

Hitachi Group Sustainability Report 2015 Highlights

# MISSION

## The Mission that Hitachi aspires to fulfill in society

"Contribute to society through the development of superior, original technology and products"



## What the Hitachi Group aims to become in the future

"Hitachi delivers innovations that answer society's challenges. With our talented team and proven experience in global markets, we can inspire the world."

CORPORATE PROFILE	Corporate name	Hitachi, Ltd.	Capital	458.79 billion yen
(As of March 31, 2015)	Incorporated	February 1, 1920 (founded in 1910)	Number of employees (unconsolidated basis)	31,375
	Head office	1-6-6 Marunouchi, Chiyoda-ku,	Number of employees (consolidated basis)	333,150
		Tokyo 100-8280, Japan	Number of consolidated subsidiaries	995 (Japan: 274, outside of Japan: 721)
	Representative	Toshiaki Higashihara	Number of equity-method affiliates	261
		Representative Executive Officer		
		President & COO		

INFORMATION & TELECOMMUNICATION SYSTEMS POWER SYSTEMS SOCIAL INFRASTRUCTURE & INDUSTRIAL SYSTEMS ELECTRONIC SYSTEMS & FOUPMENT CONSTRUCTION MACHINERY HIGH PUNCTIONAL MATERIALS & COMPONENTS AUTOTIVE SYSTEMS

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LOGISTICS AND OTHER SERVICES

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# **OUR BUSINESS**

Hitachi believes that the growth of its business, a core mission for any company, means the development of a sustainable society at the same time. Below we introduce the ways in which our activities interact with society as a whole, thereby presenting a fuller picture of Hitachi as it stands today.

Information & Telecommunication Systems



Our expertise, gained through work in a broad range of areas, enables IT services tailored to diverse needs—from consulting to systems integration, operation, and maintenance.

• To contribute solutions to issues facing society and our customers, we provide IT solutions worldwide, particularly storage solutions supporting data utilization.

Locations of our business



High Functional Materials & Components

This business segment produces high functional materials and components for IT, home appliances, and cars, including semiconductor and display materials, circuit boards and related materials, synthetic resin car parts, storage devices, advanced special metals, magnetic materials and parts, advanced molded components, and cable materials.

 Hitachi Chemical's Anisotropic Conductive Films for Displays, the world's most widely used material for connecting LCD panels to the semiconductor chips that drive the liquid crystal elements, have contributed to the development of high-quality displays for smartphones and tablet computers.

World share of anisotropic conductive films:



Automotive Systems

capacity in Japan:

developing offshore wind farms.

\*1 Source: FTI Intelligence, March 2015.

Share of installed wind power generation

Power Systems

Our highly efficient and reliable nuclear power

help to bring about a low-carbon society.

generation equipment, as well as our wind, solar, and

other renewable energy power generation solutions,

• In 2014, we had the greatest installed capacity for domestic

society, we are improving our product efficiency and

wind power generation systems. To contribute to a low-carbon



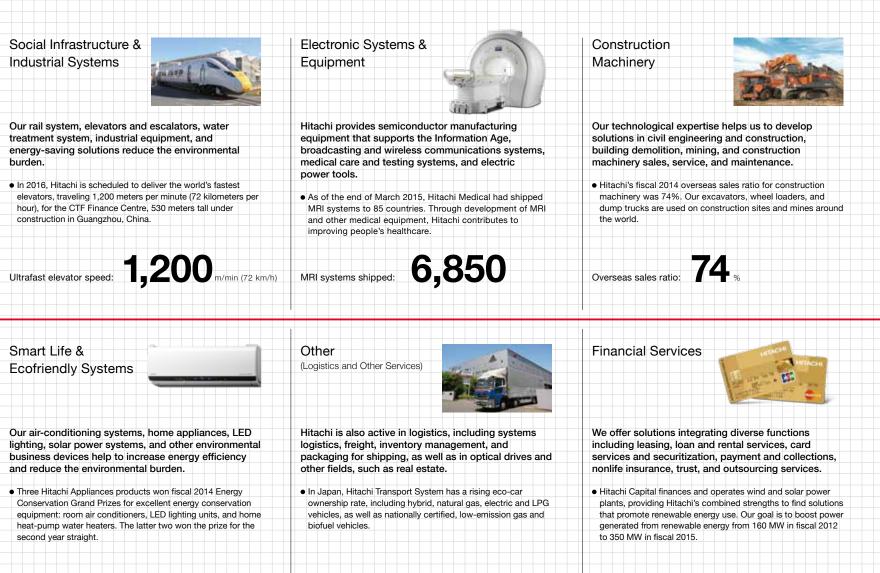
We supply cutting-edge automotive equipment and systems globally, including systems for engine management, electric powertrain, drive control, and car information.

 Hitachi Automotive Systems aims for high levels of safety and fuel efficiency in developing electronics products.
The electronics products share in fiscal 2013 placed
Hitachi at the equivalent of third place among the top ten global suppliers.



# We contribute to society through the diverse products and services we provide.

Hitachi provides a wide array of products and services – from home appliances to societal infrastructure. We integrate the capabilities of our entire Group at a high level, taking on the challenge of innovation to build a better future without losing sight of the perspective of our customers. Our development of superior, original technology and products supports a safe, secure, comfortable lifestyle and fair society for all. This is the conviction that infuses Hitachi's craftsmanship.



Eco-car ownership rate: **777.8** %

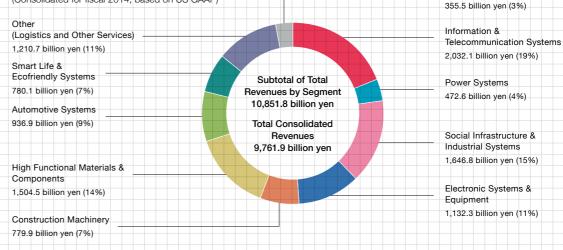


# We meet the world's needs with a global growth strategy.

Global social issues are diversifying and growing more complex, as are the issues faced by Hitachi's customers. To respond to these conditions, we believe it is important to make the most of our own diversity in pursuit of a full range of business activities. By actively promoting global rollout of our business based on this philosophy, we have increased sales outside Japan to nearly half of the Group's total sales. Hitachi will continue pursuing higher corporate value, meeting global challenges through its Social Innovation Business efforts.

#### Revenues and Ratio by Segment

(Consolidated for fiscal 2014, based on US GAAP)



(Consolic	dated for fiscal 2014, based on L	JS GAAP)
Asia	2,216.6 billion yen (23%)	
Number o	of	
Compani	es: 384	
Number of	of	
Employe	es: 96,995	
Europe 844.7 billion yen		Total Revenues by Region
	(8%)	Japan 5,172.4 billion yen
Number of		Overseas 4,589.5 billion yen
Compani		
Number of	of	
Employee	es: 11,759	
North	1,060.4 billion yen	
America	(11%)	
Number of	of	
Compani	es: 96	
Number of	of	
Employe	es: 20,135	

	Other Areas	467.5 billion yen (5%)
-	Number of Companies:	81
	Number of Employees:	11,052

**Financial Services** 

Japan	5,172.4 billion yen	
		(53%)
Number of		
Companies:		275*1
Number of		
Employees:	19	93,209

\*1 Including Hitachi, Ltd. and 274 consolidated subsidiaries in Japan.

#### Hitachi's Solutions for Social Problems

Maintaining product quality

by manufacturing with the

customer in mind

Biodiversity, Water,

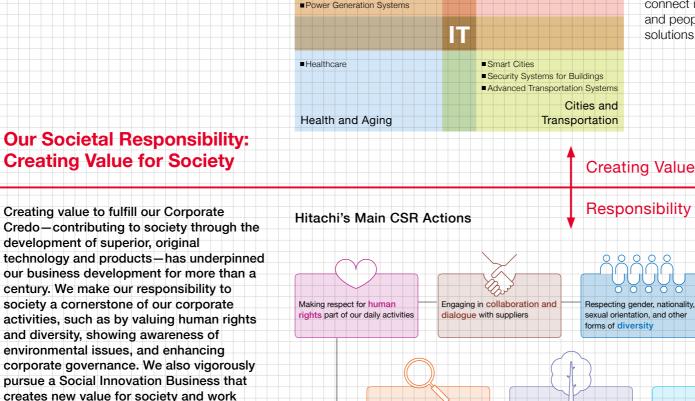
Reducing the environmental

burden of our products

throughout their life cycle

and Other Resources

Water Environment Solutions



together with stakeholders to identify the

a whole, addressing them with a broad range of products and services fully

integrated with IT functions.

issues facing our customers and society as

Environment and Energy

Energy-Saving Products

and Systems

#### Integration Through IT

Advanced networks, storage, and cloud computing technologies connect infrastructure, products, and people. Hitachi provides optimal solutions to resolve social issues.

# Creating Value for Society

Responsibility to Society

Ensuring the health and safety of all employees

Pursuing business activities with high transparency and a strong sense of ethics

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#### Management Message

Hiroaki Nakanishi



Toshiaki Higashihara

Hitachi: Creating New Value for Society Together with Our Customers Humanity today is buffeted by dramatic change. We must tackle deep-reaching issues that impact our society on a global scale: energy and environmental problems, water-related issues, population explosions, increasing poverty, and the graying of societies. Companies are called upon to work with diverse stakeholders to find the solutions our society needs. Technological innovation built on advanced IT is coming to play an ever-greater role in addressing these issues.

Since its foundation, Hitachi has aspired in its business activities to fulfill its mission: to contribute to society through the development of superior, original technology and products. Today we remain committed to this mission. By integrating the infrastructural and information technologies we have created during our years of experience, we provide new solutions in areas like transportation and energy systems and water supply systems using our desalination technology. These areas represent our Social Innovation Business, through which we seek to contribute to solutions to the global issues we all face.

#### **Collaborative Creation with Our Customers**

The social issues that we seek to address through our Social Innovation Business are growing more complex all the time, and there are considerable differences in the needs of our customers and of societies in various countries and regions. To accurately and swiftly grasp the nature of the problems facing our customers and these societies, we must position ourselves close to the customers and consider the needed solutions together with them. Hitachi believes that this "collaborative creation" is a key way to approach the issues. As our Social Innovation Business expands worldwide, to advance collaborative creation we must foster mutual trust with national and regional governments, local communities, academic societies, nongovernmental organizations, and other stakeholders and address their respective needs surely and reliably.

At Hitachi, we are working to promote diversity from perspectives including gender, nationality, and values—all the aspects of each person's individuality. We are also striving to secure the human resources prepared to shine on the global stage. In these ways we seek to foster global leaders who can drive our innovation into the future. We furthermore strive to share the principles of "Basics and Ethics," the foundation of our corporate philosophy, with all our stakeholders. This goes beyond dedication to corporate ethics, such as compliance with laws and international social standards, to encompass our business activities that aim to enhance our value as a company.

In addition to raising our economic value as a company, we work together with our customers to create things of true value to society. In this way we pursue a safer, more secure, more comfortable society for people around the world.

June 2015

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Hiroaki Nakanishi Chairman & CEO

T. Higashihara

Toshiaki Higashihara President & COO



# **OUR INNOVATION**

As economies become increasingly global in nature, we are called on to deal with social issues on a worldwide scale. Hitachi is keenly aware of the global impact of megatrends and constantly creates new value for society through the innovation achieved by its entire corporate group.

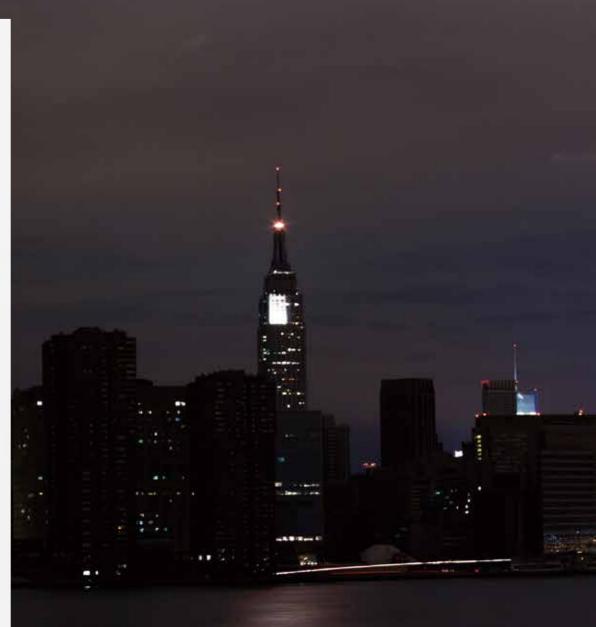
# Case

# Providing Stable, Sustainable Power to Meet Rising Electricity Demand

Electricity is a vital lifeline supporting people's existence around the world, and demand is on the rise, particularly in emerging countries with growing populations. If electricity supplies are interrupted, transportation, medical, and other services provided by social infrastructure cease to function. Stable supply relies on power generation as well as transmission and distribution systems that bring electricity to all users. Renewables such as wind and solar can help prevent climate change, but supply stability remains a concern with these sources.

#### MEGATRENDS

- Rising electricity demand accompanying population growth in emerging countries
- Instability in electricity supply, as seen in major blackouts around the world
- Global warming caused by increasing carbon emissions accompanying economic growth



The Northeast blackout of August 2003 dealt a heavy economic blow to the United States. (New York City)

# Integrated Generation/Transmission and Distribution Systems for a More Stable Electricity Supply

USA

To provide a stable supply of electricity while reducing the environmental load, we must promote renewables while building grid infrastructure that matches usage conditions in each market. With deep experience and technical prowess in the energy field, Hitachi provides total energy solutions covering all facets of customers' needs.

## Energy Storage Solutions for a More Stable Electricity Supply

The United States boasts world-leading wind and solar generation capacity by advancing energy market liberalization. But this has led to concern about instability in electricity supply when changing weather causes fluctuations in power output. Energy storage systems are taking the stage as a means of addressing this. Hitachi has developed a container-type energy storage system that could help stabilize electricity grids by absorbing supply fluctuations. Containing about 1,600 Li-ion power cells capable of 8,000 charge cycles, the high-capacity energy storage system has a 10-year useful life and can be deployed in multiple units to supply as much power as needed.

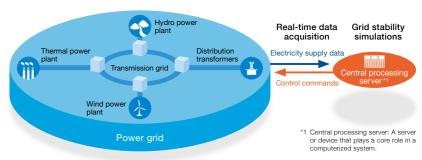


The 1MW container-type energy storage system comes in a standard 40-foot container form.

CrystEna, the name of which was created by combining the "Crystallization" of state-of-the-art technologies in the Hitachi Group and "Energy."

## Applying IT in Wide-Area Grid Stability Solution to Prevent Blackout

Lightning strikes on power lines and other accidents can cause instantaneous voltage drops, leading to power swings that cause fluctuations in voltage or current and leading at times to major blackouts. For more stable grids, improvements in electricity quality need to be achieved by constant monitoring and control of electric flow during transmission. Together with the US Department of Energy's Bonneville Power Administration, Hitachi has launched a demonstration project for a grid stabilization system. By constantly gathering data on grid conditions and using IT to analyze it, the system helps to prevent power grid overload and blackouts.



#### Optimized Power Control from Generation to Transmission

Generated electricity, including from wind, solar, and other renewables, is transmitted to substations via the grid and distributed to homes and businesses. Hitachi is using its technology and experience to design and construct systems that stabilize the entire grid, from generation through transmission and distribution.

USA



## Addressing Congestion and Aging Infrastructure

As populations increasingly concentrate in urban areas, transport infrastructure provision is falling behind, especially in developing economies. This leads to road congestion, traffic accidents, and environmental problems like air pollution. In the developed world, too, demographic and industrial shifts are stressing the existing transport infrastructure beyond its capacity to cope.

#### MEGATRENDS

- Urbanization and population concentration around the world
- Worsening air quality resulting from economic development
- ☑ Infrastructure improvements in response to demographic changes



The London–Brighton rail line runs atop England's Balcombe Viaduct, completed in 1841.



# Hitachi Provides Railway Systems for Sustainable Cities and Development

Global demand for transportation infrastructure is rising, with each market facing specific economic, safety, and environmental issues. Hitachi develops tailored solutions that support sustainable development and bring comfort and convenience to the traveling public. Our turnkey solutions include trains, optimized control systems, and maintenance services.

### Renewing Britain's Aging Railway Network

UK

The Victorian British rail infrastructure is now being modernized, including extensive electrification. With technical expertise honed on Japan's "bullet trains," Hitachi is developing rail vehicles that cope flexibly with the world's first rail network.

We focus on environmental performance, reducing car weight and air resistance to save energy and reduce noise. Hitachi trains achieve safety levels surpassing European regulatory requirements. All of this comes with universaldesign interiors that seat more, with comfort for all.

In a competitive UK rail industry, Hitachi is providing a complete package of railway solutions including rolling stock sales, finance, maintenance, and traffic management systems.

#### Hitachi Cars Ready for Use in the Intercity Express



The Class 800 carriages Hitachi has unveiled for use on UK rail.

## Providing Vietnam with Its First Urban Railway System

\* VIETNAM

In Ho Chi Minh City, Vietnam's largest, economic growth has caused a rapid rise in traffic, along with chronic road congestion, accidents, and air pollution. To deal with these issues, the city government decided to build an urban transportation network.

Hitachi earned high marks for its ability to provide comprehensive railway solutions, winning a contract to manufacture rail vehicles and 11 subsystems, including signaling equipment, and to provide maintenance service for five years. The company will also train local personnel to ensure smooth operation and maintenance, and use energy-efficient technology to build electrical facilities matching Vietnam's energy situation.

#### Planned Route of Line 1 of the Ho Chi Minh Urban Rail Network



## Pursuing Robust Security Against Increasing Threats

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Our businesses and daily lives are supported by social infrastructure including medical care, lifeline utilities, and transportation networks. By networking this infrastructure, we make services even more convenient. But threats to social infrastructure are growing more diverse, from natural disasters to cyber attacks. When a disaster or incident affects urban areas, which rely heavily on infrastructure, services can grind to a halt and impact wider society. We must respond swiftly to these threats and ensure continuity of vital services.

#### MEGATRENDS

- Diversifying threats to social infrastructure, such as natural disasters and cyber attacks
- Heightened reliance on infrastructure in our daily lives, making continual service provision vital
- Networking of social infrastructure services that increases their convenience but also potentially the mutual impact when trouble strikes



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# Addressing Diverse Threats in Adaptive, Responsive, and Cooperative Ways

JAPAN

Security measures cannot impede social infrastructure's usability or comfort. The goal is a robust, flexible society where we are protected from threats before they appear. Hitachi pursues solutions that are Adaptive to address diversifying threats; Responsive to minimize recovery time; and Cooperative to bring multiple responders together.

## Keeping Major Facilities Both Convenient and Secure Against Diversified Threats

The growing variety of threats to event spaces, sport stadiums, and other large-scale facilities include flooding from severe rainstorms, blackouts, and transportation system stoppages. There is a rising global need for antiterrorism measures, but enhancing security without impacting user convenience requires sophisticated technology.

Hitachi develops security technologies that improve both safety and convenience in three areas: personal authentication, explosives detection, and suspicious person tracking. By connecting these technologies with IT, we can design systems that let ordinary users through unimpeded while detecting dangerous substances and tracking where their carriers go in real time.

#### Walkthrough-style Finger Vein Authentication Gate



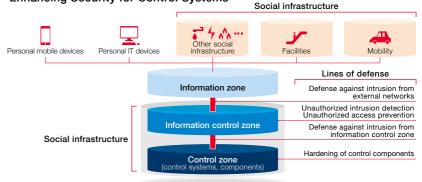
Hitachi's walkthrough system scans people's fingers in an instant as they walk through the gate. Connecting this personal identification with systems to detect dangerous substances and track their carriers lets facility managers know whose bag holds the substances and what route that person is taking.

## "Defense in Depth" to Protect Against Rising Cyber Attack Threats

Social infrastructure control systems are increasingly being connected to cyberspace, opening them up to the risk of cyber attack. If an attack interrupts the services this infrastructure provides, damage could spread rapidly and affect much of society.

To minimize damage to social infrastructure and bring it back online as soon as possible, Hitachi takes a "defense in depth" approach, enhancing security with several defensive layers ready to function in turn. Greater levels of security are needed as social infrastructure needs rise globally, and Hitachi is helping to standardize the security field to put more robust foundations in place.

#### Enhancing Security for Control Systems



Increasingly networked social infrastructure means that a threat to one type of infrastructure is a threat to the entire network. All infrastructure areas must equip themselves against attacks from the information zone. Hitachi develops solutions to swiftly detect unauthorized access and prevent intruders from reaching valuable data and functions. By hardening each component of a control system, we enhance its security capabilities as a whole.

JAPAN

## Reducing Environmental Burdens Through Our Business

As the world's population rapidly rises, global economies also continue to expand. Today humanity faces a range of increasingly serious environmental problems, including global warming caused by the CO<sub>2</sub> emissions that accompany economic growth, depletion of energy, water, mineral, and other resources due to booming demand, and the destruction of ecosystems.

As a company engaged in the Social Innovation Business, Hitachi aims to reduce the environmental burden through its business activities. We have created an Environmental Vision that guides our environmental management toward the achievement of a future sustainable society for us all.

#### Hitachi's Environmental Vision



# Promoting Diversity as a Wellspring of Innovation

The values that human beings hold are increasingly diverse, requiring the company itself to reflect that diversity in order to continue creating new value for them.

Hitachi respects the differences among people, such as their gender, nationality, career history, age, sexual orientation, and values, that make them unique individuals. To ensure that this individuality is put to use as a core strength of our organization, we promote a policy of diversity and inclusion that produces growth for individuals and organization alike.

By integrating our employees' diverse capabilities and drawing on our excellent teamwork and deep experience in global markets, we meet the wide range of stakeholder needs.



Hitachi Group Career Seminar for Young Women.



Physically disabled employees play vital roles at the Ibaraki Sheltered Workshop.

# Our Responsibility as a Social Infrastructure Provider

Hitachi's business is deeply connected with society's vital infrastructure. To prevent risk that may disrupt our business operations, leading to a severe impact on society, we are enhancing our business continuity plans (BCPs).

After the Great East Japan Earthquake in March 2011, our BCPs enabled swift early response and decision making. It became clear, though, that we needed to improve our grasp of the situation at our secondary and tertiary suppliers, as well as to move to cloud storage and multiplexing of our production-related information. Building on the lessons learned, we crafted the *Hitachi Group Guidelines for Developing Business Continuity Plans*, which are now helping us to further enhance our BCPs.



Earthquake simulation drill.



Hitachi Group Guidelines for Developing Business Continuity Plans (department version).

# **OUR RESPONSIBILITY**

These are the tasks we must take on to contribute to the development of a sustainable society.



 Working with the Government of Australia and the firm Skill Hire to train unemployed people in technical skills (Australia).



 Science classes sponsored for elementary school students (USA).



 Hitachi cosponsored the "Black Jack Seminar" to deepen understanding of medical personnel's work (Japan).



★ Engineers are brought to Japan to receive training in the electrical field (South Africa).

# Corporate Citizenship Taking Root Worldwide



To address the issues that confront societies on a global scale, Hitachi focuses on the three key fields of human development, environment, and community support. By making full use of the resources at our disposal, including the knowledge and technologies related to our business activities, we make contributions to society, nurturing people and connecting to the future. As a good corporate citizen, Hitachi builds relationships of trust with the communities where it does business. And by taking part in volunteer activities, employees improve their awareness of social issues and needs, develop more flexible ways of thinking, and otherwise equip themselves to drive the Hitachi Group's efforts in the Social Innovation Business field.



• The "Developing Scientific Minds" workshops have been held jointly with the Sumida Aquarium since fiscal 2013 (Japan).

• In Japan and Asia • In India and ASEAN • In Europe and the Americas \* In Africa



 Hitachi's educational support program for children from pre-kindergarten to elementary school age (Thailand).



 One of the charity events held by Hitachi Europe Ltd. for a group supporting cancer patients (UK).



 Hitachi employees taking part in repairs of housing for the physically disabled (South Korea).



• The Hitachi Eco Education Classroom program for elementary school students (China).

Inquiries

## **@Hitachi**, Ltd.

CSR and Environmental Strategy Division

1-6-1 Marunouchi, Chiyoda-ku, Tokyo 100-8220, Japan Tel: +81-3-4235-5800 Fax: +81-3-4235-5835 http://www.hitachi.com/csr/





