



Kuraray Report 2020

For Fiscal 2019, Ended December 31, 2019

In order to **make today better than yesterday,**

and tomorrow better than today,
we at Kuraray have made completely new and
unique things by harnessing the power of chemistry.
Many industries and people around the world now choose
Kuraray's technologies, products, and services.
We take pride in this fact and are deeply grateful to our
customers around the world for making this possible.

Since our founding, we have valued the pioneering spirit.
We continually ask ourselves what we can do for the world of
tomorrow and the people living in it.

“For people and the planet—to achieve what no one else can.”

Passed down through the generations, this has been
our constant motivation.

We still maintain this mission firmly today. It is Kuraray's value
and our driving force.

We continue to cultivate our unique traits, in order to benefit
society and the environment.

Our goal is continual corporate growth, and we have already
taken the next step forward.

Editorial Policy

Starting from 2018, the Kuraray Group has issued the Kuraray Report so that all the stakeholders, including shareholders and investors, can gain a deeper understanding of the Group's efforts toward value creation over the medium to long term.

Kuraray Report 2020 uses the GRI Standards (2016) as references. Comparison between them is shown on our website (<https://www.kuraray.com/csr/report2020/guidelines>).

The Report also concisely conveys the Group's financial information as well as the important non-financial information that affects its corporate value, with reference to the International Integrated Reporting Framework from the International Integrated Reporting Council (IIRC), the "Guidance for Integrated Corporate Disclosure and Company-Investor Dialogue for Collaborative Value Creation" (Guidance for Collaborative Value Creation) from the Japanese Ministry of Economy, Trade and Industry, and other sources. For detailed information on our products and businesses, please visit our website.

Reporting Period

January 1 to December 31, 2019
(Some information after January 2020 is included.)

Scope of the Report

Kuraray Co., Ltd. and the Kuraray Group companies

Composition of Information Disclosure Media

Integrated Reporting



Integrated Report

Investor Relations Detailed Information

Investor Relations Website
<https://www.kuraray.com/ir>

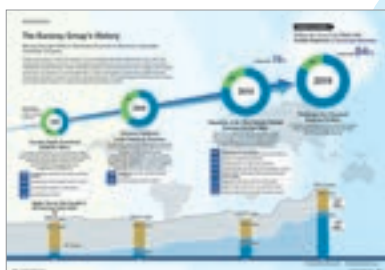


Sustainability Detailed Information

Sustainability Website
<https://www.kuraray.com/csr>



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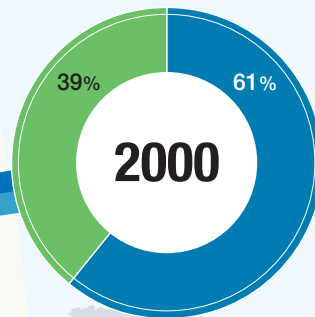
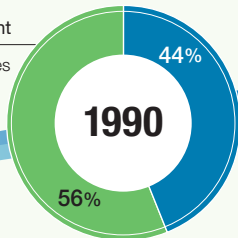
The Kuraray Group's History

Moving through Shifts in Business Structure to Become a Specialty Chemical Company

Kuraray was founded in 1926 for the purpose of commercializing regenerated cellulose fiber rayon, which was cutting-edge technology at the time. The Company has expanded ever since, with a focus on fibers and textiles. Following the eventual transition of fiber and textile production moving overseas and other changes to the business environment, and drawing on its accumulated base of unique technologies in polymer and synthetic chemistry, Kuraray has continued to expand in the field of chemical products. This includes playing a leading role in the global vinyl acetate-related business, as well as strengthening its business portfolio.

Sales Ratio by Business Segment

- Fibers and Textiles
- Chemicals



Creating Highly Functional Synthetic Fibers

Promoting diversification of our business has yielded highly functional synthetic fibers ideal not only for clothing — developing the industrial materials KURALON™ and VECTRAN™ has opened the doors to other areas of business too.

1983	Commercialized KURALON™ short fiber for reinforcing concrete
1986	Eval Company of America began production of EVAL™
1989	Commercialized meltblown nonwoven fabrics
1990	Commercialized VECTRAN™

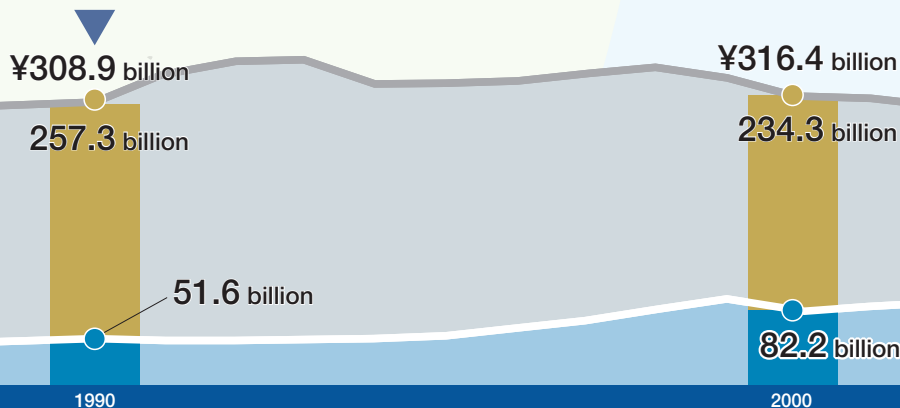
Overseas Expansion in the Chemicals Business

We have been reducing and withdrawing businesses from the multipurpose fiber and textile market due to decreased market competitiveness.

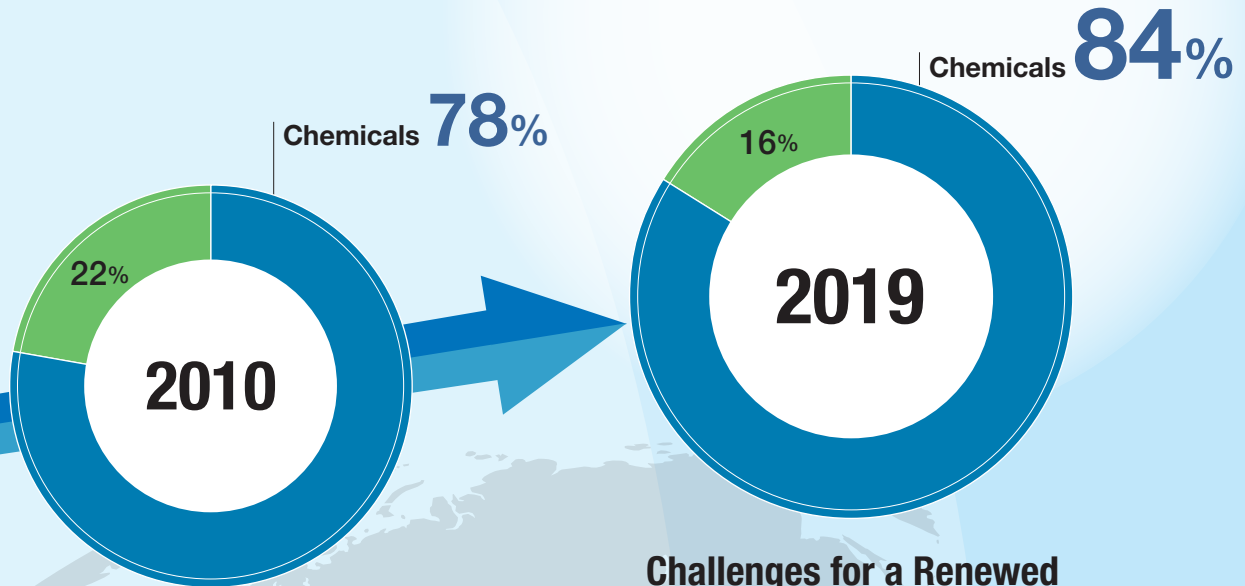
On the positive side, however, we have achieved increased sales overseas in the chemicals business owing to a high market share, and have established production systems at overseas locations.

1996	Established a PVA resin manufacturing facility in Singapore
1999	Eval Europe began production of EVAL™

Higher Year-to-Year Growth in the Overseas Sales Ratio



Shifting the Focus from **Fibers and Textiles Business** to **Chemicals Business**



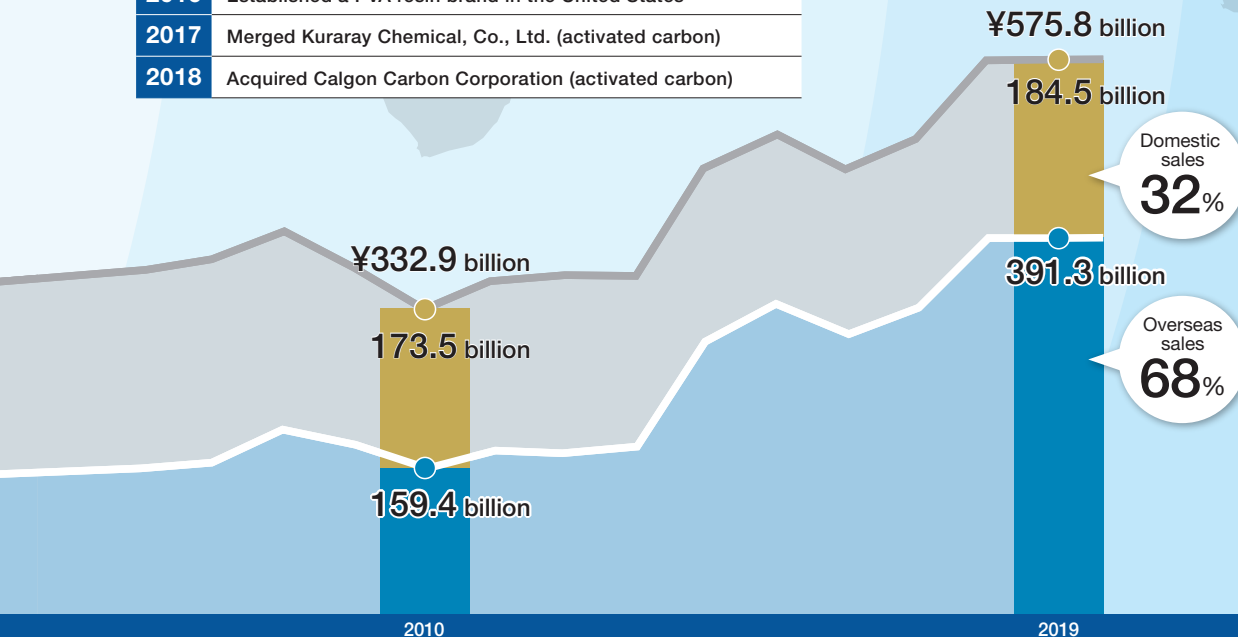
Expansion in the Vinyl Acetate-Related Business through M&As

Since 2001, we have been actively pursuing overseas M&As in the vinyl acetate-related business to advance downstream developments and business expansion, as well as to strengthen our business portfolio.

2001	Withdrew from the rayon business Acquired the PVA- and PVB-related businesses of Clariant AG
2004	Acquired HT Troplast GmbH (PVB film)
2012	Acquired MonoSol, LLC (water-soluble poval film)
2014	Acquired the VAM, PVA, PVB resin and film businesses of DuPont
2015	Acquired Plantic Technologies Limited (biomass-derived gas barrier materials)
2016	Established a PVA resin brand in the United States
2017	Merged Kuraray Chemical, Co., Ltd. (activated carbon)
2018	Acquired Calgon Carbon Corporation (activated carbon)

Challenges for a Renewed Business Portfolio

To maintain sustainable growth as a chemical company, we are developing and expanding the next pillars after the vinyl acetate business.



— Domestic sales (Billions of yen) / — Overseas sales (Billions of yen)

The Kuraray Group's Aims

Value Creation Process

As a corporate group engaged in manufacturing, the Kuraray Group creates economic and social value by providing its excellent

Business Activities of the Kuraray

Input

Financial capital

Strong financial position

- ➔ Net assets **¥538.5** billion
- ➔ Equity ratio **53.0** %
- ➔ Credit rating (As of March 31, 2020)
Japan Credit Rating Agency, Ltd. (JCR) **AA**
Rating and Investment Information, Inc. (R & I) **A+**

Intellectual capital

A broad spectrum of base technologies ranging from materials to processing

- ➔ R&D Expenses **¥21.2** billion

Human capital

Diversity of human resources

- ➔ Number of consolidated employees **11,115**
- ➔ Ratio of female employees **18.2** %
- ➔ Ratio of female employees in managerial positions **7.8** %

Manufacturing capital

Global production system

- ➔ Domestic production bases **9**
- ➔ Overseas production bases **36**

Social and relationship capital

Trust from customers / trust from local communities

Materiality

Refer to p.35

Improving the natural environment



Improving the living environment



Effective use of resources and reduction of environmental impact



Improving supply chain management



Building a "company that people can take pride in"



Issues Facing Society • Global warming • Depletion of water • The food crisis and others

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.”

products and services to the market.

Sustainable Growth through the Use of Management Resources

Group

Strategy of the Kuraray Group

Long-term vision

Refer to p.15

Vision for Kuraray

Specialty Chemical Company growing sustainably by incorporating new foundational platforms into its own technologies

Basic policies

Pursue competitive superiority

Increase existing businesses' competitive edge

Expand new business fields

Strengthen our business portfolio while expanding the scope of operations

Enhance comprehensive strengths of the Kuraray Group

Establish global business foundations to ensure the realization of the vision

Pursue competitive superiority

Expand new business fields

Medium-Term Management Plan "PROUD 2020"

Making Kuraray a Company That People Can Take Pride In

Enhance comprehensive strength of the Kuraray Group

Contribute to the environment

Outcome

EVAL™

Food packaging materials (Long-term food preservation/Extension of expiration dates)

PLANTIC™

Bio-based gas barrier material (Long-term food preservation/Extension of expiration dates)



Contribute to food loss reduction

Activated carbon

Water purification and wastewater treatment, air purification

Water treatment membrane

Water purification and wastewater treatment

PVA-gel

Wastewater treatment



Contribute to providing cleaner water and air, and help to conserve resources

EVAL™

Plastic fuel tanks

GENESTAR™

Replacement for automotive metal parts



Contribute to fuel efficiency improvement by reducing the weight of automobiles

PVB film

Interlayer for safety glass

Liquid rubber

High-performance automobile tires

KURALON™

Cement and concrete reinforcement



Contribute to safety

resources

Contribution to Social Sustainability

The Kuraray Group's Business Model

Our Unique Technical Strengths Create Products with the World's Top Market Share*

We at Kuraray have used our unique technical strengths to create products that the world had never seen before. We were the first company in the world to commercialize KURALON™ (PVA fiber), the first synthetic fiber produced using made-in-Japan technology. Other businesses we have created include poval resin (PVA resin), which is a raw material of KURALON™; PVA film, which is essential for liquid crystal displays (LCDs); EVAL™ (ethylene vinyl-alcohol copolymer [EVOH] resin) which features excellent gas barrier properties; and a lineup of various commercialized chemical products that use the world's first industrialized synthetic isoprene monomers as materials. We have also launched a wide range of products that have become an integrated part of people's lives, such as CLARINO™ (man-made leather), which recreates the structure of natural leather, and MAGIC TAPE™ (hook-and-loop fastener). Sales of products with the highest global market share* that we have created using our unique technologies accounted for more than half of the Kuraray Group's total sales in fiscal 2019.

Invisible Assets

Core Competences

“For people and the planet – to achieve what no one else can”

Unique technical strengths

Application development capability



Accumulation of unique technologies and know-how

We have accumulated knowledge, unique technologies, and commercialization know-how cultivated over 90 years.



Information on particular markets acquired through development efforts

Information obtained through product and market development is leveraged in new product development.



Strong and trusting relationships with our business partners

We meet the world's most stringent performance and quality standards required by our business partners and have earned their trust.



High-quality human resources well-versed in their areas of expertise

We contribute to solving the world's issues with our advanced expertise and unique technologies.

Kuraray Group Products with Top Market Share Worldwide*



PVA resin (Excluding China)

PVA resin was industrialized as a raw material for the synthetic fiber KURALON™. It has a number of characteristics: It is water soluble, emulsifiable, resistant to oil and chemicals, and easy to form into film. It is used in a wide range of applications such as paper processing agents, adhesives, and as a stabilizer for the polymerization of vinyl chloride resin.



Optical-use PVA film

Optical-use PVA film is used as a polarizing film, which is vital to LCD displays such as flat-panel TVs, PC monitors, tablets, and smartphones.



Water-soluble PVA film

Water-soluble PVA film is used for unit dose applications in detergents, personal care, agrichemicals, food ingredients and water treatment. Because the film dissolves completely in water and is environmentally friendly, it does not contaminate the recycling stream or contribute to micro-plastic pollution.



EVAL™ (EVOH resin)

EVAL™ provides excellent barrier properties against the permeation of gases, superior to those of any other plastics. It is used widely in food packaging materials to block out oxygen and preserve the flavor and quality of foods. It is also adopted in automotive plastic fuel tanks, as it provides a highly effective barrier against fuel vapor permeation. It is being used increasingly in a wide variety of applications, such as vacuum insulation panels for large refrigerators, in order to improve energy efficiency.



KURALON™ / KURALON K-II™ (PVA fiber)

KURALON™ is a synthetic fiber based on polyvinyl alcohol (PVA) with several unique properties, including high tenacity, low elongation, and hydrophilicity. It is widely used in various industrial fields for applications that include as a substitute for asbestos in cement reinforcement and as a separator for alkaline manganese batteries. KURALON K-II™ is another PVA fiber made by new production technologies. Water-soluble fibers with different dissolving temperatures and high-tenacity fibers can be obtained.



Isoprene chemicals

We apply our unique synthesizing technologies to produce a cleaner MMB that is highly safe and easy to handle, as well as diols, aroma chemical and cosmetic ingredients, pharmaceutical and agrichemical intermediates, and more.

Note: One-of-a-kind products derived from synthetic isoprene (MMB, MPD, etc.)



GENESTAR™ (Highly heat-resistant polyamide resin)

GENESTAR™ is a new highly heat-resistant polyamide resin created with our proprietary technologies. It is used in electronic parts of mobile phones, personal computers, and the like, and it is applied in backlights for LED liquid-crystal TV panels and in the automotive field as well.



Activated carbon

Activated carbon is created through a reaction with gas and chemical agents at high temperatures using a carbon substrate, such as bituminous coal and coconut shells, and has micropores (diameter: 10 – 200 Å. 10 Å = 1 nm). The micropores form a meshwork structure inside the activated carbon, and the walls of these micropores give the material a large surface area (500 – 2,500 m²/g) for adsorbing a wide range of substances by the capillarity of the micropores.



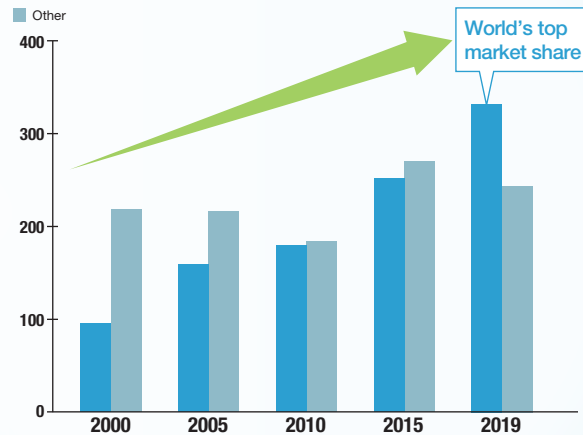
VECTRAN™ (High-strength polyarylate fiber)

VECTRAN™ fiber has about seven times the tensile strength of steel by weight and provides excellent abrasion, flex fatigue, and chemical resistance, among other physical properties. It is used in a range of applications including aerospace uses, composites, electronic components, ropes, and sporting goods.

* In-house survey

A Wide Variety of No. 1 Products

Net Sales (Billions of yen)



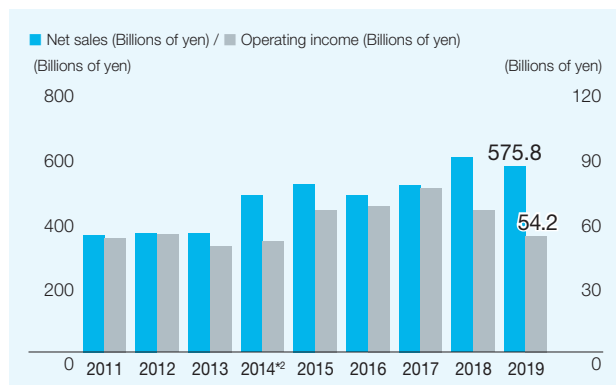
Sales of our products with the world's top market share* reached 58% of the Kuraray Group's net sales in fiscal 2019.

Financial and Non-Financial Highlights

Financial Data

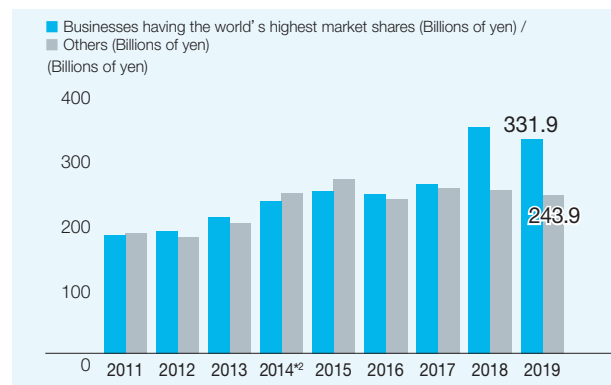
Net Sales / Operating Income

Net sales **¥575.8 billion** Operating income **¥54.2 billion**



Net Sales of Businesses Having the World's Highest Market Shares*

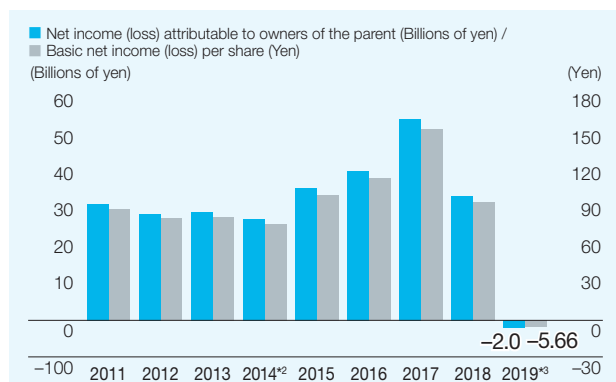
Net sales of businesses having the world's highest market shares **¥331.9 billion** Sales ratio of products having the world's highest market shares **57.6%**



*1 In-house survey

Net Income (Loss) Attributable to Owners of the Parent / Basic Net Income (Loss) per Share

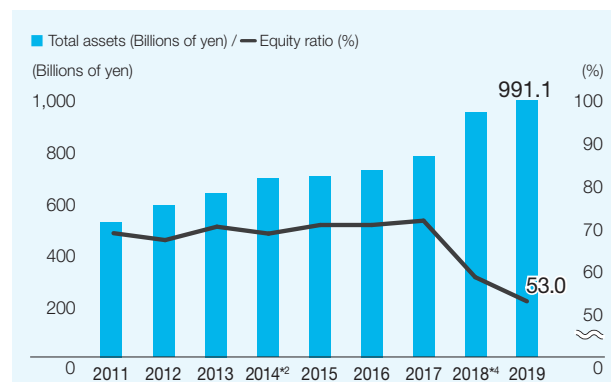
Net loss attributable to owners of the parent **¥2.0 billion** Basic net loss per share **¥5.66**



*3 In fiscal 2019, we recorded an extraordinary loss of approximately ¥50.6 billion due to a litigation against a fire accident at subsidiary in the United States, which caused net income attributable to owners of the parent to deteriorate significantly.

Total Assets / Equity Ratio

Total assets **¥991.1 billion** Equity ratio **53.0%**

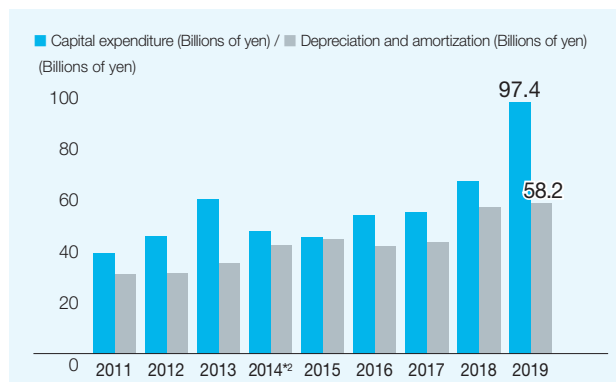


*4 In fiscal 2018, the total assets increased due to the inclusion of Calgon Carbon Corporation in the scope of consolidation.

Capital Expenditure*5 / Depreciation and Amortization

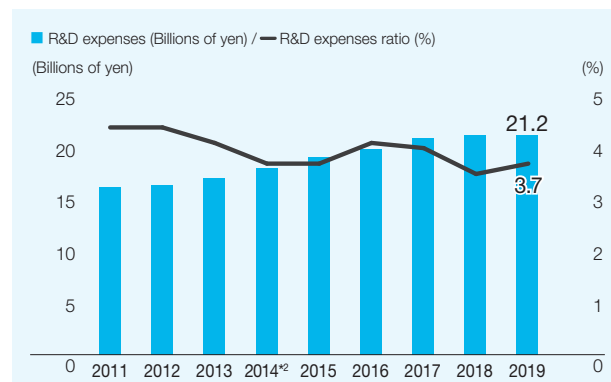
*5 Capital expenditure is on acceptance basis.

Capital expenditure **¥97.4 billion** Depreciation and amortization **¥58.2 billion**



R&D Expenses / R&D Expenses Ratio

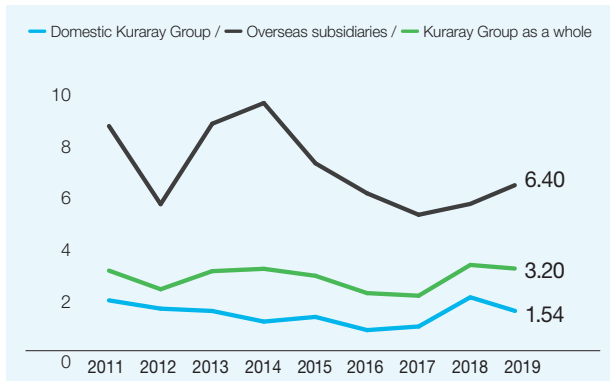
R&D expenses **¥21.2 billion** R&D expenses ratio **3.7%**



Non-Financial Data

1 Frequency Rate of All Occupational Incidents*6

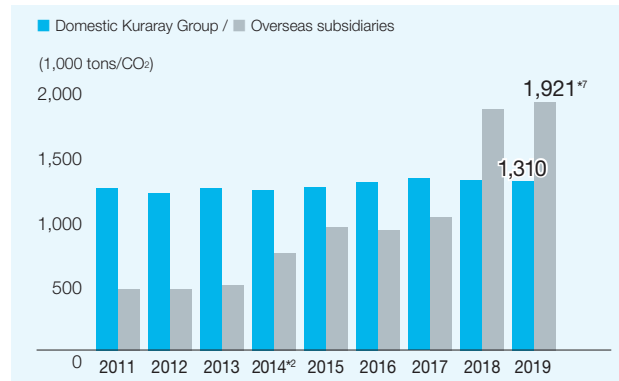
Domestic Kuraray Group Overseas subsidiaries Kuraray Group as a whole
1.54 **6.40** **3.20**



*6 The number of occupational incidents requiring medical treatment per one million work hours

2 Greenhouse Gas (GHG) emissions

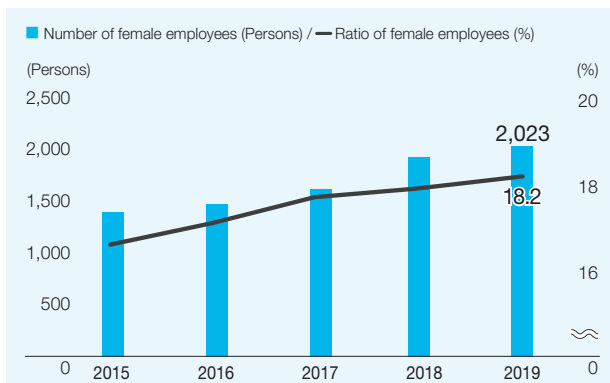
Domestic Kuraray Group Overseas subsidiaries
1,310 thousand tons/CO₂ **1,921** thousand tons/CO₂



*7 Calgon Carbon Corporation has been included in data since fiscal 2018.

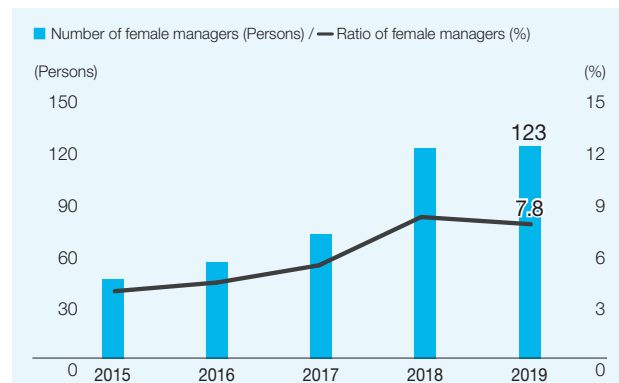
3 Number of Female Employees / Ratio of Female Employees

Number of female employees Ratio of female employees
2,023 persons **18.2%**



4 Number of Female Employees in Managerial Positions / Ratio of Female Employees in Managerial Positions

Number of female managers Ratio of female managers
123 persons **7.8%**



Brief Commentary on Non-Financial Information

1 Frequency Rate of All Occupational Incidents

In the Kuraray Group's business activities, safety is the cornerstone, an absolute requirement that forms the basis for all activities. Realizing workplaces where people can safely work at ease without accidents is an important theme we need to work on to maintain stable supply of products and continue to be trusted by society.

Based on this view, the Kuraray Group develops and operates safety management systems and conducts various activities. We are putting various measures in place to raise employee awareness of safety and establish safe actions and safety checks as routine practices.

2 GHG Emissions

We believe that the Kuraray Group's mission is to manufacture basic and intermediate materials that will contribute to creating a low-carbon and eco-friendly society and minimize their environmental impact as much as possible. Drawing from this philosophy, the Kuraray Group is continuing to conserve the environment by promoting measures to combat global warming, curb chemical emissions, and effective use by adopting global manufacturing.

3 Number of Female Employees / Ratio of Female Employees 4 Number of Female Employees in Managerial Positions / Ratio of Female Employees in Managerial Positions

The Kuraray Group is striving to enhance its organizational strengths by making the most of the abilities of its diverse human resources. From the viewpoint of promoting women's active participation in the workplace, Kuraray is making various efforts with a focus on three points—employing more female employees, expanding areas of their responsibility at work, and improving the retention of female employees.

*2 The account closing date changed from March 31 to December 31 in fiscal 2014. The consolidated financial results for fiscal 2014 covered nine months, from April to December 2014, in Japan and 12 months, from January to December 2014, overseas. Values shown have been corrected as the results for January to December 2014 for both Japan and overseas.



Aiming to Become a Trusted Specialty Chemical Company through the Provision of Sustainable Social Value

A handwritten signature in black ink that reads "Masaaki Ito". The signature is written in a cursive, flowing style.

Masaaki Ito
Representative Director and President

In anticipation of celebrating its centennial in six years, the Kuraray Group is currently focusing on the development of a new business portfolio aiming at sustainable growth, and promoting further growth strategies.

Here, I'd like to introduce the sources of corporate value that the Kuraray Group has been developing since its foundation and the progress of the Medium-Term Management Plan "PROUD 2020."

Originality, the Willingness to Take on Challenges, and the Intention to Provide Value

Since its foundation, the Kuraray Group has been growing by cultivating markets and continuing to offer value to society, while pursuing manufacturing with originality on the back of its technological development capabilities. It can be said that one of its origins is synthetic fiber, KURALON™ (PVA fiber), which we succeeded in commercializing for the first time in the world in 1950 and which celebrates its 70th anniversary this year. At the time, the Japanese fiber and textile industry depended on materials and technologies from overseas; however, our second President, Soichiro Ohara, had a strong belief that we "need to produce materials in order to produce high-quality products" and accomplished internal production of poval resin (PVA resin), which serves as a material, to achieve integrated production with made-in-Japan technology and materials. This shows the consistent corporate stance that we have had since our foundation: creating highly original products that do not exist elsewhere in the world and providing value.

Subsequently, we shifted our business focus from fiber to

chemistry by using technologies in polymer and synthetic chemistry that were acquired through such technology development and production, starting from materials, continued to focus obsessively on originality, and expanded our business, resulting in the creation of many businesses with the world's No.1 share. The percentage of the sales of the businesses with the world's No.1 share to the Group's net sales has grown to as much as 58% today, acting as a driving force that underpins the competitiveness of the Kuraray Group.

In the Corporate Statements, we set out as our mission "For people and the planet—to achieve what no one else can." Those words, which express the intent of the founder, Magosaburo Ohara, and second President, Soichiro Ohara, are at the core of the originality and willingness to take on challenges that Kuraray has been nurturing and represent our commitment to creating value for society. We will continue to share such desire across the Group and strive to create solutions for social issues through business activities, together with society.

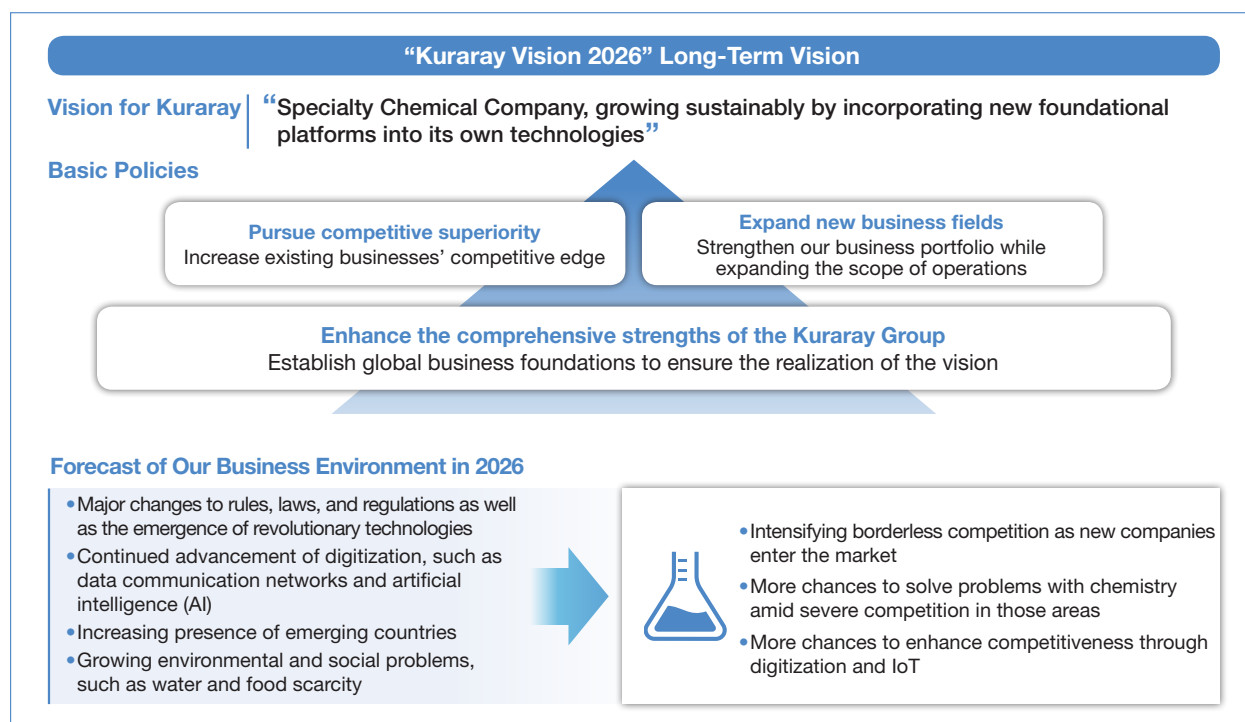
"Targeted Vision" for 2026 as Indicated in the Long-Term Vision

In view of our centenary in 2026, we have set out the long-term vision "Kuraray Vision 2026" that clarifies our targeted vision as a company as well as the Basic Policies for the realization

thereof. Looking ahead to the business environment in the medium to long term, in terms of economic conditions, the presence of emerging countries will progressively increase

amid the progress of technological innovation, including the development of information and communication networks and introduction of AI; on the other hand, environmental and social issues, such as water resource shortages and the food crisis, are predicted to deepen and manifest themselves. At the same time, there is concern over the risk that borderless competition will intensify as a result of new entry by emerging-country companies and start-ups. In such circumstances, I believe the Kuraray Group will have more and more opportunities to apply the power of chemistry to help resolve the challenges and problems that may arise within the business community.

“Kuraray Vision 2026” established a targeted vision of being a “Specialty Chemical Company, growing sustainably by incorporating new foundational platforms into its own technologies,” and set out “Pursue competitive superiority,” “Expand new business fields,” and “Enhance the comprehensive strengths of the Kuraray Group” as its Basic Policies. Toward the realization of “Kuraray Vision 2026,” we will work on further strengthening our vinyl acetate-related business, which is our core segment, establishing the second and third pillars next to such business, and creating new businesses for the future, to build a business portfolio aimed at sustainable growth.



Progress of the Medium-Term Management Plan “PROUD 2020” and Priority Measures for 2020, Its Final Year

The Medium-Term Management Plan “PROUD 2020,” which commenced in fiscal 2018, established four key management strategies: in addition to the Basic Policies of the long-term vision mentioned earlier, “Contribute to the environment.”

During the two years leading up to fiscal 2019, we executed concrete actions for those key management strategies, such as starting the construction of a new plant in Thailand in isoprene, acquiring Calgon Carbon Corporation, which is the largest manufacturer of activated carbon products globally, and realizing integration synergy, with a view to establishing the second and third pillars for the future, to step up our efforts to build a stable future portfolio. In addition, we steadily executed investments for further business expansion in the future, such as adding facilities for optical-use PVA film and water-soluble PVA film. The planned amount of capital expenditure under “PROUD 2020” was determined as ¥250 billion (¥210 billion on a payment basis); however, it is now forecast to amount to close to ¥300 billion, partly because of the addition of the Thai project for isoprene. While we will see a higher burden of depreciation expenses for the time being as the facilities go into operation, we believe those investments aimed at growth

will contribute to “enhanced earnings power” in the future and underpin an additional competitive edge in around 2026, when we celebrate the 100th anniversary of our foundation, and contribute to the realization of a “Specialty Chemical Company, growing sustainably by incorporating new foundational platforms into its own technologies” which is our targeted vision set out in the long-term vision “Kuraray Vision 2026.”

Now in 2020, which is the final year of the Medium-Term Management Plan “PROUD 2020,” we are experiencing a situation where a global economic recession is unavoidable due to the growing spread of the new coronavirus, and the business environment surrounding the Company is predicted to become more severe. Despite this situation, the Kuraray Group intends to carry out measures steadily, from a medium- to long-term perspective, for the remaining issues under the Medium-Term Management Plan “PROUD 2020” and, at the same time, to respond swiftly where a business requires review of its growth strategy in response to changes in the market environment and to continue with the next Medium-Term Management Plan.

Measures Executed in 2019

<p>Pursue competitive superiority</p>	<ul style="list-style-type: none"> • Optical-use PVA film: Completed the expansion of wide-width film lines at Kurashiki Plant • Water-soluble PVA film <ul style="list-style-type: none"> • Started the operation of a new production line at the existing plant in the United States • A new plant in the United States is scheduled to commence operation during 1H of 2020 • Started the production of ionoplast interlayer for glass lamination SentryGlas™ at our Czech plant • Meltblown nonwoven fabrics: Decided on the expansion of production capacity at the Kuraflex Okayama Plant • Promoted initiatives that use IoT to improve production efficiency and quality
<p>Expand new business fields</p>	<ul style="list-style-type: none"> • VECSTAR™ FCCL (Flexible copper clad laminates): Installed trial mass production equipment at the Kashima Plant • Expanded biomass-based barrier material PLANTIC™ <ul style="list-style-type: none"> • Participated in the “G20 Innovation Exhibition” hosted by the Ministry of Economy, Trade and Industry and the Ministry of the Environment • Corporate Marketing Group: Promoted cross-organizational activities aimed at cultivating new uses
<p>Enhance the comprehensive strengths of the Kuraray Group</p>	<ul style="list-style-type: none"> • Promoted integration synergy of the Calgon Carbon Corporation business • Promoted work-style reforms in Japan <ul style="list-style-type: none"> • Introduced the “no overtime week” program on a full-scale basis • Introduced teleworking and flextime

Priority Measures for 2020

<p>Pursue competitive superiority</p>	<ul style="list-style-type: none"> • Water-soluble PVA film: Decided on the construction of a new plant in Poland • EVAL™: Consider investment in a new plant • Calgon Carbon Corporation: Decide on the addition of a new line in the United States • Isoprene chemicals: Proceed with the Thai project steadily • Promote digitalization aimed at improving production efficiency and quality
<p>Expand new business fields</p>	<ul style="list-style-type: none"> • VECSTAR™ (Liquid crystalline polymer film): Accelerate sales and review the introduction of mass-production equipment in anticipation of the spread of 5G • PLANTIC™ (Biomass-based barrier material): Start resin production and supply in the United States
<p>Enhance the comprehensive strengths of the Kuraray Group</p>	<ul style="list-style-type: none"> • Promote the integration of the Calgon Carbon Corporation business to realize further synergy • Prepare for the establishment of a new training center with a view to enhancing the development of talent and ensuring technology succession • Promote work-style reforms in Japan

The Company considers profit distribution to shareholders as a priority management issue, and pays due consideration to returning business accomplishments to shareholders and securing future growth capabilities from a medium- to long-term

perspective to deliver a stable profit return. Our plan during the period of the Medium-Term Management Plan “PROUD 2020” is to provide a total return ratio of 35% or higher and an annual dividend per share of ¥40 or more.

Promoting Initiatives with an ESG Perspective—Aiming to Be a Trusted Company

In recent years, there has been a growing demand for corporate management to carry out proactive initiatives for sustainability and ESG. We not only pay due consideration to the environment and society as a good corporate citizen, but also seek to contribute through the dynamics of chemistry to improving the sustainability of the globe and society as well as our own self-growth.

Based on its mission “for people and the planet—to achieve what no one else can,” the Kuraray Group has been engaging in businesses that contribute to an improved natural environment and quality of life since its foundation. To this end, in our

sustainability activities, we had set our own important issue as materiality* and identified areas to focus on. However, a challenge surfaced in that the existing materiality did not effectively reflect contributions made through businesses; therefore, we updated materiality after having all of the division general managers engage in repeated discussions, including with respect to workability. I believe a challenge for the next Medium-Term Management Plan is to set an index for the degree of contribution to an improved natural environment and living environment, using materiality as an axis. [Refer to p.35](#)

* Materiality refers to important issues related to the Company among those which society wishes to resolve.

In addition, chemical manufacturers are strongly expected to address actions for climate change and the plastic waste problem. With regard to climate change, the Paris Agreement entered the implementation phase from 2020, aiming to preventing global warming, and numerical targets to reduce greenhouse gas (GHG) emissions have been set for each country; however, the plastic waste problem has no definite course of action yet in terms of regulations. We recognize that it is important to show our stakeholders the Kuraray Group's initiatives toward a circular economy. We consider this point as one of the highest-priority issues for the next Medium-Term Management Plan and are proceeding with the study.

Moreover, in recent years, there has been a push for enhanced disclosure of issues that might have significant impacts on business performance out of potential events that are not expressed in a company's consolidated financial statements. One of such movements is the Task Force on Climate-related Financial Disclosures (TCFD), which discloses a company's response to risks and opportunities regarding climate change. We will review the TCFD recommendations carefully and work on the enhancement of information disclosure.

Now, it is each one of our employees who carries out measures to resolve those challenges. I believe a "workplace where people can safely work at ease, and are able to carry out their tasks and exhibit their capabilities while feeling a sense of pride and fulfillment in their work" will lead to an enhanced driving force for a company. As part of the efforts to support this, we have introduced an hourly flextime system, in addition to a telework program and conventional flextime system, to promote the establishment of an environment that is easy to work in. Those measures also play a major role in the business continuity plans in the event of disruptions to usual business execution, such as responding to the outbreak of the new coronavirus that we are facing right now, and will help mitigate impacts related to the Tokyo Olympic Games, which have been postponed until next year.

In addition, we are aggressively working on the enhancement of governance and diversity and inclusion in the workplace. We increased the number of Outside Directors by one (from three to four) and newly appointed a foreign national as Director as well. As a global company, our entire company will strive to build an environment where people with a variety of personalities can shine and thrive.

The Company underwent an on-the-spot inspection in February 2017 by the Fair Trade Commission of Japan in relation to the manufacturing and sale of activated carbon used in water purification facilities, waste incinerators, etc., and was issued a



cease-and-desist order and an administrative monetary penalty payment order under the Antimonopoly Act by the said Commission in November 2019 with regard to the manufacturing and sale of designated activated carbon used in some of the water purification facilities, waste incinerators, etc. in eastern Japan and districts in the Kinki region. We were also issued a cease-and-desist order by the Fair Trade Commission of Japan in March 2017 in relation to the bid participation for designated KURALON™ (PVA fiber) products for which the Acquisition, Technology & Logistics Agency was to place orders.

We seriously and sincerely accept the gravity of the situation of having received cease-and-desist orders due to violations of the Antimonopoly Act on two occasions, consider compliance with the Antimonopoly Act as one of the highest-priority management issues, and are making every effort to prevent recurrence through various measures. Specifically, in addition to the initiatives that we have been working on since fiscal 2017, we are hosting seminars by external speakers for officers of the Company and the Group companies, and those for sales staff in Japan and overseas, as well as transmitting a message from the President again to officers and employees of the entire Group, with a view to strengthening compliance awareness. In addition, we systemized the establishment of internal rules such as the Antimonopoly Act Compliance Guidelines, development of a system that monitors bid participation, etc., interviews on the status of compliance with the Antimonopoly Act, enhancement of education and training, and implementation of bid participation audits as a series of programs to be operated in a consistent manner, including at overseas locations. Further, on the HR front, we made a change to the rotation system for managerial staff to prevent the same person from being in charge of the same duties for more than a certain period of time. We are committed to executing those measures steadily with a view to preventing recurrence. [Refer to p.49](#)

We have also caused our stakeholders a great deal of concern due to the fire accident that occurred at the EVAL™ plant of Kuraray America, Inc. in May 2018. Although the plant resumed operation after taking various measures to prevent recurrence, we have been conducting safety inspections of overseas plants since fiscal 2019 from the perspectives of whether or not we are now incapable of doing what we used to be capable of, whether there is any omission or deficiency in the management items, and whether stable operation over the years may have led to over-confidence and false confidence as to safety, in order to ensure that no such accident occurs ever again. We will address issues extracted therefrom, that is, improvement of the management system, enhancement of education and training, and expansion of risk assessment, one by one. Additionally, in fiscal 2020 and thereafter, we will continue to work on the enhancement of facilities with regard to safety at plants in Japan and overseas, as well as on the soft skills, including the management system, the review and improvement of manuals, and the enhancement of employee education. [Refer to p.24](#)

The Kuraray Group will continue to strive to realize "workplaces where people can safely work at ease without accidents" on a global basis, under the Corporate Statements' guiding principle that "Safety is the cornerstone of everything we do."

Overview of Our Long-Term Vision and the “PROUD 2020” Medium-Term Management Plan

The Kuraray Group’s 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 –

“Kuraray Vision 2026” Long-Term Vision

Vision for Kuraray

Specialty Chemical Company growing sustainably by incorporating new foundational platforms into its own technologies



Pursue competitive superiority

Increase existing businesses’ competitive edge

Expand new business fields

Strengthen our business portfolio while expanding the scope of operations

Enhance comprehensive strength of the Kuraray Group

Establish global business foundations to ensure the realization of the vision

Medium-Term Management Plan “PROUD 2020”

Pursue competitive superiority

- Develop high-value-added products and applications based on customer needs
- Create more demand in emerging countries
- Achieve innovation of production and operational processes through use of the IoT

Medium-Term Management Plan “PROUD 2020”

Making Kuraray a Company That People Can Take Pride In

Expand new business fields

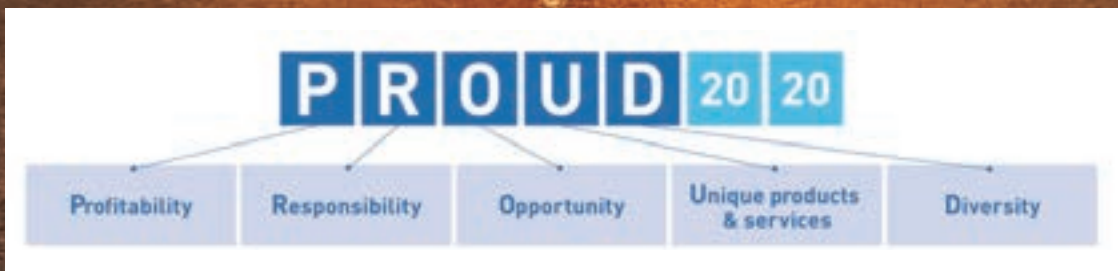
- Create new businesses by improving on Kuraray’s own technologies and incorporating external ones
- Capture new business areas by M&A and alliance
- Establish a new business model bundling technology and services

Enhance comprehensive strength of the Kuraray Group

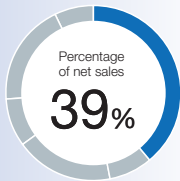
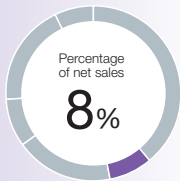
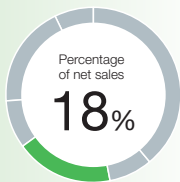
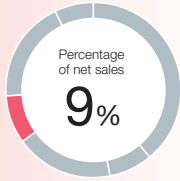
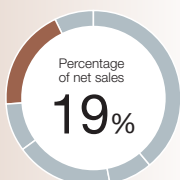
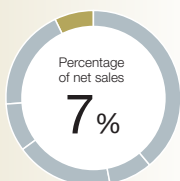
- Establish global business foundations
- Create a workplace in which employees find their job rewarding
- Cultivate a strong culture of unity within the Kuraray Group

Contribute to the environment

- Provide products contributing to environmental protection
- Put in place a production process with a low environmental footprint
- Provide products that help enhance quality of life (QOL)



Business Overview

Segment name	Medium-Term Management Plan / Strategies for Each Business	Review of the Medium-Term Management Plan
Vinyl Acetate 	<p>PVA resin</p> <ul style="list-style-type: none"> Shift to high-value-added products Optimally manage global production operations <hr/> <p>Optical-use PVA film</p> <ul style="list-style-type: none"> Expand and maintain a high market share in line with increasing demand for LCDs Add new functions and enhance workability to satisfy the latest market and customer needs <hr/> <p>Water-soluble PVA film</p> <ul style="list-style-type: none"> Execute the timely expansion of production facilities in step with growth in operations Allocate development resources to new industrial applications <hr/> <p>PVB film</p> <ul style="list-style-type: none"> Bolster the development and sale of highly functional films for automobiles Expand sales of high-strength films for construction <hr/> <p>EVAL™</p> <ul style="list-style-type: none"> Create new demand in emerging countries and boost sales Expand EVAL™-related operations to help reduce food wastage 	<ul style="list-style-type: none"> Further increased the ratio of high-value-added products and propelled global optimizations in the supply chain Strengthened the development of environmentally friendly applications, such as improving the water resistance of paper straws and adding barrier properties to paper packaging materials <hr/> <ul style="list-style-type: none"> Expanded production capabilities at the Kurashiki Plant in response to rising demand for wide films in larger LCDs, and began production <hr/> <ul style="list-style-type: none"> Increased production capabilities in the United States in response to higher demand for unit dose detergent Promoted development activities for new uses, including unit dose for pharmaceuticals, cosmetics, and food <hr/> <ul style="list-style-type: none"> Expanded production and sales of highly functional film on a global basis Began production in Czechia to meet the strong demand for ionoplast interlayers SentryGlas™ for construction <hr/> <ul style="list-style-type: none"> Continued to cultivate demand in emerging countries and expanded sales Proposed extension of expiry dates using EVAL™ for food and retail industries with an aim of expanding business
Isoprene 	<p>Isoprene chemicals</p> <ul style="list-style-type: none"> Pursue expansion of one-of-a-kind products Commercialize new isoprene-based chemicals <hr/> <p>Elastomer</p> <ul style="list-style-type: none"> Build a more sophisticated product portfolio by enhancing their functionalities Expand global sales of liquid rubber <hr/> <p>GENESTAR™</p> <ul style="list-style-type: none"> Expand the range of products for automotive applications, such as components for on-board electronics Develop new polymers 	<ul style="list-style-type: none"> Maintained stable sales of one-of-a-kind products, such as MMB and MPD <hr/> <ul style="list-style-type: none"> As environmental awareness grew, marketing for SEPTON™ BIO-series gained momentum Expanded the adoption of liquid rubber by tire manufacturers <hr/> <ul style="list-style-type: none"> Opened an office in Detroit in the United States and increased the number of sales staff in Europe to meet the global demand for automotive applications, such as components for on-board electronics Developed a new polyamide resin with functionality
Functional Materials 	<p>Methacrylic</p> <ul style="list-style-type: none"> Expand the sales of newly developed products, such as emulsion polymerized resin and multi-layered substrates Bolster sales of highly functional grades of optical-use resin <hr/> <p>Medical</p> <ul style="list-style-type: none"> Expand sales of CAD/CAM products (e.g., zirconia blocks) Upgrade communication of information to users (dentists and dental technicians) <hr/> <p>Carbon materials</p> <ul style="list-style-type: none"> Swiftly achieve synergy via collaboration with Calgon Carbon Corporation Expand the range of products for automobile canisters Expand the sales of products for battery applications (capacitors and lithium-ion batteries) 	<ul style="list-style-type: none"> Continued to steadily increase the adoption of multi-layered substrates, mainly for automotive applications, and completed the launch of a new emulsion polymerization line for flexible material Bolstered sales of highly functional grades of optical film <hr/> <ul style="list-style-type: none"> Expanded sales of zirconia blocks mainly in North America and launched new cement products for use in conjunction with CAD/CAM products Promoted communication of information through seminars and video distribution <hr/> <ul style="list-style-type: none"> Moved forward with the integration by streamlining sales bases that overlap with Calgon Carbon Corporation and consolidating production sites for activated carbon from bituminous coal, among other activities Established a new production line at Calgon Carbon Corporation for applications in automobile canisters and achieved progress in global market development
Fibers and Textiles 	<p>CLARINO™</p> <ul style="list-style-type: none"> Roll out products targeting luxury brands Achieve full-scale entry into the automobile interior market <hr/> <p>Fiber materials</p> <ul style="list-style-type: none"> Promote the VIP project for KURALON™ Expand the VECTRAN™ business <hr/> <p>Lifestyle materials</p> <ul style="list-style-type: none"> Expand sales of new meltblown nonwoven fabrics Accelerate expansion into Southeast Asia 	<ul style="list-style-type: none"> Achieved progress with adoption by luxury brands, and increased the sales volume Promoted customer evaluation of automobile interior applications to win orders <hr/> <ul style="list-style-type: none"> Expanded the adoption of KURALON™ for industrial filaments due to full-scale operations of mass-production facilities with revolutionary production process VIPs Achieved progress in expanding high-value-added applications of VECTRAN™ <hr/> <ul style="list-style-type: none"> Grew sales of high-value-added products in the meltblown nonwoven fabric business Promoted overseas expansion of high-value-added products, such as nonwoven fabrics for face mask and molded plastic hook fasteners MAGILOCK™
Trading 	<ul style="list-style-type: none"> Increase the scale of business in Asia <hr/> <ul style="list-style-type: none"> Expand revenue in the fibers and textiles business <hr/> <ul style="list-style-type: none"> Strengthen initiatives with leading customers <hr/> <ul style="list-style-type: none"> Launch new businesses 	<ul style="list-style-type: none"> Achieved progress in strengthening integrated production covering everything from raw materials to products, as well as progress in creating high value added in Vietnam <hr/> <ul style="list-style-type: none"> Recorded progress with the development of customers and applications for resin and synthetic products mainly in Asia
Others 	<ul style="list-style-type: none"> Accelerate market cultivation of products from new businesses 	<ul style="list-style-type: none"> Decided to introduce pre-mass production facilities for flexible copper clad laminates VECSTAR™ FCCL in anticipation of market expansion for high-speed communication devices <hr/> <ul style="list-style-type: none"> Expanded the adoption of polishing pads for semiconductors, mainly within Japan

Segment name	Net sales (Millions of yen)	Operating income (Millions of yen)																
<p>Vinyl Acetate</p> <p>In this business, we manufacture and sell PVA resin, which features water solubility and adhesive properties, PVA film, which can be applied to LCDs and is also used for unit dose detergents and so on; PVB film used as an interlayer for laminated glass; and EVAL™, which has an excellent gas barrier property.</p>	<table border="1"> <tr><th>Year</th><th>Net sales (Millions of yen)</th></tr> <tr><td>2017</td><td>266,894</td></tr> <tr><td>2018</td><td>279,379</td></tr> <tr><td>2019</td><td>266,105</td></tr> </table>	Year	Net sales (Millions of yen)	2017	266,894	2018	279,379	2019	266,105	<table border="1"> <tr><th>Year</th><th>Operating income (Millions of yen)</th></tr> <tr><td>2017</td><td>61,619</td></tr> <tr><td>2018</td><td>54,739</td></tr> <tr><td>2019</td><td>47,368</td></tr> </table>	Year	Operating income (Millions of yen)	2017	61,619	2018	54,739	2019	47,368
Year	Net sales (Millions of yen)																	
2017	266,894																	
2018	279,379																	
2019	266,105																	
Year	Operating income (Millions of yen)																	
2017	61,619																	
2018	54,739																	
2019	47,368																	
<p>Isoprene</p> <p>In this business, we manufacture and sell synthetic isoprene chemical products; and SEPTON™, a thermoplastic elastomer that is a derivative of synthetic isoprene chemical products; as well as GENESTAR™, a new polyamide resin with excellent heat resistance.</p>	<table border="1"> <tr><th>Year</th><th>Net sales (Millions of yen)</th></tr> <tr><td>2017</td><td>56,366</td></tr> <tr><td>2018</td><td>57,207</td></tr> <tr><td>2019</td><td>53,276</td></tr> </table>	Year	Net sales (Millions of yen)	2017	56,366	2018	57,207	2019	53,276	<table border="1"> <tr><th>Year</th><th>Operating income (Millions of yen)</th></tr> <tr><td>2017</td><td>9,010</td></tr> <tr><td>2018</td><td>7,272</td></tr> <tr><td>2019</td><td>4,232</td></tr> </table>	Year	Operating income (Millions of yen)	2017	9,010	2018	7,272	2019	4,232
Year	Net sales (Millions of yen)																	
2017	56,366																	
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Year	Operating income (Millions of yen)																	
2017	9,010																	
2018	7,272																	
2019	4,232																	
<p>Functional Materials</p> <p>In this business, we manufacture and sell methacrylate resin, which boasts excellent weather resistance; dental materials which enable repairs that closely resemble natural teeth; activated carbon, whose adsorption properties are used to purify water and air; equipment for water treatment; and others.</p>	<table border="1"> <tr><th>Year</th><th>Net sales (Millions of yen)</th></tr> <tr><td>2017</td><td>55,199</td></tr> <tr><td>2018</td><td>131,533</td></tr> <tr><td>2019</td><td>125,982</td></tr> </table>	Year	Net sales (Millions of yen)	2017	55,199	2018	131,533	2019	125,982	<table border="1"> <tr><th>Year</th><th>Operating income (Millions of yen)</th></tr> <tr><td>2017</td><td>6,665</td></tr> <tr><td>2018</td><td>4,396</td></tr> <tr><td>2019</td><td>3,836</td></tr> </table>	Year	Operating income (Millions of yen)	2017	6,665	2018	4,396	2019	3,836
Year	Net sales (Millions of yen)																	
2017	55,199																	
2018	131,533																	
2019	125,982																	
Year	Operating income (Millions of yen)																	
2017	6,665																	
2018	4,396																	
2019	3,836																	
<p>Fibers and Textiles</p> <p>In this business, we manufacture and sell CLARINO™, a man-made leather with a structure and functionality as elaborate as natural leather; vinylon fiber, used in reinforcement materials for concrete and automotive-related components; KURAFLEX™ nonwoven fabric, used for lifestyle products and industrial materials; and MAGIC TAPE™ hook-and-loop fasteners.</p>	<table border="1"> <tr><th>Year</th><th>Net sales (Millions of yen)</th></tr> <tr><td>2017</td><td>66,369</td></tr> <tr><td>2018</td><td>64,716</td></tr> <tr><td>2019</td><td>64,513</td></tr> </table>	Year	Net sales (Millions of yen)	2017	66,369	2018	64,716	2019	64,513	<table border="1"> <tr><th>Year</th><th>Operating income (Millions of yen)</th></tr> <tr><td>2017</td><td>7,551</td></tr> <tr><td>2018</td><td>6,279</td></tr> <tr><td>2019</td><td>5,654</td></tr> </table>	Year	Operating income (Millions of yen)	2017	7,551	2018	6,279	2019	5,654
Year	Net sales (Millions of yen)																	
2017	66,369																	
2018	64,716																	
2019	64,513																	
Year	Operating income (Millions of yen)																	
2017	7,551																	
2018	6,279																	
2019	5,654																	
<p>Trading</p> <p>In this business, we manufacture and sell polyester and other fiber and textile products, as well as sell the Kuraray Group's products in Japan and other parts of Asia.</p>	<table border="1"> <tr><th>Year</th><th>Net sales (Millions of yen)</th></tr> <tr><td>2017</td><td>131,734</td></tr> <tr><td>2018</td><td>138,848</td></tr> <tr><td>2019</td><td>130,911</td></tr> </table>	Year	Net sales (Millions of yen)	2017	131,734	2018	138,848	2019	130,911	<table border="1"> <tr><th>Year</th><th>Operating income (Millions of yen)</th></tr> <tr><td>2017</td><td>3,924</td></tr> <tr><td>2018</td><td>4,215</td></tr> <tr><td>2019</td><td>4,224</td></tr> </table>	Year	Operating income (Millions of yen)	2017	3,924	2018	4,215	2019	4,224
Year	Net sales (Millions of yen)																	
2017	131,734																	
2018	138,848																	
2019	130,911																	
Year	Operating income (Millions of yen)																	
2017	3,924																	
2018	4,215																	
2019	4,224																	
<p>Others</p> <p>In this business, we manufacture and sell highly functional membranes and systems used in water treatment, and conduct the engineering business, as well as manufacture and sell VECSTAR™, a liquid crystalline polymer film used mainly for flexible circuit boards.</p>	<table border="1"> <tr><th>Year</th><th>Net sales (Millions of yen)</th></tr> <tr><td>2017</td><td>51,399</td></tr> <tr><td>2018</td><td>58,025</td></tr> <tr><td>2019</td><td>51,128</td></tr> </table>	Year	Net sales (Millions of yen)	2017	51,399	2018	58,025	2019	51,128	<table border="1"> <tr><th>Year</th><th>Operating income (Millions of yen)</th></tr> <tr><td>2017</td><td>3,022</td></tr> <tr><td>2018</td><td>1,178</td></tr> <tr><td>2019</td><td>649</td></tr> </table>	Year	Operating income (Millions of yen)	2017	3,022	2018	1,178	2019	649
Year	Net sales (Millions of yen)																	
2017	51,399																	
2018	58,025																	
2019	51,128																	
Year	Operating income (Millions of yen)																	
2017	3,022																	
2018	1,178																	
2019	649																	

KURARAY POVAL™, ELVANOL™ (PVA resin)



Paper/fiber processing agents, adhesives, stabilizer for polyvinyl chloride polymerization and others

TROSIFOL™ (PVB film and Ionoplast interlayer)



Interlayer film for safety glass

Optical-use PVA film



Polarizers for LCDs and others

Water-soluble PVA film



Unit dose detergents and others

EVAL™ (EVOH resin)



Food packaging, automotive fuel tanks, stain-resistant wallpaper, vacuum insulation panels, and others

PLANTIC™ (Bio-based gas barrier material)



Food packaging materials

Isoprene chemicals



Cleaner, aroma chemical and cosmetic ingredients, pharmaceutical and agricultural intermediates, and others
* One-of-a-kind products derived from synthetic isoprene (MMB, MPD, etc.)

SEPTON™ (Thermoplastic elastomer)



Substitute for rubber, automobile parts, electronic parts, stationery, toys, sporting goods, and others

Liquid rubber



Additive agent for automobile tires and others

KURARITY™ (Acrylic thermoplastic elastomer)



Adhesives, molding materials and others

GENESTAR™ (Highly heat-resistant polyamide resin)



Electronic parts of smartphones and personal computers, LED reflector applications, automobile parts, and others

Methacrylic resin



Light guide plates for LCDs, automobile parts, signboards, construction materials, and others

Dental materials



Various organic and inorganic dental materials

Activated carbon



Water purification, wastewater treatment, capacitor electrode materials, and others

CLARINO™ (Man-made leather)



Men's and women's shoes, bags, athletic footwear, inflatable sports balls, and others

KURALON™ (PVA fiber)



Reinforcing material for cement and concrete, automotive brake hoses, and others

KURAFLEX™ (Nonwoven fabrics)



Daily goods, industrial products (wipers, filtration media, automobile applications), and others

MAGIC TAPE™ (Hook-and-loop fastener)



Clothing, sporting goods, industrial materials, and others

VECTRAN™ (High-strength polyarylate fiber)



Aerospace, composites, electronic components, ropes, sporting goods, and others

Polyester long filament

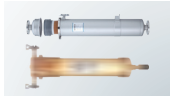


Yarn and fabric for clothing and materials, sportswear, uniforms, and others

Kuraray Group's products

A wide range of high-performance products and processed products of the Kuraray Group

Aqua business



Water purification, wastewater treatment, ballast water management system, and others

VECSTAR™ (Liquid crystalline polymer film)



High-speed signal transmission flexible printed circuit boards and others



Key Person Interview 1

Toward a Business That Solves Customers' Environmental Challenges and Contributes to Society

Stevan R. Schott

Executive Officer,
General Manager of Calgon Carbon Division,
President of Calgon Carbon Corporation

Overview of Calgon Carbon Corporation

Founded in 1942, Calgon Carbon is an activated carbon manufacturer headquartered in Pittsburgh, Pennsylvania, U.S.A. Today, it is a global leader in the manufacture of activated carbon from bituminous coal with over 1,400 employees managing sales and production bases across the globe, and is also among the top players globally in reactivation services for spent activated carbon and sales of activated carbon from coconut shells. To strengthen its activated carbon portfolio further, it acquired a production facility for activated carbon from wood in Parentis-en-Born, France in 2016. From that acquisition, Calgon Carbon was able to offer a comprehensive line of activated carbon, including wood activated carbons; enabling them to supply products to a wider range of applications as a true market leader.

Additionally, through its acquisition by Kuraray in March 2018, Calgon Carbon gained a new advantage and further enhanced its presence in activated carbon-related markets,

particularly throughout Asia. The integration with Kuraray's Carbon Materials Division has been under way for the past two years, producing favorable results steadily. We are promoting business integration while creating new value by sharing and integrating technological capabilities and know-how possessed by both companies in areas such as research & development, manufacturing, and sales.



Calgon Carbon headquartered in Pittsburgh, Pennsylvania, U.S.A.

Contributing to the Achievement of "PROUD 2020" through Growth and Synergy

As a member of the Kuraray Group, Calgon Carbon is cognizant of two challenges in executing the "PROUD 2020" Medium-Term Management Plan.

The first is "growth." We are pushing forward with initiatives to accelerate growth in various locations, including our efforts in France to strengthen the business of activated carbon from wood, having our sights fixed on global automotive markets. Demand for activated carbon has been increasing in various countries throughout the world spurred on by global environmental issues. In particular, in the United States, we expect our sales of activated carbon and related equipment in the drinking water segment to almost double compared to five years ago by the time "PROUD 2020" completes, in response to

increased demand for activated carbon in the segment due to stricter regulations for certain chemicals affecting drinking water in recent years, and are considering to increase the production of activated carbon from bituminous coal to serve drinking water and other markets that are expected to continue growing globally.



CALFLEX™ (activated carbon sheet)



ZORFLEX™ (activated carbon cloth used for wound care)

We are also working to enter new domains and expand a group of new products that can be expected to grow going forward, such as developing CALFLEX™, an activated carbon sheet, and promoting sales of our ZORFLEX™ activated carbon cloth used for wound care applications.

Calgon Carbon intends to contribute to the steady growth of the Kuraray Group as a whole by carrying out these measures.

The second is “synergy.” Kuraray and Calgon Carbon Corporation are working to share resources and build a collaborative system in a manner where the strengths of each of our companies can be put to good use, which should lead to the early realization of various synergies. For example, with regards to the production of activated carbons for automobile markets, introducing Kuraray’s production technology along with research & development capabilities is allowing us to develop high-quality products.

Additionally, in Japan, we are working to enhance thermal processes, aiming to further improve the performance of our activated carbons.

On the sales front, we transferred business dealings with Calgon Carbon’s Japan and Asia-based customers to



Kuraray, while transferring Kuraray’s Carbon Materials customers in the United States and Europe to Calgon Carbon, to achieve improved efficiency in customer response and to better position us for future growth.

In addition, both companies seek to foster a sense of unity by gaining an understanding of each other’s corporate culture and business practices and building harmonious ties through personnel and technology exchanges. Going forward, we will create additional synergies and contribute to the expansion of the Group’s businesses through the joint development of products targeting growth markets.

Elevating Carbon Materials Business to One of the Group’s Core Businesses

We believe a role that Calgon Carbon, the largest player in activated carbon globally, should play within the Kuraray Group, which has a number of products with a leading market share, is to become one of the Group’s core businesses through business integration with the Carbon Materials Business Division. Toward the realization thereof, we will grow our industry-leading position by capturing the needs of global activated carbon markets with a long-term perspective and expand our business through innovation.

The mission of Calgon Carbon is to provide safe, clean water and air to society through activated carbon and solve environmental issues that customers are facing. Such contribution to the environment also conforms with Kuraray’s Corporate Statements. In particular, our industry leading reactivation services for the recycling and reuse of granular activated

carbon can be said to be a business that contributes significantly to environmental protection because this not only reduces waste but also involves less energy consumption and lower carbon dioxide emissions relative to the commonly used virgin activated carbon manufacturing processes. In fact, as demand for reactivated carbon is growing in Europe and the United States, Calgon Carbon is considering expanding its facilities for recycling and reactivating granular activated carbon.

The Kuraray Group has been making contributions to society for many years through its businesses that help solve environmental issues. We will further enhance our position as a leader in the activated carbon market through the integration with Kuraray’s Carbon Materials Division and walk hand in hand with the Group while setting to “achieving what no one else can” for the environment as our mission.

System of Reactivation Business for Activated Carbon



Key Person Interview **2**

Pursuing Further Growth and Originality as the Kuraray Group's Founding Business

Yoshimasa Sano

Director and Senior Managing Executive Officer,
President of Fibers and Textiles Company

Fibers and Textiles Company That Originated from Our Founding Business

Kuraray's Fibers and Textiles Company has three divisions: the Fibers and Industrial Materials Division, which accomplished the commercialization of KURALON™, a national-level project at that time, at the current Okayama Plant in 1950 and celebrates the 70th anniversary of KURALON™ operations in 2020. The Clarino Division that makes CLARINO™ man-made leather, which became the first in the world to succeed in the commercialization of a substitute for natural leather in 1964. The Consumer Goods and Materials Division, which consists of Kuraray Kuraflex Co., Ltd., which introduced the latest cutting-edge nonwoven fabric technology at that time in Japan, and Kuraray Fastening Co., Ltd., which manufactures and sells hook-and-loop fasteners called MAGIC TAPE™. It was created in 1984 through an absorption-type merger with Nippon Velcro Co., Ltd.

The founding business of the Kuraray Group is rayon (regenerated cellulose fiber); however, KURALON™ has become the major product of Fibers and Industrial Materials Division and the origin of the elemental technology of the Kuraray Group. The commercialization of KURALON™ originated from the strong desire of President Soichiro Ohara to be the first in the world to commercialize synthetic fiber after the war. KURALON™ has been widely used for seaweed cultivation nets and fishing nets, etc., improving the productivity of the fishing industry considerably. Additionally, its superior alkaline resistance has allowed it to be used widely as a reinforcing agent for cement,

mortar, etc. and as a substitute fiber for asbestos, which is carcinogenic.

Following the successful commercialization of the entirely domestically-produced synthetic fiber KURALON™, CLARINO™ man-made leather was born as "post-KURALON™." CLARINO™, which is light weight, highly durable, and has a long life, has been adopted in a wide range of areas including school backpacks, sports shoes, golf equipment, and interior materials for luxury cars, and is highly regarded for its high-end functionality and quality by luxury brand manufacturers globally.

Further, nonwoven fabric KURAFLEX™ is highly valued for its high quality and hygiene for use in business-use counter cloths, cosmetic items, masks, and so on. Additionally, MAGIC TAPE™ maintains stable demand in various markets as the top Japanese brand.



Okayama Plant

Pursuing Proprietary Technologies and Developing High-Value-Added Products

The Kuraray Group has a corporate culture that pursues proprietary technologies to develop high-value-added products.

Fibers and Industrial Materials Division developed KURALON K-II™, which was produced using the world's first solvent/wet cooled-gel spinning method acquired

through the commercialization of KURALON™, and is adopted in water-soluble nonwoven fabric used in an embroidery process as well as high-strength cement reinforcement materials. It also accomplished the efficient production of industrial filaments by developing VIP (Vinylon Innovative Process), a revolutionary manufacturing process, thereby broadening the scope of the domains of its adoption primarily around the uses for rubber materials. It commercialized high-strength polyarylate fiber VECTRAN™ as a new functional fiber for the first time in the world in 1990, which added to the available options for materials, and its superior characteristics such as low moisture absorption, high tenacity, superior dimensional stability, and high abrasion resistance enable it to contribute to the development of various industries.

The Clarino Division developed CATS (Clarino Advanced Technology Systems), a new production system, in addition to developing materials with a texture like that of natural leather and improved functionality. Its environmentally friendly products that achieve reductions in VOC (volatile organic compounds), which match the needs of environmentally conscious customers, have earned a high reputation.

In the Consumer Goods and Materials Division, Kuraray Kuraflex Co., Ltd. developed meltblown nonwoven fabrics that have been utilized in mask filters and coffee filters for which superior filtration efficiency is required. Kuraray Fastening Co., Ltd. developed molded hook fasteners with at least three times the adhesive strength of previous hook-and-loop fasteners, MAGILOCK™, which are used in a wide range of industrial material areas.



VECTRAN™ (Ropes, cables, slings, etc.)

Building a Portfolio of High Value-Added Products toward the Beginning of a New Era for the Fibers and Textiles Business

The Kuraray Group's current "PROUD 2020" Medium-Term Management Plan sets out as its basic policy that it seeks to contribute to society through the provision of high-performance, highly functional, distinctive products manufactured through a process optimal for the environment and cost with production/development/sales working together as one, and that it seeks to grow in a sustainable manner.

Organizationally, we want to transform ourselves into an organization with high expectations for the potential of changing the future, accepting diversity, and allowing ourselves to take on challenges even further, so that we maintain a heightened perspective that goes beyond an extension of what we have been doing, particularly in the current times of uncertainty.

On the product front, we strive to offer precise solutions to social issues. For example, while digital transformation is getting under way in various industries with the commencement of the fifth generation of high-speed communication, the value of high-strength polyarylate fiber VECTRAN™ and ultra-thin nonwoven fabric VECRUS™ is becoming more recognized in the optical cable and electrical and electronic areas related thereto, and we will further enhance our supply system and technological

capabilities to expand sales. The value of CLARINO™ and MAGIC TAPE™ is also increasing further as environmentally friendly products. Going forward, we intend to develop products using recycled materials and biomass materials, among other things, to make significant contributions to building a circular society. As for KURALON™ and KURALON K-II™, we will implement new measures, such as improving performance, reducing costs through process innovation, and developing a mechanism to help accelerate sales, in order to achieve further expansion in the existing areas such as FRC (fiber reinforced cement) and rubber materials.

We will celebrate the 100th anniversary of our foundation in 2026. Toward the anniversary, on the premise of an expansion strategy, we will work on the development of competitive products using unique materials and sales activities with the intention of "further enhancing the added value and functions of a fiber string," which should be appropriate for the fibers and textiles business of a Specialty Chemical Company. We will strive to build a portfolio of high-value-added products, which should lead to the beginning of a new era for the fibers and textiles business.



Key Person Interview 3

Aiming to Realize the Safe and Stable Production of the Plants and Hone Our Technological Capabilities

Akira Omura

Managing Executive Officer,
Officer Responsible for Technology Division, Officer
Responsible for Plants in Japan, Officer Responsible for
Environmental and Industrial Safety Management Center

Organization and Mission of the Technology Division

As the market environment surrounding economic activities is changing rapidly and growing increasingly severe as its needs are becoming more diversified and advanced, intensifying the technological competition within the industry, the superiority and competitiveness of our products are being tested. Not only paying due consideration to the global environment but also supplying high-quality products in a timely manner as part of a manufacturer's responsibility and achieving a high level of productivity and safety in the manufacturing process are expected.

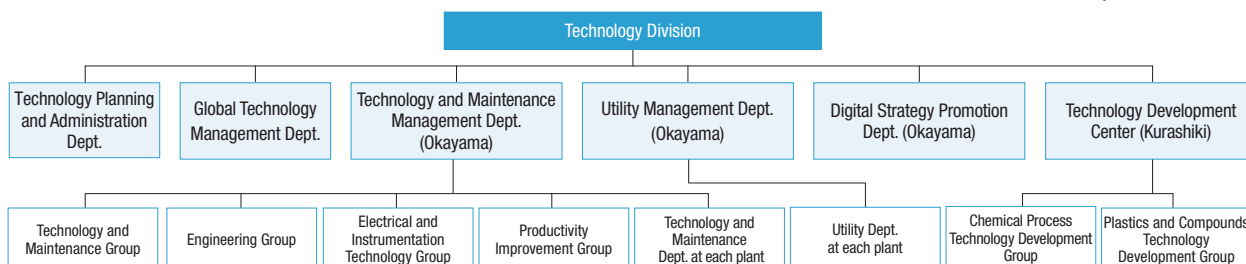
In order to respond to those demands, the Technology Division works to establish a system that enables the stable supply of competitive products by strengthening our technological platform through technology development and capital investment in domestic manufacturing activities as well as the development of engineers, and contributes to the expansion and globalization of the Company's core businesses, as well as the early creation and development of new businesses. In addition, at overseas bases, we have an organizational structure in place that consists of the Technology and Maintenance Management Department/Technology and Maintenance Department, Utility Management Department/Utility Department, Digital Strategy Promotion Department, Global Technology

Management Department, and Technology Development Center, with a view to supporting the development of new technologies, promoting new plant construction projects, and providing advanced technical assistance for facility management and troubleshooting.

In particular, the Technology Development Center is working to develop production technologies and processes aiming at the creation of new businesses and enhancement of the core business. The Chemical Process Technology Development Group is in charge of development of chemicals/polymers area, and the Plastics and Compounds Technology Development Group is in charge of development of molding area including film sheet and fiber. We work on process development based on principles and promote efficient and highly precise development, while making good use of CAE techniques (including thermo-fluid analysis and structural analysis) and process simulation techniques, to support the development efforts of the respective businesses and Research and Development Divisions.



CAE analysis



Introduction and Promotion of Digital Technologies

Digital technologies have been spreading throughout society at an amazing speed, and their introduction is

growing in scope in the chemical industry as well. The Company is also introducing digital technologies

aggressively to realize stable supply through improved operational efficiency and productivity, and in R&D activities for developing new materials.

The Company established the Digital Strategy Promotion Department within Technology Division in 2018 as the first step to initiate verification of the effects of various themes under which digital technologies were introduced.

In the production technology area, we are aiming to replace operations that depend on skilled workers, such as the prediction of abnormalities, estimation of causes of abnormalities, and visual inspection of products at production plants, with digital technologies. In addition, we have

started to run cutting-edge digital tools, such as AI, on a trial basis for technology succession and improved operational efficiency. We will strive to increase the scope and depth of the application of digital technologies, keeping the development of digital talent in mind as well.

In the R&D area, we are working on the verification of MI (Material Informatics). MI is an analytical technology that predicts unknown physical property values based on existing experimental data and through machine learning, or that proposes ideas for material design to obtain desired physical properties, and is currently in the experimentation and verification stage.

Technical Assistance for Solving Issues

A fire caused injuries broke out at a plant in the United States for EVAL™ in May 2018. The Technology Division launched initiatives with regard to the improvement of safety levels at overseas plants, together with the Vinyl Acetate Resin Company, which is in charge of that business. In fiscal 2019, under the support of the Technology Division, the Vinyl Acetate Company led the safety audits of each company outside of Japan, which identified the following three issues, and is working to revise safety measures and provide technical assistance.

- (1) Improvement of the management system
- Revise concrete methods for change management and ensure post-change confirmation
 - Further clarify the authority in writing to grant permission and approval for specific work by adding concrete situation

- (2) Enhancement of training and drills
- Further enhance training provided for higher risk items (sources of danger) at plants
 - Revise and improve the emergency response manual, and ensure that employees are completely familiar with its contents
- (3) Expansion of risk assessment
- Introduce HAZOP (discovering and responding to sources of danger) to non-regular (start-up, shut-down) work
 - Reduce the number of work operations that have not been standardized in writing to zero

Additionally, from 2020 onward, we plan to roll out those improvement support activities to other overseas bases, including Calgon Carbon Corporation, which is a new member of the Kuraray Group, and a new isoprene-related plant currently under construction in Thailand.

The Technology Division for a “Specialty Chemical Company with Sustainable Growth”

In order to thrive in a market environment that is rapidly changing due to the progress of digital innovation and intensifying global competition, it is necessary to take on the challenges of integrating various technologies beyond the boundaries of industry sectors/domains as well as technology innovation to create new businesses for future growth, in addition to further strengthening the competitiveness of core businesses.

The creation of new businesses requires “timely development of production technologies that underpin differentiated products” with absolute competitiveness, and the Technology Division is working on the development of production processes swiftly and precisely in a cross-organizational project structure while making good use of simulation techniques. Further, with regard to the enhancement of the competitiveness of the core businesses, we steadily undertake capital investment required for further expansion of the core businesses, as we constantly work to strengthen our safety capability, provide a safe work environment, and ensure appropriate facility management as well as the maintenance and upgrading of aging facilities under the guiding principle,

“Safety is the cornerstone of everything we do.” In addition, we will promote initiatives for increased productivity, quality improvement, cost reduction, increased operational efficiency, and improved work styles by applying new technologies, including digital technologies.

As generational change is progressing and the number of overseas bases continues to increase, we believe it is also important to develop engineers who will shoulder the responsibility of the next generation. To that end, we provide training for technology development techniques, facility design operation, etc. in a planned manner and implement systematic rotation, such as assignment to overseas bases and project participation, which is intended to have engineers experience appropriate careers.

We will continue to aspire to be a “Specialty Chemical Company with sustainable growth” and become a company that is trusted by society, where all people can feel comfortable working, and also strive to hone our technological capabilities so that we can provide the world with technologies that help realize the safety and stable production of production plants.

Celebrating the 70th Anniversary of the Commercialization of KURALON™

In 2020, Kuraray's KURALON™ (PVA fiber) business celebrates its 70th anniversary. We look back at the commercialization of the world's first synthetic fiber, KURALON™, the origin of the Kuraray Group.

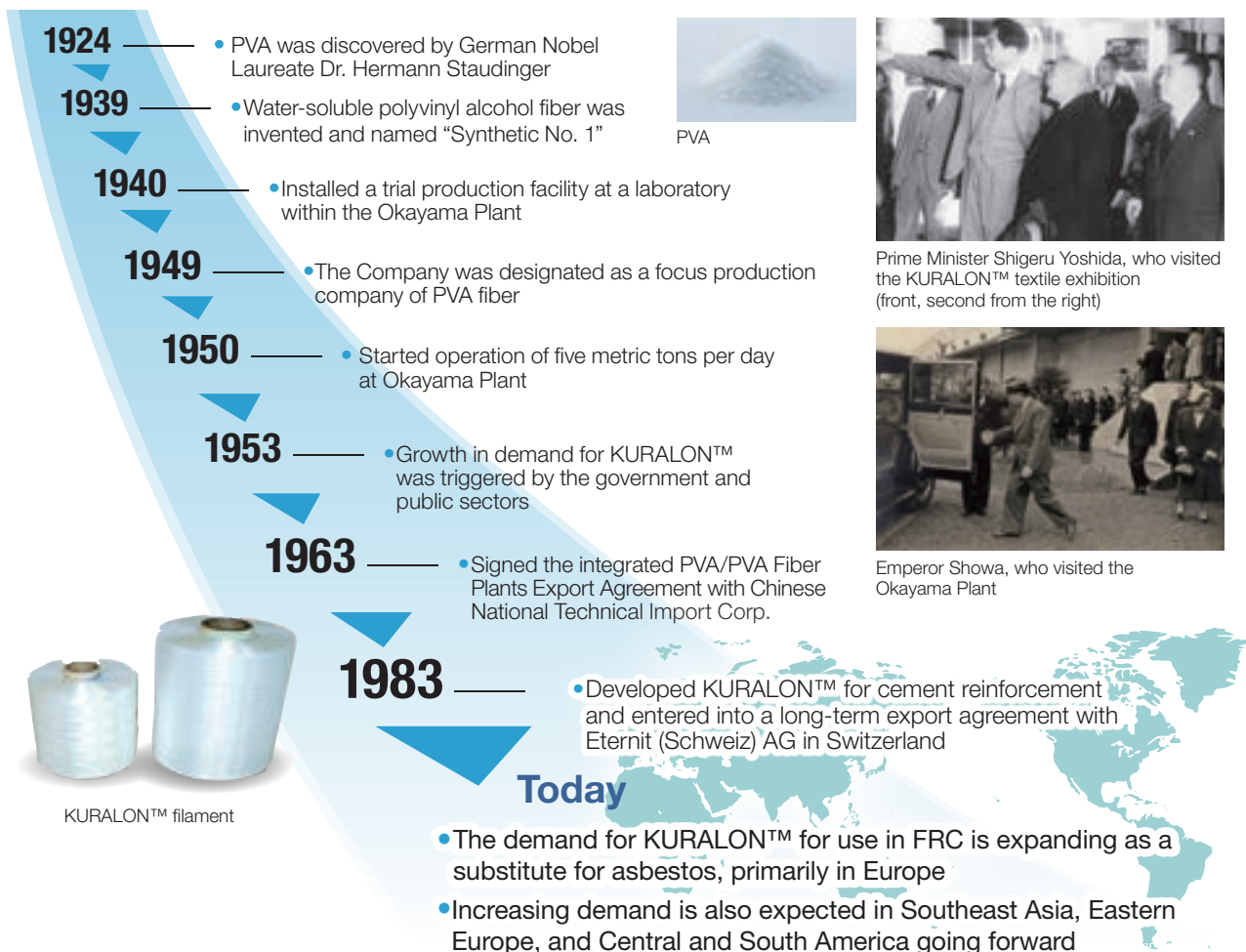
The World's First Commercialization of KURALON™ Served as a Springboard for Japan's Restoration

Kuraray commercialized synthetic fiber, KURALON™, for the first time in the world in 1950. It was Kuraray's second President, Soichiro Ohara, who decided to work on the commercialization of KURALON™, which became the first synthetic fiber made in Japan, by using Japan-made carbide rather than depending on the introduction of overseas technologies. The commercialization of KURALON™, for which funds totaling as much as six times the amount of Kuraray's capital stock at that time were invested, helped Japanese people to regain the confidence that they had lost due to World War II. The Company achieved mass production of PVA resin, a material for KURALON™, and succeeded in developing an extra strength KURALON™ fiber after proprietary research. It established an impregnable position in the uses for clothing, and in the agricultural and fishing industries, such as "KURALON™ student uniforms" and "CREMONA™ fishing nets," and grew to account for more than half of the Company's total revenue in 1959.

The Company exported integrated PVA/PVA fiber plants to China in 1965, before the normalization of diplomatic ties. Behind this was President Ohara's desire to provide a source of livelihood for people in China, which had a shortage of fiber, and to help China rebuild after the war.

Subsequently, the Company worked aggressively to develop new uses of KURALON™ by capitalizing on its properties, such as high tenacity, a high elasticity rate, hydrophilicity, and resistance to chemicals and weather, which has led to an expansion of demand in the industrial materials sector in particular, including for uses in FRC (fiber-reinforced cement) as a substitute for asbestos, the use of which is increasingly restricted globally led by Europe, paper manufacturing (such as use in alkaline manganese battery separator), rubber reinforcement for automotive oil brake hoses, etc., and as fire-resistant agents.

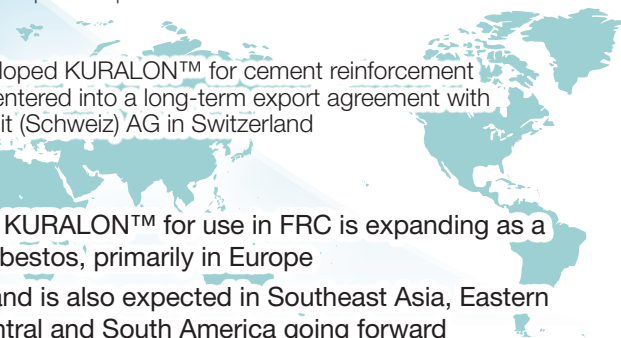
History of KURALON™ (The Road to the Development and Evolution of Its Uses)



Prime Minister Shigeru Yoshida, who visited the KURALON™ textile exhibition (front, second from the right)



Emperor Showa, who visited the Okayama Plant





Business Development of the Kuraray Group, Which Was Transformed with KURALON™ as a Starting Point

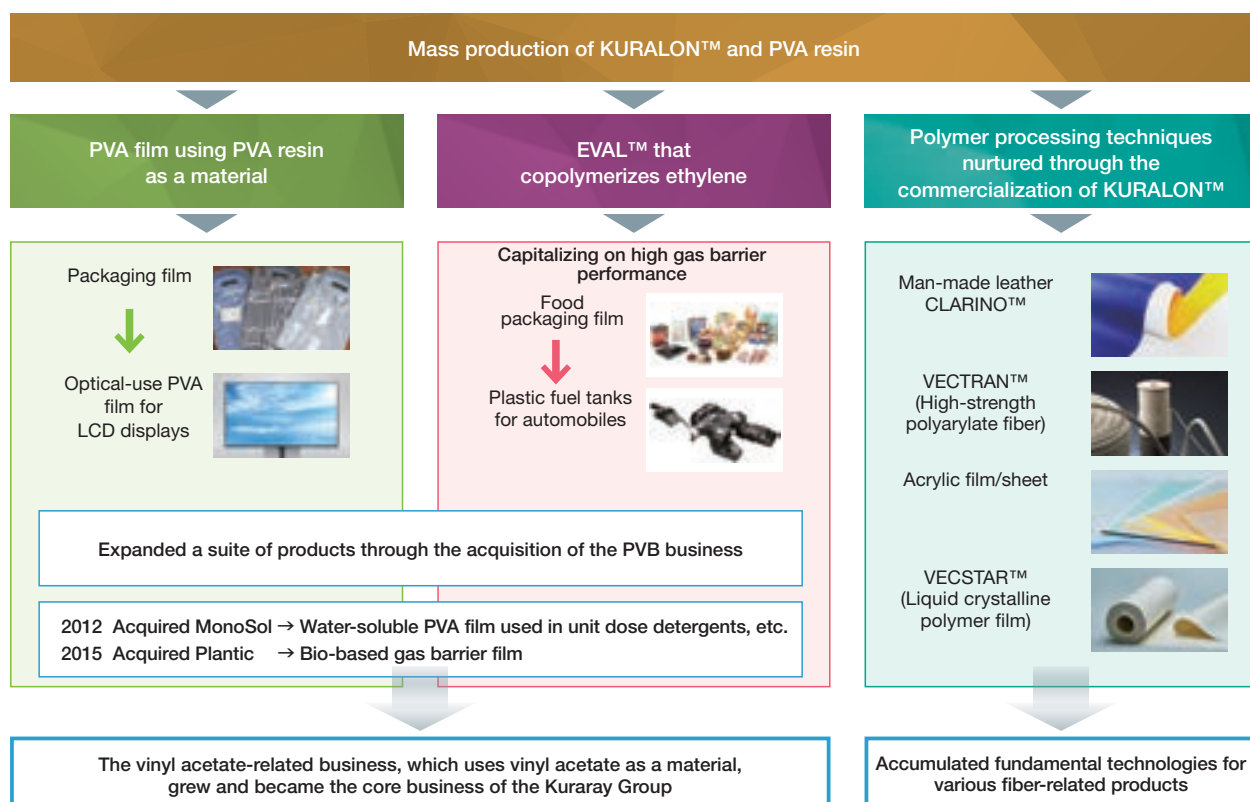
While other companies introduced technologies from overseas and the demand for other synthetic fibers such as nylon was growing and such fibers were profitable, Kuraray chose to maintain a policy of integrated production starting with materials for KURALON™ in order to accomplish mass production of KURALON™ and its material, PVA resin. Those products that were created by sticking to our own development, rather than copying others, became the origin of the present Kuraray Group and led to the birth of PVA film, EVAL™, which came to have a large market share later on. Starting from packaging film to optical-use PVA film for LCD displays, the uses of PVA film made of PVA resin expanded. In addition, EVAL™, which copolymerizes ethylene, capitalizes on its high gas barrier performance in being used widely in food packaging materials, plastic fuel tanks for automobiles, and others. The suite of products was subsequently expanded through the acquisition of the PVB film business, making the vinyl acetate segment the core business of the present Kuraray Group. The Company acquired MonoSol, LLC, which manufactures and sells water-soluble PVA film used in unit dose detergents, etc., in 2012, and Plantic Technologies Limited, which manufactures

and sells biomass-derived barrier film, in 2015, to continue expanding its businesses.

Meanwhile, the techniques for applying polymer to fiber, film, and sheet, which had been nurtured through efforts aiming at the commercialization of KURALON™, led to the development of fiber products, such as man-made leather CLARINO™ and high-strength polyarylate fiber VECTRAN™. Such expertise has also been utilized in the development of film, including acrylic film/sheet and liquid crystalline polymer film VECSTAR™.

The accomplishment of the commercialization of KURALON™ through our own R&D as well as its development of the vinyl acetate business, which uses vinyl acetate as a material, and a variety of products helped us to hone our polymer processing techniques and accumulate them as foundational technology that became the cornerstone of the present Kuraray Group. Further, this created a corporate culture of pursuing unique technologies as represented by “For people and the planet—to achieve what no one else can,” which has been passed down through the Kuraray Group until today.

Commercialization of KURALON™, Which Became the Origin of Independent In-House R&D



Corporate Governance

Basic Views on Corporate Governance

Kuraray Co., Ltd. (“Kuraray” or “the Company”) believes that the maintenance of appropriate relationships with various stakeholders and the fulfillment of social responsibilities through establishing a corporate governance system that ensures effective and fair management will contribute to the long-term and sustainable enhancement of corporate value.

The Company has adopted the governance system as “a company with the board of corporate auditors.” Under this framework, the Company has established corporate

governance functions centered on its Board of Directors and Board of Corporate Auditors to improve the effectiveness of supervisory and monitoring functions while maintaining management efficiency and to handle issues including management remuneration, selection of new company officers, internal control, and risk management.

The Company believes that the above establishment of functions contributes to the long-term and sustainable enhancement of corporate value.

Kuraray’s Steps to Strengthen Corporate Governance

The Company has worked continuously to strengthen corporate governance by taking steps such as separating supervision and execution functions through the introduction of the Executive Officer System, appointing and increasing the number of Outside Directors and Outside Corporate Auditors, establishing the CSR Committee and the Risk Management and Compliance Committee, evaluating the effectiveness of the Board of Directors, and establishing the Corporate Advisory Committee.

Starting from 2020, out of the 12 members of the Board of Directors, the number of Outside Directors increased by one to four, accounting for one-third of the Board of Directors. Additionally, for diversity in terms of gender and nationality and so forth, we appointed two females as Outside Director and Outside Corporate Auditor, and one foreign national as Director. We will hold discussions based on a variety of views and perspectives and further strengthen the corporate governance system.

Kuraray’s Efforts for Improving Corporate Governance Thus Far

2003	<ul style="list-style-type: none"> Reduced the maximum number and the term of office of Directors Introduction of the Executive Officer System Increased the number of Outside Corporate Auditors from two to three Purpose: Strengthening the management monitoring function of Corporate Auditors Established the CSR Committee Purpose: Reinforced the Group’s CSR promotion structure Established the Management Advisory Committee as an advisory body for the President
2008	<ul style="list-style-type: none"> Introduced two Outside Directors Purpose: Strengthening the management monitoring function of the Board of Directors Started early delivery of the notice of convocation of the ordinary general meeting of shareholders (at least three weeks before the date of the meeting) Purpose: Providing enough time for shareholders to examine each proposal Started uploading an English translation of the notice of convocation of the ordinary general meeting of shareholders to the TSE platform and the Company’s website
2016	<ul style="list-style-type: none"> Started analysis and evaluation of the effectiveness of the Board of Directors
2017	<ul style="list-style-type: none"> Established the Risk Management and Compliance Committee Purpose: Separated the Committee from the CSR Committee to strengthen risk management and compliance measures
2018	<ul style="list-style-type: none"> Established the Corporate Advisory Committee Purpose: Abolished the Management Advisory Committee and established the Corporate Advisory Committee as an advisory body to the Board of Directors, the membership of which is comprised of Outside Officers and outside experts, in order to further enhance the corporate governance of the Company by improving the transparency, fairness, and objectivity of decision-making on important management matters such as the appointment and remuneration, etc., of Directors
2020	<ul style="list-style-type: none"> Increased the number of Outside Directors from three to four (one-third of the Board of Directors) Purpose: Strengthening the management monitoring function and independence of the Board of Directors

Key Points of Corporate Governance of the Kuraray Group

The key points of Kuraray's corporate governance are as follows:

1	Kuraray has adopted the governance system as a "company with board of corporate auditors" and established the Board of Corporate Auditors comprised of five Corporate Auditors, at least three of whom are Outside Corporate Auditors. It has done this to ensure the fairness and transparency of management.
2	The Company has been appointing Outside Directors since 2008, and four Outside Directors which comprise one-third of the Board of Directors are in office.
3	The Company has established the Corporate Advisory Committee, comprised of Outside Officers and outside experts, as an advisory organ to the Board of Directors.

Corporate Governance System

■ Board of Directors and Business Execution Body

The Board of Directors (convenes at least once a month), according to the Board of Directors' Regulations, deliberates and decides important management matters, including legal matters, and supervises the execution of business. The maximum number of Directors is 12 in order to promote agile management decision-making by the Board of Directors, and the term of office is one year to clarify their responsibilities to the shareholders. There are currently 12 incumbent Directors, including four Outside Directors, of whom one is female, with a wealth of experience in and broad insight into economy, finance, and management. These four Outside Directors are supervising management from an independent third-party standpoint.

As the chief executive responsible for business execution, the President appointed by the Board of Directors exercises control over the execution of business in the Company and its subsidiaries (hereinafter "the Group"). Every executive officer (one-year term of office) appointed by the Board of Directors is responsible for business execution in the Group organization. As the heads of internal companies, divisions, and major functional organizations, the executive officers bear responsibilities for operations and business results.

In this way, the Company clearly separates the responsibilities of Directors, that is, decision-making on and supervision of management, from the responsibilities of business execution. Some Directors hold concurrent positions as executive officers. The President has established the Executive Committee (in principle, convenes twice a month) and various other councils and committees to deliberate and report on important matters concerning the Group's management policies and business execution.

■ Corporate Advisory Committee

The Company set up the Corporate Advisory Committee as an advisory body to the Board of Directors, the membership of which is comprised of Outside Officers and outside experts, in order to further enhance the corporate governance of the Company by improving the transparency, fairness, and objectivity of decision-making on important management matters. The Committee functions as a nomination and remuneration committee and advises the Board of Directors on the reasonableness of the selection of candidates for Director, including the President, as well as remuneration.

As of March 26, 2020, the Corporate Advisory Committee consists of a total of seven members, with four Outside Directors (Tomokazu Hamaguchi, Jun Hamano, Keiko Murata, and Satoshi Tanaka), one Outside Corporate Auditor (Tomomi Yatsu), and two external experts (Takeshi Komura, and Go Egami [Haruki Kohata in the family register]). There is no chairperson in place.

■ Board of Corporate Auditors and Internal Audit

The Board of Corporate Auditors consists of five Corporate Auditors, of whom four are males and one is female, and three of them are independent Outside Corporate Auditors, the majority thereof. The Outside Corporate Auditors, with extensive experience in and broad insight into areas such as finance, law, and management, perform their duties from an independent third-party standpoint.

Corporate Auditors attend meetings of the Board of Directors and other important meetings, and monitor the Directors' execution of duties through inquiries conducted by such means as the examination of important documents and requests for explanations of the state of business affairs. In principle, the Board of Corporate Auditors convenes monthly.

The Corporate Auditors regularly have meetings with the Accounting Auditor and receive reports on audit planning, implementation status and audit content. In addition, Corporate Auditors concurrently serve as corporate auditors at major Group companies and conduct Group company audits as appropriate, and attend the periodic Group Auditor Liaison Meetings consisting of the group company auditors, through which they acquire information on the respective companies.

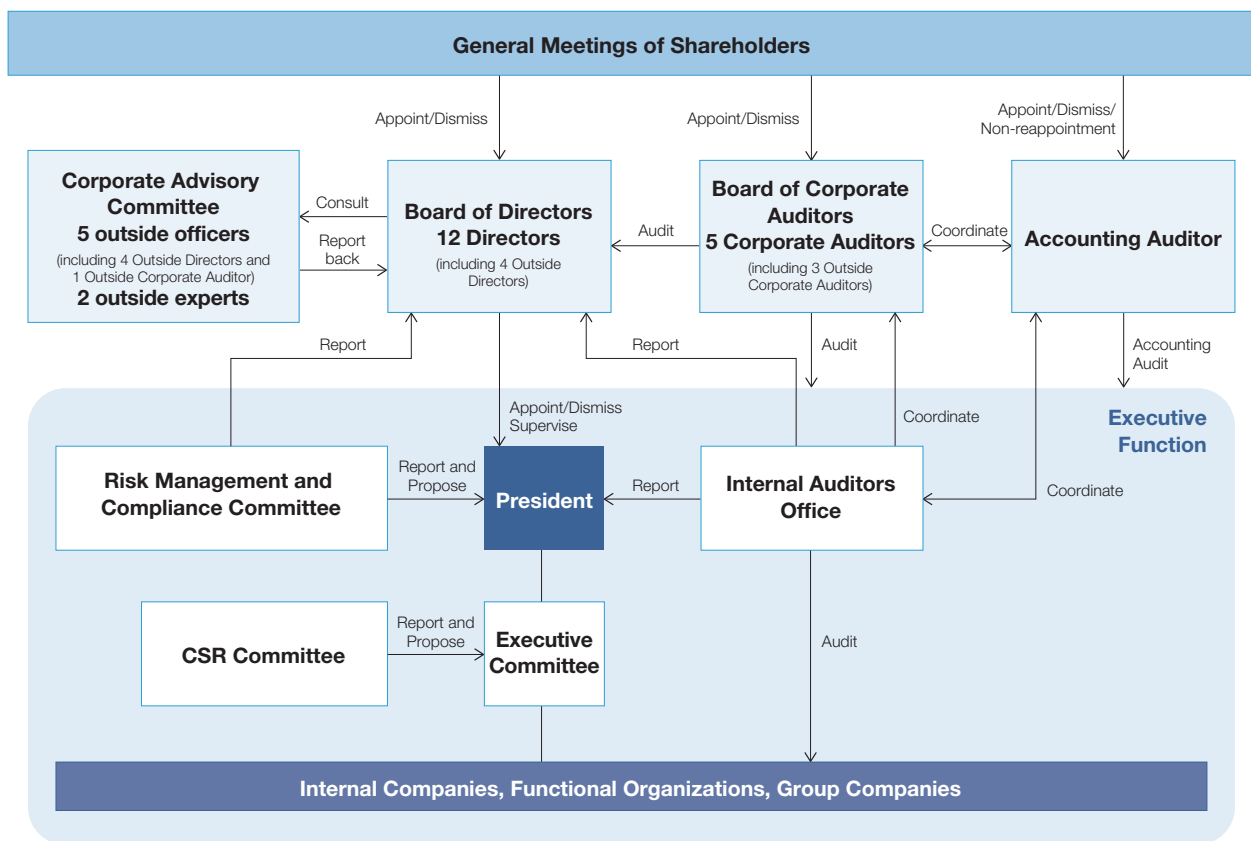
Risk Management and Compliance Committee

The Risk Management and Compliance Committee is chaired by the Director in charge of the CSR Division and aims to ensure the appropriate management of material

risks that could have a significant impact on business management, thorough compliance with laws and regulations and corporate ethics, and fair business practices. The committee extracts material risks and proposes them to the President in regularly monitoring risks for the entire Group. The President then specifies those that require countermeasures as management risks and, at the same time, appoints a supervising officer for each risk to implement risk avoidance and mitigation measures. The committee checks the progress of the measures to ensure the steady execution of the risk countermeasures. The committee reports this series of activities to the Board of Directors and reflects its instructions in the risk countermeasures.

Refer to p.48

Corporate Governance System (As of March 26, 2020)



Policies for the Appointment of the Candidates for Directors and Corporate Auditors and the Independence Standards for Outside Officers

Policies for the Appointment of the Candidates for Directors and Corporate Auditors

- (1) The Company appoints individuals who have experience, knowledge, and capabilities required for Directors of the Company as candidates at the Board of Directors meeting with the attendance of Outside Officers and elect them as Directors with the resolution of the General Meeting of Shareholders. However, the candidates for Outside Directors shall satisfy the criteria of independence provided separately.
- (2) The Company appoints individuals who have experience, knowledge, and capabilities required for

Corporate Auditors of the Company as candidates at the Board of Directors meeting with the presence of Outside Officers, and elects them as Corporate Auditors with the resolution of the General Meeting of Shareholders after obtaining the consent of the Board of Corporate Auditors. However, the candidates for Outside Corporate Auditors shall satisfy the criteria of independence provided separately.

Independence Standards for Outside Officers

- (1) The Company judges that its Outside Officers and the candidates for the Outside Officers are fully

independent from the Company if they do not fall under any of the following items:

- (i) A business executive of the Group
- (ii) A counterparty that has transactions principally with the Group, or its business executive thereof
- (iii) A major business partner of the Group, or its business executive thereof
- (iv) A major lender of the Group, or its business executive thereof
- (v) A counterparty that receives a large amount of donations from the Group, or its business executive thereof
- (vi) A major shareholder of the Company (who possesses 10% or more of the total voting rights either directly or indirectly), or its business executive thereof
- (vii) A business executive of the party whose major investor (who possesses 10% or more of the total voting rights either directly or indirectly) is the Group
- (viii) A consultant, certified public accountant, or other accounting professional, attorney, or other legal professional who receives a large amount of monetary or other assets from the Group other than the

executive remuneration (in case of a legal entity, association, or other organization, a person belonging thereto)

- (ix) A person who belongs to an accounting firm that conducts the statutory audit of the Company
 - (x) A person who has fallen under the above criterion (i) in the past 10 years
 - (xi) A person who has fallen under any of the above criteria (ii) through (ix) in the past three years
 - (xii) A person whose position constitutes him/her as having an Outside Officer's interlocking relationship with the Group
 - (xiii) A relative of the persons listed in the above criteria (i) through (xi)
- (2) Even in cases where a person falls under any of the above items, if the person is deemed to be appropriate for the post of an independent Outside Officer in light of his/her personality, knowledge, and other qualities, the Company may appoint him/her as independent Outside Officer on the condition that the reasons why the person is deemed appropriate for the post are explained to the public.

Directors' Remuneration System

■ Policies for Determining the Remuneration for Directors

- (1) Remuneration for Directors is determined by taking into consideration the remuneration level of other companies and other factors so that the remuneration will function as one of the incentives for mid- to long-term and sustainable enhancement of the corporate value.
- (2) Remuneration for Directors is comprised of monetary remuneration consisting of fixed remuneration by position and performance-linked remuneration, and stock option-based remuneration. However, monetary remuneration for Outside Directors does not include performance-linked remuneration.
- (3) Remuneration for each Director is determined based on the calculation method stipulated by the Board of Directors within the limit amount resolved at the General Meeting of Shareholders. The remuneration for the President, which serves as the basis for calculating the remuneration for each Director, is determined after the deliberation by the Corporate Advisory Committee comprised of Outside Officers and outside experts.

Changes in the remuneration system and structure as well as the amount of remuneration for Directors are also determined by the Board of Directors after the deliberation at the aforementioned Corporate Advisory Committee.

■ Performance-Linked Remuneration System

The Company abolished the bonus scheme for Directors and introduced a performance-linked remuneration system

in July 2006, thereby strengthening the incentives of Directors to increase the Company's corporate value. In addition, to respond to the increase in the amount of performance-linked remuneration in conjunction with the improved business performance, it was resolved to increase the maximum amount of annual remuneration to Directors from ¥450 million to ¥800 million (including ¥100 million annually for Outside Directors) at the Company's 131st Ordinary General Meeting of Shareholders, held on June 22, 2012.

■ Calculation Method of Performance-Linked Remuneration

As a short-term performance incentive, the performance-linked remuneration for the President shall be the amount that is obtained by multiplying the amount of actual consolidated net income for the prior fiscal year with a predetermined coefficient. The performance-linked remuneration for Directors shall be determined by dividing the said amount in proportion to the index corresponding to each Director. The Company does not have a performance-linked remuneration system for Outside Directors based on the above calculation method.

■ Remuneration-Type Stock Option Scheme

The Company abolished the prior severance and retirement benefits system for Directors in July 2006 and introduced a remuneration-type stock option scheme that entails the issue of share acquisition rights for the purpose of further boosting Directors' sensitivity and motivation to improve the Company's performance. The stock option-based remunerations under this scheme shall not exceed ¥90

million, separately from the maximum amount of annual remunerations to Directors. The number of share acquisition rights to be granted shall not exceed 120 each year. (The

number of common stock to be issued upon exercise of share acquisition rights shall not exceed 60,000 shares each year.)

Corporate Officer Remuneration for Fiscal 2019

Director classification	Total amount of remuneration, etc. (Millions of yen)	Total amount by type of remuneration, etc. (Millions of yen)		Number of eligible officers (persons) ¹⁾
		Monetary remuneration	Stock option-based remuneration ²⁾	
Directors (excluding Outside Directors)	495	453	42	9
Corporate Auditors (excluding Outside Corporate Auditors)	56	56	—	2
Outside Officers	70	67	3	8

*1 The above number of eligible corporate officers includes two Corporate Auditors who retired at the close of the 138th Ordinary General Meeting of Shareholders, held on March 27, 2019.

*2 Separately from the above stock option-based remuneration, share acquisition rights amounting to ¥22 million were granted to Directors who concurrently serve as Executive Officers (six Directors) as stock option-based remuneration for Executive Officers.

Evaluation of the Effectiveness of the Board of Directors

■ Analysis and Evaluation of the Effectiveness of the Board of Directors

(1) Analysis and Evaluation Method

The Company distributed “Questionnaire on Evaluation of the Effectiveness of the Board of Directors” to all the Directors and Corporate Auditors in December 2019 and collected responses and opinions from all members in January 2020.

The secretariat of the Board of Directors aggregated the responses, and analyzed and evaluated the effectiveness of the Board of Directors based on the data.

Questionnaire (32 questions in total)

- Concerning the structure of the Board of Directors
- Concerning the agenda of the Board of Directors
- Concerning the operations of the Board of Directors
- Systems outside the Board of Directors

(2) Outline of Analysis and Evaluation Results

The evaluation confirmed that the Company’s Board of Directors is generally functioning properly and that the effectiveness of the Board of Directors is secured in all aspects such as its size, composition, diversity, agenda selection, the scope of matters to be discussed or reported, the timing for scheduling the Board of Directors meetings, frequency of the meetings, operations of the Board of Directors including deliberation time, provision of additional information to the Directors, systems outside the Board of Directors such as those for providing training opportunities, etc.

In light of the results of this evaluation, the Company will continue to examine and implement necessary measures to make discussions more lively and productive at the Board of Directors meetings.

Cross-Shareholdings

The Company has set forth the policy on cross-shareholdings and standards for exercising voting rights pertaining to cross-held shares as follows.

- (1) Coming from the viewpoint of stable and long term business operation, the Company may hold the shares of its business partners, etc. if maintaining and strengthening the relationships with such business partners are deemed to contribute to corporate value enhancement.
- (2) Regarding the shares held pursuant to the preceding paragraph (hereinafter, “cross-held shares”), the Company regularly examines economic rationality and significance of holding individual stock at the Board of Directors meetings in consideration of benefits and risks associated with such holding, capital cost and other factors. The Company will sell shares of stocks, as necessary, whose holding was deemed not to be appropriate based on the examination to reduce such stocks.
- (3) Concerning the voting rights pertaining to the cross-held shares, the Company appropriately exercises such voting rights in light of the objectives of shareholdings set forth in the preceding two paragraphs, taking into consideration the business conditions of the companies and

potential impact to the business operation of the Company or a subsidiary of the Company (hereinafter “the Group”). Particularly, the Company carefully exercises such voting rights in a case where performance of the companies has been sluggish for a long period of time or a serious scandal has occurred or in a case where a proposal that would impair shareholders’ value was made.

■ Content of Examination on the Propriety of Holding Cross-Held Shares

In the fiscal year ended December 31, 2019, the Company sold all shares of five stocks and part of one stock of its cross-held shares. Additionally, as the result of an examination at the Board of Directors meeting held on February 26, 2020 of the economic rationality and significance of holding individual cross-held stock for the fiscal year ended December 31, 2019 (examination on cross-held shares as of the end of December 2019) in consideration of benefits and risks, capital cost, and other factors associated with such holding, the Company plans to continue with the sale of some stocks.

Message from an Outside Director



Offering Broader Perspectives to Contribute to Improved Management Quality

Satoshi Tanaka

Outside Director

I was appointed to assume office as Outside Director from 2020. Each company places emphasis on ensuring diversity among its Outside Directors so that they can make use of their respective external perspectives in participating in management. Kuraray increased the number of Outside Directors from this year to further enhance its portfolio mix of such varied external perspectives, and I intend to live up to the expectations as one who is part of such effort.

I have gained business experience at a general trading company in acquisitions involving global businesses, risk management, talent utilization, and others and have also engaged in ESG management, corporate governance, and compliance, among other things, as an officer in charge of the corporate planning division. Additionally, by utilizing my experience in handling consumer products, I believe I can provide useful advice from a “downstream” perspective for Kuraray, which is an intermediate materials manufacturer.

The Kuraray Group’s corporate culture emphasizes “For people and the planet—to achieve what no one else can,” suggesting technologies with originality, a pioneering spirit, and a stance toward solving social issues that are tied to ESG management. For the Kuraray Group, which boasts highly original products and has achieved global expansion, I believe its future challenges lie in permeating such corporate culture throughout the entire Group and building mechanisms for internal control and communication within the organization. As the common sense surrounding companies is constantly changing due to globalization, the issues to be addressed for a sustainable society, digital transformation, and so on, increasingly broader perspectives will be required for management judgment. I will contribute to improving management quality by always keeping high-quality questions in mind, shedding light from an angle different from that of internal officers, and adding new dimensions to judgment.

Message from an Outside Corporate Auditor

Identifying Multi-Dimensional Risks in Business Activities to Prevent the Occurrence of Problems

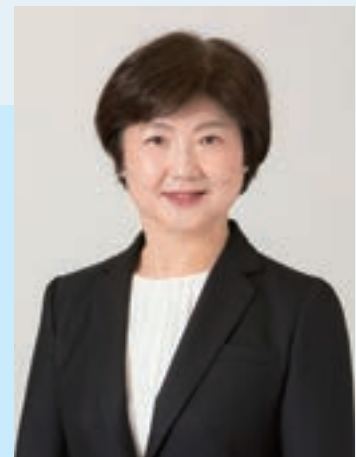
Tomomi Yatsu

Outside Corporate Auditor

During the first year I took office as Outside Corporate Auditor, safety and compliance issues resurfaced in the wake of a civil action relating to the fire accident that occurred at the U.S. subsidiary and a cease-and-desist order issued by the Fair Trade Commission of Japan under the Antimonopoly Act, demanding a review of internal control. While the responses, including measures to prevent recurrence, were under discussion, I engaged in verification and interviews from the standpoint of a person with legal expertise. As an Outside Corporate Auditor, I believe I am expected to provide such monitoring and comments that capitalize on my experience as a lawyer and accountant, and to promote diversity from a female perspective.

The Board of Corporate Auditors of the Company engages in discussions based on reports about important internal meetings attended by the Corporate Auditors, and confirms the recognition of and responses to issues by periodically inviting those who are in charge of operations to the Board of Corporate Auditors meetings. I believe that identifying multi-dimensional risks through such internal communication and audits by visiting domestic and overseas bases, and thereby preventing issues from occurring in advance while coordinating with the internal audit division and the accounting auditor, is one of the important roles for an auditor to play.

As the Company accelerates its overseas expansion going forward, we will be required to establish a global risk management system that also covers responses to new corresponding risks. Additionally, the types of constraints management may face due to environmental issues and the types of contributions we can make will be important themes going forward. I hope the Company will manage to tie those initiatives to sustainable growth and realize a truly global company.



Executives (As of March 26, 2020)



Board of Directors

1 Representative Director and President
Masaaki Ito (Date of birth: June 23, 1957)

4 Director and Managing Executive Officer
Kenichi Abe (Date of birth: May 3, 1956)
 • President of Isoprene Company

7 Director and Managing Executive Officer
Matthias Gutweiler
 (Date of birth: March 11, 1958)
 • President of Kuraray Europe GmbH

9 Outside Director (Independent Director)
Tomokazu Hamaguchi^{*1}
 (Date of birth: April 20, 1944)

Apr. 1967	Entered Nippon Telegraph and Telephone Public Corporation
Jun. 1995	Director, NTT Data Communications Systems Corporation (present NTT DATA Corporation)
Jun. 1997	Executive Vice President, NTT Data Communications Systems Corporation
Jun. 2001	Senior Executive Vice President, NTT DATA Corporation
Jun. 2003	President & CEO, NTT DATA Corporation
Jun. 2007	Director & Senior Corporate Advisor, NTT DATA Corporation
Jun. 2009	Senior Corporate Advisor, NTT DATA Corporation
Jun. 2010	Outside Director, East Japan Railway Company (Current position)
Jun. 2013	Outside Director, Kuraray Co., Ltd. (Current position)
Oct. 2014	Director, FPT Corporation (Current position)

12 Outside Director (Independent Director)
Satoshi Tanaka^{*1}
 (Date of birth: February 27, 1958)

Apr. 1981	Entered Mitsui & Co.
Apr. 2007	General Manager, Corporate Strategy & Planning, Mitsui & Co.
Apr. 2011	Managing Officer, Mitsui & Co.
Apr. 2013	Executive Managing Officer, Mitsui & Co.
Apr. 2015	Senior Executive Managing Officer, COO of Asia Pacific Business Unit, Mitsui & Co.
Apr. 2017	Executive Vice President, Mitsui & Co.
Jun. 2017	Representative Director, Executive Vice President, Mitsui & Co.
Apr. 2019	Director, Mitsui & Co.
Jun. 2019	Counselor, Mitsui & Co. (Current position)
Mar. 2020	Outside Director, Kuraray Co., Ltd. (Current position)

2 Representative Director and Senior Managing Executive Officer
Hiroaya Hayase (Date of birth: February 28, 1956)
 • President of Vinyl Acetate Film Company

5 Director and Managing Executive Officer
Hitoshi Kawahara (Date of birth: March 12, 1962)
 • President of Vinyl Acetate Resin Company

8 Director and Managing Executive Officer
Nobuhiko Takai (Date of birth: May 5, 1960)
 • President of Functional Materials Company, General Manager of Carbon Materials Division

10 Outside Director (Independent Director)
Jun Hamano^{*1}
 (Date of birth: February 27, 1951)

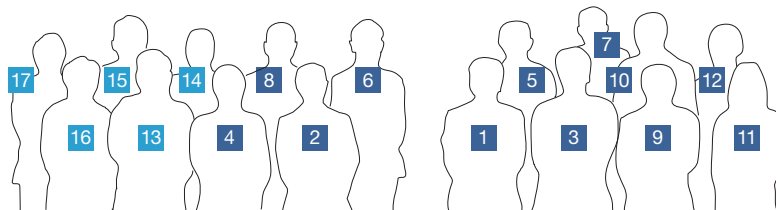
Apr. 1974	Entered Economic Planning Agency (EPA) of Japan
Jul. 1999	Director, Minister's Secretariat Division, EPA
Jul. 2004	Director General for Economic and Fiscal Management, Cabinet Office
Jul. 2006	Vice-Minister for Policy Coordination, Cabinet Office
Jul. 2008	Director General, Cabinet Office
Jul. 2009	Vice-Minister, Cabinet Office
Jan. 2012	Advisor, Cabinet Office
Apr. 2013	Executive Advisor, DENTSU INC.
Jun. 2014	Director, Ohara Healthcare Foundation (Current position)
Jun. 2015	Chairman, the Institute for Science of Labour (the present the Ohara Memorial Institute for Science of Labour) (Current position)
Mar. 2016	Outside Director, Kuraray Co., Ltd. (Current position)

3 Director and Senior Managing Executive Officer
Yoshimasa Sano (Date of birth: April 12, 1956)
 • President of Fibers and Textiles Company, Officer Responsible for Osaka Office

6 Director and Managing Executive Officer
Keiji Taga (Date of birth: October 16, 1961)
 • Officer Responsible for Corporate Management Planning Office, Officer Responsible for CSR Division, Officer Responsible for Administrative Unit, General Manager of Corporate Management Planning Office

11 Outside Director (Independent Director)
Keiko Murata^{*1}
 (Date of birth: February 25, 1962)

Apr. 1986	Entered Economic Planning Agency of Japan
Aug. 2005	Director for Overseas Economies, Directorate General for Economic Research, Cabinet Office
Aug. 2006	Director for International Affairs, Secretariat of the Science Council of Japan, Cabinet Office
Jul. 2008	Professor, Graduate School of Social Sciences, Tokyo Metropolitan University
May 2015	Advisor to the President, Tokyo Metropolitan University
Jul. 2017	Trustee, Nippon Life Insurance Company (Current position)
Apr. 2018	Professor, Graduate School of Management, Tokyo Metropolitan University (Current position)
Mar. 2020	Outside Director, Kuraray Co., Ltd. (Current position)



^{*1} Tomokazu Hamaguchi, Jun Hamano, Keiko Murata, and Satoshi Tanaka are Outside Directors.
^{*2} Mitsuhiro Nagahama, Tomomi Yatsu, and Kenji Komatsu are Outside Corporate Auditors.



Corporate Auditors

13 Corporate Auditor
Kazuhiro Nakayama
 (Date of birth: January 1, 1956)

15 Outside Corporate Auditor (Independent Corporate Auditor)
Mitsuhiro Nagahama²
 (Date of birth: October 24, 1953)

Apr. 1976 Entered The Fuji Bank Limited
 Apr. 2002 General Manager, Americas Non-Japanese Corporate Banking Division No. 2, Mizuho Corporate Bank, Ltd.
 Mar. 2003 Executive Officer and General Manager, Otemachi Corporate Banking Division No. 6 and No. 7, Mizuho Corporate Bank, Ltd.
 Apr. 2005 Managing Executive Officer in charge of corporate banking, Mizuho Corporate Bank, Ltd.
 Mar. 2006 Managing Executive Officer, Head of the Americas, Mizuho Corporate Bank, Ltd.
 Apr. 2010 Deputy President, Head of the Americas, Mizuho Corporate Bank, Ltd.
 Apr. 2013 Chairman of the Board, Mizuho Securities Co., Ltd. Chairman of the Board, Mizuho Securities USA Inc.
 Apr. 2015 Senior Adviser, Mizuho Securities Co., Ltd. (Current position) Chairman of the Board, Mizuho Securities USA Inc.
 Jun. 2015 Outside Audit & Supervisory Board Member, Azbil Co., Ltd. (Current position)
 Mar. 2018 Outside Corporate Auditor, Kuraray Co., Ltd. (Current position)
 Mar. 2019 Outside Director, Tokyo Tatemono Co., Ltd. (Current position)
 Jun. 2019 Outside Director, Azbil Co., Ltd. (Current position)

14 Corporate Auditor
Yukinori Yamane
 (Date of birth: September 9, 1955)

16 Outside Corporate Auditor (Independent Corporate Auditor)
Tomomi Yatsu²
 (Date of birth: May 30, 1960)

Apr. 1983 Entered Tokyo Electron Ltd.
 Oct. 1986 Entered Tohmatsu Awoki & Sanwa (present Deloitte Touche Tohmatsu LLC)
 Sep. 1990 Registered as a Certified Public Accountant
 Oct. 2001 Registered with Tokyo Bar Association
 Oct. 2001 Entered Shin-Tokyo Sohgo Law Office (later merged with Bingham Sakai Mimura Aizawa-Foreign Law Joint Enterprise)
 Jun. 2009 Outside Corporate Auditor, Calbee, Inc.
 Jun. 2010 Outside Corporate Auditor, Taiko Pharmaceutical Co., Ltd.
 Mar. 2012 Outside Corporate Auditor, KOKUYO Co., Ltd.
 Mar. 2015 Outside Corporate Auditor, Yamaha Motor Co., Ltd.
 Apr. 2015 Partner, TMI Associates (Current position)
 Jun. 2016 Outside Director, SMBC Nikko Securities Inc. (Current position)
 Jun. 2017 Outside Corporate Auditor, IHI Corporation (Current position)
 Mar. 2019 Outside Corporate Auditor, Kuraray Co., Ltd. (Current position)

17 Outside Corporate Auditor (Independent Corporate Auditor)
Kenji Komatsu²
 (Date of birth: March 24, 1953)

Apr. 1978 Entered Mitsubishi Corporation
 Feb. 1996 Entered GE International Inc.
 Jul. 2005 Representative Director and President, Ecolab Inc. (the present Ecolab GK)
 Apr. 2007 Ecolab Inc. Senior Vice President
 Dec. 2010 Senior Executive Officer, Sanden Corporation (the present SANDEN HOLDINGS CORPORATION)
 Nov. 2011 Entered Bain Capital Asia, LLC
 Mar. 2013 Director, President and CEO, BELLSYSTEM24, Inc.
 Mar. 2016 Director and Chairman, BELLSYSTEM24 Holdings, Inc.
 Jun. 2016 Advisor, COACH A Co., Ltd. (Current position)
 Dec. 2018 Advisor, API Consultants CO., LTD. (Current position)
 Mar. 2019 Outside Corporate Auditor, Kuraray Co., Ltd. (Current position)



Please refer to our website for personal histories of the Directors and Corporate Auditors.
<https://www.kuraray.com/company/directors/>

Executive Officers

Senior Managing Executive Officer **Hitoshi Toyoura**
 ● President of Kuraray America, Inc.

Managing Executive Officer **Toshihiro Omatsu**
 ● Vice President of Isoprene Company, General Manager of Isoprene Chemicals Division

Executive Officer **Toshinori Tsugaru**
 ● General Manager of Kurashiki Plant

Executive Officer **Ikuo Nakamura**
 ● General Manager of Clarino Division

Executive Officer **Tomoyuki Watanabe**
 ● Vice President of Vinyl Acetate Resin Company, General Manager of Poval Resin Division, Manager of Vinyl Acetate Resin Sales Management Department

Executive Officer **Yoji Ikemori**
 ● General Manager of Genestar Division

Executive Officer **Kazushige Sakamoto**
 ● General Manager of Okayama Plant

Senior Managing Executive Officer **Tsugunori Kashimura**
 ● Officer Responsible for Research and Development Division, Officer Responsible for Environmental Business Development and Promotion Division, General Manager of Research and Development Division

Executive Officer **P. Scott Bening**
 ● General Manager of MonoSol Division, President of MonoSol, LLC

Executive Officer **Koichi Takano**
 ● General Manager of Purchasing and Logistics Division

Executive Officer **Takaharu Kawahara**
 ● General Manager of Technology Division

Executive Officer **Katsumasa Yamaguchi**
 ● General Manager of EVAL Division

Executive Officer **Naoya Uehara**
 ● Vice President of Kuraray Europe GmbH

Executive Officer **Koichi Daifuku**
 ● General Manager of Poval Film Division

Managing Executive Officer **Akira Omura**
 ● Officer Responsible for Technology Division, Officer Responsible for Plants in Japan, Officer Responsible for Environmental and Industrial Safety Management Center

Executive Officer **Stephen Cox**
 ● General Manager of PVB Division

Executive Officer **Hajime Suzuki**
 ● Vice President of Kuraray America, Inc.

Executive Officer **Fuyuo Ueyama**
 ● Vice President of Calgon Carbon Corporation

Executive Officer **Stevan R. Schott**
 ● General Manager of Calgon Carbon Division, President of Calgon Carbon Corporation

Executive Officer **Satoru Fujinami**
 ● General Manager of General Affairs and HR Division

Sustainability Management

Basic Approach

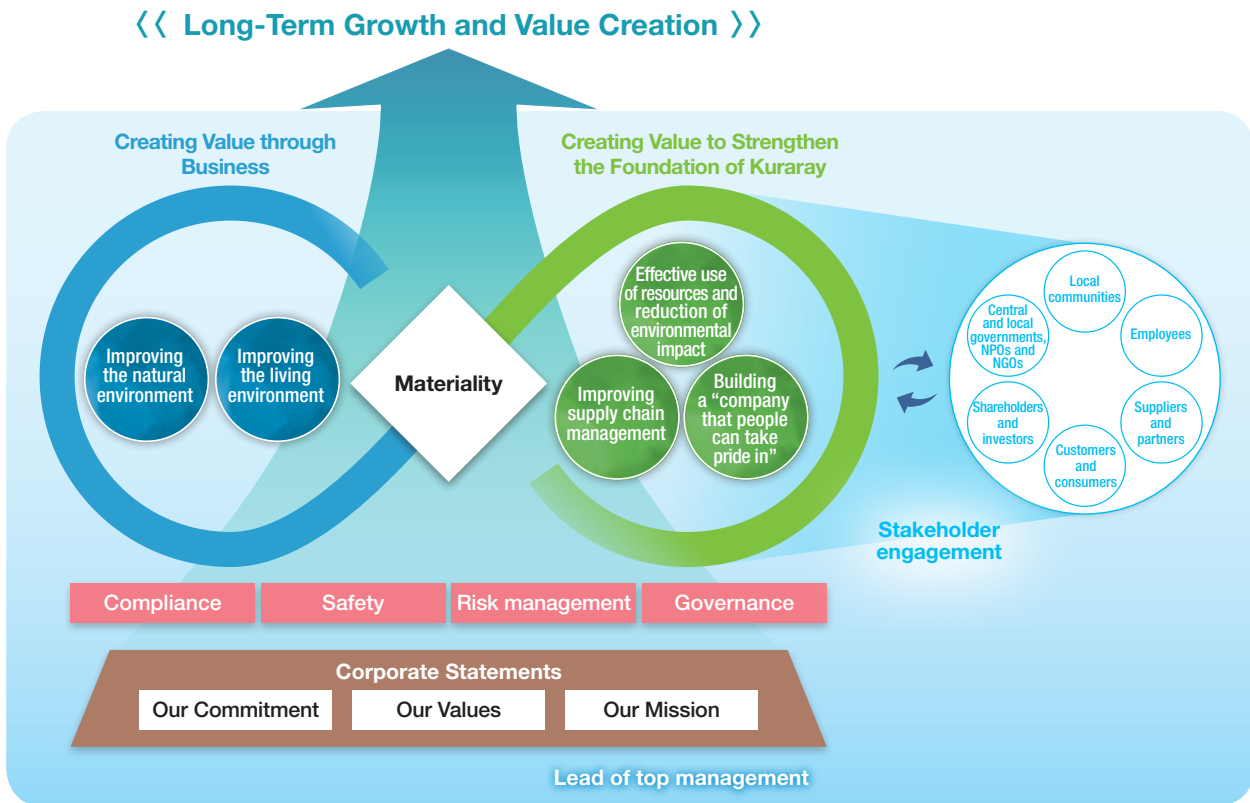
In addition to continually generating profit in their businesses, companies face the ever increasing task of helping to solve a range of social issues, as seen in the Sustainable Development Goals (SDGs) adopted by the United Nations in 2015, which call for businesses to engage in sustainable initiatives. To respond to such changes in social conditions, the Kuraray Group updated its Sustainability Concept and reviewed its material issues (materiality).

The Group's sustainability management is carried out under the lead of the top management.

Based on its mission stated in the Corporate Statements, "For people and the planet—to achieve what no one else

can," we aim to achieve long-term growth and value creation by working to solve material issues, with the five items of "governance" and "lead of top management" in addition to "compliance," "safety," and "risk management" serving as a base.

The Kuraray Group's corporate activities are established by relationships with many stakeholders including customers and consumers, shareholders and investors, suppliers and partners, employees, local communities, and central and local governments. The Group will further deepen stakeholder engagement to enhance our corporate activities.



Materiality of the Kuraray Group

Materiality, formulated previously in 2015, was reviewed in fiscal 2019 in response to recent changes in the social environment.

In the review, we focused on clarifying the issues that the Kuraray Group should resolve through its business operations and on incorporating a global perspective.

In addition to the existing CSR Committee members, all division general managers in Japan and overseas participated in discussions to select new material issues.

We believe the Kuraray Group's business utilizing pioneering technologies can contribute to addressing many important issues. These include the five domains currently

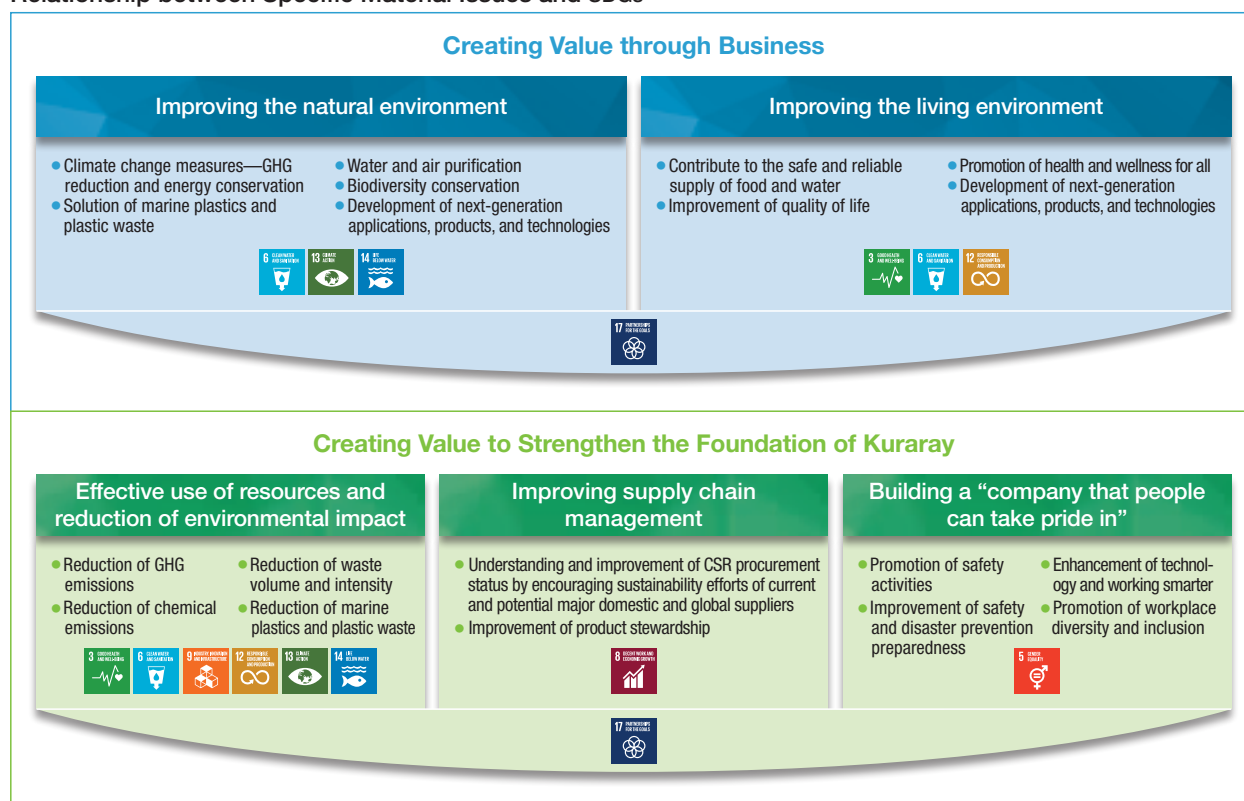


specified as material issues, which are “improving the natural environment,” “improving the living environment,” “effective use of resources and reduction of environmental impact,” “improving supply chain management,” and

“building a ‘company that people can take pride in’.”

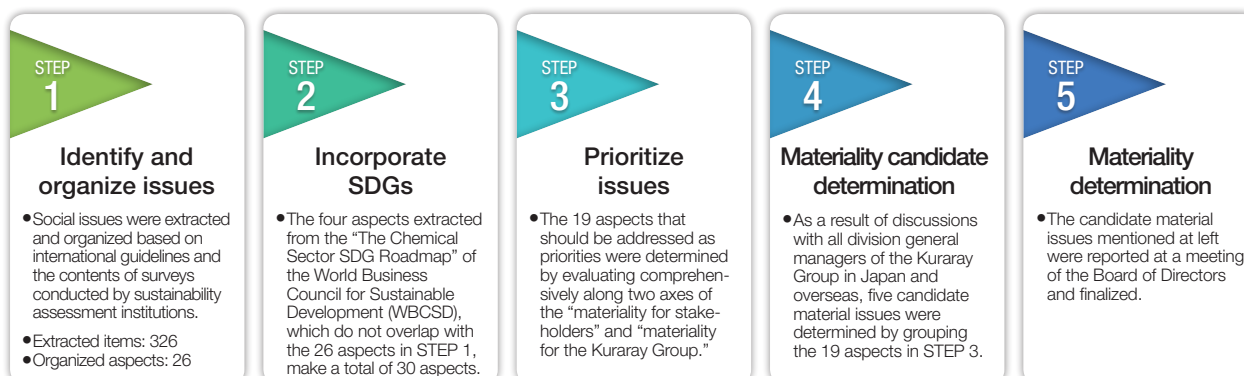
Going forward, we plan to formulate a medium-term sustainability plan based on new materiality in line with the next Medium-Term Management Plan.

Relationship between Specific Material Issues and SDGs



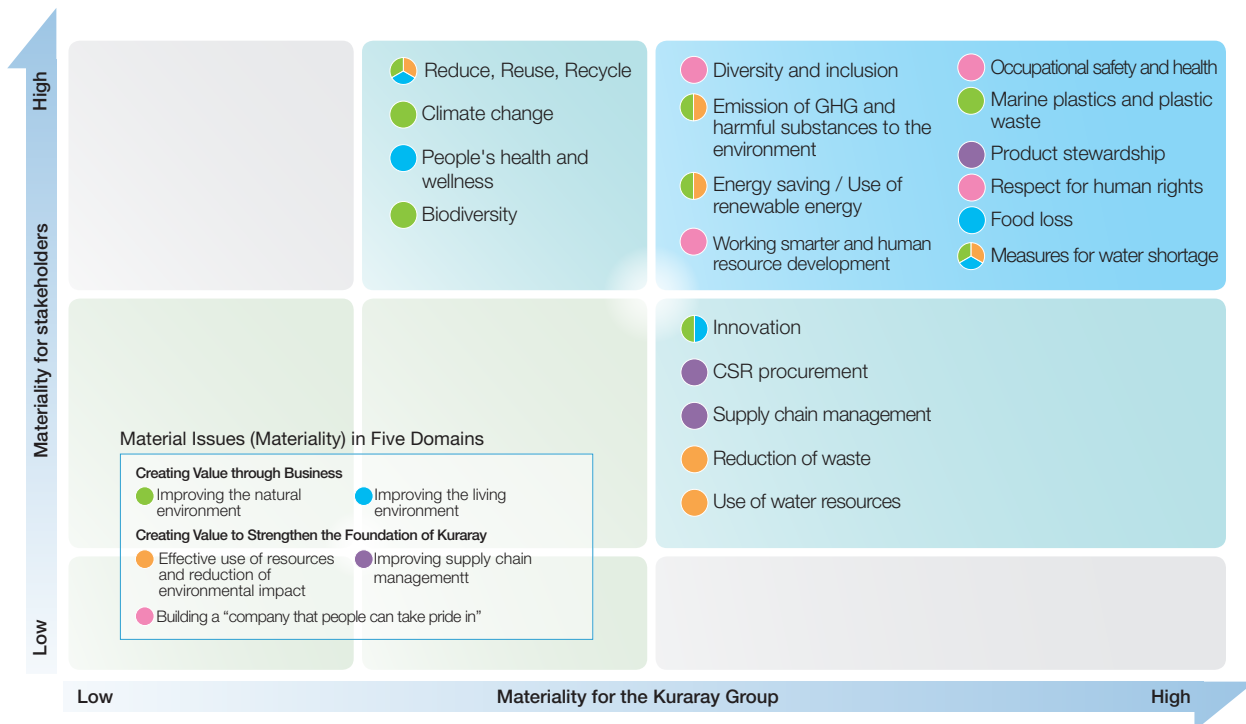
Procedure to Identify Materiality

Material issues of the Kuraray Group have been identified in accordance with the following procedure. Material issues will be reviewed periodically in accordance with developments in the international community, changes in the business environment, and so on.



For the current material issues, please visit our website: <https://www.kuraray.com/csr/report2020/materialities>

The 19 aspects that should be addressed as priorities, determined by evaluating comprehensively along two axes of the “materiality for stakeholders” and “materiality for the Kuraray Group,” are shown below.



Quality Management

The Kuraray Group’s dedication to quality is rooted in the realization of the Kuraray Group’s Mission: “For people and the planet—to achieve what no one else can.” “For people and the planet” can only be achieved by having customers recognize the value of the products and services that we offer. Therefore, Kuraray’s concept of quality is “customer satisfaction,” and we believe it is important for all members who are involved in our business activities to work together

to push forward with efforts to constantly enhance “customer satisfaction” through “participation by all.”

Based on this concept, we developed the “Kuraray Group Global Quality Policy” to clarify our corporate stance on quality.

Kuraray Group Global Quality Policy

“We contribute to the society by supplying safe, reliable and high-quality products and services.”

We vow to provide safe high-quality products and services with a sense of responsibility and pride, and contribute to improved natural environments and living environments with a view to realizing a sustainable society.

To that end, each one of us will engage in improvement activities continuously to pursue the creation of value to enhance customer satisfactions with better understandings of demands of laws and regulations, society as well as needs of customers.

Product Safety and Chemical Management

With a view to ensuring the safety of products, the Kuraray Group’s respective divisions make evaluations and improvements using risk assessment techniques in developing new products and managing changes in order to secure and guarantee product safety.

In addition, with regard to products that are particularly in need of safety validation, such as those that use nanomaterials and those that are to be ingested, we set up a deliberation committee led by CSR Division to confirm safety.

With respect to chemical management, we continuously provide education to those responsible for chemical management and those in charge of actual operations, while making good use of IT systems, in order to ensure compliance with laws and regulations that are becoming

increasingly strict in various countries in the world. Further, we review and share laws and regulations and information with not only the divisions/Group companies in Japan but also overseas Group companies in order to achieve optimal chemical management without fail.

CSR Procurement

In 2005, Kuraray established the “CSR Procurement Policy” in accordance with the 10 principles of the “United Nations Global Compact,” which are internationally accepted universal principles, and the Company has asked its business partners for their understanding of this policy. However, changes in

social conditions rendered the existing CSR Procurement Policy insufficient in some respects, and accordingly it was revamped. Once again we will ask our business partners for their understanding of the policy, and we plan to conduct a survey of major business partners in Japan and overseas.

CSR Procurement Policy

<p>1 Corporate governance</p> 	<p>We will stay cognizant of CSR, and seek to achieve harmony among people, society, and the global environment to build and maintain better relationships through our businesses. We will adhere to laws and regulations as well as other rules at all times and in all situations, and will always carry out corporate activities in a fair and honest manner.</p>
<p>2 Respect for human rights</p> 	<p>We will champion the human rights of all people who are involved in our business activities and respect the dignity and value of each one of them.</p>
<p>3 Safe, easy-to-work environment</p> 	<p>We will adhere to laws and regulations relating to occupational health and safety, and strive to maintain and enhance a work environment that is safe and easy to work in for all people who are involved in our business activities. In addition, we will value the diversity of employees and treat them fairly without discriminating based on sex, nationality, ethnicity or others.</p>
<p>4 Promotion of environmental preservation</p> 	<p>We will strive for reduced environmental burdens and risks, as well as environmental preservation, including preservation of ecosystems, through business activities that are in harmony with the environment. We will contribute to the sustainable development of society and fulfill our responsibilities to the next generation.</p>
<p>5 Fair business practices</p> 	<p>We will carry out corporate activities in a fair and honest manner, not be involved in any form of misconduct, including bribery, and conduct free, fair, and transparent business dealings through sound competition in the market.</p>
<p>6 Safety and quality of products and services</p> 	<p>We will strive to contribute to society by supplying safe, reliable, and high-quality products and services.</p>
<p>7 Proper control of Confidential Information</p> 	<p>We will recognize that confidential information, including trade secrets, know-how, and customer information, is an important asset of the Company, and will use and manage the same appropriately. We will also respect confidential information disclosed by third parties and manage the same in a similar manner.</p>
<p>8 Supply chain</p> 	<p>We will strive to have the significance of sustainable procurement be well understood and embraced by our business partners in order to fulfill social responsibility throughout the supply chain.</p>
<p>9 Promotion of contributions to society</p> 	<p>We will be cognizant of our role as a corporate citizen, and engage in activities to interact actively with and contribute to society.</p>



Advancing Resources That Support Sustainable Growth Technological Development Capabilities

Basic Strategy for R&D

Competition is increasing in the chemicals industry due to the entry of companies from emerging countries, and the commoditization of specialty chemicals is also underway. Technological development capabilities to create value-added products are increasing in importance as an essential management resource for maintaining and strengthening global competitiveness.

In corporate R&D, which is the core of the Kuraray Group's technological development capabilities, projects that contribute to group-wide business expansion and profit are promoted under the corporate missions of "Create new businesses," "Strengthen and expand existing businesses," and "Establish and deepen core technologies" through close collaboration with in-house companies, business divisions, and R&D divisions in the Group companies.

R&D Organization

The Research and Development Division, which engages in corporate R&D, manages the Kurashiki Research Center, Tsukuba Research Center, KAI Corporate R&D (United States), the Functional Products Development Department, Vecstar Business Promotion Department, Intellectual Property Department, Market and Business Development Department, and Planning and Administration Department. Furthermore, in 2020 we established the Integrated Technology Fields Search Group at the Kurashiki Research Center to explore research areas that do not fall within the framework of conventional research institutes and that span multiple research institutes.

The two research centers promote R&D of new business, products, and technologies using their core technologies, which comprise organic synthesis and synthetic polymer technologies, catalytic chemistry, vinyl acetate-related polymer materials technology, carbon materials technology, battery material design technology, precision polymerization and denaturation, molding, polymer processing, and computational science. Taking advantage of their analysis and safety assessment techniques in addition to their R&D capabilities, the research

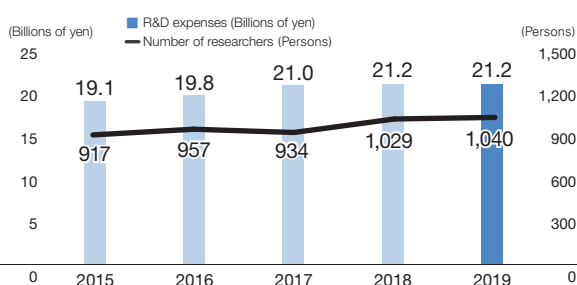
centers also play a role as analysis hubs for all Kuraray Group companies to solve their technical problems.

In addition, the Research and Development Division evaluates and analyzes intellectual property information to support business strategies.

Each business division has its own R&D department at the Kuraray Group's base plants. Including overseas bases, these plants engage in R&D activities while closely working with corporate and business divisions' research, development, and production bases.

The Technology Division, which is responsible for corporate production technology development, manages the Technology Development Center and the Technology

R&D Expenses and Number of Researchers



and Maintenance Management Department. It promotes progress in production technology by collaborating with the Production and Technology Management Division of each in-house company and the Production and Technology Development Department of each plant. It has also begun collaborating with the Research and

Development Division in the early stages of development to accelerate the evolution of new business and products. Since 2018, this department has taken the lead in implementing digital strategies for company-wide R&D as well as production technology.

Priority Policy

Kuraray's corporate R&D activities are guided by its corporate missions to "Create new business," "Strengthen and expand existing businesses," and "Establish and deepen core technologies."

To "Create new business," our policy is to commercialize materials that society needs in areas where only Kuraray can commercialize them. Focusing on our strengths, we set our target in the area within "walking distance" from our home ground (existing businesses), repeatedly taking half-steps or full strides forward from the home ground to expand our business into new domains.

To advance the concept to "Strengthen and expand existing businesses," every one of our business divisions and Group companies collaborate to quickly resolve problems in production and development fundamentals to fortify Kuraray's core business.

Achieving progress with the above will help to "Create of new business" and "Strengthen and expand existing business."

R&D Focus

R&D Topic 1

VECSTAR™ (Liquid crystalline polymer film) / VECSTAR™ FCCL (Flexible copper clad laminates)

The demand for VECSTAR™ is expected to increase further as an electronic circuit board for electronic devices such as smart phones and for vehicle-mounted high speed communication devices, thanks to its high reputation for low transmission loss in the high-frequency wave range and excellent workability. This led us to upgrade the existing production facilities in 2018. We are also upgrading the existing production facilities for flexible copper clad laminates VECSTAR™ FCCL, which uses liquid crystalline polymer film at the Kashima Plant, and is expected to increase our production capacity for the Saijo Plant and the Kashima Plant combined to 1.8 million m²/year during the second half of 2020.



R&D Topic 2

Polishing Pads for Semiconductors (CMP pads)

Polishing pads for semiconductors are made of high-hardness polyurethane, a new material developed by leveraging the polyurethane design and manufacturing technologies cultivated through the development of CLARINO™ man-made leather.



Multiple customers have begun the shift to Kuraray's CMP pads since their super-hard surfaces offer outstanding device polishing and smoothing capabilities, create few scratches despite their hardness, and deliver a long service life due to their high abrasion resistance. We have a system in place to provide pads that meet customer needs, and overseas customers are increasingly rating the products highly. We will continue to refine the business structure to accommodate customer needs for both advanced and existing processes.

R&D Topic 3

Anode Materials for Lithium-Ion

We are working on R&D of a new hard carbon that is made of plants and possesses a distinctive structure for use as an anode material for lithium-ion secondary batteries, as well as the development of the manufacturing technology. This new hard carbon will enable both excellent output performance and higher battery capacity than graphite, which is attributed to its structure. The evaluation of its utility as a next-generation anode material is in progress, with consumer applications including batteries for smart phones and tablet PCs, as well as uses for automobiles in mind.





Advancing Resources That Support Sustainable Growth Human Resources

Basic Approach to Human Resource Management

Based on the Kuraray Group Global Human Resource (HR) Policy, the Kuraray Group is making efforts to develop its organizational system regarding the promotion of diversity, fostering of human resources, and fair and just evaluation of

performance, as well as establishing a healthy corporate culture and creating new employment opportunities, so that each employee can grow personally through work.

The Kuraray Group Global HR Policy

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

Mechanisms and Systems for HR Development

Executives and Manager Candidate Development

To strengthen its management capability, the Kuraray Group has been providing executive management training (EMT) since 2012 for our business heads, as well as those heading corporate and administrative divisions, in addition to the presidents and similar-level personnel of the Group's subsidiaries outside Japan. EMT enables participants across businesses and regions to hold discussions and more fully perceive the direction the Kuraray Group should take. At each training seminar, we have first-rate consultants who provide information on a variety of themes to participants.

Career Support (Career Training)

Amid rapid changes in the business environment, the Kuraray Group supports the career development of employees through the following systems to enable them to improve their HR value independently and autonomously.

- (1) Training to design one's own career
We provide training for employees at turning-point ages at the Company (ages 30, 42, and 50) to give them opportunities to look back on their career and design their future career path. In the training, employees' superiors also receive guidance and participate in supporting subordinates' career development.
- (2) Provision of opportunities for career consultation
We have an in-house career advisors to help employees design their career and implement career programs.

■ Responding to Globalization of Operations (Global Talent Development Program)

Kuraray Group's sales ratio outside Japan has grown to nearly 70% in fiscal 2019, and approximately 40% of the Group's employees are working in the Group's operations outside Japan.

In order to foster human resources that can actively take part in conducting business internationally with the aim of achieving growth on a global basis, the Kuraray Group has been providing its global human resource development program since fiscal 2007, and more than 800 employees in Japan and from overseas operations participated in the program over the 13-year period through fiscal 2019. This program has been provided continuously, with the content of training revised every year.

Global Team Training (GTT), designed to develop global leadership capabilities for the section manager class, has been provided 18 times, with a cumulative total of 350 employees participating. The network of trained alumni has contributed significantly to the promotion of cross-border communication within the Group.

A trainee system, whereby younger employees are dispatched between the Head Office in Japan and overseas subsidiaries for a limited period of three months, has had more than 100 employees take part, and many of the participants are actively conducting business internationally as global personnel by going on assignments to the Group's subsidiaries outside Japan after they finish the trainee program.

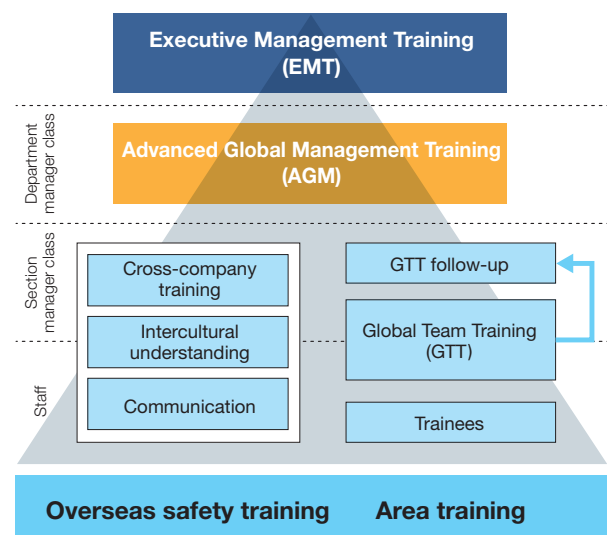
■ Global Human Resource Management

The Kuraray Group is developing a foundation for global human resource management to optimize the way we apply our human resources right across the Group's global operations. Specifically, in fiscal 2017 the Group began phased introduction of globally standardized personnel

evaluation and information systems. With these systems in place, we plan to implement basic human resource management on a global basis that encompasses (1) work goal-setting and personnel evaluation based on those goals,; (2) support for capability and career development,; and (3) discovery of competent human resources, rotation and optimal allocation of HR, and development of a succession plan.

Meanwhile, the globally standardized Kuraray Group behavioral index "Kuraray Competency 5x5" is being implemented and used as a personnel evaluation item and capability development benchmark. In addition, Kuraray sorted out job grades, which were different in each country and company, as global grades based on the duty size and is utilizing them for personnel allocation and selection of participants for human resource development programs.

Global Talent Development Program



Work-Style Reforms and Promotion of Diversity

■ Work-Style Reforms (Productivity Improvement, Working Hour Management, etc.)

Kuraray is promoting work-style reforms toward realizing the ideal work style conveyed in the Top Statement.

While driving the creation of a healthy corporate culture and employee mindset reform, Kuraray is also examining and implementing initiatives to enhance productivity and introducing flexible work programs. In fiscal 2019, a flextime system and work-interval guidelines were established and put into effect. In addition, the rate of taking paid holidays by regular employees, excluding managers, was about 88%.

Furthermore, in order to support employees' active engagement in productivity improvement, Kuraray started paying employees the amount equivalent to overtime compensation for overtime hours reduced from the previous year.

■ Promotion of Diversity

All employees, regardless of nationality, disability, age, gender, gender identity, or sexual orientation, respect the diverse values of individuals and foster a healthy corporate culture that maximizes their individual abilities. Specifically, we conduct training for managers with female subordinates.

The ideal work styles

- Carry out your tasks with awareness of regular work hours.
- Aim to deliver high-quality work within a given time.
- Cooperate with the people around you and share an efficient work style throughout the whole workplace.
- Stay refreshed and in good physical condition to gear up for your next the work day.



Advancing Resources That Support Sustainable Growth Safety Activities

Kuraray's Approach to Safety

In the Kuraray Group's business activities, safety is the cornerstone, an absolute requirement that forms the basis for all activities. Realizing workplaces where people can safely work at ease without accidents is an important theme we need to work on to maintain a stable supply of products and continue to be trusted by society. Based on this view, the Kuraray Group develops and operates safety management systems and conducts various activities. We are putting various measures in place to raise employee awareness of safety and establish safe actions and safety checks as routine practices.

At each workplace, we carry out risk assessments to evaluate the risk of process accidents and occupational incidents, promote fundamental equipment safety measures, and prevent accidents and incidents. In order to prepare for such situations, we share information such as cases of process accidents and occupational incidents, and are preventing recurrence by horizontal deployment of measures, and are training to minimize damage.

Safety Activity Management

In accordance with Safety Activity Management Rules, the Kuraray Group develops safety activity plans every fiscal year and implements them to ensure process safety and occupational safety. Specifically, the Safety Promotion Committee, attended by the President and executives in charge, carries out an overall assessment of the safety activity performance of the current year and decide an activity policy for the next fiscal year. Each plant and department conducts safety activities in accordance with their action plans that reflect the determined activity policy. Safety personnel from the Head Office, including

the executives in charge, visit each plant of the Kuraray Group in Japan twice a year to check the activity plan, progress, and outcomes. Head Office staff members visit the Group's subsidiaries outside Japan approximately once every three years to examine the same. Issues identified in on-site checks and the annual safety performance rating are used for overall performance evaluation. The evaluation results are incorporated into company-wide policy making and the safety activity management system for the next year.

Guiding Principle on Ensuring Safety	Action Courses on Ensuring Safety (FY2020)
<p>Safety Is the Cornerstone of Everything We Do</p>	<ol style="list-style-type: none"> 1. Ensuring "Safety First, Production (Construction and R&D) Second" 2. Predict Hazards and Make Sure the Safety before Taking Action, Then Confirm the Action Results Are What You Expected 3. All Employees Must Act Proactively to Ensure Safety

Targets and Performance in Safety Priority Activities

Evaluation: ○ Accomplished, △ Nearly accomplished, × Not accomplished

Item	FY2019			Items related to FY2020 safety activities
	Targets	Performances	Evaluation	
Process Safety and Disaster Prevention, Occupational Safety	Prevention of occupational injuries caused by careless or involuntary behavior of individuals	Through initiatives to boost "recognition" in the workplace and sharing, we strived to heighten individual awareness and reduce behavioral incidents caused by careless or unthinking behavior. Nevertheless, many behavioral incidents still occurred.	△	<ul style="list-style-type: none"> ● Ensuring hazard prediction "KY" to secure the safety of the workplace ● Recognition and realization in the workplace when something feels wrong, and acting on it ● Review and enhancement of "new employee training" ● Implementation of measures to discover latent risks and to minimize actualization risks with regard to process safety ● Reliable operation of the Global Safety Activity Management System
	Transition to a situation where all employees actively take part in safety activities	We continue to work to get everyone in the organization to understand properly the purpose of the initiatives and provide feedback on suggestions/proposals, and having them evolve into proactive ones.	○	
	Promotion of workplace improvement (facilities and operation) by realizing when something feels wrong	We are promoting workplace improvement by developing an environment in which it is easier to notice when something feels wrong through the 5S activities, and we are also implementing measures through on-site patrols and other measures.	○	
	Prevention of process accidents/troubles by making through "check"	While we have been promoting initiatives to incorporate a concrete list of points to be confirmed into the procedure document and checklists, and reviewing difficult-to-follow rules, accidents/troubles and other incidents due to insufficient checking still occur. In particular, it is necessary to review how to give instructions to new employees and confirm work status.	△	
	Implementation of measures to discover latent risks that can lead to process accidents and minimize the occurrence of those risks	Through initiatives to broaden our thinking to off-normal operation/conditions and others, we worked to discover risks, and progressed with confirmation of the maintenance status of measures implemented in the past and their effects. In the wake of a series of fire accidents involving explosions occurred at plants outside Japan since 2019, we initiated emergency safety audits.	△	
	Reliable operation of the Global Safety Activity Management System	In accordance with the established management system, we worked to share safety information and confirm the activity status by visiting overseas bases and holding the Global Meeting. We also initiated emergency safety audits of the chemical plants.	△	

Numerical Targets and Results

	FY2019			FY2020	
	Targets	Criteria for evaluation	Actual results	Targets	Criteria for evaluation
Process safety	Zero	Zero process accidents	10 cases	Zero	Zero process accidents
Occupational safety	Zero	Zero A and B rank incidents ^{*1}	5 cases (6 persons) ^{*3}	Zero	Zero A and B rank incidents ^{*1}
		The frequency rate of all occupational incidents ^{*2} : 1.5 or less	3.20		The frequency rate of all occupational incidents ^{*2} : 1.5 or less

- *1 A and B rank incidents: An evaluation ranking of occupational incidents using Kuraray's proprietary system that rates the seriousness of occupational incidents from A to D in accordance with the levels of potential disorders and with the levels of faults that caused such incidents. An incident rated A or B is considered to be a serious incident.
- *2 The frequency rate of all occupational incidents: The number of all occupational incidents requiring medical attention per million working hours.
- *3 Includes a case in which two workers were simultaneously affected by one process accident.

In fiscal 2019, however, there occurred 10 cases of process accidents (seven in Japan and three outside Japan), five A and B rank incidents (one in Japan and four outside Japan), and the frequency rate of all occupational incidents for the entire Group was 3.20, failing considerably to meet the target. With respect to process accidents in Japan, there were slight leakages of hazardous materials and minor fires at facilities, which did not lead to a major incident. On the other hand, as two of the three process accidents outside Japan

involved a small explosion, emergency safety audits were initiated at overseas chemical plants. We aim to ensure progress with initiatives for issues identified through audits and improve the safety management level. As for occupational incidents, we will work to reduce minor "behavioral incidents" due to careless and negligent actions that account for the majority of them, and strengthen our facilities and management with the aim of eliminating major incidents (A and B rank incidents) such as workers being caught in machines.

Focus

Safety Audits for Chemical Plants Outside Japan

In response to a series of fire accidents in recent years involving explosions at chemical plants of the Group's subsidiaries outside Japan, we initiated safety audits for chemical plants outside Japan to ensure the safety and stable operation of the Group overseas. The audits include the determination of what can no longer be carried out, whether there are any omissions or deficiencies in management items, and whether long-term stable operations have led to overconfidence and complacency about safety. The audits have detected some issues with the change control process crucial to ensuring safety, the operation of permission/approval for specific works, and the identification of risk sources during off-normal operations (such as start-up and suspension of operations).

For those issues, we will work to develop/enhance process safety management systems that are suitable for their respective plans while stepping up support from the Group in Japan.



Advancing Resources That Support Sustainable Growth Environmental Management

Kuraray's Approach to Environment-Friendly Manufacturing

We believe that the Kuraray Group's mission is to manufacture basic and intermediate materials that will contribute to creating a low-carbon and environment-friendly society and minimize their environmental impact as much as possible. Based on this philosophy, the

Kuraray Group is continuing to conserve the environment by promoting measures to combat global warming, curb chemical substance emissions, and effectively utilize resources by adopting global manufacturing.

Environmental Management System

The Kuraray Group has established the Kuraray Group Environmental Policy and is promoting environmental conservation activities. These activities are in the P (plan) D (do) C (check and evaluate) A (act and improve) cycle for constant improvement according to the Kuraray

Group Environmental Activity Management Rule. Kuraray plants and subsidiaries have acquired ISO 14001 certification and are steadily operating ISO 14001 systems.

Kuraray Group Environmental Policy

The Kuraray Group has established the following policy to contribute to the sustainable development of society and fulfill its responsibilities to future generations through business activities in harmony with the environment.

Basic Policy

1. We give maximum consideration to the environment in conducting our business operations.
2. We conduct perpetual environmental improvement activities.
3. We develop technologies and products which contribute to improvement of the environment.

Activity item	FY2019 targets	Results
Global warming prevention	<ul style="list-style-type: none"> ● Kuraray Group in Japan: <ul style="list-style-type: none"> • Implement measures to reduce GHG emissions by 13,000 tons-CO₂ or more. • Improve at least 1% to the GHG emission intensity index*¹ from the previous year. ● Overseas subsidiaries: <ul style="list-style-type: none"> • Improve at least 1% to the energy intensity index from the previous year. 	<ul style="list-style-type: none"> ● Kuraray Group in Japan: <ul style="list-style-type: none"> • Implemented measures to reduce GHG emissions by 21,000 tons-CO₂. • The GHG emission intensity index fell by 1.7% from the previous year. ● Overseas subsidiaries: <ul style="list-style-type: none"> • The energy intensity index declined by 5.0% from the previous year.
Effective utilization of water resources	<ul style="list-style-type: none"> ● Kuraray Group in Japan: <ul style="list-style-type: none"> • No specific numerical targets were set. ● Overseas subsidiaries: <ul style="list-style-type: none"> • Improve at least 1% to the water (excluding seawater) usage amount index*¹ from the previous year. 	<ul style="list-style-type: none"> ● Kuraray Group in Japan: <ul style="list-style-type: none"> • Efforts were made to use water more effectively. ● Overseas subsidiaries: <ul style="list-style-type: none"> • The water (excluding seawater) usage amount index*¹ fell by 5.4% from the previous year.
Management of chemical substance emissions	<ul style="list-style-type: none"> ● Kuraray Group in Japan: <ul style="list-style-type: none"> • Reduce the amount of JCIA-designated PRTR substance emissions*² to less than 957 tons. (Keep it below the FY2016 result.) ● Overseas subsidiaries: <ul style="list-style-type: none"> • No specific numerical targets were set. 	<ul style="list-style-type: none"> ● Kuraray Group in Japan: <ul style="list-style-type: none"> • JCIA-designated PRTR substance emissions were 967 tons. ● Overseas subsidiaries: <ul style="list-style-type: none"> • Chemical substance emissions regulations were observed in each country/area.
Reduction of waste	<ul style="list-style-type: none"> ● Kuraray Group in Japan: <ul style="list-style-type: none"> • Implement measures to reduce waste by the equivalent of 1% relative to FY2016 level (900 tons) or more. • Reduce the amount of disposal to landfill to less than the FY2016 result (251 tons). ● Overseas subsidiaries: <ul style="list-style-type: none"> • No specific numerical targets were set. 	<ul style="list-style-type: none"> ● Kuraray Group in Japan: <ul style="list-style-type: none"> • Implemented measures to reduce waste by 2,030 tons. • The amount of disposal to landfill was 365 tons. ● Overseas subsidiaries: <ul style="list-style-type: none"> • Legal requirements were observed in each country/area, and efforts were made to reduce and quantitatively manage the amount of waste produced.
Environmental accounting	—	<ul style="list-style-type: none"> ● The amount of investment for environmental conservation: ¥1,674 million (FY2018: ¥1,153 million) ● The cost of environmental conservation activities: ¥2,978 million (FY2018: ¥2,402 million)

*1: Intensity index: A value obtained by dividing equivalent production by environmental impact. The 2016 result was set to 100. (Equivalent production: Production volume converted from the production volume of each product as the production volume of the reference product using a conversion factor determined based on the environmental load intensity of each product in the reference year.)

*2: JCIA-designated PRTR substance: Specific chemical substances in the Law concerning Pollutant Release and Transfer Register (PRTR Law) and substances targeted under voluntary control standards set by the Japan Chemical Industry Association (JCIA).

Environmental Performance

The Kuraray Group in Japan implemented measures to reduce 21,000 tons-CO₂, which exceeded the target of reducing at least 13,000 tons-CO₂ of GHG emissions in fiscal 2019. However, these measures only contributed to decreasing total GHG emissions by about 10,000 tons-CO₂ from fiscal 2018. This was due to the increase in emissions by skipping a year for the large-scale regular repair work that is normally carried out every other year at a production site, occurring production trouble, and changing product brand composition. On the other hand, the GHG emission intensity index declined by 1.7% from fiscal 2018 due to the decrease in equivalent production, failing to achieve the target of an improvement of 1% or more.

The Kuraray Group in Japan achieved the fiscal 2019 target of waste reduction by at least 900 tons with the result of a 2,030-ton decrease. On the other hand, the emissions of JCIA-designated PRTR*² substances amounted to 967 tons in fiscal 2019, slightly being more than the target of keeping the emissions below the fiscal 2016 result (957 tons).

Overseas subsidiaries did not meet the targets of improving 1% to the energy intensity (production) index and the water usage amount (production) index from the previous year. The energy intensity index fell by 5.0% from fiscal 2018, and the water usage amount index decreased by 5.4% from fiscal 2018. The decrease was due to a large decline in equivalent production as result of the switch from in-house production of intermediate product to purchasing from outside source at a production base although both energy and water usage amounts remained at the same level as in the previous fiscal year.





Photo courtesy: Japanese Organization for International Cooperation in Family Planning (JOICFP)

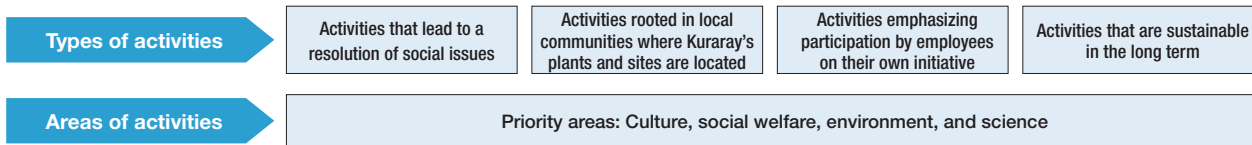
Advancing Resources That Support Sustainable Growth Trust

Social Contribution Activities

With the understanding that sound and sustainable social development is a requirement for corporate growth and prosperity, we, the Kuraray Group, contribute to society through our products and businesses that provide value to people and, as a corporate citizen, address social issues within a reasonable scope.

Kuraray Group Social Contribution Policy

The Kuraray Group vigorously conducts social contribution activities in accordance with the following policy.



Activities of Kuraray

Kuraray holds Chemistry Classes for Boys and Girls that utilize the facilities of its plants, operates workshops for people with intellectual disabilities, and donates the Kuraray Fureai (Rapport) Fund (a matching gift program).

Kuraray also hosts greening activities such as forest conservation and cleanup volunteering around its plants.

Examples of activities

- "Sending School Backpacks Across the Sea"
- "Chemistry Classes for Boys and Girls"
- Operating workshops for people with intellectual disabilities
- "Kuraray Fureai (Rapport) Fund"
- Activity with emphasis on link to local communities



Okayama: cleanup of Lake Kojima basin



For more information about the targets and results of each activity, please visit our website:
https://www.kuraray.com/csr/report2020/activity_target_and_results

Activities of the Kuraray Foundation

In collaboration with external organizations with deep ties to the history and business of Kuraray, the Kuraray Foundation* subsidizes activities that contribute to the resolution of social issues.

- Sponsorship of the Artist in Residence Kurashiki, Ohara (ARKO)



Employees of the Kurashiki Plant visit an atelier at ARKO

- Support for the development of human resources involved in the restoration and maintenance of artworks
- Implementation of academic research contributing to employment promotion of people with disabilities
- Grant for maternal and child health care in Afghanistan
- Support for victims of torrential rains in western Japan
- Grant for National Institutes for Humanities (NIHU) International Prize in Japanese Studies

* Kuraray Foundation: A social contribution foundation (nonprofit general incorporated foundation) established in 2016 with contributions from Kuraray.

Risk Management and Compliance

Risk Management and Compliance Promotion System

Kuraray monitors risks regularly as the Group, led by the Risk Management and Compliance Committee, and identifies material risks that could have a significant impact on business management. Such risks are proposed to the President, who then specifies critical management risks, and priority countermeasures are carried out after deliberations by the Board of Directors. The Risk Management and Compliance Committee is working to ensure priority countermeasures against business management risk, as well as compliance with laws and regulations and corporate ethics, and realizes fair business practices.

Risk Management Policy

The Kuraray Group Risk Management Policy, which the President disseminates to each organization, consists of a long-term, continuous “Basic Policy” embracing overall Group risk management and “Tasks for the Fiscal Year” that are to be focused on in a relevant fiscal year in light of social conditions and trends at the Company and other companies, thereby allowing flexible and prompt actions to be taken against changes in the risk environment while maintaining the basic approach to responding to risks.

FY2020 Kuraray Group Risk Management Policy

Basic Policy

- (1) Completely prevent illegal or inappropriate conduct that betrays the trust of society.
- (2) Completely prevent accidents and injuries (e.g., process accidents, occupational injuries, pollution, and product defects) that threaten the health and safety of employees, the local community, clients, partners, and so on.
- (3) Should an event occur that seriously impacts the business or society, be sure to secure trust from society, safety, and health, and implement measures to achieve business continuity or early recovery. (Prioritize trust from society, safety, and health, and then work to continue or restore the business.)

Tasks for the Fiscal Year

- (1) Conducting careful re-examination by the entire Group, including affiliated companies in Japan and overseas, of the risks regarding violations of the Antimonopoly Act, and thoroughly enforcing measures to prevent recurrence.
- (2) Conducting an overall inspection of the facilities and soft aspects of overseas plants in particular, and striving to achieve improvement and refinement, in order to reduce the risk of the occurrence of process accidents.
- (3) Clarifying the classification and management method of information and data in accordance with their importance, and strengthening initiatives for maintenance.
- (4) Continuing to inspect, improve, and enhance the quality assurance system, to increase the trust in products.



For more details, please visit our website:

<https://www.kuraray.com/csr/report2020/riskmanagement>

Group Compliance

“Our Commitment” states the principles of our conduct which we should adhere to in our business activities. The “Kuraray Group Code of Conduct” serves as guidelines to implement the commitment in performing day-to-day work. The Group’s top executive has declared that we will comply with laws and regulations and “Our Commitment” under any and all circumstances. To share these principles and commitments among all Kuraray Group personnel throughout the world, the Compliance Handbook has been compiled containing the foregoing



Compliance Handbook

declaration by the top executive and explanations of the “Kuraray Group Code of Conduct.” To disseminate these principles and commitments among all Kuraray Group employees, a compliance handbook has been distributed to all Group employees in Japan and overseas

In addition, we have appointed compliance officers at plants and overseas offices of Kuraray and Group companies, and have organized regional compliance committees. In fiscal 2019, the timing of the regional compliance committees’ development of action plans and reporting on accomplishments was aligned with the timing of the holding of the Risk Management and Compliance Committee meeting, to realize a more efficient and effective operating system.

■ Whistleblower System

The Kuraray Group has the Kuraray Group Employee Counseling Room in place for all employees of the Kuraray Group in Japan (including contract employees, temporary employees, and part-time employees) as a whistleblower

system to prevent or detect and resolve compliance violations at an early stage.

In addition, we established the Global Compliance Hotline, which is available to all Group employees across the globe, in order to respond to the rapid progress of globalization.

Number of Consultations at the Kuraray Group Employee Counseling Room Handled in Japan



Thorough Compliance Measures

The Company underwent an on-the-spot inspection in February 2017 by the Fair Trade Commission of Japan in relation to the manufacturing and sale of activated carbon used in water purification facilities, waste incinerators, etc., and was issued a cease-and-desist order and an administrative monetary penalty payment order under the Antimonopoly Act by the said Commission in November 2019 with regard to the manufacturing and sale of designated activated carbon used in some of the water purification facilities, waste incinerators, etc. in eastern Japan and districts in the Kinki region. We were also issued a cease-and-desist order by the Fair Trade Commission of Japan in March 2017 in relation to the bid participation for designated KURALON™ (PVA fiber) products for which the Acquisition, Technology & Logistics Agency was to place orders. We seriously and sincerely accept the gravity of the situation of having received cease-and-desist orders due to violations of the Antimonopoly Act on two occasions, consider compliance with the Antimonopoly Act as one of the highest-priority management issues, and are making every effort to prevent recurrence through various measures.

■ Concrete initiatives taken so far to prevent recurrence

- (1) Establishment of the Antimonopoly Act Compliance Program
 - (i) Amendments of the rules and strengthening of the system
 - Transmitted a message from the top
 - Amended the Antimonopoly Act Compliance Guidelines
 - Established a guideline with respect to contact with competitors
 - Established a prior review system for transactions and meetings with competitors and a system to monitor bid participation information
 - (ii) Internal education
 - Held seminars by an external lawyer on the Antimonopoly Act
 - Conducted training for employees of the divisions
 - (iii) Internal investigation
 - Internal interviews regarding the status of compliance with the Antimonopoly Act
 - Implemented an internal system for self-reporting violations targeting employees in the sales division, including those of affiliated companies
 - Conducted an audit by the Legal Department targeting departments that participate in bids

■ FY2020 action plans for the prevention of recurrence

- (1) Expansion and enhanced operation of the Antimonopoly Act Compliance Program, including globally

- (i) Amendments of the rules and strengthening of the system
 - Re-amendment of the Antimonopoly Act Compliance Guidelines
 - Global roll-out of the guideline with respect to contact with competitors
 - Global roll-out of the prior review system for transactions and meetings with competitors and the system to monitor bid participation information
- (ii) Internal education
 - Host seminars by external speakers for officers of the Company and its Group companies
 - Host seminars for sales staff in Japan and overseas, using internal violation cases as examples
- (iii) Internal investigation
 - Internal interviews regarding the status of compliance with the Antimonopoly Act, including with respect to overseas subsidiaries
 - Conducted an audit by the Legal Department targeting departments that participate in bids, including departments of overseas subsidiaries
 - Implemented an internal self-reporting system, including with respect to overseas subsidiaries
- (2) Amendments of the HR System (in Japan)
 - Enhanced the rotation system for managerial staff who engage in the same duties for a certain period of time

■ Compliance Seminar

Since 2017, department-based education and compliance seminars have been provided to all Group employees in Japan (including contract employees, temporary employees, and part-time employees). We conducted department-based education in a workplace discussion format in 2018, with a view to realizing an open "work environment where employees can regularly exchange honest opinions." In addition, in 2019, we held seminars by external speakers in a discussion format for each division under the theme of improving the situation regarding insufficient communication between the Head Office (division) and plants, which had been highlighted in the department-based education during the previous year. During those seminars, we worked on the prioritization and development of countermeasures against compliance challenges that we face, beyond the walls of the Head Office and plants, and shared the details with each department's staff in subsequent department-based education, to engage in initiatives to resolve challenges with higher priorities.

We will continue to hold similar seminars and provide department-based education.

Corporate Overview

Company Name	Kuraray Co., Ltd.
Representative Director and President	Masaaki Ito
Established	June 1926
Head Office	Ote Center Building, 1-1-3, Otemachi, Chiyoda-ku, Tokyo 100-8115, Japan
URL	https://www.kuraray.com
Capital	JPY89 billion
Employees (Consolidated)	11,115
Group Companies	77 consolidated subsidiaries, 2 equity-method affiliates
Major Operations	United States, Germany, Belgium, China, Singapore

Stock Information

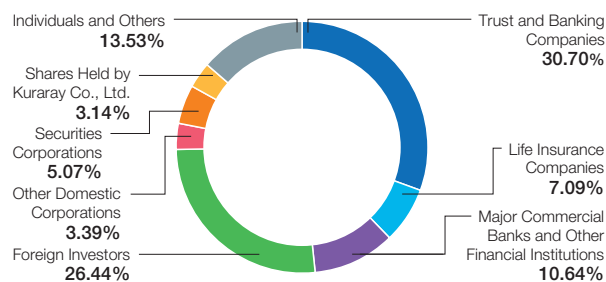
Securities Code	3405
Issued and Outstanding Shares	354,863,603 shares
Number of Shareholders	52,200
Domestic Stock Exchange Listing	Tokyo Stock Exchange
Shareholder Register Agent	Sumitomo Mitsui Trust Bank, Limited 1-4-1, Marunouchi, Chiyoda-ku, Tokyo 100-8223, Japan
Independent Auditor	PricewaterhouseCoopers Aarata LLC

Major Shareholders

Name of shareholder	Number of shares held (thousands)
The Master Trust Bank of Japan, Ltd. (Trust Account)	37,290
Japan Trustee Services Bank, Ltd. (Trust Account)	25,774
National Mutual Insurance Federation of Agricultural Cooperatives	10,882
Nippon Life Insurance Company	10,448
Japan Trustee Services Bank, Ltd. (Trust Account 9)	6,817
Japan Trustee Services Bank, Ltd. (Trust Account 7)	6,476
Japan Trustee Services Bank, Ltd. (Trust Account 5)	6,251
Meiji Yasuda Life Insurance Company	5,969
JP MORGAN CHASE BANK 385151	5,558
Trust & Custody Services Bank, Ltd. (Securities Investment Trust Account)	4,981

Note: Kuraray Co., Ltd. holds 11,130,834 shares of treasury stock.

Shareholder Composition (Shareholding Ratio)



Kuraray Group Network (As of January 1, 2020)

Domestic

Group Main Bases

- Head Office (Chiyoda-ku, Tokyo)
- Osaka Office (Osaka)
- Kuraray Trading Co., Ltd. (Osaka)
- Kuraray Noritake Dental Inc. (Chiyoda-ku, Tokyo)
- Kuraray Plastics Co., Ltd. (Osaka)
- Kuraray Engineering Co., Ltd. (Osaka)
- Kuraray Techno Co., Ltd. (Osaka)
- Kuraray Kuraflex Co., Ltd. (Osaka)
- Kuraray Fastening Co., Ltd. (Osaka)

Plants

- Kurashiki Plant (Kurashiki City, Okayama)
- Saijo Plant (Saijo City, Ehime)
- Okayama Plant (Okayama City, Okayama)
- Niigata Plant (Tainai City, Niigata)
- Kashima Plant (Kamisu City, Ibaraki)
- Tsurumi Plant (Bizen City, Okayama)

Laboratories

- Kurashiki Research Center (Kurashiki City, Okayama)
- Tsukuba Research Center (Tsukuba City, Ibaraki)

Overseas

Regional Headquarters

- Kuraray America, Inc. (Texas, U.S.A.)
- Kuraray Europe GmbH (Frankfurt, Germany)
- Kuraray Asia Pacific Pte. Ltd. (Singapore)
- Kuraray (Shanghai) Co., Ltd. (Shanghai, China)
- Kuraray Hong Kong Co., Ltd. (Hong Kong, China)
- Kuraray India Private Limited (New Delhi, India)
- Kuraray South America Ltda. (São Paulo, Brazil)
- Kuraray (Thailand) Co., Ltd. (Bangkok, Thailand)

Plants

- Kuraray America, Inc. (Texas, North Carolina, and West Virginia, U.S.A.)
- MonoSol, LLC (Indiana, U.S.A., Worcestershire, U.K.)
- Kuraray Europe GmbH (Frankfurt and Troisdorf, Germany)
- Eval Europe N.V. (Antwerp, Belgium)
- OOO TROSIFOL (Nizhny Novgorod, Russia)
- Kuraray Asia Pacific Pte. Ltd. (Singapore)
- Kuraray Methacrylate (Zhang Jia Gang) Co., Ltd. (Zhang Jia Gang, China)
- Kuraray Korea Ltd. (Ulsan, South Korea)
- Plantic Technologies Limited (Victoria, Australia)
- Calgon Carbon Corporation (Pennsylvania, Kentucky, and Mississippi, U.S.A., U.K., France, and other countries)

Laboratory

- KAI Corporate R&D (Texas, U.S.A.)



KURARAY CO., LTD.

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Issued in May 2020

