

Constantly targeting new value creation, the Sumitomo Rubber Group engages proactively in research and development (R&D). In addition to these efforts, the Group preserves the fruits of its research as intellectual property and has established structures to fully capitalize on its intellectual property rights.

## R&D Activities

With the Sumitomo Rubber Industries' R&D organization and facilities as its core, the Sumitomo Rubber Group promotes R&D activities in wide-ranging fields—the tire, sports, industrial and other product businesses—in close cooperation with its subsidiaries and affiliates around the world. In addition, Sumitomo Rubber Industries has pursued the exchange of technology in its Tire business based on a global alliance with The Goodyear Tire & Rubber Company since 1999. In conjunction with this, the Company maintains dedicated project teams to carry out joint research on specific themes. Furthermore, the Tyre Technical Center, completed in 2009, is the key facility of the Group's R&D activities for tire technology as Sumitomo Rubber Industries promotes the development of next-generation, eco-friendly tires.

Total R&D expenses in the fiscal year under review amounted to ¥19,539 million, equivalent to 2.8% of consolidated net sales.

### Tire Business

In fiscal 2012, Sumitomo Rubber Industries' R&D efforts under the Dunlop brand entailed the development of the VEURO VE303 premium comfort tire, which boasts improved quietness as well as greater fuel-efficiency. In addition, these efforts led to the introduction of the WINTER MAXX studless snow tire with a superior braking performance on icy roads that contributes to an 11% performance improvement over the Company's conventional products. In fiscal 2012, R&D expenses in the Tire business totaled ¥17,034 million.

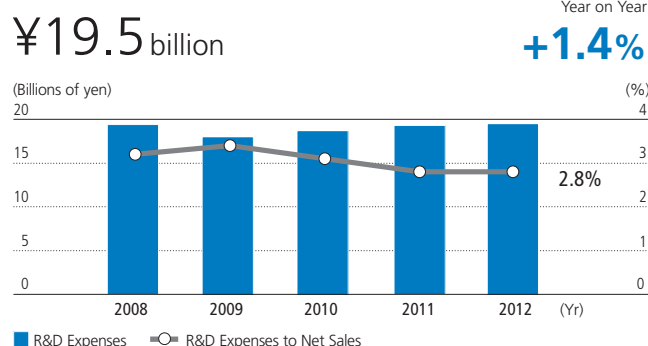
### Sports Business

With R&D sections placed at both Dunlop Sports and Cleveland Golf Company, Dunlop Sports pursues the development, evaluation and verification of new technologies and products, employing cutting-edge computer simulations. Reflecting these activities, during fiscal 2012, Dunlop Sports developed and commercialized such products as the SRIXON Z golf club series. R&D expenses in the Sports business amounted to ¥1,155 million.

### Industrial and Other Products Business

Sumitomo Rubber Industries develops products that meet consumer needs in each product field. During fiscal 2012, the Company released Hibrid-Turf XPJ, a long-pile artificial turf with improved playability. R&D expenses in the Industrial and Other Products business were ¥1,350 million.

### R&D Expenses and R&D Expenses to Net Sales



#### Tyre Technical Center

Equipped with state-of-the-art testing and measuring machines, the Tyre Technical Center is the Group's main tire R&D facility.



#### Inside-Drum Testing Machine

A machine that monitors the key performance metrics of tires when cornering on dry, wet or icy roads

## Intellectual Property Strategies

### Basic Policy

The Sumitomo Rubber Group proactively carries out intellectual property activities that support its businesses. The Group has set forth a basic policy with regard to such activities in accordance with VISION 2020, a long-term vision established in 2012.

Specifically, the Group undertakes intellectual property activities, focusing on three pillars, namely: 1) securing intellectual property rights with regard to such industrial properties as patents, utility models, designs and trademarks; 2) exercising such rights against the infringement of the Group's intellectual properties; and 3) eliminating risk by developing a structure to protect the Group's rights from violation by third parties.

### Current Status of Basic Policy Implementation

The current status of the basic policy is as presented below.

The Group submitted a record number of patents in fiscal 2012 thanks to the success of intellectual property training for employees and the introduction of a structure that connects technological development to patent application. Moreover, the total number of patents held by the Group reached an all-time high.

The Group seeks to effectively utilize the intellectual property rights that it has acquired, defending such rights against infringement worldwide. For example, in Europe the Group diligently files litigation against infringement while in Asia it is strengthening cooperation with national administrative bodies to ensure that products that infringe on the Group's rights, including imitations and copies, are seized by customs or, when possible, their production sites are identified and dealt with. To secure the competitive advantage of its products and earn greater trust, the Sumitomo Rubber Group will constantly reinforce the structure it has built to ensure the protection of its intellectual property rights against such infringement.

With the aim of furthering the utilization of intellectual property rights, the Group is engaged in licensing that is yielding an ever increasing volume of royalty income.

Needless to say, the Group also gives due consideration to

preventing its own products from infringing on other companies' rights. Going forward, the Group will strive to further strengthen its intellectual property structure with an eye to eliminating such risks, which are anticipated to increase, especially abroad.

### Responding to Globalization

In step with the rapid expansion of its overseas operations, the scope of the Sumitomo Rubber Group's intellectual property activities is growing worldwide, encompassing not only Japan but also the United States, Europe and such Asian countries as China as well as Russia and countries in South America, the Middle East and Africa.

Reflecting this, efforts are now under way to nurture human resources and reinforce our structure for handling intellectual properties. In particular, the Group is providing training sessions not only for Intellectual Property department members but also for employees at every operational base with the aim of upgrading the competencies of the entire workforce. Such action is facilitating the development of a structure that ensures intellectual property activities are carried out smoothly and seamlessly on a Groupwide basis.

To reinforce the intellectual property structure, it is essential to cooperate with such external organizations as legal firms, patent offices, patent agents, research agencies and administrative bodies in Japan and overseas. With the aim of strengthening the connections between the Group and these organizations as well as across-the-board communication, the Sumitomo Rubber Group implements projects that involve internal and external collaborations.

Moreover, the Group renewed its in-house Intellectual Property Management System to improve operational efficiencies and ensure that information is shared globally. Through this renewal, the Group established a network that connects all of its operational bases and agencies around the world. Moreover, the renewal facilitated a switchover from paper-based to paperless operations that utilize a workflow system and database. This significantly accelerated the Group's operations with regard to intellectual property rights.

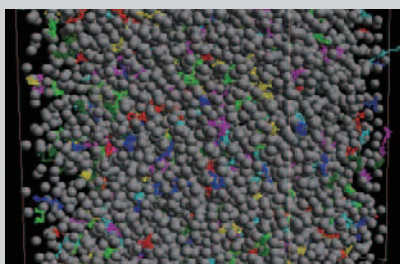
Focusing on the abovementioned three pillars, the Group will promote the more efficient implementation of intellectual property activities, encompassing all regions worldwide.



#### The K computer

To further the advancement of new material development technology aimed at creating high-performance and quality tires, the Company utilizes the K computer, one of the world's most powerful supercomputers.

Provided by RIKEN



#### A computer simulation showing a molecular-level view of the principal constituents of tires

(gray: silica particles;\* color: partially rendered polymers)

\*A filling material being compounded to enhance the strength of the rubber (approximately 10-20nm in diameter)



#### Golf Science Center

With the ability to comprehensively measure, analyze and evaluate golf equipment, the Golf Science Center boasts a wealth of data covering wide-ranging subjects, including the relationships between the golf swing forms of various golfers and such equipment as clubs and balls.