





Research & Development/Intellectual Property Strategy

In order to respond to diverse customer needs, Yokohama Rubber is engaged in comprehensive research and development ranging from material development to product design, testing, and evaluation in a number of product fields, including tires, hose and couplings, and industrial products. In our Intellectual Property Strategy, we protect our proprietary technologies and establish a competitive advantage through the acquisition of patents and the management of our intellectual property portfolio to support the sustainable growth of our business. Intellectual property-related activities are an important investment for us, and we are continuously working to strengthen and improve them.

Relevant materiality	What we aim to do
 Provision of products and services that contribute to a sustainable society	<ul style="list-style-type: none"> • Achieve a safe and comfortable mobility society through improved quality and performance based on proprietary technologies • Contribute to economic and social development by providing high value-added off-highway tires • Improve customer convenience and efficiency through DX-based services
 Contribution to a decarbonized society and circular economy	<ul style="list-style-type: none"> • Contribute to a decarbonized society through our products • Reduce greenhouse gas emissions and energy consumption • Contribute to the circular economy by increasing the use of renewable and recycled materials

Basic Policy on Research & Development

The Yokohama Rubber Group's research and development aims to challenge the cutting edge of global technology and providing pioneering, world-first products to the market. In the field of research and development, we engage in multi-faceted and comprehensive research and development from material development to product design, testing and evaluation, based on the themes of "originality

and ingenuity," "practical application" and "composite technology," and pursue the possibilities of various technologies and products, including rubber polymer technologies. In addition, outside the field of tires, we use innovative ideas unconstrained by conventional thinking and cutting-edge technologies to pursue the development of new materials and the design of products with a view toward the next-generation.

International Research & Development System

The Research and Development Integrated Center (RADIC) at the Hiratsuka Factory plays a central role in the Company's research and development. Under the idea of "local production for local consumption," Yokohama Rubber is strengthening research and development activities in regions close to major markets in Japan and overseas. To date, we have established the Tire Test Center of Asia in Thailand, the Yokohama China Technical Center in China, and the Yokohama Development Center America in North Carolina, US. The finished

tires are tested through driving tests and multi-faceted testing conducted at test courses at D-PARC and Hokkaido Tire Test Center in Japan, Tire Test Center of Asia in Thailand, and Yokohama Test Center of Sweden, and the data obtained is used to develop next-generation tires.



Comprehensive tire test course at D-PARC (Ibaraki Prefecture)

HAICoLab* AI-powered data utilization framework

For more than a decade, Yokohama Rubber has been developing technologies to apply computer science and machine learning to the development of materials. HAICoLab, which has been in practical use since 2020, is our proprietary AI utilization framework that combines simulation technologies and AI technologies and also focuses on human characteristics. We aim to promote new discoveries through "human-specific inspiration" and "creativity" and "collaboration

between the enormous data processing capabilities that AI excels at" aimed at non-continuous and radical innovation.

The new knowledge gained by generating and collecting virtual data from real data and simulations, and predicting, analyzing, and searching with AI is being utilized for innovation in tire technology development.

*A coined term based on "Humans and AI collaborate for digital innovation."

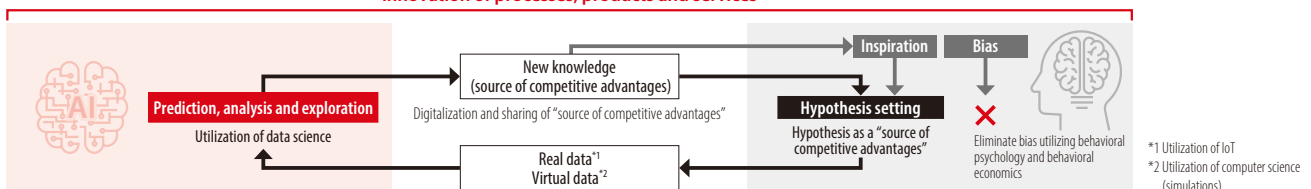
➤ P.8-9 Message from the COO

➤ P.46-49 A Roundtable Discussion between Our COO and Young Engineers

Conceptual image of HAICoLab

Improving user experience (Society 5.0)

Innovation of processes, products and services



*1 Utilization of IoT
*2 Utilization of computer science (simulations)

Intellectual Property Strategy

As Yokohama Rubber considers intellectual property to be an important foundation for business, we are actively promoting intellectual property-related activities to realize our business and sustainability strategies based on the new Medium-term Management Plan "YX2026."

We emphasize building a rational intellectual property portfolio

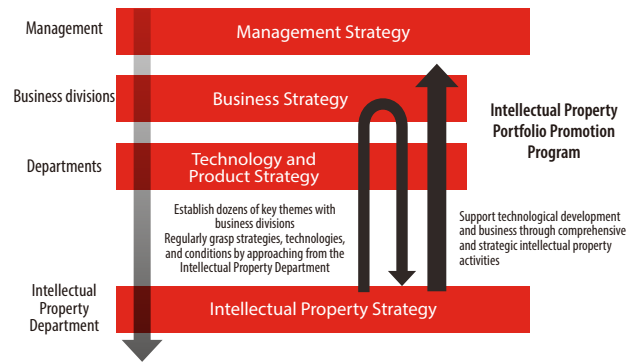
and strive to maximize return on investment by efficiently acquiring and managing the intellectual property necessary for our business activities. In addition, we continuously review and strengthen our intellectual property-related activities, always aiming for an optimal system to be in place.

Intellectual Property Portfolio Promotion Program

Yokohama Rubber positions its Intellectual Property Strategy as an important management strategy for realizing innovation and sustainable business growth. We have been implementing the "Intellectual Property Portfolio Promotion Program" since 2007 to drive the following initiatives.

- Building of a strategic intellectual property portfolio: Based on management, business, technology, and product strategies, the Intellectual Property Department collects information to understand about internal and external conditions, and proposes the acquisition of patents, designs, trademarks, and other rights in cooperation with business divisions to build the optimal intellectual property portfolio.
- Integrated intellectual property activities: For each theme, we develop intellectual property activities from a multifaceted perspective and with appropriate timing, including the details of rights acquisition, the status of intellectual property inside and outside the company, FTO investigations (investigation of the risk of infringement of third-party rights), and consideration of the mix of rights such as patents and designs.

Currently, we are promoting intellectual property activities in cooperation with business divisions based on more than 50 themes a year. Through these initiatives, we will accelerate innovation and drive business growth by strategically utilizing intellectual property.



Strengthening Intellectual Property Management

While intellectual property rights, such as patents and design rights, are expensive to maintain, they play an important role in protecting business and securing a competitive advantage.

Yokohama Rubber builds and maintains an intellectual property portfolio necessary for its business activities by annually evaluating the effectiveness and efficiency of its intellectual property holdings, and then reviewing and replacing them. This enables the Company to streamline intellectual property investment, ensure the protection of its businesses and technologies, and make effective use of intellectual property investments.

Additionally, we aim to achieve sustainable business growth by proactively taking legal action against infringement of intellectual property rights by third parties and maximizing the value of

intellectual property rights. For example, in November 2023, we successfully eliminated counterfeits of our wheels by administrative crackdown and submitting information to the Administration for Market Regulation in China. Moving forward, we will take a firm stance against brand damage caused by counterfeit products, and will continue our efforts to ensure that all customers can use our products with peace of mind.

Although the number of our Group companies has been increasing in Japan and overseas through M&A in recent years, we have established a system where each Group company independently promotes intellectual property activities and the Intellectual Property Department in Japan provides support for the entire Group when necessary.

Future Issues and Measures

At Yokohama Rubber, one of our challenges is to make more effective use of the vast amount of research and development data (actual product and lab sample test results, simulation results, manufacturing and processing conditions, etc.) that we have accumulated to date. This is an area that we are now working to address. In the future, we will develop a foundation that makes it easier for engineers to use this data, leading to the improvement of individual skills, new awareness, and quantification of tacit knowledge (skill transfer).

In the area of intellectual property rights, we are facing the challenges of intensifying global competition, responding to sustainability initiatives, and increasing sophistication of intellectual property rights. We will strengthen our intellectual property strategy and achieve sustainable growth by working to optimize our intellectual property portfolio, strengthening property rights enforcement, and enhancing intellectual property-related collaboration throughout the Group.