

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 ¥19,274 million, which accounted for 2.8% of consolidated net sales.

### Tire Business

On the market from February 2012, the ENASAVE PREMIUM lineup was introduced by Sumitomo Rubber Industries under the Dunlop

brand. ENASAVE PREMIUM tires are made from fuel-efficient rubber developed using 4D NANO DESIGN, a new material development technology. This product is an example of Sumitomo Rubber Industries' thorough pursuit of fuel economy. In fiscal 2011, R&D expenses in the Tire business totaled ¥16,771 million.

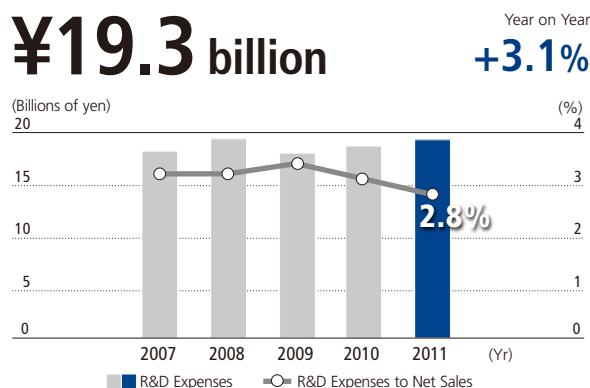
### Sports Business

With R&D sections placed at both Dunlop Sports and Cleveland Golf Company, Dunlop Sports employs cutting-edge computer simulation to develop new technologies and products. Reflecting these activities, during fiscal 2011, Dunlop Sports released the XXIO 7—the seventh generation in the XXIO line—in December 2011. R&D expenses in the Sports business amounted ¥1,247 million.

### Industrial and Other Products Business

Sumitomo Rubber Industries develops products that meet consumer needs in each product field. During fiscal 2011, the Company developed the MIRAIE damper for use in the construction of housing. Released in March 2012, MIRAIE employs a unique high damping rubber that can absorb earthquake tremors. R&D expenses in the Industrial and Other Products business were ¥1,255 million.

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

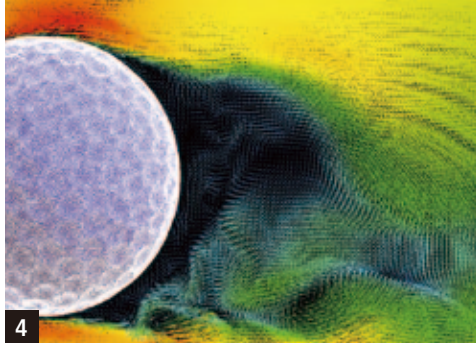


## Intellectual Property Strategies

The Sumitomo Rubber Group carries out intellectual property activities in order to support its businesses. Activities include the acquisition and utilization of intellectual property rights, namely, patents, designs and trademarks, as well as the prevention of rights infringements.

### Globalization Initiatives

With the aim of realizing its Long-Term Vision for business expansion in overseas markets, the Sumitomo Rubber Group has expanded its



1. 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.
2. Inside-Drum Testing Machine  
A machine that monitors the key performance metrics of tires when cornering on dry, wet or icy roads
3. Friction Energy Measuring Equipment  
Equipment that measures the pressure volume, stress and slippage of tires as they traverse roads to determine their friction performance
4. Digital Impact Technology  
A high-quality simulation technology for analyzing—in increments of a 100 millionth of a second—the moment of impact when a golf club or tennis racket hits the ball
5. Sumitomo Rubber Industries received the Thomson Reuters 2011 Top 100 Global Innovator Award from Thomson Reuters. Given in recognition of innovation, this award has been granted to 100 leading global companies.

intellectual property business in Russia and CIS countries, Asia and South America in addition to Japan, Europe and the United States.

The following are three main activities to be conducted in each country.

- (1) Securing industrial property rights (patents, designs and trademarks)
- (2) Exercising rights against products that infringe on the Group's intellectual property
- (3) Eliminating the inappropriate use of rights by third parties to protect the Group's legitimate business activities

The Group is particularly aware of cases that fall under the third of these, including the registration of designs that are identical or similar to the Group's tire designs and applications for trademarks that may infringe on the Group's main brands all around the world. The Group's business operations could be affected if such cases were neglected. Therefore, the Group takes countermeasures against such infringements as soon as they are detected.

### Enhancement of Business Efficiency and Streamlining of Intellectual Property Ownership

Owing to the abovementioned globalization activities, the Group is required to handle expanding businesses related to intellectual property rights. Against this backdrop, the Group carries out its business operations in accordance with the following objectives.

- (1) Authorization of all effective technology and streamlining of unprofitable rights
- (2) Building a stronger relationship with patent offices

The Company is promoting the first objective by allocating personnel who hold concurrent positions in the R&D/Technological Development and Intellectual Property departments to serve as "patent liaisons" charged with bridging the gap between the two departments. Also toward this objective, the Group is informed by its patent commercialization rate, which is calculated by dividing the number of commercialized patents by the number of patents held.

While enhancing the commercialization rate by accelerating the application and authorization of technologies to be commercialized as well as renouncing unused patents, the Group will endeavor to boost the cost performance of its intellectual property rights.

As to the second objective, the intellectual property business must have a cooperative relationship with patent office both in Japan and overseas. It is particularly necessary to reinforce communications with patent offices overseas in pursuit of globalization and efficient business operations. Intellectual Property department members work in tandem with patent attorneys and lawyers in each country to obtain authorization and litigation. By doing so, the Group aims to (a) build a stronger relationship with patent offices, (b) enhance business quality and accelerate operation efficiencies and (c) improve the skills of Intellectual Property department members.

### Efficient Utilization of Patent Information

In order to maintain and control Sumitomo Rubber Group's patents, a database was compiled covering all intellectual property rights and placed under the Patent Control System. Data is regarded as administrative and technological information and is thus disclosed to the development divisions to support their technological development activities.

The Sumitomo Rubber Group values its competitors' patent information as a way of monitoring technical advances and preventing its products from infringing on other companies' rights. To that end, the Group distributes weekly patent bulletins to keep every technical division informed.