster-resistant infrastructure, cities, residential environments and communication environments)

Capability

Long-term Vision, Vision 2030

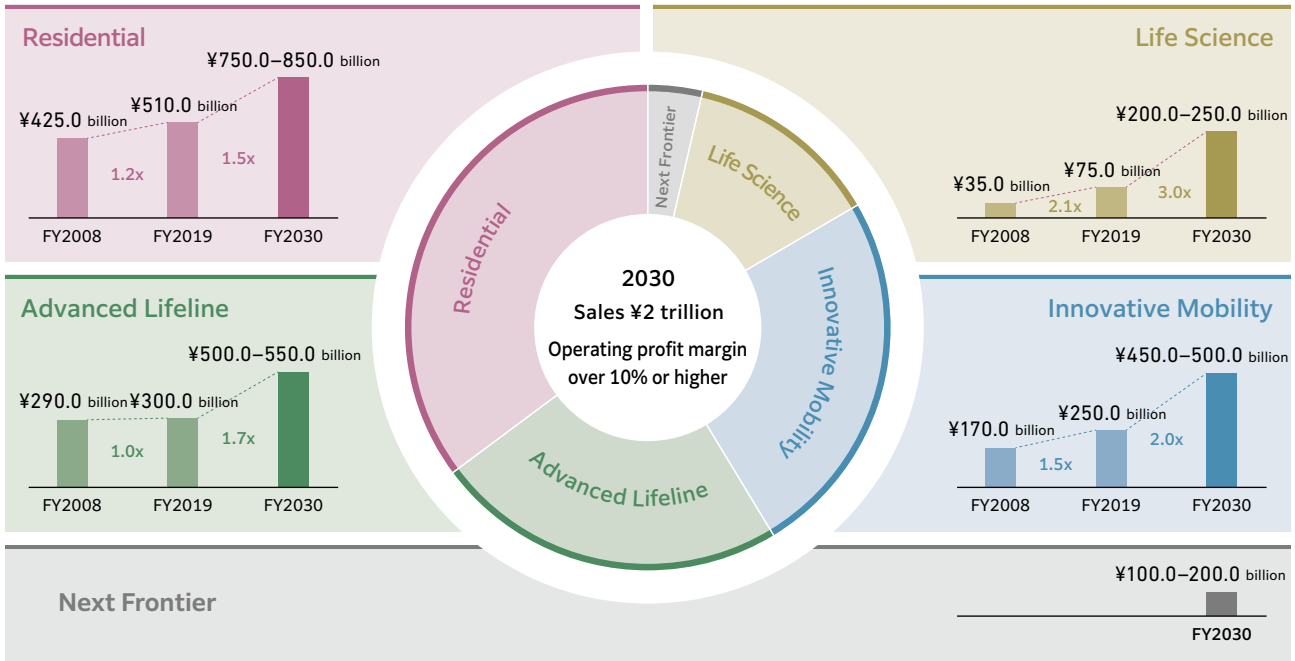
Growth Image and Strategic Investment

The expansion of business for which the Long-term Vision, Vision 2030, aims can only be achieved through substantial growth rather than the extension of existing businesses. Working to double its business and achieve net sales of ¥2 trillion by 2030, the Group will grow sales in each domain and transform into an attractive company with diverse growth engines and a strong presence. By taking up the challenge of pursuing innovation as an extension of core technologies in each domain, the Group will create new business domains and the next frontier in anticipation of major paradigm shifts. As far as the status of each domain, we conduct rolling planning within the Group.

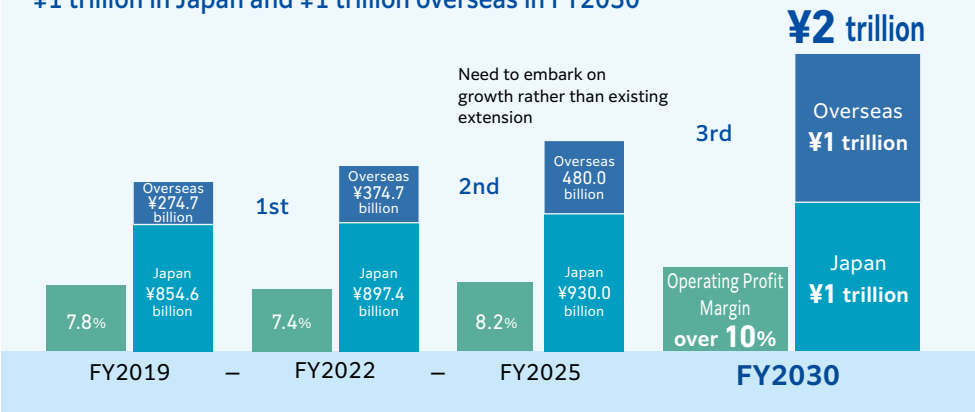
Along with aiming to achieve a scale of ¥1 trillion through domestic growth, the Group will accelerate efforts to cultivate frontier businesses without slowing its current pace of growth overseas as part of a plan to expand the scale of overseas business to ¥1 trillion, more than double that of today. When executing new investments including capital expenditures aimed at growth, the Group considers financial soundness and steps to increase the probability of return in anticipation of making investments exceeding ¥2 trillion in total value over the 10 years through 2030.

Under the FY2020 to FY2022, Drive 2022, Medium-term Management Plan, which the Group put in place as the first phase of its Vision 2030, energies were directed toward implementing structural reforms and strengthening profitability in the face of the prolonged impact of COVID-19. While trends in net sales surpassed plans over this period, growth investments were held to a certain level. Under the Drive 2.0 Medium-term Management Plan, a crucial second phase toward further growth, we will proactively expand strategic investments.

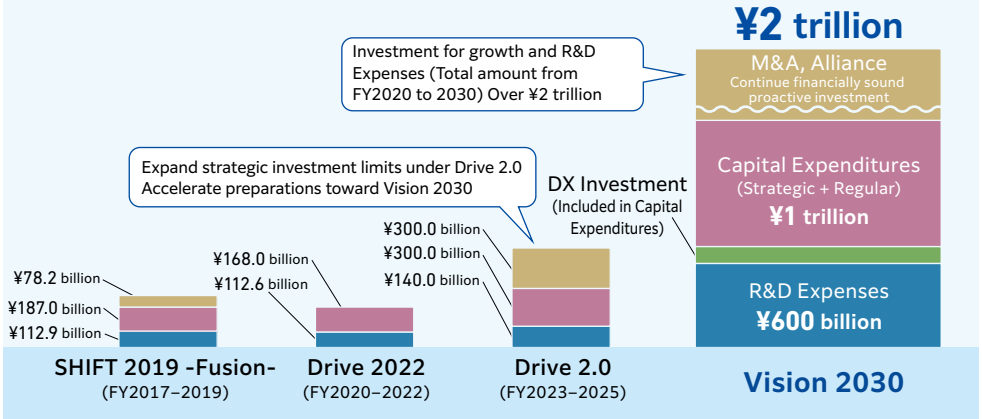
* Announced on May 22, 2020



Accelerate efforts to cultivate frontier businesses overseas; expand sales to ¥1 trillion in Japan and ¥1 trillion overseas in FY2030



Proactive investment to double the size of business

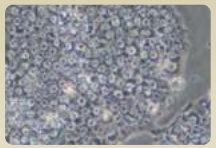
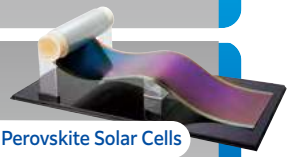


Long-term Vision, Vision 2030

Medium- to Long-Term Strategies for Growth —Strategic area map

We have drawn up a strategic area map to act as a compass for business strategies so we can realize our long-term vision, Vision 2030. Areas that are extensions of existing businesses and will be expanded on a priority basis are called Enhancement Areas and areas that will create new innovations through fusion of different areas are called Innovation Areas. We have clarified the themes to be targeted in the four domains of Residential, Advanced Lifeline, Innovative Mobility, and Life Sciences. In our allocation of capital, we are focusing on expanding the Enhancement Areas and creating new innovations in the Innovation Areas of each domain. In particular, for the themes in the Innovation Areas, we are working not only with internal resources, but also with external resources through M&A and Corporate Venture Capital (CVC). Of these, we have defined seven key themes that we should focus on in particular during the current medium-term plan, and are strengthening R&D and external collaboration in order to accelerate the progression to the commercialization phase.

Aim for continually creating Products to Enhance Sustainability that support the sustainable growth of the Company and society.

	Residential	Advanced Lifeline	Innovative Mobility	Life Science	Next Frontier
Existing businesses	Housing, Renovation, Real Estate, Town & Community Development, Residential Services, Overseas	Pipe Systems, Building and Infrastructure Composite Materials, Infrastructure Renovation	Electronics, Mobility, Industrial	Diagnostics, Pharmaceutical Sciences	
	The areas of existing businesses to be expanded				
Enhancement Areas	Total lifestyle proposals • SEKISUI HEIM • Renovation • Town and Community Development, Real Estate 	• Supporting work-style reform through labor-saving changes (Converting pipes to plastic, etc.) • Developing social and industrial infrastructure (Water treatment support) • Expanding overseas markets (New CPVC formulation, etc.) FFU Railway Sleeper	• High-performance interlayer films • Semiconductor components • Heat release material • Next-generation displays • Sensing • Environmentally friendly materials Sensing system for nursing care	• Point-of Care Tests (POCT) (Simple, rapid tests) • API CDMO	
	• Overseas (new market)		• Overseas expansion of infrastructure-related products		
Innovation Areas	• Renovation for non Heim owners • SPC utilization model introduction (including the renovation of an entire real estate asset) • Smart city strategy • Smart city • Digitally-enabled housing	• Sensing • Digital fabrication • Water use and recycling • Smart maintenance • Self-repairing infrastructure material • Healthcare / Life science	• Aircraft and space sector • Composite materials Transparent and flexible radio wave reflection film • Next-generation communication components • Data utilization • Health management business	• New pharmaceutical modalities • Cell cultures  • Digital health	 • Perovskite Solar Cells • Biorefinery • $CO_2 \rightarrow CO$ • Next-generation energy (hydrogen/ammonia) • Resource recycling • Sensing data utilization (algorithm analysis)
	Strengthening and differentiating manufacturing through the use of data				

Enhancement areas: Areas that are extensions of existing businesses and will be expanded on a priority basis
Innovation areas: Areas that will create new innovations through fusion of different areas

Seven key themes that we should focus on in the current medium-term plan

Risks and Opportunities

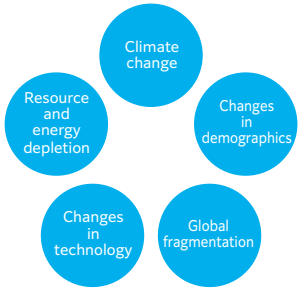
SEKISUI CHEMICAL Group believes that it is important to appropriately control enterprise risks from short-term and medium- to long-term perspectives, seize opportunities, and establish an environment conducive to taking on risk for growth.

Therefore, we have established a system in which the Board of Directors evaluates and monitors risks and opportunities from the perspective of their impacts on the business environment, strategy, and operations, based on short-term changes in the external environment and megatrends (climate change, resource and energy depletion, demographic changes, etc.), and then evaluates the impact on our business activities and throughout the entire value chain, both upstream and downstream.

Particularly serious risk items are deliberated on by the Board of Directors and the Sustainability Committee, where countermeasures are determined and incorporated into management plans and action plans.

To respond quickly to changes in the business environment and formulate and implement strategies that seize opportunities, we hold discussions and make decisions at monthly meetings of the Board of Directors and quarterly budget meetings, in an effort to review and disclose indicators in the management plan and financial conditions in a timely and appropriate manner. P.71 Risk Management

Major megatrends in the external environment



	Main content	Risks and Opportunities		Main response by the Group	
Business environment	Economy and product market trends	Risk Opportunity	● Trends in the economic environment and demand fluctuations in the areas where we do business ● Slowing growth or contraction in markets such as mobility, electronics, housing, construction, and infrastructure ● Propose products and services that meet market needs	● Globalize expansion regions ● Strengthen competitiveness by launching products of high added value ● Change portfolios to match demand and cut costs	Financial Results Briefing Materials
Business environment	Raw material price volatility and procurement	Risk	● Tight or delayed supply of raw materials and price fluctuations due to changes in the balance of supply and demand ● Risks related to stable procurement of scarce raw materials	● Diversify raw material sources, and apply measures for ongoing cost reductions ● Maintain the margin between selling and raw material prices	
Business environment	Foreign currency, interest rate, and owned asset price fluctuation	Risk	● Impact on changes of the value exchanged to yen due to the yen exchange rate fluctuations ● Impact on the amounts of interest income and interest expense due to interest rate fluctuations ● Changes in holding asset due to changes of the market and economic environment	● Periodically review internal exchange rates for foreign currency transactions (avoid deviation from actual rates) ● Transitioning businesses deployed globally to local production	
Business environment	Major earthquakes, natural disasters, etc.	Risk	● Business interruption (production stoppage due to the disaster, supply chain disruption, etc.)	● Engage in risk management and put in place the crisis management system ● Implement business continuity plans (BCPs)	
Business environment	Politics and Society	Risk	● Tariff retaliatory measures, policy changes, amendments to laws and ordinances, and social and political turmoil (War and terrorism, racism, boycotts, etc.)	● Regional headquarters track trends and gather information in each country ● Establish swift response measures	
Strategy	Partnerships, mergers and acquisitions with third parties, and R&D activities	Risk Opportunity	● Manifestation of business environment risks ● Delays in development and business launch ● Expanded business scale and manifestation of synergy	● Enhanced preliminary surveys and post-execution monitoring ● Accelerate development through internal and external technology fusion ● Effectively conduct business reviews and design reviews	
Operation	Safety and health, industrial accidents	Risk	● Fire, explosion, or hazardous substance leaks ● Incidence of major workplace accidents	● Identify risks to prevent any incidents and provide corrective guidance through regular onsite audits and emergency preparedness audits.	P.58 Safety
Operation	Products / Quality	Risk	● Incidence of serious product accidents ● Product recalls or discontinuation due to questions over safety, the environment, or statutory and regulatory compliance	● Prevent quality issues through preliminary reviews at the development stage	P.59 Quality
Operation	Compliance	Risk	● Unethical or criminal behavior ● Violations of the Monopolies Act or fraudulent transactions ● Unauthorized overwriting of data ● Bribery ● Harassment	● Build and employ a whistleblowing system for internal and external use ● Provide ongoing compliance training by theme	P.60 Legal/Ethical, Accounting
Operation	Information management	Risk	● Customer, technology, and other information leaks ● System failures and compensation for damages resulting from cyberattacks or natural disasters	● Monitor incidents constantly and systematically ● Disperse data center construction and provide complete redundancy for key business systems	P.61 Information Management
Operation	Intellectual property	Risk Opportunity	● Intellectual property disputes (infringement suits etc.), reputational damage ● Management resources that support growth and profits	● Conduct intellectual property training for employees ● Conduct timely investigations to avoid intellectual property infringement	P.49 Intellectual Property Management
Operation	Climate change and environmental issues	Risk Opportunity	● Rising energy procurement costs and reputation damage due to delays in policy and regulatory compliance ● Growing needs due to low carbon, infrastructure resilience, and water risk reduction	● Respond rapidly to policies and regulations, and advance the environmental medium-term plan towards a decarbonized society	P.23 Risks and Opportunities Based on Climate Change Scenario Analysis P.52 Environment
Operation	Human capital	Risk	● Insufficient human capital due to decreased competitiveness in recruitment and increased turnover	● Foster the culture of challenge, realizing the right people in the right places, and achieving diversity (Provide opportunities to take on challenges, such as an open recruitment system, and early development and selection of business leader candidates)	P.50 Human Capital

Risks and Opportunities

Risks and Opportunities Based on Climate Change Scenario Analysis

Recognizing that climate change will have a significant impact on management in the short to long term, and will present risks and opportunities for our businesses, we have formulated an environmental medium-term plan by backcasting from 2050. P.52 Environment

In order to understand risks and opportunities, we assume four climate change scenarios based on the 1.5°C and 4°C scenarios, and while verifying the validity of the strategy in each scenario, we have set milestones for the realization of a carbon-neutral society and have formulated strategies to accelerate our efforts. For details, please see our TCFD/TNFD Report

Four climate change scenarios based on the 1.5 °C and 4 °C scenarios

1.5℃ scenario Scenarios involving various measures taken to control climate change

Tightened carbon tax / exhaust gas regulations, accelerated resource circulation, reduced water risk, mitigated impacts on aspects of nature

Scenarios involving increased urban concentration

Scenarios involving rural decentralization

Concentrated power generation

Dispersed power generation

Electric vehicles

Internal combustion vehicles

(A) Decarbonized smart society

- Compact+networked
- High-rise housing
- ICT/transport services

Risks
- Decreased car sales due to transition to mobility services
- Accelerate conversion to renewable energy
- Decreased demand for low-rise housing

Opportunities
- Increased demand for smart infrastructure, remote control systems
- Increased demand for power generation/storage products
- Expanding needs for decarbonized products and technologies

(B) Sustainable circular society

- Local production and consumption of energy, biomass plastics
- Water circulation, including wastewater
- Mobility services, decrease in private cars
- Low-rise housing in large suburban developments

Risks
- Decreased car sales due to transition to mobility services
- Accelerate conversion to renewable energy (decentralized)
- Decreased reputation among customers and investors due to failure to decarbonize

Opportunities
- Localized power generation
- Expanded circulation of resources such as electric power, water, carbon, etc.
- Increased demand for housing with ZEH specs
- Expanding needs for decarbonized products and technologies

(D) Mass consumption society

- Competition with developing nations for fossil fuels
- Increase in land prices/high-rise housing
- Sharing services in urban areas
- Strengthening disaster resilience specifically in urban areas

Risks
- Increased raw material and energy costs due to disaster-resilient supply chain, logistics, and energy security measures
- Increased factory relocation costs in locations vulnerable to natural disasters
- Increased human cost due to increase in diseases caused by global warming
- Decreased demand for low-rise housing
- Increased manufacturing costs and raw material costs caused by deterioration of ecosystem services due to disasters

Opportunities
- Promoting resilient infrastructure and autonomous driving infrastructures
- Increased needs for energy-related products for large-scale power generation

(C) Local production and local consumption society

- Dispersed energy grids
- Economic development of emerging nations
- Strong demand for detached housing
- Development of drone technology

Risks
- Increased raw material and energy costs due to disaster-resilient supply chain, logistics, and energy security measures
- Increased factory relocation costs in locations vulnerable to natural disasters
- Increased manufacturing costs and raw material costs caused by deterioration of ecosystem services due to disasters
- Increased human cost due to increase in diseases caused by global warming
- Extensive damages due to fragmentation of infrastructure in the area

Opportunities
- Promoting resilient infrastructure and autonomous driving infrastructures
- Creation of market of new energy grids

4℃ scenario Scenarios involving preparation for higher temperatures and frequent disasters due to climate change

Frequent natural disasters, delayed resource circulation system, increased water risks, increased negative impact on nature

The Group's Major Responses (Business examples)

- Provide highly functional materials that provide additional performance to vehicles and aircrafts (S-LEC wedge-shaped interlayer film for HUD, KYDEX Sheet, CFRTP)
- Material development to promote improvement of ICT (heat dissipating materials, materials for LED and OLED)
- Standardization of ZEH specifications in the housing business and promotion of sustainable town and community development business
- More resilient water infrastructure (SPR method)
- Reinforcement of contracted manufacturing of active pharmaceutical ingredients (APIs)
- Innovation in perovskite solar cells, BR technology, CCU technology development, etc.

Output

Creation and expansion of products to enhance sustainability

P.10 Value Creation Process
P.14 Products to Enhance Sustainability

Key Issues (Materiality)

To further strengthen ESG management, which is the key to realizing the Long-term Vision, Vision 2030, SEKISUI CHEMICAL Group is promoting measures centered on innovation, human capital, the environment, DX, and internal control. In terms of the expansion of the Sekisui Sustainable Spread, which is closely watched from the perspective of improving corporate value, the creation of Products to Enhance Sustainability, especially within the profitable Premium Framework, is effective in improving ROIC over the medium to long term, while also helping to control financial and non-financial capital costs, leading to reduced risk. We believe that if each employee is aware that his or her work contributes to improving ROIC and reducing the cost of capital, this will ultimately lead to an increase in our corporate value and enhance our management ability to sustain business.

Identification Process

Step 1 : Extracting Issues

In line with the Corporate Philosophy System, extract issues based on social demands, including global guidelines such as the UN Global Compact, and feedback from customers, shareholders, and investors, as well as on other companies' trends.

Step 2 : Identification of Riks and Opportunities

The Group-wide Risk Review Subcommittee identifies events that could be risks or opportunities from the three perspectives of impact, likelihood of occurrence, and spillover effects in the value chain.

Step 3 : Identifying Key Issues

Prioritize issues along two axes: A. Importance to stakeholders and B. Importance to management. The former utilizes the SEKISUI Environment Sustainability Index P.52, and considers the positive and negative impacts on communities and society. The latter utilizes the ROIC Spread, and estimates the degree of financial impact in the future. Key issues are then identified following deliberation by the Sustainability Committee. P.69

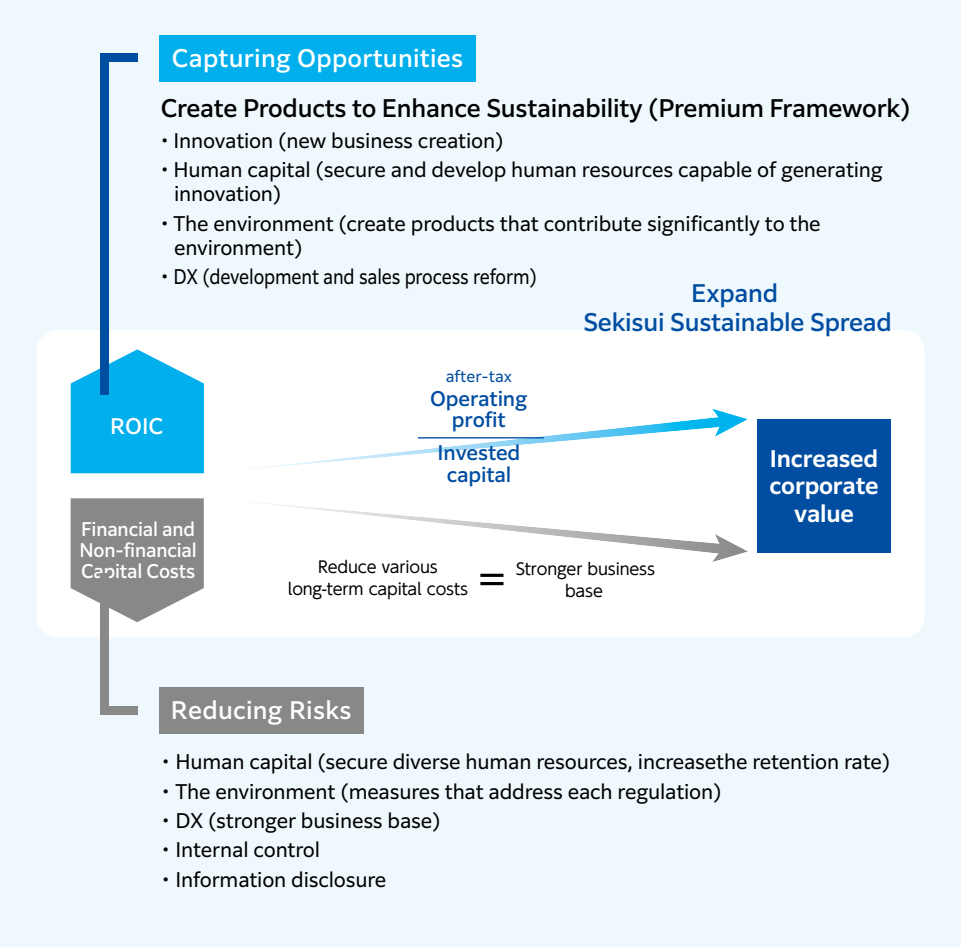
Step 4 :Approval of Key Issues

Key issues deliberated by the Sustainability Committee are ultimately authorized by the Board of Directors. In addition, we will consider the necessity of changing these key issues every year taking into account changes in SEKISUI CHEMICAL Group's situation, social conditions, and other factors.

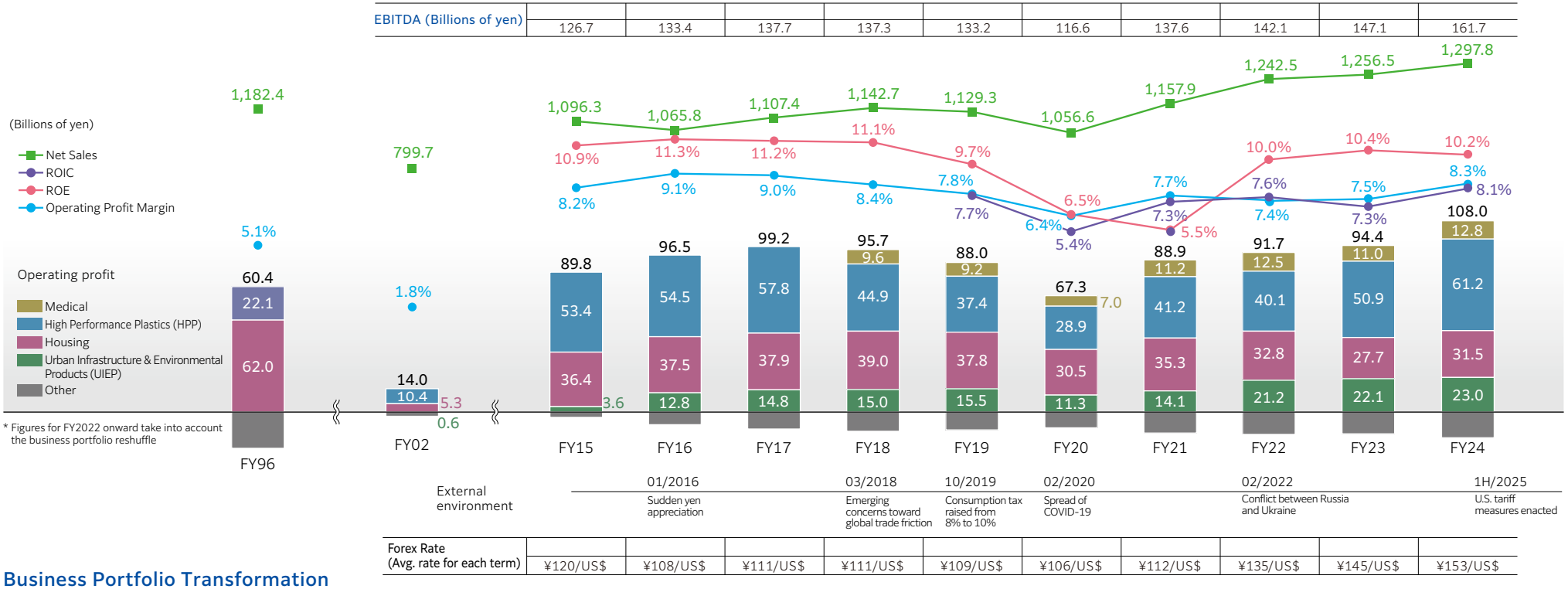
Innovation | Human Capital | Environment | DX | Internal control

P.40 KPIs for Key Issues (Materiality)

Relationship between Key Issues (Materiality) and the Enhancement of Corporate Value

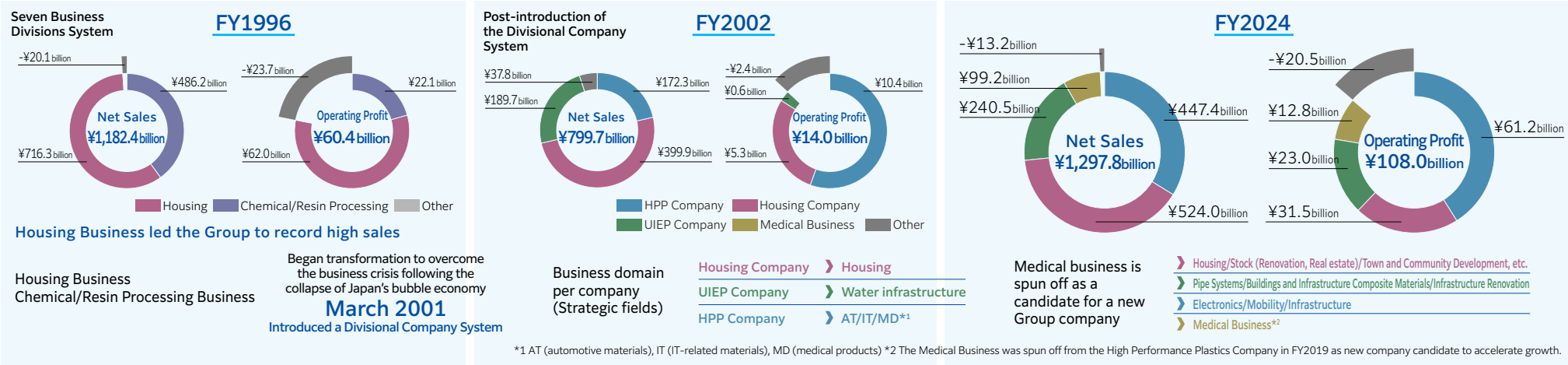


Performance Trends and History of Changes in Business Portfolio



	FY96	FY02	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
EBITDA (Billions of yen)	126.7	133.4	137.7	137.3	133.2	116.6	137.6	142.1	147.1	161.7		
Forex Rate (Avg. rate for each term)	¥120/US$	¥108/US$	¥111/US$	¥111/US$	¥109/US$	¥106/US$	¥112/US$	¥135/US$	¥145/US$	¥153/US$		

Business Portfolio Transformation



We have worked to transform our business portfolio to achieve growth while anticipating and identifying changes in society and business.
We took steps to reorganize our business portfolio in October 2022 owing to the increasingly overlapping nature of certain aspects of the HPP and UIEP companies due to the expansion of business domains in recent years.
Through reorganization, we are working to more efficiently engage in operations and utilize assets by further expanding its business and improving productivity.

Review of the Medium-term Management Plan and its Global Extension

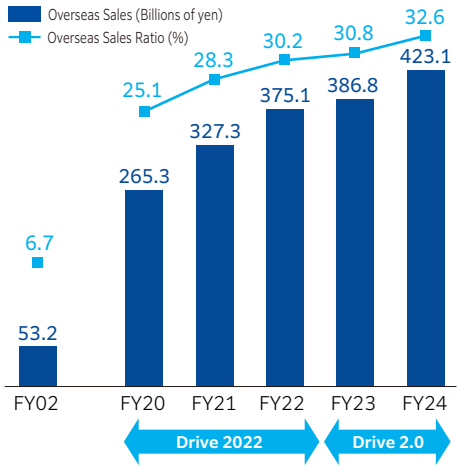
	SHINKA!-Advance 2016 FY2014-2016		Drive 2.0 FY2023-2025
Measures and Results	By specializing in strategic businesses and products and implementing structural reforms we were able to achieve growth in profit. We pioneered new markets and new fields through internal and external alliances. Over the period we commenced penetration of CSR management, initiated efforts to enhance governance, and established the Nomination and Remuneration Advisory Committee, etc.	Fusion accelerated over the period during which we targeted a balance between quantitative and qualitative growth. We made aggressive Investments to achieve growth, and net sales attributable to M&As rose. Strengthening ESG initiatives aimed at building a sustainable business base, we continuously earned high evaluations from GLOBAL100 and others.	Net sales, net income, and EBITDA all hit record highs on the back of structural reforms and thoroughgoing efforts to improve selling prices aimed at strengthening profitability. Took steps to introduce and instill ROIC management within the Group.
Challenges	• Return to sales growth • Commercialization and building of frontier domains • CSR management rollout and further penetration among employees	• Delays in securing returns on growth investments • The speed of structural reform • Strengthening ESG management	• Stagnant growth investments • Carry over of business contributions through the use of M&As • Target for the human resource KPI, Employee Challenge Action Rate, not achieved
Strategic Investments, Equity Investments and M&A, Structural Reforms (key examples)	**Strategic Investment (Capex)** June 2015 Operations commenced at a CPVC plant in Thailand **Equity Investment, M&A** December 2015 Acquired EIDIA Co., Ltd. **Structural reforms** December 2015 Transferred shares in two subsidiaries in the pipe renewal business in Europe March 2017 Transferred shares partially in Sekisui KNT (Hebei) Environmental Technology Co., Ltd. in the water infrastructure business in China	**Strategic Investment (Capex)** December 2017 Operations commenced at a new interlayer film production line in Mexico April 2018 Operations commenced at a new automotive exterior parts plant in Japan 2018-2019 Operations commenced at new foam plants in Thailand and China **Equity Investment, M&A** August 2017 Acquired management rights to Polymatech Japan Co., Ltd. October 2017 Capital investment in Tien Phong Plastic JSC December 2017 Acquired SoflanWiz Co., Ltd. December 2018 Acquired Veredus Laboratories Pte. Ltd. November 2019 Acquired AIM Aerospace, Inc. **Structural reforms** April 2018 Reorganized production subsidiaries managed by the Urban Infrastructure & Environmental Products Company (Kanto - Tohoku) April 2019 Reorganized production subsidiaries managed by the Urban Infrastructure & Environmental Products Company (West Japan)	**Strategic Investment (Capex)** August 2020 Decided to increase pharmaceutical raw material production in Japan and the U.K. October 2020 Operations commenced in earnest at a new interlayer film production line in Europe October 2020 Operations commenced at a new plant for heat release materials in Europe April 2022 Biorefinery demonstration plant completed **Equity Investment, M&A** November 2022 Further invested in Tochigi Sekisui Heim Co., Ltd. (now a wholly owned subsidiary) **Structural reforms** April 2020 Reorganized Housing production companies July-September 2020 Transferred the agri and food container molding product businesses of Sekisui Hinomaru Co., Ltd. September 2022 Transferred shares in subsidiary XenoTech, LLC in the drug development solutions business	**Strategic Investment (Capex)** November 2023 Operations commenced at a new plant for sleepers for railroads in the Netherlands November 2023 Operations commenced at a new plant for foam materials in the U.S. July 2024 Decided to add a new interlayer film production line in Thailand October 2024 Decided to increase production of conductive fine particles at the Taga Plant November 2024 Decided to increase production at the CPVC resin plant in Thailand December 2024 Decided to mass produce perovskite solar cells **Equity Investment, M&A** November 2023 Acquired the PVC pipe materials business from Shin-Etsu Polymer Co., Ltd. December 2024 Acquired housing renovation company CREAST Inc. April 2025 Acquired the thermal conductive sheet-related assets of Dexerials Corporation **Structural reforms** December 2024 Transferred shares in two subsidiaries in the elderly business

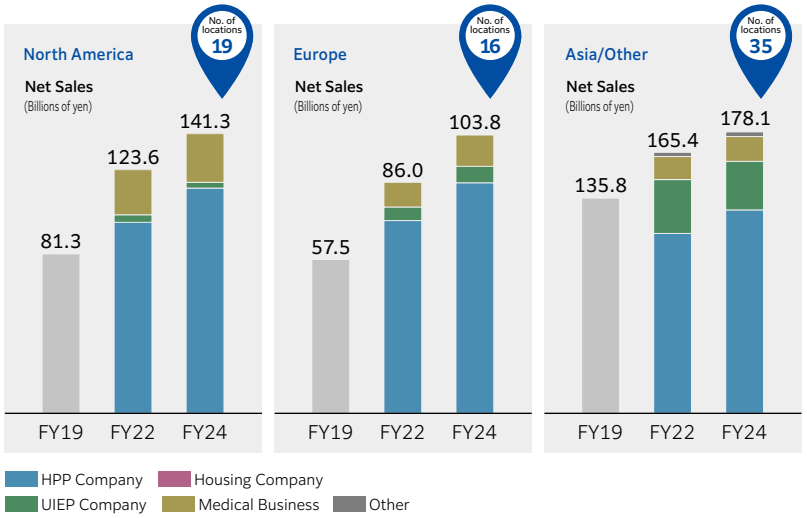
*The color highlights used in the "Strategic Investment (Capex)" and "Equity Investment, M&A" areas of the table refer to business quadrants outlined in Drive 2022 and Drive 2.0. Growth-driving | Growth potential | Revenue base | Underlines indicate frontier domains

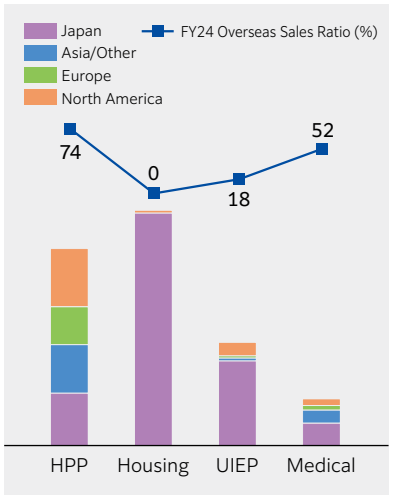
Global Expansion

SEKISUI CHEMICAL Group has aggressively taken on the challenge of expanding overseas, utilizing M&A and strategic investments. Overseas sales have expanded significantly since 2002, especially in the High Performance Plastics Company. Working toward our Vision 2030 long-term vision, we will accelerate frontier exploration without slowing down the pace of growth, and further expand our scale to 1 trillion yen, more than double the current level.

Overseas Sales/Overseas Sales Ratio



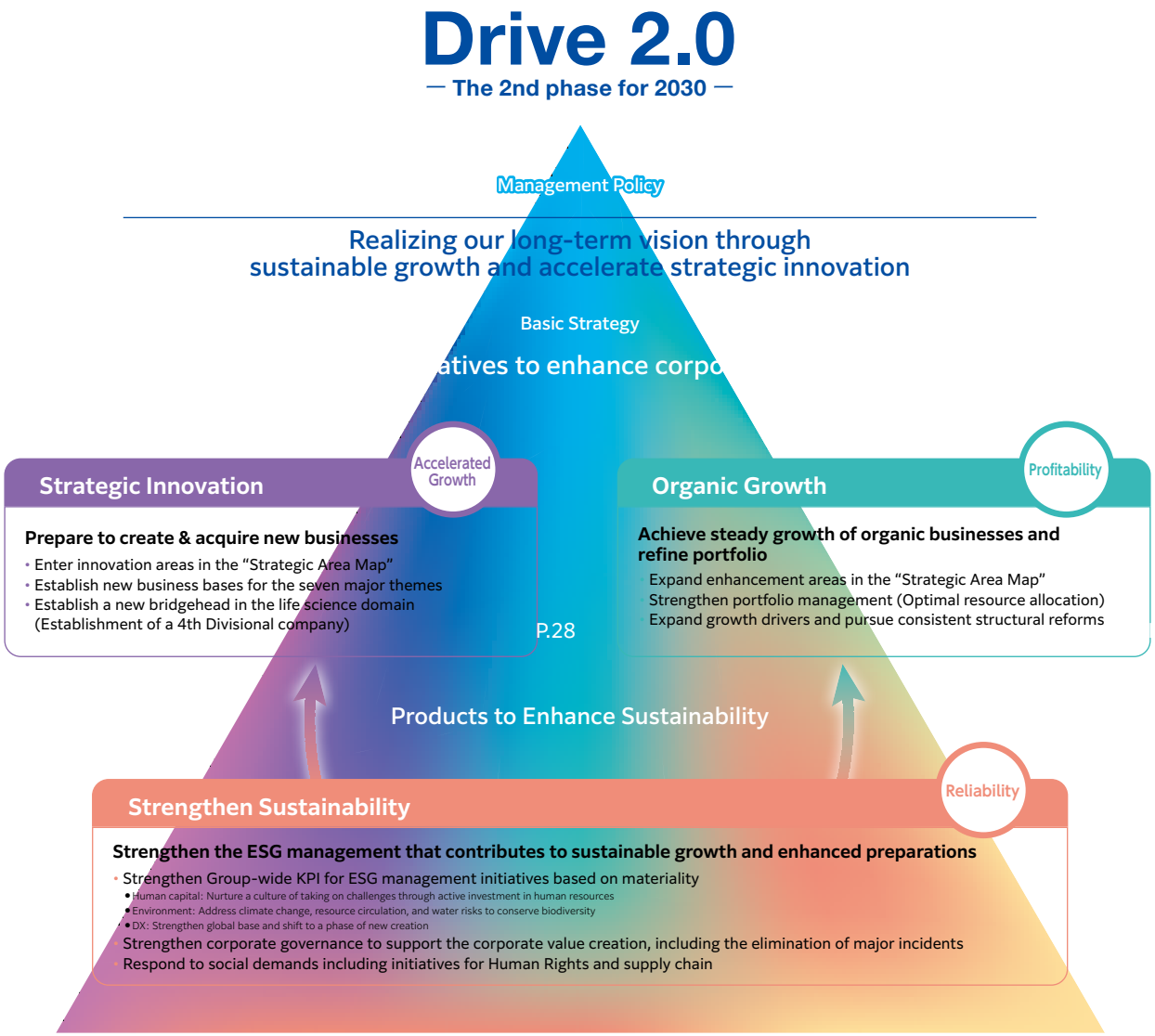




Medium-term Management Plan, Drive 2.0 (FY2023-2025)

Basic Strategies

Amid an uncertain business environment, including trends in the prices of raw materials and fuels as well as fluctuations in foreign currency exchange rates, SEKISUI CHEMICAL Group launched the Drive 2.0 Medium-term Management Plan in a bid to make a further leap forward, drawing on the earning power built up under the Drive 2022 Medium-term Management Plan. Our policy is to realize our Long-term Vision through sustainable growth and by enhancing preparations. We aim to increase our corporate value through three strategies: Strategic Innovation, Organic Growth, and Strengthening Sustainability.



FY2025 SEKISUI CHEMICAL Group's target values

Data in parentheses are compared with FY2022.

Net sales	• ¥1,410.0 billion (+¥167.5 billion)
Operating profit	• ¥115.0 billion (+¥23.3 billion)
Operating profit margin	• 8.2% (+0.8%)
Net income	• ¥82.0 billion (+¥12.7 billion)
ROIC	• 8.5% (+0.9%)
ROE	• 11.0% (+1.0%)
Overseas sales	• ¥480.0 billion (+¥104.9 billion)
EBITDA	• ¥175.0 billion (+¥32.9 billion)
Sales of Products to Enhance Sustainability	• Over 1 trillion yen (+¥100.0 billion or more)
Employee Challenge Action Rate	• 60% (+13%)

Medium-term Management Plan, Drive 2.0 (FY2023-2025)

Basic Strategy 1: Strategic Innovation—Accelerated Growth

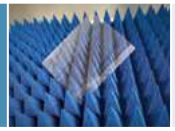
Aiming to expand into innovative areas, the Company emphasizes strategic preparation.

Seven major themes have been established to accelerate progression to the commercialization phase through internal and external collaboration, M&A and other mergers, based on core technologies. In addition, we are also pioneering the "Innovation Areas" defined in the Strategic Area Map on. P.21

We aim to expand our area and contribute to business performance by quickly establishing a business foundation to realize our long-term vision.

Innovative Mobility | Residential | Advanced Lifeline | Life Science | Innovation areas

Begin realizing benefits | Realize benefits in earnest

Growth-potential businesses	Key themes		Investment benefit realization schedule (2024 / 2025 / 2026 –)
Entry into aeronautical fields	• Development of new applications • Entry into the air mobility market	Molding technology	FY2025 business scale: From ¥19.0 billion
Next-generation communication components 	• Collaboration with telecommunications companies • Development of radio wave environment business	Film processing technology	FY2025 business scale: From ¥1.0 billion
Smart city strategy	• Fusion of town and community development as well as AI digital technologies	Advanced housing, town and community development	FY2025 business scale: From ¥25.0 billion
Overseas development of infrastructure materials	• Strengthening of overseas marketing	Infrastructure materials	FY2025 business scale: From ¥10.0 billion
New area of pharmaceutical CDMO	• Conversion of base CMO business to CDMO with new modality support	Synthesis of low molecular compounds, microbial cultivation	Consider expansion through M&As
Perovskite solar cells	• Development of 1-m width production technology • Promotion of demonstration through external collaboration	Sealing, deposition, processing technology, etc.	FY2028 business scale: From ¥25.0 billion
Biorefinery	• Promotion of demonstration through external collaboration • Establishment of resource circulation model	Microbial catalyst technology	Commercialization from FY2030

TOPIC Perovskite Solar Cell Business

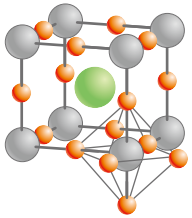
Film-type Perovskite Solar Cells

Next-generation solar cells, which are said to be the key to realizing a decarbonized society, use semiconductors with a perovskite crystal structure as the material for power generation. Unlike conventional silicon solar cells, these cells can be manufactured by applying the material to a film as if it were printed. They have the potential to spread to urban areas where installation sites are limited, and are expected to contribute to the spread of renewable energy and the realization of carbon neutrality. The manufacturing process utilizes our proprietary technologies in sealing, process, materials, and film formation. For sealing resin, we have patented the optimal composition of our proprietary material specifically designed for perovskite. P.47 To this point, we have conducted accelerated tests in accordance with standards for solar cell reliability, and confirmed durability equivalent to 10 years of outdoor exposure. Perovskite solar cells are ultra-lightweight and flexible, allowing them to be installed on the walls of buildings and other structures, as well as on roofs with weight constraints.

On December 25, 2024, SEKISUI CHEMICAL was selected for the GX Supply Chain Construction Support Project by the Ministry of Economy, Trade and Industry. The Company will play a central role in realizing the government's goal of quickly establishing a gigawatt (GW) level supply system by 2030, and announced a capital investment with the aim of starting operation of a 100 MW manufacturing line in 2027.

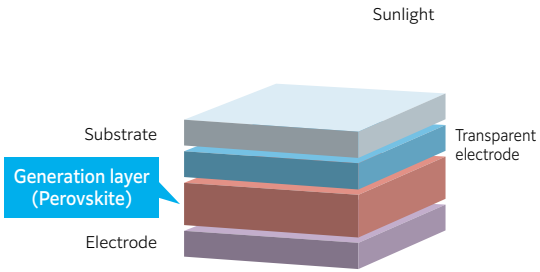
What Are Perovskite Solar Cells?

A type of solar cell that employs a crystalline structure called perovskite



Perovskite Crystalline Structure (General Formule: ABX_3)

- A = Methylamine ($CH_3NH_3^+$), etc.
- B = Load (Pb^{2+}), etc.
- X = Iodine (I^-), etc.



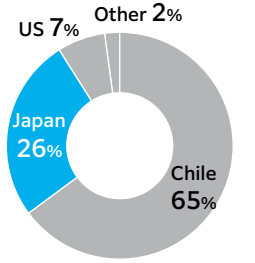
Perovskite Solar Cell Features and Merits

- ☑ Principal material, iodine, procured domestically
- ☑ Lightweight and flexible
- ☑ Power generation efficiency equivalent to that of silicon solar cells

Reference: What is iodine?

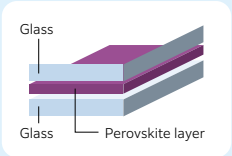
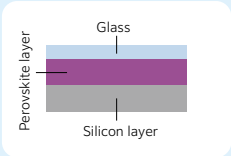
Iodine: Halogen element with an atomic number of 53
Principal application: X-ray contrast media, sterilizing and antifungal agent, etc.

International Share of Iodine Production



Company estimate

Types of perovskite solar cells

			
	Film-type	Glass-type	Tandem-type
Structure	Generation layer coated on a film	Generation layer sandwiched between glass	Stacked on silicon solar cells
Features	Lightweight, thin, and bendable	Easy to ensure durability	Easy to increase power generation efficiency
Intended application	Building walls and roofs with low load-bearing capacity	Window glass and balconies	Replacement for existing silicon solar cells

	Perovskite Solar Cell (Film-type)	Silicon solar cell
Weight	Lightweight 1.0-1.5kg/㎡	10-15kg/㎡
Thickness	Thin 1-3mm	10-22mm
Flexibility	Positive Curvature radius 15cm	Negative
Principal material	Iodine (Japan's global market share: 26%)	Silicon (China's global market share: 97%)
Power generation efficiency	15-20%	14-20%
Durability	10 years	20-30 years (Statutory durabiliby period 17 years)

Specific Target Domain

The roofs of school gymnasiums

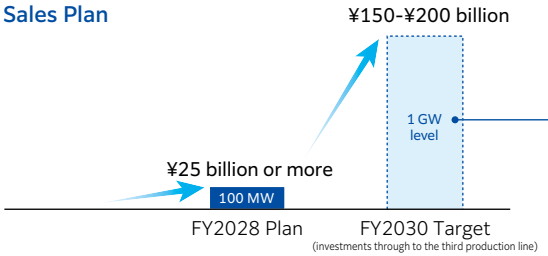
The roofs of school gymnasiums have low load-bearing capacity, making it difficult to install existing silicon solar cells, but the lightweight film-type will expand the possibilities for installation. If electricity can be generated on-site and stored in batteries in gymnasiums that serve as evacuation centers during disasters, it will be possible to use electricity during the nighttime, thereby contributing to comfort during times of evacuation.

TOPIC Perovskite Solar Cell Business

Toward Commercialization –Schedule–

- Newly establish a 100 MW production line (annual power consumption of approximately 31,000 households); scheduled to commence operations in 2027
- Total investment: ¥90 billion (production line no. 1)
- Consider expansion with the addition of a second and third production line for a production capacity of at least 1 GW by 2030
- Expectations are to become profitable when the 100 MW production line comes fully online in FY2028
- The aim is for an approximately 10% operating profit margin once reaching 1 GW of production

Sales Plan



Content of adopted GX Supply Chain Construction Support Project

- Subsidies: Building, etc. acquisition costs, facilities costs, system purchase costs
- Subsidy Rate:1/2
- Subsidized expenses: ¥314.5 billion
- Total amount of subsidies: ¥157.25 billion

(FY)		-2023	2024	2025	2026	2027	2028	2029	2030-
100 MW production line no. 1	Investment amount ¥90 billion			Start of construction	Equipment installation and trial production		Production		
100 MW second production line concept	Investment amount ¥43 billion or more			Investment decision based on demand trends	Start of construction	Equipment installation and trial production	Production		
600-800 MW third production line concept	Investment amount ¥180 billion or more			Investment decision based on production line no. 1 (100 MW) results		Start of construction	Equipment installation and trial production	Production	

Comments from an Outside Director regarding this investment

Yoshihiko Hatanaka
Outside Director

The Board of Directors recognizes that this investment is an extremely important project because of its impact in solving social issues, and its affinity with the Company's vision, technology, and capabilities. At the same time, the Board is also fully aware that there are multiple issues that need to be addressed before deployment in society, including technical issues such as power generation efficiency and service life, as well as positioning versus competitors, improving production efficiency, cost competitiveness, plus SEKISUI CHEMICAL's investment capacity and ability to raise funds.

However, at this stage, we believe that all of these issues can be resolved or managed, and we have decided that not pursuing this investment would entail the risk of loss to society and loss or slowdown of the Company's growth opportunities. Furthermore, if this business grows steadily, it has the potential to significantly change the Company's business foundation, and the Board of Directors supports it with expectations that the Company will evolve into a new phase.

Conducting a demonstration experiment

Osaka Kansai Expo Bus Terminal

Installation on a wind turbine tower

TOPIC Perovskite Solar Cell Business

Film-type perovskite solar cells are attracting attention in both Japan and overseas. We interviewed two employees endeavoring to leverage this technology to contribute to tackling global issues, such as expanding the use of renewable energy and achieving carbon neutrality. The pair are specialists in energy system design technology, P.47 and discuss the challenges and prospects for the commercialization of these solar cells.

How long have you been involved in R&D related to perovskite solar cells?

Hayakawa: Since around 2012, I was exploring potential new themes for research, and my attention gravitated to flexible solar cells. At that time, the market for solar cells was rapidly expanding, but it was predicted that after a decade, there would be fewer locations left to install them, causing the market to become saturated and start shrinking. Yet conventional solar cells use silicon wafers, which break easily and need to be sandwiched with glass, so I embarked on the development of flexible solar cells using new materials.

Originally, I was doing research on adhesives, so I had some knowledge of sealing technologies involving resins, and I thought that the problem of durability, which is an issue with perovskite, could be solved with our sealing technologies. So from around 2014, I narrowed down my focus to the development of perovskite solar cells. I gathered all the resins we had in the lab, and tested hundreds of resin formulations, rigorously examining each of them. Some were durable, and some weren't. Some were compatible with perovskite, and some weren't. But I investigated them all.

Bessho: I'd been doing research on dye-sensitized solar cells at another company, but ultimately, it didn't lead to a commercial product. I liked working on solar cells, so I felt frustrated. But in 2015, Hiroshi Segawa, a professor at the University of Tokyo who was conducting research on dye-sensitized solar cells, launched a NEDO project for perovskite, and offered me a special appointment as a lecturer, asking me to help drive the research so that the goals of the project could be met. That's how I got into development work involving perovskite. A consortium was put together, and one of the members was SEKISUI CHEMICAL. I joined the Company in 2023 and I've been working in development here ever since.

What do you think about the Company's R&D structure?

Hayakawa: We get a lot of support. The structure is such that as soon as enough analysis has been conducted and sufficient preparations have been made, things move fast. It reminds me of the meaning of the word *sekisui* [pent-up water] in the Company's name. There's also candidness between superiors and subordinates. I basically never feel like I can't say no to someone above me.

Bessho: It's definitely a candid atmosphere. When I say, "How about doing this?" to someone working under me, they'll often say, "I don't think that would work."

What issues do you still need to tackle to get to commercialization and mass production? What's the current development status?

Bessho: We have a power generation efficiency target of 20%, an area where I can use the insights I've gained recently from working on efficiency improvement at the University of Tokyo. As a result, I think I've more or less identified the basic requirements we'll need to meet. And going back further, ever since I was working on dye-sensitized solar cells at that other company, my primary focus has been on boosting power generation efficiency, and our success will hinge on whether I can apply the knowledge I've acquired so far to perovskite solar cells. It's not going to be easy, but I'm confident we can get there.

Another goal we have is 20-year durability. Right now, there's no perovskite solar cell in the world with guaranteed durability. And previous research doesn't provide us with any knowledge or experience of extending durability. With no knowledge elsewhere, we have no alternative but to look for it ourselves. We must accumulate knowledge through experiments and come up with the most advanced technology before anyone else in the world. It's the golden rule for R&D, so we have to focus single-mindedly on the most difficult areas. Doing so is challenging, but we absolutely must succeed. We can't allow ourselves to lose. I think overseas players are going to be hot on our heels, so we need to get to the finish line before they show up.

Hayakawa: At the moment, there still aren't any established criteria for assessing the durability of perovskite solar cells. Different companies perform measurements based on their own rules. So in addition to working to get durability

Development Status

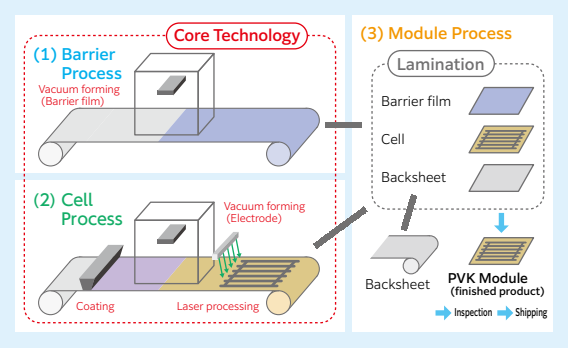
- Power generation efficiency: Reached 15% → Aiming for 20%
- Durability performance: Reached the equivalent of 10 years → Aiming for 20-year durability to equal silicon-type PV
- Manufacturing process: Developing technology to increase the width of rolls that can be handled from 30 cm to 1 m
  Development at 4 domestic sites as of December 31, 2024
- Issues: 1. Production yield improvement
  2. Development of installation and construction methods to take advantage of light weight and flexibility

TOPIC Perovskite Solar Cell Business | Interview with Employees

up to 20 years, we're also taking the lead in harmonizing assessment criteria as we move toward commercialization. And beyond that, to achieve market penetration, indemnification is necessary for when the product doesn't perform as expected, so another important task will be obtaining insurance to cover that.

How are you getting on with increasing the width of the manufactured modules?

Hayakawa: We're currently at 30 cm, but it's crucial that we widen that to 1 m. And we're on track to get there. The Company's commitment to roll-to-roll (R2R) fabrication gives us great potential to achieve low production costs and high yields. Ever since we started our research, we've only considered R2R production. The coating technologies used for sheet type and R2R are very different. With sheet type, controlling the beginning and end of the coating process is incredibly difficult technically, but with R2R, you only need to cut the leading and trailing edges, so the technology doesn't need to be as sophisticated as it is for sheet type.



In the case of conventional silicon solar cells, Japanese manufacturers were hit hard by the emergence of foreign competitors who could produce at lower costs. So with perovskite solar cells, how do you plan to take on overseas manufacturers?

Bessho: The business model we're aiming for requires us to surmount some tough technical hurdles, and we're the first in the world to attempt this, so I think it'll take a while for other companies to catch up with us. If we can shake off other firms by further accelerating our R&D, and use that breathing space to build a patent network, I believe that this will serve as a barrier to entry. To maintain and further extend our current lead, we're going to need tactics for getting support from the national government for the development of perovskite solar cells, and also for hiring top-flight talent and retaining them for the long term. Until the day comes when perovskite solar cells become obsolete, we need to keep doing things that will buy us time, in order to ensure the Company's survival. Specifically, we must keep asking ourselves how we can contribute to the world and what exactly we need to do to deliver that contribution, and turn our answers to those questions into valuable strategies.

Since 2022 you've been focusing on verification tests. How have the results been and what challenges have you faced?

Hayakawa: The biggest achievement is that we've been able to show the world that we're not only conducting research but also making progress with demonstrating that the technology can be deployed in society. As a result, in December 2024 we were selected to receive a grant from the Ministry of Economy, Trade and Industry as part of its GX Supply Chain Development Support Project. On the other hand, we've also discovered a number of issues related to construction. We're working with contractors to find the optimal installation method for each type of location, such as the roofs and walls of buildings.

What do you think makes the development of perovskite solar cells a worthwhile endeavor for the Company?

Hayakawa: Perovskite solar cells bring together many of the technologies and insights the Company has accumulated over the years, and their development has been a joint effort by three of the divisional companies. The knowledge possessed by the High Performance Plastics Company has been useful in the development of materials and R2R process technologies. And for structural calculations for installation and construction, we've utilized insights from the Housing Company based on its experience in handling silicon solar cells, and also knowledge acquired by the Urban Infrastructure & Environmental Products Company through its development of building materials. The marketing skills of the Urban Infrastructure & Environmental Products Company have also been helpful in our approaches to ministries and local governments. I believe that these synergies are the reason we're working on perovskite solar cells, and that they're also expected of us.

Bessho: I came in from the outside after working for another firm, and my image of SEKISUI CHEMICAL was of a company that's good at processing plastics and organic materials. I didn't really view it as a device maker. In that sense, I think we might be able to serve as a model of a company that specializes in producing materials but has gone on to manufacture electronic devices, and even as a model for triggering a transformation of the structure of industry. What gave rise to film-type perovskite solar cells was people with various types of knowledge bringing that knowledge together. So you could say that this would only have been possible at SEKISUI CHEMICAL.

What challenge do you want to take on next?

Hayakawa/Bessho: Make sure we turn it into a commercial product. There's nothing more important than that. As time passes, information might suddenly come in that requires us to change course or make a big decision. But even if that happens, we must not have biases and accept it at face value. It's vital that we leverage the technologies we have diligently developed to continue to solve problems. We want to contribute to the business by delivering results.

Medium-term Management Plan, Drive 2.0 (FY2023-2025)

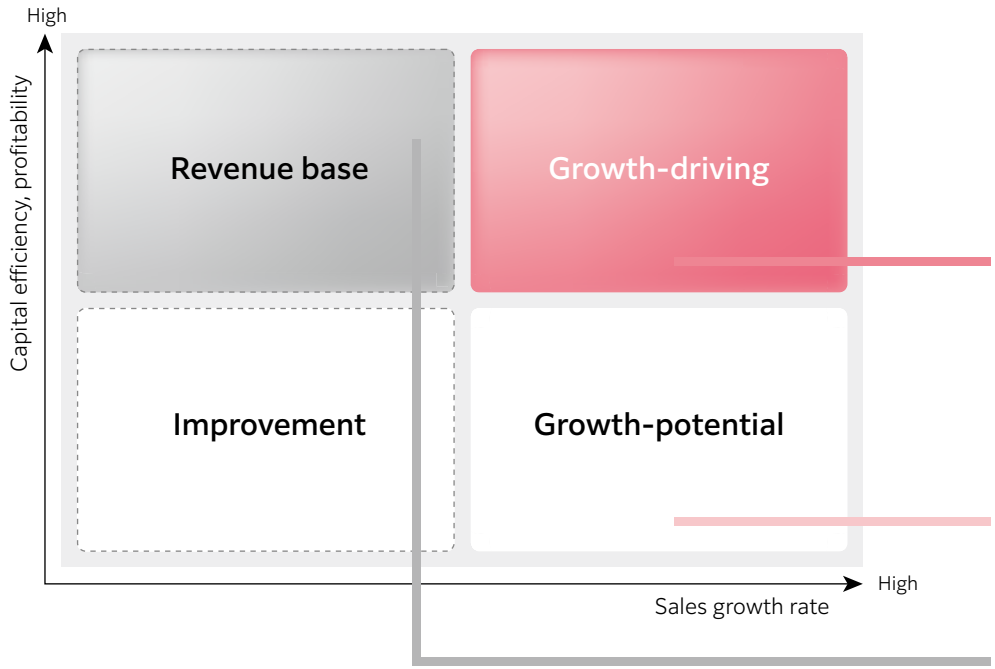
Basic Strategy 2: Organic Growth—Capital Efficiency

Under the Drive 2.0 Medium-term Management Plan, every effort will be made to further strengthen business portfolio management.

Taking steps to classify all 33 businesses into four quadrants, including growth-driving and growth-potential businesses, while clarifying roles on a strategic basis to ensure steady profit growth. Cash gained through our revenue base will be directed toward allocating resources with a priority on growth areas.

The aim is to generate over 90% of the increase in profits (EBITDA) from these growth-driving and growth-potential businesses by FY2025.

New portfolio management: Clarify the role of each business unit



Excluding the housing business (revenue base), which aims to generate stable cash, about 70% of the sales in the Products to Enhance Sustainability Premium Framework consist of products from businesses positioned as "growth driving" or "growth potential." Under our Medium-term Management Plan, we will allocate more than 60% of our capital investment quota to "growth-driving" and "growth-potential" businesses, and increase the absolute volume of the Products to Enhance Sustainability Premium Framework product lineup.

1. Analyze and evaluate existing businesses from multiple perspectives

- Profitability (OPI margin), capital efficiency (ROIC), growth potential (sales growth rate)
- Strategic positioning, position in the industry, future prospects, and competitiveness from an ESG perspective

2. Clarify the role of each business→Appropriately allocate management resources

- Focused allocation of at least 60% of our capital to growth-driving and growth-potential businesses

Portfolio	Business Segment			
	High Performance Plastics Company	Medical Business	Urban Infrastructure & Environmental Products Company	Housing Company
Growth-driving businesses	Mobility (high-performance interlayer film, heat release materials, etc.) Electronics (semiconductor and display materials)	Over seas Diagnostics	Pipe renewal Fire resistant and nonflammable materials Construction and industrial piping Performance materials (railroad sleepers, etc.)	
Growth-potential businesses	Molding products, sensing	Pharmaceutical Sciences		Residential
Revenue base (Example)			Piping business	Housing business Renovation business
Improvement				

Achieve more than 90% of incremental profit (EBITDA) from growth-driving and growth-potential businesses

Medium-term Management Plan, Drive 2.0 (FY2023-2025)

Mainstay Business Strategy: Mobility Field

There are clear indications of a growth trajectory in the context of the expansion of the electrification of automobiles and automated driving.

In our mainstay interlayer film business, we are working to improve profitability by shifting to high-value-added products such as wedge-shape films for head-up displays (HUDs), heat insulation films and colored/designed films, while further increasing added value by combining interlayer film functions such as heat and sound insulation.

HUD-use, colored/designed interlayer films

The Head-Up Displays (HUDs) display appropriate information on the car's windshield according to the driving situation, allowing the driver to drive without dropping his or her gaze, thereby contributing to driver safety. In addition, demand has been growing in recent years for colored films for panorama roofs and design films for rear glass, with the spread of electric vehicles. These films not only block light but also cut UV rays, and the use of sound insulation grades that improve cabin quietness and heat insulation grades that absorb near-infrared rays also help with help prevent higher cabin temperatures.

Heat release materials

Heat-dissipating grease with low wear and low outgassing. With the increase in the cruising range of EVs and the spread of quick charging, there is a growing need for thermal countermeasures for electrical components such as junction boxes, inverters, and bus bars. In FY2023, we established a new production site in the U.S.

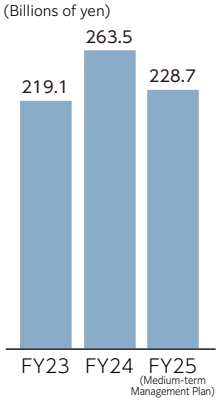
Aircraft components

In addition to carbon fiber reinforced plastic (CFRP), we produce molded composite materials such as sheets for aircraft, which are flame-retardant, impact-resistant, and have excellent design characteristics. They contribute to weight reduction in aircraft materials and fuel efficiency in transportation equipment. Along with improving the product mix, such as by increasing the ratio of high-value-added engine components, the Company is employing existing technologies to expand deployment of these products to non-aircraft related sectors, including drones and the medical field. SEKISUI AEROSPACE CORPORATION, acquired in FY2019, returned to profitability in the second half of FY2024. We expect it to contribute to earnings in FY2025.

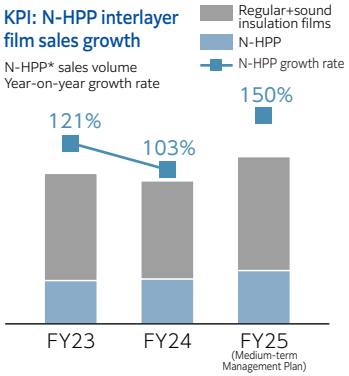
Business Strategies

- **Interlayer film**
  Increase the ratio of N-HPP films (HUD-use / thermal- / and design-related)
  HUD-use film growth* of 130% (FY2022→FY2025) * On a sales volume basis
- **Heat release materials**
  Accelerate EV-related sales growth mainly in Europe and the U.S. Heat release materials net sales growth of 200% (FY2022→FY2025)
- **SEKISUI AEROSPACE CORPORATION**
  Expand the lineup of engine components and deploy products to non-aircraft sectors (drones, medical field)

Mobility Field Net Sales



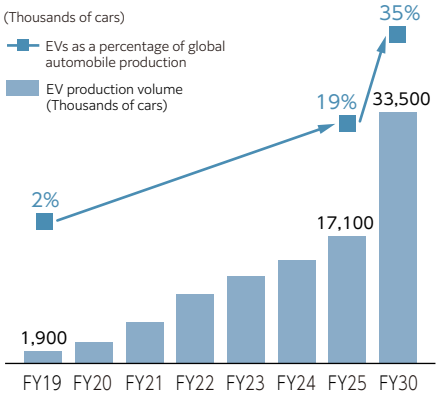
KPI: N-HPP interlayer film sales growth



* N-HPP: New high-performance products; A generic term for all other HUD, heat insulation, and colored/designed film, excluding sound insulation film from conventional high-performance interlayer film

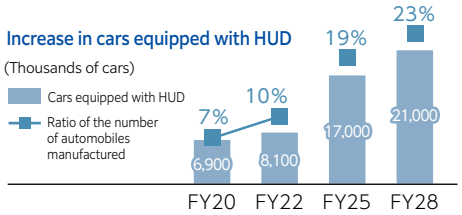
* FY23/FY24 figures are YoY changes; FY25 is compared with FY22

Trends in EV Production Volume



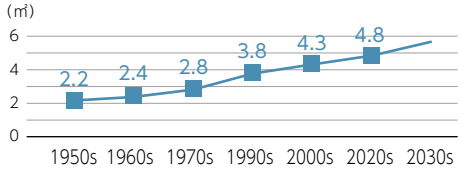
* Our investigation

Increase in cars equipped with HUD



* Our investigation

Glass Area per Car



* Our investigation

Medium-term Management Plan, Drive 2.0 (FY2023-2025)

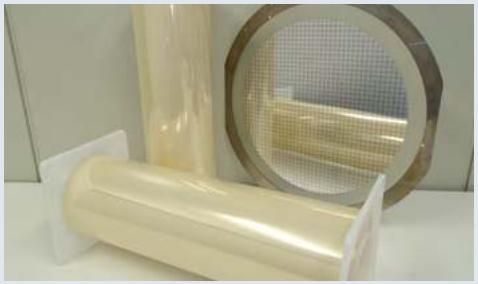
Mainstay Business Strategy: Electronics Field

With the upswing in global semiconductor demand, the Electronics field is also performing well, especially for semiconductor-related products.

In particular, we are seeing a steady increase in the application of heat resistant Selfa®, a processing material that addresses the further miniaturization of semiconductors, and Build-up dielectric film (BUF) that boasts high transmission performance (low dielectric properties)—required for multi-layered CPUs—as well as strengths in suppressing substrate warpage.

In addition, we are aiming for further growth and the strengthening of our portfolio through the development of new products and entry into the market for next-generation displays that make use of the knowledge we have cultivated in the development and sale of liquid crystal products.

Heat resistant Selfa® (semiconductor processing material)

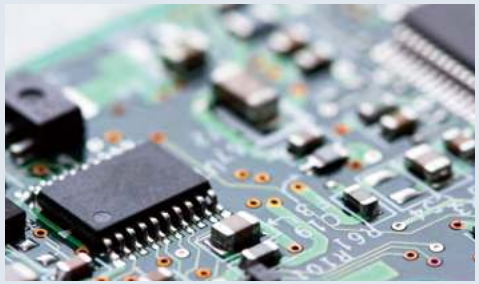


The Company's UV release tapes balance strong adhesion with an easy peel-off capability. Exposure to UV generates gas between the tape and the adherend, which cancels out the tape's adhesiveness and enables it to be peeled off easily. These tapes have 300°C heat resistance and can be used with hybrid bonding. With demand expected to continue to grow, the Company has decided to increase production capacity and plans to bring the new capacity online in the first half of FY2027.

Build-up dielectric film (BUF)

With strengths including superior transmission performance and warpage suppression, BU dielectric films have a track record for use in the multi-layer, large-area high-end IC package substrates that require these features.

Binder resins for electronic components (for MLCCs)

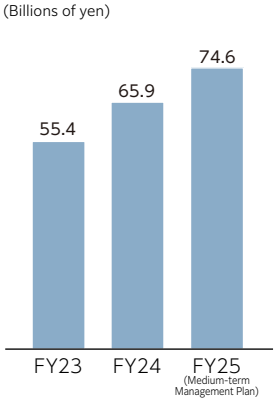


Based on the technical capabilities acquired through binders for interlayer films as the primary application for PVB, the Company's product design capabilities and technical service capabilities have received a highly positive response. To meet increasing demand, we decided to increase our production capacity of polyvinyl acetal resin, slated for the second half of FY2025.

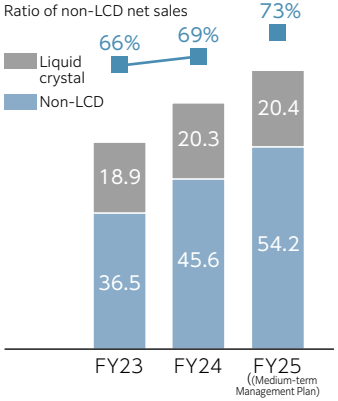
Business Strategies

- **Semiconductors / electronic parts**
  Tapes for semiconductor processing use, binder resins for MLCCs, Build-up dielectric film (BUF) sales growth
- **Exterior parts / mechanism components**
  Biomass-type bonding materials (tape, foam), elastic adhesive resin sales growth
- **Next-generation displays**
  OLED sealant sales growth

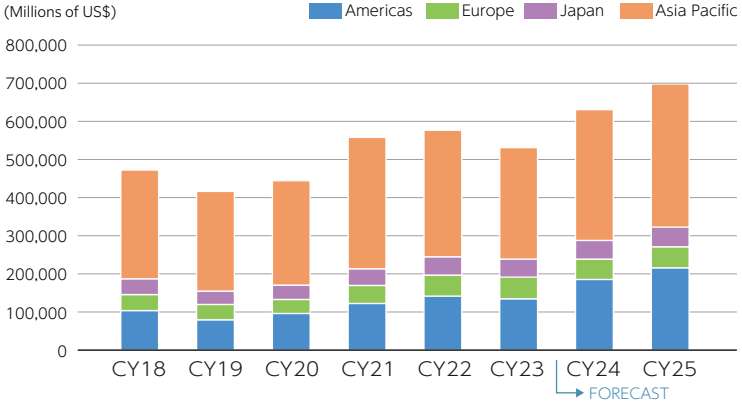
Electronics Field Net Sales



KPI: Focus on the Non-LCD Field



Global Semiconductor Market Forecasts by Region



Source: Japan Electronics and Information Technology Industries Association WSTS

Medium-term Management Plan, Drive 2.0 (FY2023-2025)

Mainstay Business Strategy: Overseas Diagnostics and Pharmaceutical Sciences

The Company will focus on expanding the diagnostics area and on increasing sales of new products as part of the Diagnostics Business in Japan and overseas. In particular, overseas, we will continue to expand the coagulation area through the expansion of our equipment lineup, such as by supporting domestic production in China. In Asia, we will accelerate growth by concentrating on areas of strength and encouraging Group synergy. In the Pharmaceutical Sciences Business, the Company will capture new large-scale projects by strengthening the marketing and D functions*1 in the pharmaceuticals area, and will expand the CDMO business in the enzymes area by commencing operations at a GMP-compliant*2 facility at a U.K. plant. Similarly, we aim to capture projects and expand business in the drug development solutions area by strengthening proposal capabilities.

*1 Optimization of clinical trial drug production and synthesis methods *2 A standard for pharmaceutical manufacturing and quality

Blood coagulation tests

We provide measuring reagents and automated analyzers for testing and monitoring blood coagulation and fibrinolysis abnormalities. In April 2025, we launched an evolved model with improved work efficiency and operability.

Expanded neonatal screening tests

Working with the National Center for Child Health and Development, we have jointly developed a test reagent for screening rare congenital diseases in newborns, for which early detection is important. We are working daily to lower the barriers to testing in terms of accuracy and cost, and to make this screening test available to more newborns.

Cell culture scaffolds

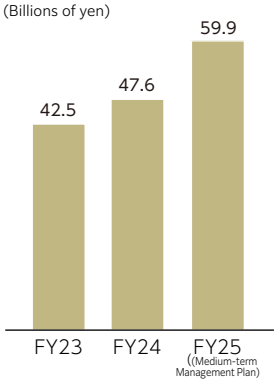
In the cell culturing process used in regenerative medicine, Ceglu™ is a brand of chemically synthesized scaffold material that adheres cells to the surface of containers. Compared to human-derived protein scaffolds, which carry the risk of infection due to viral contamination and have stability issues, Ceglu™ has a high degree of stability and safety. Going forward, we will continue contributing to the development of regenerative medicine.

Business Strategies

- **Europe and the Americas**
  Grow OTC sales, continue expanding product areas
- **China**
  Promote domestic production; strengthen alliances
- **Asia**
  Expand the POC and coagulation product area
- **CDMO**
  Continue efforts to operate the GMP-compliant facility in the U.K. to expand the CDMO business

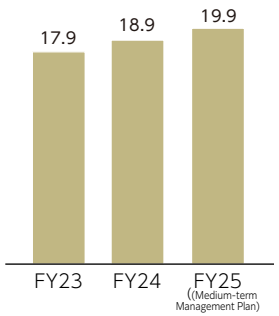
Overseas Diagnostics Field Net Sales

(Billions of yen)



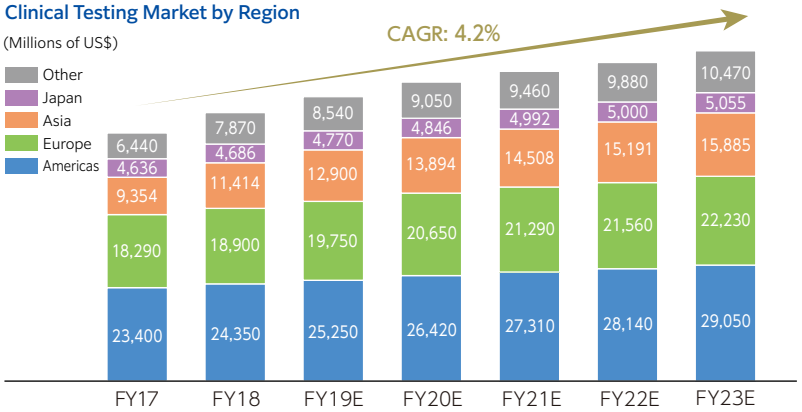
Pharmaceutical Sciences Field Net Sales

(Billions of yen)



Clinical Testing Market by Region

(Millions of US$)



Source: Fuji Keizai, Worldwide Clinical Reagent Market in 2019 (in Japanese)
Fuji Keizai, Clinical Reagent Market in 2019 No. 4: General Analysis and Corporate Strategy (in Japanese)

Medium-term Management Plan, Drive 2.0 (FY2023-2025)

Mainstay Business Strategy: Construction and Industrial Piping, Performance Materials, Fire Resistant and Non-flammable Materials and Pipe Renewal

Construction and Industrial Piping, Performance Materials, Fire Resistant and Non-flammable Materials, and Pipe Renewal are all growth-driving businesses belonging to the Urban Infrastructure & Environmental Products (UIEP) Company. Together, net sales from these four businesses account for nearly 33% of the UIEP Company's total sales. Therefore, the Company aims to achieve growth by expanding sales of prioritized products that help solve labor shortages, infrastructure aging, climate change, and other social issues, as well as by increasing overseas net sales. As an example, FFU for railway sleepers, a mainstay product of the Performance Materials Business, has a sales track record in 34 countries around the world, including the U.S., Australia, and countries in Europe. In recent years, the introduction of resin sleepers as an alternative to wooden sleepers has been accelerating due to the fact that procurement of high-quality wood has become more difficult owing to environmental considerations and the fact that creosote oil, used as a wood preservative, is being considered for a ban in the EU (in the railroad sector: scheduled for 2029) due to its carcinogenic hazard. In response to this growing demand, we built a new plant in the Netherlands. Shipments began in the second half of FY2023.

Construction and industrial piping

Polyethylene piping for construction and industrial uses

Polyethylene piping for construction and industrial uses are materials that help to solve social issues, such as labor shortages on construction sites and frequent earthquakes.

Making the most of the advantages of plastics, including durability (rustlessness, resistance to liquid chemicals), seismic resistance (high flexibility), and ease of construction (lightweight and simple to install), we accelerate the shift away from metals.

Performance materials

Railway sleepers

Fiber-reinforced foamed urethane (FFU) railway sleepers boast excellent water-resistance, durability, and require no preservatives, thereby contributing to reductions in environmental impact. The Company built a production base in Europe, where demand was strong, and commenced operations during the second half of FY2023 as part of its efforts to accelerate overseas deployment.

Fire resistant and nonflammable materials

Noncombustible urethane

Thermal insulating urethane foam material for onsite use is the first organic material to receive inflammable certification from Japan's Ministry of Land, Infrastructure, Transport and Tourism. Given that this product contributes to preventing fires and accidents caused by ignition at construction sites, new applications have been growing.

Pipe renewal

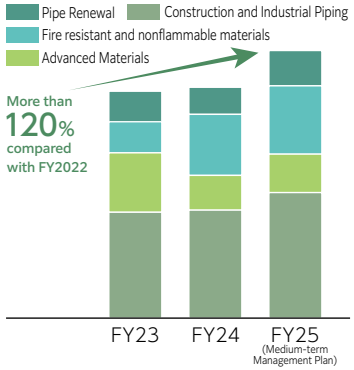
SPR method

The SPR method rehabilitates worn pipes by winding bands of rigid polyvinyl chloride resin profile in spirals within the existing pipe, then injecting special backfill materials into the gaps between the existing pipe and rehabilitation pipe.

This creates a robust composite pipe that integrates the existing pipe and the rehabilitation pipe. The SPR method addresses the serious social issue of aging sewage pipes and, since it eliminates the need to excavate roads and allows water to continue flowing unimpeded during installation, it achieves significantly lower impacts on traffic, shorter construction times, and less industrial waste.

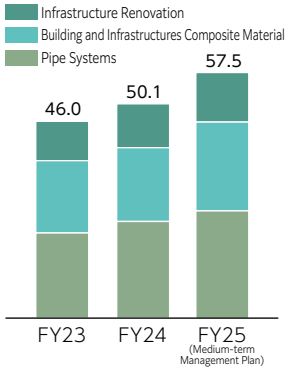
Net Sales for the Four Businesses

(Billions of yen)



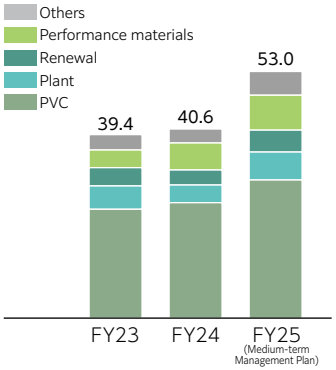
Prioritized Products Sales

(Billions of yen)



Overseas Sales

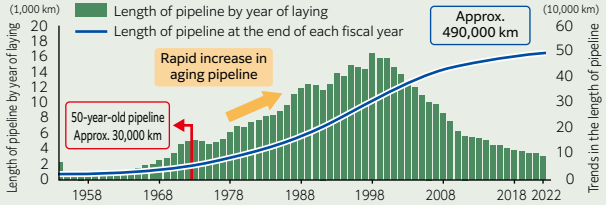
(Billions of yen)



Topic Working to Solve Japan's Aging Infrastructure Issue

There are approximately 30,000 km of degraded (more than 50 years old) sewage pipelines, which are the cause of road collapse accidents. The Ministry of Land, Infrastructure, Transport and Tourism is conducting a Nationwide High Priority Survey to preempt accidents. As a result of the survey, we can effectively rehabilitate pipes that require countermeasures using our SPR method.

Length of pipeline by fiscal year (as of December 31, 2022)



	10 years later (2034)	20 years later (2044)
50-year-old pipeline	Approx. 90,000 km	Approx. 200,000 km

Source: Ministry of Land, Infrastructure, Transport and Tourism website: https://www.mlit.go.jp/mizukokudo/sewerage/crd_sewerage_tk_000135.html

Medium-term Management Plan, Drive 2.0 (FY2023-2025)

Revenue Base Business Strategies (examples): Housing Business, Renovation Business, Piping Business, Functional Tape Business

Revenue base businesses reliably generate profits through business operations that pursue capital efficiency and profitability.
The cash acquired through these businesses will be allocated mainly to growth-driving businesses and growth-potential businesses.

Housing business (SEKISUI HEIM)

The Company ensures the stable supply of high-quality (high earthquake resistance, airtightness, and heat insulation) housing through its revolutionary Unit Construction Method, where the vast majority of construction is conducted at the factory. We will focus on product development and sales strategies tailored to area and market needs.

Renovation business

The Company proposes house repairs and renovations. Although efforts have concentrated on customers living in SEKISUI HEIM houses thus far, the Company will also focus its energies on renovations for non-Heim owners in order to further expand the business.

Piping business

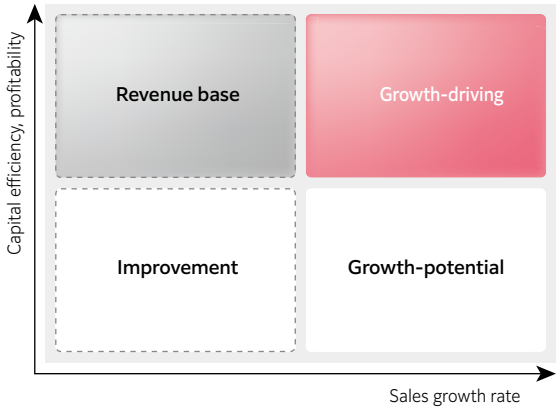
The Company supplies a wide range of piping materials from water supply/drainage and air-conditioning pipes for residences and buildings to valves and high-performance pipes for plants as well as other pipes for such social infrastructure as water supply/sewerage and gas supply systems that help shorten installation and construction periods. In addition to existing strengths in earthquake and corrosion resistance, the Company will enhance features, such as pressure resistance and high drainage, to accelerate substitution from metal piping.

Functional tape business

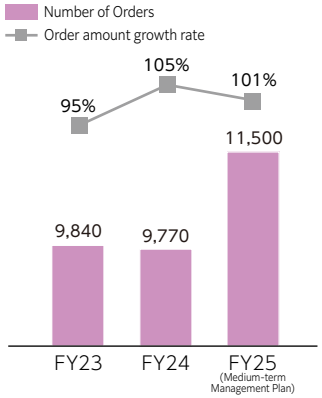
Oriented polypropylene (OPP) tape, which uses plastic as its base material, and kraft tape, which uses kraft paper as its base material, account for about 90%*1 of the market for packaging tape used for cardboard packaging of products, mainly in Japan's food and logistics industries. We have the top share of the kraft tape market in Japan.*1 We will respond to the demand for replacement of kraft tapes against the backdrop of growing environmental consciousness.

*1 Our investigation

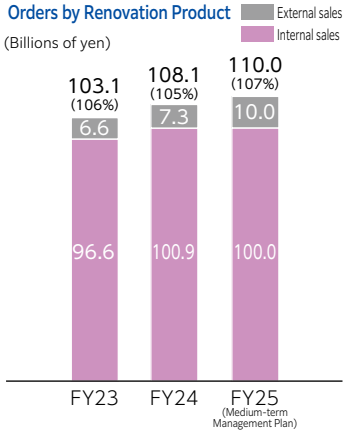
Allocate Cash Acquired through the Revenue Base



Number of Orders/Order Amount Growth Rate

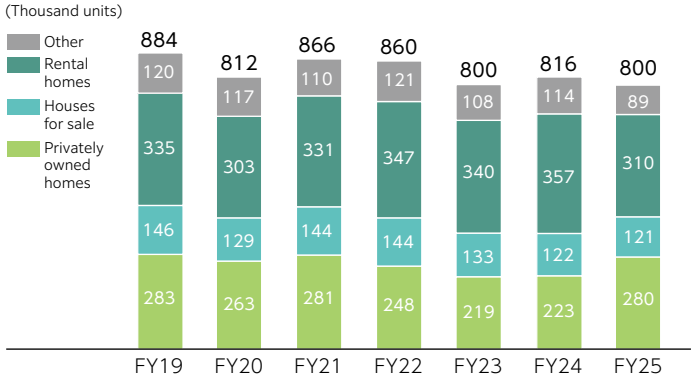


Orders by Renovation Product



Note: Data in parentheses YoY. FY25 is compared with FY23.

New Housing Starts (By Type)



Source: Actual values are from the Ministry of Land, Infrastructure, Transport and Tourism's "Statistics on Housing Starts." Forecasts are estimates by the Company.

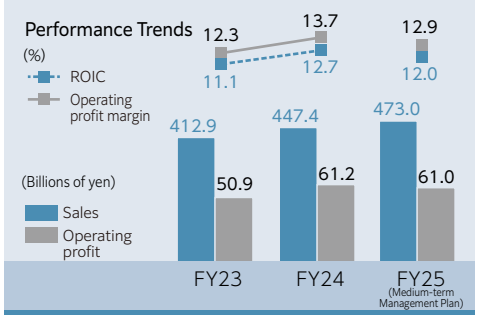
Medium-term Management Plan, Drive 2.0 (FY2023-2025)

Segment Information (Business Activities and Review of FY2024)

High Performance Plastics Company

Leveraging our proprietary fine particle, adhesion, precise molding, and other technologies, we provide advanced high performance materials on a global basis that help bring about the further evolution of our customers' products and services for application in the Electronics, Mobility, and various other industries.

In FY2024, global markets remain sluggish, but sales of high-performance products increased and there were positive effects from foreign exchange rates, resulting in higher sales and a substantial increase in profits, with profit reaching a record high. In the Electronics field, semiconductor-related demand recovered and steady progress was made in capturing new business, resulting in a year-on-year increase in net sales. In the Mobility field, despite sluggish demand for some aircraft-related products and effects from stagnant automobile production, sales of new high-performance interlayer films continued to increase, and net sales increased year-on-year.

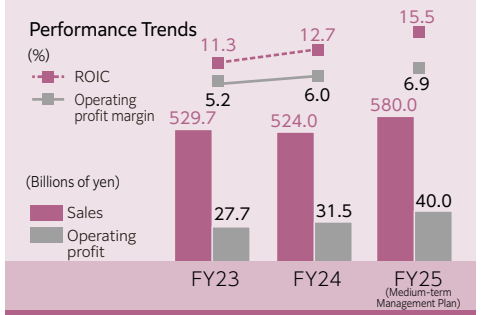


Main ROIC Improvement Measures
- Accelerate returns on M&As and growth investments
- Further strengthen earnings power through a shift to high-performance products

Housing Company

The Housing Company is engaged in new housing construction activities as a specialist in the Unit Construction Method, an advanced factory-built approach that enables short construction periods and delivers functions in accordance with design plans. To date, the cumulative total of houses sold has exceeded 650,000. Drawing on SEKISUI CHEMICAL Group's prominence in infrastructure materials, the Housing Company is engaged in the nationwide development of smart and resilient cities in its Town and Community Development Business.

In FY2024, the number of houses sold in the Housing business declined year on year, and, as a result, net sales decreased slightly from the previous fiscal year. Effects from measures to strengthen profitability in the Housing business emerged, and the Housing Renovation business expanded steadily, leading to an increase in operating profit.

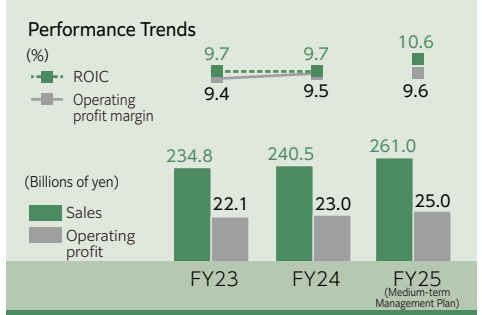


Main ROIC Improvement Measures
- Improve the land and stock of ready-built houses turnover rate
- Promote the automation and leveling of production and construction

Urban Infrastructure & Environmental Products Company

The UIEP Company manufactures and markets water sewerage and supply pipe systems, in which it has a leading share in Japan, while also engaging in construction materials supply businesses, which collectively form the Company's core operating platform. We are striving to expand sales and create markets for products that help solve increasingly serious and complex social issues, including labor shortages, aging infrastructure, and climate change.

In FY2024, despite sluggish conditions in the domestic housing and non-housing construction markets as well as a deterioration of cargo movement in the fourth quarter due to construction delays and other factors, sales increased as a result of improved selling prices and increased sales of prioritized products, and as a result, operating profit reached a divisional company and overseas record high, for the third consecutive fiscal year.

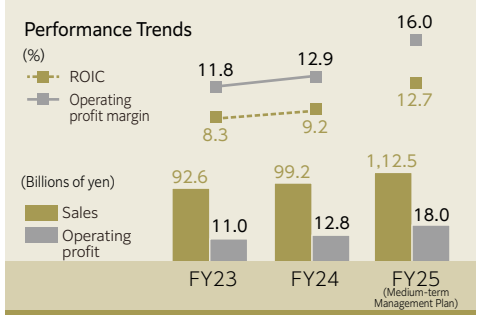


Main ROIC Improvement Measures
- Grow sales of prioritized products and boost overseas sales
- Maintain raw-material and selling-price margins

Medical Business

Consisting of the Diagnostics Business, which manufactures and sells diagnostic reagents, automated analysis devices, and blood collection tubes, and the Pharmaceutical Sciences Business, which is composed of three sub-businesses, namely the Pharmaceuticals and Enzymes Business, the Drug Development Solution Business, the Medical Business is expanding its business globally.

In FY2024, sales increased due to the steady capture of demand in the domestic diagnostics market particularly in the immunology segment, focused efforts on expanding sales of infectious disease test kits in the U.S., and steady orders for key active pharmaceutical ingredients and drug development solutions in the Pharmaceuticals Sciences business, and operating profit reached a record high.

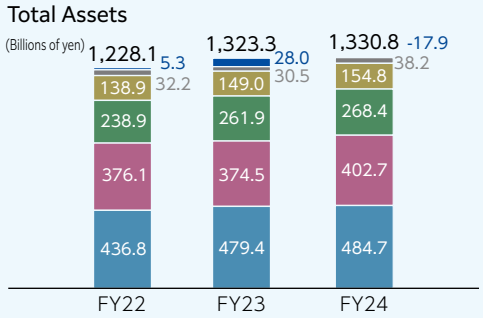


Main ROIC Improvement Measures
- Accelerate returns on growth investments
- Succession of New Product Launches

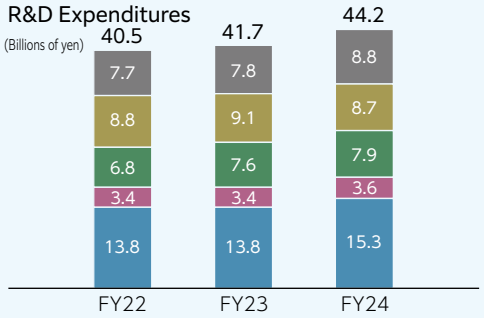
Various Data

High Performance Plastics | Company Housing | Company Urban Infrastructure & Environmental Products Company | Medical Business | Other | Eliminations or corporate expenses

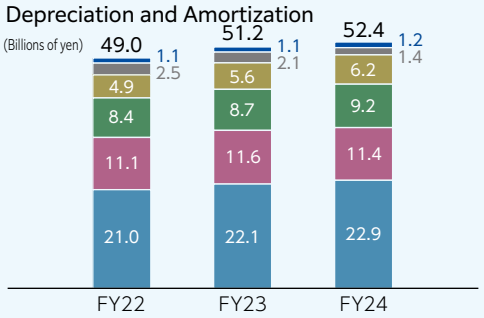
Total Assets



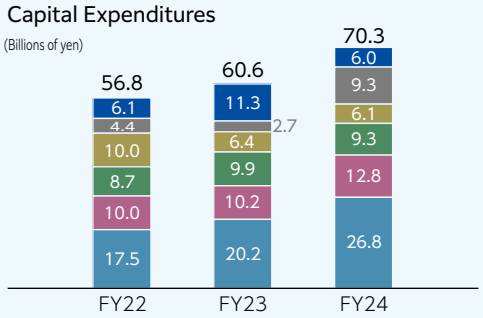
R&D Expenditures



Depreciation and Amortization



Capital Expenditures



Medium-term Management Plan, Drive 2.0 (FY2023-2025)

Basic Strategy 3: Strengthen the ESG Management Platform—Reliability

We are strengthening our management base to support accelerated growth, profitability, and reliability. The table below sets out the key issues that are of significant importance to the Group's management and stakeholders. We are carrying out risk mitigation activities and, under the Medium-term Management Plan, we have defined the five areas of "Safety, Quality, Legal/Ethical, Accounting, and Information Management" in order to avoid damage to corporate value from major incidents, and to enhance our management ability to sustain business.

KPIs for Key Issues (Materiality)

				KPI	FY2024 Results	FY2025 Targets (Medium-term Management Plan)	
Output		Products to Enhance Sustainability and Premium Framework	Drive the ability to create profit, contribute to solving social problems, and achieve sustainable management	Products to Enhance Sustainability and Premium Framework net sales	¥996.8 billion Includes Premium Framework ¥535.1 billion	At least ¥1 trillion Includes Premium Framework ¥540 billion	P.14
Materiality	Foster Expectations for Growth (enhance preparations)	Innovation	Develop new products and steadily progress market launch in existing fields, and create and acquire new businesses	Number of open innovation projects	—	—	P.44
		Human Capital	Create an energized and engaged company that enables diverse human resources to take on challenges and play an active role	Employee Challenge Action Rate*1	56%	60%	P.50
				Rate of successor candidate preparation*2	88.1%	100%	
		Environment	Aim to realize an Earth with maintained biodiversity	Rate of GHG reduction (Scope 1+2)	-37.9% (compared with FY2019)	-33% (compared with FY2019)	P.52
				Material Recycling rate of waste plastic (Japan)	Japan: 66.9%	Japan: 65% (Overseas: BM+5%)	
		DX	Revise work processes and drastically increase productivity	Direct/Indirect Net Sales per Employee	Direct productivity: 26% increase Indirect productivity: 15% increase (compared with FY2019)	Direct productivity: 28% increase Indirect productivity: 23% increase (compared with FY2019)	P.56
	Improve Confidence (reduce capital costs)	Internal control (Safety, Quality, Legal/ ethical, Accounting, Information management)	Reduce operational risks that may damage corporate value on a global basis	Number of major incidents in the 5 fields	0	0	P.58

*1 Four options were given for the answer to the question "Does the following statement apply to you: I am taking concrete actions to engage in challenging action to realize Vision 2030": [1] Yes, [2] Somewhat applicable, [3] Somewhat not applicable, and [4] No. Until FY2022, the Company only aggregated the total for answer [1]. In FY2023, the Company redefined the indicator in a way that aggregates the totals for [1] and [2].
*2 Number of successor candidates to the most senior business leader post ÷ Number of the same post

ESG investment

Materiality	Themes	Investment	Goal
DX	Implementation of SAP	approx. ¥20 billion	Secure and foster DX human resources to drive business reforms leveraging digital technology
Environment	Solar panel installation, etc.	approx. ¥6 billion	View environmental challenges as opportunities and focus on creating products that are carbon free/low carbon and contribute to raw material conversion
Human Capital	Employee career advancement, etc.	approx. ¥12 billion	Train and select next-generation leaders, strategically augment specialized human resources (reskilling, etc.)

With regard to DX and Environment, investment figures are included in strategic investment and normal investment shown on P.41

Medium-term Management Plan, Drive 2.0 (FY2023-2025)

Investment and Financial Strategies

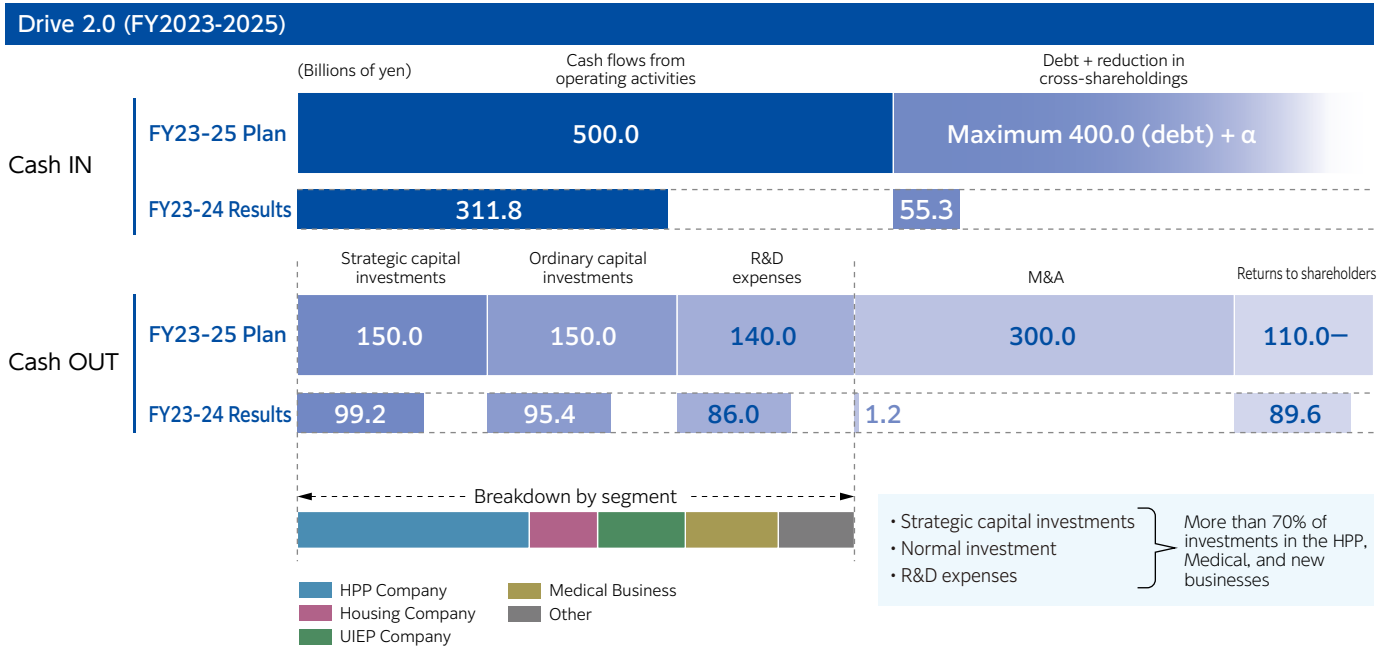
With aspirations for continued growth, SEKISUI CHEMICAL Group will leverage debt as necessary while actively expanding strategic investments.

Although investments in growth diminished in part due to the prioritization of structural reforms in the wake of the lingering impact of the COVID-19 pandemic, during the previous Medium-term Management Plan the Group made steady progress with investment into growth areas, including increasing production capacity for heat release materials and active pharmaceutical ingredients.

Under Drive 2.0, the Group expanded the upper limit for strategic investments, including M&A investment, to ¥450 billion. The Group will also allocate 70% or more of investments, including those for research and development, with a focus on the High Performance Plastics Company, Medical Business, and new businesses.

Investment plan and capital allocation (Billions of yen)

	FY23-25 Plan	FY23-24 Results
Strategic investment	Investment limit 450.0	100.4
M&A, etc.	Investment limit 300.0	1.2
Capital expenditure	150.0	99.2
ESG investment (Included within the strategic investment and normal investment categories)	30.0	29.0
Normal investment	150.0	95.4
Total investment	600.0	195.8
R&D expenses	140.0	86.0



Strategic capital investments

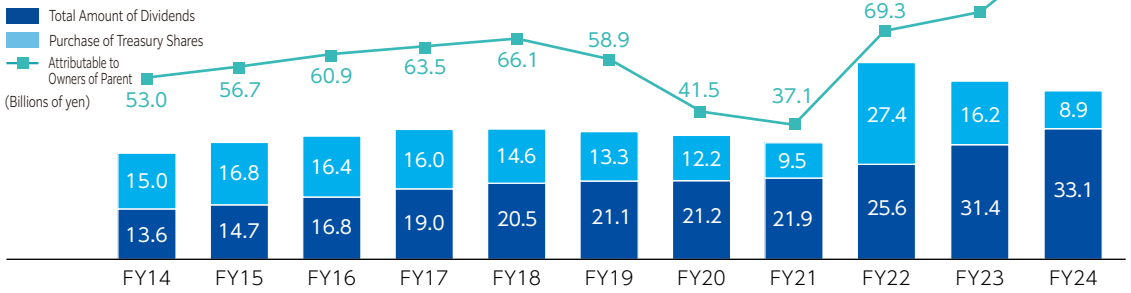
Project	Investment	Expected operational timeline	Goal
Perovskite solar cells	approx. ¥90 billion	FY27	New 100-MW production line
Expansion of domestic production capacity of process materials for advanced semiconductor manufacturing and establishment of a new R&D base in Taiwan	approx. ¥5 billion	1H/FY27 R&D base came online in April 2025	Respond to growing demand for cutting-edge semiconductors for AI and high-speed communications, power semiconductors for automotive applications, etc., and strengthen quality control
Expansion of interlayer film manufacturing plant (N-HPP film production line)	approx. ¥8 billion	2H/FY26	Respond to the growth of the automotive market and the increasing demand associated with the shift to new energy vehicles (e.g., EVs)
Expansion of conductive fine particles production capacity	approx. ¥2 billion	1H/FY28	Respond to growing demand for next-generation displays and in-vehicle applications, and strengthen quality control levels

Medium-term Management Plan, Drive 2.0 (FY2023-2025)

Returns to Shareholders

Under the Medium-term Management Plan, SEKISUI CHEMICAL Group will return profits to its shareholders more aggressively than ever before. The Company seeks to secure a dividend-on-equity (DOE) ratio of 3% or higher while targeting a payout ratio of 40% or higher on a consolidated basis, as a part of efforts to implement stable dividend measures in line with its performance. In addition, SEKISUI CHEMICAL Group has set a target of 50% or higher for its total return ratio, which includes the buyback of shares, so long as its D/E ratio is 0.5 or less. For this reason, the Company will implement additional returns as appropriate, taking into account the investment progress under the Medium-term Management Plan, cash position, and stock price. Moreover, the Company plans to retire treasury shares to no more than 5% of the total number of shares outstanding.

Returns to Shareholders Track Record



	Previous Medium-term Management Plan	Medium-term Management Plan (FY2023-2025)
Payout ratio	35% or higher	40% or higher
DOE	3% or higher	3% or higher
Total return ratio	50% or higher if the D/E ratio is 0.5 or less	50% or higher if the D/E ratio is 0.5 or less. Implement additional returns as appropriate, taking into account the investment progress under the Medium-term Management Plan, cash position, and stock price
Cancellation of treasury shares	Cancel newly acquired shares to the extent that total treasury shares do not exceed 5% of outstanding shares	Cancel newly acquired shares to the extent that total treasury shares do not exceed 5% of outstanding shares

	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Profit attributable to owners of parent per share (yen)	104.7	115.1	126.1	133.8	141.7	128.8	91.9	83.2	159.2	183.5	196.0
Dividend per share (yen)	27	30	35	40	44	46	47	49	59	74	79
Payout ratio	25.8%	26.1%	27.7%	29.9%	31.0%	35.7%	51.1%	58.9%	37.0%	40.3%	40.4%
Purchase of treasury shares (billions of yen)	15.0	16.8	16.4	16.0	14.6	13.3	12.2	9.5	27.4	16.2	8.9
Total return ratio*1	54.0%	55.5%	54.5%	55.1%	53.0%	58.1%	80.4%	84.6%	76.5%	61.0%	51.2%
DOE*2	2.8%	2.8%	3.1%	3.3%	3.4%	3.5%	3.3%	3.3%	3.7%	4.2%	4.1%
Cancellation of treasury shares (thousands of shares)	12,000	10,000	–	10,000	8,000	8,000	8,000	5,000	15,000	8,000	4,000

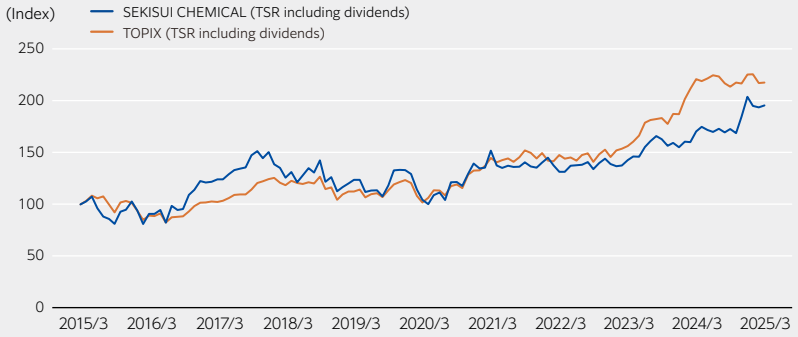
*1 Total return ratio = (Amount of treasury shares acquired + Total dividends) / Net income attributable to owners of parent *2 DOE = Total Amount of Dividends (full year) / Average equity

Details of SEKISUI CHEMICAL Group's total shareholders' return (TSR), including dividend and stock price fluctuation trends, are presented as follows. SEKISUI CHEMICAL Group raised the consolidated payout ratio to 40% in its return policy from FY2023. We will continue to strive to maintain a stable dividend for shareholders and to increase corporate value.

Total Shareholders' Return (TSR including dividends)

	Past 1 year	Past 3 years		Past 5 years		Past 10 years	
	Annualized	Cumulative	Annualized	Cumulative	Annualized	Cumulative	Annualized
SEKISUI CHEMICAL	+17.6%	+56.7%	+16.2%	+99.1%	+14.8%	+95.5%	+6.9%
TOPIX	-1.5%	+47.2%	+13.8%	+113.4%	+16.4%	+117.4%	+8.1%

TSR and Share Price Performance over the Past 10 Years*



* Figures are indexed to data as of March 31, 2015, as 100.

Share Price Trends

	High (yen)	Low (yen)	Closing (yen)
FY14	1,619	1,002	1,559
FY15	1,752	1,193	1,386
FY16	1,983	1,215	1,871
FY17	2,350	1,732	1,856
FY18	2,114	1,532	1,779
FY19	1,986	1,142	1,433
FY20	2,243	1,267	2,125
FY21	2,187	1,648	1,759
FY22	2,019	1,613	1,876
FY23	2,287	1,786	2,230
FY24	2,840	1,880	2,544

Innovation

Interview with the Director responsible

Contribute to earnings and the solution of global social issues by creating new businesses based on the twin approaches of evolving core technologies and utilizing M&A/CVC (corporate venture capital), and by committing to commercialization and making it profitable

Ikusuke Shimizu

Representative Director,
Senior Managing Executive Officer,
Responsible for ESG Management Department,
Corporate Communication Department,
New Business Development Department and Life Science Business Development Department,
Head of Business Strategy Department

Q. 01 The Company has positioned "innovation" as a key issue, but in what areas are you aiming to expand innovation in the future?

The Group has identified priority tasks, such as "achieving zero carbon and a recycling society," "ensuring healthy lives and improving social services," and "providing sustainable infrastructure, town and community development, residential environments, and communication environments," based on the view that by leveraging our current business domains and strengths (strategic foresight, processing, and value transformation), we can contribute to providing solutions with respect to the anticipated megatrends of the future, such as climate change, aging populations, and the diffusion of next-generation communications. P.11

To serve as a compass for business strategy, or, in other words, a guide for which fields we should conduct business in to tackle these social issues, we have produced a strategic area map. On this map, we define domains in which we will expand by extending existing businesses as Enhancement Areas, and domains in which we will create new innovations in light of future trends as Innovation Areas. Each year, following discussions at meetings of the Policy Committee and Board of Directors, we decide where to direct capital in these two types of domains. P.21

Q. 02 How do you choose between in-house development and M&A/CVC when driving innovation?

The sources of value creation in the Group are our technology platforms (TPFs). They define core technologies where we are particularly competitive or that we believe should be further strengthened going forward. With in-house development, we focus on refining these core technologies, and what we emphasize is the concept of technology concentration and market diversification. P.46

Take polyvinyl alcohol (PVA), for example, which the Company has been manufacturing since it was founded. We've been perfecting the technology for 78 years. Polyvinyl butyral (PVB) was developed based on PVA, and is used as a binder resin for MLCCs in the electronics field. And, in the form of a film, it is used as an interlayer film in the mobility field. As a new product for the future, we have launched iPS cell culture plates, which open up new possibilities in the field of regenerative medicine in the life science domain. It's a great example of how technology concentration and market diversification have improved development efficiency and diversified revenue streams.

The Corporate R&D Center manages progress and provides assistance with development themes that span divisional companies. In concrete terms, it plays three key roles: devising development themes that will become next-generation businesses, integrating technologies and providing technical support, and managing Group-wide development.

In contrast, when we can't resolve an issue with our own core technologies alone, I think it can be effective to bring in external technologies through M&A and CVC. Specifically, we want technologies that can contribute to the creation of next-generation businesses or are aligned with the Innovation Areas of our divisional companies. So, when looking at potential deals, we focus on whether the transaction can produce synergies that can strengthen the Group's businesses and technologies.

Innovation

Interview with the Director responsible

Q. 03 What's the difference between the roles of the New Business Development Department and the R&D Center?

The R&D Center is responsible for turning "0" into "1," which means the initial discovery and planning of new R&D themes and the establishment of basic technologies, while the New Business Development Department is responsible for turning "1" into "10," which means business development, so the latter handles the phase of transforming the technologies and ideas that the former has come up with into businesses. Finally, the divisional companies expand and grow the businesses, turning "10" into "100."

The criteria for transferring new products and technologies from the R&D Center to the New Business Development Department are determined using a system called Gate Review (GR). GR comprises five stages, 0, 1, 2-1, 2-2, and 3, with business viability and technical progress verified at each stage. Transfers to the New Business Development Department take place after clearing the GR2-1 stage, which means that the basic technology is complete and there are clear prospects for commercialization.

Q. 04 What kind of organization or systems do you think are ideal for new business creation, commercialization, and monetization?

Commercialization and monetization are tasks for the New Business Development Department, so we need the personnel involved to have a certain degree of business sense. In addition, an overarching premise for new businesses is that they contribute to solving social issues, and what I think is important is for us to be an organization with good knowledge and a good feel for the issues so that we can ask ourselves, "Is this really a business that we should be pursuing?" Of course, we also need a certain number of personnel who have already turned "0" into "1."

C.O.B.U. Accelerator, the in-house entrepreneurship system we launched in FY2023, is also now in its third year. For two straight years, it has attracted more than 100 submissions of ideas for new businesses. I feel it's been a success in terms of getting so many employees to translate their desire to take on challenges into tangible form, and I hope it will help nurture talent with a thirst for challenge. Meanwhile, what we, as members of the management team, should do is to respond to this keenness to embrace challenge by offering our full support. I believe it's important to foster a culture in which employees want to continue to take on challenges, while at the same time sharing the harsh realities they will face during the process of commercialization.

Q. 05 The perovskite solar cell business is garnering a lot of attention, but what's the current state of progress?

Collaboration between industry, academia, and government is advancing, and with support from the national government, we're in the process of building a new 100 MW production line, and we're aiming to expand with a 1 GW-level line by 2030. Film-type perovskite solar cells are manufactured using the sealing and coating technologies of the High Performance Plastics Company, and we're also leveraging the network of ministries, agencies, local governments, and general contractors developed by the Urban Infrastructure & Environmental Products Company to demonstrate that the technology works and to explore markets, and using its technology to establish its construction methods. In addition, the Housing Company is exploring possibilities for installing the cells in detached houses in the future. So one thing that really sets this project apart is the way development is progressing based on synergies between these three divisional companies. We are accelerating development toward mass production and commercialization through installation at Expo 2025 in Osaka, Kansai, and verification tests in Tokyo, Fukushima Prefecture, Fukuoka Prefecture, and other areas.

Q. 06 What kind of discussions does the Board of Directors have when making investment decisions? Are there any differences in the decision-making criteria for existing businesses and new businesses?

There is no significant difference in the decision-making criteria for existing businesses and new businesses. Firstly, the premise is that all new products that will be brought to market in the future will be Products to enhance sustainability, and among projects that are big enough to be discussed by the Board of Directors, there are hardly any that don't involve Premium Framework products. Our basic approach to potential capital investments is to comprehensively evaluate them using indicators such as ROI and payback period. The recent 100 MW perovskite investment met the criteria, so the Board passed the resolution to approve it.

As for existing businesses, we have 33 businesses classified into four quadrants, and over 60% of investment money goes to growth-driving and growth-potential businesses. If ROIC dips below WACC, an alert is issued, and in the past, the High Performance Plastics Company and the Urban Infrastructure & Environmental Products Company have restructured or withdrawn from businesses in line with this policy.

Q. 07 As you aim for commercialization, how do you manage progress, and are there any criteria you use to determine whether you should proceed with or abandon a project?

Frontline engineers tend to be committed to seeing the technologies they've developed through to the end, but new business development involves high technical hurdles and substantial costs, and often does not produce results for many years. Keeping in mind that they're taking on the challenge of difficult tasks and are under a lot of pressure, management must provide full support and make decisions responsibly, including decisions on whether to continue or abandon an undertaking. To track progress, we use a framework called the "K-value" system to conduct quantitative evaluations based on a market axis and technical axis, and we determine future business viability and growth potential from various perspectives. When making management decisions, we have to carefully ascertain, for example, whether we can't expect to increase market share any further as the market shrinks, or whether we still have room to expand despite the market itself being mature because our share is still low. Personally, however, and partly because my own background is in engineering, I really want to avoid, as much as possible, decisions to give up because the technology is difficult.

To give one recent example, in the stationary energy storage battery (lithium-ion battery) business we had been continuously losing billions of yen until a few years ago, so we set an initial goal of breaking even by improving battery performance and slashing costs. As a result, we got the business into the black in the fourth quarter of 2024, and we're about to move into an expansion phase. Even in the case of a new business, it's difficult to continue technological development when you're in the red, and I view breaking even as soon as possible as a prerequisite for maintaining the business as a going concern.

Innovation

Interview with the Director responsible

Q. 08 Which areas are you targeting for M&A and CVC, and what are your goals?

In our medium-term plan, we've earmarked 300 billion yen for investment to realize Vision 2030. M&A and CVC will mainly target the Innovation Areas in the strategic area map, and the High Performance Plastics Company and Medical Business have been playing the central roles in weighing up potential transactions. In the medical CDMO business, prices have soared, so we have to be somewhat cautious, but I think there's room to continue exploring opportunities in areas in which we have underlying strength.

I also feel that the Urban Infrastructure & Environmental Products Company and Housing Company are starting to make headway. Regarding the Housing Company, for instance, there's a shortage of carpenters in the construction sector, and this problem is only going to get more serious, so I think we'll start to enjoy an increasing comparative advantage with the Group's unit housing, as the houses can be constructed with about half the labor of competitors, so I want to give the Housing Company all the resources it needs to expand its market share. For example, I want to make sure it has sufficient construction capacity. As for the Urban Infrastructure & Environmental Products Company, its operating profit margin is on the cusp of hitting 10%, and it's entering the next phase, when it will be necessary to expand in volume terms and I think it'll be able to make inroads overseas, especially with prioritized products. In the Urban Infrastructure & Environmental Products Company and Housing Company, we will continue to anticipate required amounts of investment and seek a balance between risk and return, and execute investments that will lead to growth.

Q. 09 When doing M&A deals, what are you most conscious of? And what are the keys to successful post-merger integration (PMI)?

We avoid paying a high price, and don't invest solely for the purpose of growing or expanding the areas in which we operate. Instead, we only do deals where we expect to see business or technological synergies. The biggest deal we've done so far was the acquisition in 2019 of SEKISUI AEROSPACE, which we bought for around 55 billion yen. But if there were a deal that we absolutely could not pass up, we'd be happy to invest more than 100 billion yen. But our basic stance is that M&A deals should suit us in terms of size, and we don't consider acquiring large companies.

As for PMI, we've been steadily accumulating know-how through our experiences with M&A. The Board of Directors conducts an assessment one year and three years after an acquisition, discussing outcomes and synergies, and improves precision. In addition, we try to minimize the risk of impairment losses, and even if things don't go as expected, we discuss ways of minimizing the impact. So we have a framework in place for moving cautiously and strategically.

Q. 10 Have there been any innovations or success stories that you personally threw your heart and soul into?

Of the success stories I experienced when I was working in the High Performance Plastics Company, the one that left the biggest impression on me was the complete switch we made to solvent-free production of adhesive tape, which we had previously manufactured using organic solvents. That was 30 years ago, but it was a production process innovation that dramatically reduced production costs while also improving the quality of the tape.

We faced constant difficulties on the road to success, but that success all began when my boss gave us the green light to spend 10 million yen, a huge amount in those days, on lab equipment for our initial experiments. Later, we needed more than two billion yen in additional money for capital investment, and there was no way we would have succeeded without the supportive presence of my boss. Another source of support was my colleagues. I'd often get anxious, saying, "Can we really do this?" But they gave me encouragement every time, responding, "Sure we can!" or "Yes, because we won't quit till we succeed." This "won't quit till we succeed" mentality has served as a motto in my corporate career ever since.

Q. 11 What is your role as Director responsible for new business development, and speaking as Senior Managing Executive Officer, what are your thoughts on innovation?

I believe that my role is to work seriously on "Innovation for the Earth," the vision statement of Vision 2030, and to demonstrate that attitude to others. When we talk about "solving social issues," what we're aiming for is to create a safer, more convenient, and more environmentally friendly society through our business activities, and that necessitates innovation on a global scale. Perovskite solar cells may still be a Japan-centric initiative at the moment, but they have the potential to proliferate worldwide in the future, and they constitute a valuable tool for this innovation on a global scale. So, I'll be working with all my colleagues across the Group as we take on the challenge of generating "Innovation for the Earth" and strive to realize our vision of creating "peace of mind for generations to come."

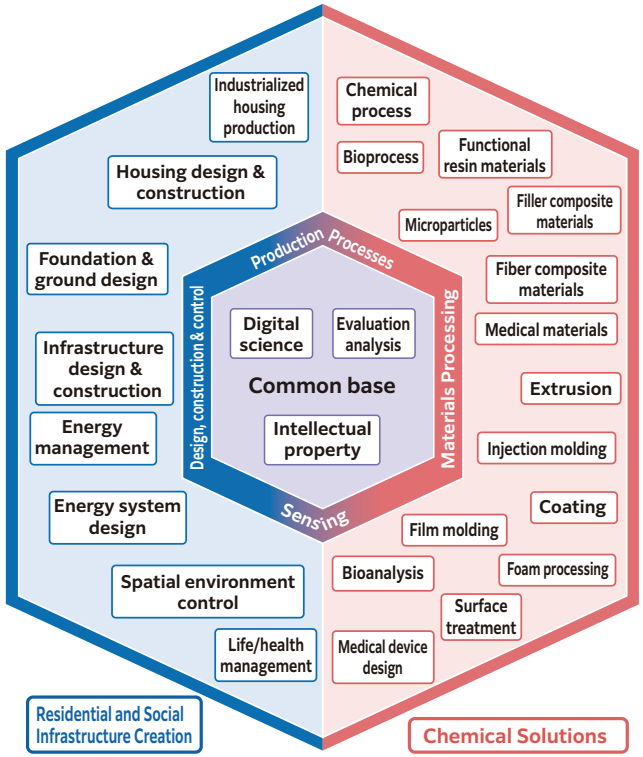
Innovation

SEKISUI CHEMICAL Group emphasizes innovation as a key driver for continuously creating products to enhance sustainability in order to realize Vision 2030, our Long-term Vision.
The source of innovation is the cycle of strategic foresight, processing, and value transformation, which is the business model of the value creation process.
As we face a mountain of extremely difficult and pressing social issues, such as climate change, innovation to create new means of solving problems is becoming increasingly important.
We will enhance our ability to solve social issues by quickly creating new value through the discovery of business opportunities across business domains, strengthening core technologies, and focusing on collaboration and open innovation with external parties.

Technological Platforms and Promotion Framework

We believe that the source of value creation of SEKISUI CHEMICAL Group lies in the core technologies owned by SEKISUI CHEMICAL. We define technologies that are particularly competitive or that need to be strengthened in the areas of Residential and Social Infrastructure Creation and Chemical Solutions as Technological Platforms (TPFs), and we are working to continuously strengthening these technologies. TPFs are adjusted with each medium-term management plan.

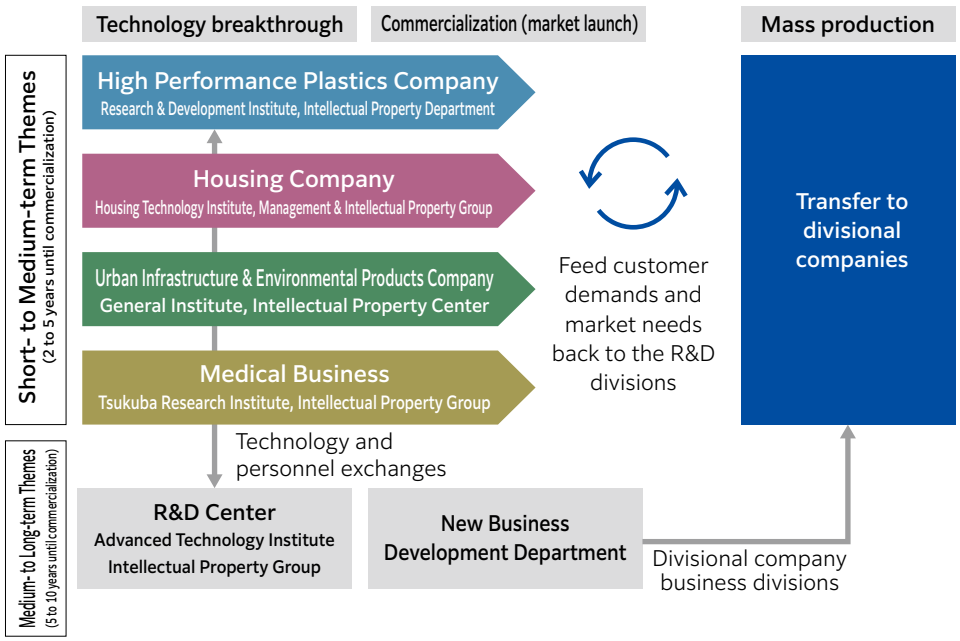
Technological Platform Diagram



Innovation Process

The R&D framework for advancing innovation, the source of value creation, is divided into two sections based on the timeframe of each theme. Short- to medium-term themes, which originate from the acquisition of customer needs, are tackled by the R&D institutes in each segment to enable timely activities in line with the segment's respective business environment. Meanwhile, medium- to long-term themes are under the control of Corporate Headquarters; for these themes, the R&D Center is responsible for the initial discovery and planning of R&D themes and the establishment of basic technologies (turning "0" into "1"), and the New Business Development Department is responsible for promoting commercialization (turning "1" into "10"). After a theme is launched as a business, it is promptly transferred to a divisional company (turning "10" into "100"). Each segment and the Corporate Headquarters have an independent Intellectual Property Division. The Intellectual Property, Business, and R&D divisions for each segment are in constant cooperation, striving to achieve prominence over our competitors based on the distinctive characteristics of their respective areas, thereby linking to the expansion and growth of the Group's business.

R&D and Intellectual Property Management System



Innovation

Treatment of Human Resources Engaged in R&D and Intellectual Property Activities

SEKISUI CHEMICAL Group has a system to appoint leaders who drive the technical enhancement for each TPF to specialist positions, which consist of four grades.

In FY2024, 38 engineers were appointed to specialist positions throughout the company; workers in these positions drive the continued technical enhancement of each TPF, while also playing a role in training the next generation of technical leaders.

As part of our effort to assess and reward researchers and engineers, the Group has also established the Invention Grand Prize as an award from the President & CEO to recognize inventions that have made particularly large contributions to the Group's profits.

The Invention Grand Prize is divided into four grades according to the invention's level of business contribution, and bonuses are awarded by grade. In particular, the Special Class bonus is in proportion to the amount of business contribution and has no upper limit.

Specialist Positions Supporting Technology

Microparticles

Group 1, Core Technology Center, Advanced Technology Institute, R&D Center

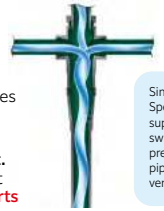
Yasuyuki Yamada

I am working to strengthen our microparticle technologies. Although microparticles are a field SEKISUI CHEMICAL has been working on for many years, it has become increasingly difficult to meet the changing needs of our customers with conventional manufacturing methods, structures, and materials. By microparticulating materials that could not previously be microparticulated, or by creating unique shapes and structures, such as ones that are flat or hollow, it is possible to create new functional features. For example, epoxy resins and silicone resins can be microparticulated and their particle diameters can be matched to provide functions that could not be achieved with conventional acrylic resin particles. This is expected to improve the reliability of semiconductor products and add new functions to automobile and building windows.

We are also exploring overarching research topics. My mission is to find the next pillars of research in order to make technological breakthroughs Currently, I am focusing on the life science field, keeping my antennae tuned to new technologies in the world and collaborating internally and externally, open innovation with external parties and through revamping our proprietary technologies. I believe that it is important for people to know about the technology I am working on. The ideal workplace is one in which everyone can grow together by freely disclosing and actively sharing their skills and knowledge with others. At my workplace, we regularly hold study sessions to share techniques and information with each other.

I find it interesting that although microparticles are very small, they can be imbued with a variety of functions. In my current work, I enjoy discovering how to solve our costomer problems using microparticle technology.

Invention Grand Prize Winner: Heat-resistant Plastic AD System (2nd Class)



Single-pipe drainage systems
Special coupling joints suppress the generation of swirling water flow and pressure fluctuations in the pipe, eliminating the need for a ventilation pipe.

Heat-resistant Plastic AD System
Single-pipe plastic drainage system for condominium vertical drainage pipes

Overview
In condominium vertical drainage pipes, **cast iron fittings were generally used** for **drainability, heat resistance, sound dampening, and superior fit.**

Based on our **plastic processing technology and diverse expertise** that **we have cultivated, we have developed a new plastic product that imparts functions previously unique to metal.**

The new product combines the features of metal with those of plastic, such as **corrosion resistance, light weight, and ease of installation**, in order to meet society's needs for reduced construction workload, longer service life, and low carbon emissions.

Superior characteristics of plastic

We needed to overcome the conflicting technical challenges of plasticization within cost constraints.

Metal advantages ≒ technical challenges

Drainage performance
Molding/assembly of complex structures of swirl vanes

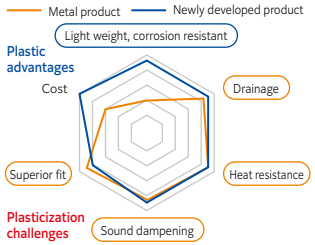
Heat resistance
Mixing expandable graphite into the material allows the pipe to be routed through fire-proof zones

Sound dampening
Prone to drainage noise issues due to the light weight

Superior fit
Compact even with additional sound dampening/heat resistant materials

Key points of the inventions
We have applied for more than 100 patents in order to overcome the technical challenges of plasticization in this product field and to differentiate our products from others. Among them, the following three inventions were selected as Invention Grand Prize Winners for their significant contributions.

Features of the inventions		Performance				Cost
		Drainage	Heat resistance	Sound dampening	Superior fit	Molding process
A	Shape of the flow rectifying vane (injection molded)	●		●		●
B	Precise placement of expandable graphite material for heat resistance		●		●	●
C	Shape design/production method for sound dampening + sound absorption materials			●	●	●



In addition to our own use and provision of these patents, we are also licensing them to other companies in order to promote the availability of AD systems.

Topic

Receiving the Commissioner of the JPO Award: An Award for Excellent Companies Utilizing the Intellectual Property Rights System

SEKISUI CHEMICAL was recognized by the Intellectual Property Achievement Awards for 2025 (presented by the Ministry of Economy, Trade and Industry and the Japan Patent Office). This award recognizes companies that have actively utilized Japan's intellectual property rights system and that have contributed to the smooth operation and development of the system. We were recognized for our leadership in the research and development of perovskite solar cells, a promising next-generation solar cell.

Our Group emphasizes an intellectual property strategy to maximize the "prominence" of our technology. We will continue to expand strategic intellectual property activities to maximize the prominence of our technologies and contribute to our business. We will do so through the formulation of strategies based on analysis of the competitive environment, while leveraging analysis of items including market and competitor information, while developing domestic and overseas application rights based on such strategies, in addition to utilization of rights and portfolio management of intellectual property.

Press release (in Japanese) https://www.sekisui.co.jp/news/2025/1433403_41954.html

Award ceremony on April 18, 2025
Left: Commissioner Ono, Japan Patent Office
Right: President Kato

Innovation

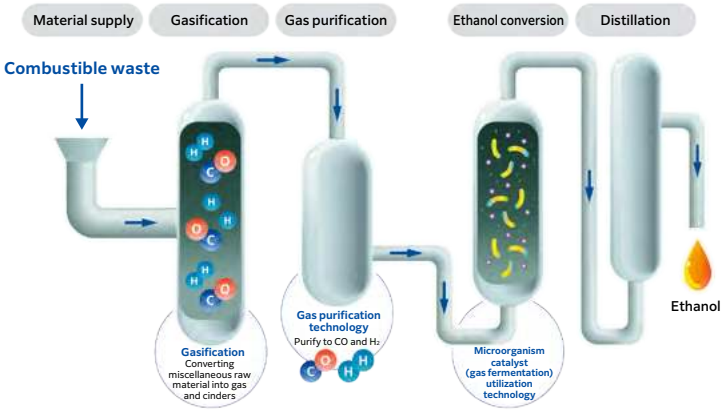
New Products and Businesses

In selecting themes for new products and businesses, we apply a score along a market axis for judging the potential of the market and a strategic axis for judging how the technologies, patents, and human resources possessed by the Group can be effectively employed with a focus on high-scoring themes along both axes. Once we have selected a theme, we continue to manage it by periodically analyzing the potential of the market and the competitive environment, and screen it to determine if our aggressiveness has abated. At the same time, we take the option of terminating any theme for which the score has fallen. In terms of actual progress management, we proceed towards commercialization upon implementing a five-stage Gate Review. We also conduct design reviews during product process development and environmental assessments at all stages of the product life cycle.

Biorefinery Technology

SEKISUI CHEMICAL Group is accelerating efforts toward the social implementation of carbon cycle technologies that recycle the carbon contained in raw materials. In specific terms, we jointly developed a biorefinery (BR) technology that converts combustible waste, including marine plastics, without separation into gas and then converts that gas into ethanol as a raw material for plastic using a microbial catalyst in collaboration with U.S.-based venture company LanzaTech, Inc. The BR technology identifies and removes about 400 kinds of foreign substances (extraneous substances that affect microorganisms) contained in the gas, successfully applying the purifying microbial catalyst to garbage.

Ethanol Production Process



SEKISUI CHEMICAL Group established SEKISUI BIO REFINERY CO., LTD., in April 2020. Steps are currently being taken to conduct a demonstration at a plant completed in April 2022 in Kuji City, Iwate Prefecture, which is 1/10th the size of a commercial plant, as the final stage in verifying the technology for practical application and commercialization. The first commercial-scale BR plant is targeted to begin production in FY2028. Plans are in place for the ethanol produced at the plant to be recycled as a plastic raw material in collaboration with chemical manufacturers, including SUMITOMO CHEMICAL CO., LTD., with which we have already begun partnership. Ethanol is converted to ethylene and then to plastic, and the products from the plastic are used and disposed of, collected as combustible waste, and returned to the BR plant. The aim is to create a resource recycling system that can be repeated over and over.

Chemical Looping Technology for CO_2 to CO Conversion

SEKISUI CHEMICAL has been developing its unique chemical looping technology for CO_2 to CO conversion, which converts CO_2 to CO at a high conversion rate.

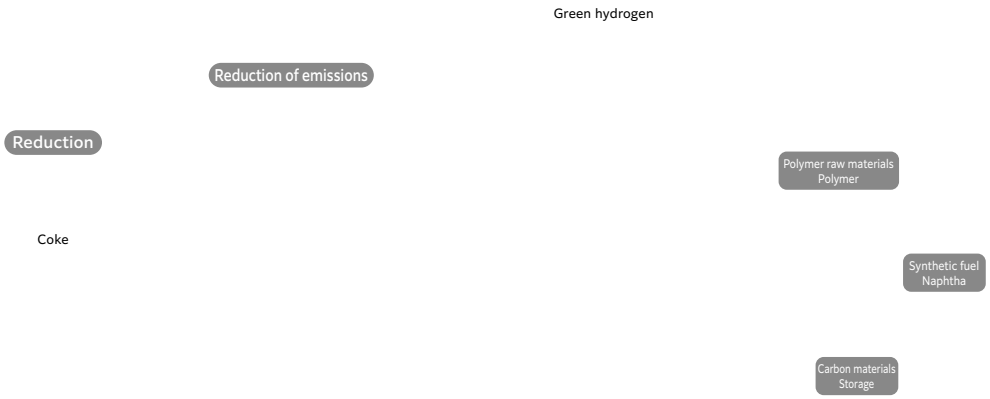
From 2021, we have entered into a carbon recycling partnership with ArcelorMittal, S.A., a world-leading steel and mining company. As part of this partnership, we have been engaged in international collaboration on CCU for circular carbon in steelmaking under contract with the New Energy and Industrial Technology Development Organization (NEDO). Steelmaking accounts for 7–9% of the world's CO_2 emissions, and, of that amount, the blast furnace process, which produces pig iron from iron ore, accounts for approximately 70% of the steel industry's CO_2 emissions, making the reduction of CO_2 emissions from the blast furnace process a major challenge for the steel industry.

To address this issue, we demonstrated the efficacy of technology for CCU for carbon circulation in steelmaking. This technology effectively utilizes CO_2, and also contributes to its reduction, in an approach in which CO_2 emitted from the blast furnace process is separated and recovered, converted to synthetic gas consisting of carbon monoxide (CO) and hydrogen using our chemical looping technology, and then introduced into the blast furnace as a reductant in place of coke.

In June of 2023, tests using actual blast furnace gas at an ArcelorMittal plant in Asturias, Spain succeeded in maintaining high performance with a CO yield of over 90% after a six-month demonstration period.*

As a result of the technology evaluation by ArcelorMittal, our technology was highly praised in terms of reaction efficiency and durability, and we are currently considering the timing of the introduction of this technology while keeping an eye on the decarbonization market. Furthermore, we are pursuing applications in a variety of fields beyond the steelmaking process, and have initiated several collaborative projects with partners who have evaluated the potential of our technology.

* This achievement is a result of NEDO's international joint research and development project (JPNP20005) for innovative technology in the field of clean energy.



Innovation

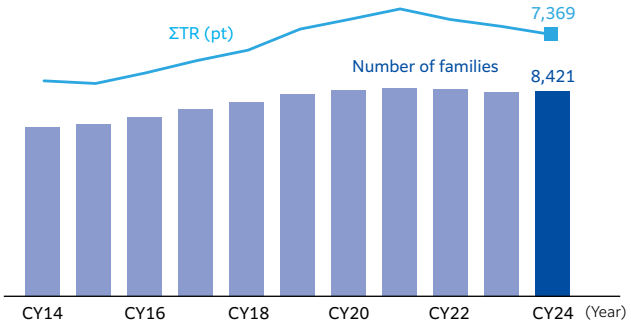
Intellectual Property Management

Basic Concept

We believe that intellectual property as a result of our research and development activities is an important management resource that supports SEKISUI CHEMICAL Group's growth and earnings as well as efforts to maximize corporate value. Therefore, the Group places great importance on intellectual property strategy in order to maximize the prominence of our technology.

Under the Medium-term Management Plan that started in FY2023, we are engaged in activities while also referring to indicators related to the Patent Asset Index™ (PAI), which represent the value of patented assets.

Trend of patent asset value (technical value: ΣTR value*)



・Since 2020, patent applications have been more selectively filed, resulting in a temporary decrease in the number of families and ΣTR, but continuous improvement in patent quality is being pursued.

* The ΣTR value is a relative indicator calculated using PatentSight®, the patent analytics tool provided by LexisNexis, Inc. The total value of the TR (Technology Relevance) indicator, which is one of the components of the Patent Asset Index™ and reflects patent asset value based on the number of citations, is defined as the technical value (ΣTR) of our entire portfolio.

Intellectual Property Risk Management and Utilization

SEKISUI CHEMICAL Group is growing its business on a global scale. We also investigate and monitor the status of intellectual property on a global basis, and, by taking avoidance measures and exercising our rights, we maximize the use of our own intellectual property while respecting the intellectual property of other companies.

Education and Fostering an Intellectual Property Culture

We are committed to fostering a Group-wide intellectual property culture that contributes to our business. In terms of education, in addition to shared training programs for technical personnel, we have expanded to include divisional company-specific practical training and trademark training for sales personnel. At the same time, the results of intellectual property activities are evaluated and awarded not only in terms of the number of patent applications filed and the content of inventions, but also in terms of licensing income and the amount of business contribution, thereby promoting a mindset of positive impact on business.

Training and Career Development of IP Professionals

In addition to a high level of expertise, the Group's Intellectual Property Division emphasizes the ability to collaborate with development and business projects. To this end, we are enhancing our on-the-job and off-the-job training programs, supporting the career development of specialist positions by establishing the Intellectual Property Specialist Position from 2024, and strengthening our recruiting capabilities through an internship system.

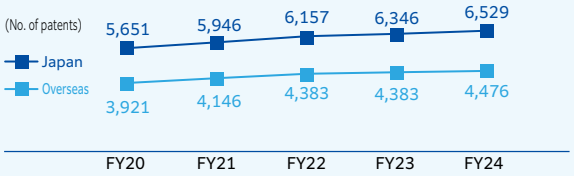
Group-wide Intellectual Property Application (IP Landscaping)

SEKISUI CHEMICAL Group engages in analysis activities that combine market and technology information with a focus on intellectual property (IP landscaping). From quantitative and qualitative perspectives, we visualize the efficiency and business competitiveness of our intellectual property, and reflect the results in strategic planning. IP information is also used where new products and businesses are created, as well as in high-level management and business assessments, such as M&A, as an aid to decision-making and as a way to boost chances of success.

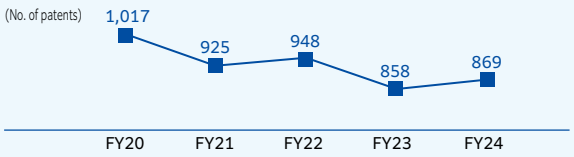
Performance Data

In each of the recent rankings for Patent Asset Scope and Ability to Restrain Other Companies announced by Patent Result Co., Ltd., the Company ranked seventh and fifth, respectively, in the chemical industry. SEKISUI CHEMICAL has maintained a position in the top 10 for the past 14 years.

Number of Patents Possessed (domestic and international)



Number of Patent Applications (domestic)



Patent Asset Scope Ranking (2024)

Ranking	Company name	Patent asset scope (points)	Number of patents
1	Fujifilm	64,597.2	1,386
2	LG ENERGY SOLUTION	21,918.0	750
3	Kao	19,773.8	613
4	DIC	19,661.1	373
5	Resonac	19,394.9	599
6	Mitsubishi Chemical	18,565.7	508
7	SEKISUI CHEMICAL	18,134.8	559
8	Nitto Denko	17,936.9	530
9	Sumitomo Chemical	17,383.1	519
10	ARTIENCE	14,951.0	300

Source: Patent Result Co., Ltd. Chemical Industry: Patent Asset Scope Ranking 2024

Ability to Restrain Other Companies Ranking (2024)

Ranking	Company name	Number of patents cited
1	Fujifilm	3,110
2	Mitsubishi Chemical	1,591
3	Kao	1,267
4	Resonac	1,219
5	SEKISUI CHEMICAL	1,007
6	Nitto Denko	887
7	Asahi Kasei	832
8	Sumitomo Chemical	819
9	Shin-Etsu Chemical	677
10	KANEKA	596

Source: Patent Result Co., Ltd. Chemical Industry: Ability to Restrain Other Companies Ranking 2024

Human Capital

Basic Concept for Human Capital

SEKISUI CHEMICAL Group is committed to creating an environment where employees can thrive, based on the Human Resources Philosophy that employees are precious assets bestowed on us by society. Under this philosophy, we believe it is essential to remain "A company where everyone is energized and engaged to take on challenges."

As we work to become an energized and engaged company where all employees thrive on challenges, we are promoting a shift in our human resources management that includes the promotion of a role-based human resources system and challenges as part of a human capital strategy.

Basic Policy on Human Resources

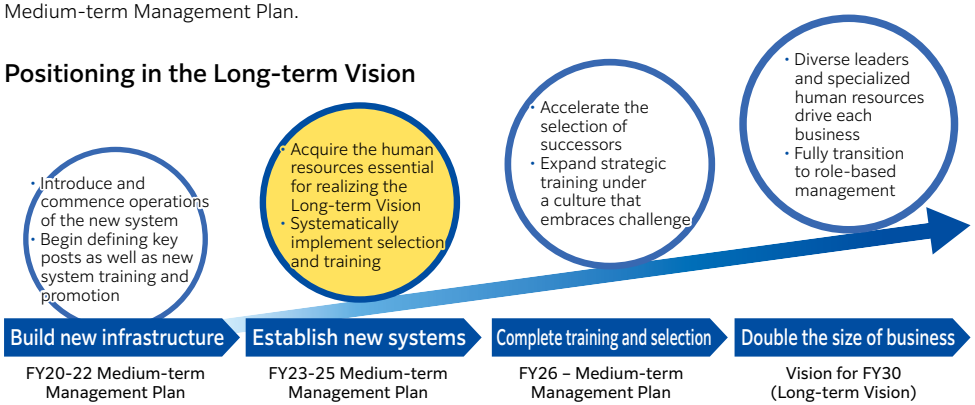
*1 Employee Challenge Action Rate: The percentage of respondents who answered "applicable" or "somewhat applicable" to the question "I am taking specific challenging actions toward the realization of Vision 2030." (redefined in 2023)
*2 (1- (Number of employees who left employment in 1 year/ Number of employees as of April of the fiscal year)) ×100 (only includes permanent full-time employees. Excludes compulsory retirees and transfer retirees.)
*3 Total Value Added (Operating Profit + Depreciation + Labor Costs) [Outcome] ÷ Human Capital Cost (Labor Costs + Welfare Expenses + Recruitment Expenses + Training Expenses) [Investment]

Human Capital Strategies and Initiatives

We aim to achieve the right talent in the right position by developing human resources that can respond to the speed of business growth and changes. This includes securing, selecting, and systematically training personnel who are essential to the realization of our Long-term Vision.

We have also continued to invest heavily in human capital through such measures as expanding employee careers and improving working conditions to the tune of ¥12 billion over the three-year period of the Medium-term Management Plan.

Positioning in the Long-term Vision



Achieve both strategic creation and strengthening of existing businesses

Medium-term personnel strategy	Foster a Culture that Embraces Challenges	Realize the right person for the right position	Achieving Diversity
Key personnel strategy	**Create a place to take on challenges** Accelerate career realization led by employees Provide opportunities to take on challenges **Support employees taking on challenges** Implement activities to foster a culture of taking on challenges (creation, innovation, improvement) and further strengthening of them Foster a corporate culture for career independence	**Development of next-generation leaders** Select and train executive candidates Visualize the role of executives and conduct multifaceted evaluations **Secure professional human resources that "stand out"** Secure and strengthen highly specialized human resources Strengthen reskilling in line with business needs	**Promote the active participation of diverse human resources** Promote the employment and retention of diverse human resources Promote diversity and support work-life balance **Creating a Vibrant Work Environment** Create an environment where employees can work with peace of mind Ensure a healthy and comfortable working environment
Priority KPI:	Employee Challenge Action Rate*1 FY24: 56% FY25 Target: 60%	Successor candidate preparation rate FY24: 88.1% FY25 Target: 100%	Maintain and increase the retention rate*2 FY24: 97.8%
Human Capital Investment	Invest ¥12 billion over the three-year period from FY2023 to FY2025 in human capital (intangible assets) 1. Invest in employee career advancement 2. Secure human resources for each Group company (labor condition improvements, personnel reinforcements, working environment upgrades)		

Investment effectiveness: Value-added productivity

In order to measure the effectiveness of significant investments in human capital, we have introduced a productivity indicator (value-added productivity) starting in FY2024.

	FY22	FY23	FY24
Value-added productivity (%)*3	159	159	163

Human Capital

Fostering a Culture That Embraces Challenge

In order for employees to embrace challenge and to take the appropriate action, it is equally important that we put in place the prerequisite environment. To this end, it is essential that managers set the right goals, motivate employees, and foster an organizational culture in which efforts to take on challenges are valued and failures are tolerated. Accordingly, the human capital strategy in the Medium-term Management Plan focuses on creating opportunities and encouraging employees to pursue challenges. As we foster a culture that embraces challenge, we are promoting various measures to achieve these goals.

Priority KPI: Degree of taking on challenges
Major KPI: Engagement score

(SEKISUI CHEMICAL Group)

	FY21	FY22	FY23	FY24
Degree of taking on challenges (%)	51	47	48	56
Engagement score (multifaceted) FY19=100	143	114	133	129
Response rate (%)	62	81	88	89

FY2024 Achievements and Challenges

Degree of taking on challenges: In order to realize their careers, there has been an increase in challenging actions utilizing systems such as the self-nomination recruitment system and the internal entrepreneurship program C.O.B.U. Accelerator.

Engagement score: Although the response rate reached a record high of 89%, the engagement score remained flat.

Achieving Diversity

In 2015, SEKISUI CHEMICAL Group formulated its Diversity Management Policy and is working to promote diversity. Based on this policy, diversity is not only viewed in terms of such differences as gender, age, and race, but also in terms of differences in career backgrounds, values, personality, and other factors. Against this backdrop, we will work to understand, recognize, and harness these differences between each and every employee as strengths.

Priority KPI: Retention rate
Major KPI: Ratio of females hired among new graduates
Ratio of females in management positions
Percentage of male employees taking childcare leave

(SEKISUI CHEMICAL Group)

	FY21	FY22	FY23	FY24
Retention rate (%)	97.5	97.0	97.5	97.8
Ratio of females hired among new graduates (%)	22.2	28.1	31.4	28.1
Ratio of females in management positions (%)	4.3	4.5	4.9	5.3
Percentage of male employees taking childcare leave (%)	47.3	68.1	69.8	90.1

FY2024 Achievements and Challenges

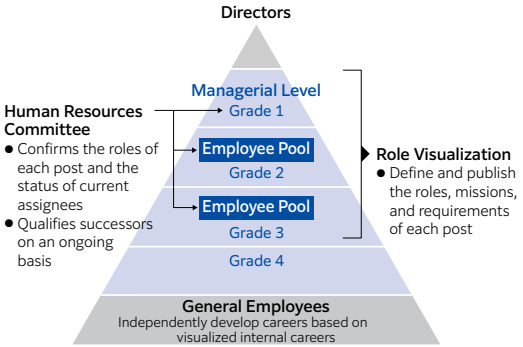
Ratio of females hired among new graduates: Although the increase in science and engineering hires has led to a decrease in the hiring rate of female new graduates, the promotion of women's active participation is being advanced in four areas: "strengthening female recruitment," "retention and active participation," "creation of managerial positions," and "development after managerial appointment." As a result, the ratio of females in managerial positions has steadily increased. From FY2024, instead of using expressions that refer to specific genders such as "promotion of women's active participation," we have adopted the term "gender diversity," which encompasses all employees.

The Right Talent in the Right Position

SEKISUI CHEMICAL Group aims to achieve the right talent in the right position by shifting to a human resource management approach that is based on roles.

Development of next-generation leaders: Strengthen selection and training of management candidates

SEKISUI CHEMICAL Co., Ltd. has introduced a grading system for the managerial level to promote efforts aimed at strengthening the selection and training of global-level leaders (management candidates). We have divided the roles of management into three position groups* and established four grades (1 to 4) for each of the groups based on the size of the role. We clearly state the responsibilities and authority for each grade and change position groups and grades in accordance with the role played by a manager at any given time.



*** Three Position Groups**

G positions (Global leader positions) 1-4

Line managers of the organizations stipulated by the organizational rules

P positions (Professional positions) 1-4

As strategy execution professionals, bear responsibility for proactively solving key issues within their own organizations (Report to line managers)

S positions (Specialty positions) 1-4

Establish and execute themes in order to demonstrate a high level of expertise, which is the source of our competitiveness, and achieve breakthroughs

We have established the Human Resources Committee, in which officers and the Human Resources Department discuss whether the most suitable human resources are filling each role across the Company, whether candidates are being nominated, whether they are being continuously trained, and whether the level of their grade is appropriate. Our goal is to properly manage the roles required to realize our management strategies, and to ensure that the personnel and successors responsible for these roles receive continuous training.

Priority KPI: Rate of successor candidate preparation

(SEKISUI CHEMICAL Group/domestic)

	FY21	FY22	FY23	FY24
Successor candidate preparation rate (%)	50.5	67.7	92.4	88.1

Secure prominent professional human resources: Strengthen efforts to secure highly specialized human resources

Highly specialized human resources refers to professional human resources who demonstrate a high level of expertise, which is the source of our competitiveness. In addition to the difficulties involved in development through work, there is high demand across all industries. As a mechanism to continuously secure human resources within the Company, we appoint highly specialized specialists who are recognized both inside and outside the Company to Specialty (S) positions to tackle deepening of the technologies we possess and enhancing the technologies from a medium- to long-term perspective.

S positions occupancy rate

(SEKISUI CHEMICAL non-consolidated)

	FY21	FY22	FY23	FY24
Number of people in S positions (persons)	38	39	39	41
Specialty positions occupancy rate (%)	62	66	85	75

Environment

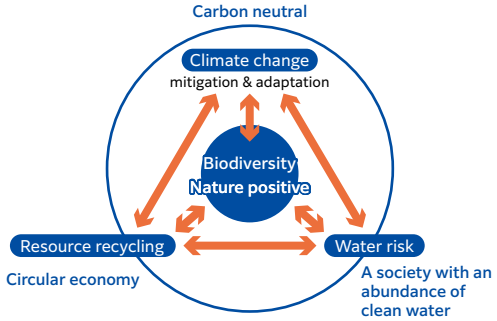
SEKISUI CHEMICAL Group has identified long-term targets and initiatives in our Long-term Environmental Management Vision, SEKISUI Environment Sustainability Vision 2050, recognizing climate change, resource recycling, and water-related risks as important issues. The degradation of natural capital can be halted, first of all, by reducing greenhouse gas (GHG) emissions, promoting resource recycling, and reducing the burden on ecosystems. The Group is also endeavoring to provide returns to natural and social capital through such measures as the expansion of sales of Products to Enhance Sustainability, and we are engaging in business activities on a daily basis with the aim of realizing an Earth with maintained biodiversity.

Target Goals and Issues

The goal of the Group's Long-term Environmental Management Vision is: an "Earth with maintained biodiversity where the ecosystem hierarchy is kept healthy and in a nature-positive state." Working backwards from that future goal, we have devised goals and measures for each Medium-term Environmental Plan.

It is our belief that this goal will be achieved by solving each specified environmental issue. We are aware of all environmental issues and, in order to select and implement solutions without trade-offs, we are promoting environmental strategies with an recognition of their correlation.

Correlation diagram of environmental issues related to SEKISUI CHEMICAL Group



		Earth with maintained biodiversity, where the ecosystem hierarchy is kept healthy and in a nature-positive state				
			Key environmental issues			
Long-term Environmental Management Vision 2050	Targets	Improving the rate of return to natural and social capital	(1)Climate change: Achieve zero GHG emissions that arise from business activities	(2)Resource recycling: Achieve a circular economy	(3)Water-related risk: Realize societies with abundant access to clean water	Improving global and social sustainability through our products
2023-2025 Medium-term Environmental Plan	Important measures and targets	Monitoring progress with the integrated index: Maintaining a rate of return to natural capital of 100% or more	Accelerate the shift to renewable energy for purchased power and reduce fuel-derived GHG emissions	Resource conversion of raw material resins and increasing the material recycling rate	Reduce water intake volume and COD emission volumes while minimizing the impact of our business	Sales of Products to Enhance Sustainability: In excess of 1 trillion

Responses to Biodiversity Issues

The Group recognizes the dependencies and impacts of our business activities on natural capital and strives to maintain a return on natural capital in excess of that which we use.

Realizing net positive through corporate activities	1. Review manufacturing processes 2. Review nature-positive product designs 3. Increase the degree of contribution through Products to Enhance Sustainability
Supporting returns to natural capital by society	4. Strengthen initiatives involving raw material procurement 5. Support activities for social change
accelerate both the return on natural capital through corporate activities and the return to natural capital by society	6. Develop human resources 7. Collaborate with stakeholders

For details on our efforts to address climate change issues, scenario analysis, and initiatives to address biodiversity issues, please refer to our TCFD/TNFD Report.

TCFD/TNFD Report https://www.sekisuichemical.com/sustainability_report/report/#tcfd

Environmental Management Promotion System

The Group's environmental aspects have been managed and advanced under the Sustainability Committee, which serves as a forum for deliberating policies and strategies for improving the sustainability of society and the Group. P.69

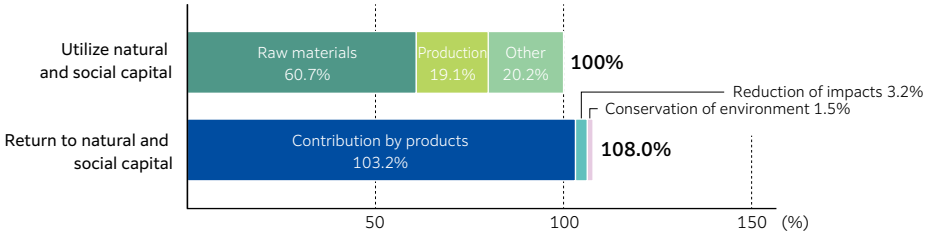
As subcommittees of the Sustainability Committee, we have established separate subcommittees for each issue that the Group has defined as materiality, and we have established an environmental subcommittee for environmental issues. Risks related to environmental issues, such as climate change, are studied and evaluated by the Environmental Subcommittee, with the results reported to the Sustainability Committee, where they are deliberated on along with company-wide response policies, major measures, and achievement target levels.

Integrated Index: Correlation diagram of environmental issues related SEKISUI Environment Sustainability Index (FY2024)

The SEKISUI Environment Sustainability Index measures the impact of the Group's corporate activities on the environment (use of natural and social capital) and the degree of contribution to the environment (returns to natural and social capital) as a single index. We are gradually expanding the scope of coverage to encompass not only the impact on and return of natural capital, but also on and of social capital. Since FY2017, we have applied this index to monitor the progress of the Group's overall environmental management.

As for results in FY2024, when the use of natural and social capital (burden on the natural and social environment) is set to 100, the return on natural and social capital (contribution to nature and social environment) was 108%, confirming that we have been able to maintain 100% or higher. This is because of the progress made in the conversion of purchased electricity to renewable energy and the return (contribution) from products to enhance sustainability has been steadily increasing. Looking ahead, we will maintain a rate of return to natural and social capital of 100% or higher. In 2050, we aim to realize the sustainable use of the Earth's natural capital and the social capital generated by human society.

SEKISUI Environment Sustainability Index (2024)



	FY2024 Results
Rate of return to natural and social capital through corporate activities	108%*

*The goal for FY2025 under the Medium-term Plan is 100% or higher

Breakdown of the rate of return to impacts regarding the aspect of nature	
Rate of return to biodiversity	29.6%
Rate of return to plant biomass	57.2%

*Calculated using LIME2, a damage calculation–based impact assessment method for use in Japan

*MiLCA, a calculation system using LIME2 used to calculate the return rate has been updated to database IDEA ver3.1. As a result, the environmental impact per unit amount is larger, especially in terms of the impact of chemical substances on ecosystems. Placing even more importance on the impact on biodiversity, we are using the updated calculation system from FY2023.

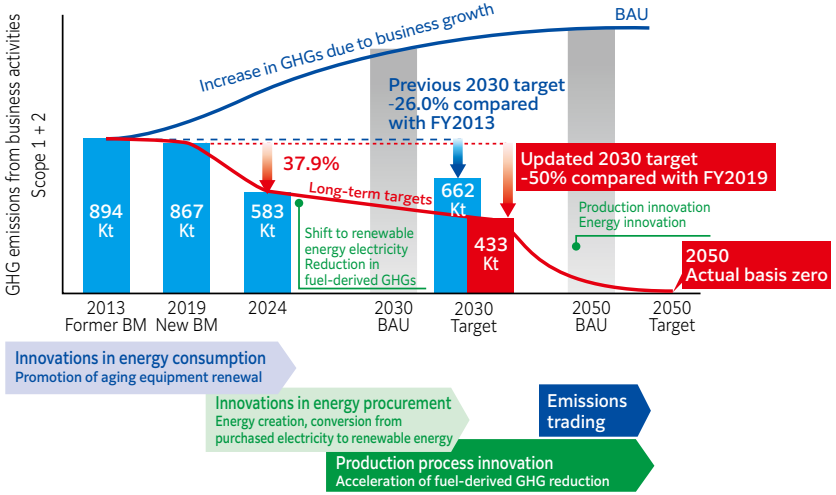
Environment

Efforts to Address Climate Change

SEKISUI CHEMICAL Group believes that it is important to earnestly confront all climate change risks and make every effort to keep the temperature lower. In the reduction road map formulated based on the 2°C target to achieve this goal, we were able to achieve our milestone earlier than initially planned in fiscal 2021, the middle of the previous Medium-term Plan. In response, to further accelerate our initiatives we raised our target for GHG reductions for 2030 in line with the 1.5°C scenario and received SBT certification again.

The Group is working to reduce not only its own GHG emissions but also those of its entire supply chain, from the procurement of raw materials to the development, production, transportation, use, and disposal of its products. In moving toward the long-term goal of achieving effectively zero GHG emissions from our business activities by 2050, we aim to convert all electricity purchased within Scope 2 to renewable energy sources by 2030. For fuel-derived sources under Scope 1, we are continually promoting energy conservation activities at our production sites, including more efficient operations and energy conversion to electricity by replacing aging facilities. We have identified the period from fiscal 2023 as the time for production process innovation. Our goal is to convert 70% of purchased power to renewable energy, and we are continuing to implement measures to support this conversion.

Road Map to Reducing GHG Emissions



In order to reduce GHG emissions throughout the product lifecycle, it is vital to reduce GHG emissions (Scope 3) in the supply chain. In upstream corporate activities, we are calling on the cooperation of suppliers and strengthening efforts to convert to non-fossil-based and recycled raw materials in a bid to reduce raw material-derived GHG emissions.

In downstream corporate activities, we are endeavoring to increase the sales ratio of net-zero energy houses (ZEH) with Sekisui Heim's energy-saving performance and large-capacity photovoltaic/large-capacity storage batteries and are promoting increased awareness toward the recovery and disposal methods of used products at the product and business model design stages in order to reduce GHG emissions at the time of product use.

Medium- to Long-term GHG Emissions Reduction Targets

Initiatives	Indicators	Results from Previous Medium-Term Management Plan (FY2022)	FY2024 Results	Medium-Term Management Plan (FY2025)	FY2030	FY2050	Remarks
Reduction of GHG emissions	Renewable Energy Ratio of Purchased Electricity	36.4%	61.0%	70%	100%	Total power consumption, including cogeneration 100%	Joined RE100 (FY2020)
	GHG emission reduction rate of Scope 1+2	-26.8% (vs. FY2013)	-37.9% (vs. FY2019)	-33% (vs. FY2019)	-50% (vs. FY2019)	Zero emissions	Obtained SBT certification Reduction of GHG (Until 2030)
	Reduction of GHG emissions from the supply chain	-11.0% (vs. FY2016)	-5.7% (vs. FY2019)	—	-30% (vs. FY2019)	—	
	Fuel-source GHG emission reduction rate (including GHGs not arising from energy consumption)	—	-13.3% (vs. FY2019)	-12% (vs. FY2019)	-11% (vs. FY2019)	Zero emissions	
Energy savings	Reduction rate of energy consumption per unit of production	-1.1% (vs. FY2019)	+2.9% (vs. FY2022)	-3% (vs. FY2022)	—	—	

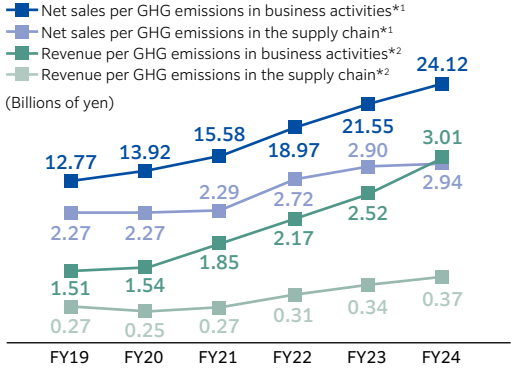
Confirming the Validity of Our Climate Change Strategy

We verified how efforts that contribute to climate change mitigation and adaptation are affecting management using the trends in carbon efficiency (environmental) over time and using the correlation between carbon efficiency (environmental) and economic efficiency.

First, the relationship between GHG emissions, sales, and EBITDA is shown by changes in net sales per GHG emissions and EBITDA per GHG emissions. An increasing trend has been observed in two indicators in business activities. We were able to confirm that the transition to renewable energy is progressing at domestic and overseas business sites, and that this is having a continuous positive impact on management. Similarly, when looking at the supply chain as a whole, both indicators show an upward trend.

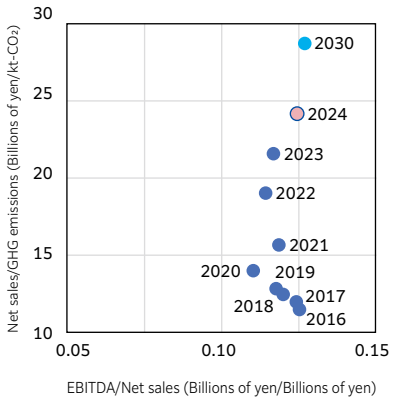
We also confirmed the correlation between sales per unit of GHG emissions and EBITDA per unit of sales, indicating that we have improved "sales per carbon" while maintaining stable earnings. Based on the results of these verifications, we were able to confirm that the strategy we are advancing based on our Long-term Vision for 2030 is correct. Going forward, we will continue to aim for corporate growth that balances environmental and economic efficiency.

Carbon Efficiency in Business Activities
Carbon Efficiency in the Supply Chain



*1 Net sales per GHG emissions: Sales (Billions of yen) / GHG emissions (kt-CO_2)
*2 Revenue per GHG emissions: EBITDA (Billions of yen) / GHG emissions (kt-CO_2)

Carbon Efficiency in Business Activities
(Correlation between environmental and economic efficiency)

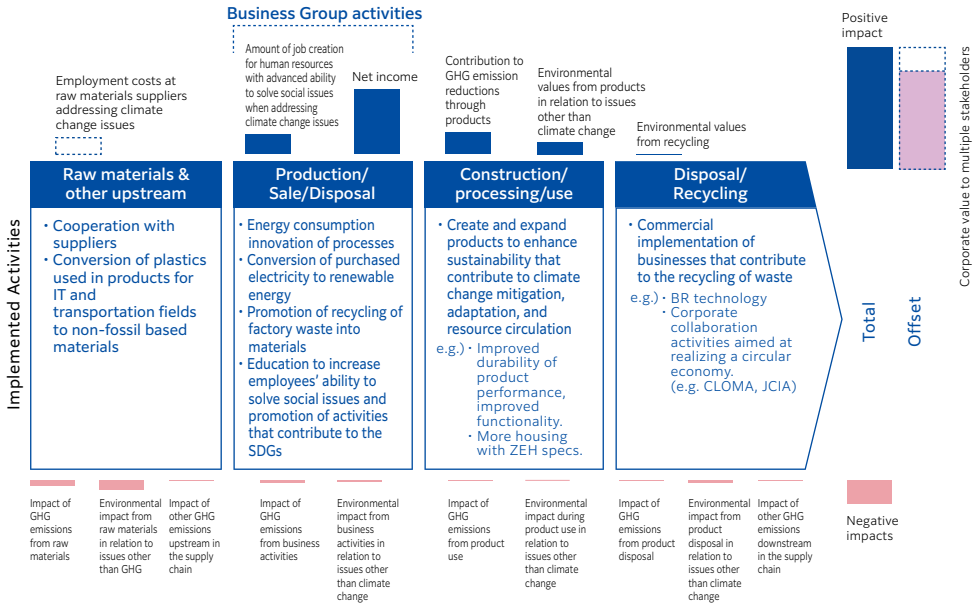


Environment

Stakeholder Comprehensive Income Using Impact-weighted Accounting Methods

Climate change is affecting the entire planet, and SEKISUI CHEMICAL Group's efforts to combat climate change are considered to have an impact not only on shareholders but also on multiple stakeholders. To verify the validity of the strategy, we therefore believe that it is necessary to consider the impact on multiple stakeholders in a broad-based and comprehensive manner and are utilizing an impact-weighted accounting methodology to calculate the comprehensive income for multiple stakeholders. Impact-weighted accounting is a concept that integrates accounting and impact by converting the impact of corporate activities on all stakeholders into monetary value and adding or subtracting profits to better understand corporate value for all stakeholders. As a result, having recognized where the positive/negative impacts on multiple stakeholders are occurring, we confirmed that the initiatives currently being implemented are contributing to the enhancement of corporate value by increasing the positive impacts and reducing the negative impacts. Going forward, we will continue to work to formulate management strategies and implement measures to further expand the positive impact and reduce the negative impact in order to solve climate change issues.

Image of company value over the life cycle of a product using impact-weighted accounting methods



[Calculation method] Stakeholder comprehensive income = (Net income + Employment costs for Approach 1 or Approach 2 + Economic value of contribution to GHG emission reductions through products + Economic value that products bring to environmental aspects other than climate change issues) - (Economic losses from greenhouse gas emissions from business activities including the global value chain upstream and downstream + Economic losses from environmental aspects other than climate change issues from business activities including the global value chain upstream and downstream)

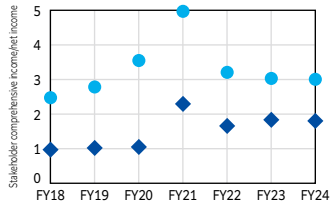
・From FY2023, the calculation includes all business activities related to the global value chain.
・The LIME2 concept was adopted when converting value.
・With regard to human resources investment related to natural capital, stakeholder comprehensive income is calculated based on the employment costs according to the following two concepts.

[Approach 1] Employment costs for employees implementing climate change initiatives
[Approach 2] Employment costs for human resources who will lead climate change initiatives

Stakeholder Comprehensive Income as a Share of Net Income

For human resources investment related to natural capital, stakeholder comprehensive income differs due to the difference in the amount of jobs created based on the two approaches. The ratio is 3.0 when [Approach 1] is applied, and 1.8 when [Approach 2] is applied.

In either case, we confirmed that we were able to continue to generate stakeholder comprehensive income above and beyond net income.



●:Human capital approach 1= Assumes that all employees generate added value in solving social issues
◆:Human capital approach 2= Assumes that human resources with high social problem solving contribution ability create added value in solving social issues

【Reference】Approach to Human Investment in Impact-Weighted Accounting Using Human Resource Indicators of Ability to Contribute to Solving Social Issues

The Group has established human resource indicators to serve as guidelines for individual progress and is reviewing the content of these indicators for each medium-term plan in order to ascertain the current state of knowledge and actions required to solve social issues, including environmental issues, and to encourage self-improvement. Questionnaires conducted through self-checks confirm the extent to which employees possess knowledge or are taking actions that lead to the resolution of issues. We believe that it is important in the short, medium, and long term to make investments in accordance with employee growth, and in the framework for impact-weighted accounting, the employment costs for employees are positioned as human investment related to natural capital ([Approach 1] under human investment). Results of the questionnaire are classified into five levels (A through E) based on the ability to contribute to solving social issues, and we consider it especially important to invest in human resources in the top two levels (A and B) with strong problem-solving abilities who can make contributions. Based on this belief, we conduct education and training to increase the number of such employees ([Approach 2] under human investment).

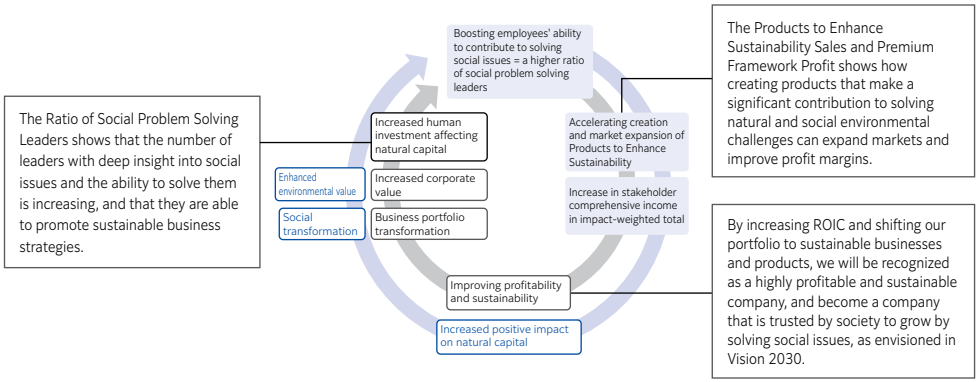
Share of Human Resources Driving Solutions to Social Issues (%)

	FY18	FY19	FY20	FY21	FY22	FY23	FY24
Share of employees with Levels A and B in the check for social problem solving contribution capability	7.2	6.7	6.7	10.1	7.2	20.4	19.4

2017-2019 : Composed and implemented evaluation content as an environmental human resources check
2020 : Read as the same status as FY2019, as there had been no implementation
2021-2022 : Composed and implemented evaluation content as a check for social problem solving contribution capability
2023-2025 : Updated and implemented evaluation content as a check for social problem solving contribution capability

[Correlation with Corporate Value]

We believe that increasing the number of human resources who drive solutions to social issues in the Group will create the following virtuous cycle and contribute to the long-term enhancement of corporate value.



Environment

Initiatives for Resource Recycling

Recognizing that efforts to recycle resources in the supply chain are indispensable to realizing a carbon neutral society, we formulated a resource recycling policy strategy, and a resource recycling road map to achieve a circular economy in 2050. Plastics are one of the major materials used in the Group's business domains. Up until now, in the production process, we have continually made efforts year after year to reduce the amount of waste generated, using waste per unit of production as an indicator for these efforts. In addition, we have carried out, for example, internal recycling to reuse scraps generated and implemented processing for reuse of resources including energy when disposing of materials as waste.

FY2021 clearly states that we will expand the ratio of plastic materials we use comprised of bioplastics and other recycled materials that are not derived from fossil fuels. We will promote internal recycling more than ever before to minimize the waste products emitted from our construction projects. Additionally, in both the use and recovery stages, we will work on our product design and supply chain to ensure products can be disposed of with thorough sorting and separation. In this way, we will promote initiatives to maximize reuse of material resources through mechanical recycling, chemical recycling, and other recycling methods.

Based on the results achieved up to and including FY2023, we have reset the milestones for 2025. Within these life cycles, we believe that innovation at the product design stage is important for driving the promotion of resource circulation. By designing new products and revising the various processes for existing products, we are promoting initiatives for innovation that will accelerate resource circulation.

Road Map for Achievement of Long-Term Resource Recycling Targets

		FY2023 Results	FY2024 Results	–FY2025	–FY2030	–FY2050
Business Strategy	Net sales of Products to Enhance Sustainability that contribute to resource circulation*	1.8 times (¥99.0 billion)	1.8 times (¥98.8 billion)	1.7 times (¥94.0 billion)	Double or more (¥110.6 billion)	All products
Raw material resource conversion	Net sales of products not derived from fossil fuels and using recycled materials	¥34.7 billion	¥35.4 billion	¥40.0 billion	¥100.0 billion	—
Resource recycling of waste	Ratios for recycling waste plastic into new materials	60.7% (Japan)	66.9% (Japan) 70.1% (Overseas)	65% (Japan) 69% (Overseas)	100% (Japan/Overseas)	100% (Japan/Overseas)

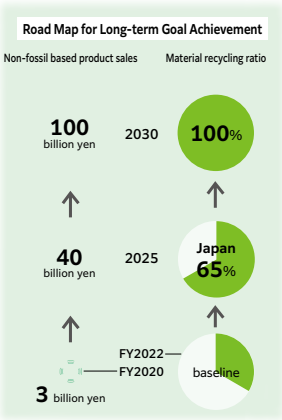
* Benchmark for net sales of Products to Enhance Sustainability that contribute to resource circulation: ¥55.3 billion (FY2020)

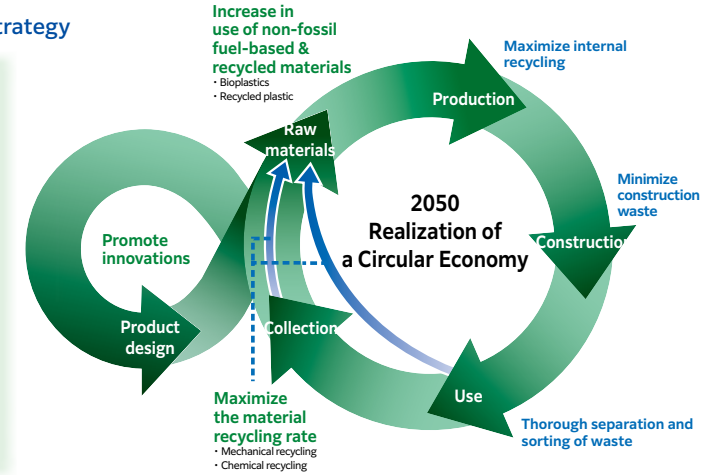
Plan for Recycling Waste Plastic into New Materials

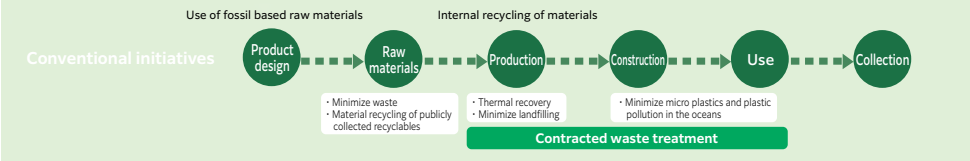
Phase	Initiatives Implemented	FY23	FY24	FY25	FY28	FY30
[Phase1] Use of existing technologies	● Review of recycler suitability				Continued expansion of content	
	● Thorough separation of blended materials					
	● Improved (1) storage and (2) transportation efficiency due to compression/grinding					
[Phase2] Introduction of new material recycling technologies	Development of new material recycling technologies 1. Identification and application of technologies according to difficult-to-recycle material targets 2. Establishment of operating methods			Establishment of material recycling methods for composite materials and other difficult-to-recycle materials		
[Phase3] Completion utilizing chemical recycling technologies	Use of Biorefinery (BR) and other chemical recycling technologies Acceleration through collaboration with other companies				Enable recycling up to miscellaneous and other waste	

●:Increase in the material recycling rate to start taking expect (expected)

Our Resource Recycling Strategy







Addressing Water Risk Issues

With regard to water risk issues, we have established two goals— minimizing the water risk at the Group and contributing to the resolution of water-related issues in local communities—while reducing the water intake volume of the entire Group. In addition to promoting recycling, we are also focusing on improving the chemical oxygen demand (COD) index for the quality of water discharged into rivers. As a specific measure, in regard to water resources in the watersheds where business sites are located, we will select locations/suppliers where the business impact is substantial and locations where the water risks are substantial and minimize the environmental impact by 2030.

In FY2024, water intake volume at the selected production sites which use large quantities of water decreased 8.8% compared with the base FY2016 year. This reflects the installation of equipment that control the volume of direct water intake from rivers at production sites in Japan that consume large volumes of water and the effects of reduction endeavors. The COD impact of river discharge water at production sites with large COD emission volumes decreased 5.0% compared with the FY2016 base year.

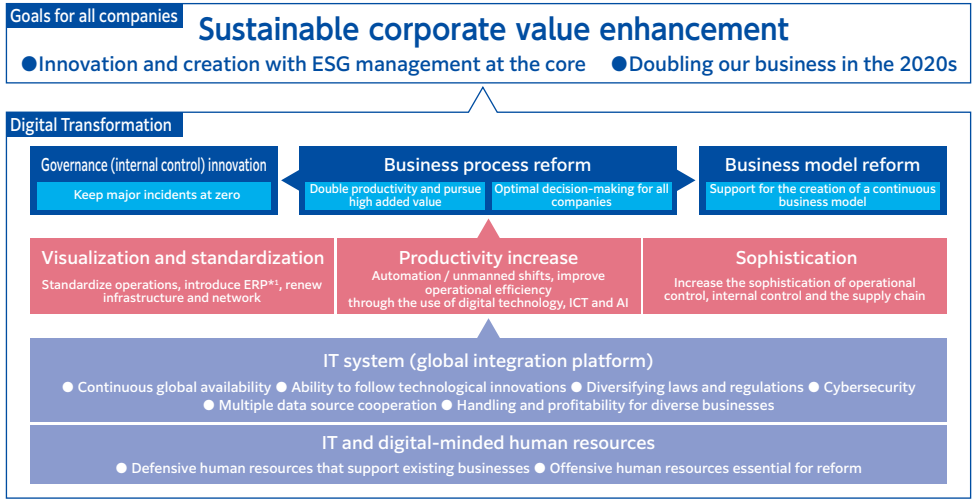
Specific Examples of Initiatives to Minimize Water Risk

Issue	Site	Initiative
Increase in water treatment capacity	SEKISUI NANO COAT TECHNOLOGY CO., LTD.	1. Modifications to optimize the treatment capacity of wastewater treatment facilities 2. Introduction of processes where microorganisms suitable for treating persistent COD components become the dominant species, improving wastewater treatment capacity 3. Demonstration testing of sludge reduction agents
Reduction in water intake volume	SEKISUI CHEMICAL Co., Ltd. Minakuchi Plant	Demonstration testing of sludge reduction agents
Improving water discharge	Sekisui S-Lec BV Resin Plant	The entire Chemelot industrial park to which the site belongs has formulated the "Chemelot 2050" environmental policy based on the European Green Deal in an aim to achieve climate neutrality. It aims to achieve zero water intake through circular processing by 2050.

DX

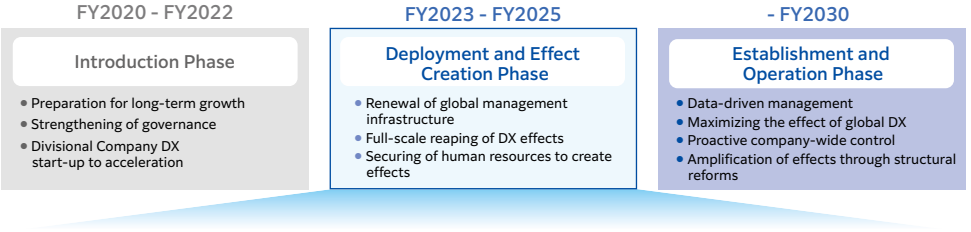
Basic Concept

For the Group, its Digital Transformation (DX) mission is to accelerate and support growth business strategies and structural reforms for the realization of its Long-term Vision.



As far as the Group's DX is concerned, we are advancing governance transformation and business model transformation—with a central emphasis on business process transformation—from the three perspectives of visualization and standardization, productivity increases, and sophistication. Concurrently, we are also enhancing the foundation—including IT systems and human resources—that will underpin these three transformations.

DX Road Map and Main Initiatives



Offensive DX

- Operation and deployment of global ERP*1
- Reaping of existing DX theme effects
- Securing of DX human resources
- Boosting productivity through generative AI

Defensive DX

- Further strengthening of cybersecurity, especially overseas

	FY2023 Results	FY2024 Results	FY2025 Target
Direct productivity*2	1.21	1.26	1.34
Indirect productivity*2	1.11	1.15	1.21

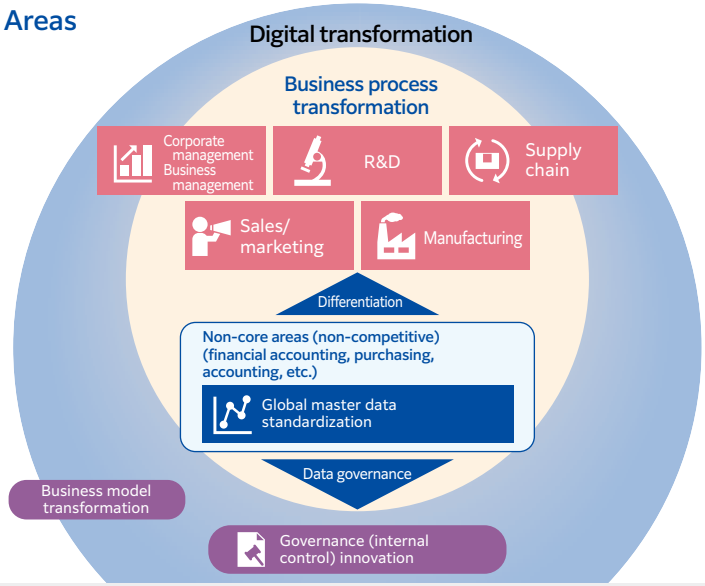
*1 ERP is the abbreviation for Enterprises Resource Planning. A system that merges and centrally controls core operations, such as corporate accounting, human resources, manufacturing operations, and sales operations.

*2 Net sales per direct/indirect employee (BM: 1.00 in FY2019)

DX Promotion System

In SEKISUI CHEMICAL Group, which is engaged in a variety of different businesses, we have established a promotion system headed by our CEO and senior managing executive officer to steadily advance the standardization and greater sophistication of business operations.

DX Target Areas



Foundations	IT/digital human resources	Creating effectiveness through the use of digital technology and securing human resources for digital technology
	IT infrastructure/security	Developing an integrated infrastructure that securely supports global operations

Business Process Transformation

Non-Core Areas	Corporate-led initiatives to standardize and adapt robust, low-cost standards
Global management base	Thorough standardization of business processes and data and unification into master data
Purchasing	Improved governance through streamlined operations and transaction data visualization
Core Areas	**Company-led differentiation, identifying standardization and differentiation areas**
Manufacturing	Prevention of quality tampering and fraud, supporting automation/unmanned operations
R&D	Improved productivity in ultra-high-speed development by utilizing data
Sales/Marketing	Improved productivity through evolution, standardization, and automation of operations
Supply chain	Proactive supply chain control, standardization, and automation
Corporate management/ Business management	Maximization of global consolidated profits through data-driven management

Governance (internal control) innovation	Shift away from self-reliant culture/conduct predictive behavior, risk mitigation and control based on company-wide major risks
Business model transformation	Underpin ongoing business model creation

DX

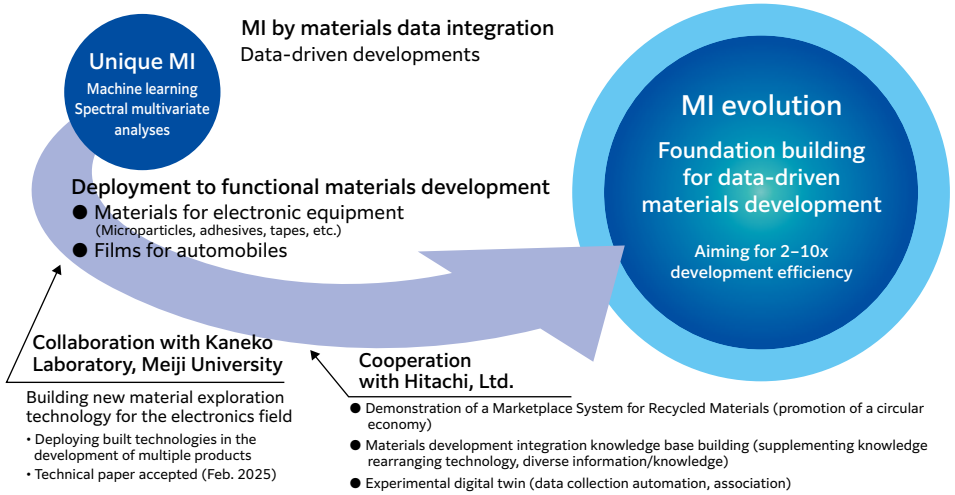
Examples of DX Initiatives

*1 UIEP: Urban Infrastructure & Environmental Products Company *2 HPP: High Performance Plastics Company *3 Housing: Housing Company

Area	Theme	Organization	Goals	Tools	FY2024 Results	FY2025 Targets
Non-Core Areas	Innovation of global management infrastructure	Company wide	• Improve governance and minimize risk by standardizing and visualizing operations in the core system (global ERP) • Improve productivity of indirect operations through standardization and streamlining of operations	SAP	• Quality assurance and verification completed for full-scale implementation for accounting tasks in Japan • Template development completed for global rollout	• Stably implement for accounting tasks in Japan and prepare for further rollout • Based on project progress, revise global rollout road map and prepare for initial adoption
Non-Core Areas	Transformation of global indirect purchasing	Company wide	• Strengthen governance through visualization of global transactions • Improve purchasing power and reduce procurement costs through purchasing with total optimization • Establish a mechanism for continuous cost reduction through system implementation	Coupa	• Established the use of an indirect purchasing system in the Company • Fully demonstrated effectiveness by utilizing accumulated data	• Further increase usage across the entire Group • Expand advantageous purchasing through centralized purchasing • Target for FY2028: reduce indirect material purchasing by 5% and purchasing-related work tasks by 25%
Core Areas	Evolution and streamlining of sales and marketing operations	UIEP*1 HPP*2	• Thoroughly improve efficiency and productivity through standardization and automation of operations (shift to value-added operations) • Improve top line by utilizing sales data	Salesforce	• Organized customer data and integrated it with the Company's website • Rolled out to SFA-related companies; visualized content with BI tools	• Establish sales activities based on data • Improve the top line by strengthening customer management
		Housing*3	• Streamline sales and design operations and reduce workload (to accommodate changes in work styles) • Improve the quality of presentation materials	Next-generation CAD systems	• Increased effectiveness by boosting operational efficiency and moving to in-house production through the use of next-generation CAD systems	• Effectively use accumulated data while enhancing system integration • More efficiently prepare presentation materials and conduct regulatory checks

Accelerating Materials Development through Digital Science

- In order to respond to changes in the environment surrounding the development of new materials (shorter product life cycles, resource constraints, and the need to diversify requirements for materials and accelerate R&D), our Group is promoting the use of materials informatics (MI).
- By using information science, we are improving the efficiency of materials development and realizing new functions, while contributing to the creation of new products.



Examples of MI initiatives

Examples	MI Application Details	Results
Film product formulation study	Apply machine learning to the design of formulas; simultaneous prediction of 13 types of physical Properties	Four hours to the design of formulas **900 times the speed** **(Five months ⇒Four hours)**
Electronic material tape adhesive development	Apply machine learning to the design of formulas; prediction of physical properties directly from chemical structures	16 hours required to identify new ingredients **45 times the speed** **(One month ⇒16 hours)**
Commencement of MI app usage	Officially launched the proprietary MI app RASIN to promote MI in materials development. R&D personnel are using MI technology to efficiently discover material properties and gain knowledge in a short period of time, which improves the efficiency and quality of materials development.	1. Completely in-house no-code app 2. User training linked to human resource development programs 3. Support framework that enables learning through practical applications

Examples of new initiatives

- Introduction of analysis algorithms into sensor products: prediction of wakefulness, shallow sleep, and sleep states through analysis of detected data
- Proposal of new materials for adhesives for the electronics field: prediction of key physical properties from chemical structure; efficient selection of candidate structures

Internal Control

To ensure the sustainable growth of SEKISUI CHEMICAL Group, we have defined five areas of major incidents (safety, quality, legal/ethical, accounting, and information management) that have the potential to significantly damage corporate value, determined corresponding response policies and measures, and incorporated them into action plans.

Safety

SEKISUI CHEMICAL Group believes that creating a workplace in which employees can work safely and with peace of mind is a key corporate responsibility and one of management's most important priorities. Based on this concept, we engage in total safety activities (zero occupational injuries, zero equipment-related accidents, zero commuting-related accidents, and zero extended sick leave) based on the five themes (1) to (5) listed below. Following the concept that has employees taking it upon themselves to prevent accidents from happening, in addition to engaging in concerted efforts in safety education and raising sensitivity to risks, we are focusing on following the established rules and creating a protective corporate culture.

Five Themes and Major Initiatives

Theme 1 Safety management using OHSMS*1

In terms of our efforts related to occupational health and safety, the Safety Subcommittee established under the Sustainability Committee formulates policies and activity guidelines and puts into practice and promotes them under the guidance of the Corporate Headquarters Safety & Environment Group and the leadership of the top management of each business site.

At SEKISUI CHEMICAL Group, the decision on whether or not to acquire ISO 45001 certification is determined on an individual business site basis. The Group then promotes activities to acquire the necessary certification. Sites that have not acquired certification also build and operate safety and health management systems that reflect ISO requirements. We monitor the status of activities through safety and disaster-preparedness audits, and promote efforts to maintain and revitalize safety management activities.

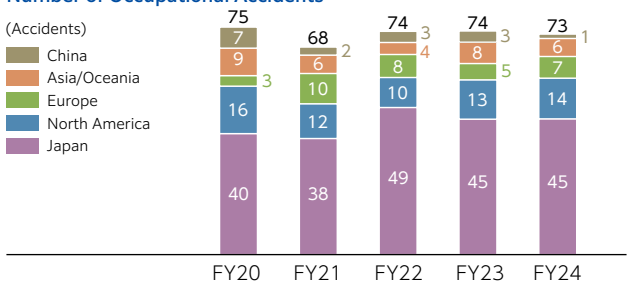
The ISO 45001 certified business sites (39) account for 41% of the total number of the Group's domestic and overseas production sites (96).

We promote the development of Safety Leaders (SL)*2 as key personnel to reduce risks at production sites.

Number of workplace accidents resulting in a fatality in FY2024: 0

*1 OHSMS: Occupational Health and Safety Management System
*2 Personnel who assist the safety manager at each business site and promote safety management activities. They are responsible for identifying and improving risks and promoting safety education at their respective business sites.

Number of Occupational Accidents



Theme 2 Intrinsic Equipment Safety*1 efforts

To strengthen its safety activities, Sekisui Chemical Group is providing support for employees to obtain a Safety Sub-Assessor (SSA)*2 qualification. The holders of this qualification promote machine safety activities, and a total of 246 employees have acquired it. The higher qualifications, Safety Assessor (SA)*2 and Safety Senior Assessor (SEA),*2 have been obtained by 25 SSAs and two SSAs, respectively.

The New Equipment Safety Design Standards, which indicate the safety specifications necessary for the production equipment used by the Group, have been updated to reflect the ISO/JIS machine safety standards and are regarded as an important standard for production equipment improvements. Having formed a revision committee comprising 12 SSA qualification holders, we are constantly brushing up the content of the design standards.

Number of Facility Accidents in FY2024: 0

*1 Intrinsic Equipment Safety: The name given to the machine safety activities promoted by SEKISUI CHEMICAL Group. Promoting improvements through intrinsically safe design measures and safety protection for unsafe locations in production equipment
*2 A Japan Certification Corporation safety qualification acquired to certify knowledge and skills for machine safety. This certification is based on international standards

Theme 3 Safety education of employees

SEKISUI CHEMICAL Group is working to prevent occupational injuries caused by manufacturing machines and equipment through activities that ensure Intrinsic Equipment Safety. At the same time, we are endeavoring to prevent occupational accidents caused by the actions of workers. Based on the lessons learned from past occupational accidents, we created the Basic Principles of Safety and distributed them to business sites in Japan and overseas using posters in an easy to understand, illustrated format.

The Housing Company has organized the Sekisui Heim Cooperation Association with its partner companies (contractors) to ensure the safety of employees of partner companies (contractors) involved in the on-site construction of houses, and holds regular meetings and other events.

At these meetings, the Housing Company shares the Group's safety policy, holds safety education sessions, and provides various training opportunities related to occupational safety.

Theme 4 Risk management including risk assessment

The Technology & CS Promotion departments of each divisional company take the lead and employees from different manufacturing sites work to uncover risks at each other's sites. Mutual on-site inspections help improve the awareness and sensitivity to risks among participating employees, while allowing site leaders and others hosting inspections to learn from other business sites. This has made it easier to reaffirm workplace risks and to quickly deploy best practices horizontally.

We specify high-risk disasters* for which we should focus on prevention and training to improve emergency response skills. Through these activities, we are also promoting the handing down of safety know-how accumulated on-site.

* (1) getting caught or entangled in machinery at a production facility; (2) falling off equipment or falling over at a business site; and (3) a chemical process-related fire or explosion

Theme 5 Safety audits/Disaster-preparedness audits

When conducting safety audits, external experts also conduct disaster prevention audits to prevent fires and explosions.

To raise the levels of safety activities at overseas production facilities as well, we have global safety standards. In FY2024, auditors went directly to business sites to conduct on-site inspections.

Internal Control

Quality

SEKISUI CHEMICAL Group strengthens basic quality while adhering strictly to quality compliance. By continuously working to strengthen the foundations that support quality, such as preventing defects from occurring and reinforcing daily management, we are striving to create a corporate culture that places the highest priority on quality and prevents the occurrence of fraud. Based on the motto "We consider customer feedback as the beginning of our manufacturing," we are actively working on innovations in "quality of people," "quality of systems," and "quality of goods (products and services)," aiming to realize "quality that makes us the first choice."

Quality Assurance System and Quality Management System

With regard to quality, we have established a CS & Quality Subcommittee that reports to the Sustainability Committee, and the Corporate Headquarters CS & Quality Group cooperates with the departments in charge of CS & Quality at each divisional company, production site, sales company, etc. to promote activities.

Having built quality assurance systems that extend across all processes, from product development to design, production, and sales, SEKISUI CHEMICAL Group has developed a quality assurance system for each process and promotes standards-based controls on a daily basis. At the same time, we recognize that it is the fields of manufacturing development that support quality and focus our efforts on innovation in production activities. In developing products and making improvements to quality, we conduct strict design screening from a variety of perspectives, such as those of quality assurance and safety, and have established a system that enables maintenance and management of after-sale services for customers.

We developed an original management sheet, which we dubbed the SEKISUI Process Management Chart (SPMC), to strengthen our process approach when promoting certification under the 2015 ISO 9001 standard. The SPMC is used effectively in areas that include monitoring daily management, corrective actions, internal audits, and quality education.

In FY2024, we worked to improve the quality of our management system by holding training sessions for QMS internal auditors as well as SPMC Internal Audit Hands-on Training, and by expanding and using tools such as audit scenario videos.

Conducting Prevention-focused Training on Quality Issues

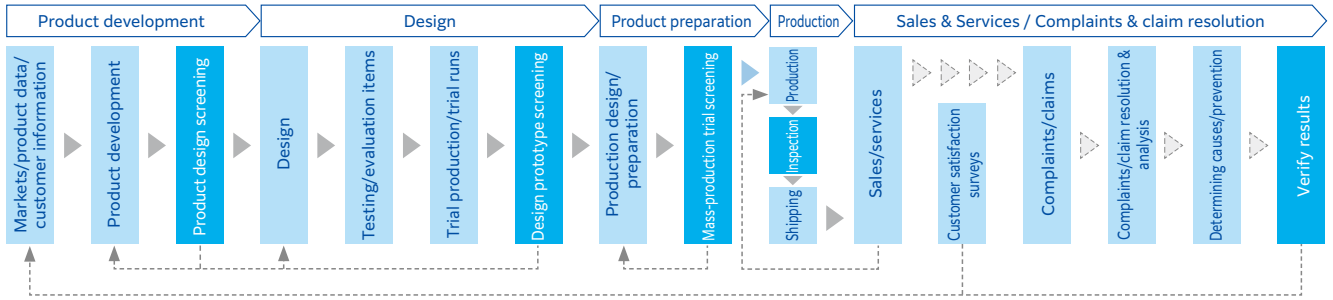
SEKISUI CHEMICAL Group conducts a variety of training programs to strengthen its CS & Quality human resources. To prevent quality issues, we 1. Hold Development-stage Issue Prevention Seminars aimed at teaching effective and efficient prevention methods; 2. Hold DR*1 Reviewer Training Seminars designed to improve the skills of employees engaged in DR at the stage of developing products and services that have passed the commercialization screening process; and 3. Offer guidance and support on GR*2 operations relating to new businesses, etc.

*1 Design Review. A system to manage development themes by establishing checkpoints from the product planning stage through development, mass production prototyping, and product launch.
*2 Gate Review. A continuous activity to judge whether to proceed to the next step (checkpoint management feature).

Creating a Design Screening Platform for New Businesses

To clarify discussion points at the time of design reviews when new businesses are launched and to perform rigorous screening, we have built and are operating a GR system. We also conduct External Expert Reviews for the purpose of obtaining new knowledge from experts inside and outside the Company with regard to related industries and legal regulations.

Quality Assurance System



Globally Cultivating CS & Quality Human Resources

On an ongoing basis, we are also holding KAIZEN Activity presentations geared toward all overseas business sites. In FY2024 The Group KAIZEN Activity "Global Group-wide Competition" (Group-wide presentations) was held on a Group-wide basis in January 2025.

Furthermore, a globally recognizable KAIZEN logo was created and disseminated worldwide. We will continue to promote SEKISUI KAIZEN under this slogan and logo.

FY2024 Group KAIZEN Activity "Global Group-wide Competition"

KAIZEN Logo

Efforts to Prevent Quality Fraud

Regarding quality data falsification, we have been working since 2020 to revise organizational systems, digitalize quality data, promote data reliability, conduct quality compliance education, and reinforce the review of new business opportunities in order to eradicate the root causes of risk. This is based on the hypothesis that quality data falsification can arise due to the insufficient allocation of resources to areas such as quality and organizational systems, as well as various types of both internal and external pressure.

Number of major quality issues in FY2024: 0

Internal Control

Legal/Ethical | Accounting

The foundation for sustainable growth is compliance. Based on principles such as contributing to society, being a trusted company, and adherence to the letter and spirit of the law, SEKISUI CHEMICAL Group established its Compliance Declaration in 2003. We are working to further strengthen compliance management by promoting a variety of programs.

Compliance Promotion System

The Compliance Subcommittee, which is chaired by the executive officer in charge of the Legal Department, has been established under the Sustainability Committee to oversee the Group's compliance, and formulates policies and implementation measures.

The Compliance Promotion Subcommittee has been set up at the Corporate Headquarters and at each divisional company, and compliance promotion managers have been appointed to implement and develop each measure.

In the event of a major compliance issue, the Compliance Advisory Board will convene to discuss follow-up measures and prevent reoccurrence.

Fostering and Educating Compliance Awareness

In 2003, to instill an awareness of compliance in each and every employee, we established action guidelines for each compliance item—including anti-corruption, conflicts of interest, compliance with anti-trust laws, accounting, and harassment—and created as well as used for in-house training a Compliance Manual consisting of detailed explanations. Also incorporating compliance-related content in new employee training and level-based training, we provide ongoing opportunities to learn about the importance of compliance.

In FY2024, we provided similar learning opportunities to employees who do not have access to the intranet individually, including those working on the production plant floor, by providing paper-based training opportunities at the request of Group companies and business sites.

FY2024 Number (incidence) of serious non-compliance and negligence cases: 0

Internal and External Whistleblowing System

Serving as a mechanism for the early detection and revision as well as prevention of any recurrence of compliance problems, including harassment, we have built and operate the Sekisui Compliance Assist Network (S.C.A.N.) intra-company whistleblowing system. Employees can use S.C.A.N. either anonymously or by giving their names while reporting not only through the intra-company whistleblowing system but also via an outside law firm, and the protection of whistleblowers, such as prohibiting the confidentiality of whistleblower information and the prohibition of disadvantageous treatment, is also stipulated.

We also have operating points of contact for business partners. Intended for use by the executive officers and employees of business partners in Japan who are continuously conducting business transactions with SEKISUI CHEMICAL Group companies, we accept requests for consultations and receive reports at any time using a dedicated form available on the Company's website.

In FY2024, the SEKISUI Chemical Group Global Hotline, an overseas reporting system available in multiple languages to the Group's employees overseas, began operating worldwide.

In the future, we plan to make this service available to our global business partners as well.

FY2024 Number of Whistleblowing Cases and Consultations

Power harassment	48	Sales methods related	7
Working conditions	35	Misrepresentation of work performance	1
Sexual harassment	6	Collusive relationship with business partners	4
Workplace environmental concerns	14	Others	33
Misuse of expenses	3	**Total number of complaints**	**151**

Overseas Initiatives

Compliance Reinforcement Month activities, which are held every year in Japan, are also conducted in North America, China, Southeast Asia, and Europe. The themes taken up are selected with a focus on those issues that are judged by each regional headquarters to be of high risk to the region.

- Examples of themes for FY2024: Harassment, anti-bribery, Information Management, whistleblowing system, etc.

Prevention of Transactions That Represent Conflicts of Interest

We have a policy of "No damage to the company." Based on this policy, when there is a conflict between the interests of the Company and an individual director or employee, we make decisions from the perspective of whether it is in the Company's interest. In FY2023, we formulated guidelines to thoroughly ensure this policy was carried out and established rules to check in advance any transactions that may raise conflict of interest concerns.

Prevent Corruption and Bribery

In the spirit of the United Nations Global Compact, we have developed antibribery rules and introduced them throughout the Group, thereby promoting efforts to prevent corruption and bribery before they occur. In addition, we have formulated antibribery guidelines, which employees are expected to observe when doing business in Japan, the United States, and China, and have worked to make these rules and guidelines known via the intranet.

We specify high-risk cases and set and operate rules to prevent violations. For example, a form needs to be submitted in advance to obtain approval when a government official is to be entertained or presented with a gift. In the event of hiring consultants in connection with business transactions, including those involving public officials from other countries, confirmation that fees do not constitute bribes must be obtained.

Handling Measures for Anti-Trust Laws

Having been operating a business organization membership payment system, a pre-application and follow-up report system for when contacting competitors, and a price revision committee system as a compliance program for anti-trust laws, SEKISUI CHEMICAL Group audits its operational status every year and reviews the program as appropriate.

Number of serious violations of anti-trust laws and advertising and labeling in FY2024: 0

Addressing Compliance Violations

In the event of a violation, we will conduct a thorough investigation and take disciplinary action, including dismissal, depending on the extent of the act. In addition, we work to prevent recurrence by correcting the issues that led to the violation, not just disciplinary action against individuals.

Internal Control

Legal/Ethical

Accounting

Strengthen Accounting Compliance

To reduce risks related to finance and accounting, we are working to improve accounting skills and financial expertise across the Group as a whole by means of accounting workshop meetings and e-learning. In addition to preventing any incidence of accounting treatment error or accounting fraud, we are working to enhance the awareness of divisions and employees involved in accounting operations regarding compliance.

In FY2024, accounting meetings were held in Japan and overseas in a hybrid format of online and face-to-face meetings. A total of 323 employees, mainly personnel in charge of accounting, participated.

We are striving to revamp the core system (Global ERP*) that serves as our global management foundation. This effort aims to improve governance and minimize risks related to finance and accounting. In FY2024, we completed modifications and operational testing based on the test results of the target business processes, and we are fully operational domestically from FY2025.

* Enterprise Resource Planning (generally, this is integrated software that centralizes core business operations).

Tax Compliance Initiatives

The paying of taxes represents one of the fundamental and important social responsibilities that a company should fulfill. SEKISUI CHEMICAL Group does not use tax havens for tax avoidance purposes and complies with the tax laws and pays taxes properly in accordance with the economic realities of each of the countries and regions in which its business activities are conducted. We will contribute to the economies of those countries and regions, while aiming for mutual harmonious and stable development.

Transactions with tax risks are confirmed by external experts as necessary to ensure proper treatment and to reduce tax risks. In regard to transfer pricing risks, our transactions are conducted in accordance with arm's length pricing based on the local laws and Organization for Economic Co-operation and Development (OECD) guidelines.

To eliminate unstable tax positions, we use Advance Pricing Arrangements (APAs) in accordance with the size of the transaction and level of tax risk, and sincerely and properly handle surveys and the like by tax authorities of each country and region, while endeavoring to maintain good relationships with those authorities.

Information Management

Information represents one of our most important management resources and the source of our competitiveness. Such information includes personal information—that received from business partners and that received from within the Group—including confidential corporate information and information related to management systems.

In the belief that preparations against cyberattacks threatening these IT assets are an important management responsibility, we are striving to undertake cybersecurity measures and ensure a stable management foundation.

Cyber Management System

In regard to IT security, we established a CSIRT*1 under the Sustainability Committee as a cybersecurity response system. The CSIRT is mainly composed of a Cybersecurity Subcommittee, which is the policy-making body, a Cybersecurity Promotion Subcommittee, which is responsible for advancing measures based on the subcommittee's decisions, and a Cybersecurity Center, which is the working unit.

Acting in partnership with the SOC,*2 the Cyber Security Center monitors security networks and devices 24 hours a day, 365 days a year, and strives for the early detection of and recovery from incidents. Having posted at least one cyber system administrator on site at each business site and Group company, we have established a comprehensive Group-wide cyber management system.

Together with making our operations in Japan more sophisticated, going forward we will advance the development of CSIRTs at Group companies overseas.

*1 Computer Security Incident Response Team, or CSIRT, is the title given to specialized teams that receive reports, conduct surveys and enact response measures related to computer security incidents at companies and other organizations.
*2 The Security Operation Center, or SOC, is a specialized entity devoted to monitoring and analyzing threats to information systems. It works to detect threats as soon as possible and plays a role in supporting the CSIRT in its response and recovery efforts.

Measures to Address Natural Disaster-related Risks

We have installed backbone systems in earthquake-resistant, seismically isolated data centers, so that business operations can be continued even in the event that social infrastructure is damaged by a major earthquake or other disaster. Having also dispersed data centers among multiple locations and completed duplication of their mission-critical systems, the Company is working to shorten the lead time needed up to the completion of repairs and recovery of business operations.

Measures to Address Information Leakage Risks

To ensure the security of customer information, including personal information, and internal information, including confidential information, the Group is working on system-level measures, such as fortification of data centers and strengthening monitoring of internal networks, as well as human-level measures. To combat external threats, the Company has positioned the SOC as its primary entity to consistently identify new threats, such as newly reported cases of viral infections or targeted e-mail attacks, while the CSIRTs swiftly take action to implement appropriate countermeasures. In terms of human measures, we are also working to prevent information leaks by thorough confidentiality obligations for retirees and new recruits, regular e-learning training courses for all employees, and by implementing ethics education for employees engaged in important technology development work.

Cybersecurity incidents in FY2024 : 0

Protecting Personal Information

We handle the personal information of our customers based on our Privacy Policy, which is available on the Company's website.

The Company complies with legal regulations and norms regarding personal information and, by voluntarily putting in place rules and systems based on internal confidential information management regulations, strives to appropriately protect such information.

We have also formulated Guidelines for Web Server Construction and Management, and endeavor to protect servers managed at relevant companies and each work site. At the same time, we ensure thorough management by limiting access rights and other management authority according to the importance of the information handled.

Especially during Compliance Reinforcement Month, we are strengthening governance over the handling of personal (customer) information by raising employee compliance awareness and providing training.