Our Challenges

Transformation of People and Organization

Our aim is to become "a digitally savvy company" that draws on competitive strengths to continue contributing to society, harnessing digital technology to change our processes and drawing on diversity to expand our thinking, bringing transformation to both people and the organization.



DX Vision

Improve competitiveness, continuously evolve, and contribute to the world as a digitally savvy company

Priority Fields

Customer experience (CX) reforms

- Understanding customers
- Customer contact points



Operational process reforms

- Process digitalization
- Higher capabilities and efficiency
- Performance management



Business model reforms

- Digitalization of businesses
- Novel businesses powered by digital technology
- Digitally driven globalization



R&D and production technology simulations

- Simulation of chemical reactions
- Simulation of plant operations

DX-IT Division

Data-driven organization

"Think in data, decide by data."

Higher digital literacy

Improve ratio of data analytics talents.

Digital Transformation (DX) Framework

The Kuraray Group's DX Vision is: "Improve competitiveness, continuously evolve, and contribute to the world." Guided by this vision, we set four priority fields: customer experience (CX) reforms, operational process reforms, business model reforms, and R&D and production technology simulations. Group-wide digital transformation is a core strategy in our Medium-Term Management Plan "PASSION 2026." Achieving this vision demands comprehensive strengths to achieve rapid digital transformation while integrating the four aspects of people, data, processes, and systems. For example, to achieve more sophisticated cyber security, along with deploying superior security systems, it is necessary to raise people's digital literacy, properly manage and understand crucial data, and develop security management processes on a global scale.

In January 2023, we integrated our DX and IT functions, creating the DX-IT Division. The aim of the integrated organization is to help us become "a digitally savvy company" by putting digital transformation measures into place quickly and efficiently.

Priority Fields and Progress to Date

Priority Fields	FY2022/FY2023 Achievements			
Customer experience (CX) reforms	- Held GCRM AWARD, an in-house event to recognize examples of CRM*¹ utilization (▶ P.45)			
Operational process reforms	 Used EA^{*2} Framework to examine improvement measures from the perspective of all-round optimization (♠ P.45) 			
Business model reforms	 Designed concept to provide new user value and began drafting a concrete system outline in certain businesses (> P.45) 			
R&D and production technology simulations	 Started building platform for centralized management of R&D knowledge resources (♠ P.46) Organized hackathons*³ 			

- *1 Customer relationship management
- *2 Enterprise Architecture: a framework enabling an overall visualization of corporate operations and systems to achieve efficiency based on all-round optimization.
- *3 A technology competition offering prize money, in which teams of university students propose solutions to technical problems in a short period of time.

Customer Experience (CX) Reforms

The Kuraray Group recognizes the importance of customer experience (CX). To offer customers an even better experience in their dealings with us, we are working to boost operational efficiency through customer relationship management (CRM) based centralized management of customer information and data analysis.

Since 2022, we have held the GCRM AWARD, an in-house global event set up in response to comments from departments utilizing CRM, who said that they wanted to share with other departments and regions their experience of using it and wanted users to be able to learn from each other to gain insights into operational improvement and data utilization. The second award event, held in fiscal 2023, drew numerous participants, including the company president and other executives, who acted as adjudicators. They watched as the finalists, who had successfully passed a documentary submission stage, presented examples of operational reform through department-wide initiatives and speedier decision-making through the use of dashboard reporting.

The introduction of CRM has set up a cycle of mutual feedback among in-house users allowing them to learn from each other how to provide customers with even better products and services by achieving improvements in productivity, efficiency, workstyles, and other areas.

Operational process reforms

Operational process reform is a broad topic, encompassing ways of enhancing performance by digitalizing individual processes. We are moving forward with the selection of processes we anticipate will drastically boost productivity through the digitalization of tasks currently done by hand.

To allow improvement measures to be examined from the perspective of all-round optimization, we are using the EA framework and expanding its scope to focus on four areas: (1) operational processes, (2) data, (3) applications, and (4) IT platforms. Particularly in the area of applications, where full-scale activities began in 2022, IT departments in Japan and overseas have collaborated to take the lead in global optimization activities.

We will roll out strengthened initiatives to the other three focus areas, working in collaboration with businesses and back-office departments. This will enable us to realize all-round optimization based on EA and to introduce operational process reforms in a way that distinctively reflects the Kuraray Group's strengths, which are oriented toward customer needs and frontline solutions.

GCRM AWARD 2023







FY2023 Finalists	
Azusa Ogata Poval Resin Division	Achievements in quality, new business development, and organization building by GCRM
Martin O'Brien/ Rebecca Alward Calgon Carbon Corporation	Widespread utilization of GCRM at Environmental Solutions Division/Calgon Carbon enhances understanding of sales operations and demand, and elevates customer service
Takako Ueno Elastomer Division	Kurarity business regain and recovery project monitoring with GCRM opportunity, task and dashboard

Business model reforms

We are actively working to build a framework for creating new value by combining services with digital technology. With strengths in pioneering products, the Kuraray Group has tended to adopt a product-centered business model. One shortcoming with this is that once a social need has subsided, the product loses its adaptability. Furthermore, there has been a growing shift in consumer behavior in recent years from material things to experiences.

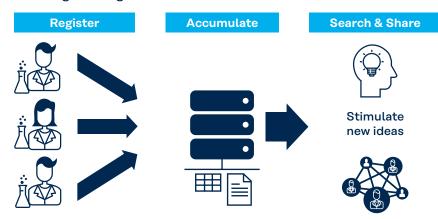
Against this background, in 2022 the Kuraray Group began engaging in concept design to provide new value to users and began drafting a concrete system outline in certain areas. By adding the value of IoT-based interactive digital services to existing business models, we aim to build new business models.

R&D and production technology simulations

We are working to build a platform for centralized management of the Kuraray Group's R&D knowledge resources, including its overseas operations. The aim is to create new businesses and new products by making maximum use of our accumulated body of research and development data to identify new research themes and speed up interdepartmental collaboration.

We began developing the system in 2023 and plan to roll out operation across the Kuraray Group in 2025. We aim to foster a corporate culture that promotes the continuous creation of value from data assets.

R&D Knowledge Management Platform



Researchers and engineers at Japanese and overseas bases

Experimental data, reports, presentation materials, etc.

Organically connect people with people and technologies with technologies

Kuraray Group Unified Platform

Efficient creation of new businesses and new products by utilizing this platform to:

- · Identify new research themes
- Speed up interdepartmental collaboration

Developing DX Talent

The Kuraray Group believes it is vital to cultivate a culture and environment in which all employees can stay abreast of progress in digital technology, where learning is an ongoing process. We established three classes of digital literacy— Gold, Silver, and Bronze—and developed a training curriculum corresponding to each class. Our educational framework mandates that all employees acquire at least Bronze class certification.

We also train and deploy at least one person to each department to lead digital transformation efforts and spread technological knowledge throughout the department, and eventually to all parts of the Company. In 2023, we started exploring the cultivation of data scientists and other highly specialized talent.

DX Talent Development Project Curriculum · E-learning training General Manager (approx. 20 hours) Workshop training (approx. 60 hours) **DX Platinum class** Accompanied support training Main DX Gold class (approx. 60 hours) **Training** Plans digital transformation projects from a business **Targets** · E-learning training (approx. 20 hours) Silver **DX Silver class** Workshop training motes digital transformation within the departm (approx. 20 hours) · E-learning training Bronze DX Bronze class (approx. 6 hours) Harnesses digital transformation in business operations

DX Talent Development Project under "PASSION 2026": Number of Staff Trained and Future Plan (Japan)

Class/Target	FY2023 (Training completed)	FY2024 (Planned)	FY2025 (Planned)	FY2026 (Planned)	Cumulative
Gold Selected employees	44	45	45	45	Approx. 180
Silver Executive candidates (general staff)	163	300	350	350	Approx. 1,200
Bronze All employees	5,114	200	200	200	Approx. 5,700

Message from the Manager in Charge of DX Talent Development

Our aim is to become "a digitally savvy company" where all employees boast digital proficiency and are highly competitive.

Yasuhiro Takahara

Senior Manager, GDX Promotion Department, DX-IT Division

The Kuraray Group believes that to maintain high competitiveness, transforming people and organizations through digital technology is critical. We are working to boost employee skill levels by implementing a DX Talent Development Program for all staff (P.46). At the same time, we are focusing on cultivating and securing DX technology experts as well as personnel who can plan and lead digital transformation projects.

DX technology experts are data scientists and other highly skilled technicians. We are currently working to define the skills needed across the Group and survey the skills of employees in relevant departments as we explore ways of securing talent, taking into consideration the headcount balance between training internal staff and hiring outside the Group.

At Kuraray, we do not consider personnel who can plan and promote digital transformation simply as staff who are well-versed in the use of digital tools: our definition includes people with a solid grasp of Kuraray's businesses who can identify fundamental problems, uncover issues needing to be addressed, seek out appropriate means of addressing these issues, and harness digital technologies as needed to quickly resolve the issues.

The DX Talent Development Program has three classes, Gold, Silver, and Bronze, depending on the desired level of aptitude. The curriculum for the toplevel Gold class consists of three phases of training spanning a total of nine months: online learning to acquire basic knowledge, workshops, and accompanied and supported training. In the latter, trainees can choose from among three courses: new business creation, UX design, or business process re-engineering. Our expectation is that graduates will have learned practical ways of solving problems starting with digital transformation, as well as ways of managing teams to achieve objectives, so that they can play an active role as digital transformation project leaders who bring about change in each department. The training has already given rise to the seeds of ideas for projects that draw on digital transformation, and I am very much looking forward to these projects getting up and running. Examples include integrating materials informatics* into R&D and building new business models that combine digital technology with services.

By 2026, in addition to Gold-class talent, we will systematically cultivate Silver-class talent who can promote digital transformation within their departments and Bronze-class talent who can harness digital technology in business operations. Down the road, our aim is to become "a digitally savvy company" where all employees can draw on digital technologies to tackle business problems.



Comment from a DX Gold-Class Student

I will drive digital transformation in collaboration with other organizations to spread change.

Maya Murakami

Market Development Department, EVAL Division

President Kawahara gave a message to the entire company regarding the pursuit of digital transformation. He said digital technology is just a means; the goal is to use digital technology to transform business models, address problems, and achieve objectives. In my training I learned that being a leader who actually drives digital transformation requires more than just knowledge about the field. I was able to systematically learn about how to organize and visualize the issues involved and how to manage projects and teams.

I got the most out of the accompanied and supported training. I chose the UX design course with a focus on user experience reform. The training involved thinking about systems and platforms to address problems and achieve objectives, creating prototype applications in an environment similar to an actual work situation, and even going all the way to the stage of receiving actual feedback from users. By establishing "personas" (virtual customers), I learned how to think from a user's point of view. This was extremely helpful, since I was able to apply what I learned to the mission of the market development department to which I belong, including market analysis, new business creation, and strengthening customer relationships.

Also, in the workshops, team members switched after three sessions, so that new people from different divisions and job types could gather to talk about our day-to-day challenges and share what we want to accomplish by means of digital transformation. I want to explore collaboration with departments facing similar issues by taking advantage of the in-house network I was able to build through the training.

One employee alone can't achieve organizational change through digital transformation. Initially, I want to work together with Silver class members in various workplaces to identify issues, as well as exchange information with trainees from other divisions. My hope is that such steps will feed into creating opportunities for incorporating digital transformation from within the organization and making proposals for new projects.

^{*} Materials informatics is an academic field that incorporates computer-based information science methods into materials science. Harnessing data mining and AI makes it possible to search for new and alternative materials more efficiently than the conventional method of combining various materials and conducting repeated experiments.