Kuraray Report 2023 Introduction Value Creation of the Kuraray Group Three Challenges Business and Growth Strategies Management Foundation Corporate Data \equiv < > 11

Top Statement



Mobilizing the strengths of our employees worldwide, we will work together as "One Kuraray" to fulfill our mission:

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

Hitoshi Kawahara

President and Representative Director

Taking on Challenges Is the Force That **Drives Success**

Since its founding in 1926, the Kuraray Group has grappled head-on with ways of addressing social issues through its business activities. Magosaburo Ohara, our founder, and Soichiro Ohara, our second President, sought to build the business through technological innovation while stressing the importance of fulfilling the Company's social responsibilities, helping to address environmental issues, and contributing to the improvement of people's quality of life.

This mission has been passed down through the generations and remains unchanged today, as expressed in our Corporate Statements: "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."

In fulfilling our mission, I believe it is vital to take on challenges without the fear of small failures. When I say "failure," I mean after making needed preparations and setting out to accomplish an ambitious goal or a new venture, to fail in a way that will lead to success down the road. Failure that leads to success is the driving force behind future accomplishments, which I believe has meaningful value.

The Kuraray Group has always had an uninhibited, open-minded corporate culture that affords employees opportunities to take on challenges regardless of age or job position. I still carry a strong impression from the department I got assigned to when I first joined the Company. The atmosphere was one in which team members could exchange opinions frankly without worrying about who was senior or who was junior, and younger employees didn't have to hesitate before jumping in and playing an active part.

I truly value the free, open culture the Kuraray Group has cultivated over the years. By bringing

together employees around the world as "One Kuraray," my hope is to create a dynamic company that brims with even greater vitality and creativity than ever before. For this reason, it is critical for our people to view sweeping changes in the operating environment as opportunities—to have the ambition, the will to act, the grit to come up with new ideas, and to continue taking on challenges in a range of contexts. This spirit of embracing challenges is the Kuraray Group's greatest asset and is the force that will drive our ongoing growth as a Specialty Chemical Company.

Moving to Implement the Three Challenges of the Medium-Term Management Plan "PASSION 2026"

Three challenges

"PASSION 2026" is the five-year Medium-Term Management Plan we formulated to make the long-term "Kuraray Vision 2026" a reality.

The plan sets out three challenges for the Kuraray

Group to pursue to create value for customers, society, and the planet while growing sustainably as a Specialty Chemical Company. The first challenge is "Sustainability as an opportunity." To achieve the Sustainability Long-Term Vision, which was formulated alongside "PASSION 2026," we grouped sustainabilityrelated measures based on the materiality of the Kuraray Group under three Ps: Planet, Product, and People. Then, we established performance indicators in our Sustainability Medium-Term Plan to guide these measures. The second challenge is "Innovations starting from networking." Here, we work to create innovation as a growth driver by connecting people with people and technologies with technologies both outside and within the Company. The third challenge is "Transformation of people and organization." This involves digital-driven process innovation and the promotion of diversity, which will help us realize a broad range of ideas on the transformation of people and organizations.

The key to addressing these three challenges will

Medium-Term Management Plan "PASSION 2026"

Sustainability as an Opportunity

Take sustainability as an opportunity and promote it with the collective strength of the whole group



Innovations Starting from Networking

Create a growth driver by connecting people with people, and technologies with technologies, both within and outside the Company



Transformation of People and Organization

Transform people and organization via digital-driven process innovation and the promotion of diversity which will, in turn, help us bring to bear a broad range of ideas



be to understand the breadth and depth of all the issues involved and to frame our responses across concrete implementation phases. For example, "Sustainability as an opportunity" includes a goal of achieving net-zero carbon emissions by 2050. This requires us to take on challenges from a wide range of perspectives across the entire value chain. "Innovations starting from networking" involves the challenge of broadly surveying available resources within and outside the Company and pursuing collaboration. Meanwhile, the challenge "Transformation of people and organization" represents a profound call to build an organizational structure that capitalizes on the capabilities of every employee. I will say more about the main initiatives and the status of each challenge. But first, I want to note the initial year of the Medium-Term Management Plan got off to a solid start, moving the three challenges squarely into the implementation phase.



Sustainability as an Opportunity

Achieving Net-Zero Carbon Emissions by 2050



I would like to say a word about the first P, the Planet aspect of "Sustainability as an opportunity." We are making Group-wide efforts to achieve net-zero carbon emissions by 2050. We set a goal of reducing greenhouse gas emissions (Scope 1 and 2) by 30% by the halfway point, 2030, against the benchmark year of 2019. We are now taking concrete steps to reach this goal.

In 2022, we moved ahead with energy-saving projects and realized greener electricity procurement by purchasing renewable energy certificates. We also aim to reduce CO₂ by-products in the manufacturing processes of the activated carbon business. We have positioned a carbon dioxide capture, utilization, and

storage (CCUS)*1 system as a longer-term initiative to achieve this goal, and we set up a cross-organizational project team to lead this effort. Regarding the shift to alternative energy (our long-term goal after 2030), we have started collecting information by taking part in regional research gatherings and various councils in Japan and abroad.

Many of the Kuraray Group's products and services themselves contribute to the reduction of greenhouse gas emissions in society. Thus, we see the trend toward carbon neutrality not only as a risk but also as an opportunity for business growth, and will work to create and propose further value in this area.

*1 Carbon dioxide Capture, Utilization, and Storage: An initiative to utilize or store CO2 separated from exhaust gas from industrial

Identifying Products, Technologies, and Target Areas for More Focused **Resource Allocation**



With regard to the second P, Product, let me explain our system for evaluating product sustainability. The Kuraray Group is committed to prioritizing resource allocation to products and technologies that make strong contributions to the natural and living environments as well as offer high economic value. To this end, we introduced the Kuraray Portfolio Sustainability Assessment (PSA) system in 2022 with the aim of continuously enhancing the business portfolio. Based on an evaluation index established by the WBCSD*2 to help companies build more sustainable product portfolios, we constructed our PSA system in accordance with specialized guidelines for the chemical industry and designed it with additional evaluation criteria unique to the Kuraray Group.

Products that contribute to both the natural and living environments include EVAL™ EVOH resin used in food packaging and PLANTIC™ biomass-derived

gas barrier material, as well as activated carbon used in water and air purification. Products that contribute to the natural environment include KURALON™ PVA fiber, which is used as an asbestos substitute in building materials, and various products that use bio-based or recycled raw materials. Products that contribute to improving the living environment include dental materials. VECSTAR™ liquid crystal polymer film, and GENESTAR™ heat-resistant polyamide resin.

The Kuraray PSA system can be applied to a variety of other uses, such as providing indicators for a phase gate product development process or decision-making criteria for capital investment. The system can also be used to help verify the direction of marketing and application development, and to confirm points that make products most appealing to users. In the case of EVAL™ mentioned above, when this material is used in food packaging, it helps to reduce food loss (by enabling the long-term storage of food) and the logistics burden (by enabling more lightweight containers). Conversely, EVAL™ is highly rated for its ability to prevent vaporized gasoline from escaping into the atmosphere when used in plastic automobile gasoline tanks. However, in regions where vehicle electrification is progressing, the market for gasoline-powered vehicles will contract, and the use of plastic gasoline tanks will decline. In such a case, the evaluation of EVAL™ would be lower from an economic value point of view. Because the same product may contribute differently depending on its practical application, our PSA system can be used as an excellent guide for determining the direction of product development.

However, the PSA system is still a work in progress, and there is an ongoing need to reassess and reconsider its evaluation criteria. For instance, the PSA system determines economic value based on fluctuations in net sales but does not yet incorporate

^{*2} World Business Council for Sustainable Development.



a standard for operating income, which is a profitability indicator. We want to evolve the system so that it can make an in-depth analysis of products from a variety of angles—for example, which choices of application or region would make a greater contribution to society, and which would lead to greater profitability.

The "Power of People" Is the Well-Spring of Our Competitiveness



The third P is People, who are the foundation of all these activities. I believe that the well-spring of the Kuraray Group's competitiveness is the "power of people;" in other words, our human capital.

The Kuraray Group has accelerated its expansion into overseas markets through a series of acquisitions and other efforts since the 2000s. The result is that, although we grew rapidly as a global company, our personnel systems did not keep track with the global framework. This has given rise to issues such as the underutilization of human resources at overseas bases. To address these issues, "PASSION 2026" established three priorities for creating a global framework for our personnel systems: developing an HR platform and personnel data, HR development based on a long-term perspective, and personnel measures to promote diversity.

In developing the HR platform and personnel data, we defined basic approaches and frameworks that are common across our global network. We are now working to align job grades in Japan and overseas, visualize the process for determining compensation, and introduce successor development plans at overseas bases. In terms of long-term HR development, we are enhancing our executive candidate development program and expanding the global talent development program. Measures to promote diversity include the start of initiatives to build horizontal collaboration among foreign employees working in Japan.

Furthermore, we established a new Global HR Center in January 2023, transitioning to an organizational framework that forms project teams based on different themes. I have high expectations the Center will increase the pace of various measures and implement an IT infrastructure to support our HR initiatives.

Through these measures, we are striving to become a company where employees in a diverse workforce can find fulfillment in their work and take on challenges without fear of failure, generating a series of innovations while responding to change and continuing to grow.



Innovations Starting from Networking

Generating New Business Opportunities through Collaboration

The Innovation Networking Center (INC) is at the heart of the second challenge, "Innovations starting from networking." INC is tasked with integrating internal and external resources and serving to accelerate innovation. One of our major goals is to break away from a traditional corporate culture where each division is vertically divided and construct a network that can create value comprehensively.

Currently, INC is pursuing six strategic areas: Automotive, Paper & Packaging, Agriculture, Sports & Outdoors, Architecture & Construction, Life & Personal Care. In each area, INC is identifying unmet needs through customer dialogue and discovering new business opportunities. I have been very pleased to see INC identify a series of opportunities, more than I anticipated. Moreover, the number of employees applying to join INC, both in Japan and overseas, is growing.

In terms of next steps, in fiscal 2023 we are dividing INC into a Marketing Department and an Incubation Department. The Marketing Department

will continue to identify opportunities in strategic areas. The Incubation Department will narrow down the many identified opportunities and coordinate various in-house capabilities, such as in the business and Research and Development divisions, to target the commercialization of products and services.

Compared to INC, which is situated close to various customer markets, the Research and Development Division generates essential innovation through a creative, sophisticated technological framework that fuses related peripheral technologies and expertise based on our core technologies in polymer and synthetic chemistry. Under "PASSION 2026," as a new foundational platform, we have examined consumer and customer lifestyles 20 to 30 years from now. Backcasting from there, we identified suitable themes in terms of sustainability, QOL, and other factors, and have started R&D activities. We are also stepping up other efforts to generate innovation, such as reinforcing internal and external collaboration; globally marketing products developed in collaboration with INC; working with university research institutions; and making use of venture capital.



Transformation of People and Organization

Building Digital Technology into Our Management and Pursuing Transformation

To address the third challenge, "Transformation of people and organization," we are pursuing digital transformation across the Group. Our DX Vision challenges us to "Improve competitiveness, continuously evolve, and contribute to the world as a digitally savvy company." To this end, we are working on four priority fields: customer experience (CX) reforms, operational process reforms, business model reforms, and R&D and production technology simulations.

To harness digital transformation as a driver of

growth, it is crucial to first establish a governance framework that enables the active use of IT infrastructure globally. In January 2023, to further address Group-wide digital transformation, we reorganized and integrated the Global Digital Transformation (GDX) Office, IT Department, and G-SAP Promotion Group, to launch the new DX-IT Division. We will draw on progress in digital technology to build an operating framework that enables Group-wide projects to move forward more quickly and efficiently. Meanwhile, we are strengthening the cultivation of digital professionals. We are offering education and training to raise the level of digital literacy among all employees, including executives and managers. We will continue to aggressively invest in strategic digital transformation areas, as well as pursue management reforms, thereby further accelerating our evolution into a digitally savvy company.

Creating Second and Third Driversof Profit

"PASSION 2026" describes our mission to address the three challenges while also creating the next profit drivers beyond our mainstay vinyl acetate business. To this end, we are focusing on the isoprene and activated carbon businesses to underpin the growth of the Kuraray Group going forward.

In the isoprene segment, we completed a new plant in Thailand, which began producing isoprene chemicals in February 2023, followed by SEPTON™ thermoplastic elastomer and GENESTAR™ heatresistant polyamide resin. As a cost-competitive production site with state-of-the-art equipment, the new plant will play a central role in meeting mounting global demand for isoprene products. From a business continuity perspective, the new plant will play a key role in supporting stable supply. We expect demand for GENESTAR™ to increase in line with the weight reduction, electronic control, and electrification of automobiles. With the addition of the new plant,



we plan to increase expansion into global markets, including the Americas, Europe, and Asia, eventually leading to a second expansion stage in Thailand.

Activated carbon is a product that makes significant contributions to the natural and living environments. Rather than simply selling materials, the Kuraray Group has positioned the activated carbon business as a "solution business," which includes equipment proposals. Currently, the scale of the global market for activated carbon is 1.8–1.9 million tons. Boasting a combined production capacity of roughly 230,000 tons for virgin and reactivated carbon, the Kuraray Group ranks in the top position in the world in this market. We will continue to expand operations to solidify our presence in this market, which holds the promise of significant growth.

The Kuraray Group has three major strengths in the activated carbon business. First, our production and sales bases in Japan, Asia, the Americas, and Europe enable us to supply and sell products from a position in each country and region. Second, we have a wide range of activated carbon raw materials, including coconut-, bituminous coal-, and wood-based activated carbon. This allows us to offer products and services that meet customer needs. Third, with production facilities for both virgin and reactivated carbon, we have established a circular business model of collecting and reactivating used carbon from customers. Reactivated carbon is also a material that supports the environment, reducing the volume of greenhouse gases generated in the manufacturing process by about 80% compared to virgin activated carbon. In October 2022, we completed the expansion of our reactivated carbon production facility in Belgium, reinforcing our supply framework in the European region. Going forward, we plan to make further inroads with our reactivated carbon business in the Asian market.

Non-Negotiable: Safety Is the Cornerstone of Everything We Do

As we reinforce our global production framework, safety is non-negotiable; it's the cornerstone of everything we do. Our business continuity depends on us acting with safety as the top priority. At production sites, staying within budget and proceeding according to plan often tends to take precedence, making safety concerns unintentionally secondary. However, ensuring safety is precisely what makes stable production possible and this ultimately feeds profits.

Since 2019, each of our business companies and divisions have been engaging in activities to establish a safety management framework for our overseas production sites. We created a Global Process Safety Management Audit Team in 2022, which began safety audits of our chemical and activated carbon plants. This team of experts, consisting of members throughout the organization who are well-versed in process safety, allows us to identify and grasp issues from multiple perspectives and share knowledge to make safety improvements. Ultimately, we plan to deploy these safety management activities and the most effective safety management framework horizontally throughout the Kuraray Group.

Working Together as "One Kuraray" to Fulfill Our Mission

In the two years since becoming president, I have pondered ways to maximize the potential of all our employees around the world. We are a manufacturer of specialty chemicals, but the power of people is the foundation from which we conduct our business operations, such as developing materials, building manufacturing production facilities, managing logistics for raw materials and products, and carrying out

sales and marketing. I am convinced that maximizing the full potential of each employee, and amplifying that many times over as part of the collective strength of a team, will enable us to build a rocksolid framework that will not be shaken by changes in the environment, and will be reflected in our performance results. For this reason, daily communication with one another is important; creative tension arises when people express their convictions. But this also becomes the energy that supports expression of ideas. The creativity born out of such communication and discussions is highly valuable to our corporate activities.

I believe the three challenges identified in "PASSION 2026" serve as the focal points of communication between employees as they come together to collaborate and are the key themes guiding our efforts to work together as "One Kuraray" in creating new value in society.

The Kuraray Group marks its 100th anniversary in 2026. Looking ahead to this milestone, the whole Group will come together with a shared passion to address the three challenges. Moreover, we will strive for sustainable growth by building up the Group's comprehensive strengths, seeking competitive advantages, and expanding new business areas as we draw on our pioneering technology to fulfill our mission.

I look forward to your continued understanding and support.

Hitoshi Kawahara

President and Representative Director