

## We will accelerate the growth of the strengthening businesses by deepening the integration and utilization of core technology and AI technology.



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### Initiatives and challenges up to the previous Medium-term Business Plan “DX2022”

During the previous Medium-term Business Plan period, due to delayed or insufficient creation of added value through R&D, strategic new businesses such as Precision medicine, DW-DX, and imaging-IoT solutions were unable to contribute to the business as planned. We recognize that it was a challenge for us to formulate investment recovery period that was based on the characteristics and challenges of doing business in areas where we had little experience, and to determine the difficulty of technology development and the value that would be created. Going forward, we will transform how we invest in R&D in order to realize profit contribution at an early stage, and the investment decision process for each phase.

On the other hand, in each business such as sensing, performance materials, IJ components, optical components (industrial applications), and medical imaging (healthcare), we were able to add new value to products and services and further increase the growth potential by combining data utilization and AI technology with the strengths of our core technologies that we have continued to enhance during the previous Medium-term Business Plan period. The new Medium-term Business Plan, which began in fiscal 2023, positions these businesses as "strengthening businesses" and we will continue to strengthen R&D activities in order to accelerate growth.

For example, in the Performance materials business, we are making the optical film manufacturing process more data-driven and collecting data such as temperature, pressure, sound, and images from a wide variety of sensors located in manufacturing facilities. We can predict faults and optimize production conditions by comprehensively judging the state of production equipment using AI. In the sensing business, we have added value by introducing AI-powered judgment technology to visual inspection of automotive paints. In the medical imaging business, we have realized an auxiliary function that is unique among our competitors, namely AI-powered dynamic digital radiography using general X-ray imaging equipment.

### Basic policy and priority themes for R&D strategy

From the results of the previous Medium-term Business Plan, I have reaffirmed that the value created by the integration of the four core technologies (materials, optics, nano-fabrication, and imaging) that we have honed for 150 years since our establishment is the essence of our technological strength. Furthermore, in order to accelerate the growth of the strengthening businesses going forward, we will actively utilize AI technology and promote business development by collaborating on technology across the whole company as the basic policy, and will work on the following as key themes.

#### Key themes of R&D strategy

Key themes	Initiatives
<b>1. Technology development that contributes to the expansion of the strengthening businesses</b>	<b>Industry business area expansion</b> <ul style="list-style-type: none"> <li>Technology development for the expansion of inkjet industrial applications</li> <li>Development of new materials and optical inspection technologies related to semiconductor manufacturing (development of inks, mounting materials, optical units, etc. to achieve the desired functions in a short period of time using data-driven models)</li> </ul>
	<b>Technology to address labor shortages</b> <ul style="list-style-type: none"> <li>Development of technologies to realize automation through the use of AI in manufacturing inspections and process management</li> <li>Development of technologies that realize ICT cloud services and AI image diagnosis for remote diagnosis</li> <li>Development of automatic printed image inspections using AI image recognition and transfer robot utilization technologies to improve the production efficiency of the printing industry</li> </ul>
<b>2. Technology development of medium- to long-term preparations</b>	<b>Environmentally friendly technologies</b> <ul style="list-style-type: none"> <li>Development of manufacturing process monitoring technology (multimodal sensing using AI) for "bio-manufacturing," which is expected to be the key to achieving Net Zero. Accelerate needs exploration and technology development by establishing a technical cooperation research laboratory with the National Institute of Advanced Industrial Science and Technology</li> <li>Development of resin recycling technology and CO<sub>2</sub> recovery technology, etc.</li> </ul>

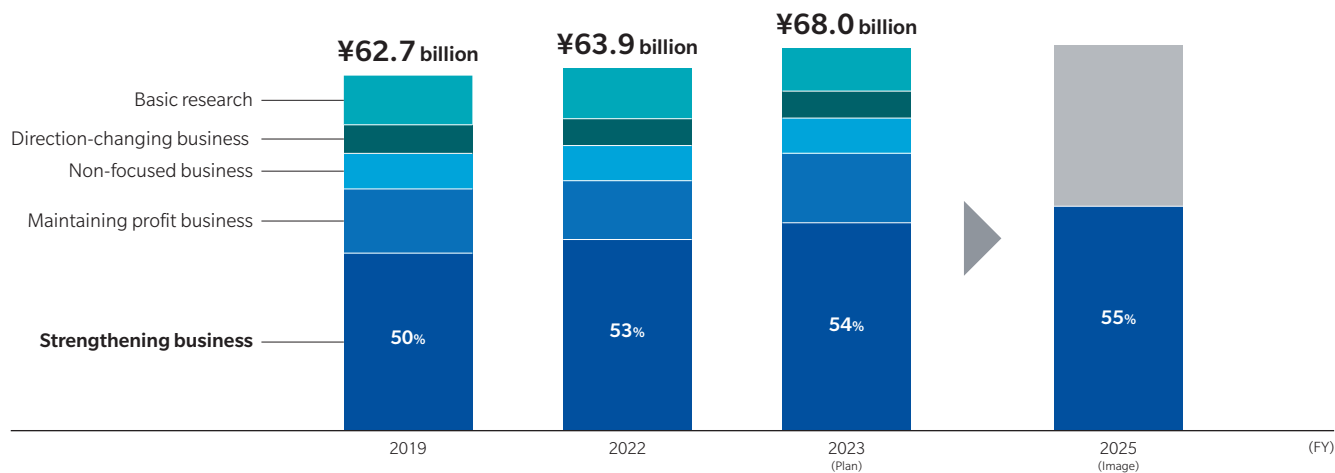
## Technology Strategy

### R&D investment shift in line with the transformation of the positioning of each business

In the new Medium-term Business Plan, we transformed the ratio of R&D expenses invested in each area in line with the transformation of the positioning of each business to “strengthening business,” “maintaining profit business,” “non-focused business,” and “direction-changing business.” The R&D expenses for the strengthening businesses will increase to 55% for fiscal 2025, while accelerating the human resource shift from other business areas. We plan to spend a total of 17% on R&D for non-focused businesses and direction-changing businesses, but we will narrow down our investments and further promote the shift to strengthening businesses.

In basic research, we will continue to make appropriate investments in technology development for future corporate value enhancement and growth, and in the training of engineers who will contribute to the continuous advancement and evolution of our core technology.

### Breakdown of R&D expenses



### Expand and deepen the use of AI technology throughout the company

As initiatives to expand the use of AI technology, we are working to “1. Cultivate imaging-IoT specialists<sup>1</sup> and implement usage measures in each business,” “2. Implement measures to utilize FORXAI technology<sup>2</sup> in all businesses,” and “3. Formulate basic policies for the use of AI and build an AI governance system.”

1. We plan to increase imaging-IoT specialists resources to 1,000 by the end of fiscal 2023. 800 people are currently active in each business area. Going forward, we will strengthen the shift and development of human resources to the strengthening business areas.
2. In fiscal 2023, we will gather relevant engineers in the newly established FORXAI business department to support technology development and service provision that uses FORXAI to increase added value in all businesses, and provide development kits and infrastructure to facilitate the use of AI technology.

3. When using AI, it is necessary to understand that there is a risk of problems related to infringement of human rights, fairness, and ethical issues. Therefore, we have established basic policies, regulations, education, and governance systems for the use of AI, so that each business can use AI with confidence, and have been operating them since fiscal 2021. In addition, in the future, we will actively utilize generative AI such as ChatGPT for operational and business purposes by developing rules and an environment for safe use.

<sup>1</sup> Imaging-IoT specialists: AI engineers, data scientists, solution developers

<sup>2</sup> FORXAI technology: Imaging AI, edge devices, IoT platforms

### Promote technology development that contributes to society in the future, centered on material issues

In recent years, demographic changes, labor shortages, climate change, and resource depletion have become pressing social and environmental issues around the world. Based on these social and environmental trends, we have established five material issues that describe “what we should do now” with a view to 2030. In the strengthening businesses too, we will continue to develop technologies that contribute to solving social problems with these material issues in mind, mainly in the Industry business field.

In addition, in order to accelerate the growth of the strengthening businesses and continue to be a company needed by society in the future, I recognize that it is my mission to promote R&D challenges that lead to the improvement of corporate value, such as contributing to the transformation of manufacturing processes in various industries around the world to achieve Carbon Minus by utilizing our expertise in manufacturing process monitoring technology and data-driven material development technology.

For 150 years, we have fulfilled the desires of customers to “see” and helped realize people’s purpose in life. We will continue to take on the challenge of solving social problems by responding to the new things society wants to “see” using the technologies that can only be realized by Konica Minolta.