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Customers (Consumer Issues) [Ensuring Accessibility to Products and Services](#)

## Ensuring Accessibility to Products and Services

### Hitachi's Approach

ISO 26000 provides guidelines for corporate social responsibility. It identifies such core consumer issues as “fair marketing, factual and unbiased information” and “access to essential services” and calls on corporations to actively take measures addressing these. It is the base of our CSR management framework, and in applying it we are working to improve our products and services to make them broadly accessible to society through such activities as the appropriate disclosure of product information and the promotion of universal design. In addition, to support the growth of emerging economies we are developing products and services to meet new social needs and carrying out our Social Innovation Business while also engaging in active marketing and other activities.

### Universal Design

We promote universal design (UD) with a focus on three aspects of our products: their quality of use, their accessibility, and their entire life cycle. Quality of use means focusing on the traits that make people feel that the product is easy and enjoyable to make a part of their lives. Accessibility refers to the range of people who can use a product or service. And the life cycle covers all the customer-relevant stages of the value chain, from product purchase through to disposal.

We conduct basic research on users' behavioral and cognitive characteristics to formulate UD guidelines and reflect these in product development, incorporating input from users and experts at every stage. The information obtained during product development goes into a database shared by our businesses in Japan. We also distribute some of this information externally to promote open-source standardization and education.

Universal Design at Hitachi

### Increasing UD Products in Digital and Home Appliances

We define people as customers as soon as a product interests them, and therefore make a point of considering UD concepts in all stages, from presales to disposal. Key attributes are usability, features, harmony with the environment, safety, and maintenance. Our intention is to provide products that suit the physical capabilities and lifestyles of all customers and are appreciated for a long time.

Our UD focus extends beyond products to include product manuals. For example, to allow the visually impaired to use our products safely and easily, we are working with the NPO Kanagawa Information, Employment, and Welfare Network for the Visually Impaired (View-Net Kanagawa) to make our manuals available as audio text files.

The entire manual, including photographs, diagrams, and tables, is converted into a text file that can be played aloud using text-to-speech software (a screen reader for the visually impaired) and made available online. The text files are created based on feedback from visually impaired people who have operated and verified product use while listening to the instructions.

We have also launched a range of measures to improve the accessibility of increasingly complex electronic consumer appliances for the elderly and disabled. DVDs providing clear explanations on product use are included with products, while some products have Japanese Braille labeling on their buttons.



Instruction DVD.



Verifying audio text files for product operation.



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**Bringing UD to Public Equipment and Systems**

Public equipment and systems are used by a large number of people, including children, either individually or collectively, in public spaces like government buildings, stations, railways, and hospitals. Product design must address not only ease of use but also security, privacy, and safety.

For example, our automated teller machines (ATMs) include considerations and ideas based on a human-centric approach aimed at producing a machine that a range of people can operate in the same way with ease and without any particular concern. The arched guide frame leads hands naturally toward the card, bankbook, and cash slots. The open space below the user panel has been substantially deepened to improve wheelchair access.

The screen interface, designed to be easier to use regardless of differences in color vision, has received Color Universal Design certification\*1 from the NPO Color Universal Design Organization (CUDO).

\*1 CUDO Color Universal Design certification: Granted where the color schemes used in products and facilities, etc., are tested and found to be consistent with CUDO standards for color UD, the concept of designing products and facilities for universal ease of use, regardless of people's differences in color perception. The aim of the CUDO certification system is to contribute to the public good by creating a society that accommodates individuals' differences.



An arched guide frame leads hands naturally toward the slots.



An inset front face below provides better wheelchair access.



A display screen accommodating color vision differences.



AKe-S next-generation ATM.

**Increasing UD Products in Web and Information Systems**

Web and information systems are essential for gathering information and communicating. For users with disabilities who have difficulty accessing information, it is particularly important to make systems accessible, usable, and secure. Hitachi promotes UD that ensures accessibility in our web and information systems by using the international Web Content Accessibility Guidelines (WCAG) 2.0.\*1 Examples include screens and layouts that are easy to read, compatibility with screen readers that read content out loud, and a feature that allows people to alter font size and color.

The Assistance for Color Generation by CSS3 (CSS3 Generator) tool uses CSS3,\*2 enabling the rendering of gradation, shadows, glow effects, font bordering, rounded corners, and other effects that allow more people to create web pages efficiently without factoring in colors or using images. This tool makes it easy to choose colors that can be differentiated regardless of color vision. Hitachi has made this tool available for free so that it can be used by screen designers and systems developers.

\*1 WCAG 2.0: Guidelines created by the World Wide Web Consortium (W3C) that form the basis of the Japanese Industrial Standard on information communications and Web content. The International Organization for Standardization (ISO) adopted these guidelines as an ISO/IEC 40500:2012 standard on October 12, 2012.

\*2 CSS3 (CSS Level 3): An additional specification for the W3C's Cascading Style Sheets (CSS), a language for describing the rendering of HTML and XML documents.



Screenshot of the Assistance for Color Generation tool.



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Customers (Consumer Issues) Ensuring Accessibility to Products and Services, Ensuring Thorough Management of Quality and Safety

## Product Safety Information Disclosure

### Information Disclosure for Safety

Hitachi's Product Safety Assurance Guidelines state that our highest priority is the safety of our customers, and we have established activity guidelines for safety across the Group.

As changes in social norms and the environment bring about the need for higher standards of safety, we are crafting even higher safety standards by having the Hitachi Group's risk assessment team share the latest practical cases within the Group and evaluate the safety activities related to each product.

Moreover, we are also proactively working to disclose safety information on the use of our products and improving risk communication with our customers by establishing the Guide for Preparing User Instruction Manuals.

## Adaptation for Emerging Markets

### Product and Service Adaptation for Emerging Markets

As a consequence of their rapid economic development, emerging markets face issues including food shortages, poverty, and environmental and energy concerns, which are attributed to urbanization and population growth. In an effort to seek solutions to these social issues, we are expanding our Social Innovation Business globally.

Economic growth and rising incomes in India have made bolstering the nation's financial infrastructure a top-priority issue, and the Indian government is promoting measures to expand access to financial services throughout the country, including in rural communities. Hitachi has entered India's payment services market by acquiring a major domestic firm with a proven record in automated teller machine (ATM) services, including monitoring, maintenance, and support in optimizing installation for better location selection and further efficiency. Pairing the local company's knowledge of the markets with our big data analytic technology has enabled us to increase our services nationwide. As of March 2016, we manage over 50,000 ATMs and over 270,000 point of sale (POS) service devices.

The introduction of our payment services business represents a change in direction for our operations in India toward more complete financial solutions. In contrast to developed countries, where FinTech\*<sup>1</sup> such as cashless settlement services is widely available, the need for ATM-centered financial services is expected to continue as emerging markets are heavily reliant on cash payments. Moving forward, we plan to expand our financial services business in Southeast Asia and other emerging countries.

\*1 FinTech: A portmanteau of financial technology, describing convenient and innovative financial services using IT created from the point of view of customer needs.

## Ensuring Thorough Management of Quality and Safety

### Hitachi's Approach

Meeting the quality standards our customers expect and providing products and services they can use with confidence are the management themes cited at the beginning of the Hitachi Group Codes of Conduct that each employee strives to fulfill as a promise to society. We are establishing thorough quality assurance measures from the design and production stages through after-sales service, as well as working to ensure a quick response and proper information disclosure in the event a problem emerges. In addition, as production and other operations increasingly take place outside of Japan, we giving importance to quality assurance in our global human resource development activities, and we are working to expand our current programs.

### Quality Assurance Activities

#### About Our Activities

Based on the Corporate Credo of contributing to society through the development of superior, original technology and products, Hitachi is engaged in the *monozukuri* craftsmanship with quality and reliability as top priority. An integral aspect of this is *ochibo hiroi*, Hitachi's traditional approach meaning "gleaning" in English, through which we learn from failure and further develop our technologies. In practice, when an accident occurs, we not only investigate the technical cause of the accident but also have an executive officer in charge and relevant staff members thoroughly discuss the process, framework, and psychological factors of the incident in order to improve our product reliability and customer satisfaction. To ensure quality and reliability, we enhance our quality assurance activities from the perspectives of organization and management, technology, and human resources in every process—from planning, development, design, manufacturing, and delivery to maintenance—in order to perform our safety-driven brief.