

Research and development activities were almost entirely funded by the reporting entity (The Japan Steel Works, Ltd.). Combined spending on research and development for the Steel Products business and the Machinery Products business amounted to ¥3,402 million (US\$34 million).

As a materials and mechatronics company, we strive to develop new products and production techniques using our own technology, while also actively promoting widespread technical alliances and joint development in an effort to put new products and technology into effect as quickly as possible. In terms of the direction of research and development, our Research & Development Headquarters continues to promote cooperation with individual business divisions in order to: (1) improve the capabilities, performance and reliability of our core products and (2) develop products and businesses to meet the requirements in new business fields.

Our Research & Development Headquarters encompasses our headquarters (located at Head Office), the Muroran Research Laboratory (situated on the premises of the Muroran Plant), and the Machinery Research Laboratory (located at the Hiroshima Plant).

Our basic research and development policy is as follows.

1. Promoting the development of new products and businesses by focusing on the five technological fields of new energy & energy savings, information & telecommunications, environmental protection, nanotechnology & materials, and new production technologies. We aim to expand our fields of business by improving our core technologies.
2. Making strenuous efforts to identify new themes for research and development that meet current market needs, and selecting new key development projects that have a high potential to become significant earners for the Company in the future. We will make investments in human resources and property, and allocate funds to selected fields, taking into due consideration the forming of alliances to shorten development time.
3. Promoting promising themes for future technology and basic research to fulfill the needs of 21st century

society, and developing them into research and development projects that will translate into new products and businesses in the future.

Overview of R&D activities by business segment

Steel Products

In terms of the development of materials-related products, we have been carrying out research and development in areas such as clad steel pipes for natural gas transportation, high alloy materials for high-efficiency thermal power generation, and nonferrous alloys for the IT industry. We have also been working on the development of hydrogen absorbing alloys, as well as their applied systems such as hydrogen tanks for fuel cells, and a wide range of research and analysis has been conducted on materials technologies involved in the manufacture of blades for wind-power rotors. For fiscal 2007, spending on steel product research and development totaled ¥1,547 million (US\$15 million).

Machinery Products

In the field of machinery-related products, we have been developing high-performance, low-cost technology for magnesium alloy injection molding machines, and high-precision molding technology for plastic extruder and injection molding machinery. We have also been working on laser applications, including systems for cutting-edge laser annealing equipment used in the production of TFT (thin-film transistor) liquid crystal displays, and other applications for laser devices. In the field of technology for environmental preservation applications, we are currently working on the development of equipment for the dechlorination and melting of waste plastic. Spending on machinery product research and development totaled ¥1,855 million (US\$19 million) for fiscal 2007.