Dialogue

Kuraray's Future Value Creation: The Convergence of R&D and Digital Transformation

The Medium-Term Management Plan "PASSION 2026" sets out the Three Challenges. At the core of these challenges are R&D and digital transformation, which are increasingly converging to drive new value creation. What will underpin Kuraray's competitiveness in the next generation? And what future do we envision beyond that? Leaders from both fields share their perspectives in this dialogue.

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The Path to Success for the Next Generation Lies in the Convergence of R&D and Digital Transformation

Omatsu: When I was a student working in quantum chemistry, we had theories that could predict research outcomes, but computers simply did not have the processing power to keep up. Today, dramatic gains in computing speed have widened the scope of what we can predict, and digital technology now sits at the core of R&D. This is fundamentally changing the assumptions behind our work.

Fukuyama: That shift is rewriting the competitive logic of business itself. History shows that when general-purpose technologies such as electricity and the internet emerged, the companies that mastered them best went on to dominate the next era. The advance of today's digital infrastructure and the rise of AI follow the same basic pattern. Digital adoption is no longer just a continuation of past trends; competition has begun under entirely new rules.

Omatsu: I agree. In the past, digitalization was about replacing human tasks. Now, however, we are seeing a paradigm shift toward digital technologies that surpass human limits.

Fukuyama: The competitive gap in how companies use digital technology is turning into an overwhelming, winner-takes-all divide. In this environment, it is no exaggeration to say that a company's commitment to embrace digital transformation will be a decisive factor in its future.

Omatsu: Our growth also hinges on this convergence of R&D and digital transformation. "PASSION 2026" is a critical turning point that helps secure this path to success.

Turning Data into Assets through a Network of Knowledge

Omatsu: We have continually worked to create highly original products through our proprietary technologies. The vast proprietary data we have built up in this process has a depth no competitor can match. We believe that using this data as an asset, rather than leaving it as a mere record, will be a source of our competitive edge in future R&D.

Fukuyama: To fully realize that potential, we need to systematize individual data on products, physical properties, and applications into a network of knowledge. By linking these elements, AI can uncover the relationships and patterns behind phenomena and create fertile ground for innovation.

Omatsu: Ultimately, what matters is how quickly and accurately we can create the products the market wants. To that end, we have partnered with the DX-IT Division to strengthen the very framework of our R&D. At the core of this are Materials Informatics (MI)*1 and advanced simulation. In MI, the process of deriving solutions from accumulated data has become dramatically more efficient. In addition, by using cutting-edge simulations such as Matlantis*2, we are increasingly able to find new solutions in materials exploration and design that go beyond conventional thinking.

*1 A data-driven approach that uses machine learning models trained on data from experiments and simulations to speed up property prediction and materials discovery.
*2 An AI simulator provided by Matlantis Co., Ltd. This tool predicts atomic-level phenomena and molecular properties, and by using a machine learning-based prediction model, it achieves calculation speeds tens of thousands to tens of millions of times faster than conventional simulators.

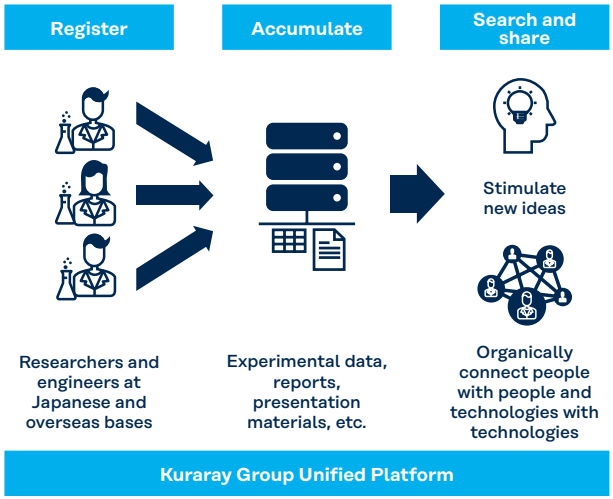
Kuraray's Future Value Creation: The Convergence of R&D and Digital Transformation

Fukuyama: That is a very powerful approach. At the same time, predicting functions that arise from complex structures—such as solid catalyst performance—directly through simulation alone still poses challenges.

Omatsu: That is why we combine simulation and AI. By training AI on simulation data from Matlantis and having it predict results that would otherwise require massive computations, we can achieve both high accuracy and high speed. How fast we can run this "predict-and-verify cycle" will be the key to competing globally.

Fukuyama: In addition, it is vital to build up and visualize the insights gained as shared corporate assets. In 2025, we began full-scale operation of a unified platform for managing R&D knowledge, including from our overseas operations. We are confident this will further speed up cross-department collaboration and the creation of innovative business themes.

R&D Knowledge Management Platform



Digital Technology Is Accelerating Co-Creation with Customers and Circular Business Models

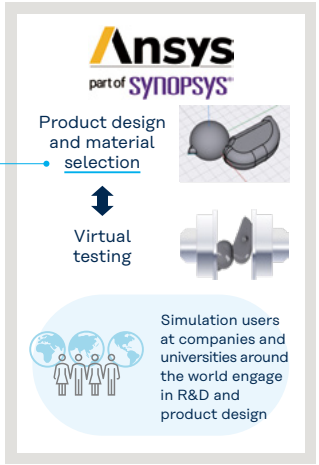
Omatsu: The impact of digital transformation is already starting to show in the field. By using AI and simulation, teams can now narrow down candidates that resource constraints once made impractical to evaluate, and cases where results exceed expectations are becoming more common. We are also seeing tangible progress in our ability to feed customer needs straight into materials design.

Fukuyama: A flagship initiative that extends this customer touchpoint through digital means is our collaboration with ANSYS, Inc., a world-leading simulation software company, now part of Synopsys. When customers can use our physical property data from the design stage, our materials are seamlessly built into their development process. This not only helps shorten customers' development timelines, but also offers a groundbreaking way for our strengths to be naturally embedded in the selection process.

Collaborating with ANSYS, Inc., a Leading Company in the Field of Simulation Software

Kuraray's materials in the digital space

- Provide an environment where customers can evaluate Kuraray's materials during design, simulation, and material changes.
- Highlight the strengths of Kuraray's materials through physical property data in a virtual space (heat resistance, formability, transparency, etc.)



Omatsu: From the earliest design stage, Kuraray is already built in as a leading option. This is a dramatic shift from a sales and marketing perspective as well.

Fukuyama: Yes. Joining this platform contributes directly to a better grasp of global needs and stronger brand recognition. In Europe and the United States, these strategies are already becoming mainstream.

Omatsu: I see. We are combining our global foundation, one of our core strengths, with the power of digital technology. By doing so, we can build even closer relationships with the market.

Fukuyama: Another key focus is creating value after the product is sold. For example, by using digital technology to visualize and predict product usage, we can determine the optimal timing for collection and reuse and offer solutions that treat the entire resource cycle as one. Circular business models like this can only be truly realized on a digital foundation.

Kuraray's Future Value Creation: The Convergence of R&D and Digital Transformation

Omatsu: We have truly entered an era in which we stay in constant dialogue with customers through our products. One such pioneer is Nelumbo, which we acquired in 2025. They are adapting their proprietary surface modification technology to market needs at a pace only a startup can match. By adding digital technology to this approach, which directly links technology and markets, we can deliver new value to customers. We aim to make that style our next standard.

Unifying Global Management on a Common Platform

Fukuyama: As customer touchpoints expand and R&D, sales, and marketing become more tightly linked, information sharing becomes ever more critical to our competitiveness. Through common platforms such as customer relationship management (CRM) systems, we are building an environment where all functions, including indirect departments like HR, can discuss issues while sharing the same global view. This is essential to advancing integrated management.

Omatsu: To maximize knowledge sharing across the group in terms of technology and equipment, we have established the Core Technology Platform (CTP) and the Technology Equipment Platform (TEP). The Innovation Networking Center has been the driving force behind this. Our diverse business portfolio gives us a unique advantage: by breaking down organizational barriers and grounding our approach in frontline input, these shared platforms are now generating significant value and are taking root as practical, effective frameworks across our operations.

Fukuyama: A platform creates value only when it is actively used. We also prioritize governance frameworks that ensure AI is developed responsibly under appropriate controls, so frontline staff can confidently use AI as a capable assistant. Safeguarding this trustworthiness will be a key pillar of management.

Omatsu: At the same time, a key appeal of R&D is serendipity—the thrill of unexpected discovery. Because AI can now derive solutions so efficiently, we want to place even greater value on the unexpected value that comes from human intuition and inspiration.

Fukuyama: It is truly a fusion of AI and intuition. Rather than leaving everything to computers, we are combining digital capabilities with the human sensibility and experience we have built up over time. We are confident this synergy will be a source of our next-generation competitiveness.

Carrying "For People and the Planet" into the Next Generation through the Power of Digital Technology

Omatsu: Kuraray has an enduring mission: "For people and the planet—to achieve what no one else can." Digital technology is a powerful means of carrying this philosophy into the next generation. Deepening our research on Kuraray's accumulated proprietary data is, in itself, a challenge to "achieve what no one else can." This is our unwavering foundation.

Fukuyama: To keep fulfilling that mission, we must also ask what data we will leave for the future. We pass on knowledge in a way that will let colleagues decades from now say, "This data made innovation possible." We believe this "contribution to the future" is the true value of our digital transformation efforts.

Omatsu: I agree. At the core, it all comes down to people. Today, researchers' roles are expanding beyond experimentation and analysis into project leadership that conceptualizes business initiatives starting from data. We are also stepping up recruitment of talent with diverse specializations in anticipation of this change.

Fukuyama: At the same time, we are working across the Company to raise digital transformation literacy among all employees.

Omatsu: Digital technology is also changing how we work and how our organization is structured. As the use of simulation grows, talented people around the world can join R&D regardless of location, and the possibilities will widen further. We aim to create new value from the product of our accumulated data assets and the talent to put them to work. Guided by our mission "For people and the planet," we will use digital technology to evolve our talent and our ways of working. We are confident that this is the surest path to our next stage of growth.