Technology and Intellectual Property Strategy

Undertaking global R&D to foster talent and amass digital intellectual property

Message from the Chief Technology Officer

We have begun exploring how best to structure and evolve global R&D as we transform into a digital services company. We are setting up industry–academia partnership hubs in Europe and Asia and are stimulating open innovation. Our focus on technology will become even more critical in coming years. A key management challenge determining our success is how best to build our technological assets. By encouraging engineers with wide-ranging expertise from different domains to interact and help each other broaden their expertise, we will cultivate talent and reinforce our technological capability.

Akira Oyama CTO

Establishing Technology Ethics Charter

The Ricoh Group has always operated in line with the Spirit of Three Loves, its founding principles. We expect all our employees to maintain strong moral compasses and do business with the highest regard for integrity and fairness. In keeping with the Japanese government's ethical guidelines, we set up the Ethics Review Committee in 2017, ensuring that an ethical review structure covering medical and human engineering research undergirds Ricoh's R&D.

Recent years have seen digital products and services roll out to streamline work processes and also predict the emotional states of workers. It is crucial to exercise great care with the AI technology that underpins digital services. That is because systems could be subject to malicious attacks from external parties, undermining the rights of individual users and society at large. Another concern is that system development errors could unintentionally fuel discrimination, prejudice, and disparities.

The Ricoh Group is acutely aware of these issues. That is why we established a specialist organization in April 2023 to formulate our Technology Ethics Charter by the end of the year to mitigate such risks. The charter will cover R&D through sales and operations for wide-ranging digital services harnessing AI and imaging devices targeting humans. We will deploy the charter internally and externally to curb ethical risks inherent to developing systems and commercializing and operating digital services.

Outline of Technology Ethics Charter

R&D engagement and value proposition addressing ethical, legal, and social issues
Contributing to a society that amply protects the privacy of all personal data while meaningfully using it to benefit users and society at large

Formulating the technology strategy under our 21st MTS

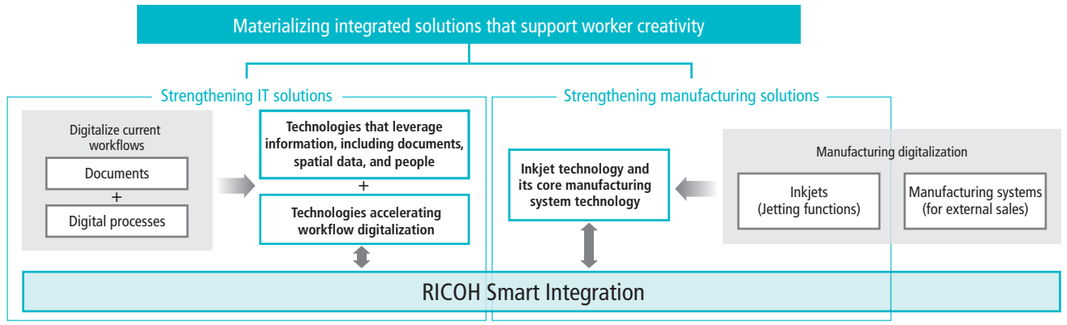
Developing and delivering new digital services is central to achieving Fulfillment through Work. We formulated a company-wide technology strategy to enhance two solution areas, those areas requiring medium through long-term investments, and development areas that can be used across the Company.

To reinforce IT solutions, we will develop technologies that enable us to differentiate our application services in three key respects (noted in the chart below). First, we are using technology that makes it possible to securely and suitably analyze, extract, and use information in office documents. Second, we created a technology that makes it possible to visualize and create a knowledge base of digitalized spatial data from frontlines and other information, and utilize it like the document information mentioned above. Third, another technology digitally captures inclusive knowledge and behavioral insights derived from interpersonal communication to motivate individuals. We will also develop technologies to expedite workflow digitalization to swiftly and efficiently deliver added value at customer touchpoints across regions.

We are strengthening manufacturing solutions by driving advances in inkjet technology, which is one of our strengths. We will deploy services that accelerate digital manufacturing innovations in coating and other applications while minimizing the environmental impacts of jetting functions. Also, we will develop manufacturing system technologies that enable digital manufacturing by digitalizing inspection and other processes and linking the data.

As we continue to develop RICOH Smart Integration, we will link MFPs and workflows and support worker creativity by developing digital services that become integrated solutions connecting a range of edge devices and workflows.

Approaches to strengthening solutions for deploying digital services



Acquiring more patents in the digital domain

Intellectual property is a vital outcome of our technological development endeavors. We will reinforce our presence in the digital domain in line with our companywide technology strategy. In recent years, we have endeavored to transform our intellectual property business processes into data-driven ones that have enabled us to acquire high-value patents that can enhance our influence on other companies, such as using data showing the extent to which other companies cite Ricoh patents when filing their patent applications and securing rights. In the 21st MTS, we will further develop this data-driven intellectual property process and foster people capable of implementing it, while strengthening patent acquisition in the digital domain.

By fiscal 2025, we look for digital services-related patent applications to account for more than 60% of the total number filed. That goal is the same percentage as the targeted contribution of digital services to Ricoh's sales by that year. We have also included this patent goal in our companywide ESG targets[1]. In intellectual property, everyone in the Company will work together to shift the focus area to digital services. At the same time, we will fuel business growth in the digital domain by safeguarding our unique technological strengths through our patent portfolio.

For details, see:
[1] 21st MTS ESG Targets on page 35

Digital services patent application ratio

*** Based on applications filed each fiscal year**