

Research and Development

To drive the global growth of the Social Innovation Business, Hitachi is closely linking its research and development with the markets where it competes. While building stronger local links, Hitachi's global R&D framework is designed to connect

diverse experiences, backgrounds and ideas as the source of creativity to transform Hitachi into a company that leads the world in technological innovation.

R&D Policy

- Enhancing regional research contributing to overseas business expansion
- Development of No. 1 technology for prioritized business areas
- Cost structure reform
- Open innovation
 - Strengthen proposals for solutions & new products through collaboration with global partners
 - Participation in national projects & pursuit of government/industry/academia collaborations in frontier research

Strengthening the Global R&D Framework

R&D at Hitachi is conducted by the Research & Development Group, a corporate R&D entity, as well as in the product development divisions of the in-house companies of Hitachi, Ltd. and Hitachi Group companies (some Hitachi Group companies have their own research laboratories). Hitachi positions its three domestic corporate laboratories and Design Division as its core technological development bases, while also working to strengthen its global R&D framework.

Concretely, the Group aims to first increase its number of overseas R&D personnel from approximately 280 at the end of fiscal 2012 to 400 in fiscal 2015 and actively promote

leaders from local human capital to accelerate locally based R&D. In the six regions of the United States, Europe, China, Asia, India and now Brazil, Hitachi has established bases to manage and implement local R&D. Furthermore, these bases have established research centers to promote R&D that leverages regional characteristics. In October 2012, the European Rail Research Centre was established in the United Kingdom. April 2013 saw the establishment of the Hitachi China Materials Technology Innovation Center in China and the Big Data Research Laboratory in the United States. And in June 2013, the R&D Division of Hitachi Brazil Ltd. was opened.

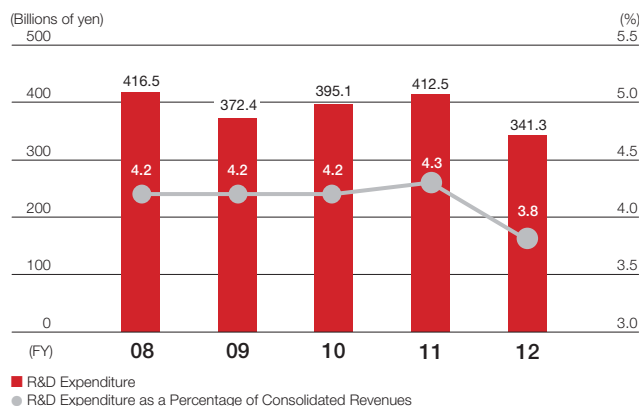
R&D Investment and Investment Efficiency

Although Hitachi made R&D investments aimed at strengthening the Social Innovation Business in fiscal 2012, due in part to the sale of the HDD business, R&D expenditures were 17% lower than in the previous fiscal year at ¥341.3 billion, representing 3.8% of fiscal 2012 consolidated revenues. At the corporate Research & Development Group, approximately 30% of investment was devoted to advanced

and platform research, with 89% of this aimed at next-next-generation businesses in the Social Innovation Business area.

In order to closely evaluate the efficiency of its R&D, Hitachi is monitoring the ratio of operating income to R&D expenditure as a key performance indicator, with the aim of maintaining a ratio of 1 or higher. This figure has been greater than 1 since fiscal 2010.

R&D Expenditure and R&D Expenditure as a Percentage of Consolidated Revenues



Operating Income and R&D Investment Efficiency

