Research and Development

The global R&D strategy of the Hitachi Group has four major objectives: 1) generating innovation for the creation of new industries; 2) commitment to, maintain and strengthening the *MONOZUKURI* industry; 3) speeding-up global deployment; and 4) fostering global and innovative human resources. The Hitachi Group conducts R&D across many fields ranging from information and telecommunication systems to financial services. R&D expenditures for the entire Group was ¥428.1 billion (U.S.$4,281 million) in fiscal 2007. This figure was 3.8% higher than in the previous year and represented 3.8% of fiscal 2007 consolidated revenues.

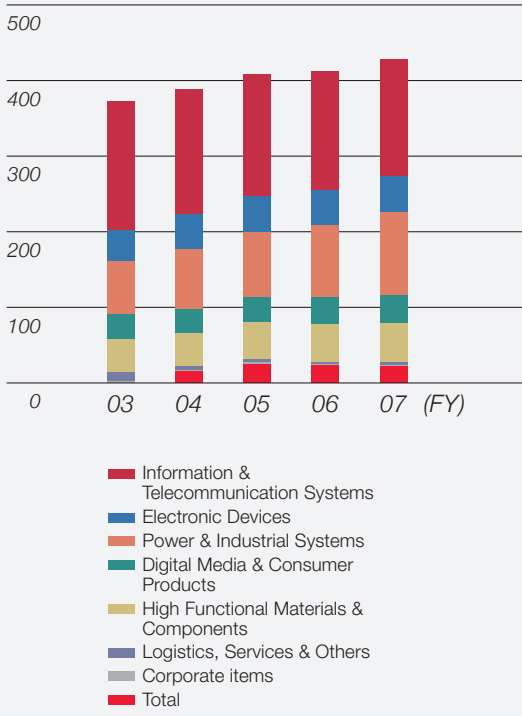
R&D in the Hitachi Group encompasses activities undertaken by the Research & Development Group, which functions as a corporate R&D organization, as well as product-related applied development undertaken by the business division or by Hitachi Group companies (some of which have independent research organizations). Overall, the Hitachi Group employs around 6,000 people in the R&D function (as of April 2008). Hitachi is working to reinforce the links connecting central R&D to the product development functions of business division and Group companies so that the management of R&D on common technologies is integrated at the Group level.

Hitachi's Research & Development Group operates 6 laboratories in Japan and some overseas facilities, employing about 3,000 people in total. Its mission is to help expand current businesses, generate new businesses and create innovative technology. R&D is positioned as the hub of the Hitachi Group in a structure that is designed to create "Technology platforms across the Hitachi Group." Under this approach, some projects assemble R&D personnel from across the Group. Employees working in business divisions and even customer representatives can also participate in R&D projects. This development of technologies based on multiple inputs lies at the heart of the Hitachi Group's commitment to innovative product creation. It also makes a valuable contribution to human resource development within each of the Hitachi Group's businesses.

To speed up R&D with the aim of reducing the length of this phase of the product cycle by 30% on average, Hitachi is also developing closer Group-wide links between the R&D organization and the Supervisory Office for *MONOZUKURI* to promote a shift toward using auto-generated analytical models in design processes. Analysis-led design promises to save labor in product development. Hitachi began applying the new system in September 2007 for overseas high-speed trains and for the next-generation bullet train.

Separately, Hitachi has also initiated projects aimed at injecting innovation into *MONOZUKURI* using advanced technology. These include the use of processes and equipment linked to statistical data (for rapidly identifying poor or defective items) and the adoption of phase-based gate systems.

R&D Expenditures by Industry Segment *(billions of yen)*



Structure of Research & Development Group

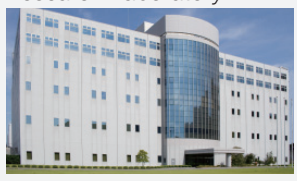
Central Research Laboratory

Information and telecommunications, embedded systems, solution LSI, storage, life science

Mechanical Engineering Research Laboratory

Mechatronics application systems

Production Engineering Research Laboratory



Management systems, production systems & processes

Hitachi Research Laboratory

Public systems, devices, components, materials

Systems Development Laboratory

Information systems, security, ubiquitous, storage, services solutions

Advanced Research Laboratory

Human & information systems, health systems, environment & energy, nano-materials & devices