# Creating Shared Value ——— Striving to create and share value for society

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HITACHI

**Reliable solutions** 

# CSR & Financial Report 2017

for all stakeholders

# **Reliable solutions**

#### Reliable solutions.

This corporate statement embodies the Hitachi Construction Machinery Group's vision for success.

We are committed to exceeding customer expectations by continually delivering solutions that create value for customers by packaging together our products and services in a way that solves the challenges our customers and society face.

Editorial Policy From fiscal 2011, we consolidated our Annual Report, which reported our management strategy and financial statements, and our CSR Report, which reported Environment, Social, and Governance (ESG) information, to produce a comprehensive CSR & Financial Report. We did this to provide a clear overall view of the activities of the Hitachi Construction Machinery Group as it aims at the integrated advancement of our growth strategies and CSR management as a corporate group. In this FY 2017 CSR & Financial Report, we have

- information that corresponds to the various interests and concerns in our business.

# Reporting Period -

April 1, 2016 - March 31, 2017 (Some of the information included is from after April 1, 2017.)

- Reporting Organizations Consolidated subsidiaries of the HCM Group Scope of performance data Financial Report: Consolidated subsidiaries and affiliates of the HCM Group

#### Guidelines used for reference

- per the GRI Sustainability Reporting Guidelines. Environmental Reporting Guidelines 2012, Ministry of the Environ-

Next scheduled release — Scheduled for release in June 2018

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#### Information disclosure medium —

his is a key report that comprehensively discloses the HCM Group' anagement strategy as well as financial and non-financial (ESG) formation.



Information for shareholders/investors (website) https://www.hitachiom.com/global/investor-relations/ Provides timely information on financial statements and IR news as well as posting various types of IR material for individual investors.

Social and environmental (CSR) reports (website) https://www.hitachicm.com/global/environment-csr/csr-en/ Provides information on specific activities and performance data that are not included in the report.

Environmental activities (website) https://www.hitachicm.com/global/environment-csr/environmental -activities/

Provides comprehensive information on environmental management systems and for each kind of environmental performance category. Concerning predictions, forecasts, and plans for the future This report contains not only factual information about the HCM Group's past and present, but also predictions, forecasts, and plans for the future. The information contained in these predictions, forecasts, and plans was determined based on assumptions made at the time this report was compiled and printed, and may include uncertainties. As such, while it is possible that the results or events of future business activities might differ from the information written in this report, the HCM Group takes no responsibility for those situations. We hope the readers of this report will be cognizant of this point. Introduction

The Hitachi Construction Machinery Group aims to strengthen its value chain and stabilize its management infrastructure supported by a new organization.

Since its founding, the Hitachi Construction Machinery Group has combined its technological, product, sales, and service capabilities as a construction machinery manufacturer to harness the infinite possibilities of construction machinery and address the diverse needs of our customers and society. Furthermore, we are pouring energies into the creation of a new business model, underpinned by our track record and experience. Going forward, our goal is still to become a leading company in the construction machinery industry. Our challenge continues as we aim to be a company that provides solutions to our customers to help solve their business issues.

We hope that you, our stakeholders, will all continue to support us in our quest.



Kotaro Hirano Representative Executive Officer, President, Executive Officer and Director



Sales revenue (billions of ven)

600 -----

1000 -----

# **Our History**

Hitachi Construction Machinery was established when Hitachi Ltd. spun off its construction machinery division. Since then, we have continually delivered new value to society by harnessing the collective 800 ----strengths of the entire Hitachi Group.

# **Hitachi Founding Spirit**



Sincerity To act with a sense of ownership and honesty at all times and never

Harmony

Hitachi founder Namihei Odaira

1910

#### pass the buck. The spirit to meet society's expectations and generate

credibility for Hitachi.

achieve a common goal.

**Pioneering Spirit** To work creatively, using novel approaches to enter new areas. To always act as a pioneer within our areas of expertise and to have the passion to pursue higher goals beyond our capabilities.

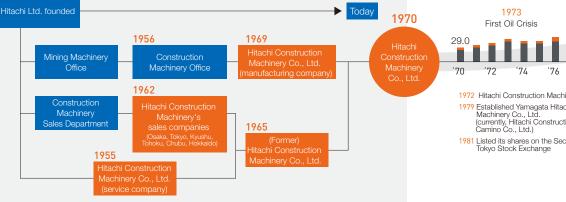
The willingness to respect the opinions of others and discuss matters in a manner that is through and frank, but fair and impartial, and once a conclusion has been reached, to cooperate and work together to



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1979 Established Yamagata Hitachi Construction Machinery Co., Ltd. (currently, Hitachi Construction Machinery Camino Co., Ltd.)

1981 Listed its shares on the Second Section of the Tokyo Stock Exchange



1949 Developed the Hitachi U05, the first cable-operated power shovel made entirely from Japanese technology



- 1957 Released the Hitachi U106 all-purpose excavator, the first mass produced model in the world to have a fluid coupling
- 1965 Developed the Hitachi UH03, the first hydraulic excavator developed with Japanese technology

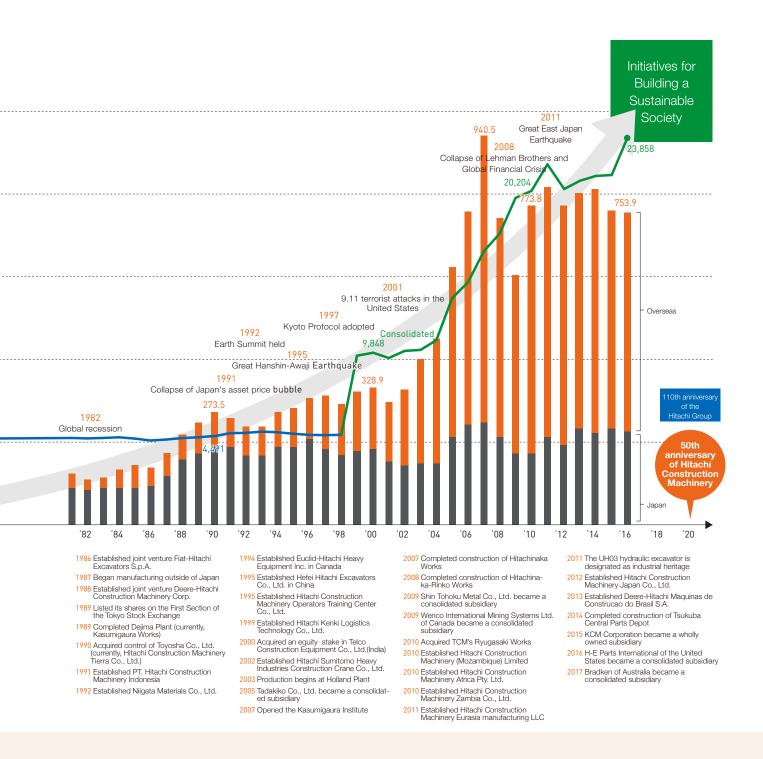
1971 Released the KH150, the world's first fully hydraulic crawler crane



- 1987 Released the EX3500, then the world's largest class of ultra-large hydraulic excavators
- 1988 Moved into the wheel loader field; released the "Landy" LX series

- 1991 Released the Landy KID series of mini-excavators
- 2000 Released the ZAXIS series of "e-excavators," the world's first hydraulic excavators to feature IT functions ZAXIS
- 2003 Developed the LX70 (concept machine), a medium-sized hybrid wheel loader
- 2004 Developed the EX8000, one of the world's largest-class hydraulic excavators
- 2005 Developed ASTACO, a double-arm working machine capable of complex operations





- 2006 Released the ZW Series wheel loader models with many advanced features
- 2006 Developed the ZX70B battery-powered hydraulic excavator
- 2008 Released the EH3500ACII, one of the largest AC-driven, rigid dump trucks manufactured in Japan



2011 Released the ZH200 hybrid hydraulic excavator



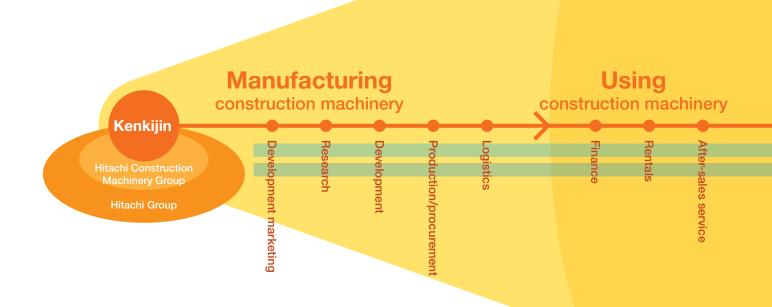
2012 Released the ZX220LC-GI hydraulic excavator for emerging countries made by Tata Hitachi Construction Machinery Company Private Limited 2013 Launched ConSite service solutions utilizing ICT ConSite



- 2016 Released the ZW220HYB-5B, Japan's first medium-sized hybrid wheel loader
- 2016 Released the ZX200X-5B ICT hydraulic excavator, core of our information-oriented construction solutions

# Our Approach to Value Creation

As a global construction machinery manufacturer, the Hitachi Construction Machinery Group delivers "Reliable solutions" that help to resolve social and environmental issues through its business activities.



#### **Development marketing**

We focus our energy on creating a global strategic development marketing system in order to provide the most appropriate products for the needs of specific countries and regions in a timely manner.

#### Research

We harness the collective strengths of the Hitachi Group to research technology that is "kind to both human beings and the environment" and "technology that creates an even better environment" as a basis of our medium- to long-term growth.

#### Development

We develop advanced and innovative construction machinery that offers improved reliability, controllability, and comfort, while meeting a broad range of customer needs.

#### Production/procurement

We are dedicated to standardizing and improving quality levels while aiming to achieve the concept of Made by Hitachi where all products are made with the same high quality regardless of which of our manufacturing facilities around the world they are made at.

#### Logistics

We are raising logistics efficiencies by building a logistics system and global supply system powered by IT and our know-how in transporting ultra heavy objects.

#### Finance

We offer various financing plans for our products to ensure that they can be employed by customers in a format that meets their needs.

#### Rentals

We provide various types of construction machinery and equipment needed in the field, including standard machines, specially designed machines, recycling machines, mowers, and submersible pumps, among others.

#### After-sales service

We support the preventive maintenance of construction machinery, which includes our ConSite service solution using a wide array of operating data obtained from each individual machine.

# Hitachi Construction Machinery's Vision

"Toward the richness of Earth and prosperous communities in the future ... "

# Hitachi Construction Machinery is contributing to the creation of comfortable living spaces.

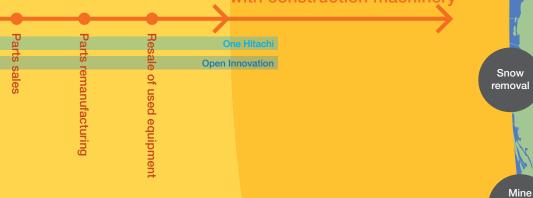
#### **Corporate Philosophy**

- 1. We are active in the evolution of "machinery" and the synergy between "human" and "business" that combines to create rich living spaces, making them more comfortable, highly developed and efficient.
- 2. We consistently develop and provide our customers with the technology, products and services that generate new value.
- 3. While maintaining profitable operations, we act as a "corporate citizen having good judgment" by staying in harmony with the environment and participating in cultural activities, striving for a symbiotic coexistence with society.

# Kenkijin Spirit

In pursuing our vision and principles, it is important to achieve the goals of the HCM Group's medium- to long-term vision and mid-term management plan while responding to the demands of society in areas such as compliance and corporate social responsibility (CSR). The actions of each individual employee (Kenkijin) are the driving force behind these efforts. If these actions are in line with shared values and guiding principles, we can pursue our goals while making the most of each employee's ideas and initiatives. The Kenkijin Spirit codifies the shared values and code of conduct to portray the attitude of an employee of the HCM Group, i.e., Kenkijin. In turn, this is built upon the three ideas of Challenge (spirit of challenge), Customer (individual customer orientation), and Communication (open atmosphere).

# Taking on challenges with construction machinery



We guarantee the high performance and long service life of our products by supplying high quality parts. This reduces customer costs and helps conserve the environment.

#### Parts remanufacturing

We collect replacement parts from repair work and restore them to like new condition at our remanufacturing plant. This supports the operation of construction machinery in even the most harshest work sites.

# Resale of used equipment

We propose the purchase or sale of construction machinery that matches customer needs using our worldwide network and support system.

#### One Hitachi

The Hitachi Group centered on Hitachi Ltd. employs the One Hitachi approach where the entire Group works as one to engage in the social innovation business that combines its long-standing infrastructure technologies with advanced ICT solutions. Utilizing the Group's integrated capabilities, we contribute to developing social infrastructure throughout the world based on the theme of sustainable development and environment amenities.

#### Open Innovation

Needs in the construction machinery market are growing more advanced, and in order to meet these needs, we are refining its proprietary technology and collaborating with business partners, including the Hitachi Group, which possess cutting edge technology in a wide range of fields. The fruit of these efforts include motorization of construction machinery, driving safety systems that make use of the latest technologies in the automotive field, periphery confirmation systems, and ICT-enabled work.

engineering D D ichness of б prosperous (

Civil

Demolition

Recycling

Stevedoring

development and mining

Forestry

Livestock

raising

and

griculture

Hitachi Construction Machinery Group will contribute to tackling social issues and customer challenges toward 2020 and beyond through the construction machinery business.

Kotaro Hirano Representative Executive Officer, President, Executive Officer and Director

# Become one with our stakeholders

My name is Kotaro Hirano, and I became the new representative executive officer, president and executive officer on April 1, 2017. Hitachi Construction Machinery Group has been involved in social infrastructure and resource development through the value chain (products, services, parts, used machines, rentals, finance and re-manufacturing of parts) and providing solutions.

Looking back on the business environment in FY2016, global demand for construction machinery seemed to have bottomed out with varying degrees of recovery by region. However, we expect the severe business environment to continue given the possible risks from the major global political events and fluctuations in the exchange rates. Taking over the helm as president in this environment, I decided to steer the company in a positive direction with a sense of huge responsibility. However, what I can do alone as president is limited.

In addition to the 24,000 employees in the HCM Group, the customers, business partners, shareholders, and investors who put their trust and expectations in us are a strong presence. We are determined to confront this severe business environment together with such stakeholders.

# Responding to global expectations with our three strengths

The foundation of the HCM Group is imbued with the Kenkijin Spirit. This originally derived from the founding concepts of Hitachi, Ltd., which are harmony, sincerity, and a pioneering spirit. We still stick to the ideology of the 3Cs—Challenge, Customer and Communication. Our employees are our major strength. They do not fear failure, but instead possess the spirit of challenge, and always listen sincerely to the voice of our customers and the public. Employees such as this are carrying out customer-first corporate activities around the world.

The second strength is the presence of our customers who have used HCM products for many years thanks to the strong bonds built by the Kenkijin Spirit. Of the total number of machines registered on our Global e-Service platform for machine operation information, around 230,000 units in 144 countries are equipped with a communication terminal that allows remote surveillance. More than 50,000 machines are under contract for ConSite, an after-sales service solutions program. The connection between these machines, our customers, and construction and mining sites is a valuable asset and the source of our power.

Our third strength is the comprehensive capabilities of Hitachi Group. The customers' business issues are high safety, high productivity and low life-cycle costs. Customers expect to solve these issues not only by providing our products but also by overall operations in the field. Under this situation, Hitachi Construction Machinery Group has the strength to develop and provide competitive solutions by collaborating with Hitachi as "One Hitachi" to create the brand and advanced technologies, Hitachi has, such as information and communication, energy-saving, and analysis. The solution business we provide is expected to become more and more competitive in the future. We believe our strength as "One Hitachi" will be a major pillar in

#### our growth.

GROW TOGETHER 2016, our previous mid-term management plan, was carried out as scheduled. Under this plan we developed products that comply with the latest gas emissions regulations, and introduced them to the market. R&D for a next-generation model and the development of the Autonomous Haulage System (AHS) for mining dump trucks was also implemented as planned. In addition, we strengthened our wheel loader business by turning KCM into a consolidated subsidiary. We also enhanced our value chain by welcoming H-E Parts International, a US company that operates a global parts and services business focusing on mining, and Bradken, an Australian company that supplies cast and fabricated parts in the field of mining, to the HCM Group. Meanwhile, we implemented structural reforms, including reviewing our business and production systems and reducing fixed costs, to further reinforce the stability of our financial position.



# Final chapter in 2020 VISION attaining "Reliable solutions"

We launched our next mid-term management plan, CONNECT TOGETHER 2019in April 2017. In this plan, we aim to develop a corporate structure that is resilient to change and reap the benefits of our growth strategies. CONNECT TOGETHER 2019 refers to the connection among our customers, our products, new services, solutions and our stakeholders, including employees, business partners, and local communities. In the civil engineering industry, we forecast that the utilization of ICT and IoT will be developed rapidly in the field. In our mid-term management plan, a major theme is to establish ourselves as one of the unchangeable top three global construction machinery manufacturers by continuously providing "Reliable solutions" throughout our value chain beyond the customer expectations and thereby gaining the unwavering trust of our customers.

The first strategy in our mid-term management plan involves the after-sales services. A unique feature in the business of Hitachi Construction Machinery group is the long life cycle, which starts from R&D and production, and spans to sales of new machines to customers, rental machines, and services, and the handling of customers' used machines when they purchase new replacements. For our customers, business does not start until the start of actual operations of a new machine or rental machine delivered to their construction site, or after a damaged machine has been repaired. We recognize that the word "after" in after-sales services actually signifies the "start." Based on this, we aim to increase customer satisfaction by providing services and solutions that have a higher value than ever before.

The second strategy is to develop wheel loaders and dump trucks into our second and third mainstays. The mainstay of the HCM Group is hydraulic excavators, which boast first-rate product strength globally. We aim to utilize our development and sales capabilities in the field of wheel loaders and dump trucks to enhance the competitiveness of these two products. We plan to develop a wheel loader that meets emission regulations. At the same time, we are eager to improve production efficiency and reduce costs, while strengthening the global sales and service infrastructure for wheel loaders to boost sales efficiency. We have already developed a series of dump trucks such as high-altitude use or trolley use or high-altitude use with low fuel consumption and high working efficiency. We are also looking to fully commercialize the Autonomous Haulage System (AHS) for dump trucks, generate synergies with the two newly acquired companies mentioned above in the field of mining, and further create synergies with Wenco, a group company that provides a Fleet Management System (FMS) for managing mining activities.

The third strategy is ICT and IoT solutions. We plan to speed up development by applying an open innovation platform that integrates a wide range of Hitachi Group technologies, including Hitachi's Lumada IoT platform, with the expert technologies of our business partners. The ICT and IoT solutions for the difficult issues faced by our customers such as ensuring high safety, high productivity, and low life cycle costs, are called Solution Linkage. Customers have requested drilling power, speedy operations, operability, durability, and low fuel costs in the past. However, recent customer requests also include autonomous driving, improved efficiency of overall construction processes, and optimization of field operations. For example, at mining sites, we have already developed and commercialized the technology, "Aerial Angle". This displays images of the surrounding area on a monitor in the dump trucks supplied by Hitachi Construction Machinery. This monitoring service helps to improve safety such as reducing the number of collisions between machines. As customers possess plants, including railways to transport the minerals they mined to the harbor, power generators, and water treatment facilities, they request us not only to help them boost the efficiency of their mining machinery, but also to help improve the safety and efficiency of the overall mining site. Hitachi Group is able to provide solutions by leveraging the comprehensive capabilities as "One Hitachi" to a wide range of business. These capabilities bring solutions for all issues customers face in their field. The other example of Solution Linkage is ICT hydraulic excavators. In 2016, Hitachi Construction Machinery launched ICT hydraulic excavators with a 3D machine guidance system and semi-automatic, easy-to-operate machine control on the market in Japan, after the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) announced "i-Construction1", which aimed to enhance productivity by optimizing the construction processes of an entire civil engineering project. We plan to further enhance control accuracy in the future, and will work together with customers to carry out the development of construction process solutions from surveying to inspections. In addition, we plan to make further advancements to "ConSite," a service solution that contributes to stable machine operations and lower life cycle cost, by using sensor and analytic technologies.

#### 1 i-Construction

i-Construction is an initiative by the Ministry of Land, Infrastructure, Transport and Tourism (MLIT) promoting the maintenance of safety and improvements to wage standards for people who work on construction sites by making use of information and communication technologies (ICTs) to improve civil works and construction site productivity and efficiency and ameliorate the corporate business environment. The i-Construction Committee was launched in December of 2015 and it established its basic policy as working towards the introduction of ICTs to construction machinery and surveying, as well as standardization of specifications and leveling of yearly construction periods. From FY 2016, this began to bring in projects implemented by MLIT.

# Set targets for three CSV themes connected to our business operations

Reduction of environmental impact from our products and services is of great importance to us. Looking back on the advancements in construction machinery thus far and the history of developments in civil engineering and mining industries, the value we provide contributes to the sustainable development of society. In fact, as a corporate citizen, we exist to create technologies and services that contribute to the development of a sustainable society: It is our mission.

In 2015, there were a number of initiatives for solving global social and environmental issues, including the adoption of the Sustainable Development Goals (SDGs)<sup>2</sup> at the United Nations and the COP21<sup>3</sup> Paris Agreement. These made us reevaluate the relationship between our group businesses and environmental and social issues. This led to the development of three approaches for creating shared value (CSV) through business operations: Resolving global environmental issues; Enhancing initiatives to increase social infrastructure workforce; and, Contributing to community development. In FY2016, we established key measures for each of these themes and set individual goals and medium/long-term KPIs.

One of our goals is to reduce greenhouse gas emissions by 33% in 2030, compared to 2010, through the reduction of the environmental burden of our products. Greenhouse gases are emitted when customers use the products we provide. Consequently, we need to provide products adapted to the exhaust gas emissions regulations of each country. To this end, we are aiming to reduce wasteful energy consumption that occurs at our customers' production sites by developing hybrid machines that have a high environmental performance, and by expanding the use of and improving ConSite service solutions. We are also picking up the pace of development for AHS dump trucks and optimal operations management systems.

#### 2 SDGs

Sustainable Development Goals. A continuation and development of the Millennium Development Goals (MDGs) whose deadline was in 2015, adopted by the United Nations General Assembly in September of 2015 as The 2030 Agenda for Sustainable Development. These are specific guidelines for action for advanced and developing countries that stipulate responsibility for poverty, famine, discrimination, climate change, and biodiversity.

#### 3 COP21

The 21st Conference of the Parties (COP 21) to the United Nations Framework Convention on Climate Change, held in Paris, France on November 30, 2015. The Paris Agreement, which forms the framework for the year 2020 onward when the Kyoto Protocol expires, has been adopted by 196 countries and territories around the world. This is the first agreement to include developing countries in the promise to reduce greenhouse gases.



# Sustainable management to drive growth in the medium/long term

In recent years, ESG investments<sup>4</sup> have been increasing among institutional investors. In the case of Hitachi Construction Machinery Group, which engages in the development of social infrastructure, we do not implement ESG management to play to the interests of investors. We believe ESG management is essential for the sustainable growth of our company and society at large.

As discussed earlier, the CSV themes we established are being carried out for corporate management but at the same time they contribute to solving environmental and social issues. Should we choose to continue to undertake these themes we must also take into account ESG. By helping to solve environmental and social issues through our business activities, we will expand our business opportunities. At the same time, this also contributes to securing a competitive edge over competitors. In light of this, during the period of the current mid-term management plan, we aim to further fortify R&D, and continue to allocate a certain percentage of gross profit to investments. And, furthermore, since we plan to add Hitachi Group capabilities and open innovation initiatives with business partners to this, we believe we can further enhance our advantages.

Another challenge is to develop a comfortable workplace environment for employees. Hitachi Construction Machinery Group recognizes each employees' sense of values and individuality as they are the backbone of our business activities, and positions diversity as key management issues. From FY2011, we provided support for women and minorities in the workplace, the activities of national staff, and work style reform (including work-life balance). Going forward, it is our goal to create a workplace in which each employee can feel proud and happy about their job.

No matter how efficiently we work, alone we are unable to produce satisfactory results from the implementation of the three CSV themes. We will only begin to see results once we become one with our stakeholders, including our customers and business partners. While carrying out these activities, we need to build a solid business foundation and improve our earnings so that we can gain the attention of many investors. I see this positive cycle as the link to medium/long-term growth for Hitachi Construction Machinery Group overall.

#### 4 ESG investments

Method of investment that focuses on and selects companies that conduct activities that take into account the environment, society, and governance.

# Mission and role as a company that plays a role in the development of social infrastructure

In 2016, we experienced a number of serious natural disasters, including the Kumamoto earthquake and Typhoon Lionrock. I would like to express my heartfelt sympathies to those disaster victims and people living in damage-stricken areas that are still under reconstruction.

The Great East Japan earthquake hit six years ago. Our customers told us that they were in need of construction machinery and that, even if they could only get one unit, they wanted us to ship it to them. Thanks to the cooperation of our business partners, we were able to collect enough parts to respond to customers' demand. This made me realize that the products the HCM Group produces truly do support our social infrastructure.

The construction machinery we produce is indispensable to the reconstruction of the disaster-stricken areas. At the same time, it can be used to build an infrastructure that will minimize damage during a natural disaster. I am fully aware that we must directly contribute to the creation of solid social infrastructure by producing superior construction machinery and supporting stable machine operations.

We are currently undertaking the establishment of a highly efficient production system. In tandem with this, we plan to strengthen the disaster measures for our production facilities and build a procurement system to ensure that we can supply products during an emergency.

Hitachi Construction Machinery will celebrate the 50th anniversary of its founding, a major milestone, in 2020. In "CON-NECT TOGETHER 2019", the mid-term management plan we launched in FY2017, we plan to take a major change in direction and aim to add depth to our value chain, which is pivotal in helping us play an even bigger role in solving our customers' issues. Our employees will come together as one to take on new challenges to solve the issues our customers and society face through its business activities. Whilst acknowledging and building on the experience and knowhow we have cultivated over the past 50 years we will not become complacent. It is our goal to stand by our customers and society, and to properly recognize our own mission and responsibilities. I believe this stance is how Hitachi Construction Machinery will support the future in 2030 and 2050.

# Review of the Previous Mid-term Management Plan (Fiscal 2014-2016)

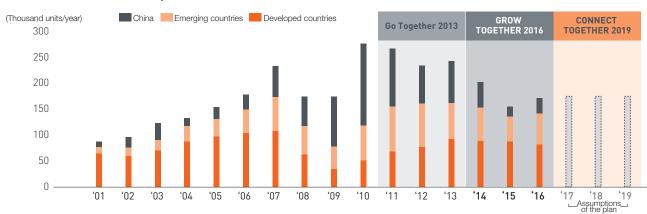
The HCM Group implemented the previous mid-term management plan called GROW TOGETHER 2016 as the second step of its 2020 Vision. Market conditions have been challenging since fiscal 2014 as worldwide demand for construction machinery has fallen. Nevertheless, we were able to plant the seeds for future growth by expanding our products and services that help lower life cycle costs as well as improve safety and productivity, developing new solutions, and reinforcing our value chain through the reorganization of subsidiaries, among other measures.

# **Results of GROW TOGETHER 2016 -**

	Fiscal 2014	Fiscal 2015	Fiscal 2016
Revenue	815,792 million yen	758,331 million yen	753,947 million yen
Adjusted operating income*	61,919 million yen	23,364 million yen	28,265 million yen
Operating income	63,131 million yen	34,052 million yen	23,622 million yen
Income before income taxes	58,953 million yen	24,517 million yen	23,859 million yen
Net income	30,256 million yen	10,300 million yen	14,190 million yen
Net income attributable to owners of the parent	26,023 million yen	8,804 million yen	8,022 million yen
Comprehensive income	56,996 million yen	▲ 26,148 million yen	11,671 million yen

\* Adjusted operating income : a unified indicator of profits used by the Hitachi Group in which operating income is subtracted by other income and other expenses.

# **Market environment**



#### Worldwide demand for hydraulic excavators

# Main results of activities and future challenges -



# Summary of the New Mid-term Management Plan (Fiscal 2017-2019)

CONNECT TOGETHER 2019 represents the final step aimed at the 2020 Vision. Under this plan, we will further develop initiatives employed during the previous mid-term management plan in an effort to establish a corporate structure resilient in the face of change and to reap the benefits of our growth strategy.

# **CONNECT TOGETHER 2019**

Provide "Reliable solutions" in the value chain extending across the entire construction machine life cycle that exceed customer expectations



Reinforce after-sales services such as parts services, sales of used machines, rentals, and financing



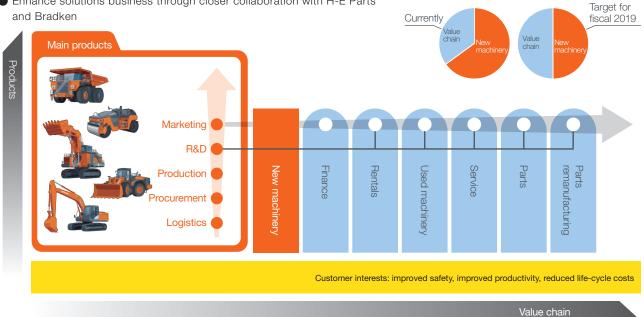
Expand the wheel loader and dump truck businesses, while solidifying our status as the number one supplier of hydraulic excavators

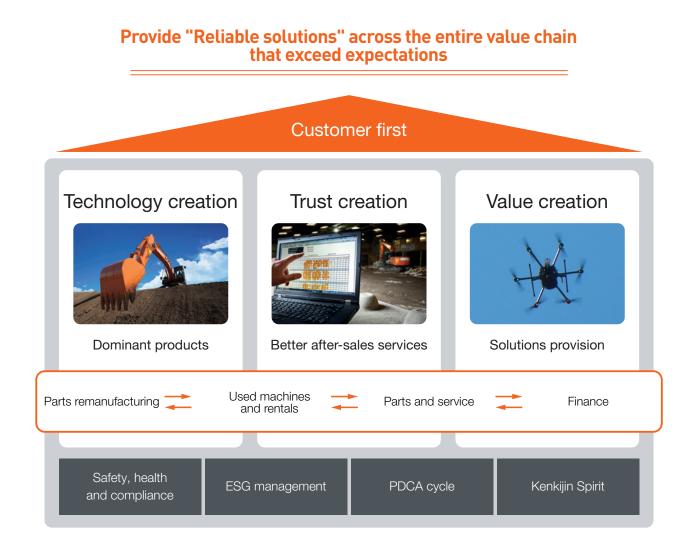


Reinforce R&D and utilize ICT and IoT broader and more extensively

# **Our goals**

- Expand the value chain to stabilize management foundation and grow businesses Value chain business ratio
- Enhance solutions business through closer collaboration with H-E Parts





# Targets of CONNECT TOGETHER 2019 -

Deepen the value chain and restructure to enhance profitability and efficiency while establishing a corporate structure resilient in the face of change.

	GROW TOGETHER 2016 Fiscal year ended March 31, 2017	CONNECT TOGETHER 2019 Fiscal year ending March 31, 2020	
Adjusted operating income ratio	3.7%	9% or more	
ROE	2.0%	9% or more	
Net D/E ratio	0.46	0.4 or less	
Dividend payout policy	31.8%	approximately 30% or more	

(Assumptions for the fiscal year ending March 31, 2020)

Sales	850 hillion von	Foreign exchange rates	1 USD = 100 yen / 1 Euro = 110 yen / 1 RMB = 15 yen	
revenue	obo bittion yen	i oreign exchange rates	105D = 100 yell/ 1 Lulo = 110 yell/ 1 KMD = 15 yell	

# Development and Production Divisions

# Review of Operations for Fiscal 2016

FY2016 marked the final year of mid-term management plan "GROW TOGETHER 2016". Our goal was to earn the unwavering trust of customers and set our superior products and services clearly apart from competitors.

The HCM Group aims to deliver the same standard of quality at all of its production sites around the world and is working to achieve the vision of "Made by Hitachi" so as to supply products that truly satisfy customers. In FY2016, we worked toward establishing a more global supply system by combining our approach of "local production for local consumption" where products manufactured at each production site are sold to that region and "product supply accommodation" where products are also supplied between regions. In terms of product quality, we launched "Global Quality Diagnosis" activity in FY 2005 with the goal of improving the quality level of each production site. After repeated revisions, the activity evolved and was renamed "Global Monozukuri Diagnosis" that evaluates not only quality, but also safety, quality, delivery and cost (SQDC). The diagnosis activity was held in FY2016 as well. We have also standardized quality operation processes through the promotion of the Made by Hitachi vision.

For example, we have improved the efficiency of painting work by introducing painting robots and shifted to paints with fewer Volatile Organic Compounds(VOCs) such as electro-deposition paints and hybrid paints. This has enabled us to stabilize quality and to manufacture products with excellent environmen-

#### TOPICS

## Release of the All-New ZH200-6 Hybrid Hydraulic Excavator

The Hitachi Construction Machinery Group will launch sales of its all-new ZH200-6 hybrid hydraulic excavator in September 2017. The ZH200-6 builds upon conventional hybrid systems by incorporating the latest technologies. This all-new model offers lower fuel consumption, while maintaining the same high levels of productivity and controllability because it uses the latest lithium ion batteries developed with "One Hitachi" technologies and an engine with electric motor adapted from automobiles.

Fuel consumption lowered by approx. 40% (compared to the ZX200-3)



The all-new ZH200-6 hybrid hydraulic excavator

tal performance even more efficiently. These improvements paved the way for expanding shipments from our plant in Indonesia to markets in Southeast Asia, increasing exports to the Middle East from Tata Hitachi Construction Machinery Private Company Limited, and for pilot shipments to Northwest Africa. Furthermore, we are now more competitive in terms of procurement and we are in the process of establishing a system that will achieve lower cost price globally.

At our production plants, we have promoted the visualization of energy usage through the introduction of the Hitachi Group's "EMilia" electricity monitoring system, and other measures. In FY2016, the energy intensity (energy consumption amount per work amount) for the entire Hitachi Construction Machinery Group was reduced by more than 30% compared to FY2010. The Tsuchiura Works, Kasumigaura Works, Hitachinaka-Rinko Works, and Hitachi Construction Machinery Tierra's Osaka Site were selected as eco factories as part of the Hitachi Group's "Eco Factory Select" program that recognizes business sites that have achieved environmental targets (as of March 31, 2017).

# Challenges and future initiatives

Viewed globally, emissions regulations differ from country to country and region to region, while the uses construction machinery are also becoming more diverse as the utilization of ICT and IoT expands in business. To respond to such conditions, we are faced with the urgent task of building advanced production and procurement systems that can supply, in a timely manner, products that are safe and with a quality that satisfies customers, while adapting to constantly changing demand trends and the needs in the field as well as innovating our conventional approaches to manufacturing. In FY2017 and beyond, the HCM Group will work close together to further shorten production lead time and rebuild its production system so as to quickly keep pace with and respond to market changes.

Also, we also recognize it will be important to develop cutting edge technologies to set our products apart from competitors, maintain and improve product quality, enhance cost competitiveness, and establish a production system resilient in the face of demand volatility. This will involve development, production and procurement departments working together to create a next-generation model for development while carrying our thorough preliminary reviews. At the same time, we will fully utilize Analysis Lead Design (ALD) to enhance development quality and efficiencies as well as shorten development lead time and reduce costs.

At our production sites, we will further broaden our efforts to visualize electricity usage using IoT carried out at our domestic sites in FY2016, expanding the initiative to production sites outside of Japan, while accelerating improvement activities aimed at energy conservation and reducing maintenance costs.

Our people represent the key component behind our efforts to achieve these goals. With Kenkijin spirit at the heart of everything we do, the HCM Group will develop its human resources globally and create an organization that can achieve continual improvement through innovation and ingenuity.

#### TOPICS

# Development of the EH4000AC-3 High Altitude Dump Truck

The AC-3 series of dump trucks, which come standard with the AC drive system jointly developed with the Hitachi Group and vehicle stability control, offer improved controllability and stability, as well as a range of engine choices. Dump trucks used at high altitude, such as in certain parts of South America, require a higher output engine than standard models. For this reason, we developed the EH4000AC-3 high altitude dump truck designed for heavy duty operations even at high altitude. This high altitude model offers increased engine output and cooling performance and underwent real world testing for a one-year period by one of our customers in Peru. This model cleared the target utilization rate of greater than 90%, earning it praise from the customer. By expanding high altitude models, we hope to increase our presence in the market going forward.

Cleared the target utilization rate of greater than



The EH4000AC-3 high altitude dump truck during real world testing

Review of Operations by Division

# **Service Division**

# Review of Operations for Fiscal 2016

Under the mid-term management plan "GROW TOGETHER 2016", we endeavored to enhance customer satisfaction and implement measures that helped lower life cycle costs and customers to achieve stable utilization of their machines. This included building a parts supply system and expanding our parts remanufacturing plants as well as promoting the greater use of ConSite service solutions utilizing the "Global e-Service" that remotely monitors customers' machines.

The prolonged slump in the economy has caused more and more customers to have an interest in reducing Life- cycle Costs. As for remanufacturing parts service, we collect the original parts as the remanufacturing core parts that were replaced during machine repair work and then replace or repair parts that have been worn-out at our parts remanufacturing plant. Newly remanufacturing parts are then sold to the customers at a reasonable price with undergoing considerable the same quality of bland new parts. This helps to shorten the machine down-time are not in service and also reduces waste. We operate a network of 12 parts remanufacturing plant around the world and in August 2016 we expanded our parts remanufacturing plant in Zambia, while also enhancing its remanufacturing technologies.

In addition, with regards to our ConSite services, we provide not only data reports on the condition of machines and their operating information that are automatically sent out to customers, but also other high value-added services, such as timely advice from service staff about maintenance and parts replace-

#### TOPICS

# Global promotion of Mining parts sales activity by using CPR(Component Parts Replacement) System

HCM Group implement Communication Program by using CPR (Component Parts Replacement) system for Mining business. Visualizing each machine & parts information (Replacement history, Next change-out schedule, etc.) obtained through communication with customer and various systems by centralizing the data on CPR system. Standardize Mining parts sales activity by preparing parts sales manual to support dealer's service staff, and promote activities worldwide through meeting customer needs. Through the use of this system, we plan to supply components in a smooth manner, prevent unexpected breakdowns, and improve customer productivity.

# Centralization of Mining Components Replacement data



Service staff checking components condition at a mine site in Mongolia

ment. The number of ConSite contracted machines increased 158% during the one year period running until the end of fiscal 2016. This number now totals over 56,000 machines worldwide.

As for mining machine services, we developed and now provide the Component Parts Replacement (CPR) System that manages all parts replacement data (including replacement history and replacement schedule, etc.) obtained from communications with the customers and our various IT systems. This allows us to improve productivity by promptly supplying parts and preventing sudden breakdowns.

In terms of the parts business, we are working to expand our lineup following the life cycle of machines, which includes Hitachi Select Parts (HSP), Ground Engaging Tools (GET), and oil and lubricant products.

Furthermore, we are striving to secure and develop service staff and improve overall service skills through ongoing service training and Service Mechanic Competitions, among other measures.

# Challenges and future initiatives

The efforts we make in the value chain that extends across the whole life cycle of construction machinery after customers purchase our products, or after market services, is an important challenge determining whether we can expand the scale of our business and boost its profitability.

The HCM Group will position the "Parts and Service Business" as a core aspect of its after-market strategy and work to increase both volume (sales volume) and quality (profitability). For example, we will introduce a new inventory control system to rebuild our parts supply system so that it increases product flexibility, enhances logistics, and improves the shipment ratio between our sites globally.

In relation to customers' needs for "improved safety", "improved productivity", "reduced life- cycle costs", demand for high quality services, such as predictive analysis to detect tendencies and indications of failures, is expected to grow further going forward. In response, we will work to develop more advanced technologies for predictive diagnosis by utilizing ICT and IoT.

At the same time as technical development, it will be import-

ant to identify and analyze user needs in advance and then help reinforce dealers that support the customers. Hitachi Construction Machinery has a worldwide network of dealers. Going forward, we will continue to bolster our support for dealers, improve our ability to make proposals to the customers, and increase the number of applicable products and target users.

To expand service solutions, we will increase synergies with HE-Parts and Bradken, which became Group companies in fiscal 2016, and make additional efforts toward bolstering the value chain. The key to service provision is "maintaining a level where customers' machines can exert their maximum performance". To achieve this goal, the entire HCM Group will work as one to reinforce its support capabilities.

## TOPICS

#### **H-E Parts**

[Business Lines]
Provision of Services Solutions
Development, Fabrication and Sales of Parts

[Head Office] Atlanta, Georgia, United States [Established] 2006

[When it became a consolidated subsidiary] December 2016

# Bradken

[Head Office]

[Business lines] • Casting and Manufacturing and Sales of Casted Products

Newcastle, New South Wales, Australia

[Established] 1922

[When it became a consolidated subsidiary] March 2017







# Review of Operations for Fiscal 2016

Typically, customers engaged in civil engineering have required their construction machinery to have strong operating performance, excellence in operation, durability and lower fuel consumption. Today, however, in addition to performance, customers demand autonomous driving, improved overall work process efficiency, and site management optimization. At the same time, customer business challenges include "improved safety", "improved productivity", and "reduced life-cycle costs". To support solve these challenges, we set up the Client Solutions Division\* in April 2016 with the goal of developing and providing innovative solutions using ICT and IoT.

For example, the construction industry in Japan faces the challenges of improving the efficiency of construction work,

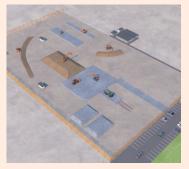
enhancing safety and addressing a shortage of skilled workers, among others. Amidst this, Japan's Ministry of Land, Infrastructure, Transport and Tourism is advocating i-Construction to heighten productivity and optimize overall work processes on civil engineering projects. Hitachi Construction Machinery brought to market in June 2016 the ZX200X-5B ICT hydraulic excavator. The Customer Solutions Division is heading up efforts to promote with customers the development of solutions for overall work processes, from the surveying services with unmanned aerial vehicles (UAV) in a tie-up with surveying companies to inspections and post completion measurements as well as maintenance and replacement. Also, in October 2016, we set up the Hitachi Construction Machinery ICT Demo Site at

#### TOPICS

# **Opening of Hitachi Construction Machinery ICT Demo Site at Hitachinaka Works**

In October 2016, we opened the Hitachi Construction Machinery ICT Demo Site in order for customers to realize the benefits of information-oriented construction processes based on a clear understanding of i-Construction being advocated by Japan's Ministry of Land, Infrastructure, Transport and Tourism. This area enables customers to experience and understand each information-oriented construction process through actual work performed by ICT hydraulic excavators that can dig semi-autonomously and the preparation of survey and three dimensional survey data obtained from drones and other unmanned aerial vehicles (UAV). Going forward, we will continue to actively hold demonstrations and offer test drives of ICT construction machinery as well as drones to support efforts to promote the greater adoption of i-Construction.

# Promote the greater adoption of i-Construction



Site area is approx. 14,000m<sup>2</sup>. The largest demo site of its kind in Japan for information-oriented construction

Hitachinaka Works for customers to experience each process of i-Construction in an effort to increase its use.

In the area of mining, we are moving forward with development on the full-fledge commercialization of an Autonomous

# Challenges and future initiatives

In today's construction machinery market, it has become difficult for companies to set themselves apart simply by selling products. It is now more important than ever to deliver solutions that generate new value based on a thorough understanding of customers' business processes and through partnerships with other industries.

Furthermore, customers require solutions to such critical challenges as enhanced safety, improved productivity, and lower life cycle costs. At the same time, we must work on solving various social issues, including global climate change and response to natural disasters.

The HCM Group will continue thoroughly utilizing ICT and IoT in FY2017 and beyond, while responding to such demands from society, to introduce methods such as Big Data analysis in an effort to broaden products, services and solutions and enhance to resolve the challenges facing society and customers.

The HCM Group has decided to name its suite of ICT and IoT solutions "Solution Linkage". With ICT and IoT making significant advancements, we are speeding up development by utilizing initiatives under the "One Hitachi" banner in which Hitachi provides the "Lumada" IoT platform and open innovation that is integrated with the expert technologies of business partners.

#### Haulage System (AHS) for mining dump trucks.

\* Client Solutions Division: The division was renamed from the Client Solutions Business Development Division in April 2017.

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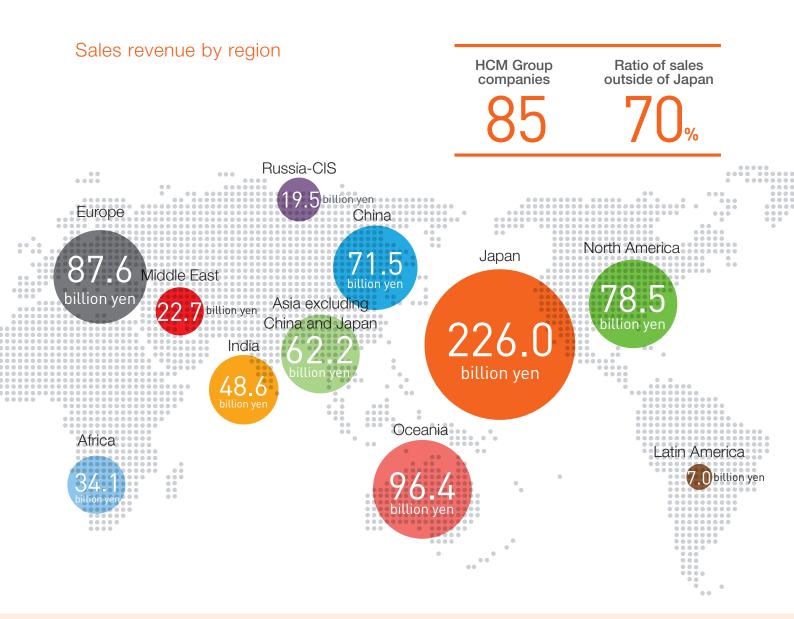
## TOPICS

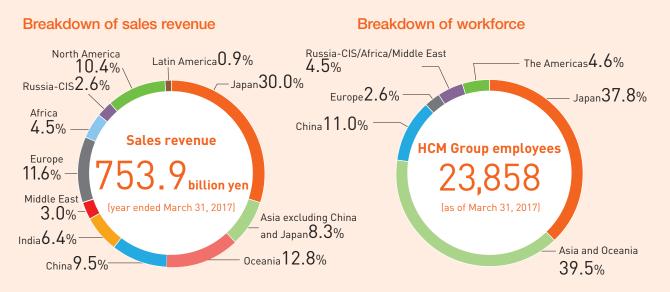
# Launch of collaboration for the development of a cloud-based open platform

In March 2017, we began collaborating with Trimble (United States) on the development of a cloud-based open platform. Using the technologies of Trimble Connect TM, a cloud-based integrated system supplied around the world, we hope to achieve seamless information management, from office to work site and the operator's chair. For example, customers will be able to find and utilize the information they need from a smartphone or tablet device during every process, from surveying and design to maintenance and replacement. Going forward, we plan on launching a portal site containing all the information on solutions provided by Hitachi Construction Machinery and Trimble.

# Provision of portal site for cloud solutions







# Directors and Executive Officers (as of June 26, 2017)

Directors



Kazushige Okuhara Outside Director



Outside Director



Junko Hirakawa Outside Director



Tatsuro Ishizuka Director



Osamu Okada Director



Tetsuo Katsurayama Director



Yutaka Saito Director



Koji Sumioka Director



Kotaro Hirano Director

Executive Officers



Hirotoyo Fujii Director

# Calculating executives' compensation (performance-linked compensation system)

HCM's Compensation Committee sets the policy for deciding the amount of compensation for the company's board members and executive officers in accordance with regulations stipulated by the Companies Act applicable to companies with a nominating committee, etc. Compensation standards are established commensurate with the capabilities and responsibilities required and after consideration of remuneration levels at other companies.

Compensation to Board members consists of a "monthly fee," which is the basic compensation for full- or part-time service plus an amount calculated in accordance with the Director's position and whether occupying the seat or not in each committee, and a "year-end allowance," which is multiplying the "monthly fee" with a constant coefficient.

Compensation to Executive Officers consists of a "monthly fee" in accordance with the officer's position referring standards in general, and "performance-linked compensation," which is determined in line with the Executive Officer's performance and results achieved in the officer's responsible duties. For Board members concurrently serving as Executive Officers, no compensation is paid for services provided as a Director of the Board.

Representative Executive Officer. Tatsuro Ishizuka Chairman and Executive Officer Representative Executive Officer, Kotaro Hirano President and Executive Officer Representative Executive Officer, Koji Sumioka Executive Vice President and Executive Officer Executive Vice President and Executive Officer Yasushi Ochiai Michifumi Tabuchi Senior Vice President and Executive Officer Senior Vice President and Executive Officer Hirotoyo Fujii Vice President and Executive Officer Kenji Ota Tetsuo Katsurayama Vice President and Executive Officer Vice President and Executive Officer Hideshi Fukumoto Vice President and Executive Officer Naovoshi Yamada Executive Officer Takaharu Ikeda Executive Officer Sonosuke Ishii Executive Officer Yusuke Kajita Executive Officer Moriaki Kadova Executive Officer Toshikazu Sakurai Executive Officer Katsuhiko Murakami Executive Officer Tadashi Motoi Note: Executive Officers are listed in the Japanese syllabic order for each job title.

Websites Corporate Governance Guidelines

https://www.hitachicm.com/global/environment-csr/csr-en/company-en/governance-en/guidelines/

# Number of ConSite contracts



As a partner overseeing customers' machines, we offer ConSite solutions utilizing the latest ICT globally in order to support the day to day operations of customers.

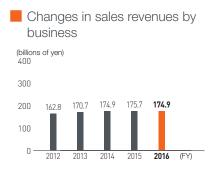


Parts and service sales revenue (including solutions business)





We will add H-E Parts and Bradken to the HCM Group to reinforce our services and parts manufacturing and sales, while expanding solutions the help to resolve customer issues.



# Ratio of sales outside of Japan

# 70.0%

We supply highly reliable construction machinery that fulfills varying needs for performance and quality by correctly understanding the needs of each country and region.

Changes in the ratio of sales outside of Japan

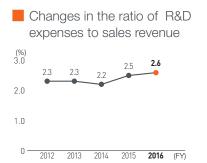


# Ratio of R&D expenses to sales revenue





harmony and recycling" based on our research and development into technology that is "kind to both human beings and the environment" and "technology that creates an even better environment".



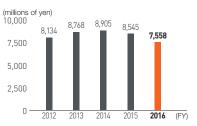
# Environmental conservation costs



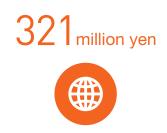


We are promoting sustainable improvement activities like that make electrical power consumption visible to reduce peak electricity usage and volume of usage.





# Social contribution related costs



Under the Hitachi Construction Machinery Group Social Contribution Policy formulated in 2006, we continually engage in activities that give back, including humanitarian support, environmental conservation and local community coexistence.

# Changes in social contribution related costs



# Non-financial highlights

Environment conservation * Environmental data as of March 31.						
	Applicable years	FY2012	FY2013	FY2014	FY2015	FY2016
Energy usage and efficiency						
Energy consumption (usage)	Hitachi Construction Machinery Group	74.8 thousand kl	80.8 thousand kl	72.6 thousand kl	65.6 thousand kl	75.3 thousand kl
Improvement rate of energy basic unit	Hitachi Construction Machinery Group	-	16.4%	15.2%	14.7%	23.2%
Reduction of energy consumption	Hitachi Construction Machinery Group	0.9 thousand kl	0.7 thousand kl	1.5 thousand kl	1.5 thousand kl	4.0 thousand kl
Greenhouse gas (GHG) emissions						
GHG emissions (reduction amount)	Hitachi Construction Machinery Group	166.9 thousand t (1.2 thousand t)	175.4 thousand t (1.0 thousand t)	174.2 thousand t (2.7 thousand t)	149.7 thousand t (2.9 thousand t)	174.2 thousand (8.5 thousand t)
Reduction of CO2 emissions from products	Hitachi Construction Machinery Group	1.48 million t	1.89 million t	2.36 million t	2.78 million t	2.93 million t
Use of water resources						
Water usage	Hitachi Construction Machinery Group	1,243.4 thousand m <sup>3</sup>	1,095.5 thousand m <sup>3</sup>	1,076.8 thousand m <sup>3</sup>	951.8 thousand m <sup>3</sup>	1,196.4 thousand m <sup>3</sup>
Waste volume						
Total waste volume (generated)	Hitachi Construction Machinery Group	55.0 thousand t	60.8 thousand t	48.6 thousand t	39.4 thousand t	51.9 thousand t
Hazardous waste volume	Hitachi Construction Machinery Group	1.8 thousand t	1.7 thousand t	1.6 thousand t	1.1 thousand t	1.4 thousand t
Weight of raw materials used	Hitachi Construction Machinery Group	304.7 thousand t	284.5 thousand t	279.0 thousand t	215.5 thousand t	163.3 thousand t
Environmentally conscious products						
Percentage of environmentally conscious products	Hitachi Construction Machinery Group	85.8%	89.9%	91.1%	92.1%	93.1%

# Society

#### \* Personnel data and number of companies as of March 31. Employment rate of persons with disabilities as of December 1.

	Applicable years	FY2012	FY2013	FY2014	FY2015	FY2016
Number of permanent employees (consolidated basis)	Hitachi Construction Machinery Group	20,440 persons	20,911 persons	21,126 persons	21,193 persons	23,858 persons
Number of permanent employees (non-consolidated basis)	Hitachi Construction Machinery (non-consolidated)	4,530 persons	4,756 persons	4,704 persons	4,315 persons	3,985 persons
Ratio of permanent employees that are female	Hitachi Construction Machinery (non-consolidated)	5.6%	5.9%	6.4%	6.4%	6.5%
Ratio of contract employees	Hitachi Construction Machinery Group	13.2%	11.0%	9.6%	7.0%	6.3%
Number of employees taking childcare leave	Hitachi Construction Machinery (non-consolidated)	19 persons	11 persons	13 persons	25 persons	29 persons
Ratio of employees returning to work after childcare leave	Hitachi Construction Machinery (non-consolidated)	94.7%	100.0%	100.0%	96.0%	96.6%
Number of employees taking family care leave	Hitachi Construction Machinery (non-consolidated)	1 persons	0 persons	3 persons	1 persons	0 persons
Employment rate of persons with disabilities	Hitachi Construction Machinery (including subsidiaries in Japan)	1.90%	2.17%	2.18%	2.13%	2.13%
Occupational injuries (frequency rate of lost worktime accidents)	Hitachi Construction Machinery (non-consolidated)	0.29	0.09	0.46	0.10	0.25
Occupational injuries (frequency rate of lost worktime accidents)	Hitachi Construction Machinery (subsidiaries in Japan)	0.41	0.31	0.55	1.22	1.11
Training on occupational injuries (number of employees attending Group company presentations)	Hitachi Construction Machinery Group	Approx.150 persons	Approx.100 persons	126 persons	128 persons	95 persons
Number of consolidated subsidiaries and equity-method affiliates						
Consolidated Japan		12 companies	12 companies	11 companies	12 companies	10 companies
Consolidated Overseas		36 companies	34 companies	32 companies	32 companies	75 companies
Equity-method affiliates Japan		5 companies	5 companies	5 companies	3 companies	4 companies
Equity-method affiliates Over- seas		7 companies	7 companies	9 companies	8 companies	8 companies
Number of participants in the International Skills Competition (countries)	Hitachi Construction Machinery Group	74 persons (5 countries)	75 persons (6 countries)	70 persons (7 countries)	82 persons (8 countries)	81 persons (6 countries)
Overseas	Hitachi Construction Machinery Group	18 persons (4 countries)	25 persons (5 countries)	26 persons (6 countries)	34 persons (7 countries)	27 persons (5 countries)

#### Governance

#### \* Personnel data as of March 31. Hitachi Construction Machinery (non-consolidated) Ratio of managers that are female 0.4% 0.4% 0.5% 0.4% 0.7% Hitachi Construction Machinery (non-consolidated) Ratio of executive officers that are female 0.0% (0 persons) 0.0% (0 persons) 4.5% (1 persons) 5.0% (1 persons) 4.8% (1 persons) Number of employees receiving compliance training Hitachi Construction Machinery Group 654 persons 3,627 persons 1,874 persons 5,247 persons 5,784 persons

# Medium/long-term CSR goals of the HCM Group

Globally, there are still numerous social and environmental issues. This includes an increase in the severity of environmental problems worldwide and a growing inequality triggered by globalization. Consequently, each year corporations are being reguired to play a larger role in helping to create a sustainable society. In September 2015, the United Nations adopted the 2030 Agenda for Sustainable Development, in which both advanced and developing countries alike collectively focus on Sustainable Development Goals (SDGs) for the purpose of achieving three dimensions of sustainable development: environmental, social, and economic. In addition, at the 21st session of the Conference to the Parties (COP 21), a gathering for the United Nations Framework Convention of Climate Change, the Paris Agreement was adopted as a global framework to control climate change. Public interest in sustainability is growing and actions are being stepped up in this direction.

Furthermore, in the world of investing, ESG investment is gaining attention. This investment approach emphasizes environmental, social, and governance factors (hence the acronym), in addition to traditional financial data. It is becoming more prevalently used by pension funds and other institutional investors in various countries. The idea that environmentally- and socially-conscious companies have the potential to enhance their corporate value in the long term is becoming more wide spread. Given this, there is a stronger need for management strategies that contribute to solving environmental and social issues and thereby improve corporate value.

Reflecting these global trends and changes in the business environment, the Hitachi Construction Machinery (HCM) Group views CSR as a method of sustainable development that companies can employ to enhance their corporate value in the medium/long-term, by helping to resolve social issues through their core operations. We have established medium/long-term CSR goals. We also identify the realization of a sustainable society a high-priority management theme. Moving forward, we plan to promote CSR activities by gaining an accurate understanding of and analyzing the environmental and social issues that companies face.

# CSR roadmap

Identifying Materiality\*

• Establish framework to integrate CSR into management strategies

Create 8 key CSR initiative themes

The HCM Group aims to achieve sustainable growth and enhance its corporate value by integrating CSR measures with management strategies to thereby contribute to solving social issues through core business operations.

# Integrating CSR into management

- Reflect CSR actions into the next mid-term management plan
- Disclose goals and targets, and information on progress towards their achievement

Realizing the sustainable society that the HCM group aspires to come true

# 2030 CSV GOAL

# **Corporate target**

Curb CO<sub>2</sub> emissions via products: Reduce by

**▲** 33%

# **Target for solutions**

Improve safety and productivity, reduce life cycle cost

\* Materiality: Issues that could potentially have substantial impact on an organization's performance

# At present

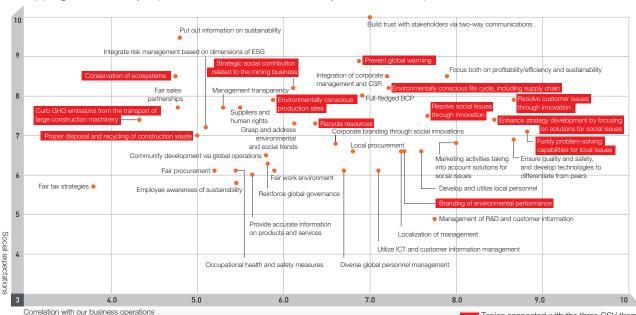
# Creating medium/long-term goals

Previous mid-term management plan FY2014 - FY2016 "GROW TOGETHER 2016"

FY2017 - FY2019 "CONNECT TOGETHER 2019"

# Defining materiality and 8 key CSR initiative themes

In FY2015, the HCM Group, along with outside experts and other external stakeholders, analyzed key CSR themes as a step toward achieving its goal for further growth. Taking into account recent trends in the global society at the time, we pinpointed 40 social issues, which we believed had a strong correlation with our business operations. We mapped out these issues and assessed them based using two parameters; their significance to HCM Group businesses and the expectations the public has of the HCM Group. From this we were able to define eight CSR initiative themes that factored in the opportunities and risks of each issue.

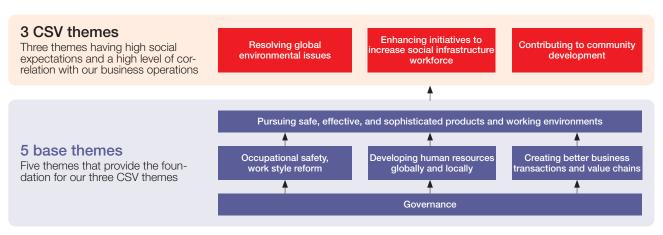


Mapping of materiality topics examined and identified by the HCM Group

Topics connected with the three CSV themes

After creating a materiality map, we systematically reviewed each topic and came up with eight key initiative themes. Those matters of particular importance are positioned as CSV themes, which aim to link business growth with the solving of social issues. The other topics which are essential to implementing CSV themes were positioned as basic themes.

8 Key Initiative Themes



# Our approach towards SDGs

At the United Nations Sustainable Development Summit 2015, held in September, more than 150 UN member nations agreed on universal sustainable development goals. The SDGs serves as important guidelines for achieving a sustainable society. A total of 17 goals and 169 targets were set and are to be achieved by 2030. Companies are positioned as one of the main implementers of these actions.

Undertaking SDGs is not only a way to improve corporate value but a valid approach to strengthen stakeholder relations. Moreover, each SDG has an extremely close affinity to the HCM Group's eight key initiative themes. In light of this, we examine how we can employ this as a sustainable growth strategy that leverages our strengths and expertise.



Process for setting medium/long-term goals

# STEP1

#### Understanding SDGs

We plan to uncover the opportunities and risks for our business operations by analyzing the details of the 17 goals and 169 targets for sustainable development.

# STEP2

#### Defining priorities

We will hold a workshop for establishing medium/long-term goals for key themes. Select themes where a sustainable development target has a close correlation with our business operations.

# STEP3

#### Setting goals

We look to establish goals and KPIs based on designated areas of impact, which we will identify by mapping the sustainable development goal issues related to the value chain.

# STEP4

#### Integrating

The goals we set will be incorporated into goals at the division level and sustainability will be integrated into corporate strategies and governance.

# STEP5

#### Reporting and communicating

We plan to regularly report to stakeholders on our progress and level of achievement to attain more in-depth communications.

#### The Sustainable Development Goals

Goal 1	End poverty in all its forms everywhere
Goal 2	End hunger, achieve food security and improved nutrition and promote sustainable agriculture
Goal 3	Ensure healthy lives and promote well-being for all at all ages
Goal 4	Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
Goal 5	Achieve gender equality and empower all women and girls
Goal 6	Ensure availability and sustainable management of water and sanitation for all
Goal 7	Ensure access to affordable, reliable, sustainable and modern energy for all
Goal 8	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
Goal 9	Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
Goal 10	Reduce inequality within and among countries
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable
Goal 12	Ensure sustainable consumption and production patterns
Goal 13	Take urgent action to combat climate change and its impacts
Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
Goal 15	Protect, restore and promote sustainable use of terrestrial eco- systems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
Goal 16	Promote peaceful and inclusive societies for sustainable de- velopment provide access to justice for all and build effective, accountable and inclusive institutions at all levels
Goal 17	Strengthens the means of implementation and revitalize the global partnership for sustainable development

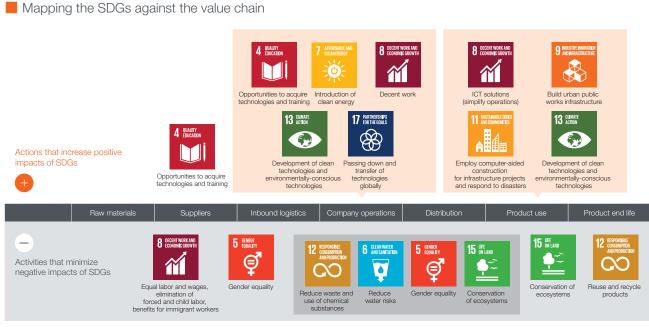
# Key issues in the value chain

Construction machinery manufactured by the HCM Group is used in a variety of situations in society. This includes resource development at mines, development of social infrastructures, and in the agriculture, forestry, and livestock industries. It is now important that we clarify the correlation with sustainability issues throughout the value chain from the production and transport of construction machinery to their disposal, and not simply during use.

We assess the impact of our business operations to the

environment and society throughout the entire value chain by grasping an understanding of areas of impact, and analyzing the corresponding sustainable development goals and targets, and clarifying what initiatives are necessary for the group.

Going forward, we plan to disclose information on the progress we are making towards SDGs in our value chain. We also aim to implement activities to achieve these goals while cooperating with various stakeholders.



\* The value chain categories above are the same in the SDG Compass recommended in the UN Global Compact

# The SDGs strongly connected with our CSV themes

Resolving global environmental issues	Enhancing initia	CSV theme 2 Enhancing initiatives to increase social infrastructure workforce		CSV theme 3 Contributing to community development	
13 CUMATE ACTION CONSTRUCTION C	t, g RUUSIKI, INVOVALINA e n n n n n n n n n n n n n n n n n n n	Technological advances are important for findings sustainable solutions to issues from both an eoconomic and environmental standpoint. This includes providing new employment opportu- nities and improving energy efficiency. The construction machinery knowhow and technologies we have cultivated since the founding of our company are closely tied in with the creation of a foundation (base) for industry and tech- nological innovations.	8 DECENT WORK AND ECONOMIC GROWTH	The purpose of the SDGs is to attail decent work that is worthwhile and fu and productive employment for all me and women by 2030. To this end, w aim to support local hiring and develop ment through our construction machin ery business by accurately grasping th needs of the local community.	



The sharp growth of cities in emerging economies presents a variety of issues, including the lack of engineers to support the social infrastructure. We aim to contribute to sustainable urban development in both emerging and advanced economies, mainly through energy-saving technologies and solutions for optimizing operations in the frontlines.



We need to revitalize our global partnerships to achieve the UN's sustainable development goals and targets. We aim to further strengthen collaborations with external organizations by leveraging the comprehensive capabilities of the Hitachi Group, to undertake initiatives for the realization of a sustainable society.

# Understanding and addressing ESG information disclosure

In recent years, ESG investment has rapidly increased. This approach assesses a company based on environment, social, and governance factors, hence the acronym. ESG investing does not only take into account traditional financial data. Emphasis is on the incorporation of investment decisions and decision-making processes extrapolated from non-financial data, including corporate governance and a company's actions dealing with environmental and social issues.

ESG investment is sprouted from the Principles for Responsible Investment (PRI), an initiative advocated by then secretary-general of the United Nations, Mr. Kofi Annan. Institutional investors around the world began to focus on environmental as social aspects as a yardstick for investment decisions. At present, more than 1,700 institutional investors, including pension funds, with assets of over US\$60 trillion, and asset management institutions have already signed the PRI initiative and are promoting ESG investment.

A medium/long-term outlook is important when it comes to finding solutions for the environmental and social issues faced by the global community. The HCM Group believes that solidly addressing these issues will contribute to the creation of corporate value in the medium/long-term. We also aim to quickly and adequately provide information to investors on ESG issues.



Changes in the environment surrounding companies and investors

#### Previously: Socially Responsible Investment (SRI)

This approach incorporated CSR into the evaluation criteria for investments and required that the investment target achieve sustainable management.

# ESG is being added to the investment criteria of institutional investors (Financial and non-financial data)



 Ministry of Economy, Trade and Industry (METI) + TSE trends (part of Japan revitalization strategy)
 Nadeshiko Brand: Launched in 2012. Companies are selected for establishing workplace environments that encourage women to continue working and roles for female employees

• Health & Productivity Stocks: Launched in 2014. Companies are selected for their focus on employee health management

# ESG Index

ESG	Key Issues	Key Initiative	Reference Page
	Philosophy concerning the envi- ronment	Environmental policy and long-term goals	p33
	Data relating to the environment	Facts and Figures about the Hitachi Construction Machinery Group (Excerpts)	p25、p26
	Climate Change	Environmental policy and long-term goals	p33
Environment		Energy conservation activities at production plants	p34
	Waste	Initiatives to reduce waste	p35
	Water	Initiatives to reduce water usage	p35
	Products and Services	Environmental benefits of the ZH200-5 hybrid hydraulic excavator	p35、p36
	Products and Services	Environmental performance of electricity-powered excavators	p36
		Initiatives to realize the vision of "Made by Hitachi" uniform worldwide quality	p45
	Customer	Conducting customer satisfaction surveys	p46
		Appropriate disclosure of product information	p46
	l shan susstings	Occupational safety and work style reform	p47、p48
Social	Labor practices	Developing human resources globally and locally	p49、p50
		Taking on human rights due diligence	p50
	Human rights	Procurement policy against the use of conflict minerals	p52
		Human rights initiatives	p54
	Contribute to local communities	Contributing to community development	p41 ~ p44
		Corporate governance system	p53
	Corporate governance	Management structure	p24
		Reinforcement of risk management	p54
		Understanding and addressing ESG information disclosure	p31
	Information disclosure	Facts and Figures about the Hitachi Construction Machinery Group (Excerpts)	p25、p26
	Compliance	Compliance promotion systems and training	p52
Governance		Fair trade with suppliers	p51
	Supply chain management	CSR management in the supply chain	p51、p52
		Message from the President	p9 ~ p12
		Defining materiality and 8 key CSR initiative themes	p28
	Philosophy concerning sustainability	Medium/long-term CSR goals of the HCM Group	p27
	ouotainaointy	Our approach towards SDGs	p29
		Key issues in the value chain	p30

# SRI index incorporation status

With the spread of ESG investment, many foreign and domestic institutions have begun to implement Socially Responsible Investment (SRI) assessment. An SRI index is an index for selecting stocks that represent socially responsible investment based on ESG. The Hitachi Construction Machinery Group is included in multiple SRI indices.





# CSV Theme1 Resolving global environmental issues

Today it is more important than ever to pursue corporate management that contributes to the resolution of global environmental issues that are growing more serious. Hitachi Construction Machinery is working to reduce the environmental impacts of its business operations and contribute to the development of infrastructure that can cope with climate change and other issues through the provision of construction machinery.

#### **Key Initiatives**

Reduce environmental impact for manufacturing processes
Develop and deliver Eco-Products, lowcarbon emission construction machinery, dismantling, and recycling machinery
Utilize ICT and IoT Applications for disaster recovery and disaster prevention Environmentally conscious mining operation solutions •Green infrastructure solutions

Reduce environmental impact for manufacturing processes

# Environmental policy and long-term goals

The HCM Group's environmental policy aims to help resolve global environmental issues by undertaking initiatives for longterm value creation in the three scopes of "manufacturing", "using", and "taking on challenges".

In terms of "manufacturing", we are building a production system for reducing the environmental impacts of not only our own plants, but the facilities of suppliers as well. In terms of "using", we are helping to lower CO<sub>2</sub> emissions using technologies to raise efficiencies such as hybrid designs and information-oriented construction and reduce waste through product recycling. In terms of "taking on challenges", we aim to expand business opportunities through applications for global environmental issues, the creation of services, and use of open innovation with partners from within and outside the HCM Group.

In FY2016, we established ambitious goals for both 2020 and 2030. These targets ensure that we can contribute to the resolution of environmental issues, including global climate change which is a key element of the SDGs. The HCM Group is steadily implementing measures aimed at these long-term goals as part of its social mission as a manufacturer of construction machinery with global operations.

2030 CSV GOA	GHG emission CO₂ saving by product		Solutions target Productivity, safety and life cycle costs	
CSV targets	2010	2020	2030	
CO <sub>2</sub> saving rate by products	Reference year	19%	33%	
Fuel reduction target of products	2010	2020	2030	
Hydraulic excavators		30%	35%	
Wheel loaders	Reference year	30%	40%	
Hybrid hydraulic excavators		45%	50%	
Basic unit target in production	2005	2020	2030	
Improvement rate of energy basic unit	2005	20%	40%	
Improvement rate of waste basic unit	Reference year	25%	40%	
Improvement rate of waste basic unit		42%	50%	

\* GHG emissions: Greenhouse gas emissions. At our company, CO2 is mainly applied.

## Reduce environmental impact for manufacturing processes

Under the 2030 CSV Goal, the entire HCM Group is working on

various initiatives to reduce environmental impacts from its man-

ufacturing process in order to achieve an improvement rate

(compared to 2005) of 40% for the basic unit of energy, 40% for

the basic unit of waste, and 50% for the basic unit of water, by

# Energy conservation activities at production plants

Meanwhile, our five plants in Ibaraki Prefecture (including the KCM Ryugasaki Works) had established a goal to improve the basic unit of energy usage 30% by FY2016 compared to FY2010, which has been achieved by each plant through steady independent activities.

# Hitachi Construction Machinery's initiatives to reduce energy usage

Hitachi Construction Machinery established a three-year plan called the Energy Policy Project in FY2014 and is working on proactive energy conservation initiatives at its five plants in Ibaraki Prefecture (including the KCM Ryugasaki Works) in order to reduce its electricity usage during peak demand and total electricity usage.

In March 2017, we introduced a waste heat recovery system at Hitachinaka Works. The compact heat supply (micro cogeneration) system is expected to reduce electricity usage by 124.6 megawatt hours annually because it supplies electricity to the plant and it is used as a heat source for gas vaporization equipment. Tsuchiura Works has already introduced a system for using the waste heat produced from compressors for indoor heating and a system for using underground water for heating and cooling purposes that it uses for radiators that are a component of excavators. This effective use of unused energy is considered one of our important energy conservation measures and a pillar of our initiatives currently underway.

Also, a trial plan is under consideration in which the heat exchanger introduced at the Kasumigaura Works will be utilized to reuse waste heat from the burn off furnace for hardening processes to increase the strength of iron components that was normally released into the air as a source of heat for the electric

heater used for oil distillation equipment.

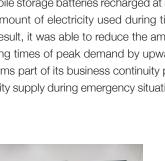
Under the Energy Policy Project, we are working on initiatives to reduce standby power inside our plants. In FY2016, we introduced the EMilia energy management system, which is one of the core solutions of Hitachi's Lumada IoT platform. EMilia visualizes the electricity data of each piece of equipment at multiple manufacturing bases in real time, making it possible to analyze and diagnose future operating methods and automatic control methods, which in turn can reduce standby power. In addition, EMilia makes it possible to achieve highly efficient operations because it streamlines energy usage.

Furthermore, our manufacturing subsidiaries in Japan are working to promote energy conservation efforts to cut electricity usage during times of peak demand. The Tsuchiura Works supplies electricity to its Convention Hall using solar power and electric automobile storage batteries recharged at night in order to reduce the amount of electricity used during times of peak demand. As a result, it was able to reduce the amount of electricity used during times of peak demand by upwards of 35%. This initiative forms part of its business continuity plan (BCP) to address electricity supply during emergency situations, such as power outages.

Unit for reusing the waste heat of Tsuchiura Works inside the plant's air onditioning system









Key Initiative Theme 5



CSV Theme1

the year 2030.

#### Initiatives to reduce waste

The HCM Group's manufacturing bases are promoting zero emission activities. The HCM Group defines zero emissions as a final disposal rate (amount of waste sent to landfills / amount of waste generated) of less than 0.5%. As of FY2016, eight of our manufacturing bases in Japan and three overseas fulfilled the definition of zero emissions.

In addition, we are promoting the use of IT in waste management in order to maintain a high level of compliance with requirements for proper disposal and achieve more efficient waste management operations. Therefore, we are also working on increasing the issuance rate of electronic manifests. Currently, nine of our manufacturing bases in Japan employ electronic manifests 100% of the time.

#### Initiatives to reduce water usage

Constraints on water resources caused by climate change and growing populations worldwide have become a global issue. The HCM Group quantifies the water stress level for each of its manufacturing bases and is working to utilize water resources more efficiently and reduce its water usage.

For example, PT. Hitachi Construction Machinery Indonesia, which is located in an area of high risk in terms of water, introduced a reverse osmosis (RO) membrane water filtration system in FY2012. By removing minerals that can inhibit electro-deposition paints, PT. Hitachi Construction Machinery Indonesia is able to stabilize paint quality and reduce its water usage. Additionally, in FY2016 PT. Hitachi Construction Machinery Indonesia reduced its basic unit of water usage by about 22% compared to the previous year by reusing water that had already been used once with a water recycling system.

# Develop and deliver Eco-Products, low-carbon emission construction machinery, dismantling, and recycling machinery



# Environmental benefits of the ZH200-5 hybrid hydraulic excavator

Construction machinery plays a critical role in the development of social infrastructure, including railways, water supply and sewage, and the power grid. At the same time, measures to address global warming, including reducing GHG emissions caused by the use of hydraulic excavators, are a pressing issue for construction work sites.

Hitachi Construction Machinery's ZH200-5B hybrid hydraulic excavator is a new next-generation machine that offers the same performance as the standard ZX200-5B while consuming less fuel. The ZH200-5B regenerates rotational energy when the electric motor's swing device decelerates. This energy is then stored in a capacitor and used to assist the hydraulic motor during acceleration. The electric assist motor adjusts the electrical energy in the capacitor by connecting with the hydraulic pump to generate electricity or using the electricity as auxiliary energy. These mechanisms allow the ZH200-5B to reduce its fuel consumption by around 30% compared to the ZX200-3.

The energy-saving hydraulic system is another feature that greatly contributes to reduced fuel consumption. The addition of an electronic control to the three-pump and three-valve hydraulic system makes it possible to control power more smoothly, reducing loss from the hydraulic pressure in the process.

#### Example of the ZH200-5B being utilized in Japan

### Earth Create Co., Ltd. (Oda District, Okayama Prefecture)

Earth Create engages in a wide range of businesses, including sales of pit sand and general sand, soil recycling, demolition work, and intermediate processing, among others. Every year the company replaces between four or five of its construction machines with new models. This time around, the company required improved fuel economy for the new models it purchased. Prior the the company selecting its next machines, we held a demonstration test using the standard ZX200-3 and ZX200-5B, which the company currently uses, along with Hitachi Construction Machinery's hybrid ZH200-5B and a competitor's hybrid excavator.

One day was dedicated to each machine when conducting the demonstrations. Actual data indicated that the ZH200-5B was the most fuel efficient, and that this model can carry out the same workload as previous machines while using around 30% less fuel. After witnessing this performance, Earth Create decided to purchase three units of ZH200-5B. Mr. Akitoshi Yokobatake, an operator that works for Earth Create, noted, "The ZH200-5B always re-starts in eco mode, regardless of which mode was used the previous time. This feature is very helpful in terms of reducing fuel consumption."



During the demonstration, work was always carried out in eco mode. Nevertheless, operators shared feedback that included, "Eco mode was more than enough for the work load and it made fine work easier."

CSV Theme1

#### Example of the ZH200-5B being utilized in China

## Wujiang Municipal Water Construction Co., Ltd. (Wujiang City, Jiangsu Province)

Wujiang Municipal Water Construction Co., Ltd. was established in 2001 to engage in water gate and bridge construction work. Today, the company operates a fleet of six hydraulic excavators. When updating its equipment in 2016, the company decided to introduce one ZH200-5A, the latest version of our hybrid hydraulic excavator. After performing 500 hours of work over a three-month period, the company found that compared to its previous ZX200-3, the ZH200-5A used about 30% less fuel, greatly lowering work costs.

Wujiang Municipal Water Construction Co., Ltd. noted, "We have been using Hitachi Construction Machinery's reliable machines for over a decade. The ZH200-5A is a very appealing machine as it offers excellence in operation and greater efficiency, in addition to the fact it consumes less fuel. The ergonomic design of the operator's seat is also excellent as it has reduced operator fatigue."



Key Initiative Theme 4

The company also applauds the ZH200-5A's longer warranty compared to previous models and our range of after-sales services.

## Develop and deliver Eco-Products, low-carbon emission construction machinery, dismantling, and recycling machinery Environmental performance of electricity-powered excavators



Hitachi Construction Machinery is working to further advance its conventional hydraulic technologies as well as develop electricity-powered hydraulic excavators by expanding the use of electronic control technologies for which reliability has improved in recent years.

Electricity-powered excavators do not have an engine and instead operate using a commercial power source. Therefore, they do not produce exhaust or CO<sub>2</sub> emissions at construction sites, nor do they have used engine oil or oil filters, making them environmentally friendly. Furthermore, the CO<sub>2</sub> emissions of a

commercial power source are estimated to be around 10 to 25%\* less than an engine-type model. At the same time, electricity-powered excavators also offer the benefits of improved work environment, lower running costs, and easier maintenance. In addition to hydraulic excavators, the HCM Group offers a wide variety of machines, trolley-type dump trucks, and recycling machines, among others.

 $^{\circ}$  Calculated using the actual CO\_2 conversion coefficient for fiscal (0.559~0.500kg-CO\_2/kwh [Kanto]).

#### Example of electricity-powered excavators being utilized in Japan

#### Suzuyu Co., Ltd. (Ishinomaki City, Miyagi Prefecture)

Suzuyu is a major regional metal recycling company that collects, sorts, and cuts metal scrap mainly in Miyagi Prefecture. Conventionally, the company used several 20-ton hydraulic excavators with grapple attachment to load, sort and break apart metal scrap. Until now, work had to stop temporarily whenever a truck arrived at the yard in order to move the hydraulic excavator to the truck. Only after this process was loading restarted. As a result, the company decided to introduce our electricity-powered fixed high post material handling excavator that can operate and rotate from high positions, in order to make operations more efficient and safer.

After introducing this machine, Suzuyu can now carry out scrap processing work with a single machine, which is powered by electricity, resulting in less noise and no exhaust. This has significantly improved the environment around the company's yard. This machine also offers significant cost savings in terms of maintenance compared to excavators with an engine.



The electricity-powered material handling excavator in action. High expectations for significant reductions in exhaust and CO<sub>2</sub> emissions

# CSV Theme2 Enhancing initiatives to increase social infrastructure workforce

As demand rises for social infrastructure development and mine development to support sustainable lifestyles, a shortage of site engineers has become a worldwide issue. The HCM Group is working to address various challenges faced by the front lines by harnessing its remote support and unmanned work automation technologies.

#### Key Initiatives

•Provide solutions to optimize mining processes and management •Achieve stable machinery operations and the reduction of life cycle costs Promote machinery and systems that improve the efficiency of construction procedures
Develop and delivery labor-saving machinery that is unmanned/uses robotics

Achieve stable machinery availabilities and the reduction of Life-cycle Costs

# Achieve stable machinery availabilities and the reduction of Life-cycle Costs with ConSite



ConSite is an information service provided by Hitachi Construction Machinery that supports the daily business of customers using the latest ICT solutions. In addition to Monthly Reports sent by email monthly detailing the operating status of customers' machines, Alarm Reports are also sent to the computer or mobile device of operators and owners whenever a highly urgent change occurs that could result in a sudden machine breakdown. This enables customers to quickly address issues on site and the details of reports can be shared with our service staff, ensuring we can provide the most suitable advice to the customers.

Also, Monthly Reports display operating time and fuel consumption of machines on a calendar so as to check the efficiency of work at a glance. Furthermore, ConSite helps to visualize information that impacts machine service life such as hours in operation as well as information related to durability, such as tendency in pressure and temperature. This ensures customers carry out maintenance at appropriate intervals, which in turn lowers Life-cycle Costs and the environmental impact of the machine.

ConSite's data reports are sent out by email after the operating data of more than 56,000 machines around the world representing 32 languages are aggregated regularly. Looking forward, we plan on further expanding ConSite services by harnessing the Artificial Intelligence and data analysis technologies of the Hitachi Group.

#### Example of ConSite in Action

#### **AISWARYA GRANITES (India)**

AISWARYA GRANITES is an excavating company based in Kerala State, India that has introduced ConSite for its two ZX220-GI. On one occasion, service staff of Tata-Hitachi Construction Machinery Company Private Limited noticed an issue with the machines' rotating function and fuel consumed during idle based on a Monthly Report showing the operating status for the month prior to the report. In turn, they proposed improvements. The effects of these improvements were quite evident in the numbers found in the next month's regular report. Loading work that had conventionally required a 180 degree swing-operation and took 143 seconds was changed to a 60 degree swing-operation that took 113 seconds, improving work efficiency by 21%.

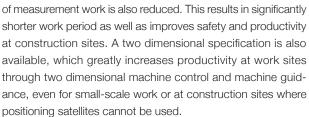
Service staff in charge of AISWARYA GRANITES noted that, "ConSite Monthly Reports provided impetus for them to talk together with operators about swing-operations and reducing fuel loss from idling. We were able to improve work efficiency when loading dump trucks, not only reducing fuel consumption and improving productivity, but also boosting the motivation of operators."



Service staff proposing an improvement to the customer based on data shown in the Monthly Report

#### Promote machinery and systems that improve the efficiency of construction procedures

### Initiatives for information-oriented construction in response to I-Construction



In addition to this ICT hydraulic excavator, the HCM Group is working on tie-ups for open innovation together with various business partners, including surveying companies. Specifically, Hitachi Construction Machinery and surveying companies work together on initial surveying and finished product management using unmanned aerial vehicles (UAV) to provide necessary support and proposals for customers' information-oriented construction processes. Also, we work with software companies to deliver customized software in terms of customers' needs and challenges that supports construction and civil engineering work sites

on customer needs while also providing integrated support

**Open innovation** 



spanning all processes of work utilizing ICT, from initial survey to delivery.

Finishing stake: Measurement of correct positioning of the object to be worked on prior to the start of construction.

#### Hitachi Construction Machinery delivers various solutions that support information-oriented construction on site at civil engineering projects in response to the i-Construction initiative being advocated by the Japan's Ministry of Land, Infrastructure, Transport and Tourism. Information-oriented construction represents a new approach to construction work that effectively utilizes ICT to achieve more efficient and accurate machine operations. With the construction and civil engineering industry facing a shortage of skilled workers and a graying of its workforce, growing attention has been placed on methods for increasing work efficiencies, shortening project durations, reducing manpower, as well as realizing greater accuracy and safety at work.

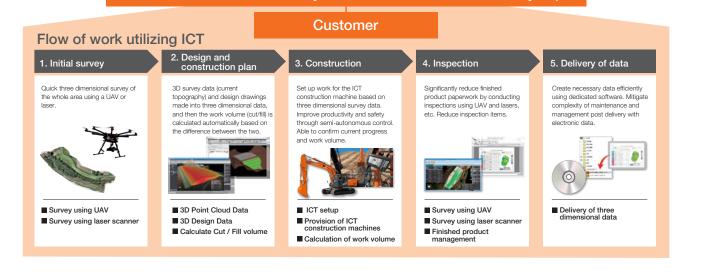
As a machine compliant with i-Construction, Hitachi Construction Machinery developed the ZX200X-5B ICT hydraulic excavator. We began offering rentals of this machine from June 2016 and sales from November 2016. The ZX200X-5B features Hitachi Construction Machinery's proprietary machine control function and machine guidance function that assists operators navigate controls. The three dimensional information for a machine's location and position computed from the global navigation satellite system (GNSS), such as GPS, as well as angle sensors from the front and body is reconciled with three dimensional design data for the work site and then used to semi-autonomously operate front end processes. This ensures that digging does not go beyond the targeted area and soil is excavated in an efficient manner. As a result, the finishing stake\* at typical construction sites is no longer needed and the workload

Hitachi Construction Machinery's ICT solutions

at construction sites. A two dimensional specification is also available, which greatly increases productivity at work sites through two dimensional machine control and machine guidance, even for small-scale work or at construction sites where positioning satellites cannot be used.

Going forward, we will continue to provide solutions based

## **One Hitachi**



Hitachi Construction Machinery/Hitachi Construction Machinery Japan

Key Initiative Theme 4

Provide solutions to optimize mining processes and management

## Development of autonomous haulage system for mining dump trucks



Requirements for autonomous driving technologies continue to grow more sophisticated each passing year. Given this situation, Hitachi Construction Machinery has been developing an autonomous haulage system (AHS) for mining dump trucks. AHS combines Hitachi Construction Machinery's advanced vehicle stability control technology, the expertise in mining operation management systems of Wenco (Canada) of the HCM Group, as well as the railway operation management system, car navigation system and other long-standing technologies of the Hitachi Group.

People with advanced driving skills and experience are essential for safety operating the massive dump trucks used in mining pits and efficiently. In recent years, however, it has become increasingly more difficult to secure the labor force needed based on various business conditions, such as geographic location, among others. AHS helps solve the issue of shortages in skilled technicians in the field, greatly contributing to improve customers' safety and productivity.



Validation testing currently underway aimed at commercialization

#### Provide solutions to optimize mining processes and management

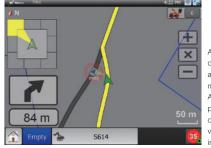
## Providing solutions that support safe operations at mining sites



At the same time as developing AHS for large dump trucks, we are working to support the safe driving of operators by providing two other solutions. First is Aerial Angle, a proprietary full periphery safety confirmation support device with an alert function developed through collaboration with the Hitachi Group that helps operators driving manned dump trucks avoid dangers. Second is Fleet Awareness V2X, a safe driving support system that utilizes vehicle-to-vehicle communication technology developed by Wenco and Hitachi, Ltd.

Many of the fatal accidents that occur at mines are caused when vehicles, such as mining machinery and service cars, collide with one another. Operation can be made much safer with such technologies from autonomous dump trucks and excavators, but costs and work environment sometimes mean that the cutting edge technologies cannot be deployed by all customers and mining sites. Hitachi Construction Machinery believes it is important to provide the right solutions tailored to each site based on the customer environment and scale of operations. This is why we are focused on providing solutions derived from the latest technologies.





An alarm is issued if the dump truck comes close to another dump truck or mining machinery. Fleet Awareness V2X is useful for preventing rear-end and other collisions in poor visibility caused by hilly intersections or at night.

#### Promote machinery and systems that improve the efficiency of construction procedures

## Super long front excavator for a wide range of work requirements

Hitachi Construction Machinery has a super long front excavator with long arm that can excavate places far from the machine itself. These machines are now available in a series consisting of models with long arms and models with large capacity buckets, in response to customers' varying uses, including river dredging, embankment work forming slopes for levees, urban civil engineering work such as subways, and the handling of materials loaded onto ships, among others. These machines play an important role at sites involving slope finishing work, scooping sand from deep in the ground, feed and other

The model with extended reach makes river dredging work even more efficient. Pictured is the ZX240LC (18-meter front) operated in Australia.

#### Achieve stable machine availabilities and the reduction of Life-cycle Costs

## Delivering stable machine availabilities and high productivity even in harsh environments

Hitachi Construction Machinery provides the optimal products and services for stable machine availabilities and high productivity even at harsh work sites at high elevation or in cold regions.

For example, Aappaluttog Ruby and Pink Sapphire mine located 130km south of Greenlands' capital, Nuuk. Currently, six Hitachi machines, including Wheel Loaders and Hydraulic Excavators, are being operated there. This area is subject to harsh winters with temperatures reaching as low as minus 25 degrees Celsius in the winter. Such a climate requires machines to be maintained appropriately to ensure high durability and minimize the time machines are not in use. Hitachi Construction Machinery's construction machines offer excellent fuel economy and are designed for care-free maintenance, making it simple to maintain and replace parts. Furthermore, by using ConSite to remotely manage data and prevent machine breakdowns, the customers are able to prevent machines from machine Downtime and make maintenance more effective, whereby lowering Life-cycle Costs and improving productivity.



materials. Hitachi Construction Machinery has established its own rigorous quality and performance standards and only products that meet these standards are brought to market. Our designs take into account not only the differing needs of each country, but also transport conditions, such as load limitations.

Going forward, we will continue to increase our safe and secure products that are environmentally friendly in order to respond to the various range of needs both inside and outside Japan.

The ZW220-5 Wheel Loader capable of operating stably in harsh environments.

including transporting pipes used at the job sites





Key Initiative Theme 2

Key Initiative Theme 4 Key Initiative Theme 3



CSV Theme2

# CSV Theme3 Contributing to community development

There are growing expectations around the world for companies to become more involved in community development. Our goal is to help realize a sustainable society by harnessing the Hitachi Group's integrated capabilities to help propel development forward in all communities while strengthening collaboration with stakeholders.

#### Key Initiatives

Develop machinery and human resources that meet regional requirements Support the development of overall community infrastructure utilized Hitachi Group integrated capability Provide financing and machinery to support infrastructure development

## Develop machinery and human resources that meet regional requirements

## Parts remanufacturing business with operations worldwide



Hitachi Construction Machinery has engaged in the parts remanufacturing business since 1970. This business involves collecting old parts that were replaced during machine repair work and then restoring them at our parts remanufacturing plants. Newly remanufactured parts are then sold to customers at a reasonable price after undergoing considerable quality assurance steps ensuring they are as good as new parts.

This parts remanufacturing service includes removing core parts\* from customers' machines on site and then replacing them with remanufactured parts already in stock. These used core parts are then brought back to one of our parts remanufacturing plants for remanufacturing, after which they are stocked in preparation for the next order. Therefore, compared to repair parts services where a broken part is brought back for repair and then reinstalled in the machine on site at a late date, our remanufacturing parts service helps to shorten the downtime of customers' machines. For this reason, our remanufacturing parts service is an ideal option for customers who want to maintain a high utilization rate of their machines while keeping costs down as much as possible.

Additionally, our parts remanufacturing plants maintain technologies for reusing many parts that otherwise would be discarded. This greatly reduces the amount of waste compared to conventional repair services. When customers elect to use our remanufacturing parts service, they are helping to alleviate environmental issues, including climate change.

Furthermore, we gather information on core parts and share this with development-related departments in an effort to constantly improve the quality of our products. Typically, the manufacturer is responsible for any defects that occur during the warranty period, so most of the market information that is provided to development-related departments is within the warranty period. Conversely, there is a shortage of information on product faults after the warranty period. Amidst this, a majority of the core parts handled by our remanufacturing parts service are out of warranty, so we are able to provide various detailed and quantitative data to development-related departments, enabling us to improve the quality of our products and utilize this data in the development of next-generation models.

In this manner, we now engage in the parts remanufacturing business, which generates a great deal of value for society and the environment, too, at 12 of our manufacturing bases around the world, as of March 31, 2017.

\* Core parts: Parts from which used components can be salvaged for remanufacturing and reuse. Core parts indicate those that are regularly replaced after being used for a targeted time interval when operating a machine under a preventive maintenance program.

Differences betwee	en our remanufacturing	parts	service an	d repair parts	s services
		puito	001 V100 U11	a ropui puit	5 001 11000

CSV Theme3

Key Initiative Theme 1 Key Initiative Theme 2



#### Example of the remanufacturing parts service in Zambia

CSV Theme1

CSV Theme2

## Parts remanufacturing plant creates jobs in the local community

The parts remanufacturing plant operated by Hitachi Construction Machinery Zambia Co., Ltd. (HCMZ) opened in the spring of 2012. The facility covers key components for mining machinery operated in Zambia and Mozambique. Mining machinery operated in Zambia go through a large number of parts, so much so it is said that a brand new machine can be purchased every three to four years just with the cost of these parts. For this reason, reducing running costs has become a significant challenge for our customers locally. Our parts remanufacturing plant in Zambia is able to supply parts quickly and reliably to these harsh work environments from its facility inside the country.

Also, this facility is closely rooted in the local community and actively hires people from the surrounding area. Currently, it employs a workforce of 161, with 139 of these people Zambian nationals. Employees hired locally undergo on-the-job training (OJT) so that they obtain the technical skills needed in a timely fashion.

In August 2016, HCMZ nearly doubled the size of this parts remanufacturing plant. Until now, HCMZ has mainly supplied remanufacturing parts to locations inside of Zambia, but through this expansion, the facility is hoping to increase its capacity to supply remanufactured parts to the entire continent of Africa. For this reason, the facility is planning on hiring more people and the Government of Zambia has high expectations for the facility's future.



Key Initiative Theme 4

Key Initiative

Theme 3

Key Initiative Theme 5



HCMZ employees in front of the parts remanufacturing plant's addition

#### Education program for enhancing remanufacturing technologies

Our remanufacturing center in Tsuchiura, Japan, has developed an educational program involving customer visits based on proprietary curriculum, in an effort to further improve our parts remanufacturing technologies. This program is intended mainly for junior engineers with between two and five years of experience. The goal is to refine remanufacturing technologies by sending these employees out to see the front lines of manufacturing, including at customer facilities.

In FY2016, program participants visited a dedicated manufacturer of hydraulic couplers and hydraulic piping, where they deepened their knowledge about manufacturing. In FY2017, visits are scheduled for a manufacturer of casted products for trucks and construction machinery, a manufacturer of various springs and stamped products, and a manufacturer of metal piping and other metal products.

Additionally, we actively promote outside education as well.

For example, related departments, such as the Mining Operations Group, work together to hold practical training for component parts and inviting engineers from overseas to attend. In FY2016, this training was provided to service technicians from Kenya and India.

Looking forward, we will continue to plan educational programs from various vantage points in an effort to increase the

production efficiency of our regional parts remanufacturing plants and enhance the skill levels of the people working there.



Engineer from Tata Hitachi Construction Machinery Company Private Limited attending the training

Support the development of overall community infrastructure utilizing Hitachi Group's integrated capabilities Support activities for Hitachi Construction Machinery Songgang Xi Wang Elementary School (China)



In China, it remains difficult for people to change their family register from a regional or rural area to an urban area. There are only a limited number of spots reserved in urban public schools for children with a rural family register. There is also an economic burden placed on these families as well from attending public school outside of the location of their family register. For this reason, when the parents must migrate to an urban area for work, the children are often left behind in their rural hometown. This situation has led to various social problems, including the decline in academic performance of children in rural areas and an added mental burden for these children.

In June 2009, Hitachi Construction Machinery (China) Co., Ltd. donated two million renminbi (about 30 million yen) to Hefei City in the form of an educational fund. In April 2010, this 400,000 renminbi was withdrawn from this fund to help fund the construction of Hitachi Construction Machinery Songgang Xi Wang Elementary School. Since then, Hitachi Construction Machinery (China) Co., Ltd. has continued to work with the school and in fiscal 2016 it arranged the donation of Hitachi-made projectors for use in its classrooms. Furthermore, assistance is provided so that after graduating from this school students have the option to acquire skills for their future, which includes attending Hitachi Construction Machinery (China) Career Development Center (formerly Hitachi Technical School). Efforts are also being made to develop a positive relationship with the school so that students have the option of working for Hitachi Construction Machinery.

In June 2017, when Hitachi Construction Machinery (China) opens its doors to the public, students of the school will be invited to visit the company in order to learn more about Hitachi Construction Machinery and tour the premises.



Students and faculty of Hitachi Construction Machinery Songgang Xi Wang Elementary School

Develop machinery and human resources that meet regional requirements

# Opening of the Hitachi Construction Machinery Training Center's Omuta Branch



There are very few training institutes for obtaining operator credentials for construction machinery in Omuta City, Fukuoka Prefecture and the nearby area including Kumamoto Prefecture. Until now, staff from Hitachi Construction Machinery Training Center had to make the long trek from the Fukuoka Training Center in northern Fukuoka Prefecture for on-site instruction. However, the local Labor Standards Inspection Office and customers preferred to have a proper training institution set up in the area. The Hitachi Construction Machinery Training Center learned from Hitachi Construction machinery Japan Co., Ltd. about a customer supporting the reconstruction effort from the April 2016 earthquake in Kumamoto that they were facing challenges because no training institution existed locally for obtaining operator credentials.

As a result, the Omuta Branch of the Hitachi Construction Machinery Training Center was opened and began operations on April 1, 2017 in order to fulfill this need and contribute to the area as part of the reconstruction assistance taking place in Kumamoto Prefecture. The building and practice grounds are leased from Omuta Truck Transport Co., Ltd., as costs were minimized in terms of exterior and interior design when setting up this location.

The opening ceremony held on March 28, 2017 was attended by many local companies as well as the head of the Omuta Labor Standards Inspection Office. Many have high expectations for the Hitachi Construction Machinery Training Center's new local branch. Hitachi Construction Machinery Training Center's operations have a highly public nature as it is contracted by the regional Labor Bureau to promote the acquisition of operator credentials. Going forward, we will continue working with Hitachi Construction Machinery Japan Co., Ltd. to fulfill its corporate social responsibilities.



Hitachi Construction Machinery Training Center's Omuta Branch

### Provide financing and machinery to support infrastructure development

# Supporting peoples' independence in Cambodia through NPOs

Cambodia is known to be one of the most heavily land mined countries in the world. Even today, many years after its civil war ended, people are still injured or killed by land mines. This represents an important issue for Cambodia in achieving the SDGs.

Since fiscal 2007, the HCM Group has donated funds to NPO Good Earth Japan (GEJ) to support local people in using land for their independent life after removal of land mines.

> Mine clearing (CMAC\*)

Providing base machines for mine clearing

\* Cambodian Mine Action Centre (CMAC)

In terms of support activities, GEJ began with the develop-

flood control work, and now it is focusing on support activities through instruction in infrastructure maintenance and agricultural skills such as rice cultivation, poultry farming, and mushroom cultivation.

We will continue to work with GEJ on support activities with the goal of achieving a peaceful and prosperous society for all the people of Cambodia.

Instruction in agriculture

#### Support activities in Cambodia ( •: support activities by GEJ)

Develop machinery and human resources that meet regional requirements

Community support provided in India by Tata Hitachi Construction Machinery Company Private Limited

> status that it shares with dealers and customers (in particular new companies) in an effort to promote employment opportunities for these unemployed young people. To date, more than 300 unemployed young people have undergone training and most have found a job either within India or in another country.

> Tata Hitachi Construction Machinery Company Private Limited will continue to contribute to community development by supporting youth skills training and employment.



implements various initiatives for community development based on its "promise to improve the quality of life of communities" found in its CSR policy. Tata Hitachi Construction Machinery Company Private Limited teaches its employees that they must strive to gain opportunities to provide the company's technologies and services widely to society in order to make their own life better and to fulfill the company's social responsibility of building stronger communities.

Tata Hitachi Construction Machinery Company Private Limited

One of the company's most well known initiatives is the development of construction machinery operators. Tata Hitachi Construction Machinery Company Private Limited opened an operator training school in Kharagpur, India in 2012, where it provides vocational training to unemployed young people. The school also manages a database of their profiles and training



Support for

Instruction in infrastructure facility maintenance

Employees participating in Cambodia study tours

self-sufficiency



Infrastructure

development

Reservoir construction and flood control work

Fund-raising activities

Building schools and teacher housing

Road development

Key Initiative Theme 1 Key Initiative Theme 3 Theme 4



CSV Theme2 CSV Them

# Key Initiative Theme 1 Pursuing safe, effective, and sophisticated products and working environments

With its excellent technical capabilities as foundation, the HCM Group will continue to deliver innovative, highly reliable products to its customers around the world using close collaboration inside and outside the HCM Group. We will contribute to improvements in safety and productivity at customers' work sites and aim to grow as a construction machinery manufacturer.

#### Key Initiatives

Develop technologies to secure safety and quality and to differentiate

Provide accurate information on products and services

Develop technologies to secure safety and quality and to differentiate

# Initiatives to realize the vision of "Made by Hitachi" uniform worldwide quality

12 C

The HCM Group is carrying out various initiatives under the vision of "Made by Hitachi" to create products with the same uniform level of safety and quality at its production sites around the world so that its customers around the world can use these products with peace of mind.

Our quality assurance system is headed by the "Quality Assurance Center" established at the Tsuchiura Works (the mother plant for the HCM Group) under the Corporate Quality Assurance Division. The center provides practical instructions and support to the quality assurance departments of HCM Group companies. In 2016, the "Global Quality Assurance Promotion Section" was established to further step up instructions and support for the quality control operations of overseas production sites. The Corporate Quality Assurance Division oversees the quality assurance operations of all production sites inside and outside of Japan, which ensures the entire HCM Group can deliver and improve upon the same uniform level of

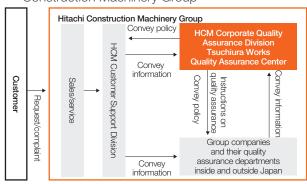


Welding undergoing a "Global Monozukuri Diagnosis"

quality.

To ensure a level of quality at our global production sites that meets or exceeds our standards, we conduct "Global Monozukuri Diagnosis" on a regular basis. This initiative began in FY2005 as "Global Quality Diagnosis" in order to maintain and enhance the quality level of each production site. It later evolved and developed into "Global Monozukuri Diagnosis" in FY2014 which evaluates all aspects of SQDC.

"Global Monozukuri Diagnosis" involves evaluating work processes and actual machinery on the production line following a table of diagnosis items for each process, such as welding and machining. In turn, measures are taken for items where improvements are necessary. Our goal is to realize the vision of "Made by Hitachi" uniform worldwide quality by continuing with these initiatives to establish a quality assurance system and improve the quality level at each production site.



#### Quality assurance system of the Hitachi Construction Machinery Group

Develop technologies to secure safe	ty and quality and to differentiate

### International Skills Competition

The 13th HCM Group International Skills Competition was held for two days on November 8 and 9, 2016 at the Kasumigaura Institute. The International Skills Competition is held once every year in order to enhance skill levels across the HCM Group and secure a higher level of quality. In FY2016, a total of 81 persons took part in the competition, including 27 from production sites in Japan, China, India, Indonesia, the Netherlands, and Russia, as well as 54 from HCM Group companies and partners in Japan. The competition included the new trial event of facility maintenance involving public demonstrations by HCM employees only. This will become an official event from FY2017.

Going forward, we will look to inject new excitement into

of each site and work toward enhancing production quality and

such opportunities so as to further improve the technical level

applicable machines free of charge.

Also, we provide correct information on preventive maintenance to prevent breakdowns, after-sales care, and service campaigns.

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Information disclosed on our corporate website

### Provide accurate information on products and services

### Conducting customer satisfaction surveys

At the Hitachi Construction Machinery Group, we conduct a satisfaction survey of randomly selected customers throughout the world so that we can reflect their feedback in our products, parts, and services. Customers are able to select their preferred method of answering the survey, either online or in person. The latest survey was conducted from February to March 2016, with approximately 2,400 responses received. The results of the survey will be used to examine future strategies in each geographic region. Going forward, we will identify issues based on customers' frank feedback in an effort to further enhance customer satisfaction.

#### Provide accurate information on products and services

## Appropriate disclosure of product information

The prompt disclosure of information about our products and services is vital to earning and building trust with customers. Therefore, Hitachi Construction Machinery shares information through various media, including its corporate website and social media, and strives to ensure customers are informed of information concerning recalls.

For example, to ensure the quality and safety of our machines driven on public roads by customers, we collect, study and analyze information on defects that occur after a machine is sold. If a defect does not or may not conform with a safety standard, we have a system in place to ensure full compliance with the recall system stipulated in Japan's Road Vehicles Act. This includes immediately issuing a recall notice to Japan's Ministry of Land, Infrastructure, Transport and Tourism and repairing



Overview of the customer satisfaction survey

PC(e-mail

Which manufacturer do you think offers the best performing machines (speed,

Which manufacturer do you think offers the highest quality machines (durability,

Direct visit

Mobile

(social networking sites)

[Examples of questionnaire item]

power, excellence in operation)?

service life, life cycle costs)?

CSV Theme1

CSV Theme2 CSV Theme3

Key Initiative Theme 1

Key Initiative Theme 2

Key Initiative

Theme 3

# Key Initiative Theme 2 Occupational safety and work style reform

A highly motivating work environment that is safe and secure for employees is indispensable to enhancing corporate value. The HCM Group not only protects employees from occupational injuries and health problems, but also works on providing workplace environments that take into account work-life balance.

**Key Initiatives** 

·A fair work environment

Global management for health and safety of employees

#### A fair work environment

## Initiatives to improve the work environment



The HCM Group complies with laws and regulations related to working hours applied in each region, takes into consideration work-life balance, and makes efforts to curb overworking.

Hitachi Construction Machinery has established targets to keep overtime work of all employees to less than 15 hours per month on average and to ensure that all employees take at least 17 days of annual paid leave every year.

Also, with the goal of promoting work-life balance more, in January 2017 we organized a talk on work-life balance jointly with the Hitachi Construction Machinery Labor Union at Tsuchiura Works. The concept of work-life balance entails using the synergistic effects of work and life to make both more enriching. For this reason, Hitachi Construction Machinery jointly held this talk involving both labor and management because of the importance of equally supporting both work and a person's private life. We invited Ms. Sachiko Horie of Work-Life Balance Co., Ltd. to give the talk. During her presentation, she gave concrete advice regarding work-style innovations and concepts, among other information.

We will continue to carry out various health and safety activities to help prevent occupational injuries.



The talk on work-life balance



#### A fair work environment

### Initiatives for mental health

Starting in December 2015, as part of measures in the workplace for mental health, it has become mandatory for employees to undergo stress checks that identify their psychological burden at least once annually. Given this, the HCM Group is carrying out comprehensive mental health measures based on a complete understanding of the purpose of this requirement.

Specifically, following the Guidelines on Maintaining and Improving the Mental Health of Workers published by Japan's Ministry of Health, Labour and Welfare, we create a management policy on mental health every year. Under this policy, we systematically carry out four initiatives focused on self-care in which employees take the lead in preventing and mitigating stress, line care where manager-level supervisors provide instructions and counseling to workers under their supervision, utilization of the in-house hotline for mental health, including harassment, and the introduction of an employee assistance program (EAP) using outside counselors.

Recognizing that mental health is an important theme that

requires proactive efforts, we will continue to plan and implement various measures that aim to further improve the healthy life-

#### Global management for health and safety of employees

## Firmly instilling occupational health and safety management

The HCM Group has in place the Health and Safety Promotion Committee, which manages the health and safety activities of the entire HCM Group. It also shares information on occupational injuries, reports on its activities, and prepares plans. Working subcommittee are set up under this committee that develop promotion managers for occupational health and safety, conduct technical reviews, and carry out reciprocal patrols. This ensures that we are committed to creating workplaces where employee safety is the top priority, including improving work safety and our ability to predict dangers.

We are supporting efforts to obtain "OHSAS18001<sup>\*1</sup>" certification for the establishment and operation of occupational health and safety management systems. We have begun preparations aimed at obtaining ISO 45001 certification, which is a new international certification for occupational health and safety management systems that will be issued in 2017 and onward.

### Key implementation items for FY2017

- Prevention of occupational injuries and illness
   Establishment of safety culture
- Establishment of safety culture
- $\cdot\,\text{Reinforcement}$  of comprehensive industrial health activities through promotion of health management
- · Further enhancement of mental health care
- $\cdot$  Compliance with occupational health and safety related laws and regulations
- Prevention of automobile accidents

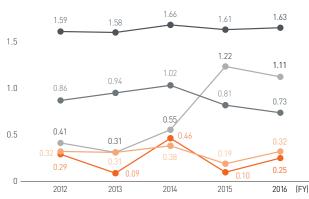
#### Global management for health and safety of employees

## Initiatives aimed at eliminating occupational injuries and illness

In FY2016, we worked on reducing the number of occupational injuries globally, but the number of injuries at manufacturing-related departments increased. In particular, the number of injuries at manufacturing-related departments in Japan increased by 14 incidents. Carrying out safety education for improving our fundamental ability to predict dangers, in which dangers are considered dangers and acted upon, represents an urgent task.

In FY2017, we will once again work on further elevating safety awareness, compliance with basic rules, and ensuring work safety by following the correct work procedures. At the same time, we will conduct risk assessments for identifying latent dangers and then implement systematic and concrete measures. Furthermore, we are working to further reduce injuries by utilizing global health and safety audits, which are conducted regularly. Frequency of lost-time-incidents (frequency rate\*)
 All industries





\* Frequency rate: The number of incidents per 1,000,000 employee-hours worked. It is an indicator of the state of health and safety at a workplace. (These statistics only count lost-time-incidents of at least one day.)

Key Initiative Theme 4

CSV Theme1

CSV Theme2 CSV

CSV Theme3 Key Initiative

Key Initiative Theme 2

styles of our employees.

# Key Initiative Theme 3 Developing human resources globally and locally

Human resource development is an important management task essential to the continual growth of the company. The HCM Group is working on initiatives from various angles in order to develop human resources that will play a key role in our worldwide operations and local human resources who will help us address local needs.

**Key Initiatives** 

Management localization
 Development and recruitment of local human resources

·Global personnel management leveraging diversity

#### Management localization

## Implementation of succession plan

We introduced a succession plan in 2011 and today it applies to the entire HCM Group. The purpose of the succession plan is to share processes for utilizing human resources across every organization of the HCM Group so that the right person is assigned to the right place globally. With a medium- to long-term vision, we plan successors to current managers, identify what these successors are missing in terms of fulfilling their future duties, and how to train and educate these successors, after the heads of each company and department identify the requirements to fulfill the duties of their respective organizations. In turn, the duties and career path of each individual employee of the HCM Group can be visualized across the entire organization. This approach enables us to utilize human resources strategically.

The key to implementing this plan is the development of

successors. Toward this end, the HCM Group in Japan has actively hosted human resources from overseas Group companies to train and develop the successors of the tomorrow. We launched this initiative in earnest in 1996 and over the past ten years around 220 employees from overseas Group companies have come to Japan for training. As of May 2017, 41 such employees (excluding technical interns) were in Japan undergoing training. Since April 2016, we have hosted manager-level employees from overseas Group companies.

By continually implementing this initiative, our goal is to develop human resources who share the same value of the Kenkijin spirit and play an important role at our operations around the world. Eventually, these people will serve as executives in charge of the business strategy of our overseas operations, which will also help us pursue management localization.





Human rights due diligence

workshop

CSR & Financial Report 2017 50

#### Development and recruitment of local human resources

the entire Group both inside and outside Japan.

The HCM Group provides hierarchical and skills-specific training

as well as elective and selective training comprehensively across

of employees for each specific rank. It is offered to applicable

employees by the Career Development Center. Skills-specific

training provides employees with training for specific skills, such

as development, production, sales, or services. It is carried out

by the Kasumigaura Institute and Technical Training Center,

among other facilities. The Kasumigaura Institute features not only classrooms, but also a production floor for practical skill

training and overnight accommodations. The facility hosts a

number of training programs including skills training for new hires, executive officer development programs, and training for

We also provide e-learning opportunities that make it easy and efficient for employees to review basic knowledge they require and could not obtain from classroom training alone. E-learning is administered through "Hitachi University", which is the learning management system (LMS) for the entire Hitachi Group. As a concept, department heads (superior) create development plans for their employees who can then select training programs suited to their needs, which ensures a more individu-

Hierarchical training provides the skills and mindset required

### Provide training through various opportunities

Furthermore, we offer a Marketing Sales Support Program (MSSP) for employees of dealers in charge of Sales and Parts/ Services who are on the front lines of our business. In 2015, we set up the MSSP training facility called as MSSP GEC inside Hitachi Construction Machinery Asia & Pacific Pte Ltd. This facility conducts various training programs where employees can learn about the behavioral process of Machine Sales and Parts Sales. We are focused on developing local human resources

system for developing human resources globally and ensure that all employees have access to training opportunities.

who can precisely incorporate these front line needs.

Furthermore, we will continue to enhance our education

alized approach to human resource development.

#### Global personnel management leveraging diversity

## Taking on human rights due diligence\*

Nurturing the minds of employees to have a deep understanding of human rights and mutual respect for one another is essential in developing a corporate culture where employees with a diverse set of values and thinking can come together and flourish. In light of this, Hitachi Construction Machinery (HCM) Group is actively promoting measures, including the exchange of personnel between global sites.

In FY2016, we participated in the human rights due diligence working group, which was launched primarily by the human resources and CSR divisions of Hitachi, Ltd. The working group examines the human rights risks in business. At the workshop, we examined, as examples, Hitachi Construction Machinery (Europe) N.V. (Netherlands) and PT Hitachi Construction Machinery Indonesia. We discussed the issues being confronted by these two companies and measures for alleviating risk.

Discrimination issues are triggered in part by the cultural background of the local area so it is necessary to promote understanding of each region. In addition, the policies and initiatives of the head office have not been instilled at some overseas business

sites and factories. This makes it necessary to look into each individual employee. In FY2017, based on the knowledge we obtained at the workshop, we plan to incorporate human rights activities at the individual level to create a workplace environment where a diverse range of people can play an active role.

\* Human rights due diligence: This system was outlined in the Guiding Principles on Business and Human Rights, which was authored by John Ruggie, the former Special Representative of the Secretary-General on the issue of human rights and transnational corporations and other business enterprises. The system assesses the impact of corporate activities on human rights, monitors performance, and requires information disclosure and other actions to ensure the recognition, prevention, and appropriate handling of any negative impact to human rights.





MSSP aroup work





overseas employees.

Key Initiative Theme 4

# Key Initiative Theme 4 Creating better business transactions and value chains

The operations of the HCM Group are underpinned and made possible through relationships with many stakeholders, including our customers, suppliers, and partners. We will continue to strengthen our relationships with stakeholders as we expand our circle as a responsible company.

**Key Initiatives** 

•Suppliers and human rights •Fair sales partnerships •Fair procurement •Corruption prevention

#### Fair sales partnerships

## Fair trade with suppliers

The HCM Group has established the "Procurement Policy" and "Guidelines for Procurement Activities" in order to carry out fair trade with its procurement partners. These documents are available for all to see through the company's corporate website. In 2010, Hitachi, Ltd. revised its "Guidelines for Procurement Activities" following the principles of the U.N. Global Compact. Following this, we made additional revisions to our own policy and guidelines.

Also, we are focused on transaction audits and legal compliance training for employees to ensure fair trade is practiced thoroughly. Transaction audits include self-audits performed twice annually and reciprocal audits carried out within the HCM Group once annually. This ensures that audits are carried out with a high degree of transparency. Training on Japan's Act Against Delay in 'Payment, etc.' to Subcontractors held for all employees involved in acceptance inspections was attended by 1,403 employees in FY2016, and all certified persons responsible for acceptance inspections have completed the course.

In FY2017 and beyond, we will continue to carry out transaction audits and provide legal compliance training to employees.

#### Websites

Procurement Policy https://www.hitachicm.com/global/wp-content/ uploads/2016/04/Procurement-policy.pdf Guidelines for Procurement Activities https://www.hitachicm.com/global/wp-content/ uploads/2016/04/Guidelines-for-Procurement-Activities.pdf



Briefing to procurement partners



## CSR management in the supply chain

With growing international interest in corporate social responsibilities, the HCM Group shares its approach to CSR with business partners to promote CSR activities across the entire supply chain. As part of our initiatives, we utilize the HITACHI GROUP Supply-Chain CSR Deployment Guidebook, which contains actions we would like suppliers to take regarding CSR, and require the suppliers to comply with the provisions therein.

In FY2016, Hitachi Ltd. revised and re-issued the "Hitachi

Group CSR Procurement Guideline" based on the "Code of Conduct Version 5.1" published by the Electronic Industry Citizenship Coalition (EICC) and taking into account the "Hitachi Group Human Rights policy" and the "Hitachi Group Conflict Minerals Procurement Policy".

From FY2017, these new Hitachi Group guidelines will be distributed and made known to all suppliers as the scope and basis we expect of their CSR activities. Going forward, we will



CSV Theme2 CSV Theme3

Key Initiative Theme 4

continue to promote CSR activities together with suppliers an expand our initiatives to include establishing a business continuity plan (BCP) covering the entire supply chain.

#### Websites

Hitachi Group CSR Procurement Guideline http://www.hitachi.com/procurement/csr/csr/\_\_icsFiles/ afieldfile/2017/03/27/HITACHI\_GROUP\_CSR\_ PROCUREMENT\_GUIDELINE.pdf

#### Corruption prevention

## Compliance promotion structure and training



Companies must constantly work to improve compliance in order to encourage fair competition in their business dealings. The HCM Group's compliance promotion structure is headed by the Compliance and Risk Management Division, which is in charge of compliance activities for the entire HCM Group. Meetings of the Compliance and Risk Management Division are convened regularly to review, plan, and evaluate the results of various compliance measures. It also works on prevention of misconducts by deliberating on the effectiveness of measures for preventing recurrence of the misconducts. We establish a Compliance Promotion Officer and Compliance Manager at each Group company and promote compliance activities in coordination with the Compliance Promotion Center of the Legal Department of HCM.

In terms of rules and regulations, in 2010 we established the HCM Group Codes of Conduct which acts as the specific code of conduct applied throughout the HCM Group. Our Codes of Conduct is thoroughly implemented by our leadership team, and we are expanding our business activities rooted in corporate ethics and legal compliance in accordance with the "basics and ethics". To check these compliance activities, we conduct compliance audits regularly, which form part of the internal audits carried out by the Internal Auditing Office.

Also, we provide a variety of training programs to raise awareness about compliance across the entire HCM Group.

In FY2016, we held compliance training at HCM and Group

companies in Japan for assistant managers and staffs with the goal of eliminating corporate and employee misconducts. This training was held at a total of three companies, including HCM, on 137 occasions, with a total of 5,018 employees taking part. At overseas Group companies, training is held in a workshop format for manager-level and higher ranking employees, officers and directors to provide more practical learning in tune with current issues. These workshops were held on 13 occasions at a total of 13 companies, with 196 employees attending. This training was completed at all of our companies in Japan and overseas (excluding two companies that newly joined the HCM Group) over the two-year period covering 2015 and 2016.

In addition, we provide e-learning training to manager-level and higher ranking employees, officers and directors on our Codes of Conduct as well as Anti-Corruption and Compliance with Competition Laws. This training is the same for all of our companies in Japan and overseas. In FY2016, a total of 2,141 employees from across the HCM Group took part. In addition, in accordance with initiatives throughout the Hitachi Group, the month of October has been designated Corporate Ethics Month, during which time we work towards the reinforcing and re-evaluating compliance.

#### Websites

HCM Group Codes of Conduct https://www.hitachicm.com/global/company/companyprofile/conduct/

#### Suppliers and human rights

## Procurement policy against the use of conflict minerals



As business becomes more global in nature, there is growing potential for procurement risks in the supply chain to become full blown management issues. In recent years, the conflict minerals (tantalum, tin, tungsten, and gold) that can directly or indirectly finance armed groups abetting human rights violations in the Democratic Republic of the Congo (DRC) and adjoining countries become the risk of sourcing, it is necessary for companies to promote responsible minerals procurement.

In September 2013, we established the "Hitachi Construction Machinery Group Conflict Minerals Procurement Policy" for conflict-mineral-free supply chain. In addition, our response to the issue of conflict minerals focuses on the importance of understanding the current situation. For this reason, since FY2014, we have continually carried out surveys on suppliers who handle minerals using the EICC format.

Looking forward, we will continue to carry out surveys and investigations in an effort to establish a sustainable supply chain that avoids the procurement of materials or components made with conflict minerals.

# Key Initiative Theme 5 Governance

In order to improve corporate value in a sustainable manner, it is important to build a structure that allows for rapid decision-making based on prompt and correct understanding of changes taking place in the management environment. The HCM Group is working to reinforce its governance system in order to share values with stake-holders and to achieve management that is sound and transparent.

**Key Initiatives** 

•Strengthen global governance •Management transparency •Fair tax strategies •Risk management, including ESG

Strengthen global governance

### Corporate governance system

As a member of the Hitachi Group, the HCM Group shares Hitachi, Ltd.'s Basic Philosophy and Conduct guidelines and stipulates its own codes of conduct in line with them. The HCM Exe Group positions this code of conduct as the basic policies on corporate governance.

The HCM Group has adopted a corporate organizational system based on the structure for a company with a nominating committee, etc., as defined in the Companies Act. We have greatly strengthened our system of corporate governance through this separation of management oversight from business execution. The Board of Directors comprises ten (10) Directors, of which three (3) are Outside Directors (two [2] male and one [1] female). The Representative Executive Officer and other Executive Officers, who are authorized to do so by the Board of Directors, have the right to make operational decisions and execute work in accordance with the company's basic management policies. The Board of Directors determines the responsibilities and duties of the Executive Officers, matters regarding supervision and authority, and the mutual relationships among the Executive Officers. An Executive Committee (convening twice a month, in principle), comprising all the Executive Officers has been established as a

Corporate governance system (as of June 26, 2017)

consultative organ for the Representative Executive Officer, President and Executive Officer in making business decisions. The Executive Committee exercises control regarding important matters related to the company's operations.

## Ensuring constant independence from the parent company

Since one (1) outside director on Hitachi Construction Machinery's Board of Directors is from Hitachi Ltd., the parent company could exert influence on decisions on our management policy through the views expressed by this director at Board meetings. However, with the exception of the one (1) aforementioned director, Hitachi Construction Machinery's Board of Directors consists of ten (10) members, three (3) of whom are outside directors designated as independent outside directors, and six (6) of whom are other directors with no concurrent relationships with Hitachi Ltd. or companies in the Hitachi Group. This ensures that we are able to make independent management decisions.

#### Websites

Corporate Governance Guidelines https://www.hitachicm.com/global/environment-csr/csr-en/ company-en/governance-en/guidelines/



(	SR &	Financial	Report	2017	54

#### Strengthen global governance

### Human rights initiatives

CSV Theme2

The HCM Group carries out human rights initiatives following its policies on human rights explicitly stated in the HCM Group Codes of Conduct and the HCM Group Human Rights Policy.

We continually implement education concerning human rights included in rank-specific training for new employees and new section managers, among others, for the purpose of improving each individual employee's awareness of human rights. In addition, we conduct training concerning harassment during our compliance training in order to create workplaces that are sound and comfortable.

In fiscal 2016, we implemented an e-learning program on "business and human rights" that was given to a total of 4,890 employees at 21 HCM Group companies, including some outside of Japan.

#### Fair tax strategies

## Compliance with tax laws of each region

In January 2016, the Hitachi Group established regulations on tax related matters covering the entire Group. In accordance with these regulations, the HCM Group carries out tax risk management to address the globalization of its operations. Within our securities report, we disclosure corporate tax and other tax obligations for the HCM Group and also disclose information on factors behind variance with the effective statutory tax rate to ensure full tax transparency.

The HCM Group we continue to implement these measures to fulfill its tax obligations in all of the regions where we conduct business and comply with the spirit and tax laws applied in those countries and regions.

#### Results of human rights training in fiscal 2016

	Participants in training during fiscal 2016	Number of participants that are section manager or above	Number of participants that are general employees	Number of harassment training sessions* <sup>3</sup>
Hitachi Construction Machinery* <sup>1</sup>	204 persons	39 persons	165 persons	4,351 persons
HCM Group companies*2	902 persons	77 persons	825 persons	251 persons
Total	1,106 persons	116 persons	990 persons	4,602 persons

\*1 The number of HCM participants are participants of rank-specific training

\*2 Group companies are the total for the 11 domestic companies \*3 Harassment training includes training done as part of compliance training for gen-

eral training including contract employees

#### Hitachi Construction Machinery Group Rules for Global Tax Management

- Group companies strictly comply with all relevant laws and implement tax management when pursuing their business activities, bearing in mind such international tax-compliance standards as the Transfer Pricing Guidelines for Multinational Enterprises and Tax Administrations of the Organisation for Economic Co-operation and Development (OECD\*\*), as well as that body's Action Plan on Base Erosion and Profit Shifting (BEPS\*\*).
- Group companies effectively, continually, and proactively manage tax-related issues as socially responsible organizations, while maintaining Hitachi brand value and seeking to maximize shareholder value.
- Group companies build sincere and positive relations of trust with the tax authorities in the regions where the companies do business, and strive to maintain and develop those relations.

\*4 OECD:Organization for Economic Co-operation and Development \*5 BEPS:Base Erosion and Profit Shifting

#### Risk management, including ESG

### Strengthening risk management

The HCM Group is working to strengthen its risk management system.

The risks facing the business operations of the HCM Group are growing more diverse in nature. We work daily to identify risks and measures against the risks, and to reinforce our business continuity plan (BCP) and business continuity management (BCM), so that when faced with a risk, we are able to minimize the impacts on our business activities and restore operations as soon as practical.

#### The HCM Group's definition of risk

Risk, as defined by the HCM Group, is the possibility of incidents, accidents, or other problems that may cause loss or damage directly or indirectly to the Hitachi Construction Machinery Group's business, employees or stakeholders.





Key Initiative Theme 5

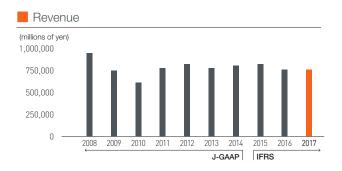
Key Initiative Theme 1 Key Initiative Theme 4

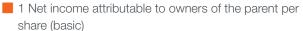
## 10-year Financial History Hitachi Construction Machinery and its Consolidated Subsidiaries Fiscal years ended March

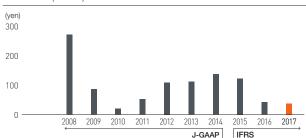
Financial highlights						
J-GAAP						
For the fiscal year	2008	2009	2010	2011	2012	
Net sales	940,537	744,167	605,788	773,769	817,143	
Adjusted operating income	_	-	-	-	—	
Operating income	108,458	48,836	19,669	41,511	54,837	
Net income before taxes	100,564	44,142	18,333	35,745	50,129	
Net income attributable to owners of the parent	55,985	18,253	4,019	11,088	23,036	
At fiscal year-end						
Total assets	833,096	841,353	883,047	944,370	1,086,116	
Working capital	155,901	124,398	207,948	248,870	232,252	
Shareholders' equity	310,747	311,430	319,520	327,496	345,689	
Interest-bearing debt	190,650	300,626	307,754	327,768	388,904	
Per share data (yen)						
Net income	271.00	85.79	19.33	52.44	108.88	
Net income attributable to owners of the parent (diluted)	270.23	85.72	19.32	52.41	108.86	
Net assets	1,446.55	1,422.54	1,441.73	1,447.52	1,522.86	
Cash dividends per share	42.00	44.00	10.00	20.00	30.00	
Others						
Return on net sales (%)	6.0	2.5	0.7	1.4	2.8	
Return on equity (%)	22.3	6.1	1.3	3.6	7.3	
Equity ratio (%)	37.1	34.9	34.5	32.4	29.7	
Price-earning ratio (times)	9.21	14.79	114.28	39.72	16.82	

For the 12 overseas consolidated subsidiaries with differing settlement dates than the Company, the Company changed to a whereby the financial statements are consolidated by tentative settlement on the day of the parent company's consolidated settlement, starting from the fiscal year ended March 31, 2008. Conventionally, the date of interim settlement of consolidated accounts is three months or less, so consolidated settlements were carried out based on the financial statements of the business year of the applicable consolidated subsidiaries, but in Japan corporations are legally required to report quarterly results, and as such, the settlement date of the parent company and settlement date of consolidated subsidiaries was unified to optimize consolidated financial data.

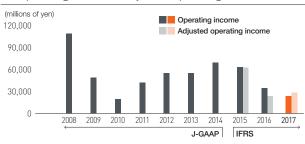
\* The Company has prepared IFRS-compliant consolidated financial statements since the fiscal year ended March 31, 2015.



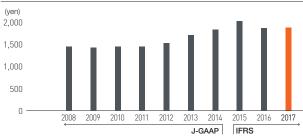




Operating income / Adjusted operating income



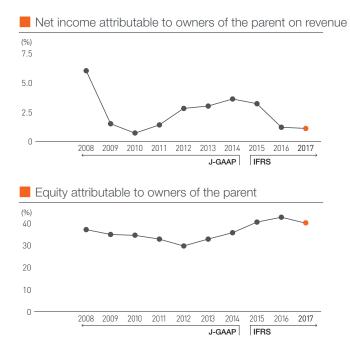




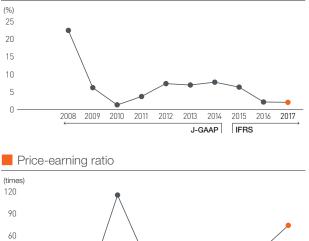
\* The graph titles listed above are in IFRS; however, applied figures through the fiscal year ended 2014 correspond to items in J-GAAP.

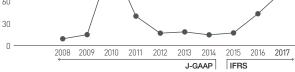
				Unit: millions of yen (e	excluding per share da
		IFRS			
2013	2014	For the fiscal year	2015	2016	2017
772,355	802,988	Revenue	815,792	758,331	753,947
_	_	Adjusted operating income*	61,919	23,364	28,265
51,496	69,163	Operating income	63,131	34,052	23,622
45,763	52,775	Income before income taxes	58,953	24,517	23,859
23,464	28,939	Net income attributable to owners of the parent	26,023	8,804	8,022
		At fiscal year-end			
1,099,901	1,087,191	Total assets	1,064,673	926,628	999,601
286,564	271,977	Working capital	269,906	236,806	127,678
361,874	383,355	Total equity attributable to owners of the parent	431,227	395,963	399,619
393,102	363,411	Interest-bearing debt	287,673	217,895	248,701
		1 Per share data (yen)			
110.77	136.24	Net income attributable to owners of the parent per share (basic)	122.44	41.41	37.72
110.75	136.20	Net income attributable to owners of the parent (diluted)	122.42	41.41	37.72
1,704.34	1,827.59	1 Equity attributable to owners of the parent per share	2,028.57	1,861.93	1,879.14
40.00	50.00	Cash dividends per share	60.00	40.00	12.00
		Others			
3.0	3.6	Net income attributable to owners of the parent on revenue (%)	3.2	1.2	1.1
6.9	7.7	Net income on equity attributable to owners of the parent (%)	6.3	2.1	2.0
32.8	35.7	Equity attributable to owners of the parent (%)	40.5	42.7	40.0
18.31	14.59	Price-earning ratio (times)	17.17	43.18	73.57

\* Adjusted operating income: a unified indicator of profits used by the Hitachi Group in which operating income is subtracted by other income and other expenses.









## Management's Discussion and Analysis

#### **Business Performance**

The HCM Group is working on the establishment of a global management support scheme, expansion of its market share, cost reduction for securing profit, and business/structural reform to enhance business efficiency and solidify business infrastructure.

In addition, we are making efforts in structuring the global research/develop framework and strengthening the development marketing function to provide appropriate products by region and solutions for customers' life-cycle cost reduction.

Furthermore, as part of our efforts to reinforce the solutions business in deepening the value chain, we acquired H-E Parts on December 21, 2016 and made Bradken a consolidated subsidiary on March 20, 2017. Also, effective March 31, 2017, we transferred a partial stake in our consolidated subsidiary Hitachi Sumitomo Heavy Industries Construction Crane Co., Ltd. to Sumitomo Heavy Industries, Ltd., making it an affiliate under the equity method.

With respect to construction machinery, demand for hydraulic excavators, in particular, has recovered in China, India, Asia and Western Europe compared to the previous fiscal year, while worldwide demand increased by about 10% year on year. We have been expanding globally our service solutions called Con-Site that provide comprehensive support to customers' machines and expanding of the parts supply network in an effort to reinforce the parts and service business and boost earnings. In Japan, we are promoting the greater use of our ICT hydraulic excavators and information-oriented construction as part of our response to i-Construction being advocated by the Ministry of Land, Infrastructure, Transport and Tourism.

For mining machinery, demand for ultra-large hydraulic excavators increased about 10% year on year, driven by a recovery in commodity prices during the second half of the year. However, dump truck demand fell around 20% year on year. Demand has continued to be stagnant for ultra-large vehicles in particular in terms of both product lines. We are focusing on expanding sales of the AC-3 series of rigid dump trucks equipped with advanced vehicle stability control, especially models with specification for trolley use or at high altitude. Moreover, we are bringing the Hitachi Group's strengths together to establish an operation management system for mining machinery and the development of autonomous driving technologies, in order to increase the efficiencies of mining operations. Also, we are building a substantially advanced customer support system in an effort to increase sales revenue from parts and services.

As for the solutions business, it comprises H-E Parts, which provides service solutions for construction machinery and equipment used mainly at mine sites and quarries in Australia and the United States, and offers development, processing and sales of ancillary parts, as well as Bradken, which has a diversified, worldwide value chain involving the manufacture of casted parts for mining and infrastructure industries, the supply of consumables for mining equipment and mining machines, and the provision of related maintenance services. Consolidated revenue for FY2016 was ¥6,691 million and adjusted operating income was ¥452 million, following the consolidation of H-E Parts in the third quarter.

Consolidated revenue for the fiscal year 2016 (April 1, 2016 – March 31, 2017) was ¥753,947 million, down 0.6% year on year, due to the effects of foreign exchange rate, which offset the increase in sales volume from a recovery in demand for hydraulic excavators. As for each profit item, adjusted operating income rose 21.0% to ¥28,265 million, thanks to a decline in indirect costs, operating income was down 30.6% year on year to ¥23,622 million, due to a loss on business restructuring, and net income attributable to owners of the parent dropped 8.9% to ¥8,022 million.

#### Principles Regarding Appropriation of Earnings and Dividends for the Year under Review and the Fiscal Year Ending March 31, 2016

The Hitachi Construction Machinery Group will maintain and strengthen its financial structure and work to bolster its internal reserves while considering implementation plans for upfront investments, including investments for technology development and facilities based on medium- and long- term business strategies. At the same time, Hitachi Construction Machinery will pay dividends linked to its consolidated business results in accordance with a policy of maintaining stable dividends, with a target payout ratio of around 30% or higher.

With the aim of enabling the execution of a flexible capital policy, Hitachi Construction Machinery will acquire treasury shares in consideration of necessity, financial conditions, and stock price movement.

With regard to the FY2016 year-end dividend, at the Meeting of the Board of Directors held on May 22, 2017, a resolution was approved for cash dividends per share of ¥8 with the record date of May 31, 2017. As a result, cash dividends for the entire FY2016 amounted to ¥12 per share. Dividends for FY2017 are to be determined.

## **Consolidated Balance Sheets**

Item	Previous fiscal year (reference)	Current fiscal year
	As of March 31, 2016	As of March 31, 2017
Assets		
Current assets	549,217	527,011
Cash and cash equivalents	79,110	65,455
Trade receivables	182,928	184,460
Inventories	248,564	232,365
Other financial assets	29,727	31,817
Other current assets	8,888	12,837
Subtotal	549,217	526,934
Assets held for sale		77
Non-current assets	377,411	472,590
Property, plant and equipment	276,293	292,143
Intangible assets	9,611	15,906
Goodwill	8,694	57,103
Investments accounted for using the equity method	18,726	23,126
Trade receivables	23,125	31,279
Deferred tax assets	15,241	22,508
Other financial assets	15,668	19,354
Other non-current assets	10,053	11,171
Total assets	926,628	999,601
Liabilities		
Current liabilities	312,411	399,333
Trade and other payables	182,648	205,722
Bonds and borrowings	111,888	153,883
Income tax payables	4,728	4,063
Other financial liabilities	8,936	29,696
Other current liabilities	4,211	5,969
Non-current liabilities	157,401	149,838
Trade and other payables	23,224	21,604
Bonds and borrowings	106,007	94,818
Retirement and severance benefits	16,855	16,768
Deferred tax liabilities	6,057	7,620
Other financial liabilities	32	577
Other non-current liabilities	5,226	8,451
Total liabilities	469,812	<b>549,171</b>
Equity	407,012	547,171
Equity attributable to owners of the parent	395,963	399,619
Common stock	81,577	81,577
Capital surplus	81,577	
Retained earnings		82,553
Accumulated other comprehensive income	222,721	228,026
	10,621	10,518
Treasury stock, at cost		△ 3,055
Non-controlling interests	60,853	50,811
Total equity	456,816	450,430
Total liabilities and equity	926,628	999,601

## **Consolidated Statements of Income**

Consolidated Statements of Income		(unit: millions of ye
Item	Previous fiscal year (reference) From April 1, 2015 to March 31, 2016	Current fiscal year From April 1, 2016 to March 31, 2017
Revenue	758,331	753,947
Cost of sales	△ 578,734	△ 583,021
Gross profit	179,597	170,926
Selling, general and administrative expenses	△ 156,233	△ 142,661
Adjusted operating income	23,364	28,265
Other income	24,695	4,768
Other expenses	△ 14,007	△ 9,411
Operating income	34,052	23,622
Financial income	3,418	4,008
Financial expenses	△ 13,187	△ 3,460
Share of profits (losses) of investments accounted for using the equity method	234	△ 311
Income before income taxes	24,517	23,859
Income taxes	△ 14,217	△ 9,669
Net income	10,300	14,190
Net income attributable to	· · · · ·	
Owners of the parent	8,804	8,022
Non-controlling interests	1,496	6,168
Total net income	10,300	14,190
Net income attributable to owners of the Parent per share (basic) (yen)	41.41	37.72
Net income attributable to owners of the Parent per share (diluted) (yen)	41.41	37.72

## **Consolidated Statements of Comprehensive Income**

		(unit: millions of yen)
Item	Previous fiscal year (reference) From April 1, 2015 to March 31, 2016	Current fiscal year From April 1, 2016 to March 31, 2017
Net income	10,300	14,190
Other comprehensive income		
Items that cannot be reclassified into net income		
Net gains and losses from financial assets measured at fair value through OCI	△ 2,354	2,916
Remeasurements of defined benefit obligations	△ 4,316	3,142
Other comprehensive income of equity method associates	△ 24	1
Items that can be reclassified into net income		
Foreign currency translation adjustments	△ 26,222	△ 8,284
Cash flow hedges	195	△ 88
Other comprehensive income of equity method associates	△ 3,727	△ 206
Other comprehensive income, net of taxes	△ 36,448	△ 2,519
Comprehensive income	△ 26,148	11,671
Comprehensive income attributable to owners of the parent	△ 22,394	7,876
Non-controlling interests	△ 3,754	3,795

## Consolidated Statements of Changes in Equity Current Fiscal Year (From April 1, 2016 to March 31, 2017) (unit: millions of yen)

	Equity attributable to owners of the Company						
				Accumulated other comprehensive income			
Item	Common stock	Capital surplus	Retained earnings	Remeasurements of defined benefit obligations	Net gains and losses from financial assets measured at fair value through OCI	Cash flow hedges	
Balance at beginning of year	81,577	84,095	222,721	△4,000	4,660	77	
Net income			8,022				
Other comprehensive income				3,051	2,913	△ 91	
Comprehensive income for the year	_	—	8,022	3,051	2,913	△ 91	
Acquisition of treasury stock							
Sale of treasury stock							
Increase/decrease by share exchange							
Dividends to stockholders of the Company			△ 2,978				
Gains/losses on change in equity		△ 1,275			△ 8		
Transfer to retained earnings			△ 6		6		
Expiration of subscription rights		△ 267	267				
Transactions with owners		△ 1,542	△ 2,717	—	△ 2		
Balance at end of year	81,577	82,553	228,026	△ 949	7,571	△ 14	

	Equ	Equity attributable to owners of the Company					
Item	Accumulated other comprehensive income		Treasury stock,		Non-controlling	Total equity	
	Foreign currency transla- tion adjustments	Total	at cost	Total	interests		
Balance at beginning of year	9,884	10,621	△3,051	395,963	60,853	456,816	
Net income		—		8,022	6,168	14,190	
Other comprehensive income	△ 6,019	△ 146		△ 146	△ 2,373	△ 2,519	
Comprehensive income	△ 6,019	△ 146	—	7,876	3,795	11,671	
Acquisition of treasury stock		—	△ 4	ightarrow 4		△ 4	
Sale of treasury stock		—	—	—		_	
Increase/decrease by share exchange		—	—	—		_	
Dividends to stockholders of the Company		—		△ 2,978	△ 7,290	△ 10,268	
Gains/losses on change in equity	45	37		△ 1,238	△ 6,547	△ 7,785	
Transfer to retained earnings		6		—		—	
Other increase/decrease		_					
Transactions with owners	45	43	△ 4	△ 4,220	△ 13,837	△ 18,057	
Balance at end of year	3,910	10,518	△3,055	399,619	50,811	450,430	

(unit: millions of yen)

## **Consolidated Statements of Cash Flow**

Item	Previous fiscal year (reference) From April 1, 2015	Current fiscal year From April 1, 2016
	to March 31, 2016	to March 31, 2017
Net income	10,300	14,190
Depreciation	31,966	30,680
Amortization of Intangible assets	3,481	3,284
mpairment losses	151	3,883
Gains on business restructuring	△ 21,611	△ 933
ncome tax expense	14,217	9,669
Share of profits of investments accounted for using the equity nethod	△ 234	31
Gain (loss) on sales of property, plant and equipment	△ 141	$ ightarrow 5^{\circ}$
Financial income	△ 3,418	△ 4,008
Financial expenses	13,187	3,460
Increase) decrease in accounts and trade receivables	40,650	△ 1,482
Increase) decrease in lease receivables	11,741	△ 4,754
Increase) decrease in inventories	59,818	28,974
ncrease (decrease) in accounts and notes payables	△ 14,654	20,580
ncrease (decrease) in provisions and retirement benefit obligations	825	2,704
Dither	△ 13,169	△ 3,15
Subtotal	133,109	103,35
nterest received	2,994	2,573
Dividends received	463	593
nterest paid	△ 5,210	△ 3,534
ncome tax paid	△ 16,482	△ 15,020
Net cash provided by operating activities	114,874	87,96
Capital expenditures	△ 17,515	△ 13,999
Proceeds from sale of property, plant and equipment	576	1,998
Acquisition of intangible assets	△ 2,287	△ 3,304
Acquisition of investments in securities and other financial assets	△ 2,207	△ 3,304
including investments in associates)	△ 4,013	△ 56,070
Sales of investments in securities and other financial assets including investments in associates)	32,184	△ 3,807
Collection of long-term loan receivables	10,506	172
Payments for transfer of business	△ 1.810	_
Dther	614	400
Net cash provided by (used in) investing activities	18,255	△ 74,610
ncrease (decrease) in short-term borrowings, net	△ 46,226	24,232
Proceeds from long-term borrowings and bonds	19,735	39,143
Payments on long-term borrowings and bonds	△ 50,921	△ 69,883
Payments on lease payables	△ 3,893	△ 5,550
Dividends paid to owners of the parent	△ 12,743	△ 3,00
Dividends paid to non-controlling interests	△ 4,156	
Purchase of shares of consolidated subsidiaries from	→ 4,100	
ion-controlling interests	—	△ 2,883
Dther	41	$\bigtriangleup$
Vet cash provided by (used in) financing activities	△ 98,163	△ 25,81
Effect of exchange rate changes on cash and cash equivalents	△ 7,289	
Vet increase (decrease) in cash and cash equivalents	27,677	△ 13,65
Cash and cash equivalents at beginning of year	51,433	79,110
Cash and cash equivalents at beginning of year	79,110	65,45

## Company Profile (As of March 31, 2017)

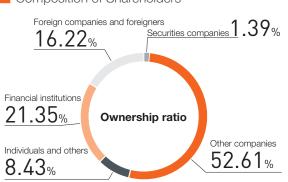
Company Name	Hitachi Construction Machinery Co., Ltd. (Hitachi Kenki Kabushiki Kaisha)
Paid in Capital	81,576 million yen
Head Office	16-1 Higashiueno 2-choume, Taito-ku, Tokyo, 110-0015, Japan
Establishment	October 1, 1970
President	Kotaro Hirano
Employees	23,858 (Consolidated) 3,985 (Non-consolidated)
Major Operations	Manufacturing, sales, rental and service of construc- tion machinery, transportation machinery, environ- mental related products and other machines and devices
URL	https://www.hitachicm.com/global/

### Investor Information (As of March 31, 2017)

Stock Exchange of Listing	First Section of the Tokyo Stock Exchange (#6305)*	
	*The cash equity market integration between Tokyo Stock Exchange (TSE) and Osaka Securities Exchange (OSE) was completed on July 16, 2013.	
Accounting Auditor	Ernst & Young ShinNihon LLC	
Stock Transfer Agent	Tokyo Securities Transfer Agent Co., Ltd.	
Number of Shares Authorized	700,000,000	
Number of Shares Issued	215,115,038	
Number of Shareholders	29,102	
Annual Meeting	The annual meeting of shareholders is usually held before the end of June in Tokyo.	

Composition of Shareholders





#### Major Shareholders (Top 10 Largest Shareholders)

Shareholder	Number of shares held	Ownership ratio (%) (Third decimal place rounded off)
Hitachi, Ltd.	108,057,610	50.81
The Master Trust Bank of Japan, Ltd. (trust account)	19,297,900	9.07
Japan Trustee Services Bank, Ltd. (trust account)	9,199,100	4.33
Japan Trustee Services Bank, Ltd. (trust account 9)	4,115,800	1.94
Trust & Custody Services Bank, Ltd. (securities investment trust account)	3,311,200	1.56
Société Générale Paris MRCOPT (Standing proxy: Société Générale Securities)	1,802,827	0.85
Japan Trustee Services Bank, Ltd. (trust account 5)	1,717,600	0.81
STATE STREET BANK WEST CLIENT - TREATY (Standing proxy: Clearing and Settlement Department, Mizuho Bank, Ltd.)	1,547,056	0.73
Japan Trustee Services Bank, Ltd. (trust account 7)	1,427,300	0.67
HSBC Bank PLC State of Kuwait Investment Authority Kuwait Investment Office (Standing proxy: Custody Operations Department, HSBC Tokyo Branch)	1,307,800	0.61

\*1 Hitachi Construction Machinery holds 2,454,022 shares of treasury stock, but these have been excluded from the list of major shareholders above.

\*2 Ownership ratio is calculated without the 2,454,022 shares of treasury stock.

## **@**Hitachi Construction Machinery Co., Ltd.

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