

SEKISUI CHEMICAL CO., LTD.



Value Creation through ESG Management

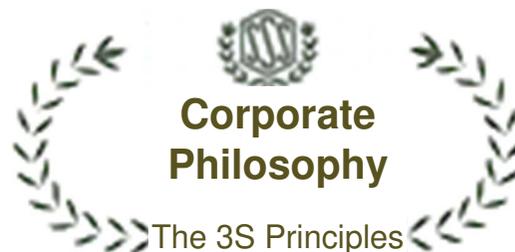
Futoshi Kamiwaki

Representative Director
Senior Managing Executive Officer

March 2023

AGENDA

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The 3S Principles

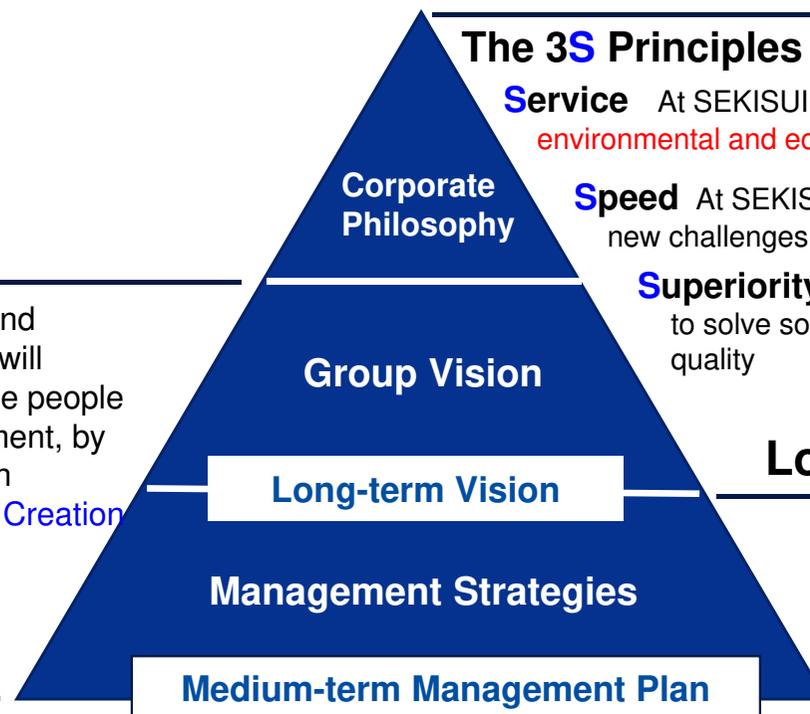
Service At SEKISUI, we serve our stakeholders by **creating social, environmental and economic value** through responsible business practices

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

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**

Drive2022



Long-term Vision, Vision2030

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".

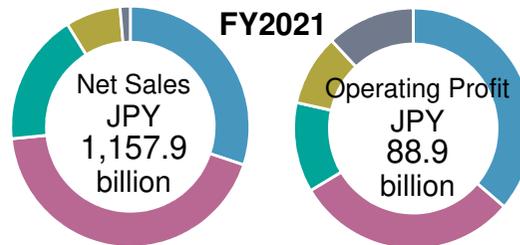
Drive sustainable growth/reform/preparation to realize Vision 2030

- ◆ Promote ESG management and build a corporate structure that can enhance corporate value on a sustainable basis
- ◆ Work on the Three Drives as a first step toward realizing the Long-term Vision
 - (1) Existing Business Drive: Business growth and reform
 - (2) New Business Drive: Preparations for long-term growth
 - (3) Business Base Drive: Strengthening the ESG management base
- ◆ Accelerate through fusion and digital transformation

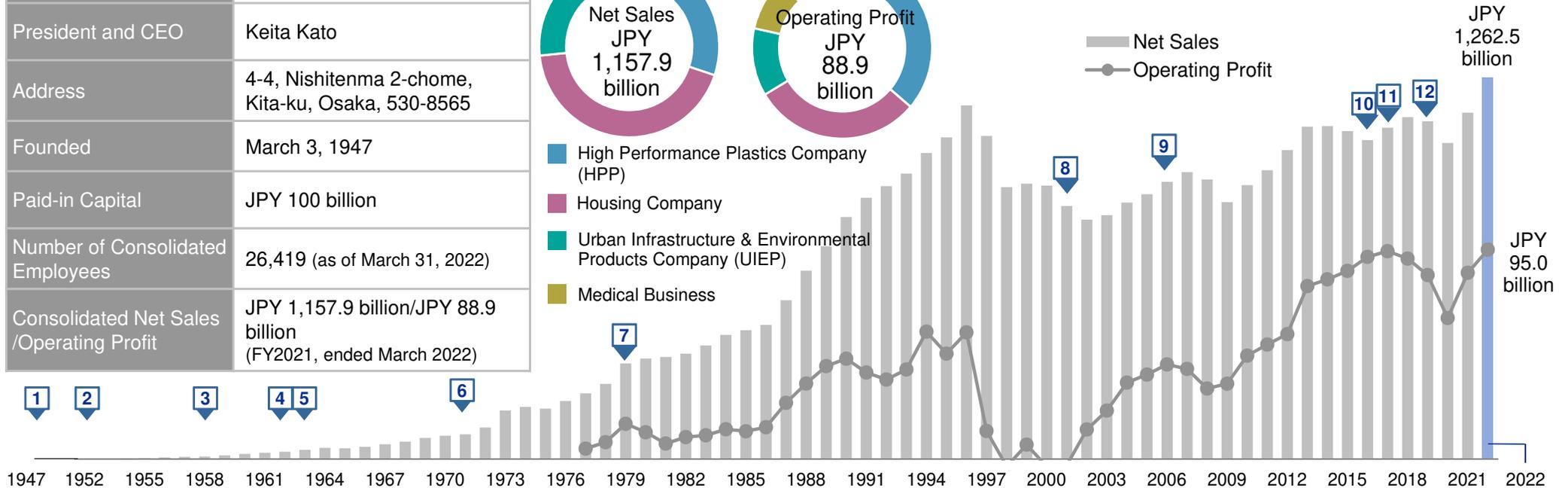
SEKISUI CHEMICAL Group Accomplishments



Name	SEKISUI CHEMICAL CO., LTD.
President and CEO	Keita Kato
Address	4-4, Nishitenma 2-chome, Kita-ku, Osaka, 530-8565
Founded	March 3, 1947
Paid-in Capital	JPY 100 billion
Number of Consolidated Employees	26,419 (as of March 31, 2022)
Consolidated Net Sales / Operating Profit	JPY 1,157.9 billion / JPY 88.9 billion (FY2021, ended March 2022)

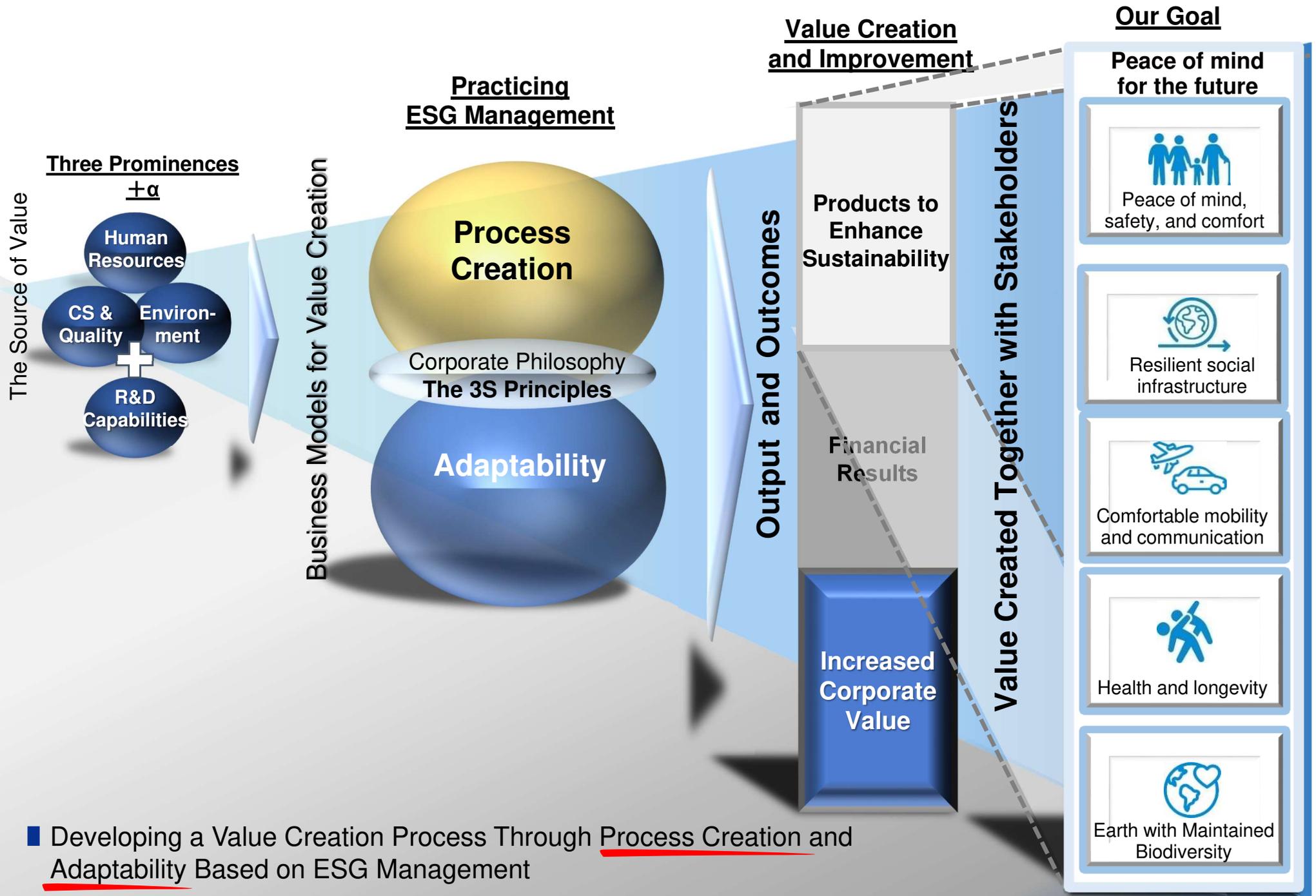


- High Performance Plastics Company (HPP)
- Housing Company
- Urban Infrastructure & Environmental Products Company (UIEP)
- Medical Business



Note: Non-consolidated accounting until 1976 and consolidated accounting since 1977

<p>1 1947</p> <p>Established SEKISUI INC. in order to run a general plastic business</p> 	<p>4 1962</p> <p>Rolled out poly-pail plastic garbage bins on a nationwide basis and contributed to efforts aimed at resolving garbage-related issues</p> 	<p>7 1979</p> <p>Awarded the Deming Prize, the highest honor for total quality management from production to sales and service</p> 	<p>10 2016</p> <p>Executive Advisor Naotake Okubo awarded the Deming Prize for Individuals; SEKISUI CHEMICAL Group awarded the Japan Quality Recognition Award in the Innovation category by the Union of Japanese Scientists and Engineers</p> 
<p>2 1952</p> <p>Began full-fledged production of ESLON polyvinyl chloride pipes</p> 	<p>5 1963</p> <p>Established SEKISUI PLASTICS CORPORATION, the first plant to be set up in the U.S. by a Japanese manufacturer</p> 	<p>8 2001</p> <p>Introduced divisional company system</p> 	<p>11 2017</p> <p>Successfully developed a first-in-the-world production technology that converts garbage into ethanol</p> 
<p>3 1958</p> <p>Began production of interlayer film for laminated lass S-LEC</p> 	<p>6 1971</p> <p>Entered the housing business with the launch of "Heim" steel frame unit housing</p> 	<p>9 2006</p> <p>Acquired Daiichi Pure Chemicals Co., Ltd. (currently SEKISUI MEDICAL Co., Ltd., a consolidated subsidiary)</p> 	<p>12 2019</p> <p>Acquired AIM Aerospace Corporation (currently SEKISUI AEROSPACE CORPORATION)</p> 

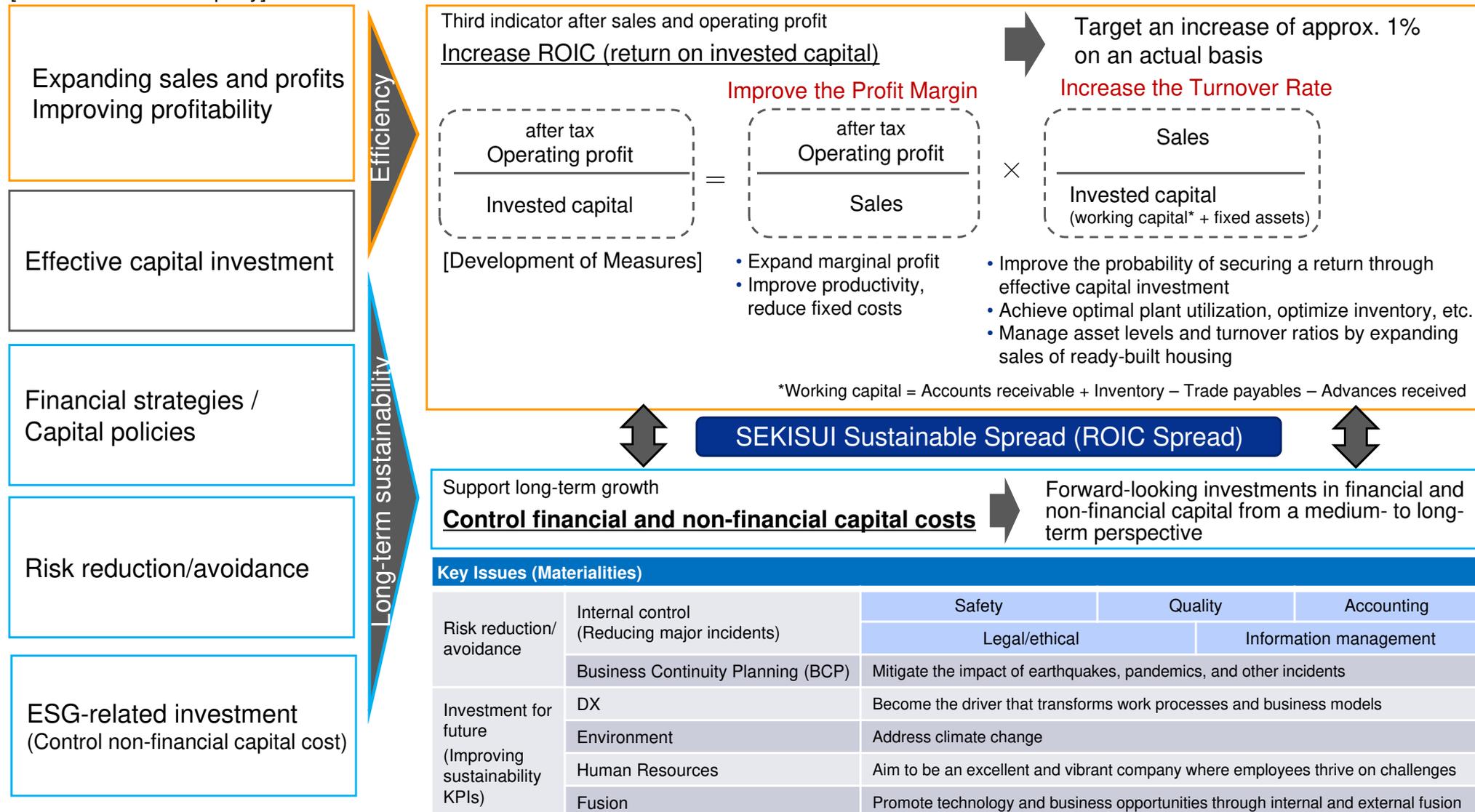


■ Developing a Value Creation Process Through Process Creation and Adaptability Based on ESG Management

Value Creation Process (Corporate Value Improvement KPI)

- At SEKISUI CHEMICAL, we define the SEKISUI Sustainable Spread as the difference between return on invested capital (ROIC) and financial & non-financial capital cost and use this as a KPI for corporate value improvement
- By ensuring that each and every employee acts with awareness of important issues (materialities), SEKISUI CHEMICAL will restrain capital cost through advance investment of financial and non-financial capital in the medium-to-long term. By expanding spread in this way, SEKISUI CHEMICAL will improve corporate value.

[Initiatives of the Company]



The Source of the Group's Value

Three Prominences + α

Environment, Human Resources, CS & Quality + α (R&D Capabilities)

- On March 3rd, 1947, SEKISUI INC. was founded by the "7 samurai," a group of young pioneers at the core of Nicchitsu Konzern created by Shitagau Noguchi, and this company would later become SEKISUI CHEMICAL
- The three sources of the SEKISUI CHEMICAL Group's value are the environment, human resources, and CS & quality



Environment

- SEKISUI CHEMICAL Group has recognized the environment as an important issue. 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 a fully-fledged basis with the aim of achieving sustainable growth that balances 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 the SBT certification and our endorsement of TCFD

Human Resources

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

CS & Quality

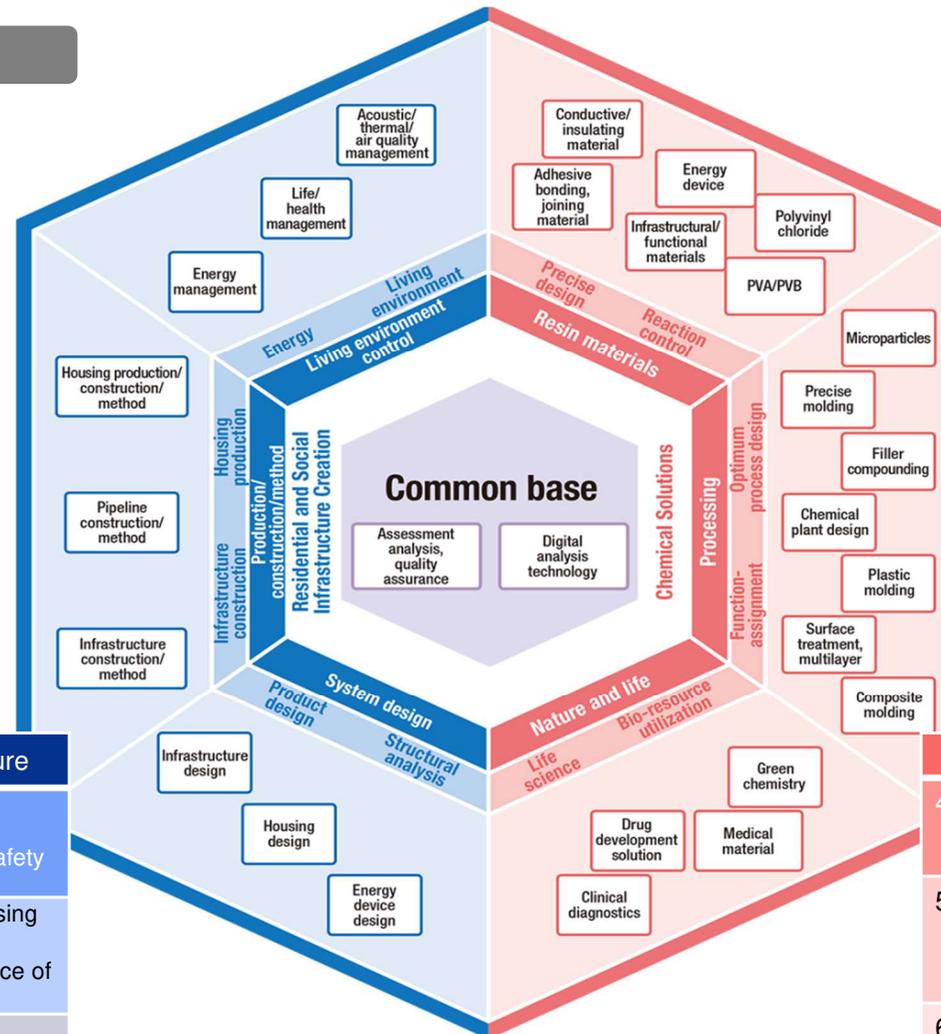
- SEKISUI CHEMICAL Group is engaged in CS management that places emphasis on customer satisfaction (CS). The Group consistently innovates to maintain the quality of products, provides value (goods and services) that meets customer expectations, strives for selection by our customers on an ongoing basis,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

The Source of the Group's Value (+α-R&D Capabilities, Intellectual Property)

- We have established technological platforms as the basis for Group technology development, and promoted initiatives such as developing core technologies, innovating through fusion of existing technologies, and training of technical staff.
- We take customer feedback sincerely to heart and refine our core technologies accordingly, thereby finding directions for added value and creating new products.



Technological Platforms



Creation of Housing and Social Infrastructure		
1	Living environment control	<ul style="list-style-type: none"> • Use of renewable energy • Environment, comfort and safety
2	Production/construction/method	<ul style="list-style-type: none"> • Pursuit of industrialized housing advantages • Construction and maintenance of social infrastructure
3	System Design	<ul style="list-style-type: none"> • High-strength structural design • Resin products and facility design

Chemical Solutions		
4	Resin materials	<ul style="list-style-type: none"> • Enhancement of essential plastic technology • Design of new materials
5	Processing	<ul style="list-style-type: none"> • Increased process efficiency and increased precision • Functionalization by compounding, dispersing, and multilayering
6	Nature and life	<ul style="list-style-type: none"> • Reagent materials and systems for clinical laboratories • Utilization of microorganisms

The Source of the Group's Value (+α-R&D Capabilities, Intellectual Property)

- Intellectual property is the source of our competitiveness and an important management resource supporting the growth and profitability of SEKISUI CHEMICAL Group for the maximization of our corporate value
- The Group leverages its technical prominence to maximum effect to contribute to operations. Based on competitive-environment analysis using information on intellectual property, markets and competition, we advance strategic utilization of intellectual property, including strategy formation and intellectual property portfolio management



<Chemical Industry> Ability to Restrain Other Companies Rankings (Top 10)

Ranking	Company name	Number of patents		
		2021	2020	2019
1	Fujifilm	4,001	4,287	4,552
2	Mitsubishi Chemical	1,887	2,014	2,132
3	Kao	1,597	1,556	1,648
4	SEKISUI CHEMICAL	1,262	1,297	1,301
5	Nitto Denko	1,165	1,148	1,160
6	Asahi Kasei	1,025	1,027	996
7	Showa Denko Materials (Hitachi Chemical)	995	940	1,079
8	Sumitomo Chemical	968	1,013	984
9	DIC	755	755	761
10	Mitsui Chemical	734	Outside the top 10	Outside the top 10

In the patent application process, the number of patents cited as refusal reasons for other companies' patent applications are totaled for each company. This indicates the great number of advanced technologies in our possession, which can prevent competitors from acquiring patent rights in their technical development processes

[Our Company Patents Most Frequently Cited as Refusal Reasons]

2021

Sealant for bioelectroluminescence display elements which can be easily applied using inkjet methods and has superb hardness, transparency, and barrier properties

2020

Sealant for bioelectroluminescence display elements which can be easily applied and has superb hardness, transparency, and barrier properties

2019

Circuit board hole-filling thermal paste components and printed wiring boards

<Chemical Industry> Patent Asset Scope Ranking (Top 5)

Ranking	Company name	Patent asset scope (points)	Number of patents	Patent asset scope (points)	Number of patents
		2022		2020	
1	Fujifilm	58,099.4	1,113	60,665.0	1,188
2	SEKISUI CHEMICAL	24,822.4	615	19,694.4	507
3	Kao	22,123.4	710	18,503.7	588
4	LG CHEM	22,095.4	558	25,886.0	658
5	Nitto Denko	21,470.0	452	13,332.0	359

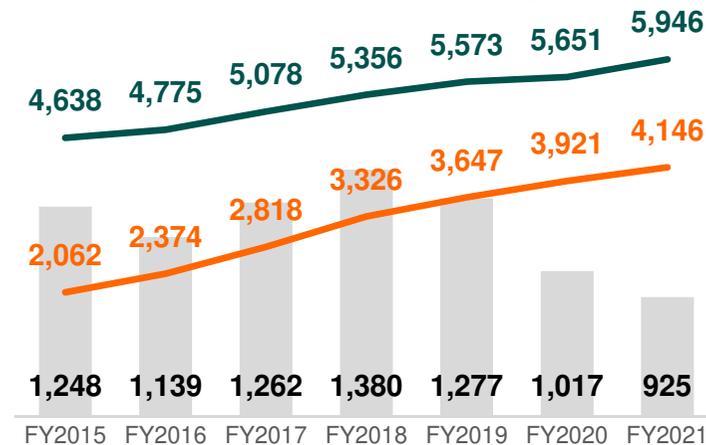
For the patents registered in a one-year period, patent score point system is used for rating the attention each patent receives and calculating a total score for each company

[Company Patents Getting a Lot of Attention]

2022: "Sealant for bioelectroluminescence display elements which can be easily applied using inkjet methods and offer exceptional outgassing characteristics," "Drainage assembly coupling that enables easy confirmation of the conditions inside pipes when abnormalities occur without the need for large-scale equipment and instruments," etc.

2020: "Long polyvinyl chloride (PVC) fireproofing material with improved heat shrink ratio"

The Company's Patents and Patent Applications (Total)



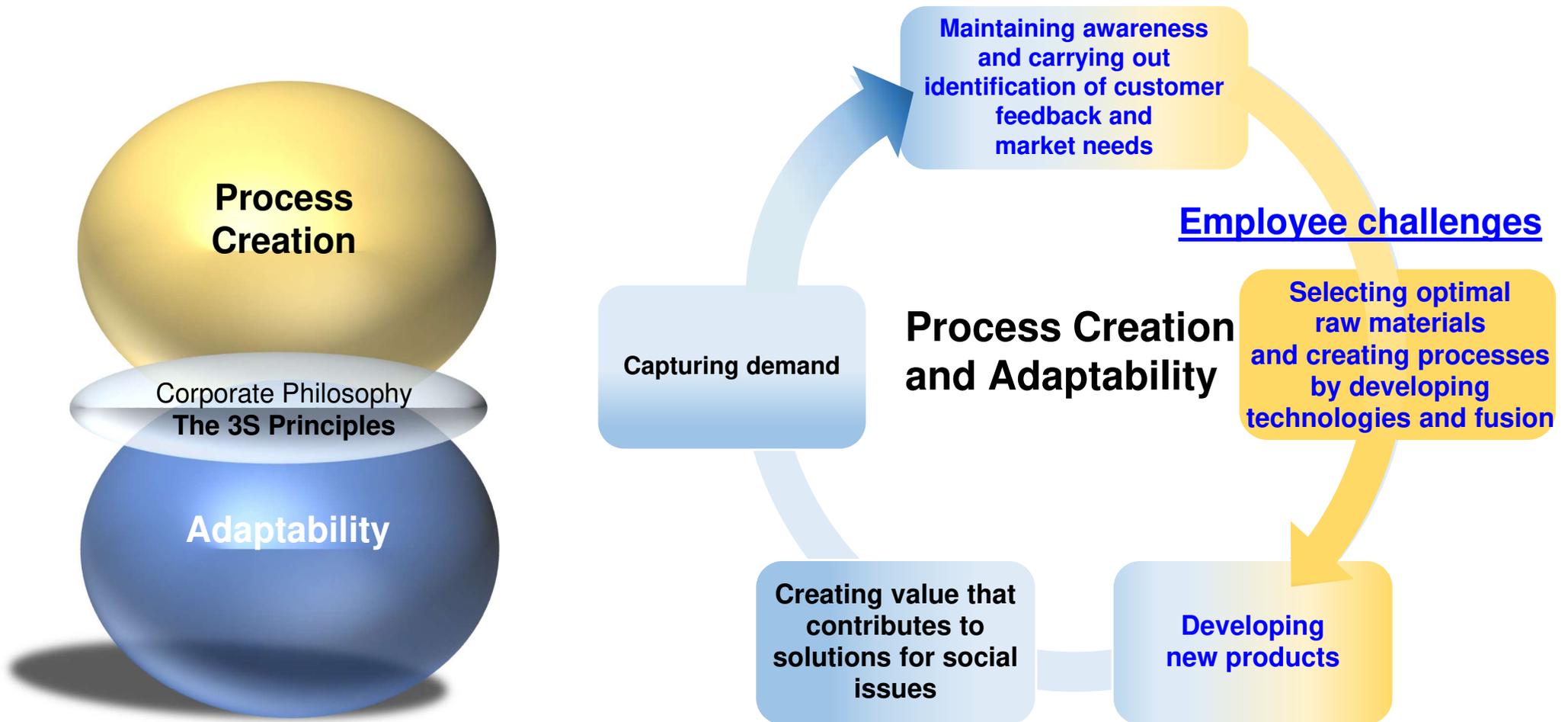
■ Number of patent applications (Domestic)
— Number of patents possessed (Domestic)
— Number of patents possessed (Overseas)

Source: Patent Result Co., Ltd. <Chemical Industry> Ability to Surpass Other Companies 2021, 2020, 2019 Ranking; Patent Asset Scope 2022, 2020 Ranking

Business Models for Value Creation

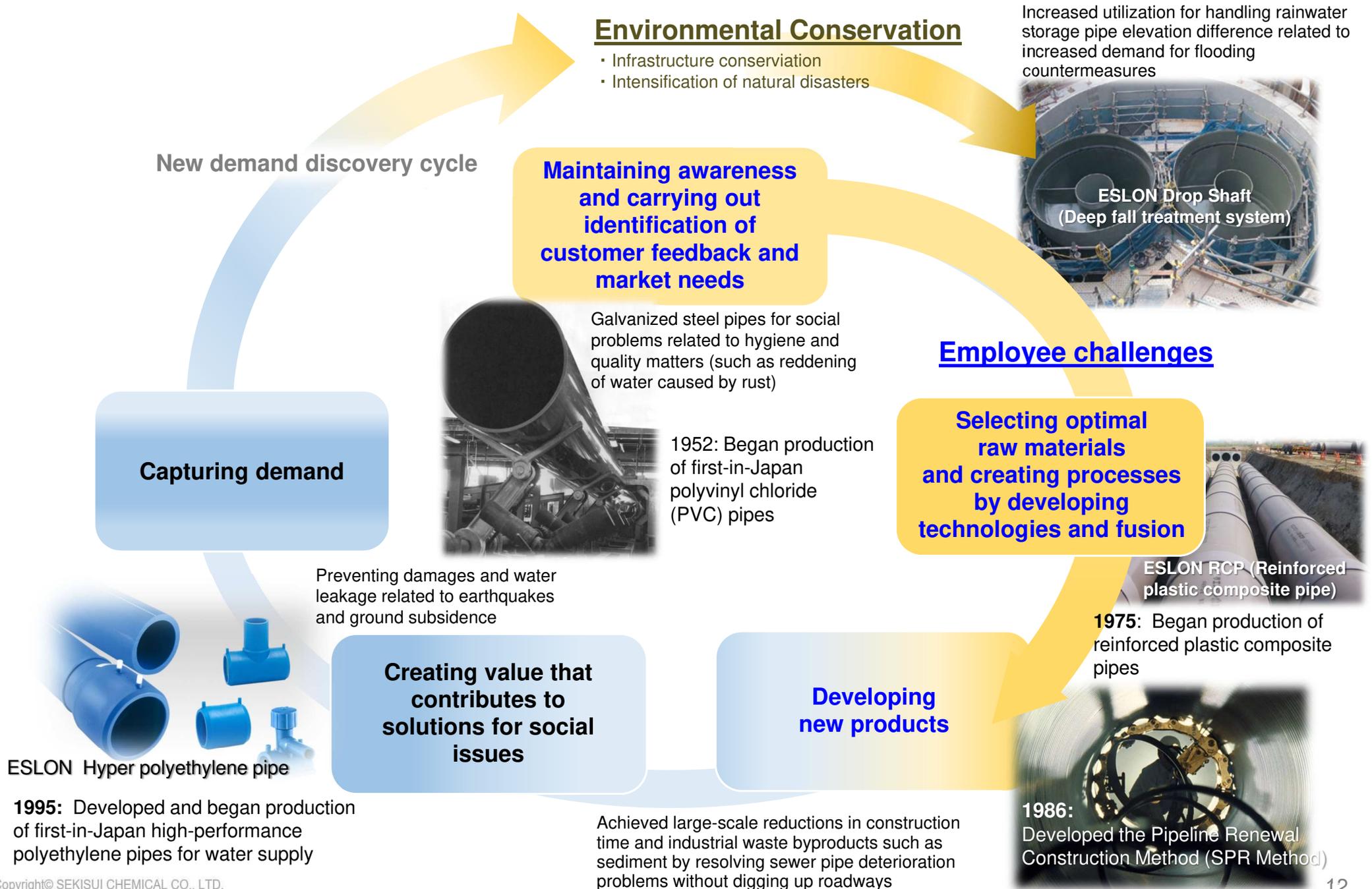
Process Creation and Adaptability

- Creating value based on our two strengths: the power of process creation to create added value using advanced technology; and adaptability to capture customer needs and solutions to social issues, incorporate them into development ahead of others, and modify our business portfolio



- By adding employee challenges to our process creation and adaptability, we create new products (and new value).
- By further refining these products based on customer feedback and market needs, we discover new demand and new potential products.

■ Resolving infrastructure problems, supporting social foundations, and protecting people's lives

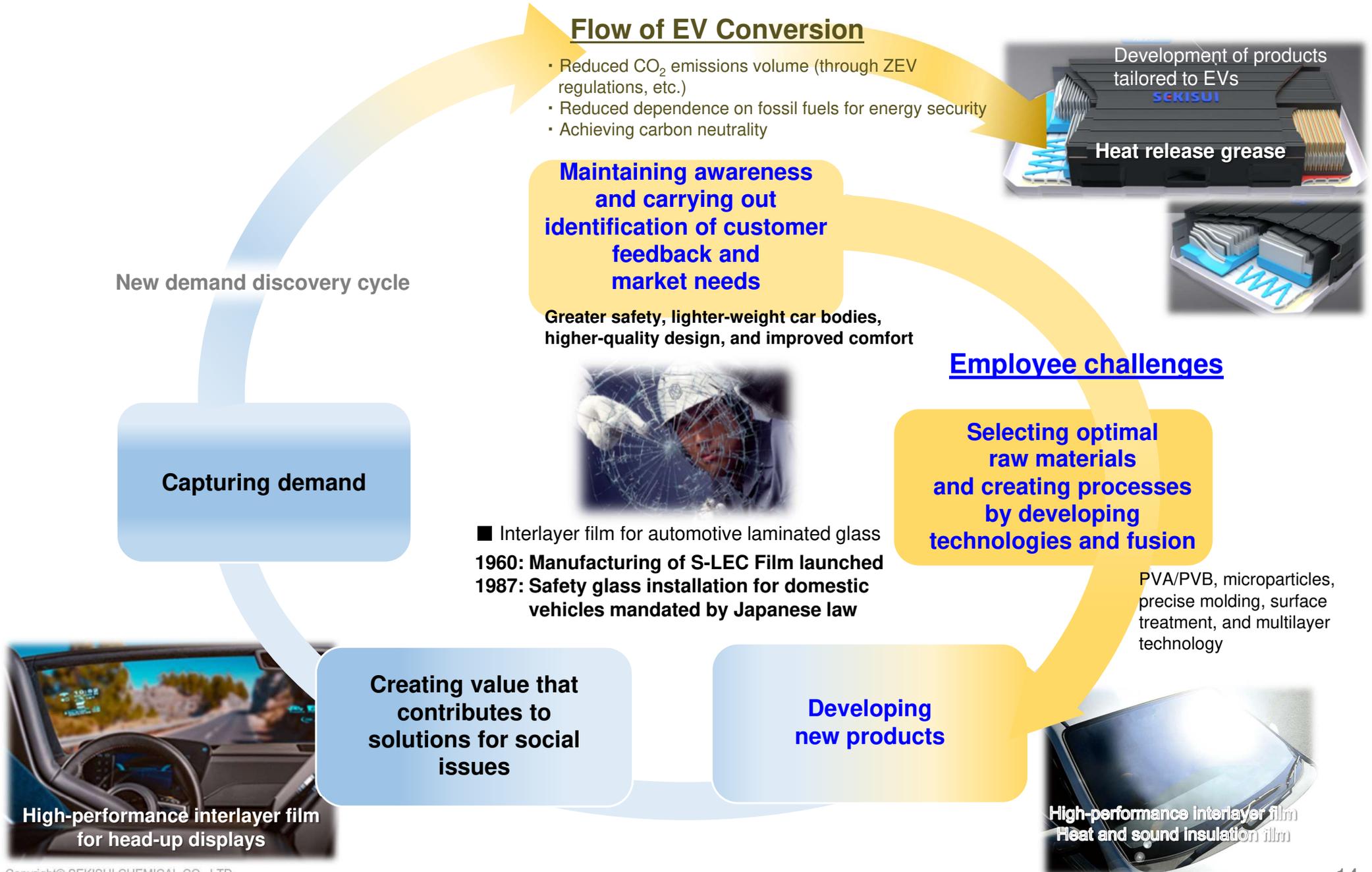


- From building homes to support the lives of people in period of high economic growth to safe and secure urban planning to protect people's comfortably daily lives



■ Contributed to the development of automotive industry trend CASE* + α (environmental handling)

*CASE: C (Connected), A (Autonomous), S (Shared/Service), E (Electric)

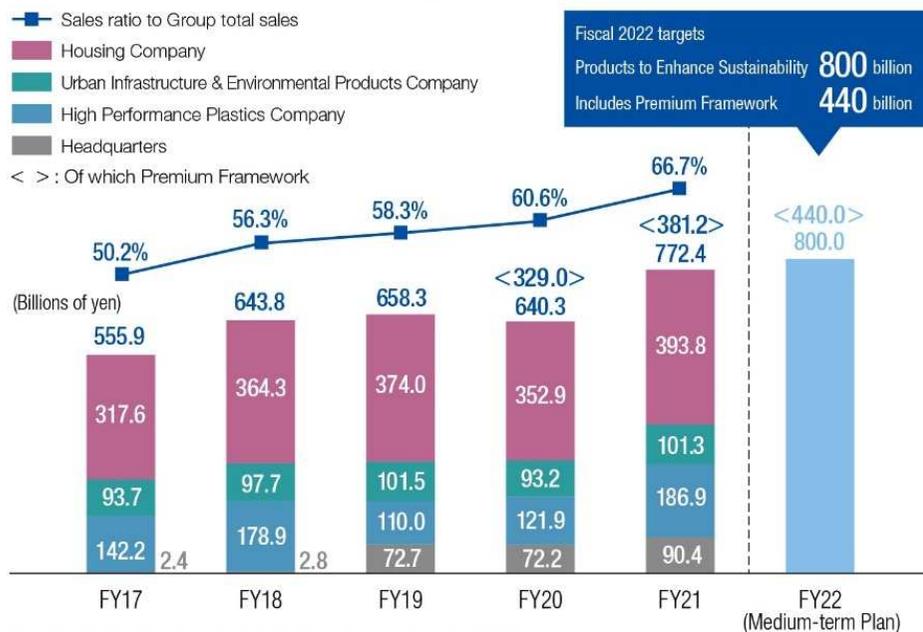


Output and Outcomes

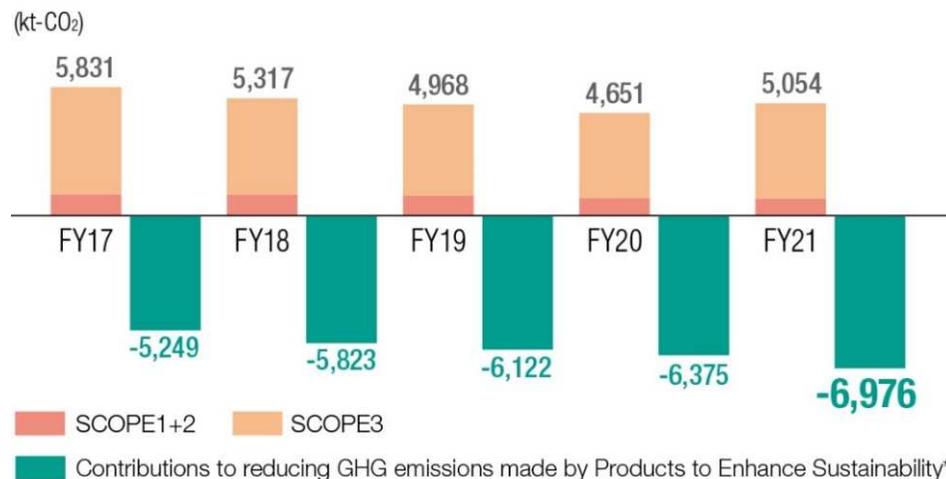
Value Creation and Improvement

- By evolving the existing Environment-Contributing Products into a Products to Enhance Sustainability, we implemented a sustainability confirmation evaluation from perspectives such as profitability, process evaluation, and internal control for the supply chain as a whole
- Aiming for further profitability and problem-solving contribution, we have established a new premium framework. Currently working to increase corporate value by raising the ratio of premium framework products

Products to Enhance Sustainability Net Sales/Sales Ratio

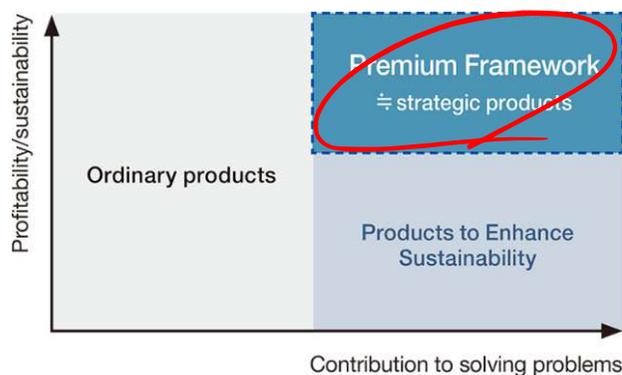


GHG Emissions from Corporate Activities and Contributions to Reducing GHG Emissions Made by Products to Enhance Sustainability



*Contributions to reducing GHG emissions made by Products to Enhance Sustainability are calculated using general-purpose products as a comparison, where the calculation indicates the contribution to reduction as the difference from comparison products given by MiLCA (Japan Environmental Management Association for Industry), a calculation system based on the concept of LIME2.

Products to Enhance Sustainability Concept



Examples of Products to Enhance Sustainability

Examples of Premium Framework Products

Promoting Resilient Infrastructure, Cities as well as Living and Communications Environment

ZEH-specification housing

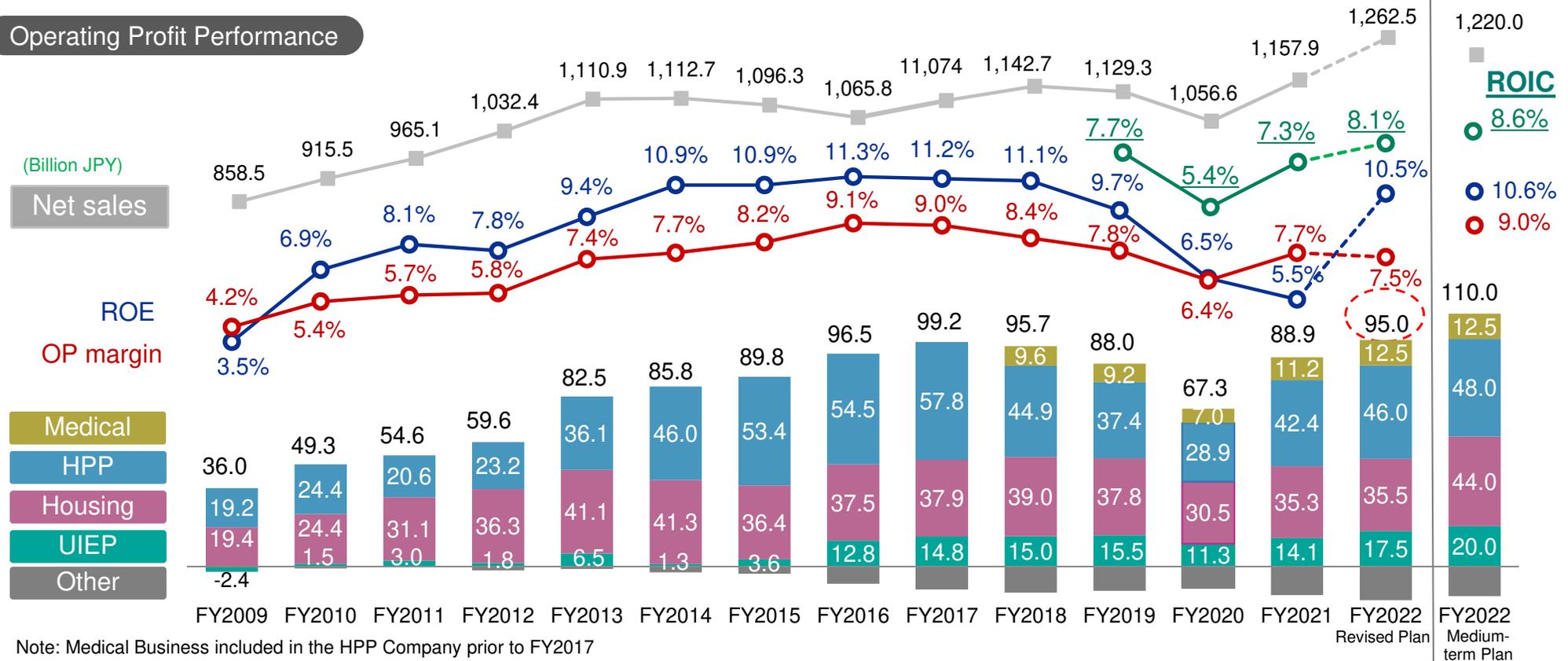
Synthetic railway sleepers (FFU)

Support for Health and Longevity

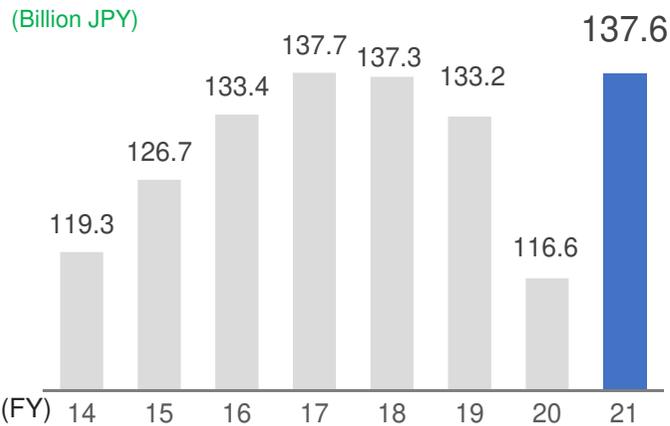
HUD + insulation interlayer film

Outcomes: Financial Results and Increased Corporate Value (1)

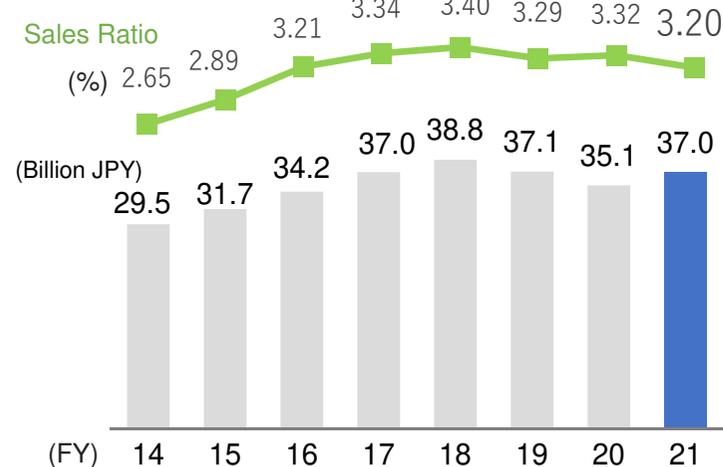
Operating Profit Performance



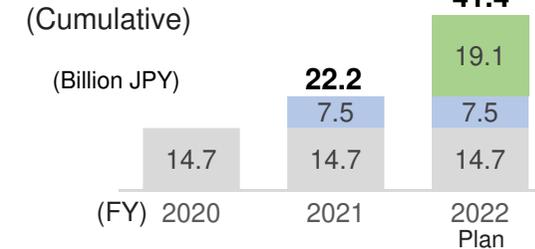
EBITDA



R&D Expenditures



Strategic Capital Investments



ESG Investments



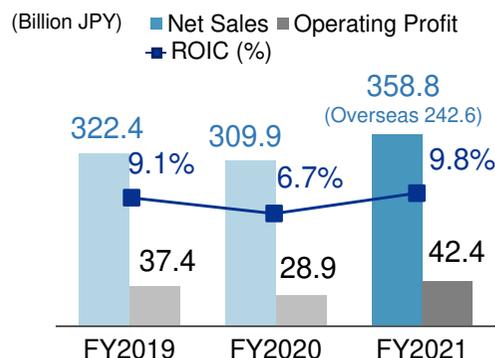
EBITDA = Operating profit + Depreciation + Amortization of Goodwill

Outcomes: Financial Results and Increased Corporate Value (2)

■ Despite the impact of COVID-19, we achieved appropriate investment and return with awareness of ROIC management. In our medical business, which aims for the fourth divisional company, we are proactively implementing growth investments such as research and development and capital expenditure.

High Performance Plastics Company (HPP)

Performance Trends

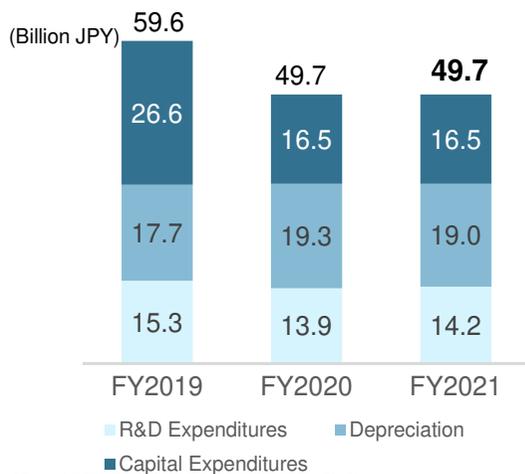


Main ROIC Improvement Measures

- Accelerate returns on M&As and growth investments
- Accelerate improvements in selling prices and further strengthen profitability by shifting to high-performance products

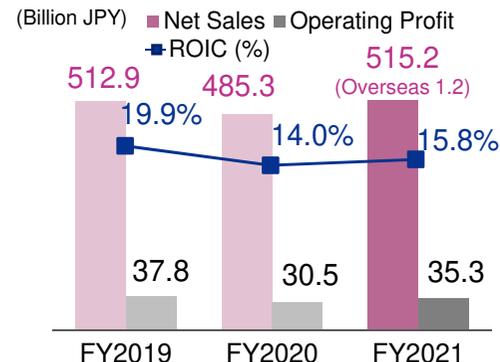
<Strategic investment example>

- Augmenting foam manufacturing ability (USA)



Housing Company

Performance Trends

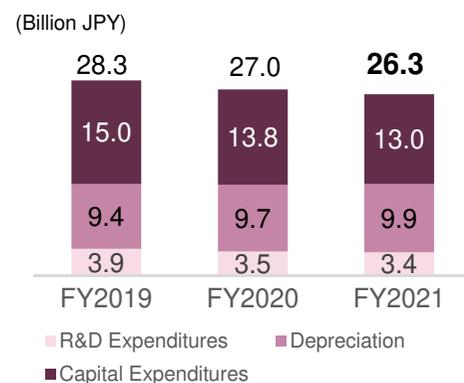


Main ROIC Improvement Measures

- Improve land holdings and turnover rates for the stock of ready-built houses
- Promote comprehensive measures to hedge against sharp rises in raw material prices

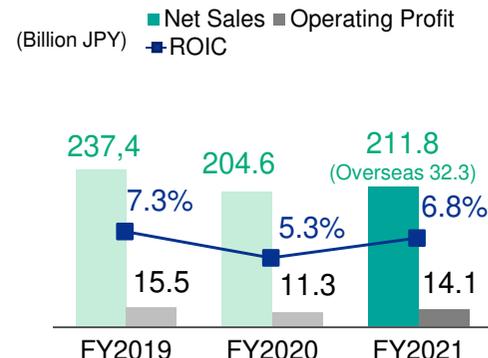
<Strategic investment example>

- Town and Community Development: Land acquisition



Urban Infrastructure & Environmental Products Company (UIEP)

Performance Trends

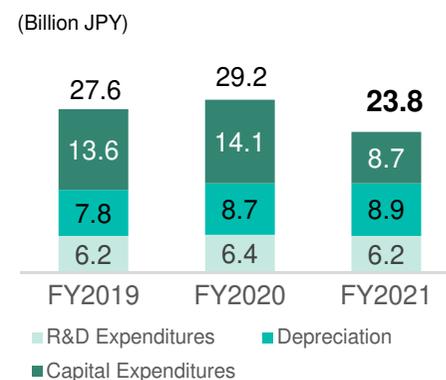


Main ROIC Improvement Measures

- Accelerate improvements in selling prices
- Level out production and sales and optimize inventory
- Improve productivity by accelerating DX investment

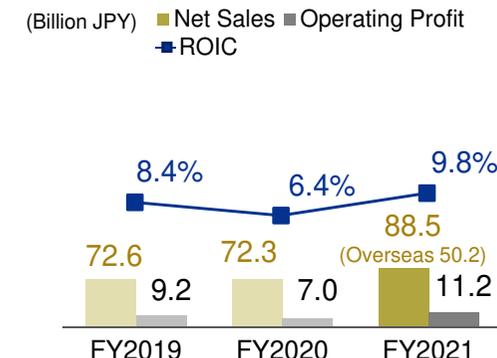
<Strategic investment example>

- Building new production facilities in Europe for FFU



Medical Business

Performance Trends

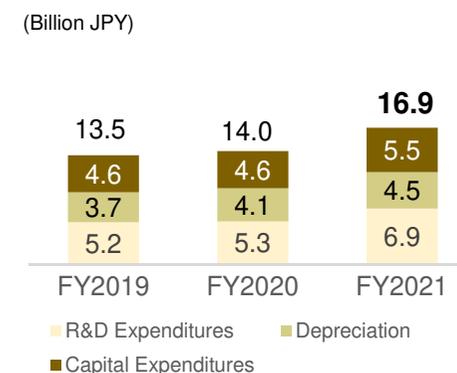


Main ROIC Improvement Measures

- Accelerate returns on M&As and growth investments
- Maintain appropriate inventory levels by product

<Strategic investment example>

- Enhancing production capacity at the Iwate Plant
- Establishing a production system and the UK Plant



Value Created Together with Stakeholders

Peace of mind for the future



Peace of Mind for the Future: Bio-refinery (1)

- Through world-first manufacturing technology that converts trash into ethanol, we aim to develop the ultimate resource circulation social system (circular economy)

From 2014

From 2020

From 2025

The 1/1000th scale pilot plant

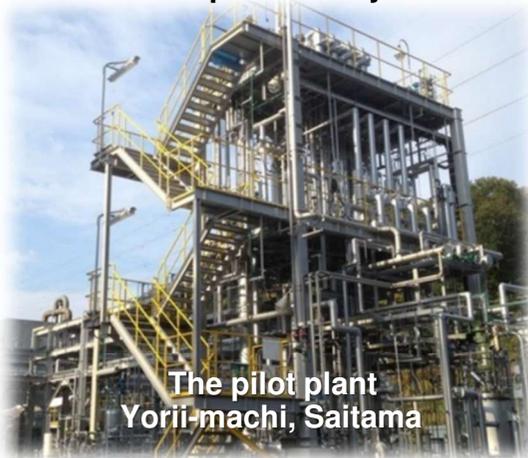
The 1/10 scale plant maintenance and demonstration project

Establishment and commercialization of business model

Waste: 0.4 tons/day
Ethanol: Confirmed continuous productivity

Waste: 20 tons/day
Ethanol: 1-2 kiloliter/day

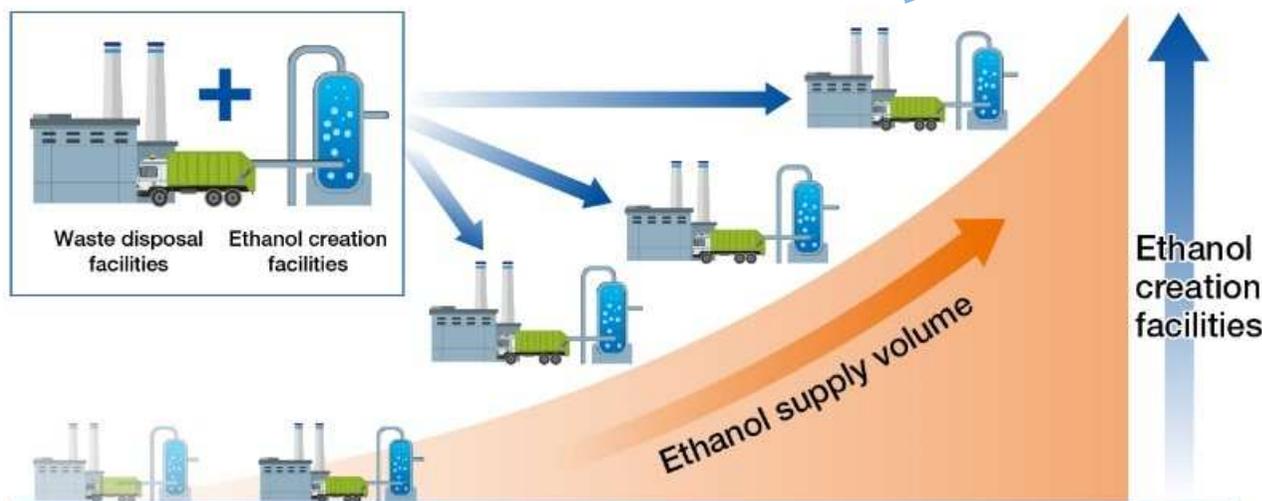
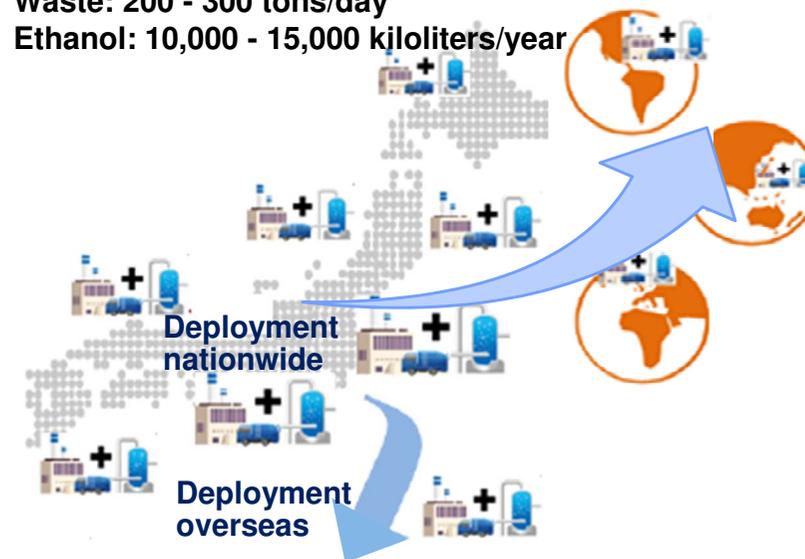
Waste: 200 - 300 tons/day
Ethanol: 10,000 - 15,000 kiloliters/year



The pilot plant Yorii-machi, Saitama

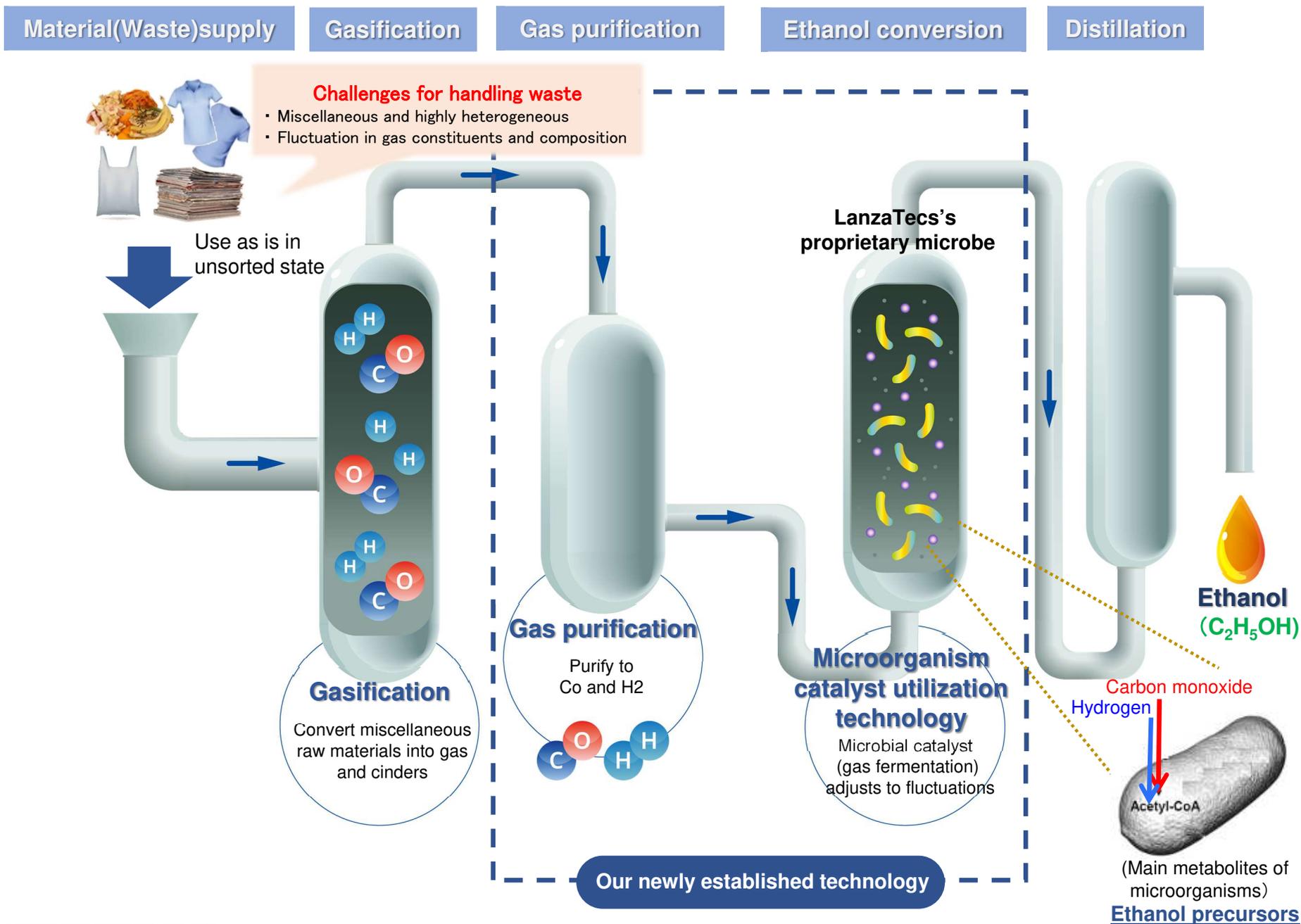


Demonstration plant Construction completed in Kuji City, Iwate (April 2022)



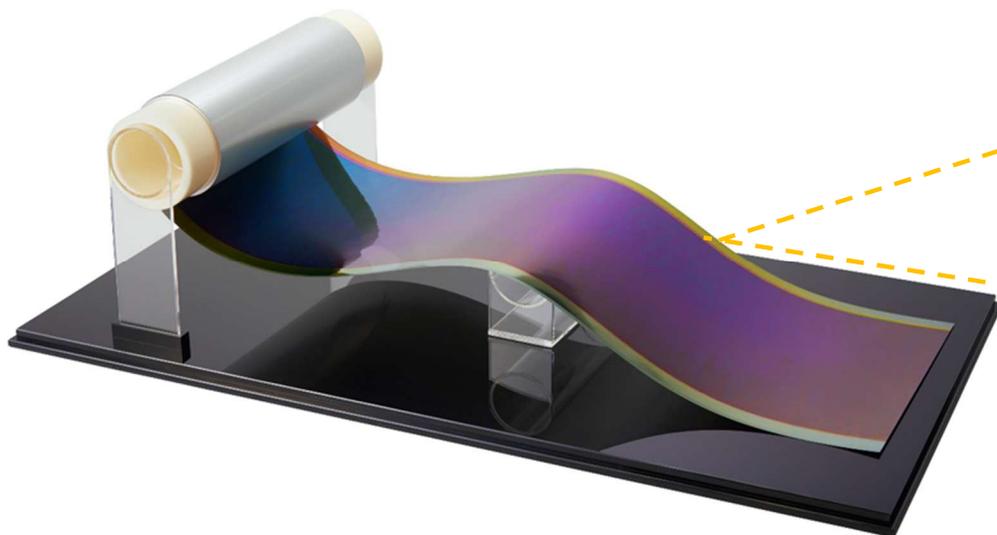


■ Trash is processed into gas with no sorting required, and this gas is then converted to ethanol by microbes

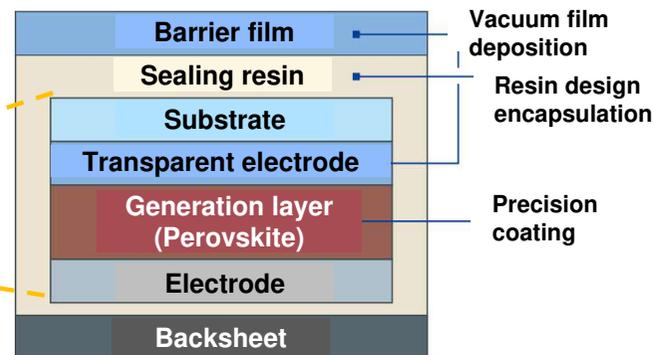




- The Perovskite Solar Cells we are developing have achieved massive improvements in durability through the combination of our accumulated encapsulation and film technologies with the proprietary technology of other companies. We are currently able to manufacture cells with 30cm widths, and in the future, we aim to establish manufacturing technology to make 1m cells at a low cost.



<Perovskite Solar Cell cross-sectional structure>



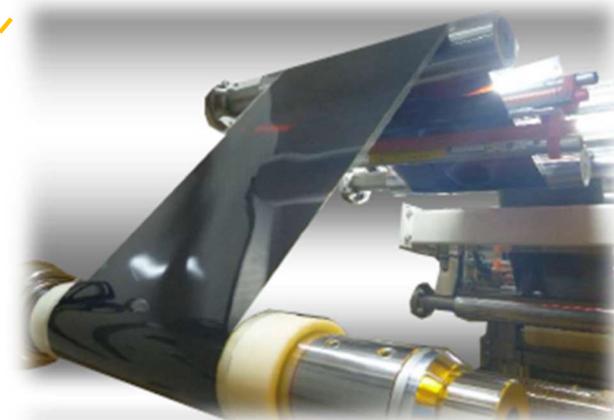
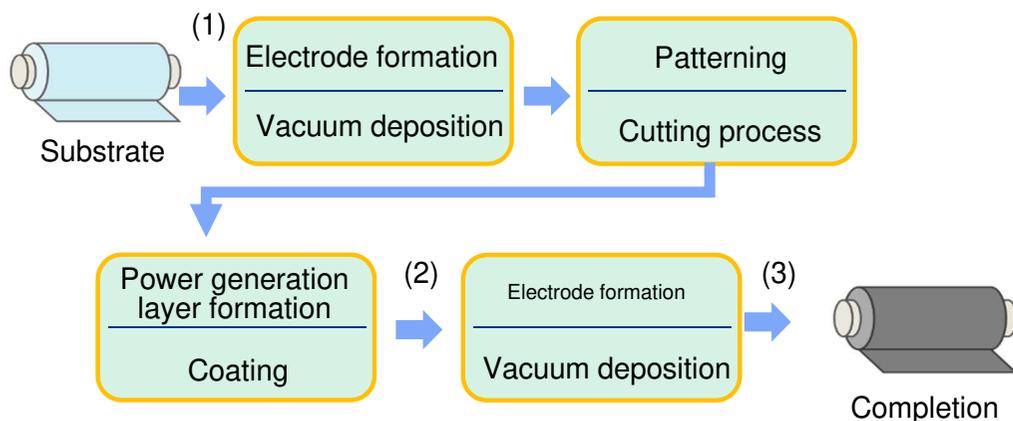
Maximum utilization of our existing technology

- **Encapsulation technology (using resin materials):** Electronics, panel technology, etc.
→Used to protect semiconductors from dust and other impurities, as well as prevent scratching of films
- **Vacuum deposition (film):** Used for formation of various films such as mobility interlayers
- **Process technology, etc.**

<Roll-to-Roll Manufacturing Process>

- **Materials are applied to the film as if printed using 30 cm wide roll-to-roll processing**

(1) Apply power generation layers and electrodes to rolled film as it is unrolled, (2) Place another film on top and seal, then (3) Roll back up





- Collaborating with JR WEST LABO on a project to achieve the first train station in JR West Japan with zero CO₂ emissions from its power usage
- Perovskite Solar Cell installation is planned for the plaza area of Umekita (Osaka) Station, which will open in 2025

Commercialization by 2025

Aiming for sales of 10 billion yen or more in 2030

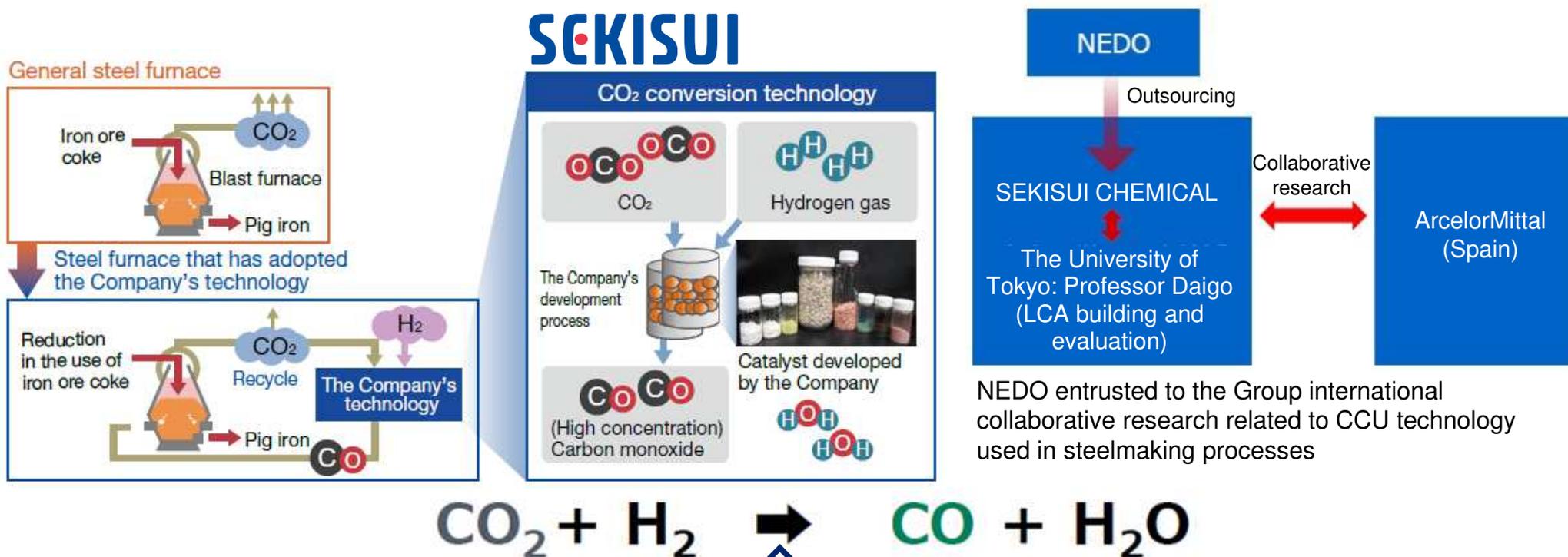


Picture provided by: JR West

Note: May change going forward through consultation with stakeholders



- The greenhouse gas carbon dioxide (CO₂) is broken down into carbon monoxide (CO) and water (H₂O) using a catalyst developed by the Company, and this carbon monoxide can then be effectively utilized for blast furnace fuel as a substitute for coal due to its reducibility and superb reactivity
- In 2021, we formed a partnership project with ArcelorMittal for collection and reuse of CO₂ emitted from steelmaking
- By realizing CO₂ recycling, we aim to reduce CO₂ emissions in the steelmaking industry

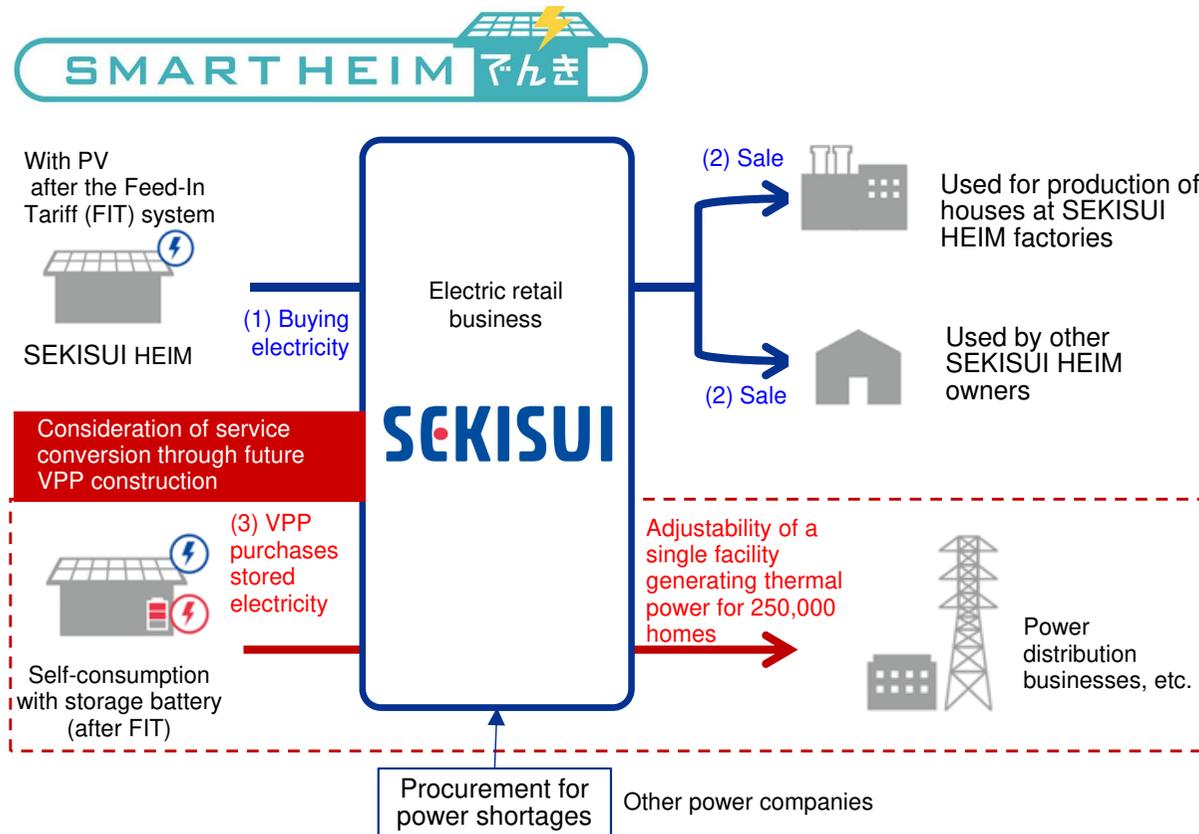
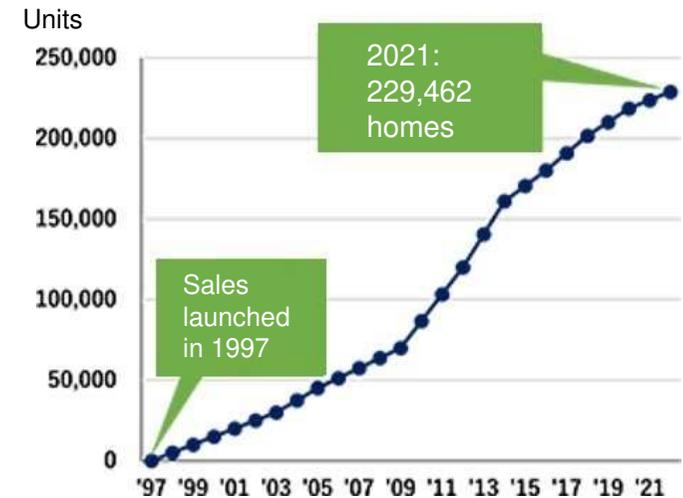


Chemical looping reaction
 Efficient conversion of CO₂ gas into CO via a reaction process using an enzyme carrier
 (CO₂ conversion rate goal: 90%)



- Following the end of the FIT system, Smart Heim Denki is a new power utilization method through which the Company purchases excess electricity from SEKISUI HEIM homeowners, sells it to our manufacturing plants, offices, and other facilities, and utilizes this electricity with no waste, contributing to the environment.

Total Number of Sekisui Heim sold with Solar Panels Installed



Facilities for which 100% of electricity is derived from renewable energy sources	
Japan	SEKISUI CHEMICAL Co., Ltd. Tokyo HQ./Gunma Plant./Tsukuba Site
	Hokkaido Sekisui Heim Industry Co., Ltd.
	Tohoku Sekisui Heim Industry Co., Ltd.
	Sekisui Heim Industry Co., Ltd. Kanto Site/Chubu Site./Kink Site
	Chushikoku Sekisui Heim Industry Co., Ltd.
	Kyushu Sekisui Heim Industry Co., Ltd.
	Sekisui Board Co., Ltd. Minakuchi Plant/ Gunma Plant
Netherlands	Sekisui Medical Co., Ltd. Tsukuba Plant/ Ami Site/ Drug Development Solutions Center
	SEKISUI S-LEC B.V. Film Plant./Resin Plant
	SEKISUI ALVEO B.V.
Spain	SEKISUI POLYMATECH EUROPE B.V.
	SEKISUI SPECIALTY CHEMICALS EUROPE S.L.

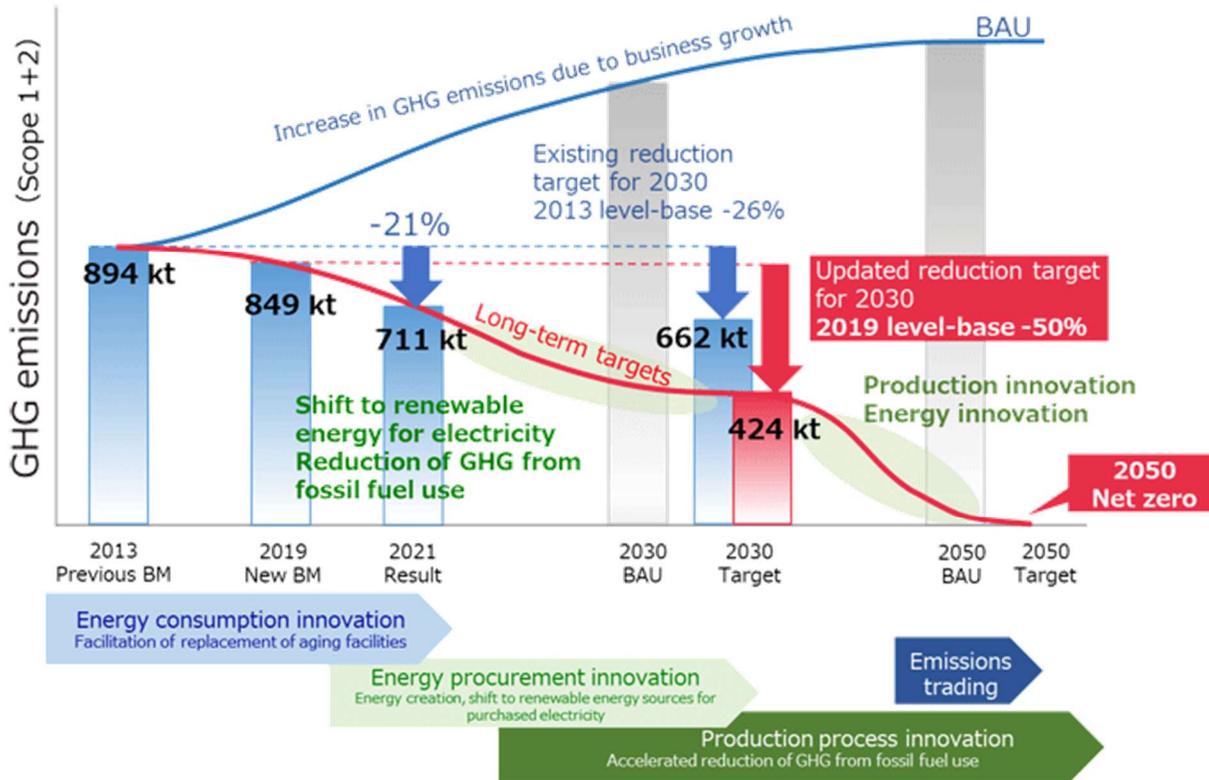
Reference: Company data*	2019	2020	2021
Installed solar panel area	374,000 m ²	360,000 m ²	400,000 m ²
Total installed solar panel capacity*	50 MW	50 MW	60 MW

*Total installed solar panel capacity now exceeds 1,250 MW. As a result, total annual electricity generation is equivalent to the electricity consumed by a city with a population of 500,000 people.

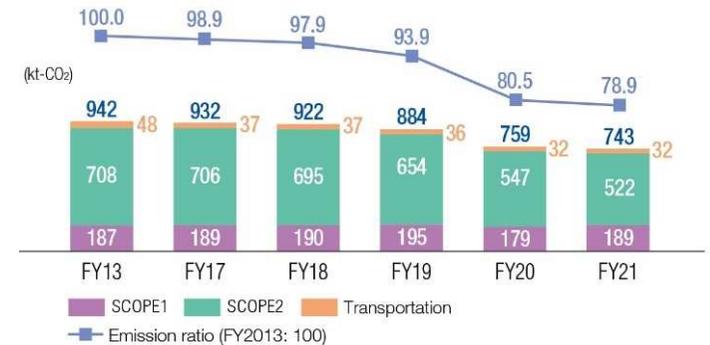


Peace of Mind for the Future: GHG Emissions Reduction

- Proactively carried out initiatives for the large-scale social problem of climate change, becoming the first in our industry to receive SBT certification in 2018.
- Our goal for 2030 was achieving a 26% reduction in GHG emission volume vs fiscal 2013, and as of 2021 we had achieved a 21% reduction. For this reason, this goal was changed in October 2022 (to a 50% reduction vs fiscal 2019). This new goal corresponds to the 1.5°C goal of the Paris Agreement, and we have applied for SBT certification once again.



Greenhouse Gas (GHG) Emissions from Business Activities



GHG Emissions from the Supply Chain (Scope3)

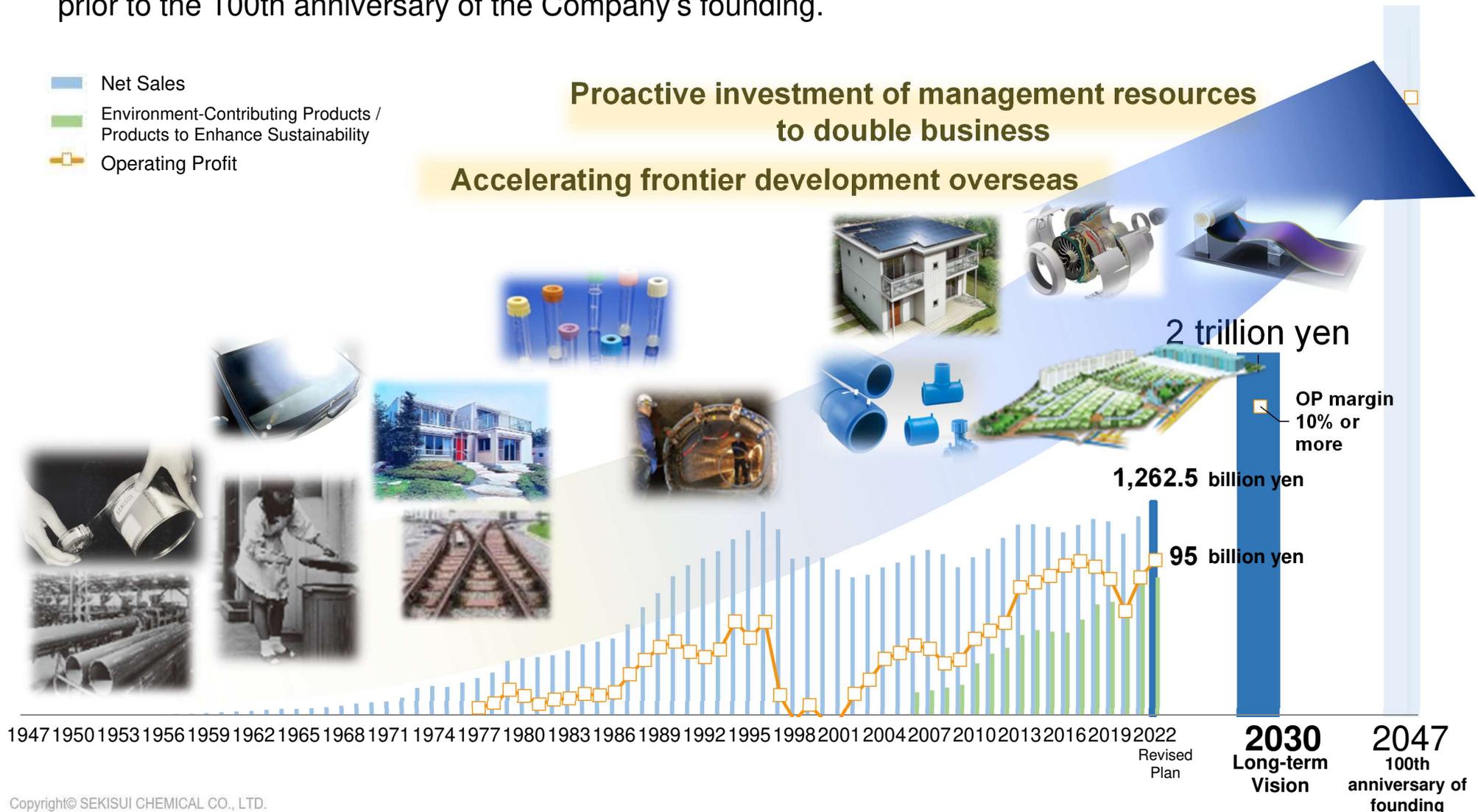


Item	Indicator	FY2021 Results	Mid-term targets (FY2022)	FY2030 (New)	FY2050	Notes
GHG reduction	Ratio of renewable energy in purchased electricity	19.7%	20%	100%	(Convert all energy used to renewable energy)	Join RE100
	Reduce GHG emissions generated by business activities: Scope1+2	-21.1% (vs FY2013)	-9% or more (vs FY2013)	-50% or more (vs FY2019)	Zero GHG emissions	Acquire certification from SBT Initiatives (by 2030)
	Reduce GHG emissions in supply chain: Scope3	-1.3% (vs FY2016)	—	-30% or more (vs FY2019)	—	
Energy saving	Energy consumption for unit of output	-1.5% (vs FY2019)	-3% or more (vs FY2019)	-10% or more (vs FY2019)	—	

Our Goal

What We Aim to Achieve (in 2030 and Beyond)

- Our path as a company is a history of continuously tackling and finding solutions to increasingly diverse social issues. Our approach is to offer products, technologies, and services created through a value-creating business model focused on **process creation** and **adaptability**.
- We will continue to make efforts, take on challenges, and carry out innovations to contribute to the realization of a sustainable society, with our Products to Enhance Sustainability at the core of these initiatives. We are working to achieve our 2030 long-term vision and further increase our corporate value prior to the 100th anniversary of the Company's founding.



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This slide presentation contains forward-looking statements. These statements are based on current expectations and beliefs. However, actual results may differ from those expressed or implied due to a number of factors and uncertainties such as changes in the global economy and our business, competition in the market, and regulatory issues.

Note: Figures denominated in units of 100 million JPY are rounded off to the nearest hundred million.