

I. Introduction

The purpose of this report is to provide information about R&D and intellectual property (IP rights and brand), which are the main components of technology management for Hitachi, Ltd. and its affiliates.

This report covers the period from April 1, 2005 to March 31, 2006 (FY 2005), including new measures and organization changes at the start of FY 2006.

II. Hitachi Technology Management

1. What Hitachi should be

We are at the dawn of a new era in which information can be transmitted any time, any place, and between anyone. By making better use of information networks, the barriers among enterprises, communities, and individuals are being broken down to create new values that combine and interconnect in a new “ubiquitous information society.” The Hitachi Group is creating value for the “ubiquitous information society” by combining achievements in various business areas with information technology, and thus helping society to become more affluent. Combining businesses and information technology to create optimal value is the essence of Hitachi “uVALUE.”

The Hitachi Group is an aggregate of businesses that supports people’s lives through social infrastructure, industrial infrastructure, and life infrastructure. Each of these infrastructure businesses is combined with information infrastructure systems to generate synergies, to create optimal “uVALUE” for customers and society, and to put “Inspire the Next” into action. In other words, by freely combining experience, knowledge, and expertise drawn from a broad range of business areas, Hitachi should be a business entity that gives full play to its true collective strengths to create high added value.

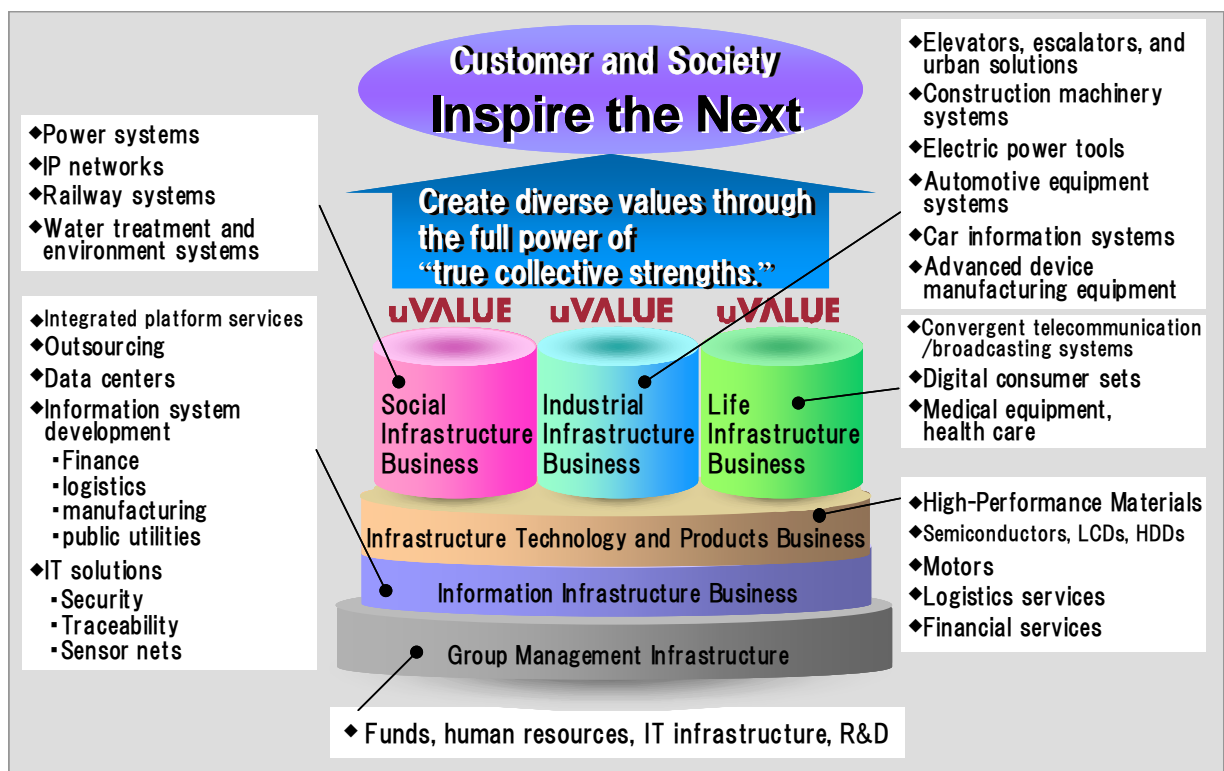


Figure 2.1 Value Creation through “True Collective Strengths”

2. Technology management approach

To leap forward and to give full play to “true collective strengths,” the Hitachi Group must rise to the challenge in “innovation,” “globalization,” and “capturing synergies.”

2.1 Innovation

As the pace of technological progress continues to accelerate, the “power of foresight” becomes essential to know what technology is the right one. Through innovative technologies, Hitachi will develop and market new products and systems that can change our world.

The goal of “Inspire A” is to create core businesses that support the growth of Hitachi Group. Inspire A businesses promote the expansion and development of the entire Group and six business segments, including Information and Telecommunication Systems, Electronic Devices, Power and Industrial Systems, Digital Media and Consumer Products, High Performance Materials and Components, and Logistics Services and Others. From each segment, core businesses are selected as the focus of technology development.

In 2005, Hitachi’s non-contact finger vein authentication system received the Ten Great New Products Award (Nikkan Kogyo Shimbun Ltd.). The system prevents identity fraud by identifying individuals through finger vein patterns. In the ubiquitous information equipment sector, which includes car navigation systems, the sophisticated embedded Entier database made its market debut. In the digital high-definition television sector, the Wooo series released 42V and 37V PDP (plasma-displays panel) TV equipped with the “1080 ALIS Panel,” which has the highest resolution in the world and beautiful picture detail. The PDP TVs are also equipped with a BS/110CS/digital terrestrial tuner. The new Wooo 9000 series also debuted with a 32V LCD (liquid-crystal display) TV equipped with the “IPS Alpha Panel,” which achieves a sharper image for high-motion sporting events. The LCD TV is also equipped with a BS/110CS/digital terrestrial tuner. In addition, “Ecocute” hot-water storage and instantaneous hot-water supply systems, “Beat Wash” washer/dryer, and “Industry Platform Operations” of the joint logistics business received top prize from the 2nd Eco Products Awards sponsored by the Eco Products Awards Promotion Council.

■ Creating core businesses that support the growth of Hitachi Group

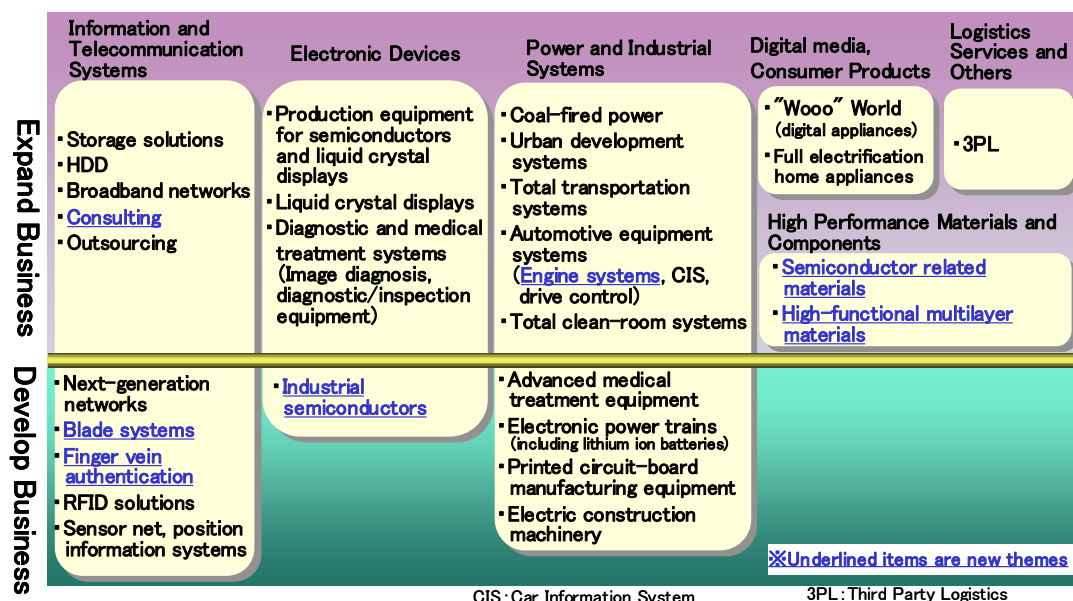


Figure 2.2 “Inspire A” Business Promotion

2.2 Globalization

For our globalization drive to keep pace with markets, the Hitachi Group is promoting collaboration with universities and other institutions and deploying dominant technologies worldwide.

As described in Chapter 4, Section 2.3 “R&D global development,” Hitachi is continually striving to strengthen research laboratories in North America, Europe, and Asia. In collaboration with universities and research institutes overseas, In 2005 Hitachi established the Hitachi Storage Mechanics Laboratory (HSTM) at the Data Storage Institute (DSI: national research laboratory) in Singapore. HSTM promotes joint research projects in the hard disk drive sector between Hitachi and DSI. In China, an R&D division was established as the independent Hitachi (China) Research and Development Corporation to focus research on information and telecommunication systems, open source software, digital appliances, and advanced materials. An agreement was also reached with Fudan University to focus joint research on advanced software technology. To boost joint research, the Fudan-Hitachi Innovative Software Technology Joint Laboratory was established at Fudan University. Through these activities, an estimated 1000 people will be working on projects, design, and development within the Hitachi-China R&D system.

In activities to deploy dominant technologies worldwide, in 2005 Hitachi strengthened the mid-range SANRISE series, a disk array subsystem that supports data life-cycle management (DLCM: a universal storage solution). The new lineup was released worldwide in July 2005. The SANRISE Network Storage Controller (NSC55) implements the world’s first virtualization technology by disc array in the mid-range class. With a total of four models, the NSC55 can meet the diverse storage needs of organizations worldwide.

In addition, the Hitachi “DS-110E-W” plastic explosives instant trace detection system received certification from the U.S. Transportation Security Administration (TSA), a leading authority in the evaluation of security systems. This makes Hitachi the first company outside the U.S. to obtain TSA certification. Hitachi has developed an extensive lineup of physical security products, such as conventional X-ray inspection systems, to meet a broad spectrum of market needs.



Figure 2.3 SANRISE Series

2.3 Synergy

Hitachi is setting up a Group management infrastructure to take advantage of scale and to promote the optimal use of resources such as funds, manpower, purchasing power, and IT infrastructure. With a view to high growth in the mid- to long- term, Hitachi is also engaged in the integration of Group technology management.

In particular, Hitachi is promoting (1) Group collaborative innovation in R&D, (2) low cost, high-quality, and manufacturing technology, and (3) improvement of R&D efficiency. The goal of collaborative innovation in R&D is to strengthen research and development through Group technology interaction and product development via vertical integration of technology. To achieve this goal, Hitachi Group Frontier / Platform Research were introduced in 2004 and a CTO Meeting (Fig. 2.4) was established to implement technology development strategy.

In Hitachi Group Frontier Research, we are developing future core businesses that move beyond the borders of current business sectors as well as developing new paradigm-shift

technologies, business models, and intellectual property. In Group Platform Research, our focus is on shortening development periods and improving productivity, reliability, and manufacturing infrastructure technology. To combine and strengthen common, Group-wide, core technologies and to develop human resources, Hitachi is currently building a Group-wide technology platform that spans several sectors such as machinery and electrical systems, electronics systems, and information systems.

To achieve low cost, high-quality manufacturing technology, Hitachi is strengthening infrastructure technologies related to new materials development and simulation systems. Further, to improve productivity and to build up manufacturing infrastructure capability, Hitachi is active Group-wide with embedded system reforms and HiSPEED/One, which engages in development, design, and process reforms.

To improve R&D efficiency, Hitachi Group is streamlining management and technology development road-maps, concentrating R&D resources on high-priority projects, and developing an open environment for Group-wide collaboration. The goal of open R&D is to explore new technology seeds and to promote more efficient technology development through full-scale collaboration with universities in Japan and overseas.

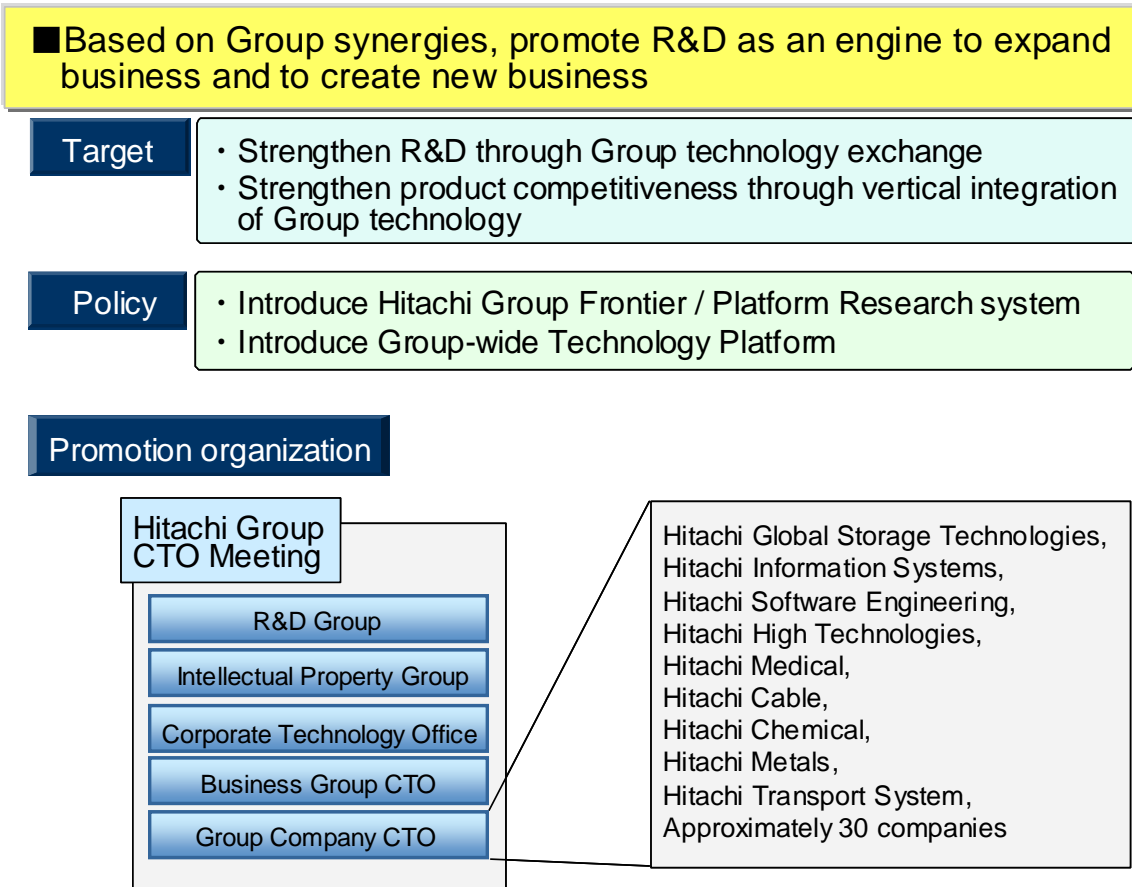


Figure 2.4 Group Collaborative Innovation R&D System