



## Contributing to a safe and sustainable society through innovation

**Stephen Cox**

Executive Officer,  
General Manager, PVB Division

### Key Person Interview 1

#### ► Diversity Is Our Strength

The PVB Division is a relatively new division within Kuraray that was launched through multiple acquisitions. It began in 2001 when Kuraray acquired the PVB-related businesses from Clariant AG (former Hoechst AG) in Germany to strengthen its vinyl acetate-related business, which is Kuraray's core business. In 2004, Kuraray acquired the PVB film business from HT Troplast GmbH, located in Troisdorf, Germany. More recently, in 2014, acquired DuPont's vinyl acetate-related business, including PVB film and ionoplast interlayer for glass lamination SentryGlas®. Currently, the PVB Division is a truly global business full of diversity with more than 900 employees in more than 20 countries, seven manufacturing plants, and multiple R&D, technical services, and sales bases. The strength of the PVB business lies in its history described above and its ability to respond to the needs of a wide range of industries. It's present in applications ranging from automotive to architecture to coating to food packaging to electronics. The PVB

Division has also expanded its business scope from PVB film Trosifol® for interlayer of laminated safety glass to SentryGlas® and PVB resin Mowital® for high-value-added applications.

In recent years, we have made aggressive capital investments in growth areas. In 2018, a new line of high-performance sound insulation films for automotive applications went into operation in Ulsan, South Korea. In 2019, in Holesov, the Czech Republic, we launched a new SentryGlas® production line to meet growing demand in the residential and commercial building laminated safety glass market. In 2021, to meet the needs of our wide range of markets, we upgraded the production line of Holesov and enabled the production of wider films. In this way, we will continue to grow our business together with our customers and contribute to the safety of society and improve people's quality of life with our high-performance materials.

#### ► Enhancing the Functionality of Glass for Greater Safety, Security and Comfort

DuPont and others developed PVB interlayer for laminated safety glass in 1938 to protect drivers from scattering automobile windshield fragments in an accident. The mission of the highly functional interlayer in the PVB business is to "together with customers, improve the functionality of glass and contribute to greater safety and security." Currently, the functionality is further evolving, contributing to the development of a sustainable society and safety in the automobile and building fields. In the automotive industry, many new technologies have been developed to respond to the



Highly functional interlayer for windshield

recent trend of CASE (connected, autonomous, shared, electric), and a paradigm shift has begun. Examples include advanced head-up display technology, electrothermal glass, and high optical quality glass required for vehicles equipped with ADAS (advanced driving support system) cameras. We will respond to these new fields with advanced technology and innovation and continue to contribute to the development of the automobile industry.

In the building field, we launched a new product Trosifol® UltraClear, ideal for laminating glass with the industry's highest level of transparency. We've achieved its superior quality by using raw materials jointly developed with the PVA Resin Division and utilizing Kuraray's extensive knowledge of vinyl acetate chains.

With its strength and clarity, SentryGlas® ionoplast interlayer was originally designed as a hurricane defense solution in Florida. Its use for windowpanes and doors not only protects buildings from gale debris during hurricanes, but also prevents gales from entering buildings and causing them to collapse due to wind pressure. It is now widely used in the front of buildings, skylights, canopies, glass handrails, passageways, and



Houses that survived hurricane destruction (Mexico Beach) using Trosifol® for windows and SentryGlas® for doors

the like. It is regarded as a standard specification for structural glass applications in the building industry, contributing to security and safety.

In addition, we've conducted joint development with our customers to solve social issues and provide high-performance films that meet market needs. As an example, in 2019, we launched the next-generation ionoplast interlayer for glass lamination SentryGlas® Xtra. This film greatly improves the efficiency of lamination and facilitates the processing of multilayer laminated glass. Another unique product is the Spallshield® CPET. This product consists of two layers, PET and hard coat layers. Since it contributes to making glass thinner, lighter and safer, it has been used in embassies and other buildings where high security is required. It continues to create new value.

PVB film also contributes to the effective use of resources and reduction of environmental impact through recycling. The PVB film scraps collected from customers are accumulated at our production bases in Holesov, Czech, and Bor, Russia, where they are reproduced based on Kuraray's high-quality standards. By being used as a product again, they support the circular economy.

Another pillar of the PVB Division is the functional resins business. Customers use PVB resin Mowital® in coating applications and environmentally friendly paint and ink applications for food packaging. More recently, with the introduction of the 5G network, demand for the PVB resin Mowital® is rapidly increasing as an indispensable material that contributes to high productivity in the production process of high-performance ceramics for electronic components.

In this way, we hope to enhance people's quality of life while achieving further development through technological innovation.

## ▶ My Mission for the Kuraray Group's Leap Forward

I am passionate about continuing to create unique solutions for our customers in the rapidly growing and changing PVB Division. As one of the few foreign executive officers stationed overseas, I also feel that there is great potential to proudly integrate Kuraray's Japanese traditions and values with its global business operations.

The PVB Division, which is part of the vinyl acetate-related business, the core business of the Kuraray Group, aims to achieve sustainable growth together with customers over the medium to long term.

As the Kuraray Group continues to globalize, the PVB Division has employed highly diverse and talented employees in many countries. We want to be at the forefront of the Kuraray Group, contribute to the further expansion of global business, and enhance and strengthen the Kuraray brand.



## Contributing to sustainable growth by creating new businesses and strengthening existing businesses

**Shigeru Sasaki**

General Manager, Research and Development Division

### Key Person Interview 2

#### ▶ Research and Development Division under the Next Medium-Term Management Plan

The Kuraray Group considers the creation of new businesses to be a key issue for the future. Since 2017, the Research and Development Division has been promoting “New Business Creation Activity” across the Group to identify new business opportunities in peripheral areas of the Kuraray business. Additionally, to strengthen the division's functions, in 2020, we established two organizations to carry out horizontal functions within the division: the Integrated Technology Fields Search Group (technology development) and the Market Opportunity Exploration Group (market development).

Kuraray strives to fulfill the mission, “For people and the planet—to achieve what no one else can.” Under the next Medium-Term Management Plan, we will boldly and firmly create innovation in areas where only Kuraray can do so. For the sake of the planet (environmental, global warming prevention, etc.) and the sake of people (quality of life, safety, and security, etc.).

At the same time, to contribute to the sustained enhancement and expansion of existing businesses, the Research and Development Division has been working on the “Partnership and Support Program” since 2016. This program supports the Kuraray Group in resolving issues and developing technologies. Each year, there are approximately 70 problems, of which more than 30% are overseas-related initiatives. There are also examples of successful efforts that the Company's global customers have also joined to improve product quality and yield rate. We have also started an initiative related to the new project in Thailand for isoprene and a thematic initiative with Calgon Carbon Corporation. We will contribute to the sustainable growth of the Kuraray Group by continuing to set initiatives for global expansion in the next Medium-Term Management Plan.

#### ▶ Efforts to Train Researchers

Human resources are the most important resource in R&D. To create R&D themes continuously, it is necessary to improve the organization and structure and increase each researcher's understanding of our business.

Researchers are required to link the world's future needs to the developments happening within the Company to create concrete and realistic programs. Over the past several years, the Research and Development Division has been working to establish a policy providing that “to increase the probability of success in new business development, the project's

advocate must envision and verify the requirements (technology and market) necessary for commercialization.” Over the past several years, the Research and Development Division has been working to establish a policy “to increase the probability of success in new business development. The project advocate must envision and verify the requirements (technology and market) necessary for commercialization.” We will continue this initiative in the future.

We believe that it is necessary to collect information from inside and outside the company at the research and planning stage of a theme. We must think about the

requirements for commercialization and develop a habit of expressing one's thoughts from the standpoint of the interest in the technology and contributing to the business. As a concrete measure to promote this, we

started holding a consultation meeting (peer review) in 2020 to exchange opinions on searching and planning activities freely. We will continue to improve this and use it to train researchers.

## ▶ Role of the R&D Division in Intellectual Property Strategy

Supporting the development of strategies related to intellectual property is an important role of the Research and Development Division. At the core, with the Intellectual Property Department, we promote activities that expand the Kuraray Group's business operations and improve earnings in cooperation with related organizations. One of these is the analysis and analytics of intellectual property information. Intellectual property information and market information, sales information, and technical information are essential for business development. The Intellectual Property Department uses various tools to analyze patent information to determine how to develop business advantageously.

Another aspect is that the strategic management of the intellectual property has become more important as the market has become more globalized. We are building a powerful intellectual property network to protect the Company's products, managing information on proprietary technologies, including know-how, and implementing measures to avoid intellectual property risks from a global perspective. We will continue to discuss how we can support the expansion and growth of our business from the perspective of intellectual property, with the Intellectual Property Strategy Conference, which is held regularly with each business division at the core.

## ▶ About My Mission in R&D

Contributing to the creation of new businesses for the Kuraray Group is our top priority, but we cannot neglect to strengthen the tangible and intangible infrastructures that support this.

The Company has been formulating the next Medium-Term Management Plan, which will conclude in 2026, which marks its 100th anniversary. In this process, we have been discussing the ideal form and organization of R&D for sustainable innovation. As the intellectual core of the Kuraray Group for the next 100 years, we will strive to enhance this organization.

It is also important to maintain a high level of job satisfaction for those working hard on the job. It takes a long time and can be stressful working to create new

businesses. We are already implementing various ways to reform the way we work, and I plan to take appropriate measures to improve job satisfaction in the future. The more creative our work is, the more important it is to ensure "psychological safety." To achieve this goal, we would like to create a system that recognizes challenges and failures.

"If it's not fun, it's not work" is my business creed. Everyone is excited to think that "we'll achieve this next month, this tomorrow, and this next week." I'm aiming for everyone in the Research and Development Division to embody this spirit.



Kurashiki Research Center



Tsukuba Research Center





## Creating an energetic organization where diverse human resources can play an active role

### Satoru Fujinami

Executive Officer,  
Assistant to Officer, CSR Division,  
Assistant to Officer, Administrative Unit,  
General Manager, General Affairs and HR Division

## Key Person Interview 3

### ▶ The Kuraray Group's View of Human Resources

Kuraray's view of human resources is based on "Our Mission" in its Corporate Statements: "For people and the planet—to achieve what no one else can," and this is the foundation of our corporate activities. In addition to pursuing this mission through our business activities, I believe that it is important for our employees to realize their potential through their work and feel a sense of accomplishment and growth in the same way as achieving our corporate goals. The first principle of "Our Values" is "respect for individuals" because we believe that we can

achieve "constant creation of new value" through personal self-realization.

The Kuraray Group has grown in recent years by acquiring various businesses from outside the Group. As a result, our employees have become more internationalized and diversified. To ensure that employees with a wide range of knowledge and experience can equally play an active role, we are developing human resource systems, including recruiting personnel, setting targets and evaluating performance, and fair compensation. HR systems,

### The Kuraray Group Global HR Policy

#### 1. Purpose

The Kuraray Group consists of employees from various nationalities and backgrounds, and the active participation of all diverse members is crucial to the long-term and sustainable improvement of corporate value.

We have developed basic policies that will guide each company in the Kuraray Group to follow and to establish HR policies, systems, and work environments that enable all employees to contribute to the growth of the Company and, at the same time, to pursue their personal growth and happiness through their jobs, regardless of the work they are involved in or where they are located.

#### 2. The Kuraray Group Global HR Policy

##### 1) We will respect the human rights of individuals.

Based upon our Philosophy, "Respect for Individuals," we will respect the individual and the human rights of all people working in the Group. Any abuse of human rights, such as sexual harassment, bullying, child labor, forced labor, and so on, will not be tolerated. We will also strive to prevent any direct or indirect complicity in or turning blind eyes to the conducts that may infringe on human rights.

##### 2) We will abolish discrimination and respect diversity and individuality.

In all aspects of HR activities, including hiring, treatment, personnel development, assignment and evaluation, no discrimination based upon individual attributes such as race, nationality, age, gender, gender identity, sexual orientation, religious beliefs, shall be allowed. We will esteem and promote diversity that accepts people's traits, culture, and worldview from various nations.

##### 3) We will comply with applicable laws and regulations. We will create and carry out HR systems that uphold equality, fairness, and transparency.

We will strictly comply with the applicable laws and regulations of each country. Based upon our Philosophy, "Respect for Individuals," we will give full consideration to equality, fairness and transparency in creating and carrying out HR policies and practices.

##### 4) We will promote dialogues with all people working in the Kuraray Group to build constructive relations.

We respect the freedom of association and expression. We will build good relationships with people working for the Kuraray Group through direct and indirect dialogues to create an open workplace culture and environment.

##### 5) We will strive to improve the environment of workplaces.

From the perspective of occupational health and safety, we will strive to maintain working environments that enable people to work safely and with regard to their physical and mental health.

##### 6) We will employ personnel who can contribute to the development of the Kuraray Group.

We will employ people who possess a sound sense of morals and ethics and the desire, skill, and knowledge to make significant contributions to the development of the Kuraray Group.

##### 7) We will place the right person in the right job.

We will place each individual in their right job, in due consideration of capabilities, knowledge, suitability and skill development, with an aim of maximizing operational contributions and job satisfaction.

##### 8) We will maintain an evaluation and benefits system that is fair and transparent.

We will maintain an evaluation and benefits system that is fair and transparent to employees, focusing on job content, contribution, performance, and attitude through dialogue with evaluators.

##### 9) We will support professional development.

We will provide an appropriate level of support for job skills and personal career development through the performance of individual works.

##### 10) We will maintain appropriate levels of disclosure of business information and protect privacy.

We will provide appropriate levels of disclosure of business information so that all Kuraray Group personnel can perform their duty proactively with a sense of unity. We will comply with all relevant laws and regulations regarding the handling of personal information and strive to prevent the loss or leakage of information.

#### 3. Revision or Abolition

This policy shall be administered by the General Affairs and Human Resources Division, and its revision or abolition shall be approved by the President.

Established: April 1, 2006  
Revised: February 1, 2021

legal systems, and practices are different by country and region, and people's work views and the relationship between companies and individuals are also different. While sharing a consistent policy as a global company, we aim to establish concrete systems that are common to the Group or specific to each region, depending on the purpose of the system, and operate the systems by making use of each base.

In fiscal 2020, we reviewed the "Kuraray Group Global Human Resource (HR) Policy" (established in 2006), which forms the basis for these efforts, and through discussions among HR departments of Group companies, we revised it to incorporate today's values. The concepts described here are already reflected in Kuraray's policies and systems, and we will disseminate them as the basic principles for all personnel activities throughout the expanded group bases.

## ▶ Diversity & Inclusion (D&I) Initiatives

As mentioned above, the diversity of the regions in which we operate has increased. Still, we must strengthen our efforts to create synergies through diverse human resources working together in a single workplace. In fiscal 2020, we established a Diversity Promotion Team within the Kuraray HR Department and launched cross-organizational activities.

In Japan, where Kuraray has its Head Office, the major challenge in this area is to encourage greater participation by women in the workplace. It cannot be denied that Kuraray used to be a male-dominated workplace due to its traditional employment and business practices and the work system at chemical plants (mainly three-shift work). In recent years, we have stepped up our efforts to set and achieve targets for female participation in the workplace.

We aim to increase the ratio of female graduates employed, including at production plants, by 10% or more from the 2019 level by 2024 (2019 results: 14%). In fiscal 2020, the target was already exceeded at 25%, and we will continue to expand the foundation for greater female participation in the workplace through steady improvements. At the same time, by developing and promoting the use of a working system that allows for flexible time management (conventional flextime, telework program, hourly flextime system, etc.), we support work styles that harmonize individual lifestyles and business activities. In fiscal 2020, a working team of female employees was established as part of the Diversity Promotion Team to make recommendations to management for reflection in future policies.

## ▶ A Changing World

In 2020, the spread of COVID-19 severely hampered the activities of all companies. As a supplier of valuable products essential to society, the Kuraray Group takes every possible measure to prevent infection in the workplace and continues to manufacture products while protecting the health of employees and the employees of partner companies. To minimize the risk of infection, we are promoting telework based on the new personnel system.

As a new way of working to reduce the risks and burdens associated with commuting and transportation, telework

has been effective for our business continuity under the current long-term pandemic.

Even after this situation settles down, we plan to further develop and establish the telework program, together with the conventional flextime system and the hourly flextime system, to work to control working and personal hours proactively. Although we must deepen our communication in a remote work environment, we hope to create an energetic organization that responds to new ways of working by improving leadership/membership of this system and IT skills.

## ▶ Future Challenges and Expectations

As the Group's business expands worldwide, it is not always easy for people with different perspectives to work toward a common goal. Fortunately, however, "Our Mission" at the top of the Report is shared by all Group bases, including overseas members, as universal values. It reflects the history of Kuraray, the direction of our current business, and our unique organizational culture. The unique technologies acquired by Kuraray and its specialty products provide essential value to society and have a strong international reputation and market position—the identity of the Kuraray Group explains this more eloquently than any words could. Our pride is why we can engage in

"close cooperation to attain shared goals" and develop our business as a group while respecting the differences between regions and origins.

Taking advantage of these values, we will strengthen our human resources initiatives so that diverse human resources can play an active role and continue to grow in a rapidly changing environment. In education and training programs and the formulation of standards for human resource evaluation, we will promote efforts to help employees understand and hand down the values that make up the Kuraray spirit while improving our operational abilities and performance evaluations.