



KURARAY CO., LTD.

Medium-Term  
Management Plan

**“PASSION 2026”**  
(FY2022-FY2026)

February 9, 2022



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Every employee aims to achieve  
our vision together with **passion**.

The Kuraray Group's New  
Medium-Term Management Plan

**PASSION 2026**

(FY2022–FY2026)



# 1. Our Future Vision for the Kuraray Group

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- ① Our Roots
- ② Long-Term Sustainability Vision
- ③ Initiatives to Achieve Net Zero Carbon
- ④ “Kuraray Vision 2026”
- ⑤ Business Portfolio



From its founding to the present, Kuraray has remained fully committed to helping resolve social and environmental issues through its business.



First president  
**Magosaburo Ohara**

Term of office

June 1926~May 1939

*All the wealth gained from society should be returned to society.*

Precursor of today's CSR-centered management philosophy

- Thoroughly reformed working environments for plant operators
- Built new dormitories while establishing educational facilities
- Helped provide medical care for and improved the welfare of community residents
- Developed Kurashiki's public infrastructure, etc.



Second president  
**Soichiro Ohara**

Term of office

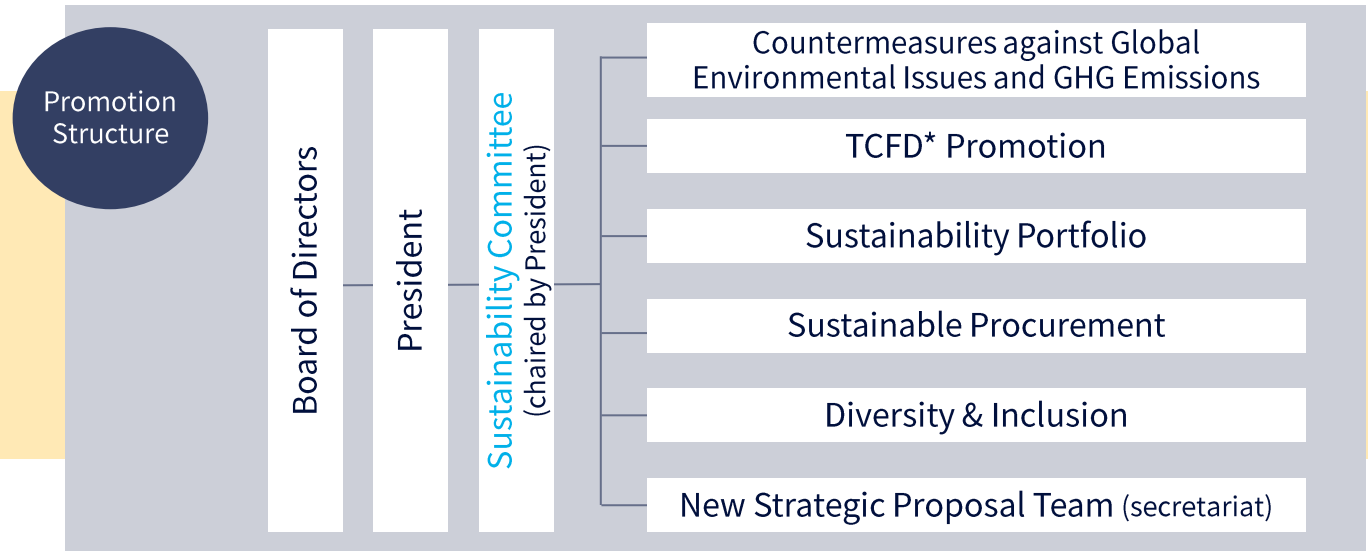
May 1939~July 1968

*Any profit which a company might gain should be confined to those profits that come from technological innovation and from consideration of the social and economic benefits it brings to the entire nation.*

- Commercialized KURALON, a synthetic fiber developed solely via the use of domestic technologies
- Developed an integrated manufacturing process encompassing raw materials and products  
→ Established vinyl acetate-related operations
- Developed and commercialized <CLARINO> man-made leather

## Long-Term Sustainability Vision

*As a sustainability leader, Kuraray will develop innovative solutions with unique products and cleaner technologies to improve the natural environment and enhance quality of life for people everywhere.*



\* The Task Force on Climate Related Financial Information Disclosure established under the Financial Stability Board (FSB)

## Five Materiality Issues to Be Prioritized and Tackled by the Kuraray Group

### Creating Value through Business

Improving the natural environment

Improving the living environment

### Creating Value to Strengthen the Foundation of Kuraray

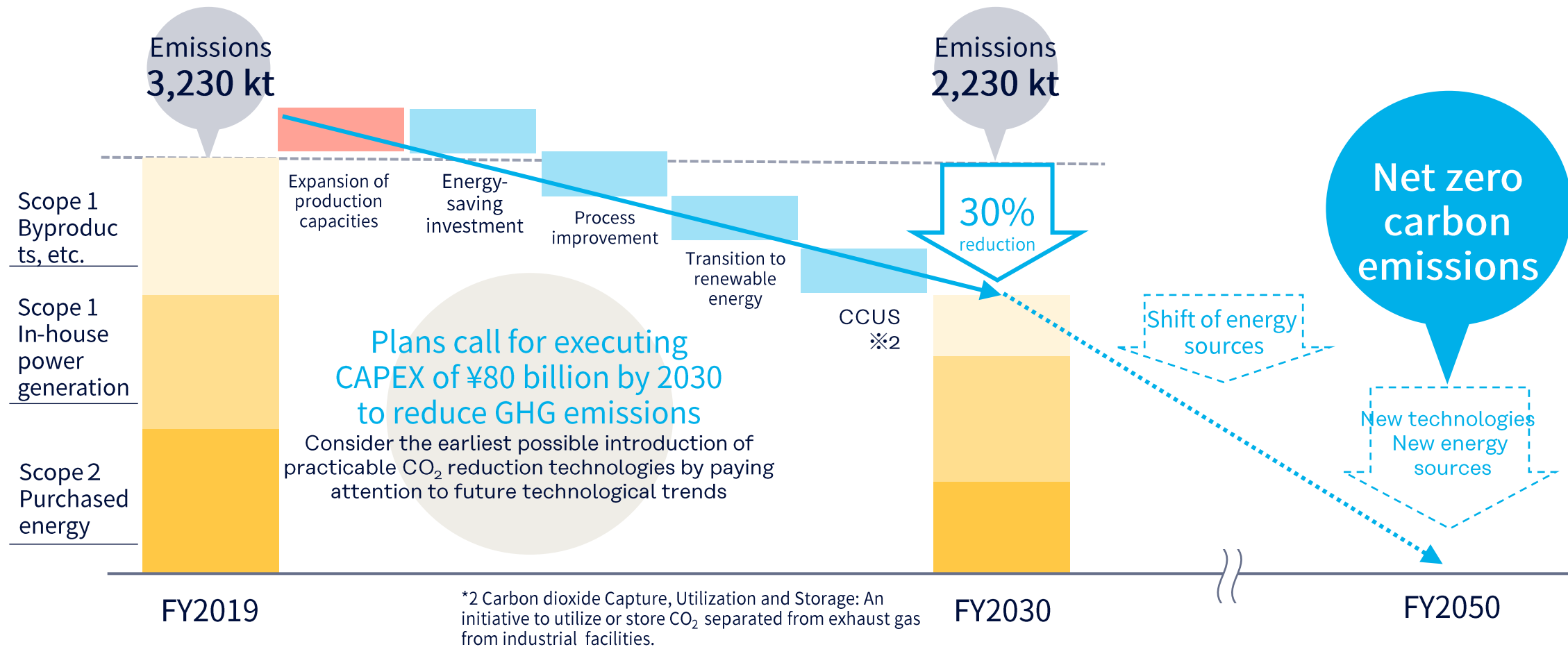
Effective use of resources and reduction of environmental impact

Improving supply chain management

Building a “company that people can take pride in”

■ Toward our FY2050 target of net zero carbon emissions,\* we aim to reduce CO<sub>2</sub> emissions arising from our operations by 30% by FY2030 compared with the FY2019 level.

\* Scope 1 and 2 emissions



## Our Mission

We are committed to developing new fields of business using pioneering technology that improves the environment and enhances the quality of life throughout the world.  
“For people and the planet—to achieve what no one else can.”

## Our Values

### Philosophy

- Respect for individuals
- Close cooperation to attain shared goals
- Constant creation of new value

### Guiding Principles

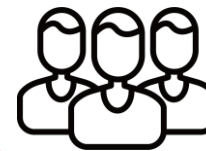
- Safety is the cornerstone of everything we do
- Customers' needs are our top priority
- We act on ideas in the workplace

## Kuraray Vision 2026

Specialty Chemical Company contributing to customers, society and the planet and growing sustainably by incorporating new innovation platforms into its own technologies

We contribute to:

Customers



Society

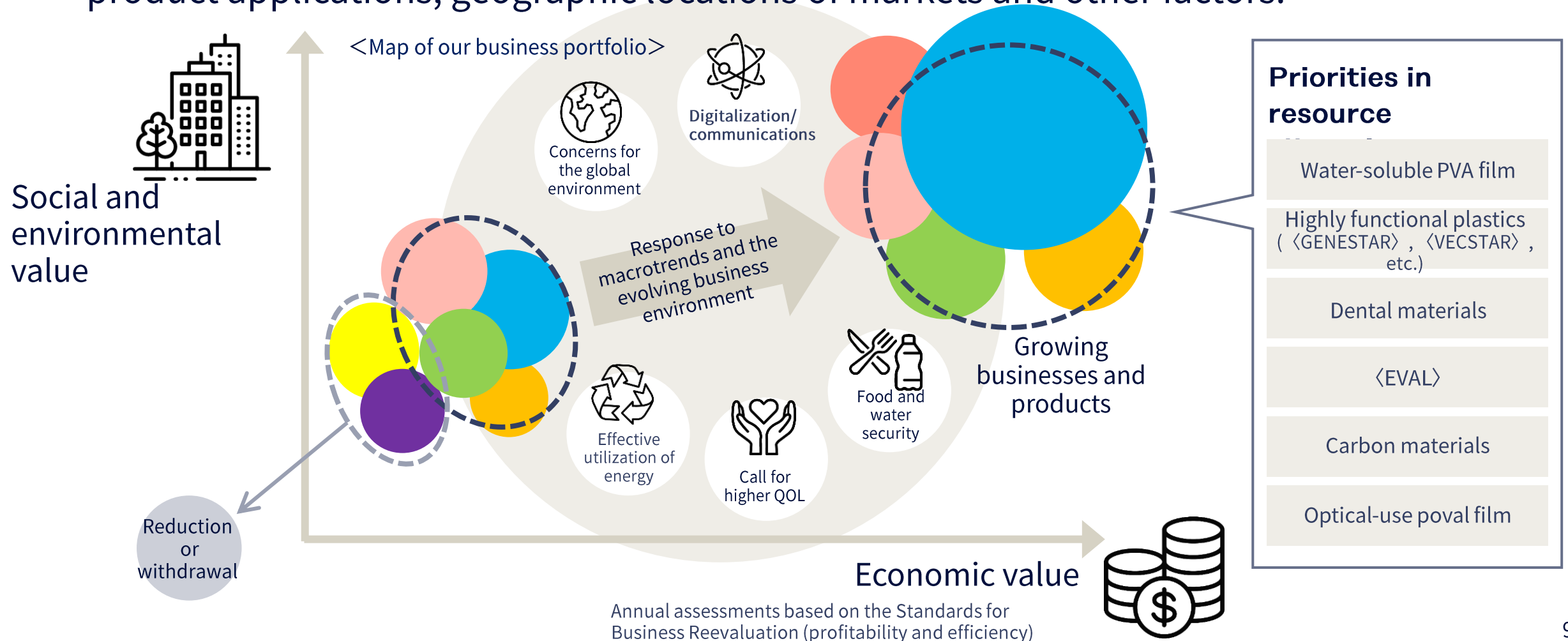


The Earth





- Based on assessments of social, environmental and economic value arising from each business, we will constantly upgrade our portfolio by reshuffling its components in light of product applications, geographic locations of markets and other factors.





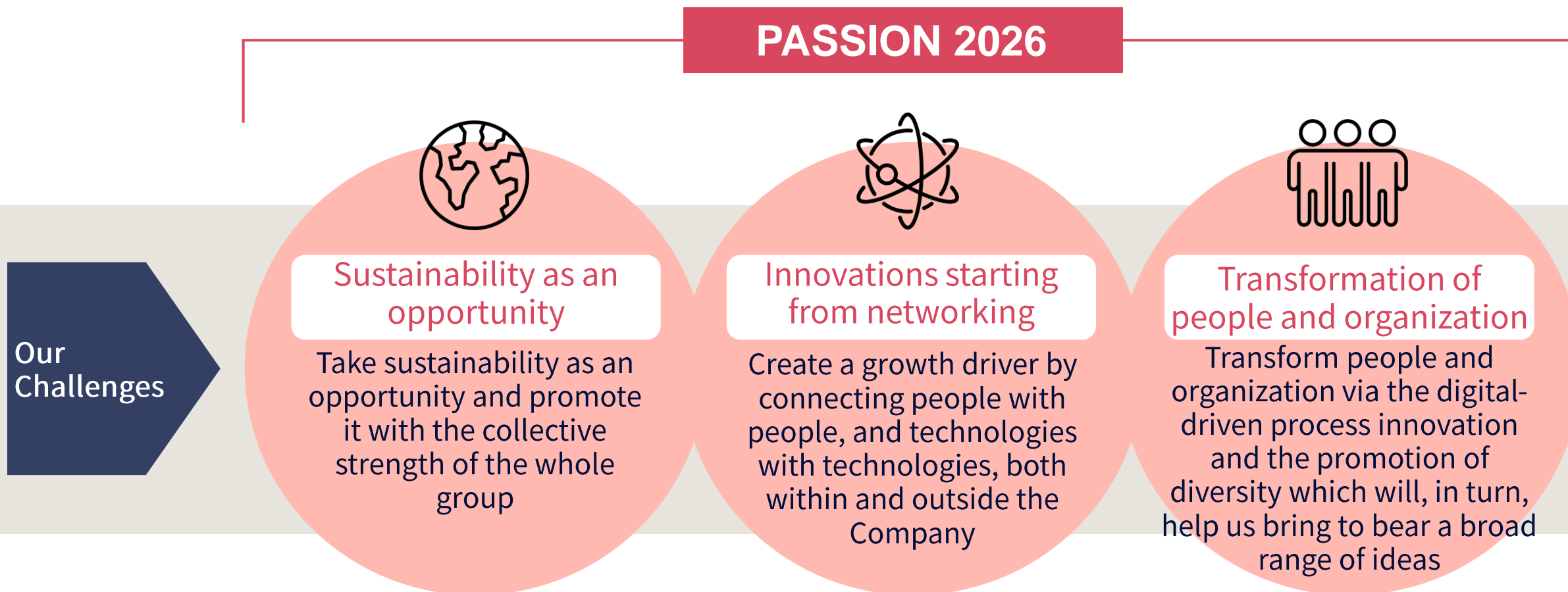
## 2. Our Challenges

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Three challenges

- ① Sustainability as an opportunity
  - Medium-Term Sustainability Plan
- ② Innovations starting from networking
- ③ Transformation of people and organization

- Set three challenges to tackle during the medium-term management plan “PASSION 2026” period.



### Our Challenges (1)



## Sustainability as an opportunity



Innovations starting from networking



Transformation of people and organization

## Medium-Term Sustainability Plan

→ P13

Planet (Improving the earth's environment)

Product (Pursuing innovations in sustainable products)

People (Creating an inclusive workplace)



- Promote the Medium-Term Sustainability Plan in which the direction of our efforts to tackle materiality issues is reorganized with focus on the 3Ps.



\*For more details, please also refer to our dedicated Medium-Term Sustainability Plan website.



### Planet

Improving the earth's environment

- Participation in global initiatives and other efforts to counter climate change
- Ongoing initiatives to reduce environmental burden

#### Initiatives to counter climate change

- **Disclosure based on the TCFD recommendations**
- **Acquisition of the SBT (Science Based Targets)\*<sup>1</sup> certification**  
Set scope 3 target and aim to acquire certification by 2024  
  
\*1 Voluntary targets set by business corporations with regard to GHG emission reductions over the course of 5 to 15 years in a manner consistent with the levels required by the Paris Agreement
- **Internal carbon pricing system\*<sup>2</sup>**  
Introduced in 2021. Plan to apply pricing of ¥10,000/ t-CO<sub>2</sub> during the next Medium-Term Management Plan period.  
  
\*2 A scheme designed to promote investment in low-carbon solutions and otherwise facilitate response to climate change via the conversion of CO<sub>2</sub> emission volumes to expenses

#### Targets for ongoing reduction in environmental burden

- **Energy saving**  
Improve 5% in energy consumption intensity per unit of net sales in FY2026, compared with FY2019. (for all bases in Japan and abroad)
- **Water resources (excluding seawater)**  
Improve 5% in water usage volume per unit of net sales in FY2026, compared with FY2019. (for bases in abroad)
- **Waste reduction**  
Improve 5% in the volume of waste generation per unit of net sales in FY2026, compared with FY2019. (for all bases in Japan and abroad)
- **Chemical substances**  
Control emission volume of waste regulated by PRTR at below 967t, FY2019 actual result. Comply with emission restrictions for chemical substances in each region.



### Product

Pursuing innovations in sustainable products

■ Set target fields based on our mission to contribute to the natural and living environment.

Macro trends



Improvement of the global environment



Food and water security



Digitalization / communications



Effective utilization of energy



Calls for higher quality of life (QOL)

Target fields

- Air and water purification
- Reduce micro plastics
- Circular economy
- GHG capture, utilization and reduction of GHG emissions

- Food loss reduction
- Improve agricultural productivity
- Safe water supply

- Electric and Electronic device materials
- High-speed telecommunication device materials

- Materials for energy storage devices
- Energy-related materials
- Materials for electric and electronics devices

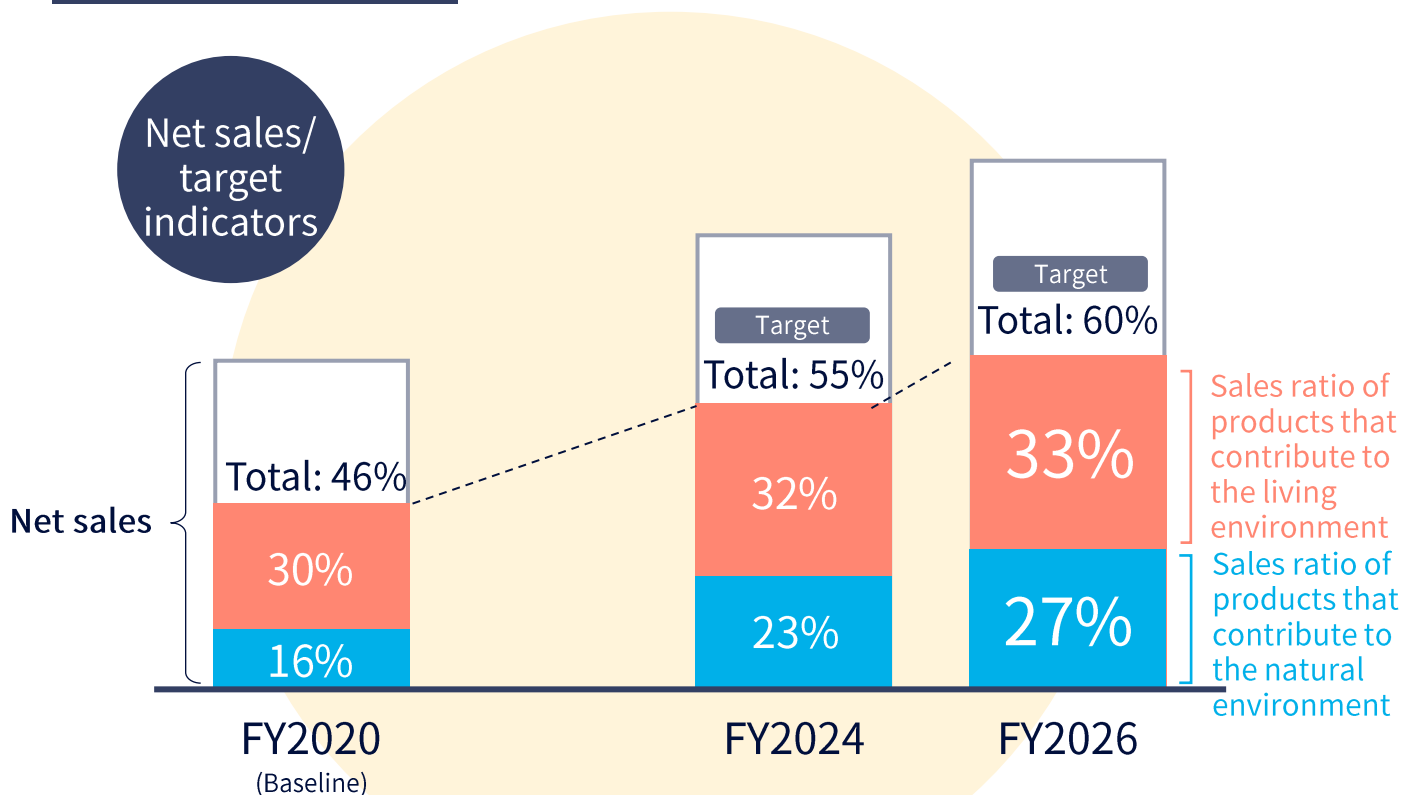
- Medical and healthcare
- Beauty goods and living supplies
- Improve indoor and in-vehicle environments



### Product

Pursuing innovations in sustainable products

- Adoption of a PSA, which is being steadily introduced, especially by European chemical producers
- Business portfolio shift emphasizing social and environmental value



### What is the PSA?

- PSA stands for Portfolio Sustainability Assessment
- A product portfolio assessment index for all industries by the WBCSD.\*
- With the support of Sphera, U.S.-based ESG software and consulting company, we created the Kuraray PSA System, which is based on the WBCSD's chemical industry guidelines.

### What are contribution products?

- We identify products contributing materiality in all businesses.
- We then assess each of their applications and areas on a scale of one to five.
- Highly ranked products (rank four or five) are considered PSA contribution products.

\*WBCSD: World Business Council for Sustainable Development





### Product

Pursuing innovations in sustainable products

- Diverse lineup of products help improve the natural environment and the living environment.
- Aim to increase the ratio of products that contribute to both environments.

### Improving natural environment

#### Asbestos substitutes

- Kuralon Help extend the life of and enhance the durability of cement materials

#### Bio-based or recycled raw materials

- Liquid rubber made from bio-based materials
- 〈ECOTALK〉 polyester
- 〈CLARINO〉 man-made leather



#### Water and air purification

- Activated carbon



As a food packaging material to:

- Reduce the weight of packaging
- Prolong shelf-life

#### Lower logistical burden/ Food loss reduction

- 〈EVAL〉 EVOH resin
- Bio-based 〈PLANTIC〉



### Improving living environment

#### Make dentists and patients life easier

- Dental materials • Shorten time of treatment

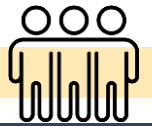
#### High-speed communication

- 〈VECSTAR〉 • Speed up communications thanks to high-frequency characteristics



#### Lightweight EVs

- 〈GENESTAR〉 heat-resistant polyamide resin



### People

Creating an inclusive workplace

- Advance diversity of human resources via global business expansion and M&A.
- Create innovations via active exchanges of diverse human resources.

#### Unified platforms for HR management



- Establish a globally unified employee grading system (for managers)
- Develop a human resource database (to visualize the status of human resources and leverage the resources efficiently)

#### Optimal staffing and encouragement to foster personal growth



- Promote a global mobility system (to expand career opportunities for employees and invigorate human resource exchanges)
- Implement global human resource development programs
- Systematically nurture senior management candidates

#### A culture that encourages those who take on challenges



- Shift to a personnel evaluation system that encourages those who take on challenges
- Promote diversity & inclusion and spread a culture that appreciates these values (Target is as presented below)
- Make various assistance programs available to those in need of diverse workstyle options (workstyles for the post-pandemic period)

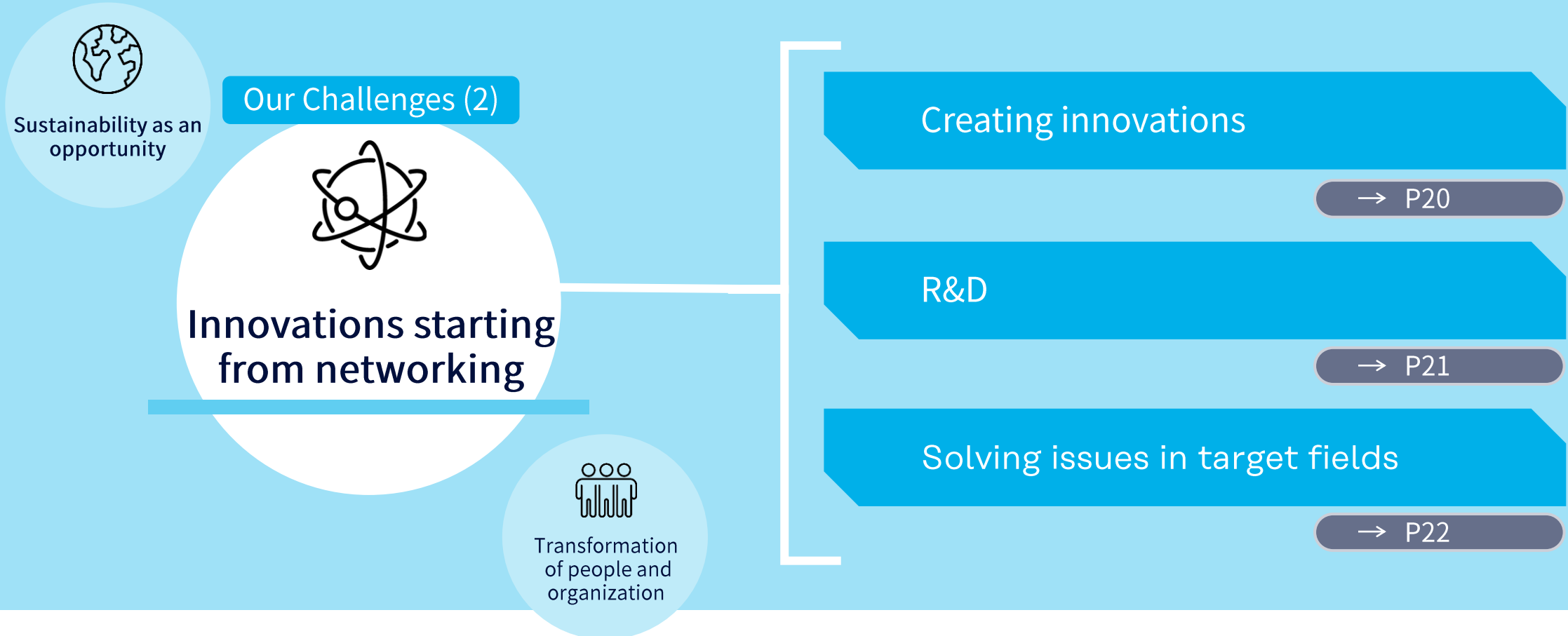
Ensuring Diversity of Core Human Resources\*

Actual at Sept. 2021 / **12%**



Target in 2030 / **25%**

\*Ratio of managers who are women, foreign nationals and mid-career hires (in Japan, excluding production sites)



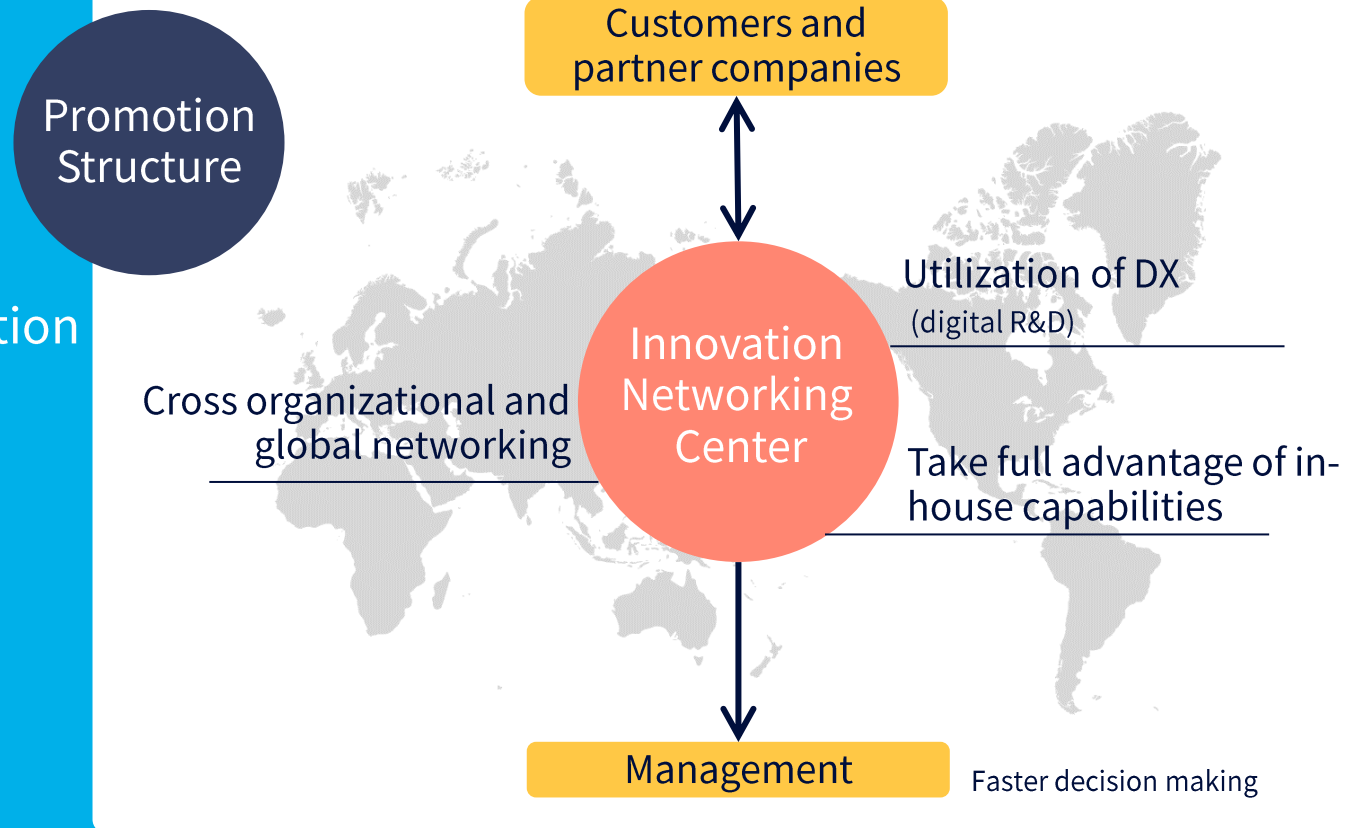
- Create innovations via organic collaboration within and outside the Kuraray Group to solve social issues.

## Establish an Innovation Networking Center

Collaboration with marketing, R&D, production technology and other divisions.

Collaboration with customers and partner companies.

Utilization of open innovations.





- Promote development that contribute to sustainability and growth strategies.
- Plan to invest a total of ¥150 billion in R&D over the course of five years.

### Development based on the customer perspective

- Pursue development to address unmet market needs\* identified in the course of initiatives undertaken by the Innovation Networking Center

\* Unsatisfied or unidentified potential demand or needs

### Development that contributes to sustainability

- Develop materials and solutions that contribute to the natural and living environment (Waste reduction, recycling, biomass and biodegradable, high-speed communications, electronic device, healthcare, beauty and aesthetic needs)
- Accelerate development of technologies to reduce GHG emissions (CCUS)
- Establish the Environment and Energy Research Laboratory and develop bio-based new carbon materials etc.

### Plan and promote IP strategy

- Establish the IP management Center and promote a company-wide IP strategy that is aligned with business strategy.

## ■ Solve social issues in target fields to contribute to both the natural and living environment.

### Concerns for the global environment



#### Environmental load reduction

##### Air and water purification

- Adsorption

##### Reduce micro plastics

- Biodegradable polymers
- Functional enhancement of paper products



##### Circular economy

- Shift to mono-materials
- Circular business models



#### Global warming prevention

##### GHG capture

- Absorption and separation



##### GHG utilization

- Consider applications for EOR\*  
\* Enhanced Oil Recovery
- Polymer synthesized from CO<sub>2</sub>

##### Reduce GHG emissions

- Promote the use of bio-based materials
- Contribute to weight reductions

### Food and water security



#### Food loss reduction

- Prolongation of shelf life

#### Improve agricultural productivity

- Materials for insect prevention and seed coating



#### Safe and secure water supply

- Removal of PFAS, organic fluorine compounds



## ■ Solve social issues in target fields to contribute to both the natural and living environment

### Digitalization/communications



#### Electric and Electronic device materials

- Electronic devices and circuit substrates
- Semiconductor manufacturing equipment-related



#### High-speed telecommunication device materials

- Mobile data terminals (electromagnetic wave shields)
- 5G telecommunication device-related



### Effective utilization of energy



#### Materials for energy storage devices

- Secondary batteries (anode materials, etc.)



#### Energy-related materials

- Wind power generation materials



#### Materials for electric and electronics devices

- Next-generation vehicles (high-voltage parts)

### Higher QOL



#### Medical and healthcare

- Dental materials
- Regenerative medicine materials

#### Beauty goods and living supplies

- Water-soluble films for individual product packaging
- Sanitary goods



#### Improve indoor and in-vehicle environments

- Air purification
- Highly functional displays
- Vibration control sealants
- Interior parts (car seats, etc.)



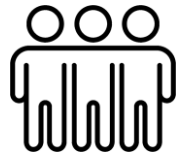


Sustainability as an opportunity



Innovations starting from networking

Our Challenges (3)

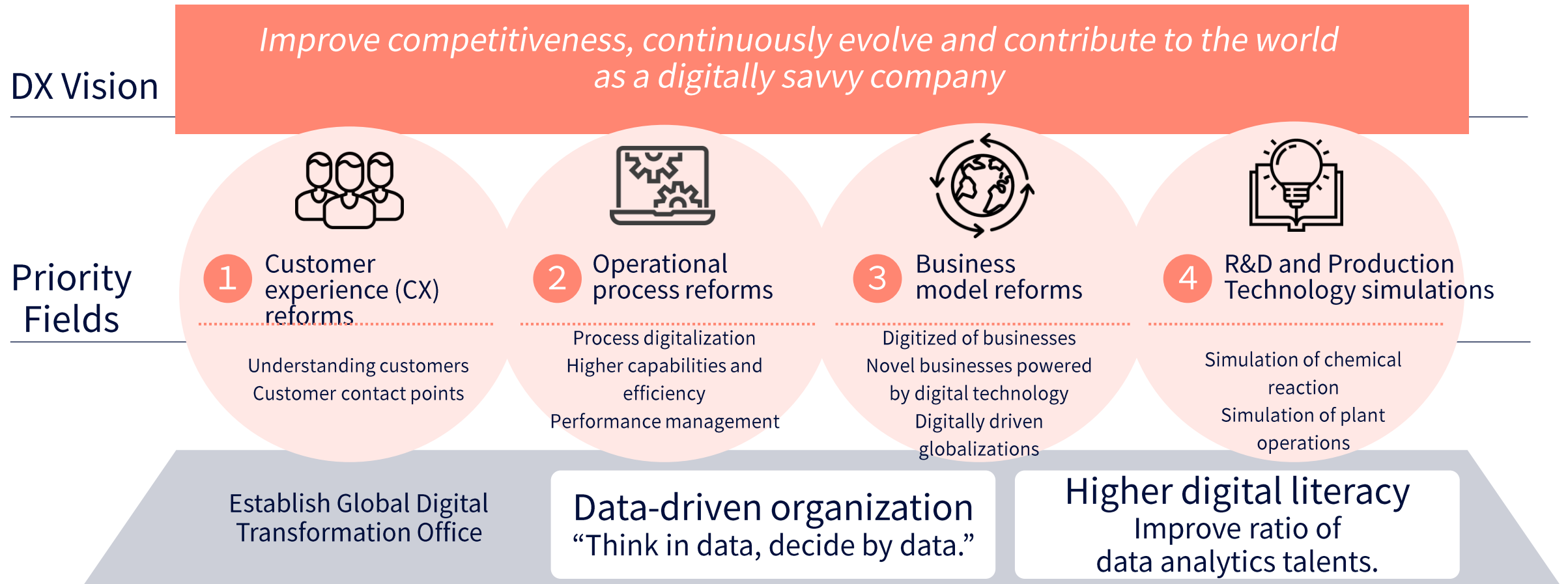


Transformation of people and organization

Taking Full Advantage of Digital Technologies

→ P25

■ Transform our organization and process via the use of digital technologies.





## 3. Management Targets

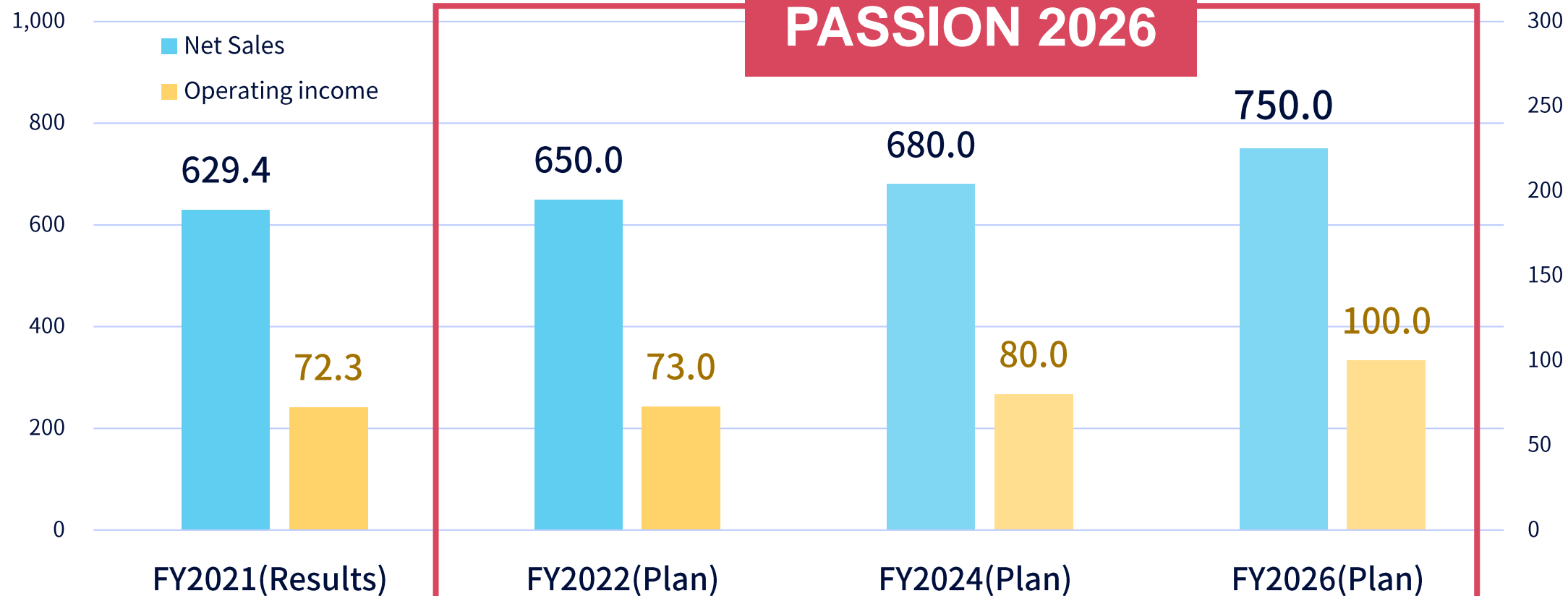
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- ① Numerical Targets
- ② CAPEX
- ③ Financial Strategies
- ④ Shareholder Returns



### 3. Management Targets (1) Numerical Targets—Net Sales and Operating Income

(Billions of yen)







|                                 | FY2021 Results | Assumptions during the Medium-Term Management Plan period |
|---------------------------------|----------------|---|
| JPY/USD                         | 110            | 110   |
| JPY/Euro                        | 130            | 130   |
| Domestic naphtha (JPY 1,000/kl) | 48             | 58  |

### 3. Management Targets (1) Numerical Targets—Net Sales and Operating Income by Segment

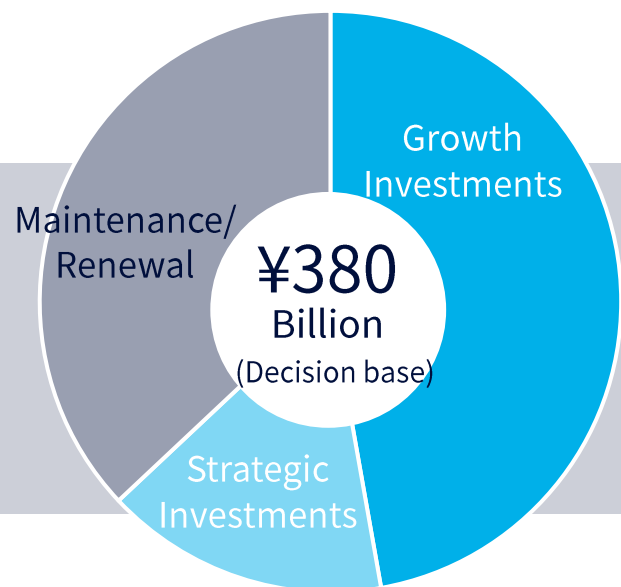
| (Billions of yen)    | FY2021 Results |                  | FY2022 Plan  |                  | FY2024 Plan  |                  | FY2026 Plan  |                  | Difference (FY2026 vs FY2021) |                  |
|----------------------|----------------|------------------|--------------|------------------|--------------|------------------|--------------|------------------|-------------------------------|------------------|
|                      | Net sales      | Operating income | Net sales    | Operating income | Net sales    | Operating income | Net sales    | Operating income | Net sales                     | Operating income |
| Vinyl Acetate        | 304.7          | 58.3             | 320.0        | 62.0             | 330.0        | 66.0             | 350.0        | 77.0             | 45.3                          | 18.7             |
| Isoprene             | 61.9           | 6.1              | 65.0         | 6.5              | 75.0         | 5.0              | 90.0         | 10.0             | 28.1                          | 3.9              |
| Functional Materials | 142.4          | 8.7              | 145.0        | 9.0              | 155.0        | 11.0             | 175.0        | 18.0             | 32.6                          | 9.3              |
| Fibers and Textiles  | 61.1           | 5.6              | 60.0         | 3.0              | 63.0         | 6.0              | 65.0         | 7.0              | 3.9                           | 1.4              |
| Trading              | 144.0          | 4.8              | 58.0         | 5.0              | 60.0         | 5.0              | 70.0         | 6.0              | (74.0)                        | 1.2              |
| Other                | 44.3           | 1.2              | 44.0         | 1.0              | 47.0         | 2.5              | 52.0         | 3.0              | 7.7                           | 1.8              |
| Adjustments          | (129.1)        | (12.4)           | (42.0)       | (13.5)           | (50.0)       | (15.5)           | (52.0)       | (21.0)           | 77.1                          | (8.6)            |
| <b>Total</b>         | <b>629.4</b>   | <b>72.3</b>      | <b>650.0</b> | <b>73.0</b>      | <b>680.0</b> | <b>80.0</b>      | <b>750.0</b> | <b>100.0</b>     | <b>120.6</b>                  | <b>27.7</b>      |

\*Corporate Accounting Standards - Revenue Recognition (ASBJ Statement No. 29) is applied from FY2022.

- Steadily improve capital efficiency and ability to generate cash.
- Set GHG emissions, sales ratio of products contributing to natural and living environment, and human resources diversity as non-financial KPIs.

| <div>Financial KPIs</div>   |  | FY2021 result          | FY2026 target                               |
|--|--|------------------------|---|
|  | ROIC   | 6%                     | 8%  |
|  | EBITDA (Operating income + depreciation and amortization)  | ¥131.3 billion         | ¥170.0 billion                              |
|  | ROE  | 7%                     | 10%   |
|  | EBITDA Margin (reference)  | 21%                    | 23%   |
| <div>Non-financial KPIs</div>    |  | Result in base year    | Target                                      |
|  | GHG emissions (Scope1, 2)  | 3,230kt<br>(in FY2019) | FY2030 2,230kt<br>(30% less than base year) |
|  | Sales ratio of products contributing to natural and living environment   | 46%<br>(in FY2020)     | FY2026 60%                                  |
|  | Ensuring Diversity of Core Human Resources<br>(Ratio of managers in Japan who are women, foreign nationals and mid-career hires, excluding production sites) | 12%<br>(in Sep FY2021) | FY2030 25%                                  |

- Proactively promote growth / strategic investments, including those aimed at reducing GHG emissions, to help improve both the natural and living environment.



#### Main Items Subject to Growth and Strategic Investments

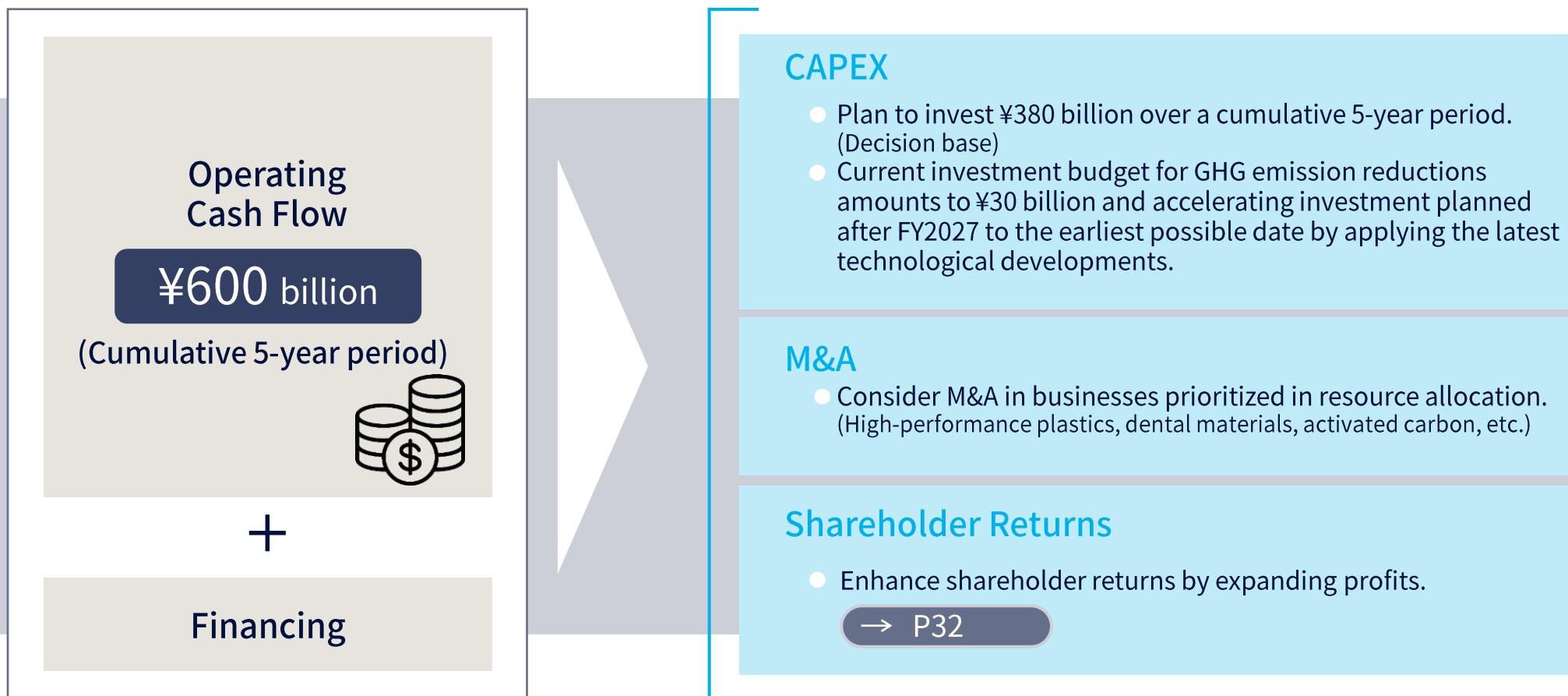
##### Growth Investments

- Build a new 〈EVAL〉 plant
- Invest in projects related to LiB anode materials
- Increase optical-use poval film production capacity
- 〈GENESTAR〉 second-phase construction
- Increase 〈VECSTAR〉 production capacity
- Expand facilities for water-soluble PVA film
- New plant for liquid rubber
- Expand facilities for dental materials

##### Strategic Investments

- Invest in GHG emission reduction
- Build a new research center
- Invest in DX-related projects

- Assuming the accumulation of operating cash flow totaling ¥600 billion over the course of five years, plan to invest ¥380 billion and ¥100 billion, respectively, in CAPEX and M&A.



## Shareholder Return Policy

Total return ratio: 35% or more

Dividends per share: ¥40 or more/year

Share buybacks: Conduct flexibly

|                            | FY2021 Results | FY2022-FY2026 Plan |
|----------------------------|----------------|--------------------|
| Total return ratio         | 36.9%          | 35% or more        |
| Annual dividends per share | ¥40            | ¥40 or more        |

Enhance shareholder returns by expanding profits.



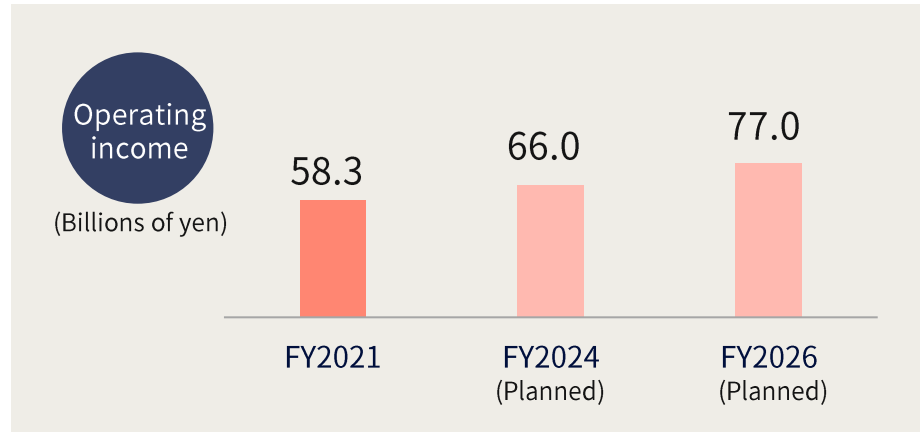
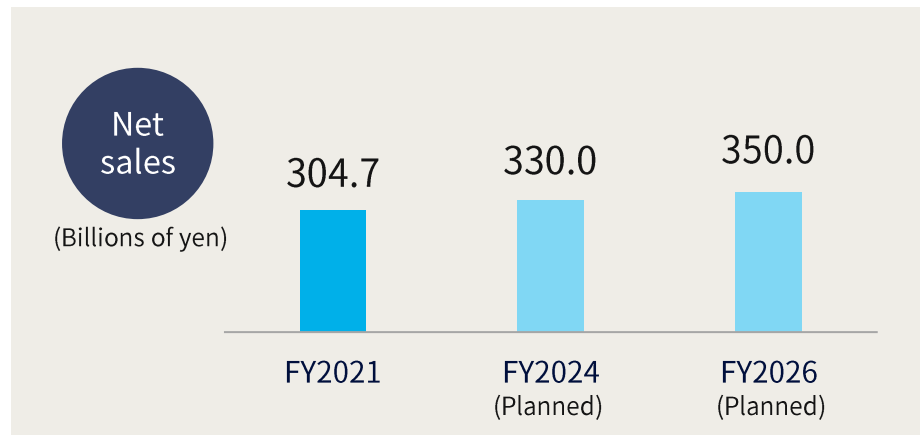


## 4. Strategies by Business

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- ① Vinyl Acetate
- ② Isoprene
- ③ Functional Materials
- ④ Fibers and Textiles
- ⑤ Trading

- Leverage the strengths of our vertically integrated supply chain to achieve sustainable growth as the Kuraray Group's core business.
- Making the most of the characteristics of each product and contribute to a circular economy.



#### PVA resin

- Maintain a robust supply system by taking advantage of our strengths backed by our own raw material production capabilities
- Continue to shift from quantity to quality (new applications and high value-added products) and expand profits

#### Optical-use poval film

- Strengthen production and sales systems in accurate response to demand growth and the market shift to China
- Launch and expand sales of value-added products that meet customer needs, such as high-transparency or thin film

#### Water-soluble PVA film

- Ensure the early and stable launch of a production site in Europe and increase production capacity in a timely manner in response to demand expansion
- Promote the development of new applications as well as biodegradable and bio-based raw materials to contribute to a circular economy

#### Advanced Interlayer Solutions

- Increase profits by expanding sales of <SentryGlas>, our unique product
- Leverage the strengths of the global supply system supported by bases in Europe, the U.S. and South Korea while accelerating the launch of newly developed products

#### <EVAL>

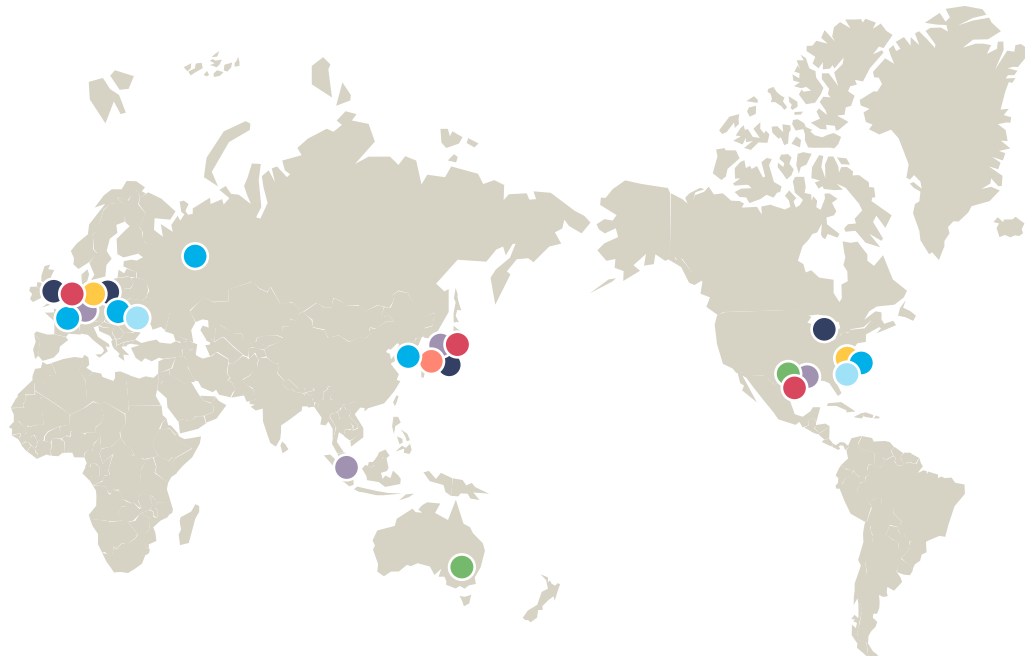
- Strengthen the stable supply system and build a new plant in Asia
- Contribute to reduction in food loss as we strive to meet growing demand for food applications
- Expand rollout of bio-based <PLANTIC>

→ P36

■ Strengthen the global supply system, maximize the customers value and expand profit.

## Global Network of the Vinyl Acetate Company (manufacturing sites)

- |               |                            |                            |               |
|---------------|----------------------------|----------------------------|---------------|
| ● : PVA resin | ● : Optical-use poval film | ● : Water-soluble PVA film | ● : PVB resin |
| ● : PVB film  | ● : <SentryGlas>           | ● : <EVAL>                 | ● : <PLANTIC> |



### Optimizing Supply Systems

- Expand integrated production, which includes raw materials, and our stable supply system utilizing our global network
- Globally centralize quality and safety data

### Enhancing Production Capabilities

- Establish a new water-soluble PVA film plant in Poland
- Build a new <EVAL> plant in Asia

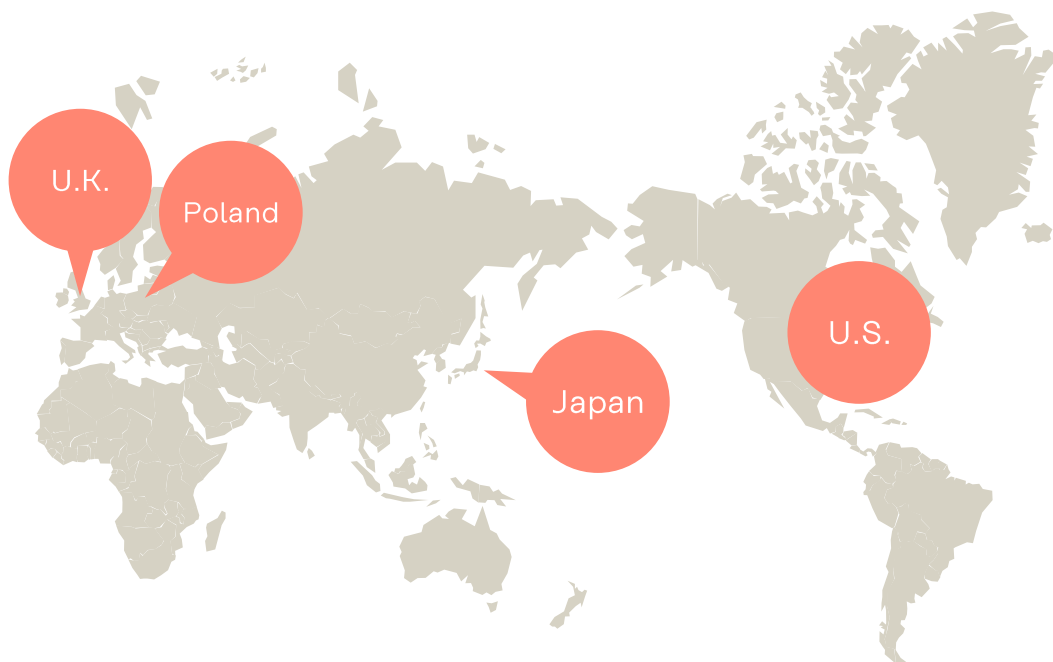
### Optimizing Global Distribution

- Visualize distribution using digital technologies
- Provide timely delivery information to customers

- Leverage strong and collaborative partnership with customers to achieve quantitative business growth and develop new applications.
- Expand production capacity to meet increasing demand.

### Supply System of the Water-soluble PVA Film Business

Aim to achieve 8% growth in CAGR



#### Expand global production capacity

Launch a new plant in Poland to supply products efficiently to the European market where demand is growing. Consider the further expansion of production capacity based on demand forecast.

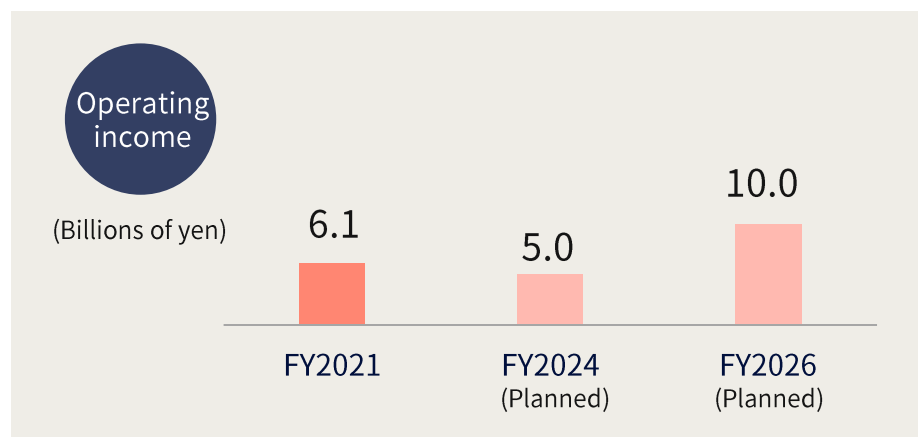
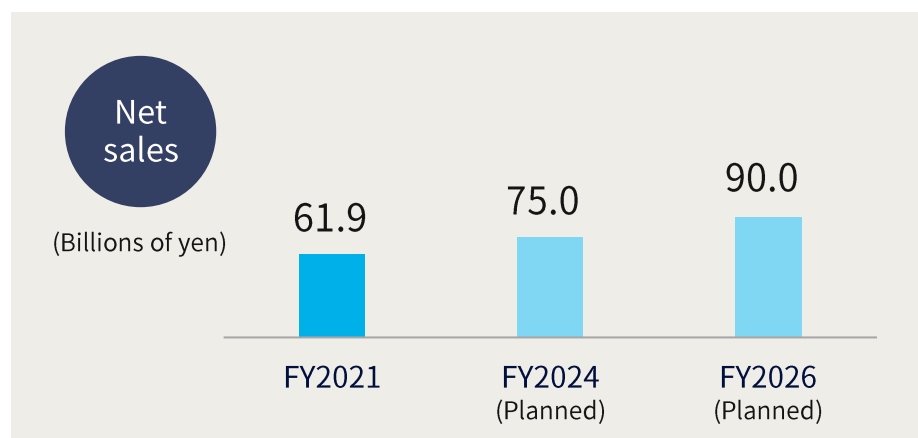
#### Increase our market share on the back of market expansion

Continue to improve quality to meet customer and consumer needs.

#### Develop new applications

Take advantage of collaborative relationships with customers to develop new applications, such as personal care, cosmetic products, etc.

- Early contribution to profit by launching a new site in Thailand.
- Raise sales and promote the new development of one-of-a-kind products with high customer value.



### Isoprene Chemicals

- Expand sales of one-of-a-kind products that are growing steadily
- Quickly commercialize newly developed products to secure new profit contributors
- Promote sustainability (Reduce CO<sub>2</sub> emissions via the switchover of raw materials and the improvement of manufacturing process)

### Elastomers

- Strengthen global supply system of 〈SEPTON〉
- Build a new plant of liquid rubber in the U.S.
- Promote development and expand sales of products that are high value-added and made from sustainable raw materials

### 〈GENESTAR〉

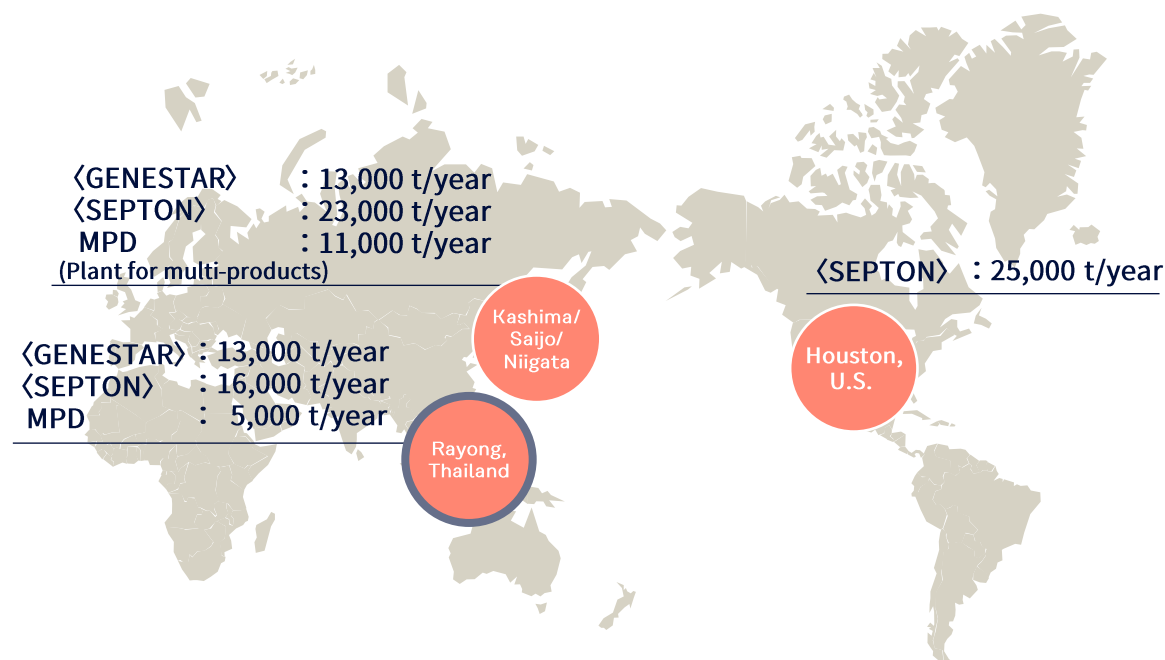
- Promote the use of our materials in an even broader range of automotive parts on the back of the shift toward weight reduction, electronic control and EVs
- Penetrate further into global markets, including Europe, the U.S. and Asia
- Consider the second phase of facility construction in Thailand

→ P39

## ■ Strengthen the global supply system with the launch of the site in Thailand.

### Global Network of the Isoprene Business

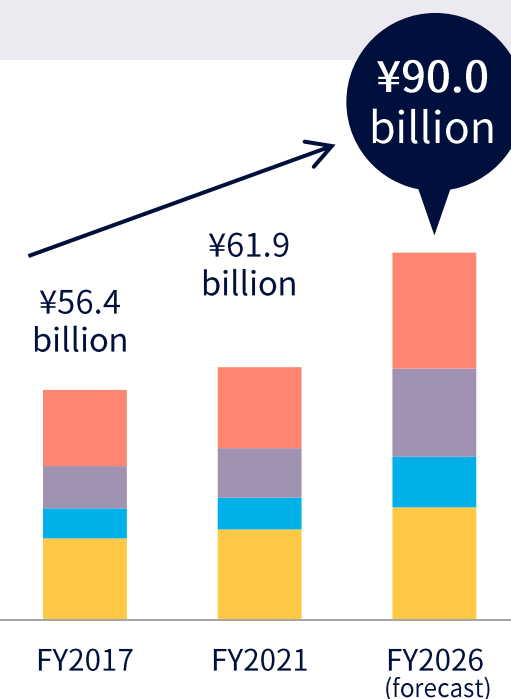
#### ~Strengthening the Global Supply System~



### Forecast following the launch of the site in Thailand (Sales in the Isoprene segment)

Quickly secure another profit contributor by utilizing capabilities offered by PTT Global Chemical Public Company Ltd. (our joint-venture partner in Thailand), such as its brand power in Asia and the supply of raw materials and utilities, in addition to taking advantage of the global network of Sumitomo Corporation, another partner.

■ : Japan ■ : The Americas  
■ : Europe ■ : Asia

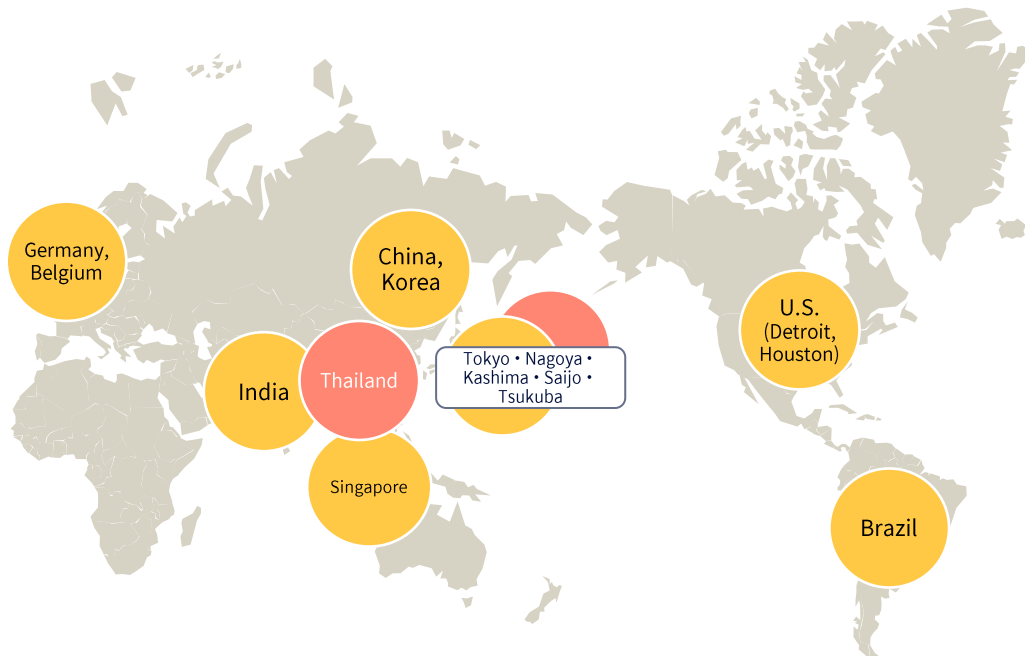




- Enhance marketing and technical service structures and accelerate the development of new applications taking advantage of material characteristics.
- Double the production capacity with the start of operations at the Thai site while considering the second phase of facility construction in Thailand.

### Global network of GENESTAR business

● : Sales site ● : Production site

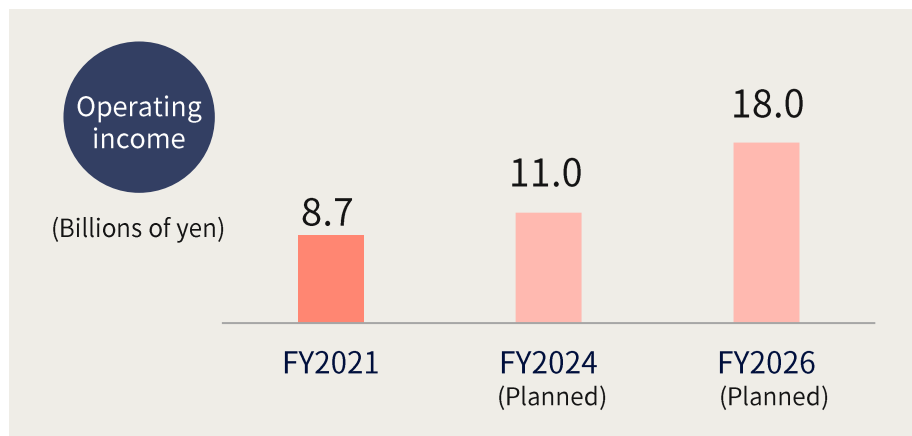
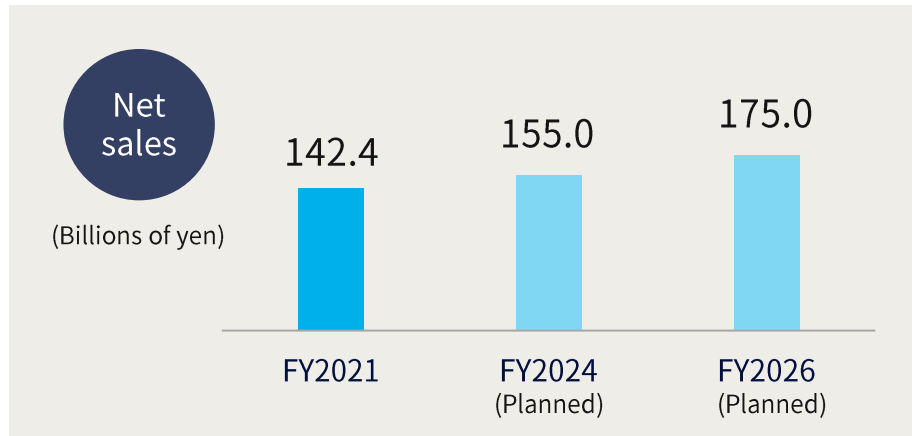


### Aim to achieve 10% growth in CAGR

- Promote the use of our materials in an even broader range of automotive parts on the back of the shift toward weight reduction, electronic control and EVs
- Penetrate further into global markets, including Europe, the U.S. and Asia
- Consider the second phase of facility construction in Thailand

|  |                         |   |                                  |  |
|--|-------------------------|---|----------------------------------|--|
| High heat resistance                         | High-voltage resistance | → | <b>Mobility</b>                  | Gear/Cooling valve/Tube/High voltage parts/In-vehicle connectors             |
| Low water absorption (Dimensional stability) | High strength           |   |                                  |  |
| Hydrolysis resistance                        | Laser weldability       |   |                                  |  |
| Fuel barrier                                 | Wear resistance         |   |                                  |  |
|  |                         | → | <b>Electrical and electronic</b> | 5G communication memory parts/Connectors / Power modules                     |
|  |                         | → | <b>New applications</b>          | Industrial machines, Household appliances, Water faucets / Oil pipes / Films |

- Offer products and services with high environmental and social value and contribute to improvement in quality of life (QOL).



### Methacrylate

- Develop and realize high-value-added materials and technologies for the next generation
- Establish a recycling system and achieve production process innovation

### Medical (dental materials)

- Constantly introduce a stream of new high-value-added products in the CAD/CAM field
- Optimize the global supply system to expand market share in Europe and the U.S.

→ P43

### Environmental Solutions

- Expand profitability leveraging strengths as an activated carbon manufacturer
- Fully realize synergies and growth by enhancing our production capabilities for both virgin and reactivated carbon
- Develop products related to reducing GHG emissions for electrical material and mobility applications

→ P41

### Aqua

- Strengthen the membrane business by leveraging our unique technologies
- Promote environment-related businesses backed by synergies with the activated carbon business

\*Aqua business to be transferred to Functional Material segment from FY2022.

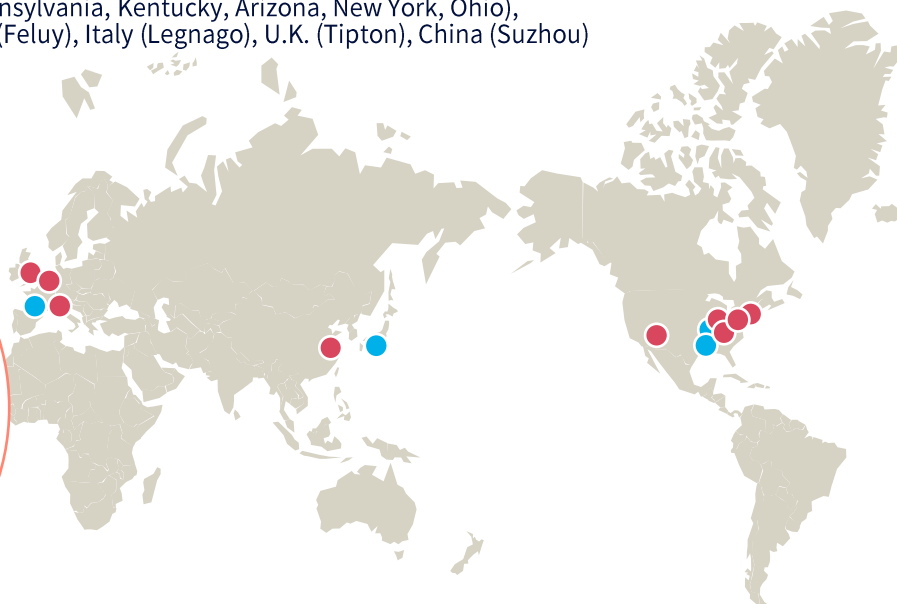
## Expand profitability by leveraging our strengths as a general activated carbon manufacturer

### Global Supply System

- : Virgin carbon production sites
  - : Reactivated carbon production sites
- U.S. (Kentucky, Mississippi), Japan (Tsurumi), France (Parentis en Born)
- U.S. (Pennsylvania, Kentucky, Arizona, New York, Ohio), Belgium (Feluy), Italy (Legnago), U.K. (Tipton), China (Suzhou)

### Our Strengths

- ✓ Product lineup of virgin and reactivated carbon derived from various raw materials and a global supply system
- ✓ Ability to deal with environmental regulations based on a plenty of experience in Europe and the U.S.



### R&D System

Research Centers  
(Analytical Technology and Solutions Lab.,  
Environment and Energy Research Lab.)

×

### Control and design of new carbon structures

- Expand virgin carbon supply  
Capturing of demand and expansion of our market share
- Develop energy storage device materials  
High input/output and higher volumes
- Develop GHG emission reduction and related materials  
CO<sub>2</sub> adsorption/CCUS-related/technological development
- Develop environmental, QOL, and relevant materials  
Development of new carbon materials and applications
- Develop new products that reduce environmental burden

Organic chemistry

Adsorption and pore control

Achieve ¥10.0 billion of synergy by FY2026.

- Contribute to a circular economy by pursuing value for using reactivated carbon
- Build the reactivated carbon business in Asia as it expands in Europe and the U.S.

### Activated Carbon Recycling System

Acceptability test,  
acceptance,  
analysis

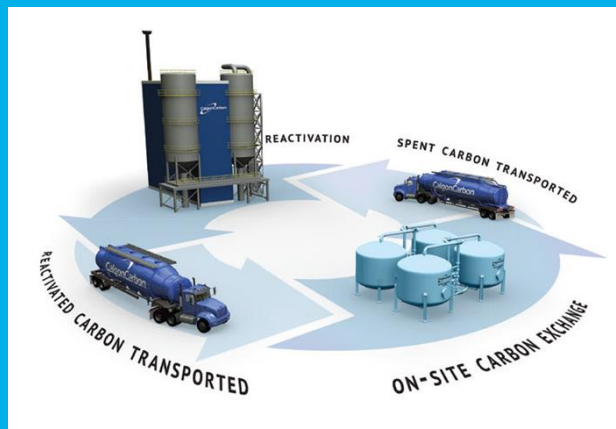


Thermal  
reactivation



Refill and  
shipment

- It can be repeatedly recycled (virgin carbon is refilled to supplement depleted)
- It is reactivated for optimal conditions according to the adsorption properties based on our long track record and experience
- We achieve quality equivalent to virgin carbon through strict quality management



### Benefits of the reactivated carbon business



- CO<sub>2</sub> emissions are 80% lower than those from the production of virgin activated carbon.
- Suited to a recycling-based society.
- Relieving customers from the disposal of used activated carbon.

### Future measures for expansion

- Enhance business foundations in Europe and the U.S. to better respond to growing environmental consciousness among customers.
- Expand our business in Asia in response to growing needs for environmentally friendly products

Reactivated carbon is spent activated carbon, which has reduced performance, that is treated at high temperatures to expunge adsorbed organic matter and restore its adsorption performance.

- Based on Kuraray Noritake Dental's strength in technological capabilities, contribute to higher QOL by developing new products that reduce burdens on patients and dental care workers.



Help improve QOL by shortening treatment time and contributing to preventive treatment and dental care for seniors.

- Expand the lineup of CAD/CAM materials, such as zirconia.
- Accelerate the development of bioactive materials.

Strengthen sales and marketing capabilities

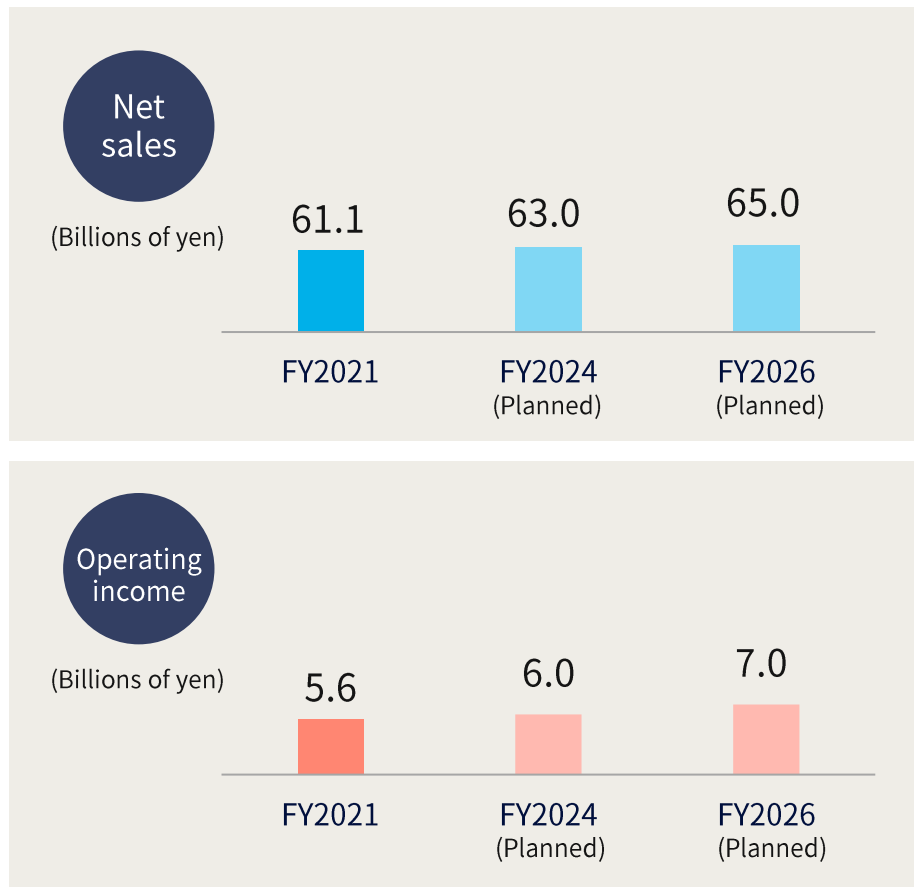
- Strengthen marketing in Europe and the U.S.
- Enhance communications using the combination of conventional face-to-face sales and digital marketing.

Establish the product supply system to achieve global business expansion

- Strengthen stockpile management.
- Expand production capacity.

Aim to expand sales, mainly in the European and the U.S. markets, and achieve 10% growth in CAGR

- Strengthen profitability by shifting to high-value-added products using unique raw materials and manufacturing technologies.



### 〈CLARINO〉

→ P45

- Expand sustainable products using recycled raw materials and bio-based raw materials while shifting to environmentally friendly manufacturing and processing processes
- As a leading company, expand our supply system in response to the globalization of supply chains

### Fibers and Industrial Materials

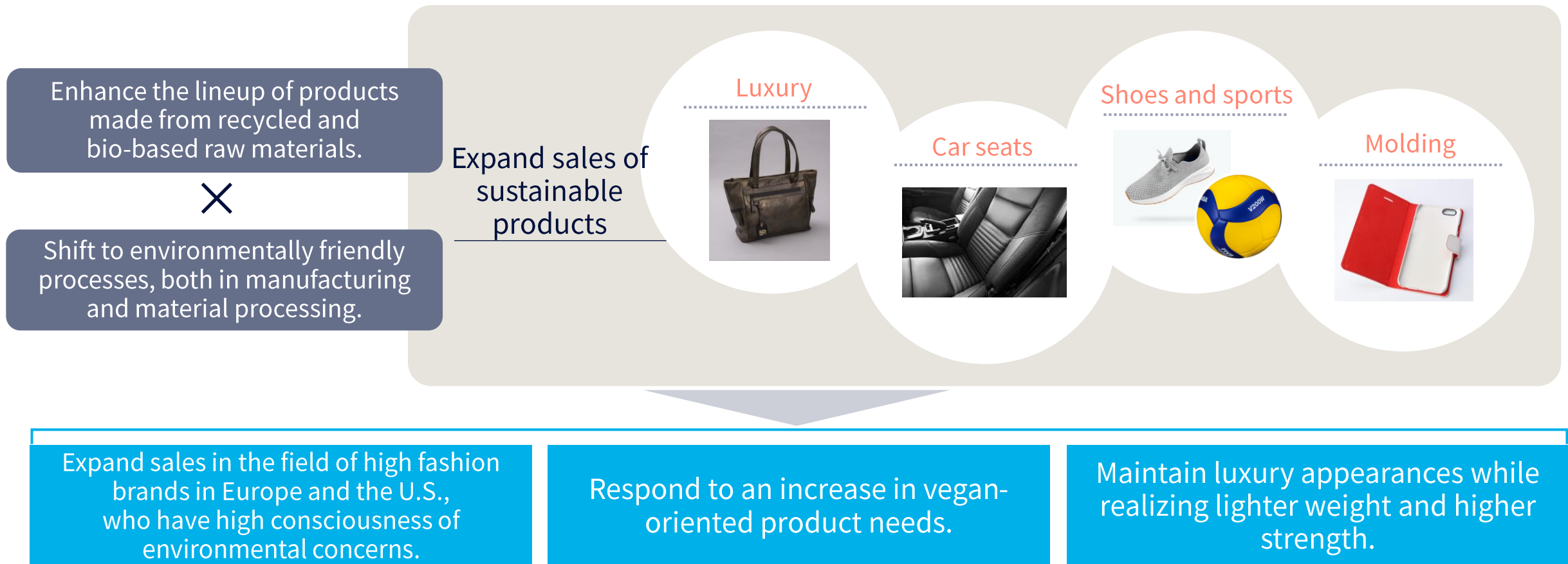
→ P46

- Expand <Vectran> business by leveraging the characteristics of materials
- Expand our operations by concentrating resources on such strategic applications as rubber reinforcement and concrete reinforcement
- Expand the breadth of product applications in fields requiring compliance with environmental regulations (e.g., asbestos substitutes)

### Consumer Goods and Materials

- Expansion of environmentally friendly products\* and sustainable materials  
\*Products that have acquired FSC® certification, an international forestry certification system
- Expand the lineup of unique products, such as <MAGICTAPE>, to meet labor-saving needs for customers' manufacturing processes

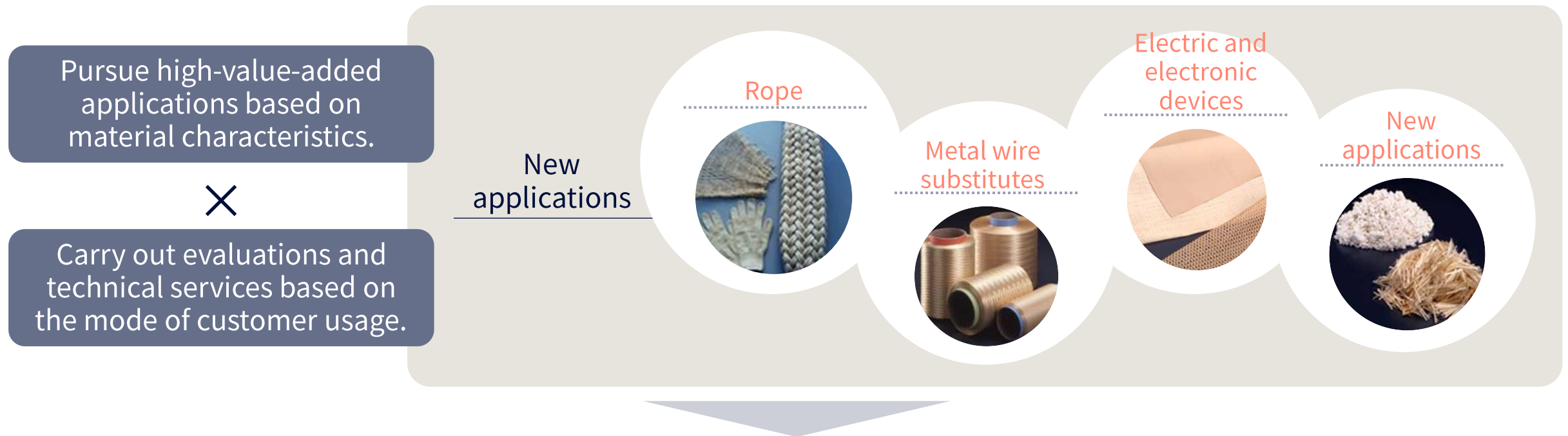
- Expand sales of sustainable products.
- Pursue environmental friendliness by shifting our raw materials as well as our processes, both in manufacturing and material processing.





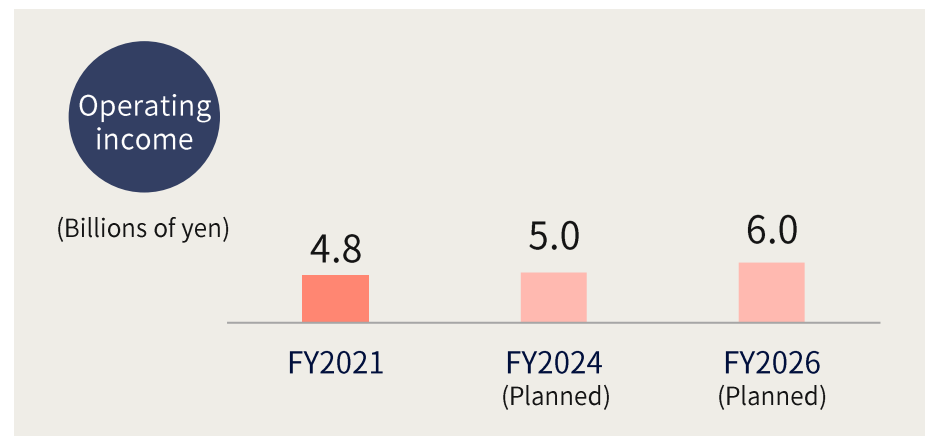
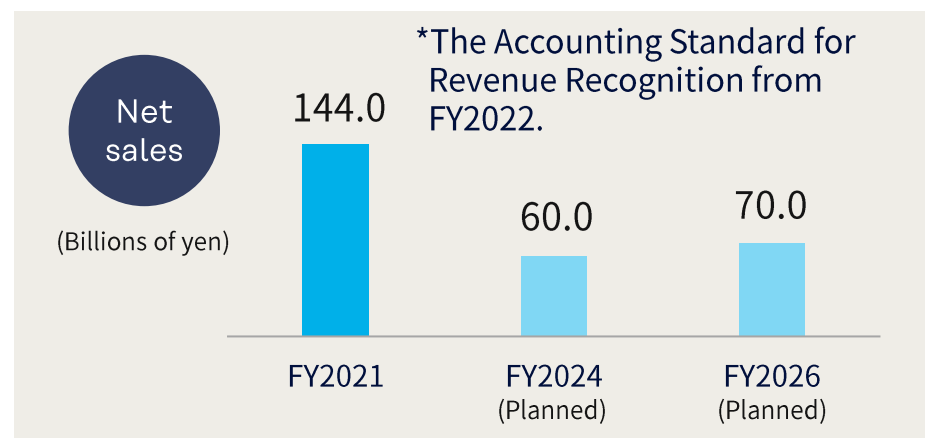
— Used in a wide range of applications, from the seafloor to outer space

- Accelerate the expansion of new applications by developing high-value-added products and providing technical services.
- Expand production capacity in response to increasing sales volumes.



Aim to achieve 10% growth in CAGR by developing new applications leveraging material characteristics of Liquid Crystal Polymer (LCP) fiber

- Shift to high-value-added businesses and strengthen profitability by broadening the lineup of proprietary products and expanding processing businesses.
- Expand sales from overseas businesses primarily in Asia.



### Functions of Kuraray Trading

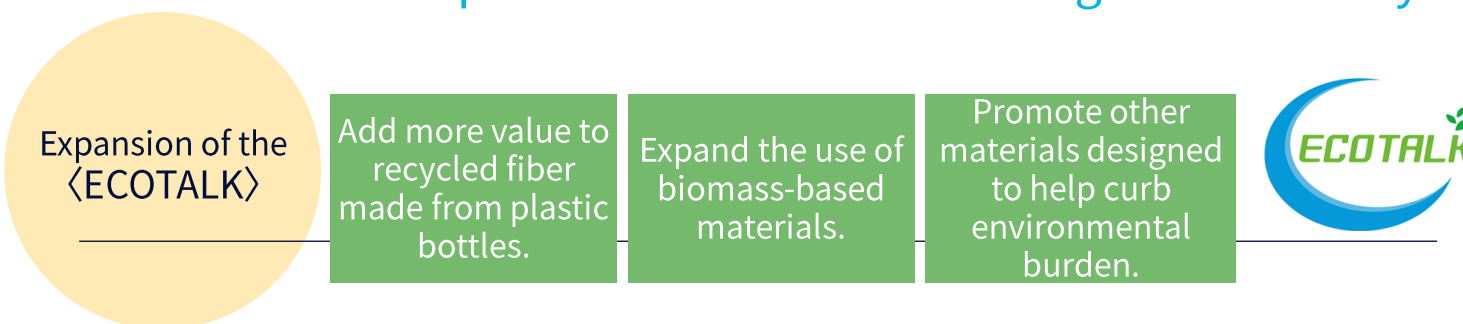
#### Expansion of proprietary business

- Shift from raw yarn and fabric sales centered on <Clavella> polyester filaments to product sales including wearable materials
- Expansion of value-added processed products

#### Expansion of overseas business

- Overseas expansion adapted to growing Asian markets
- Utilization of Vietnamese production sites

### Contributes to Group Performance Due to Stronger Profitability





# References

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- ① Safety Initiatives
- ② Basic Policies for Portfolio Management
- ③ Kuraray Group Global HR Policy
- ④ Standards for the PSA-Based Assessments of Contribution
- ⑤ Review of the Previous Medium-Term Management Plan  
“PROUD 2020”

## Guiding Principle on Ensuring Safety

### Safety is the Cornerstone of Everything We Do

#### Action Courses on Ensuring Safety (FY2022)

- 1 Ensuring "Safety First, Production (Construction and R&D) Second"
- 2 Predict Hazards and Ensure Safety before Taking Action, then Confirm the Action Results are What You Expected
- 3 Each Employee Acts Proactively with the Intention of Ensuring Safety as "Their Own Issue"

#### Safety Promotion Committee

- Chaired by the President and active Company-wide
- Formulates safety-related action principles and policies
- Formulates targets related to safety priority activities for process safety and disaster prevention

#### On-site verification of safety activities

- Regular safety activity verification and opinion exchanges at production sites (the President and safety executives visit all complexes in Japan and major overseas bases)

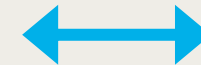
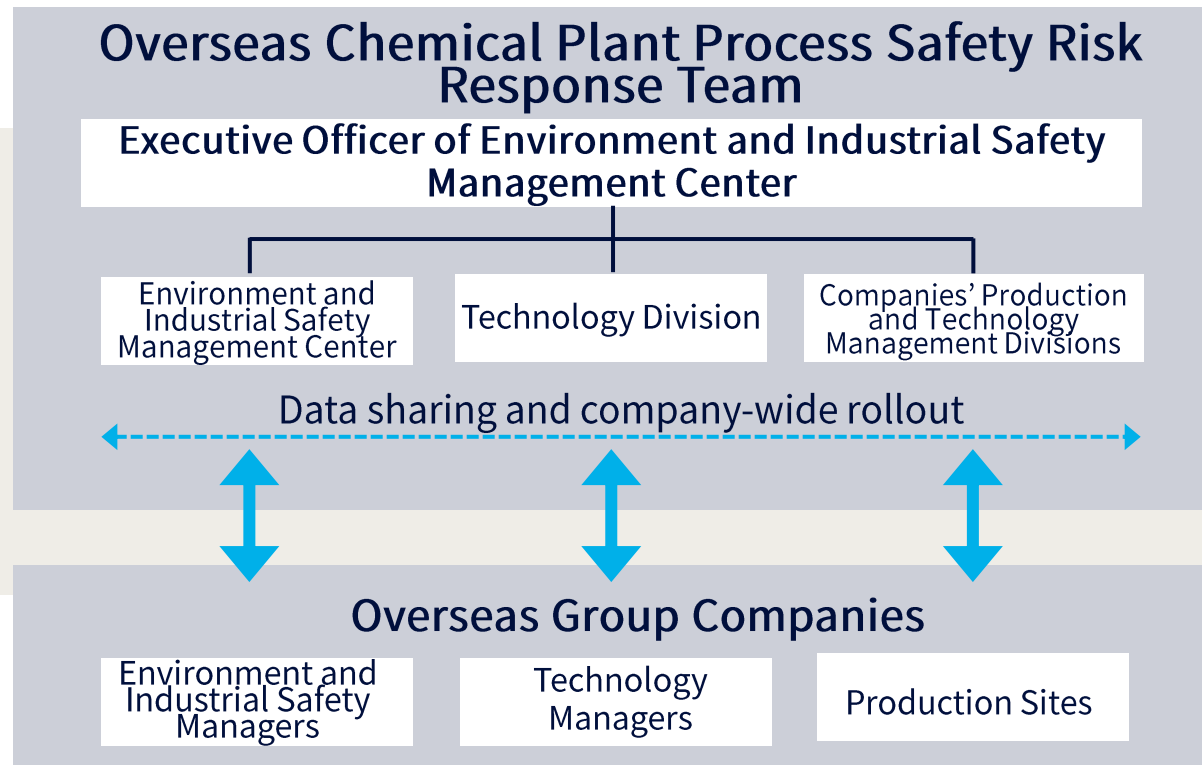
#### Safety Audits for Chemical Plants outside Japan

- Headquarters conduct safety audits
  1. Improve management systems
  2. Enhance education and training
  3. Expand risk assessments

- We will launch the Global PSM Audit Team\* and strengthen safety audits for chemical and activated carbon plants.

\*The Global Process Safety Management Audit Team globally selects members well versed in process safety and disaster prevention from employees of each base and conducts cross-organization safety audits at each base.

Newly Launched  
in 2022



### Basic Policies for Portfolio Management

- 1 We aim to develop a business portfolio focused on fulfilling Our Mission, as defined under our corporate statement, in a way that aligns with our recognition of the internal and external conditions.
- 2 We aim to secure a solid and stable business portfolio encompassing multiple core businesses serving as earnings pillars.
- 3 We periodically assess the potential of each business based on clearly defined quantitative internal standards.\*<sup>1</sup>
- 4 In addition to undertaking quantitative assessments, we assess each business based on qualitative standards (contribution to the environment and society, synergies arising from combinations with other business, etc.).
- 5 Based on the results of the quantitative and qualitative assessments, we review allocations of resources and decide to expand, maintain, reduce or withdraw from each business.

\*<sup>1</sup> “Standards for Business Reevaluation” were established in 2001 to provide clearly defined inhouse standards, with evaluations being undertaken via the use of OCF, which represents earnings power, and ROIC, which represents efficiency.

## The Kuraray Group's Global HR Policies

(Revised February 2021)

- 1 We will respect the human rights of individuals.
- 2 We will abolish discrimination and respect diversity.
- 3 We will carry out our HR activities in full compliance with applicable laws and regulations.
- 4 We will create HR systems that uphold equality, fairness and transparency.
- 5 We will strive to improve the environment of workplaces.
- 6 We will strive to employ personnel who are able to contribute to the development of the Kuraray Group.
- 7 We will place the right person in the right job.
- 8 We will implement evaluation and benefits systems that are fairly satisfactory.
- 9 We will support professional developments.
- 10 We will strive to promote appropriate disclosure of information and communication.



### PSA-based assessment of contribution

| <Assessment ranking> |   | Assessment based on contribution<br>by Kuraray products |
|----------------------|---|---|
| 5                    | Positive Contribution<br>Superior Performance             |   |
| 4                    | Positive Contribution                                     |   |
| 3                    | Neutral<br>No negative signal<br>No positive Contribution |   |
| 2                    | Weak Negative Signal                                      |   |
| 1                    | Strong Negative Signal                                    |   |

### Fundamental requirements

- Chemical and hazardous substance management
- Application to Kuraray Action Guidelines
- Economic value
- Reputational risks

### Stakeholder requests

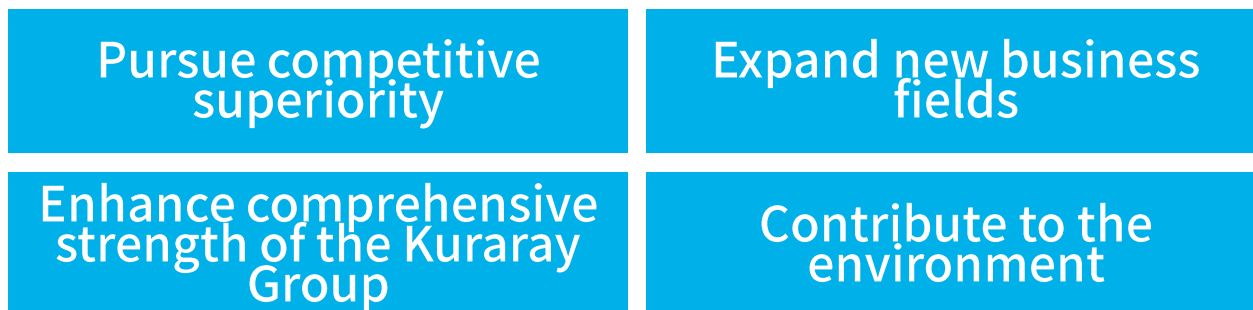
- Regulatory trends by region
- Sustainability policies across the value chain
- Eco labeling , certification, etc.

### Assessment

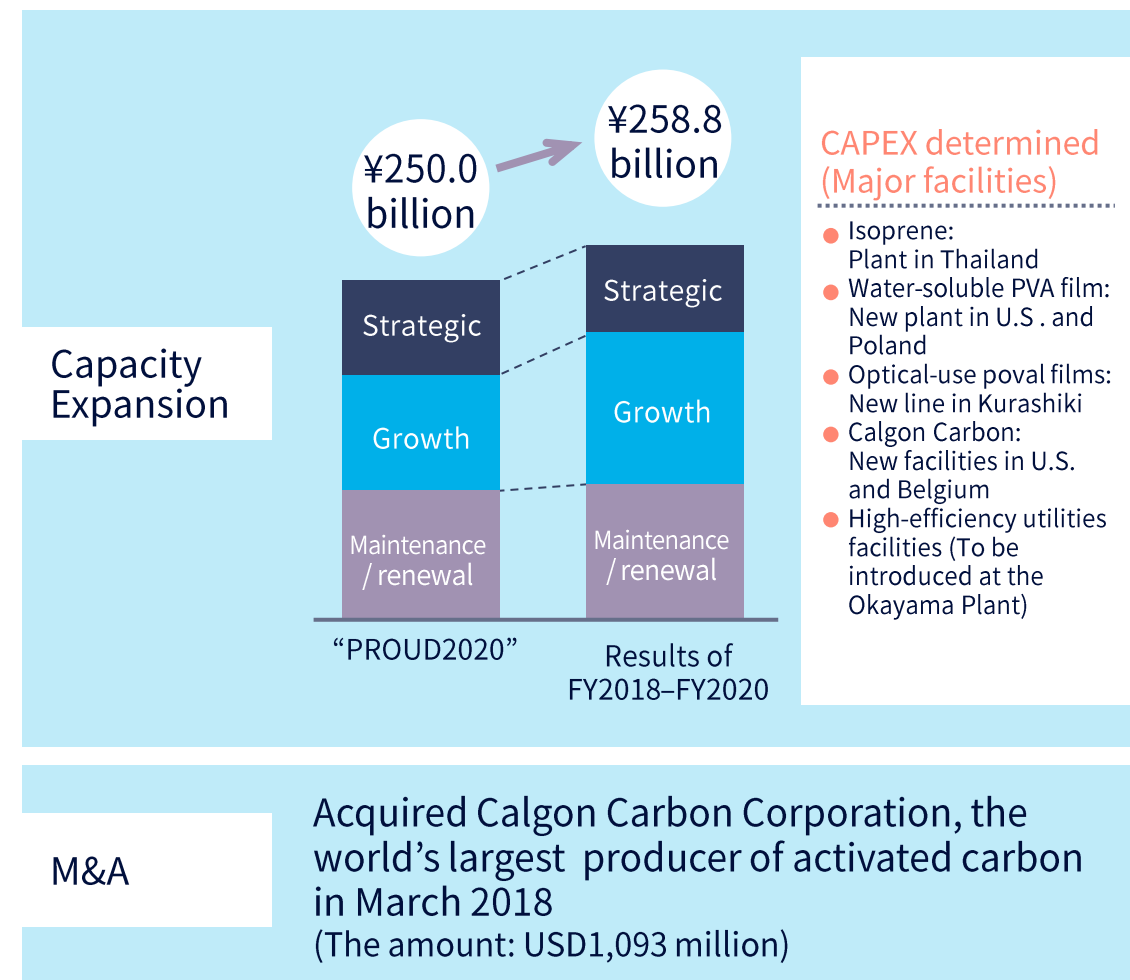
- Relative assessment against benchmark



## Four Management Strategies



## Main Management Targets



## Review of Operating Results

| (Billions of yen)    | FY2018 results | FY2019 results | FY2020 results | FY2020 targets<br>(PROUD 2020) |
|----------------------|----------------|----------------|----------------|--------------------------------|
| Net sales            | 603.0          | 575.8          | 541.8          | 650.0                          |
| Operating income     | 65.8           | 54.2           | 44.3           | 90.0                           |
| Op. income ratio (%) | 10.9           | 9.4            | 8.2            | 14                             |
| Net income           | 33.6           | (2.0)          | 2.6            | 62.0                           |
| EPS (yen)            | 96             | (5)            | 7              | 176                            |

## Review of Shareholder Returns

|                     | FY2018 | → | FY2019 | → | FY2020 |
|---------------------|--------|---|--------|---|--------|
| Total return ratio  | 54.7%  |   | —      |   | 535.1% |
| Dividends per share | ¥42    |   | ¥42    |   | ¥42    |



- 
- All figures are rounded to the nearest hundred million yen.
  - This presentation contains various forward-looking statements which are based on the current expectations and assumptions of future events. All figures and statements with respect to the future performance, projections, and business plans of Kuraray and its group companies constitute forward-looking statements. Although Kuraray believes that its expectations and assumptions are reasonable, actual results and trends of Kuraray's performance could differ materially from those expressed or implied by such figures or statements due to risks and uncertainties in the future business circumstances. The factors which may cause such difference include, without limitation: (1) general market and economic conditions in Asia including Japan, the U.S., Europe and other regions; (2) fluctuations of currency exchange rates, especially between the Japanese yen and the U.S. dollar and other foreign currencies; (3) changes in raw material and fuel costs; (4) industrial competition and price fluctuations in Japan and international markets; (5) advance or delay in the construction of new plants and production lines; (6) successful development of new products and technologies; and (7) changes in laws and regulations (including tax and environmental) and legal proceedings.
  - Trademarks of Kuraray Co., Ltd. and Kuraray group companies are enclosed in 〈 〉 marks.