### **Integrated Report 2022**

Year Ended March 31, 2022



# **Innovation for the Earth**



SEKISUI CHEMICAL CO., LTD.

## **Innovation for the Earth**

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

Viewing changes in the social environment as a business opportunity, SEKISUI CHEMICAL Group is working to continuously generate innovation to help resolve social issues drawing on the solutions created by its varied and diverse technologies as well as the trust it enjoys with its stakeholders. By contributing to the Earth and people's lives, we are endeavoring to enhance the sustainability of society in concert with efforts to secure our sustainable growth as a company.

### SEKISUI CHEMICAL Group's Principle

Through prominence in technology and quality, SEKISUI CHEMICAL Group will contribute to improving the lives of the people of the world and the Earth's environment, by continuing to open up new frontiers in Residential and Social Infrastructure Creation and Chemical Solutions.



### The 3S Principles

### Service

At SEKISUI, we serve our stakeholders by creating social, environmental and economic value through responsible business practices.

### Speed

At SEKISUI, we accelerate innovation by eagerly taking on new challenges, adapting to change and staying ahead of the times.

### - Superiority

At SEKISUI, we contribute to society by helping to solve social issues with our superior technologies and quality.

SEKISUI CHEMICAL Group's Principles comprise the three elements of Corporate Philosophy, Group Vision, and Management Strategy. Far from consistently enjoying a favorable tailwind, SEKISUI CHEMICAL Group has overcome a host of challenges since its foundation in 1947 through the underlying strength of its Corporate Philosophy 3S principles, which were established based on the following intent.

"The difference between people living their lives in accordance with ideals and those simply going where the currents and eddies of life take them becomes ever more apparent as the long years of their lives pass. The same is true of business. Only when employees mass under a common ideal arising from a basic policy of business management can the company demonstrate its great power as a corporate community."

For the Group to achieve sustainable growth in an increasingly uncertain world, it is imperative that every employee take the initiative and independently participate in constantly overcoming each challenge to respond swiftly to changes in the market, and that efforts are made to accelerate preparations for anticipated future megatrends and to steadily implement measures that contribute to solving social issues. Adopting a long-term outlook, we will work to continue generating innovations that contribute to social issues.

### Five stakeholders for SEKISUI CHEMICAL Group: Customers, Shareholders, Employees, Business Partners, Local Communities and Environment

Positioning its five stakeholders as partners in improving corporate value and assessing their expectations and requests, as well as resolving society-wide issues together with them, leads to great opportunities for SEKISUI CHEMICAL Group.

We will create a relationship of mutual prosperity with our stakeholders while continuing to promote sustainable growth.



### CONTENTS

### SEKISUI CHEMICAL Group's Value Creation

- 2 SEKISUI CHEMICAL Group Accomplishments
- 4 Value Creation Process
- 7 ESG Management at SEKISUI CHEMICAL Group
- 8 Message from the President & CEO
- 13 Financial and Non-financial Highlights
- 16 Long-term Vision, Vision 2030
- 19 Research & Development/Intellectual Property
- 22 Fusion—Accelerating Growth through Innovation and New Business Creation

### Strategies That Underpin Medium- to Long-term Growth

- 24 Review of the Medium-term Management Plan
- 25 Medium-term Management Plan, Drive 2022
- 28 Digital Transformation (DX)
- 29 Returns to Shareholders
- 30 Addressing Risks and Opportunities
- 32 Special Feature: New Human Resources Strategy
  - 32 Interview with the Director who heads the Human Resources Department
- 34 Employee Comments
- 37 Human Resources
- 39 Environment
- 43 Products to Enhance Sustainability
- 47 Roundtable Discussion between Divisional Company Presidents and the Head of the Business Strategy Department
- 49 Business Strategies by Segment

### Foundation for Value Creation

- 58 Interview with an Outside Director
- 60 Corporate Governance
- 67 Internal Control
  - 67 Risk Management68 Major Incidents in the Five Fields
- 72 Respect for Human Rights
- 73 Stakeholder Engagement
- 74 External Evaluations in Fiscal 2021



Data

79 Corporate Information and Stock Information

Regarding the Publication of the Integrated Report 2022

▼ Please refer to the Annual Securities Report for detailed information on such matters as the Group's consolidated financial statements and business overview for fiscal 2021.

https://www.sekisuichemical.com/ir/report/financial\_report/

#### Forward-looking statements

The forecasts, plans, outlooks, and other forward-looking statements in this report are based on management's judgment of information available at the time this report was produced. Changes in key factors could cause actual performance results to differ materially from these forward-looking statements.

#### Figures in the Integrated Report

Figures denominated in 100 million yen in this integrated report are rounded off to the nearest hundred million. In addition, those denominated in millions of yen are rounded down to the nearest million yen.

### [Disclosure Policy]



In this Integrated Report, we explain how we are working to create corporate value and contribute to solving social issues with the aim of achieving our 2030 Long-term Vision of realizing a sustainable society and the sustainable growth of SEKISUI CHEMICAL Group itself from the perspective of investment decisions.

Please see the Sustainability Report and the TCFD Report for more detailed information on the Group's ESG management and non-financial information.

### **SEKISUI CHEMICAL Group Accomplishments**

With its roots in Nippon Chisso Hiryo K.K., founded by Shitagau Noguchi, SEKISUI CHEMICAL Group was established in 1947 by seven young employees aiming to comprehensively launch a business based on plastics, a new miracle material at the time. Guided by our 3S Principles (Service, Speed, Superiority) over the ensuing period, we have dared to challenge new businesses and frontiers while ushering in a new era focusing mainly on plastic-related technologies and products.



### **Established Process Creation Business** as Pioneers in Plastics

SEKISUI CHEMICAL Group took on the challenge of being the first in Japan to engage in plastic processing using domestically produced injection molding machines. We contributed to Japan's postwar reconstruction by bringing new changes to people's lives through plastic products such as daily necessities, tapes and films, PVC pipes, and poly-pail plastic garbage bins. In 1960, SEKISUI House Sangyo Co., Ltd. (now SEKISUI House Co., Ltd.), was spun off as a separate company after we entered the housing field. In 1963, we aggressively expanded operations, which included becoming the first Japanese manufacturer to make a foray into the United States.

### Improved Management Framework and **Developed Next-generation Businesses**

With high economic growth in Japan drawing to a close, we improved our management framework based on restructuring and our basic philosophy of respecting employees and business partners while contributing to society through plastics. We began Sekisui Heim industrialized modular houses and the Medical Business as the next wave of growth businesses. The Company was awarded the Deming Prize, the highest honor for TQC,\* in 1979 for company-wide TQC activities

\* TQC: Total Quality Control

### Launched High-performance Products and Expanded the Housing Business

With commercialization of next-generation products progressing since the late 1970s, we saw growth particularly in the social infrastructure, housing, and medical fields. We implemented organizational reforms to enhance our ability to meet customer needs, while launching new materials, technologies, and products to address more sophisticated user needs and social issues. We expanded after-sales services in the Housing Business, through which strong growth has driven earnings. In 1997, we began selling houses equipped with solar-power generation systems.

Adopted a Three Company System and Initiated CSR Management

The Company reorganized from a seven-division to a three-company system, engaged in business selection and concentration, and pursued globalization to overcome the business crisis following the collapse of the bubble economy in Japan. At the same time, we promoted CSR management under the Three Prominences: Environment to achieve sustainable growth by balancing the economy and ecology; CS & Quality to improve CS (customer satisfaction) together with enhancing quality; and Human Resources to support the growth of employees to maximize their strengths.

### **Proactively Pursuing Strategic Investment** and Evolving from CSR to ESG Management

We are improving profitability along with expanding our businesses by pursuing investment strategies that clarify strategic fields and by enhancing our business structure. We have significantly increased sales of the high-performance plastics company by expanding our lineups of high-performance products. In 2020, we formulated our new Long-term Vision. As part of this, we are pursuing the evolution of CSR management-an integral part of our operationsinto ESG management to realize social and corporate sustainability by taking a more strategic approach to environmental and social issues.

SEKISUI CHEMICAL Group's Value Creation

roup's Strategies That Under Medium- to Long-term G

pin rowth Foundation for Value ( Data

### SEKISUI CHEMICAL Group Accomplishments



\*1 AT (automotive materials), IT (IT-related materials), MD (medical products) \*2 The Medical Business was spun off from the High Performance Plastics Company in fiscal 2019 as new company candidate to accelerate growth



SEKISUI

SEKISUI CHEMICAL Group's Value Creation

Ip's Strategies That Under Medium- to Long-term Gi Foundation for Value Cre

Data

### **Value Creation Process**





**Advanced Lifeline** 

(Social Infrastructure)

Solving infrastructure issues and improving

### Commentary SEKISUI CHEMICAL Group's Value Creation Process

### SEKISUI CHEMICAL Group's Business Domains and Products to Solve Social Issues

SEKISUI CHEMICAL Group maintains BtoC businesses primarily in new housing construction and BtoB businesses that handle conductive fine particles, interlayer films for automotive laminated glass and other materials in advanced fields, sewage pipes, and diagnostic reagents. Similarly, we carry out business through the three High Performance Plastics, Housing, and Urban Infrastructure & Environmental Products divisional companies as well as the Medical Business, with the aim of expanding business opportunities in the four domains of Residential, Advanced Lifeline, Innovative Mobility, and

Residential and Social Infrastructure Creation

Residential

(Housing)

Providing more people with peace of mind,

Business

Domains

Domains

Growth

Trajectory

Existing

Businesses

**SEKISUI** 

Life Science within the business domains of Residential and Social Infrastructure Creation as well as Chemical Solutions. We are creating value through Process Creation that extends from the capturing of customers' needs to the development of products and businesses, as well as by creating Products to Enhance Sustainability that increase the quantity and quality of our contribution to solving social issues through Adaptability that entails portfolio reform in line with changes in the social environment.

#### Medical Business (Headquarters) Diagnostics, Pharmaceutical Sciences

Life Science

(Health and Medical)

Supporting global health and longevity with

products, systems and services that contribute

to healthcare advancements





**Chemical Solutions** 

Blood coagulation analyzers S400CF Blood coagulation diagnostic reagent (Nanopia P-FDP)

Diabetes diagnostic reagent (NORUDIA N HbA1c)







Plastic vacuum blood collection tubes Drug development solution testing













High-performance resin tatami (MIGUSA)



Creating products and services in the four domains to solve social issues while giving rise to fusion and synergy in existing businesses

SEKISUI CHEMICAL Group's Value Creation

materials

**Innovative Mobility** 

(Electric/Mobility)

Providing high-value added materials for

Thermal expansion fire-chlorinated

Active Pharmaceutical Ingredients (APIs)

Raw material contract manufacturing

5

### Commentary SEKISUI CHEMICAL Group's Value Creation Process

### The Three Prominences and R&D Capabilities That Serve as the Source (Input) of the Group's Value

### Human Resources

Based on the belief that employees are precious assets bestowed on us by society, SEKISUI CHEMICAL Group has supported employees who take it upon themselves to pursue new challenges on their own initiatives.

In working to achieve the Long-term Vision, the Group positions its human resources as the driving force that generates innovation, and endeavors to develop human resources that undertake challenges in consideration of diversity and the workplace environment.

▶ P.32

### Environment

SEKISUI CHEMICAL Group has recognized the environment as an important issue since the 1990s. In addition to ongoing efforts to prevent pollution, every effort has been made to reduce the environmental impact of the Group's business activities. Since 2003, we have worked diligently to practice Environment Management on an increasingly fully fledged basis with the aim of achieving sustainable growth that balanced ecology with the economy. We continue to strive to build a sustainable business base that includes ties of trust with our stakeholders through various measures including the acquisition of SBT certification and endorsement of the TCFD.

### CS & Quality

Since 1999, SEKISUI CHEMICAL Group has engaged in CS management that places emphasis on customer satisfaction (CS). The Group consistently innovates to maintain the quality of products, provides value (goods and services) that meets customer expectations, strives for selection by our customers on an ongoing basis, and develops and grows with the customer over the long term.

▶ P.69 ▶ P.73

### **R&D** Capabilities

SEKISUI CHEMICAL Group recognizes that maintaining a prominence in technology is the bedrock for creating value. Forming the basis of these efforts are the 28 technological platforms with direct links to the Group's two business domains: Residential and Social Infrastructure Creation and Chemical Solutions. These are the core technological platforms that support the Group's product lineup and could even be said to be the source of the competitiveness that has been cultivated over many years.

▶ P.19

### Value Created with Stakeholders through Process Creation and Adaptability

SEKISUI CHEMICAL Group possesses almost none of its own raw materials, and instead selects the optimal materials as needed from outside. To create value, the Group therefore applies its two strengths, namely the ability to Process Creation in a way that creates value-added products and services through advanced technologies using the optimal materials and Adaptability in a way that captures the requests of customers and the need for solutions to social issues, incorporates these into development ahead of the competition, and transforms the business portfolio. And this value is created by working with business partners and as a result of employees taking on the challenge of and overcoming many difficulties. SEKISUI CHEMICAL Group creates high-value-added products and businesses that contribute to solutions for social issues as a means of enhancing its safety, peace of mind and high-quality branding, capturing further demand, and expanding business.



SEKISUI

Key issues and KPI

### ESG Management at SEKISUI CHEMICAL Group

The efforts of SEKISUI CHEMICAL Group to contribute to resolving social issues directly connect to the greater sustainability of society, while the net sales gained in exchange for these contributions indicate the degree to which the Group helps resolve social issues. By raising this degree of contribution, the Group can ensure its own profitable sustainable growth and in turn enable the further expansion of its contributions to customers, shareholders, employees, business partners, local communities, the environment, and all other stakeholders.



We have positioned the statement "Innovation for the Earth" as a central theme, and we will help realize a sustainable society and the Group's sustainable growth through our prominence, ability to resolve social issues, and efforts to bring "peace of mind for the future." Putting this cycle into practice together with our stakeholders is the concept behind our ESG management. Our value creation process is carried out based on this conceptual diagram.



### Key ESG Management Issues (Materiality)

supports the basis of LIFE.

To realize its Long-term Vision, Vision 2030, SEKISUI CHEMICAL Group has identified internal control, digital transformation, environment, human resources, and fusion as key issues (materiality), and is promoting ESG management under the fiscal 2020 to fiscal 2022 Medium-term Management Plan, Drive 2022. To identify key issues, the Group extracts issues from the UN Global Compact and other international guidelines, the ESG/CSR survey, and trends among other companies, and analyzes the opinions and expectations of stakeholders. Moreover, it comprehensively evaluates the candidates and decides upon the key issues from the two axes of Importance to Stakeholders and Importance to SEKISUI CHEMICAL Group management.

					KPI	Fiscal 2021 Results	Fiscal 2022 Targets	
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	¥772.4 billion Includes Premium Framework ¥381.2 billion	¥800 billion Includes Premium Framework ¥440 billion	▶P.43
Key Issues <sup>(Materiality)</sup>	Risk reduction/ avoidance	n/ Internal control	Reducing major         Safety         Quality         Accounting           incidents in the 5 fields         Legal/ethical         Information management	Prevent or minimize the impact of major incidents on our corporate value	Number of major incidents in the 5 fields	0	0	▶P.68
			Business Continuity Planning (BCP)	Mitigate the impact of earthquakes, pandemics, and other incidents	BCP operating rate	BCP (initial action) establishment rate 100%	BCP operating rate 100% (Establishment of PDCA)	▶ P.67
	Investment for the future (Improving sustainability KPI)		DX	Become the driver that transforms work processes and business models	Direct/indirect net sales per employee	N/A	FY2030: Indirect productivity 40% increase Direct productivity 15% increase (from FY2019)	▶P.28
			Environment	Address climate change	Renewable energy as a percentage of purchased power	19.7%	20%	▶P.39
		(Improving tainability KPI)	Human Resources	Aim to be an excellent and vibrant company where employees thrive on challenges	Degree of challenging behavior expression rate	13%	17%	▶ P.37
			Fusion	Promote technology and business opportunities through internal and external fusion	Increasing net sales through fusion	+¥29.9 billion (from FY2019)	+¥50.0 billion (from FY2019)	▶P.22



## Message from the President & CEO

SEKISUI CHEMICAL Group's Value Creation

Steadfastly strengthening the Group's earning power even when faced with the pandemic through products and technologies that help solve social issues

SEKISUI CHEMICAL Group celebrated its 75th anniversary in 2022. On behalf of the Group, I would like to express my sincere gratitude for the support we have received from all stakeholders including shareholders.

With the aim of achieving both the realization of a sustainable society and the sustainable growth of the Group itself, we are proactively pursuing solutions to social issues while taking a more strategic approach and continuously promoting innovation. Solving social issues through products and technological innovation is also in the Group's DNA, which has been passed down from generation to generation since its foundation. Typical products that embody this DNA include automotive interlayer films that contribute to automobile safety, driving comfort, and weight reduction, and SEKISUI HEIM, homes that are distinguished by their high earthquake resistance and prominence in energy creation, conservation, and storage. Other products include piping and infrastructure materials that deliver essential resources including water and gas to every corner of the world even amid increasingly intense disasters, and diagnostic reagents that contribute to human health and longevity.

Through these products and services, we have successfully expanded our business to date. This track record continues to the current day and into the future.

Since assuming the position of president and CEO in March 2020, we have continued to confront the impact of the COVID-19 pandemic. To this day, the world as a whole continues to suffer, buffeted by the repeated spread of virus variants. Under these circumstances, we have worked diligently to minimize the impact on our business while protecting our employees, business partners, and customers. Even as signs of a recovery in economic activity began to emerge, we were confronted by a series of new challenges including shortages in the supply of semiconductors and a sharp rise in raw material prices.

Against the backdrop of a constantly changing environment and increasing uncertainty surrounding the future, we have pushed forward with a sound sense of crisis. Under these circumstances, we remain committed to improving profitability, restructuring underperforming businesses and creating markets through the development of high-value-added products. Despite the impact of the pandemic, which is now in its third year, I am convinced that the Group's earning power has been strengthened as a result of efforts to implement all appropriate measures in advance.

In addition, development themes and efforts to commercialize businesses are progressing as we prepare for future growth. I have always believed that addressing ESG concerns is SEKISUI CHEMICAL Group's business itself. With this in mind, Products to Enhance Sustainability continue to grow substantially as we engage in ESG management. We are also making steady progress with efforts to implement human resources and DX initiatives, which we have identified as key issues.

While the future business environment remains shrouded in uncertainty, we will first work to achieve targets in this final fiscal year of the Medium-term Management Plan, Drive 2022. Each and every member of the Group will also work in unison to continuously take on new challenges while securing sustainable growth into the future.

August 2022

President & CEO Keite Karto

Data

### Message from the President & CEO

# Fiscal 2021: In the second year of the Medium-term Management Plan, sales and profit in the three divisional companies and the Medical Business recovered to the same levels recorded prior to COVID-19.

Looking back at fiscal 2021, the second year of our Medium-term Management Plan, in addition to the prolonged impact of COVID-19 on the business environment, conditions were exacerbated by a variety of factors including signs of production delays attributable to difficulties in the supply chain as a result of a shortage in the supply of semiconductors and sluggish logistics. Despite these difficulties, there were indications of a recovery in market conditions in the automobile-, electronics-, and construction-related sectors in Japan and overseas. Moreover, new housing starts in Japan increased for the first time in three years.

Against this backdrop, net sales grew 9.6% year on year to ¥1,157.9 billion, the second highest recorded after fiscal 1996. Although prices for raw materials and components rose significantly more than expected, from a profit perspective, operating profit climbed 32.1% to ¥88.9 billion and ordinary profit surged 54.6% to a record high of ¥97.0 billion owing to higher sales volumes, improving selling prices, and successful efforts to reduce costs.

In contrast, profit attributable to owners of parent decreased 10.8% year on year to ¥37.1 billion. This largely reflected the recording of impairment losses following the acquisition of SEKISUI AEROSPACE CORPORATION in 2019. SEKISUI AEROSPACE CORPORATION, a company based in the United States that handles such composite molded products as carbon fiber reinforced plastics (CFRP) for use in the manufacture of aircraft, was impacted by the substantial decline in aircraft demand as a result of the COVID-19 pandemic. Despite this harsh operating environment, the company is promoting the structural reform of its production systems to meet prevailing demand, and is diversifying its sources of revenue by developing applications outside the aircraft field including medical devices. Based on these endeavors and the anticipated recovery in aircraft demand, we remain convinced that this is a promising business domain.

Looking at each segment, net sales increased in the High Performance Plastics (HPP) Company on the back of a partial recovery in automobile and electronics market conditions. Despite the effects from prices for raw materials rising more than anticipated, the HPP Company was able to return to a growth trajectory by expanding sales volume, mainly of high-performance products, improving selling prices, and reducing costs. Notwithstanding the impact of a surge in component prices, the Housing Company reported record high net sales and an increase in earnings. In addition to efforts aimed at increasing the number of new houses sold and reducing costs, these results were attributable to the recovery in new construction and renovation orders as well as contributions from the Town and Community Development and Real Estate Business.

In the Urban Infrastructure & Environmental Products (UIEP) Company, there were indications that activities suffered under the prolonged impact of COVID-19 and the sharp rise in raw material prices. Buoyed by increases in sales volumes and improvements in selling prices due to firm domestic housing market conditions as well as robust capital investment demand in such areas as semiconductors in Japan and overseas, together with a recovery in overseas sales, the UIEP Company secured increases in sales and profit. In the Medical Business profits hit a record high. This was due to the recovery in

demand from outpatients suffering from lifestyle-related diseases in Japan and overseas, higher sales of COVID-19 test kits in the United States, and firm sales of new active pharmaceutical ingredients in the Pharmaceutical Sciences Business.

Accounting for each of these factors, SEKISUI CHEMICAL Group has decided to increase the cash dividend to shareholders by ¥2 per share for an annual cash dividend of ¥49 per share. This represents the 12th consecutive year of a cash dividend increase.

# Fiscal 2022: Targeting a new record high in profit by responding flexibly to change and strengthening our earning power

In fiscal 2022, the final year of our Medium-term Management Plan, we will accelerate the pace of measures aimed at generating growth. While the actions taken in Ukraine by Russia are expected to have little or no direct impact on the business environment, there are concerns surrounding the effects of subsequent shortages in the supply of resources, an extended period of increase in raw material and fuel prices, and other factors including the slump in automobile market conditions in Europe. Although these uncertainties are expected to linger, global demand for such items as automobiles and smartphones, as well as domestic demand including housing starts, is projected to exhibit a modest recovery in conjunction with the decrease in the impact of COVID-19.

In the HPP Company, we will promote further growth centered on the three strategic Electronics, Mobility, and Building and Infrastructure fields. In the Housing Company, we will work to expand net sales through efforts aimed at utilizing web-based marketing and enhancing smart and resilient functions. Turning to the UIEP Company, we will take steps to secure growth by expanding both sales of prioritized products that contribute to achieving the SDGs and the Group's overseas business. Looking at the Medical Business, we will focus on ensuring continuous growth through a variety of measures including efforts to increase sales of new blood coagulation analyzer devices and high-valueadded products. Through these means, we will endeavor to expand high-value-added businesses and increase sales of high-value-added products that contribute to solving social issues in a bid to achieve record highs in operating profit, ordinary profit, and profit attributable to owners of parent.

SEKISUI CHEMICAL Group is confident that its ability to flexibly address change coupled with its earning power, cultivated against the backdrop of a harsh business environment, will serve as a major driving force that helps propel further growth as it concludes the final year of its Medium-term Management Plan.

# Working to achieve net sales of ¥2 trillion, a key component of our Long-term Vision, Vision 2030, we have formulated a strategic area map including the allocation of priority capital.

SEKISUI CHEMICAL Group formulated its Long-term Vision, Vision 2030, in 2020. Recognizing the critical need to bring about and realize change as a Group even amid uncertainties and an unpredictable future, putting in place a long-term vision helps set the direction for change thereby

SEKISUI CHEMICAL Group's Value Creation

rategies That Underpin um- to Long-term Growth Foun

D

### Message from the President & CEO



addressing the expectations of all stakeholders. Most recently, the business environment has continued to confront difficult conditions due to the further spread of COVID-19 resulting in a series of lockdowns, activities taken by Russia in Ukraine, and soaring raw material and fuel prices. Against the backdrop of this growing uncertainty, we are once again reminded that our thinking when formulating our Long-term Vision in 2020 was not mistaken.

Under the slogan "Innovation for the Earth," SEKISUI CHEMICAL Group has declared its commitment to support the basis of LIFE and create peace of mind for the future to realize a sustainable society in its Long-term Vision. This declaration embodies our strong will to continuously promote innovation and expand our contribution to solving social issues through business growth, reform, and creation centered on ESG management. Supporting the fundamental LIFE of individuals and society, encompassing the life science, residential, and infrastructure fields, our slogan and Long-term Vision highlight our determination to deliver the value of peace of mind for the future for current and future generations through products and services backed by technology.

With the goal of doubling our contributions to solving social issues, we expect as a result to achieve net sales of ¥2 trillion. With this in mind, we recognize the need to expand net sales in each domain to 1.5–3 times current levels. To this end, we will continue to refine and reform our diverse growth engines. As far as business areas are concerned, we will ramp up the pace of expansion with overseas sales as a growth driver with the goal of increasing overseas sales to ¥1 trillion by 2030 and the ratio of overseas sales to total sales to around 50%.

In fiscal 2021, we formulated a strategic map to pinpoint those areas on which to focus as part of

efforts to secure further growth. In addition to clarifying the social issues of importance in each domain, we took steps to undertake the key allocation of capital to expand enhancement areas. Moreover, we will strengthen the combination and integration of future innovation areas. Over and above these endeavors, we will pursue net sales and operating profit growth by contributing to the solution of social issues in each domain. At the same time, we will channel our contributions with a more sustainable society in mind based on operations that focus on the Group's management ability to sustain business.

# Adopting ROIC and promoting active investment in growth domains through the efficient use of capital

Under its Long-term Vision, SEKISUI CHEMICAL Group is looking to double its business volume by 2030. At the same time, the Group is targeting an operating profit margin of at least 10%. To achieve sustainable growth commensurate with this profit, we will not only work to secure organic growth but also actively invest management resources in expanding our business by creating and nurturing new products and businesses, and implementing M&As. Looking specifically at M&As, we will focus our considerations primarily on the Innovative Mobility and Life Science fields in line with the recently formulated strategic area map while keeping an eye on overseas business growth.

Under the current Medium-term Management Plan, Drive 2022, we have established a budget of ¥300 billion, which enables us to aggressively consider and implement M&As if viable proposals emerge. We will also flexibly invest in growth while considering the use of debt if required. Meanwhile, when it comes to the allocation of capital, we recognize our responsibility to strictly manage and disclose the degree of return generated. In this context, we have adopted the return on invested capital (ROIC) as a new key performance indicator under our current Medium-term Management Plan.

To increase ROIC, we must improve the profit margin while at the same time boosting the turnover rate. We will place considerable importance on improving the accuracy of returns as we vigorously implement M&As and strategic capital investments. We will also take into consideration the replacement of our ROIC-based business portfolio. We recognize that the scale and quality of invested capital required differs depending on the business. For example, the Town and Community Development Business being undertaken by the Housing Company has a tendency to experience a lower ROIC over the short term due to high initial investment levels. Our policy then is to thoroughly manage the turnover rate for purchased land while increasing the number of projects and expanding the marginal profit.

In regard to other businesses, the Group will first seek to expand marginal profit and control fixed costs as a means of expanding profits, which serve as the numerator for ROIC. We will also raise the profit margin and more efficiently utilize capital through capital investments, M&As, and inventory adjustments.

The ROIC Spread, which represents the difference between ROIC and the cost of capital, is defined as the SEKISUI Sustainable Spread. As an indicator of corporate value, the SEKISUI Sustainable Spread also incorporates SEKISUI CHEMICAL Group's unique non-financial costs into the cost of capital. In this respect, we consider the cost of capital in a broader sense. In addition to appropriate financial strategies and capital policies, we have categorized major incidents under each of the five

### Message from the President & CEO

domains—safety, quality, accounting, legal/ethics, and information management—which together help control the occurrence of events with the potential for devastating effects on corporate value. At the same time, we believe that investing for the future in the environment, human resources, digital transformation, and other ESG categories that are crucial to the Company will help control the cost of capital in a broader sense of the term.

### Generating innovation and creating new businesses that will lead to long-term growth through the Group's Process Creation and Adaptability capabilities

In working to secure sustainable growth, our strengths are derived from base technologies relating to Residential and Social Infrastructure Creation and Chemical Solutions. We refer to these base technologies as our 28 technology platforms. As a company that holds little or no raw materials, one of our unique strengths is the ability to provide solutions based on our Process Creation capabilities. This encompasses listening carefully to customer feedback, selecting and combining the right materials in response to requests, and imparting added value by leveraging any number of these 28 technologies that are felt to be the best for the job. Our ability to generate a sustainable stream of innovation is based on the trust we have built with our customers over the years and our strengths in responding to new requests.

Another of our strengths is our capacity for Adaptability. This entails the ability of management to foresee changes in the social and business environment, adapt to these changes, advance structural transformations of our business, and reform the business portfolio within each domain. We believe that the act of specializing in areas where these strengths allow us to triumph, as well as our stance of boldly undertaking challenges, has supported the growth of the Company thus far. Currently, we are working to maximize our inherent strengths. In addition to generating synergies between divisional companies, we are creating new businesses by accelerating the pace of open innovation through external alliances.

Steady progress is also being made in the commercialization of biorefinery technology in preparation for long-term growth. Construction of a demonstration plant, approximately 1/10th the size of a commercial plant, was successfully completed in April 2022. In parallel with testing at the demonstration plant, discussions are under way with local municipalities and private companies regarding the supply of waste material as well as ethanol users. In addition to advancing this project with the aim of bringing online the first commercial plant in 2025, we will look further ahead and pursue the realization of an ultimate resource-recycling society. Another example of preparation for long-term growth is the perovskite solar cell currently under development. In recognition of our past achievements in terms of durability and power generation efficiency, we have been selected for the Green Innovation Fund Project of the New Energy and Industrial Technology Development Organization (NEDO).

SEKISUI CHEMICAL Group is committed to commercializing renewable energy sources by 2025 by continuing to conduct demonstrations to make renewable energy a main source of power, which is indispensable for the realization of decarbonization.

## ESG Management (E): Raising its environmental target to 1.5°C to achieve its established goals in advance

Addressing ESG concerns is SEKISUI CHEMICAL Group's business itself. Climate change is also an important issue under our Long-term Vision. With this in mind, we are working to accelerate activities aimed at solving environmental issues through our business. With the aim of achieving zero greenhouse gas emissions and an earth with maintained biodiversity by 2050, we formulated the Environmental Medium-term Plan while identifying targets by backcasting from this ideal vision and are promoting initiatives in a bid to realize a sustainable society not only within the Group but also throughout the entire supply chain.

SEKISUI CHEMICAL Group is steering toward raising its targets for 2030, which provide the road map to 2050, with a view to their realization in advance. We reanalyzed the risks and opportunities based on the four scenario assumptions necessary to promote information disclosure in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). As a result, the Company's Board of Directors passed a resolution in July of this year to raise the environmental target assumption for 2030 from the previous 2°C (the target increase in global average temperature above pre-industrial levels) to 1.5°C. Moreover, we will pursue research and development by planning and proposing long-term strategies that help reduce risks and capture opportunities based on scenario analyses.

We believe that expanding our lineup of Products to Enhance Sustainability that contribute to solving a variety of social issues, including those related to the natural environmental as well as the SDGs, is an important part of the Group's efforts to address these issues including climate change and accelerating profit growth. Among Products to Enhance Sustainability, we have established and will continue to promote steady growth of a Premium Framework for products that are particularly profitable and strategically promoted for expansion.

# ESG Management (S): Working to further instill the Vision and build a workplace where each employee can shine through engagement with employees

Recognizing that employees are precious assets bestowed on us by society, we have implemented the shift to an HR system from fiscal 2022 to help further draw out the strengths of each and every one of our employees. Through backcasting and clarifying the various missions and roles that are necessary to achieve each individual's ideal form, we are supporting and assigning employees who will take on challenges and improve themselves regardless of their age or year of employment. We have also put in place a program to support the early acquisition of the knowledge, skills, and know-how required to sustainably develop the core human resources who will lead the Group and those who will take on challenges.

n Medium- to Long-term

in Foundation for Value C

Data

### Message from the President & CEO

I have been in direct dialogue with our employees since 2020, working to instill our Long-term Vision and the message that addressing ESG concerns is SEKISUI CHEMICAL Group's business itself. We will continue to deepen engagement by disclosing feedback comments on employees' opinions as well as internal information on existing case studies. As far as diversity is concerned, we established the Diversity Promotion Committee as an advisory body to the Board of Directors in June 2022. We will work to ensure and promote further diversity in our human resources.

# ESG Management (G): Strengthening corporate governance and returns to shareholders

Transparent, impartial governance is the foundation for advancing sound corporate management. In June 2022, the Company appointed five Independent Outside Directors, including three new appointees, to strengthen the supervisory function of the Board of Directors. As a result, the ratio of Outside Directors on the Board of Directors is 42%. Half of the Company's 12-member Board of Directors serve in a non-executive capacity. In addition, the Company's Chairperson is a non-executive director and chair of the Board of Directors. On top of the aforementioned, we established the Nomination and Remuneration Advisory Committee, which is composed of a majority of Independent Outside Directors. Steps have also been taken to put in place a mechanism to determine executive bonuses by linking the amount of remuneration to the ratio of Products to Enhance Sustainability sales as well as non-financial indicators, in addition to the Group's business performance.

Meanwhile, we have introduced a share-based compensation plan to increase our commitment to improving the Group's medium- and long-term business performance and enhancing shareholder value. In addition, we are working to reduce the number of shares that do not conform to our Cross-Shareholding Policy. Meanwhile, the Board of Directors periodically reviews whether its crossshareholdings are consistent with its policy from the perspectives of the significance of ownership and the Group's capital policy.

In the current Medium-term Management Plan, we have been working to strengthen shareholder returns after further clarifying our policy. Although today's harsh business environment will continue into fiscal 2022, we intend to increase the annual dividend by ¥4 per share to ¥53 as a clear indication of the priority that we place on shareholders and in a bid to ensure a 13th consecutive period of dividend growth.

At the same time, we will also ensure a dividend payout ratio of 35% or higher on a consolidated basis, a dividend on equity (DOE) ratio of 3% or higher, and a total return ratio of 50% or higher given a D/E ratio of less than 0.5. We will continue to aggressively strengthen the return of profits to our shareholders by achieving sustainable growth.



### Continuing to be a company essential to society

Since our foundation, SEKISUI CHEMICAL Group has continued to grow by contributing to the solution of social issues, working in diverse areas that bring fulfillment and peace of mind to people's lives, ranging from water and the medical field to vehicle safety, residential construction, and social infrastructure. In this era of rapid change and increasing uncertainty, we are convinced that the way forward for the Group is to continue to realize a sustainable society by solving issues. We believe that by expanding our business in this manner, we are better placed to secure sustainable growth as a company.

To remain a company that is essential to society and that continues to provide peace of mind for the future through our products and services, we will do our utmost to promote the dual endeavors of offensive ESG management, which includes human resources who are prominent in their ability to create innovation, the technological skills to solve such social issues as climate change, and a corporate culture that embraces challenge, and defensive ESG management, which encompasses a variety of facets including the reduction of serious incidents and formulating BCPs.

We will continue to create opportunities to proactively engage with our stakeholders to ensure the sustainable growth of the Group and to enhance our corporate value over the medium to long term. As we work toward achieving our goals, we welcome your expectations and ask for the continued support and understanding of all our shareholders and stakeholders.

ES I nat Underpin Long-term Growth Foundation Data

### **Financial and Non-financial Highlights**



Despite such factors as the prolonged impact of COVID-19 and supply chain production delays due to shortages in the supply of semiconductors and logistics stagnation, net sales in fiscal 2021 increased owing to a certain level of recovery in the domestic and overseas automobile, electronics, and construction markets, an upswing in new housing construction in Japan, and other factors.

### Profit Attributable to Owners of Parent/ROE



In the fiscal year under review, SEKISUI AEROSPACE CORPORATION in the United States posted an impairment loss. As a result, Profit Attributable to Owners of Parent declined in fiscal 2021.



Although prices for raw materials and components rose significantly more than expected, operating profit in fiscal 2021 recovered to the level recorded in fiscal 2019 owing to higher sales volumes, improving selling prices, the shift to high-value-added products, and successful efforts to control fixed costs.



Free cash flow in fiscal 2021 was ¥84.5 billion mainly due to an increase in funds from the sale of cross-shareholdings.

Free Cash Flow = Cash Flows from Operating Activities + Cash Flows from Investing Activities - Dividends Paid



**EBITDA** 

In fiscal 2021, EBITDA came in at ¥137.6 billion falling just short of the record high. This largely reflected sales volume growth, the increase in net sales attributable to the shift to high-value-added products, and successful efforts to reform the structure of business and control costs.

EBITDA = Operating Profit + Depreciation + Amortization of Goodwill

### R&D Expenditures/R&D Expenditures to Revenues



Working to promote research and development aimed at ensuring SEKISUI CHEMICAL Group's prominence in advanced technologies, centered on the HPP Company and the Medical Business, R&D expenditures came to ¥37 billion in fiscal 2021.

### **Financial and Non-financial Highlights**



The annual dividend per share for fiscal 2021 was ¥49 per share. This represented the 12th consecutive fiscal year of a dividend increase. We will continue to provide stable and proactive returns to shareholders.



In addition to implementing flexible capital policies and improving capital efficiency, the Company purchased ¥9.5 billion (5 million shares) of its common stock in fiscal 2021 as part of its proactive efforts to provide returns to shareholders.

ROIC



Total assets stood at ¥1,198.9 billion as of the end of fiscal 2021. In addition to increases in the balances of cash and deposits as well as inventories, this was mainly due to the impact of fluctuations in foreign currency exchange rates.

Equity-to-Asset Ratio = Equity/Total assets





(%) 7.3 7.7 FY17 FY18 FY19 FY20 FY21

In fiscal 2021, ROIC improved 1.9 percentage points compared with the previous year to 7.3%. In addition to the substantial upswing in operating profit and growing awareness toward invested capital turnover in the Company's management, this

improvement in ROIC also reflects certain contributions from the decrease in fixed assets, mainly due to impairment losses posted in the first half of fiscal 2021

Return on Invested Capital (ROIC) = After Tax Operating Profit/Average Invested Capital (Fixed Assets + Working Capital)



The number of employees in Japan declined owing to steps taken to contain new hiring in light of the COVID-19 pandemic.

In fiscal 2021, the D/E ratio improved due to the repayment of interest-bearing debt

incurred as a result of the COVID-19 pandemic.

SEKISUI

### **Financial and Non-financial Highlights**

### Number of Women in Management Positions (SEKISUI CHEMICAL Non-consolidated)





SEKISUI CHEMICAL Group is working to support the retention and success of female employees as well as the appointment of women to management positions. The number of female Executive Officers came to two.



Loss Costs

Loss Costs: Domestic production site, R&D facility, Headquarters department, and indirect Company department expenses including man-hours required to respond to occupational accidents, equipment-related accidents, and commuting accidents, as well as long-term illness absences.



After including the effects of reducing energy consumption, emission volumes related to the use of sold products declined, and SCOPE3 decreased compared with the previous fiscal year for ZEHspecification housing from fiscal 2018.





Sales of Products to Enhance Sustainability came to ¥772.4 billion in fiscal 2021, accounting for 66.7% of total sales. Under the Company's ESG management, every effort is being made to develop and expand Products to Enhance Sustainability that help drive the Company's growth by solving social issues.

Ratio of Purchased Electric Power and Renewable Energy



In fiscal 2021, 20 business sites in Japan and overseas completed the switchover to 100% renewable energy, bringing the ratio of purchased electric power and renewable energy sources to 19.7%.



FY13 FY17 FY18 FY19 FY20 FY21

Despite the recovery in production volume, the rate of GHG emissions reduction attributable to business activities was 21.1% in fiscal 2021. In addition to the conversion of purchased power to renewable energy sources and the emerging effects of environmental contribution investments, this was mainly due to the reduction in purchased steam unit of output.

GHG emissions from business activities : SCOPE 1+2 and transport

### Long-term Vision, Vision 2030

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

Contribution

tion to solving social interstation to solving social interstation of the solution of the solu

issues

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 the future 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 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.

### Contribution to solving social issues

Working to double the Group's business and achieve net sales of ¥2 trillion by 2030, 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 creating new business centered on ESG management"

#### of new business <New business creation> Steady contribution of R&D themes to busines Actively pursue M&A I. Innovation of products and business <Expansion of existing businesses> "Process Creation

SEKISUI

II. Creation and acquisition



SEKISUI CHEMICAL Group's Value Creation

Data

### 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 by 1.5 to 3 times 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 businesses and the next frontier for the new business domains in anticipation of major paradigm shifts.

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 three times 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.





SEKISUI

Data

### Long-term Vision, Vision 2030

### Formulating a Strategic Area Map as a compass for realizing the Long-term Vision, Vision 2030

We have developed the Strategic Area Map as a compass for realizing our Long-term Vision, which will guide us in solving the three major issues we have identified in the course of promoting Vision 2030: specification of key areas in each domain, compartmentalization of each divisional company and Group-wide fusion, and the targeted allocation of capital to realize business in key areas. We will move forward with the key allocation of capital to expand enhancement areas with the aim of fusion and composite innovation areas. Management resources will also be allocated in a targeted manner to build the Life Science Business into a fourth divisional company.

Domain	Residential	Advanced Lifeline	Innovative Mobility	Life Science
Strategy	Toward comprehensive housing construction and real estate businesses centered on production technologies	Toward growth businesses that build a sustainable social infrastructure globally	Toward high-value-added businesses that evolve lifestyles	Toward a new pillar of business that supports a healthy, longevity society on a global scale
Concept	<ul> <li>Housing construction business (Housing, Renovation)</li> <li>Real estate business (Town and community development, Real estate)</li> <li>Frontier (Residential services, Overseas)</li> </ul>	<ul> <li>Social infrastructure (Establish long-term, stable business)</li> <li>Building and living environment (Establish new business)</li> <li>Advanced materials (Expand into growth markets)</li> <li>New areas (Expand contributions to solving social issues)</li> </ul>	<ul> <li>Mobility (From a component business to a module business)</li> <li>Electronics (Expansion to mobility and residential infrastructure components)</li> <li>Building and Infrastructure (Labor saving, Data utilization)</li> </ul>	<ul> <li>Diagnostics business</li> <li>Pharmaceutical sciences business</li> <li>New areas (Cell culture, Pharmaceutical new modalities, Pharmaceutical CDMO)</li> </ul>
Expand Enhancement Areas	<ul> <li>SEKISUI HEIM (Detached houses, Housing renovation)</li> <li>Real estate (Brokerage services, Management, BeHeim)</li> <li>One-stop proposal for living</li> </ul>	<ul> <li>Disaster aggravation/Anti-aging measures</li> <li>New materials/Sensing</li> <li>Water use/Recycling system</li> </ul>	<ul> <li>High-performance interlayer films/ Smart materials</li> <li>Semiconductor components</li> <li>Lightweight, high-strength materials</li> </ul>	<ul><li>Pharmaceutical CDMO</li><li>POCT</li><li>Diagnostic systems</li></ul>
Enter Innovation Areas	• Overseas (N	ew markets)	Next-generation communication components	Pharmaceutical new modalities
	• Town and Community Development	• i-Construction	Sensing devices	Cell culture
	Digital utilization     (housing that employs digital technology)	• Healthcare	•Data utilization	Utilize digital technology Medical Business strategy <ul> <li>Digital health/Medical devices</li> </ul>
	Expand inno	ovative Products to Enhance Sustainability (BR	and perovskite solar cells) Utilize digital techr	nology (MI*)

\* Materials informatics

### **SEKISUI**

### **Research & Development/Intellectual Property**

### **Research & Development**

### 28 Technological Platforms

SEKISUI CHEMICAL Group recognizes that maintaining prominence in technology is the bedrock for creating value. In particular, six essential technology groups related to the Residential and Social Infrastructure Creation and Chemical Solutions business fields, as well as 28 more specific technological platforms (TPF), form the foundations of our value creation.

In 2014, SEKISUI CHEMICAL Group identified the TPF as the Group-wide basis for technology development. While refining our prominence in each of these technologies, we are developing products and services that reflect the collective strengths of multiple TPFs while anticipating changes in society and demand and are engaging in various activities including the development of technical human resources. In aiming for sustainable growth amid the changing business environment, we periodically revise the TPF when formulating each Medium-term Management Plan.

### Achieving Peace of Mind Even during Disasters without Purchasing Electricity as far as Possible!

### Energy self-sufficient homes

High-capacity solar power systems, film-type storage batteries, and home energy management systems (HEMS) are installed on modular frames with high earthquake resistance, high heat insulation, and high airtightness. Lifestyles that use natural energy as far as possible contribute to the global environment, and at the same time, allow evacuation to housing with peace of mind during disasters.



#### Proprietary Rain Water Drain Pipe Design Achieves High Drainage Performance, Ease of Installation, and Economy

### ESLON Large High-capacity Drainage System

The ESLON Large High-capacity Drainage System combines a Choshin rain gutter with a highstrength, low-expansion PET ultra-extruded sheet core and specially developed parts. The original drain system design uses the siphon principle to achieve high drainage capacity, which makes it possible to reduce the size and number of downpipes compared to earlier systems, offering exceptional ease of installation and economy and contributing to solving various social issues.



socket

TPF

×

 $\times$ 

Acoustic/thermal/air quality managemer

×

Infrastructural/functional materials

etc.

Energy managemen

truction/method

Housing production/

### **28 Technological Platforms**



#### Contributing to Higher Healthcare Quality through Faster and More Precise Testing

### Nanopia IL-2R blood-soluble interleukin-2 receptor test reagent

Highly precise fine particles (latex) and antibody acquisition and purification technology enable appropriate diagnosis and follow-up of blood cancers as well as simpler and faster testing.

TPF

Clinical diagnostics

 $\times$ 

Microparticles



## Contributing to the Enhanced Safety and Comfort of Automobiles!

#### S-LEC Sounds and Solar Film-W: Wedge-shaped sound insulation/heat shielding interlayer films for Head-up Displays (HUDs)

Wedge-shaped interlayer films for HUDs are used to display necessary information on automobile windshields and also have sound and heat insulating functions. By combining various technologies including wedge angle control technology, multilayer extrusion technology, and raw material mixing and nanodispersion technology, we achieved multiple functions at high levels, contributing to the enhancement of automobile comfort and safety.







### **Research & Development/Intellectual Property**

### **R&D and Intellectual Property Management System**

Under our Long-term Vision, we have identified four domains. We are undertaking the challenge of innovations that leverage our core technologies in each domain with the aim of expanding existing businesses and creating new businesses.

The R&D and intellectual property management system that supports this is in place in each segment to enable timely activities in line with each business environment, and is consistent from the stage of acquiring customer needs to the creation of products and businesses by incorporating the perspective of solving social issues in R&D.

Corporate Headquarters is now in charge of medium- to long-term themes, the R&D Center specializes in breakthroughs, and the New Business Development Department is in charge of promoting commercialization. After launching each theme as a business, a system is in place that facilitates the prompt transfer of control to a divisional company.

In addition, the Innovation Promotion Group and the CVC Team\* are investing in venture companies as a part of efforts to actively promote exchange and the development of businesses. This in turn is aimed at creating new businesses. \* Corporate Venture Capital (CVC): Venture investment activities by business companies.

### Treatment of Human Resources Engaged in R&D

In addition to paying monetary incentives for inventions made by employees, the Technology Award and Invention Grand Prize have been established as a part of our efforts to ensure researchers and engineers receive the evaluations and recognition they deserve.

The Group has also established a specialist position system for researchers and engineers with highly specialized skills.

We appoint prominent human resources with a high level of expertise that is competitive both within and outside the Company to specialist positions. In deepening their skills and developing future employees, these human resources serve as the main source of added value that will become the wellspring of our competitiveness. As of July 2022, 38 people have been appointed. Moving forward, we are promoting technology platform strengthening initiatives with a long-term perspective.



### **Reference** 28 Technological Platforms

SEKISUI CHEMICAL Group's Value Creation

ategory		Technological Platform	Overview		
Intrastructure Creation		1 Infrastructure design	Builds long-lasting, earthquake-resistant pipe systems and other infrastructure.		
	System design	2 Housing design	Provides safe, secure housing that is resistant to natural disasters for both new and renovated houses.		
		3 Energy device design	Develops energy creation and energy storage systems to achieve a sustainable society.		
	Production/ construction/ method	4 Housing production/construction/method	Further evolves the Unit Construction Method and provides high cost performance housing.		
		5 Infrastructure construction/method	Develops simple construction methods and repair/reinforcement technologies that shorten onsite construction periods.		
		6 Pipeline construction/method	Develops optimal pipe systems and develops pipeline rehabilitation methods for rehabilitating aging sewage pipes.		
	Living	7 Acoustic/thermal/air quality management	Provides quiet, comfortable living environments.		
	environment	8 Life/health management	Evaluates and designs products and environments that help increase the QOL of consumers.		
	control	9 Energy management	Contributes to the environment through the effective use of solar panels and storage batteries, and protects daily life during natural disasters.		
f		10 Adhesive bonding, joining materials	Provides products with a good balance between tack, adhesion, and holding power according to the application.		
		11 Conductive/insulating materials	Provides sheets and adhesives with conductive and insulation properties.		
		12 PVA/PVB	Grants sound insulation, heat insulation, and other functions to interlayer films for laminated glass, etc.		
	Resin materials	13 Polyvinyl chloride	Improves the durability, impact-resistance, chemical resistance, and other properties of PVC resin.		
		14 Energy devices	Develops high-performance storage battery materials and solar cell materials.		
		15 Infrastructural/functional materials	Further improves the functionality of products for the infrastructure that supports daily life and society.		
		16 Microparticles	Provides microparticles with unique features through particle size control and functionalization.		
		17 Precise molding	Extrusion, expanding, stretching, and other precision resin processing methods.		
		18 Filler compounding	Expresses new functions by mixing resins with fillers of different sizes in an optimal manner.		
	Processing	19 Chemical plant design	Develops agitation, separation, drying, and other process technologies that enable safe, consistent production of chemical products.		
	FIDCessing	20 Plastic molding	Develops extrusion, injection molding, and coating technologies for efficiently producing plastic products at low cost.		
		21 Surface treatment, multilayer	Provides manufacturing methods, including optimal surface treatments and multilayers, that modify surfaces and grant functionality.		
		22 Composite molding	Develops products with new functions realized by compounding different materials.		
٩		23 Green chemistry	Aims to free resin raw materials from their dependence on petroleum to achieve a sustainable society.		
	Nature and life	24 Clinical diagnostics	Provides medical diagnostics reagents in the priority disease areas of lifestyle-related diseases and infectious diseases.		
		25 Drug development solution	Supports drug development using sophisticated technical skills in everything from screening tests to molecular tests.		
		26 Medical materials	Provides pharmaceutical ingredients, medical amino acids, and other substances that serve as the active ingredients in pharmaceuticals.		
	Common bass	27 Assessment analysis, quality assurance	Ensures quality through state-of-the-art assessment analysis for highly advanced materials and safe, secure product development.		
Common base		28 Digital analysis technology	Engages in innovative material development by leveraging materials informatics.		

### SEKISUI

#### D

Creation

### **Research & Development/Intellectual Property**

### **Intellectual Property**

### **Fundamental Policy**

The intellectual property derived from R&D activities is the source of competitiveness and an important management resource that underpins SEKISUI CHEMICAL Group's growth and revenue aimed at optimizing corporate value. At SEKISUI CHEMICAL Group, to utilize the prominence of our technology to its fullest potential and contribute to our business, we conduct competition environment analysis using information related to intellectual property, markets, and competition, and this serves as a starting point for our strategy development, intellectual property portfolio management, and other strategic intellectual property promotion activities.

In addition, we have been working on applications for digital transformation for some time and are now proactively branching out into new intellectual property trends such as materials informatics and AI.

Through the activities above, we are contributing to growth and creation for our business in the intellectual property field in the Medium-term Management Plan, Drive 2022.

### Fostering an Intellectual Property Mindset

With the goal of increasing employee awareness of intellectual property, we started a system in fiscal 2010 that grants P-Badges to those who submitted a certain number of patent applications. Currently, our corporate culture considers it a matter of course for all engineers to earn one.

There are a variety of awards systems in place for intellectual property activity achievements, and in addition to awards for inventions that contribute to profits, there are others that use different criteria such as number of patent applications in a year, invention originality, and strength of the application network. We also give awards for actions utilizing licenses and rights, such as earning license revenue and blocking the entry of other companies. These awards systems are intended to increase employee motivation related to intellectual property.

Within this awards framework, there is a special company president award called the Invention Grand Prize, which recognizes the achievements of inventors whose inventions make major contributions to profit for the Group as a whole. The Invention Grand Prize is divided into four grades ranging from Special Class to 3rd Class, assigned depending on the extent of the invention's profit contribution, and there are bonuses awarded to winners for each grade. The Special Class bonus has no upper limit and is instead defined as a ratio of the profit contribution amount.

This system has been in place since fiscal 1999 and is now in its 22nd year. In fiscal 2021, a third-class certification was granted for a patent related to profiles for the SPR-SE method.

### Intellectual Property Training for Employees

We have prepared several educational programs tailored to the level of each developer for engineers during their first three years that covers essential topics ranging from fundamentals of intellectual property to strategy development and is implemented at all companies.

In addition, we provide individual specialized education programs for each divisional company to cultivate practical skills in line with their business. For trademarks and branding issues, the target group for education programs is expanded to include marketing and sales staff as well.

### Group-wide Intellectual Property Application (IP Landscaping)

SEKISUI CHEMICAL Group engages in analysis activities that combine markets and technology information with a focus on intellectual property (IP landscaping). This approach supports strategy planning and intellectual property portfolio enhancements in departments that work to strengthen the business competitiveness of existing products, as well as those that create new products and businesses. Meanwhile, it also aids decision-making when undertaking high-level management and business assessments, such as M&As, so we promote the use of this approach throughout the Group.

### 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 fourth in the chemical industry. SEKISUI CHEMICAL has maintained a position in the top 10 for the past five years.

### Patent Asset Scope 2020 Ranking

Ranking	Company name	Patent asset scope (points)	Number of patents
1	Fujifilm	60,665.0	1,188
2	LG Chem	25,886.0	658
3	Sumitomo Chemical	25,202.7	464
4	SEKISUI CHEMICAL	19,694.4	507
5	Kao	18,503.7	588
6	DIC	17,854.4	325
7	Mitsubishi Chemical	14,404.1	490
8	Nitto Denko	13,332.0	359
9	Asahi Kasei	13,129.0	315
10	Hitachi Chemical*	12,612.4	353

Source: Patent Result Co., Ltd.

"Chemical Industry: Patent Asset Scope 2020 Ranking"

\* Currently Showa Denko Materials Co., Ltd.

### Ability to Restrain Other Companies 2021 Ranking

Ranking	Company name	Number of patents
1	Fujifilm	4,001
2	Mitsubishi Chemical	1,887
3	Kao	1,597
4	SEKISUI CHEMICAL	1,262
5	Nitto Denko	1,165
6	Asahi Kasei	1,025
7	Showa Denko Materials	995
8	Sumitomo Chemical	968
9	DIC	755
10	Mitsui Chemical	734

Source: Patent Result Co., Ltd.

Chemical Industry: Ability to Restrain Other Companies 2021 Ranking

### Number of Patent Applications (domestic)

(No. of patents)



### Number of Patents Possessed (domestic and international)



SEKISUI

combustible waste, and returned to the BR plant. The aim is to create a resource recycling system that can be repeated over and over.

### Fusion—Accelerating Growth through Innovation and New Business Creation

SEKISUI CHEMICAL Group is committed to innovation that contributes to solving such social issues as decarbonization and resource recycling to achieve our Long-term Vision "Vision 2030" and the realization of a sustainable society. We have positioned fusion as a driver to accelerate innovation to realize our Long-term Vision, Vision 2030. We will work to accelerate innovation at an unprecedented pace by focusing more than ever on the fusion of various internal and external stakeholders as well as companies from the perspectives of technology and business opportunities. We are endeavoring to shift away from a self-reliant culture and approach by promoting projects that extend horizontally across internal companies, collaborating with external institutions and other outside parties, and engaging in open innovation.

### Internal and Technological Development Fusion

SEKISUI CHEMICAL Group has identified strengthening fusion at its Corporate Headquarters and is promoting fusion with each divisional company from three perspectives: core technology fusion, planning fusion, and development fusion. In addition, we have taken steps to fuse our 28 technological platforms and launched the ESG Task Force as a forum that transcends organizational boundaries. We are promoting the creation of Products to Enhance Sustainability through an internal cross-sectional system that enables development and business proposals aimed at addressing social issues.



In addition to zero energy house (ZEH) specifications, SEKISUI CHEMICAL Group's unique efforts to build smart & resilient residential housing communities that bring to bear infrastructure materials and systems that stand strong against torrential downpours and the suspension of water services is an example of the Company's business development activities through internal fusion.



MINASE INNOVATION CENTER

Material supply

Gasification

Converting miscellaned raw materials into gas and cinde

### Internal and External Open Innovation

In addition to generating exchanges that transcend internal divisional companies, MINASE INNOVATION CENTER (MIC), a research facility established in 2020, is engaging in various activities to accelerate internal and external fusion as well as open innovation including actively promoting technological exchanges with start-up companies that possess low-carbon technologies together with materials and technologies that contribute to resource conversion.

Moreover, we set up a new entity with the goal of spurring on innovation in 2021, and have been promoting efforts to ramp up fusion with external partners. We are seeking opportunities outside the Company, such as CIC Tokyo, the Tokyo site of the Cambridge Innovation Center, the largest focal point of innovation in the United States, and are taking on the challenge of creating new businesses in collaboration with companies' new business departments as well as promising start-up companies. By skillfully leveraging such relationships as trading posts, we use fusion to bring into the Company the technology, ideas, and innovative culture that would be difficult to obtain just on our own, and use those that we incorporate to accelerate the creation of value.

### **Innovation and New Business Creation**

### CASE 1: Biorefinery Technology Demonstration

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 NZ, Inc. Upon receiving investment from INCJ, Inc. (Innovation Network Corporation of Japan), SEKISUI CHEMICAL Group established SEKISUI BIO REFINERY CO., LTD., in April 2020. Steps are currently being taken to conduct a demonstration at a plant that is 1/10th the size of a commercial plant completed in April 2022 in Kuji City, Iwata Prefecture, as the final stage in verifying the technology for practical application and commercialization. The first commercial-scale facility is targeted to begin production in 2025.

Plans are in place for the ethanol produced at the plant to be recycled as a plastic raw material in collaboration with SUMITOMO CHEMICAL CO., LTD., which is already under way. Ethanol is converted to ethylene and then to plastic, and the products from the plastic are used and disposed of, collected as

### CASE 2: Transparent and Flexible Radio Wave Reflection Film

Transparent flexible radio wave reflective films developed from studies of the brilliance of Morpho butterfly wings recognize the importance and necessity of learning from nature's wisdom. Positioning electromagnetic wave management as a business domain, we entered the Electromagnetic Wave Control business as a first step through fusion with the technologies of Metamaterial Inc. (headquartered in Canada).

Realizing diffuse reflection characteristics equivalent to or in excess of aluminum plates, our transparent flexible radio wave reflective films are highly effective for such high frequencies as 5G and 6G and also play a role in delivering radio waves to blind spots in rooms.

Looking ahead, we aim to expand into the next-generation components and equipment business and enter the electromagnetic wave environment design service business.



Special coating layer Highly transparent PSA Meta-material layer\* Special PSA

\* Technically supported by Meta Materials Inc.



### Reference

SEKISUI CHEMICAL Group's Value Creation

Radio waves

### Innovations Inspired by Nature Research Support Program

As an effective approach to manufacturing that is geared toward solving social as well as environmental issues, SEKISUI CHEMICAL Group has recognized the importance and necessity of learning from nature's wisdom since 2002. Based on this understanding, we established the nature-inspired manufacturing research support program to promote the development of biomimicry technology and have organized forums where researchers can share their results.

While basic science requires time for research and support, we believe that learning from nature's wisdom has the potential to create fundamental innovations that differ from conventional energy-consuming technologies. Now in its 20th year in 2022, this program has encouraged the

development of a cumulative total of 280 technologies for researchers outside the Company.

### CASE 3: 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 materials for power generation. Unlike conventional silicon-based solar cells, materials can be applied to the film as if it were printed. In manufacturing these solar cells, the Company leverages its proprietary encapsulation, process, material, and film deposition technologies. To date, we have conducted accelerated tests according to the standards for solar cell reliability and confirmed durability equivalent to 10 years of outdoor exposure.

Ultra-lightweight and flexible, perovskite solar cells can be installed on the walls of buildings and on roofs with weight restrictions.

Working in collaboration with the University of Tokyo and Ritsumeikan University, our technology has been adopted for a New Energy and Industrial Technology Development Organization (NEDO) project. SEKISUI CHEMICAL Group has also initiated steps to develop a general-purpose width roll-to-roll manufacturing line. Moving forward, the goal is to achieve commercialization, after conducting verification tests, around 2025 while continuing to engage in research to further improve durability.

### Case 4: Carbon Capture Utilization (CCU) Technology (Carbon Dioxide Recovery and Effective Use)

Reducing  $CO_2$  emissions in the steelmaking process is a longstanding issue. SEKISUI CHEMICAL Group's innovative CCU technology separates and recovers  $CO_2$  from the gas emitted during steelmaking and converts it to a carbon monoxide rich synthesis gas with a high yield. This synthesis gas with a high carbon monoxide content can be reused as a reduction agent for iron ore, thereby lowering the volume of fossil resource required in the steelmaking process.

The Company concluded a partnership agreement with ArcelorMittal of Spain, one of the world's largest steel companies, for this project. Currently, we are working on the initial study of this technology over a three-year period starting in 2021, after which we will proceed with studies toward practical application while scaling up in stages.



