



Contribution through Core Business

Create New Products and Technologies

To further strengthen RIKEN TECHNOS's manufacturing capabilities as a manufacturer, in FY2025, the new Monozukuri Headquarters was established by integrating research and development (R&D), manufacturing, quality control, and procurement divisions relevant to manufacturing.

Using this structure, we will enhance development speed and accuracy based on unity between R&D, manufacturing, quality control, and procurement divisions. Our goal is R&D that contributes toward solving environmental and social issues. We will also invigorate human resource exchange and nurture human resources that can conduct development from multiple perspectives.

Initiatives in Product Development

We undertake new product development with an emphasis on contributing toward solving social issues.

Toward solving environmental issues, such as global warming, recycling, energy saving, and chemical substance control, in our compound products, we will continue to propose products made from thermoplastic vulcanizate (TPV), a dynamic crosslinking thermoplastic elastomer. Formed with less energy than vulcanized rubber, they are lightweight and allow material recycling. In our film products, we aim to differentiate their thermal insulation and low heat storage performance while offering proposals in various applications.

In addition, the raw material for polyvinyl chloride (PVC) products—our flagship products—is PVC resin, of which approximately 60% is salt, a natural resource. PVC resin also has high durability. Therefore, it is a more environmentally friendly material compared to other raw materials derived from petroleum. We will also continue to propose high-quality PVC products that delight customers by meeting their needs.

To solve social issues, including an aging and shrinking population, we are undertaking development from the perspectives of applicability, weight reduction, and process reduction. As mentioned earlier, for compound products, we propose TPV products that are lighter than those using vulcanized rubber. Meanwhile, regarding film and food packaging products, we are improving applicability and workability and focusing on developing differentiated products that only we can achieve.

We also propose films that retain freshness as a measure for reducing food loss. We analyze the data of applicable fruits and vegetables and further study usage methods to advance product development that contributes to society.

Even for existing applications and products, we carry out timely improvements according to the needs of the market and our customers. We continue to take on the challenges of providing new value by leveraging our technological strengths to realize our long-term vision of “Aiming to become the leading provider of comfort for all living spaces.”

Based on the new three-year medium-term business plan, we will continue these activities with the target of achieving at least 23% for our ratio of new product sales.

Digital Transformation of Research and Development

We need to develop new technologies and create new businesses to achieve sustainable growth toward becoming a company with a 100-year history. To do so, it is important to improve our business environment, of which the establishment of a digital environment will become more important in the future. By developing a digital environment, we hope to improve efficiency and save manpower for existing operations and create a system that allows researchers to focus on new things and things that only humans can do. We believe it is important to formalize tacit knowledge to avoid reduction in efficiency caused by the personalization of information and information gaps.

In FY2024, we advanced the use of materials informatics (MI) and the creation of a technology database as part of our DX promotion. At the same time, through the development of MI human resources, MI was used in 40 developmental themes. We will also create databases and various technological operational workflows as appropriate and start operating some of them in FY2025.

We will continue to improve our environments to further leverage digital technologies and increase the speed of our development.

Intellectual Property Strategy

Formulating management strategies from multifaceted perspectives is vital to respond to recent social changes, such as the promotion of sustainability and environmental, social, and governance (ESG) efforts. Here, intellectual property (IP) landscaping making use of IP information is effective, and the Intellectual Property Department is taking the lead to provide recommendations on our management issues.

In the previous three-year medium-term business plan, we targeted a cumulative total of 45 patent applications for the period from FY2022 to FY2024, and actually submitted 52 patent applications. In the new three-year medium-term business plan starting in FY2025, we are targeting 75 patent applications.

Creation of New Businesses

In our FY2025 organizational changes, the Start-up Office for New Business Development was renamed the Promotion Department For Startup And New Business Creation. This change is intended to more specifically drive the creation of new core businesses and more strongly promote the development of elemental technologies while considering future changes in social issues. Based on the thinking that taking on new challenges is necessary to achieve sustainable growth, the Promotion Department For Startup And New Business Creation conceives our ideal image in 10 and 20 years' time, uses backcasting to arrive at the things that need to be done now to achieve that image, and undertakes activities toward new business creation.

So far, we have anticipated future changes in social issues and strongly promoted the development of elemental technologies in response. We are further enhancing the three fundamental technologies—formula design technology, mixing and kneading technology, and film manufacturing and processing technology—that we have developed since our establishment. By combining these technologies, we are taking on creating new products and technologies that can solve issues of planetary boundaries and social boundaries from a medium- to long-term perspective.

We will create new businesses revolving around our technologies while also actively using external resources, such as through industry-academia and industry-government collaborations.

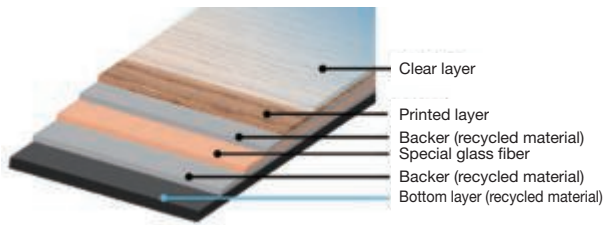
Open Innovation

Open innovation activities bring in external expertise and technologies to help create new value. We conduct them mainly through joint development founded on industry-academia collaborations.

In the research with Kogakuin University launched as an industry-academia collaboration project in FY2024, we jointly developed a residential heating tile. As a result of combining our resin material formulations and manufacturing technologies with the university's thin-film technologies, we succeeded in adding a heating function—which generates heat at low voltages—to floor tiles made using at least 95% recycled materials.

We will continue to undertake open innovation initiatives aimed at gaining elemental technologies and applying them in product development.

Composition of Residential Heating Tile



Comments from Researcher

Yuma Gunji Group 2, Compound R&D Department

My group is in charge of developing wire coating materials and electrical equipment materials, mainly using PVC. Specifically, I work in product development for electrical equipment materials. To respond to diversifying market needs, we handle a wide range of electrical equipment materials, from thermoplastic elastomer (TPE) to engineering plastics. While there are many difficulties in development, I feel significant fulfillment in further deepening the formula design and processing technologies that the Company has developed over many years.

Going forward, we will seek to accelerate our speed of development by leveraging DX. At the same time, the Monozukuri Headquarters will unite to enhance development accuracy and create new products with new value that stay ahead of customers' expectations.

