



## New Medium-term Management Plan: Strategies by Business

# Construction Business Unit

## Facing Customers with Sincerity as “One Team” and Pioneering New Horizons

Hitachi Construction Machinery Co., Ltd.  
Senior Vice President and Executive Officer,  
President, Construction Business Unit

**Yusuke Kajita**



### Effect of Transitioning to the Business Unit System

With the introduction of the business unit system, marketing, design, manufacturing, sales and services have become interconnected, enabling faster decision making while clarifying centers of responsibility. Fiscal 2022 was the first year under the business unit system, and I strongly felt that all of us have been inspired to moved forward together towards success.

Before this transition, the lines of responsibility were ambiguous, leading to situations where departments would take a wait-and-see stance while circumstances developed. Now that responsibilities are defined by business unit, I believe many employees have embraced a mindset of becoming a first-mover and proactively taking the initiative.

For instance, there used to be frequent clashes of opinions related to attempts to maximize the gross profit of each department. However, by visualizing and emphasizing how much consolidated profit is generated in the process of delivering products to customers, we are able to have more discussions that encompass the entire business, such as “this is profitable when viewed as a whole, but this is not” or “what should we do if it is not profitable?”

The business unit system has also proved effective in expanding global supply, one of our new initiatives this fiscal year. Collaboration with manufacturing subsidiaries worldwide, including those in China, Indonesia and Europe, was essential

in realizing our policy of supplying quality products when needed. The construction departments of each regional business have come under the jurisdiction of the business unit, making it easier to collaborate.

In product development, Hitachi Construction Machinery established the Electric Products Development Center in April 2022 with the aim of moving toward zero emissions. The support and encouragement from the marketing and sales departments as well as overseas bases, which came together under the same business unit, greatly contributed to the project launch of this center. I feel that we have become more receptive to market opinions and requirements through this center.

Hitachi Construction Machinery has concentrated management resources in fields where it can achieve differentiation through research and development in construction machinery, such as hydraulic systems other than engines or computer-based electronic control systems. With construction machinery having entered the era of electrification, this concentration of resources is proving beneficial. The company has been conducting open procurement for the power sources that drive hydraulic pumps, such as engines, while collaborating with various procurement partners, giving it the best options for electrification in the future.

Going forward, the Construction Business Unit will endeavor to achieve targets in the new medium-term management plan as “One Team.”

### Smooth Start to Independent Business Expansion in the Americas

Hitachi Construction Machinery’s independent business expansion in the Americas has got off to a smoother than anticipated start. Since there was only a short time to prepare, we were initially concerned about the possibility of devolving into chaos; however, no major problems arose. Sales have expanded thanks to efforts made under the new management system centered on Hitachi Construction Machinery Americas Inc. We have received high praise from both customers and dealers.

This fiscal year, Hitachi Construction Machinery is introducing seven series each for hydraulic excavators and wheel loaders. With tuning tailored to customer requirements, specifications set according to market needs, and a plethora of options, we have everything in place. To be successful, all departments must be operating at 100%, fulfilling their roles and responsibilities while working together to ensure production, shipping, sales and services are executed on time. Our goal is Customer Interest First (CIF)—everything we do is geared at customer satisfaction.

Along with solidifying our foothold in North America, we believe that expanding into Latin America is vital to our future. We must firmly plant our roots in order to grow in this region, which has significant potential for development. This fiscal year, we intend to take our first steps in this direction.

## Construction Business Unit

In March, CONEXPO 2023, the largest construction machinery trade show in North America, was held in Las Vegas, U.S.A. At previous trade shows, Hitachi Construction Machinery and Deere & Company shared a booth. This year, however, Hitachi Construction Machinery had its own booth, reflecting our renewed spirit accompanying our *second founding*. During the exhibition, we had meetings with dealers in the United States and Canada, and our hearts were full of gratitude for the dealers who chose to handle Hitachi Construction Machinery products. As Deere & Company and other companies move to bring new models to the market, Hitachi Construction Machinery must focus more on the North American market. Together with our dealers, we aim to achieve significant growth in these new markets.



Our booth at the CONEXPO 2023 exhibition

## Key Focus Points for the Construction Business Unit under the New Medium-term Management Plan

With our *second founding*, growth has become the most important aim of the Group. I believe the Construction Business Unit will play a vital role in achieving growth for the entire Group. Looking ahead to 2025, the Construction Business Unit is pursuing the following initiatives.

- 1 Promote research and development, manufacturing, sales and services aimed at a safe and sustainable society, especially towards carbon neutrality, as planned
- 2 Establish platform technologies able to respond quickly and flexibly to changes in society, such as the declining birthrate and aging population, as well as the digital revolution, and carry out innovative business development
- 3 Follow our roadmap for advancing research and development with an eye on the future, such as next-generation models, electrification, automation, ZCORE, ConSite and open innovation
- 4 In addition to expanding our traditional product lineup, continuously introduce new products with enhanced digital functions, with the aim of expanding sales in both industrialized and emerging countries; on the supply side, fully and effectively utilizing our global production bases and meeting 100% of demand from sales departments with regard to supply volumes
- 5 Achieve success in North America and steadily expand business in emerging countries, including Latin America
- 6 In the new vehicle business and value chain business, expand business opportunities by providing new value centered on digital solutions
- 7 Strengthen our manufacturing plants and improve competitiveness by advancing the plant reorganization project, turning plants into smart factories and steadily reducing total costs

## Driving Force to Realizing Our Group Identity

At the core of any company is its people. First and foremost, Hitachi Construction Machinery must create an environment where the safety and health of everyone involved in its operations are prioritized above all else. In addition, we have a vision to aspire to in creating a workplace in which employees are motivated in their work, have opportunities for growth and where diversity is valued. As a result of creating such an environment and workplace, we can give shape to our foundational values of Basics and Ethics, Trust and Technology, Pride and Responsibility, and our code of conduct, the *Kenkijin Spirit* (Challenge, Customer, Communication). The fulfillment, motivation and vitality of the people we work with are the fundamental driving forces in realizing our Group identity. We want to make the Construction Business Unit a place where everyone involved can feel that their own future is taking shape as the business grows.

## DNA of the Hitachi Construction Machinery Group

If asked, “What is the competitive strength of the Hitachi Construction Machinery Group?” I would confidently answer, “Our sincere commitment to our customers.” From its dedication to manufacturing and enthusiasm for sales to its sense of responsibility in repairs, Hitachi Construction Machinery has a tradition, passed through its DNA, of all employees (*Kenkijin*) who interact with customers adopting an attitude of “always striving to support customers and be on the side of those on the front lines.”

The Hitachi Construction Machinery Group’s independent business expansion in the Americas is akin to turning a new page in its history book, like landing on a new continent. I believe that now, more than ever, is the best opportunity to fully harness this DNA and earn the trust of our customers.



## New Medium-term Management Plan: Strategies by Business

# Mining Business Unit

## Pioneering Net Zero Emissions through Unified Efforts in Development, Manufacturing, Sales and Services

Hitachi Construction Machinery Co., Ltd.  
Senior Vice President and Executive Officer,  
President, Mining Business Unit and General  
Manager of America Business Division (Chairman of  
Hitachi Construction Machinery Americas Inc.)

**Sonosuke Ishii**



### Leveraging Merits of the Business Unit System to Swiftly Realize Independent Expansion in Americas

Ahead of the entire company, the Mining Business Unit had effectively transitioned as of 2017 to the business unit system.

The main advantage of the business unit system is that development, manufacturing and sales and services are integrated, allowing for a swift response to changes in market conditions and customer requirements. When our independent expansion in the Americas commenced in March 2022, we were somewhat behind on the development of dump trucks compliant with North American emissions regulations. However, by prioritizing the development of these dump trucks over that of other products, we successfully brought them up to compliance. Currently, our plant and sales sides are working together to develop fully electrified dump trucks.

### Significant Benefits from Business Unit System with Steady Improvements in the Quality of Overall Business Activities

In fiscal 2022, revenue in the mining business amounted to ¥246.6 billion, marking a significant increase of 56% compared to the previous fiscal year and setting a new

record high for revenue. The mining business's share of consolidated revenue increased by 4 percentage points from the previous year, to 19%.

Sales of ultra-large hydraulic excavators expanded significantly, particularly in the Americas, with unit sales increasing 39% from the previous year. Dump trucks also saw a significant surge in sales in Australia, with unit sales growing a substantial 167% compared with the previous fiscal year.

Sales of parts and services increased 38% year on year, thanks to firm demand in the specialized parts and services business supported by H-E Parts International LLC and Bradken, with the former responsible for the service business, parts development, processing and sales for mining equipment and mining facilities, and the latter tasked with the manufacture of parts for mining equipment.

While the reliability of the machinery itself is a fundamental prerequisite, our mining customers place significant importance on the continuous operation of mining equipment. Daily support in terms of services and the prompt supply of parts during emergencies are decisive factors in winning orders.

While lofty prices for mineral resources were also a tailwind, since transitioning to the business unit system in 2017, our commitment to improving the quality of our business activities in a consistent and continuous manner and the dedicated efforts of each department have translated into better evaluations from our customers. This has enabled Hitachi Construction Machinery to steadily tap into renewal demand.

### Competitive Advantages of the Hitachi Construction Machinery Group in the Highly Competitive Global Mining Industry

From an environmental perspective, one of our distinctive features is our agility, which has allowed us to easily pivot towards decarbonization through the procurement of diesel engines from external sources.

In mining operations, where high levels of safety and productivity are required, Hitachi Construction Machinery has been rolling out an Autonomous Haulage System (AHS) to enable the unmanned operation of mining dump trucks. Other companies with a wide range of products tend to group all the machinery used in mining under one AHS. In contrast, Hitachi Construction Machinery, having a product lineup that spans ultra-large hydraulic excavators, dump trucks and wheel loaders, is exploring ways to integrate its AHS with equipment made by other companies that is already being used in mines. We believe this capability to cater to a large number of customers who prefer operating a mix of products, rather than sticking to a single brand, provides us with a competitive advantage.

The AHS offered by Hitachi Construction Machinery is based on the Fleet Management System (FMS) developed by Wenco International Mining Systems. This system has a proven track record in managing mixed fleets (operational

## Mining Business Unit

management of dump trucks from multiple manufacturers) at various mines. Through an open and flexible IoT platform, it organically connects various data, including from machinery, realizing integrated system management.

### The Expansion of Service Infrastructure That Supports Dealers Is Key to Expanding Mining Business

While the primary use of mining equipment is at copper, iron ore and coal mines, in North America, ultra-large hydraulic excavators that range from 120 to 200 tons are also actively used in quarries and construction sites. Hitachi Construction Machinery is focusing on this field, commonly referred to as light mining.

South America, like Africa, consists of many countries where different languages are spoken and regulations can vary considerably. With strong demand for dump trucks in these countries, these markets look promising from a growth perspective. For this reason, Hitachi Construction Machinery needs to enhance its service infrastructure, such as service centers and parts remanufacturing factories, for its eight dealers in South America. In Brazil's vast markets and others like it, high import duties have been placed on finished vehicles, requiring us to be innovative in developing the market, such as by securing footholds through involvement in the rental business. In terms of strengthening the value chain, the company is planning to expand the business by, for example, systematically importing well-maintained used equipment from Japan to South America.

Africa has many resource-rich nations, making it a crucial market for the Mining Business Unit. However, the level of development varies widely among countries, and many lack adequate infrastructure, posing challenges to establishing a stable business environment.

Within the Hitachi Construction Machinery Group, Hitachi Construction Machinery Africa (Pty.) Ltd., based in South Africa, oversees the southern Africa region, while Hitachi Construction Machinery (Europe) N.V. in Amsterdam is responsible for the northwestern Africa region.



A rigid dump truck with trolley driving at the Kansanshi copper-gold mine

### Differentiating with a World-Pioneering Approach to Net-Zero Emission Mining

In the southern African region Hitachi Construction Machinery has had a long-standing collaborative relationship with Canada's First Quantum Minerals Ltd. (hereafter, "First Quantum"). In Zambia's Copperbelt Province, countless mining equipment units made by Hitachi Construction Machinery are actively operating, including at First Quantum's Kansanshi copper-gold mine. Since 2012, we have been expanding our parts remanufacturing business in the capital city of Lusaka.

Hitachi Construction Machinery's trolley-powered dump trucks are in operation at the Kansanshi copper-gold mine. Leveraging this infrastructure, we are making preparations to launch a Proof of Concept (POC) project in 2024 for an engineless, fully electric rigid dump truck that we are co-developing with heavy electrical machinery major ABB in Switzerland. Currently, a prototype is being fabricated at the Hitachinaka-Rinko Works.

While competitors are also sparing no effort in developing electric-powered dump trucks for mines, we believe we are the first to undertake a POC in an actual mining setting.

Our proven technology in rigid dump trucks with trolleys is also being applied to the fully electric dump trucks. Since the system is designed with retrofitting in mind, currently operating diesel-powered dump trucks could be replaced by fully electric dump trucks in the future. Minimizing the impact on customers' mining operations and offering a viable phased transition to full electrification are the defining features of Hitachi Construction Machinery's initiatives in this field.

The mining industry is extremely close-knit, with mining companies actively exchanging information. We have seen an influx of inquiries from mining companies all over the world, not only about our fully electric dump trucks but also various other matters.

The Hitachi Construction Machinery Group aims to differentiate itself by being among the first to target Net Zero Emission Mining, aimed at net zero greenhouse gas emissions from mining equipment.





## New Medium-term Management Plan: Strategies by Business

# Compact Business Unit

## Applying Our Ability, Passed down through the Generations, to Competitively Manufacture Compact Machinery to Electrification

Hitachi Construction Machinery Tierra Co., Ltd.  
President and Executive Officer  
President, Compact Business Unit

**Kazuhiro Ichimura**



### Review of the First Year after the Transition to the Business Unit System

The Compact Business Unit is distinct from other business units in that it centers on the operations of one company, Hitachi Construction Machinery Tierra Co., Ltd. A year has passed since the transition to the business unit system, and we have undertaken the following two initiatives aimed at further growth.

At Hitachi Construction Machinery Tierra, we have strongly aspired to become self-reliant as a business unit. Because of this mindset, employees have become more spirited and action-oriented than before due to the transition to the business unit system, which has given them a sense that anything is possible. Not only in Japan, but in such key markets as Europe and North America as well as the promising growth market of India, where demand is likely to strengthen, we have incorporated the latest market requirements into our upgrades for the current line of products while also integrating these insights into future product strategies.

Meanwhile, we did encounter some problems, such as uncertainty regarding authority and responsibility and a lack of clarity on points of contact for collaboration and information sharing with other business units and corporate departments. In April 2023, we established the Business Strategy Department within the head office Hitachi Construction Machinery, which took over responsibilities for our product

strategy formulation, and strengthened collaboration. Together with the Business Strategy Department, we are united in their commitment to achieving targets.

### History of the Compact Business Unit and Market Characteristics

The history of Hitachi Construction Machinery Tierra began with the contracted production of mini excavators at the former tractor manufacturer Toyosha Co., Ltd. Toyosha Co., Ltd., which traces its origins to Denzo Tagami, the inventor of the long-furrow plow, has long been a manufacturer of products designed for digging soil. The management rights of Toyosha were eventually inherited by Hitachi Construction Machinery Tierra. Our mini excavators were originally developed as a mini excavator business division at the Tsuchiura Works before these development functions were consolidated at the Shiga Plant. Through the joint development of mini excavators with Hokuetsu Industries Co., Ltd., known for its excellent compressors, the Hitachi Construction Machinery Group honed its strength in producing highly cost competitive, compact machinery, leading us to where we are today.

Mini excavators are ideal for work in confined spaces, like residential areas and walkways. However, they also play a role at large construction sites, especially in final processes like external ditch construction and work performed near walls. In Europe, there are construction projects that preserve old building exteriors while

renovating the interiors, and mini excavators can be used to perform tasks like interior demolition.

The mini excavator market demands features like superior performance and ease of operation on these sites. Furthermore, a comprehensive retail network in which repairs can be promptly obtained upon request is essential to sales expansion. Under the current medium-term management plan, Hitachi Construction Machinery plans to expand its network of retail dealers and is working on the creation of a retailer network that uses digital technologies.

### Responding to Global Social Demands for Electric Construction Machinery

The uptake of electrification is likely to gain momentum as we head towards 2030 and 2040, with Europe leading the way. There is a considerable disparity among countries in Europe. Norway stands out with robust government policies that give preference to electric construction machinery, and the country has attained an electrification rate of 10%. Sweden and Germany are next on the list, but their adoption rates are not particularly high.

Some forecasts suggest that the electrification rate across Europe might exceed 15% by 2030, but in light of soaring electricity prices lately, the uptrend has regrettably stagnated.

## Compact Business Unit

Despite these circumstances, Hitachi Construction Machinery Tierra is steadily progressing with the development of electric construction machinery and preparing for mixed production.

Hitachi Construction Machinery's lineup of battery-powered mini and small-size excavators consists of four models in the 2-ton, 5-ton, 8-ton and 13-ton classes. Although there is room for expansion, we are proud of our lineup, which is designed for urban civil engineering and easily comparable to competing brands' products that may have been released earlier than our models.

Hitachi Construction Machinery's battery-powered excavators achieve work performance equivalent to engine-powered excavators. Depending on battery capacity, there are some limits on operation times. However, our battery-powered excavators feature a dual system that allows for a cable connection to a commercial power supply, enabling longer hours of operation.

Except for the 5-ton class, Hitachi Construction Machinery's lineup was

developed in collaboration with KTEG, a joint venture between Hitachi Construction Machinery and a subsidiary of European dealer Kiesel.

At worksites in Europe, it is fairly common to use a number of hydraulic excavator attachments, depending on the nature of the work. These attachments need to be changed without manual intervention by a person. KTEG has created a marketing team and reinforced its development team to provide solutions to solve our customers' challenges, including broadening the lineup of battery-powered excavators and attachments. We are also participating and collaborating in this endeavor, advancing with function and product development for deployment of this lineup in Japan and North America.

### Challenges for Growing the Compact Business Unit

We are keen to boost sales with an eye to achieving our fiscal 2030 target of a double-digit market share for the Compact Business Unit. Our primary goal is to establish a sales network and create a sales structure able to meet robust demand in the Americas.

Hitachi Construction Machinery's compact products are produced at the Hitachi Construction Machinery Tierra's Shiga Plant. However, current production capacity is not sufficient to fulfill global demand. The plant's production capacity for mini excavators is just under 30,000 units, but we are planning to increase production capacity by fiscal 2025 to 30% above the fiscal 2021 level. We will relocate and establish a new development testing site compatible with next-generation products, including electric construction machinery, and expand the plant's production capacity.

Another challenge is to further improve the productivity and profitability of Tata Hitachi in India, where demand is likely to grow. We will localize manufacturing, use locally produced components, and make design changes to align with the needs of Tata Hitachi's manufacturing plants. Additionally, we will create a portfolio of products suited to the domestic Indian market and cross develop these products to other regions within and outside Asia.

Compact products are used for various purposes, and around the world, there is strongly rooted demand for construction machinery that specializes in

excavation. We will conduct ample marketing and pursue measures that will lead to higher sales volume.

### Diversity, Another Strength of Hitachi Construction Machinery Tierra

Hitachi Construction Machinery Tierra has been committed to what is now known as diversity for the past 30 years, employing many people of Japanese descent from Brazil. Today, production sites are supported by a workforce where 70% are foreign employees. We have organized workers who speak the same language and are of the same nationality by process and positioned leaders who can interpret between different languages. We also strive for timely communication so that issues or problems do not arise due to language or cultural differences.

In operations, we take advantage of automation and labor-saving measures on production lines, such as installing robots in processes that handle heavy components, ensuring that employees with little experience or physical strength can play an active role in production. Even in processes where human labor is necessary, we have made improvements from a safety standpoint by, for example, adjusting the height of trolleys so a comfortable posture can be maintained, and widening belt conveyors.

In April 2023, we hired a woman for the first time for the welding worksite. New employees usually start by gaining experience in the tack welding process. However, given that this involves handling heavy materials, this woman was assigned to the finishing process, which mainly involves welding. The finishing process requires precise welding techniques, but with her dexterity, she quickly became proficient. She can perform this finishing process on a par with her male counterparts in terms of quality and work times.

Such diversity is a distinguishing feature and unique aspect of Hitachi Construction Machinery Tierra. We recognize that preserving these advantages is also an essential part of our sustainability activities.

To achieve further leaps forward, we aspire to make Hitachi Construction Machinery Tierra and the Compact Business Unit as bright and vibrant as possible.



Battery-powered excavator (8-ton class) working at a construction site



## New Medium-term Management Plan: Strategies by Business

# Spare Parts & Service Business Unit

## Contributing to a Circular Economy by Tirelessly Working to Realize Solutions Aligned with Our Customers' Needs

Hitachi Construction Machinery Co., Ltd.  
Vice President and Executive Officer,  
President, Spare Parts and  
Service Business Unit

**Eiji Fukunishi**



### Review of Fiscal 2022

In fiscal 2022, revenue in the spare parts and service business substantially increased to ¥267.8 billion, 127% of the previous fiscal year's results. Even excluding the effect of fluctuations in foreign exchange rates, this revenue was 113% of the previous fiscal year's results, contributing to expansion in value chain revenue beyond our expectations. We attribute this growth to the end of the global COVID-19 pandemic, an increase in machinery operating hours due to stable and high resource prices, and successful efforts to capture growing demand for spare parts and services.

We moved swiftly to independently expand in the Americas, getting our efforts under way on March 1, 2022. Establishing a spare parts warehouse usually takes one to two years, but, thanks to the dedicated efforts of local staff and our 3PL\* partners, we were able to bring it on line in just half a year. In addition to the Jackson Parts Warehouse in Georgia, which started operations in March 2022, the McDonough Parts Warehouse, also in Georgia, began operations in October. The parts shipment rate, one of our KPIs, exceeded 90% as of November 2022.

Our U.S. warehouses are currently located in the southeastern region of the United States. However, as a great deal of our mining equipment is being used in

western Canada and the western United States, we are planning to build a warehouse on the western side of the United States in this fiscal year.

\* An abbreviation for third party logistics, 3PL is a business model wherein a third party proposes an efficient logistics system encompassing the planning, design and operation of the entire logistics business on behalf of a shipper.

### Increasing Machine Service Life with ConSite

The spare parts and service business is playing a crucial role in enhancing the value chain business, a core strategy of our new medium-term management plan.

In this key role, we deploy our service solution tool ConSite, which extends the service life of machinery, maximizes operational hours, and provides solutions that improve customer work efficiency.

For example, by making customers' machines usable for 15 years when they had previously been disposed of after 10 years, we can contribute to waste reduction, restrict the use of input resources, and reduce CO<sub>2</sub> emissions.

In the mining business, the price of each piece of equipment is high, so many units are used for much longer than 10 years. At mines, each ultra-large hydraulic excavator operates alongside four or five rigid dump trucks for 24 hours a day, 365 days a year. If

the hydraulic excavator stops, everything else stops, so companies are keen on preventive maintenance. Traditionally, service personnel perform regular maintenance and parts replacement based on actual machine hours. Hitachi Construction Machinery's ConSite Mine tool has a function called Load Index that predicts the onset of fractures in the booms and arms of ultra-large hydraulic excavators. With Hitachi Construction Machinery's proprietary stress analysis technology using AI, appropriate maintenance, inspection and repairs can be performed depending on the condition of the welded structure before cracks ever appear. We have provided ConSite Mine to customers and dealers since January 2022 and plan to enhance its functionalities in stages.

### Anticipating Significant Growth in Remanufacturing Business

The remanufacturing business is an indispensable component of our plans to expand the spare parts and service business.

Boasting a track record spanning more than 50 years, Hitachi Construction Machinery's remanufacturing business has been serving domestic customers since the 1970s. At present, the Tsuchiura Works and the Hitachinaka Works serve as our

## Spare Parts & Service Business Unit

domestic parts remanufacturing bases. However, as we anticipate further growth in the remanufacturing business, preparations are under way to consolidate and integrate operations at Banshu Works. By positioning the Banshu Works as the mother plant for global remanufacturing operations and strengthening ties with overseas remanufacturing bases, we aim to expand production capacity for remanufactured products and establish a global production system.

We have two bases in Australia and Indonesia that are among the world's most advanced mining equipment parts remanufacturers. In addition, Hitachi Construction Machinery has a parts remanufacturing base in the Republic of Zambia. Meanwhile, in Japan, India and elsewhere we operate parts remanufacturing bases for general construction machinery.

The company does not have a parts remanufacturing plant in the United States at present, and products are shipped from Japan. Since embarking on independent expansion in the Americas, we have become acutely aware of the importance of the remanufacturing business and are steadily making preparations for establishing a local parts remanufacturing base. Specifically, Hitachi Construction Truck Manufacturing Ltd., which produces rigid dump trucks in Canada, is enhancing its facilities and human resources in preparation for establishing this remanufacturing base.

Hitachi Construction Machinery will utilize H-E Parts' facilities for the rollout of a mining equipment parts remanufacturing business in Central and South America. H-E Parts' facilities will play a vital role in Central and South America.

In the African market, the company intends to further expand the remanufacturing business in 2023 and 2024. Hitachi Construction Machinery Zambia Co., Ltd. has been remanufacturing mining equipment parts since 2012, and will soon be delving into the engine remanufacturing business.

Furthermore, in March 2023, Hitachi Construction Machinery Southern Africa Co., (Pty) Ltd. commenced the production of remanufactured parts for construction equipment, such as mid-to-large-sized hydraulic excavators and mid-sized wheel loaders.

The commitment of Hitachi Construction Machinery to the circular economy does not stop at remanufacturing that transforms used parts into the equivalent of brand new ones. For example, we refurbished a 20-ton class mid-sized hydraulic excavator that had been submerged due to abnormally heavy rains in Western Japan, and sold it under warranty as PREMIUM USED equipment. While still in the trial phase, Hitachi Construction Machinery has recently started a business for machinery that has been similarly submerged as well as used equipment that it buys back for refurbishing using remanufactured parts and eventual sale.

In the Republic of Zambia, two used ultra-large hydraulic excavators (EX1200) that had been operational for an extended period were remanufactured. We have launched similar initiatives in countries such as Indonesia, South Africa and Turkey. We have also started an initiative to add equipment body remanufacturing to the lineup.



Remanufacturing work on a main pump (during training)

## Offering Diverse Choices to Customers

At Hitachi Construction Machinery, in response to our customers' needs to keep running costs down, we have been expanding our lineups of SELECTED PARTS (service-dedicated parts), along with the genuine parts and remanufactured parts that have traditionally played key roles in our operations. SELECTED PARTS in particular have earned high praise from customers worldwide for meeting Hitachi Construction Machinery's proprietary standards and offering distinct quality advantages in comparison to similar products while being competitively priced.

We are also promoting ConSite, a tool that enables the monitoring of equipment with regard to location, running times, and service and repair histories, with an eye to expanding spare parts and services for used equipment in such regions as Southeast Asia and Latin America.

The Spare Parts & Service Business Unit is committed to steadily implementing the measures of the medium-term management plan and working towards the realization of our vision. At the core of this endeavor is the Customer Interest First (CIF) approach, an integral part of the culture at Hitachi Construction Machinery. We believe it is vital to listen carefully to customer feedback and constantly move forward in providing solutions that align closely with their needs.





## New Medium-term Management Plan: Strategies by Business

# Rental & Used Equipment Business Unit

## Aiming to Transition to a Recycling-Oriented Business Model in Which Customers Can Use Our Products without Worry Over the Long Term

Hitachi Construction Machinery Co., Ltd.  
Vice President and Executive Officer, CMO,  
President, Rental & Used Equipment  
Business Unit and Global Marketing Group

**Hidehiko Matsui**



### Review of Fiscal 2022 and the Successful Transition of Our Business Model

In the Rental & Used Equipment Business Unit, fiscal 2022 revenue was 112% and 133% of the previous fiscal year's results, for rentals and for used equipment, respectively.

Environmental factors that influenced this growth included semiconductor shortages that disrupted the production of new equipment during the pandemic amid brisk investments in infrastructure. This resulted in a shortage of used equipment, which led to higher prices. Currently, demand from customers is well in excess of our supply capacity.

Thus, one of the biggest business development initiatives we undertook during the year was establishing a route for used equipment headed to North America. The strong market conditions show us the genuine potential for business expansion that the combined strength of the Hitachi Construction Machinery Group is capable of.

Our successful transition to a new business model is behind these impressive results. Previously, rentals were treated as rentals, and used equipment as used equipment, in other words, as separate businesses. Used equipment was dealt with as either trade-in construction machinery or as a substitute for a down payment. Units were sold "as is," meaning the traded-in construction machinery was

simply resold without warranties. Breaking the mold, in fiscal 2017 Hitachi Construction Machinery Co., Ltd launched the PREMIUM RENTAL brand overseas, where rentals were beginning to really take off. The Hitachi Construction Machinery Group together with authorized new equipment dealers set themselves up as the owners of rental assets, offering customers finely maintained and certified construction machinery for rent. After a period of use as rental equipment, units are resold as PREMIUM USED equipment (used equipment with warranty). This approach allows us to maintain long-term relationships with customers while providing parts sales and services.

In this manner, the business model of "providing quality used equipment sourced from the rental business" has gained momentum within the Hitachi Construction Machinery Group. This is an achievement we are proud of from the previous mid-term management plan.

### Starting a Rental and Used Equipment Business in North America from Scratch

Hitachi Construction Machinery Americas Inc. will establish a manufacturer rental operation in which it retains ownership of the rental assets in order to expand the scale of our business. Typically, when dealers that handle sales and services also engage in rental operations, they take ownership of the rental assets. However,

this requires significant expenditures. Hitachi Construction Machinery Americas aims to support such dealers by taking on the ownership of rental assets that dealers would normally be challenged to take on themselves. Additionally, we are moving ahead with similar initiatives with regional independent rental companies.

In the used equipment business for North America, construction machinery that is rent out to dealers and regional independent rental companies will be returned to Hitachi Construction Machinery Americas after two years and sold as PREMIUM USED equipment. We will also offer used equipment originating from Japan. This involves exporting rental or trade-in equipment, with engines bearing EPA-certified labels, from Hitachi Construction Machinery Japan Co., Ltd. to North America. This will help slim down the rental assets of Hitachi Construction Machinery Japan, which faces the problem of declining utilization rates as assets increase.

In the northern regions of the United States, we will cater to rental demand for snow removal equipment, specifically wheel loaders used for snow removal.

Hitachi Construction Machinery currently rents out over 16,000 pieces of construction machinery worldwide and plans to further increase this number. In North America, we aim to increase rentals by 500 units annually, for a total of 1,500 additional units of the course of the medium-term management plan. However, due to strong demand for new equipment, we are currently unable to allocate more equipment for rentals.

## Rental & Used Equipment Business Unit

### Key Focus Areas of the Rental & Used Equipment Business Unit in the Current Medium-term Management Plan

Hitachi Construction Machinery is keen to optimally distribute used equipment within each region.

For example, construction machinery that is compliant with stricter emissions regulations in Japan, the United States and Europe can pose challenges when it is taken into Southeast Asia, where differences in fuel quality can hamper stable operation. Therefore, it is necessary for the marketing of used equipment to be based on its specifications to ensure that it conforms with the buyer's usage conditions. Optimal distribution within each region is essential.

Next, Hitachi Construction Machinery will expand its focus to facilitating the circulation of high-function used equipment and models originally marketed to customers in developed countries. Units that have been ICT-equipped in Japan must have all ICT-related devices removed before being exported overseas because this technology does not conform to foreign specifications. To market high-function equipment or models outside of Japan, we must establish a De-Tiering mechanism, where we downgrade equipment and enhance engine robustness so that it can handle the types of fuel available at the sales destination.

Pursuing business expansion in Latin America is a key maneuver in the context of ensuring the proper distribution of used equipment. While we have established a foothold in mining in Latin America, we have yet to penetrate the local

construction machinery market. Moving forward we will be focusing on expanding both new equipment and routes for circulating used equipment in Latin America.

During the previous medium-term management plan, Hitachi Construction Machinery made inroads into retail rental markets with the establishment of the rental company Synergy Hire Ltd. in the United Kingdom and the acquisition of a rental company in New Zealand. Under the current medium-term management plan, Hitachi Construction Machinery will continue to expand retail rental operations in Europe, Oceania and South America.

### Challenges as a Solutions Provider

Looking ahead, we believe that improving corporate value entails not only marketing, development, and sales of new equipment, but also exploring the kinds of solutions we can offer based on an understanding of local characteristics and customer needs for rentals and used equipment.

In rentals, for example, in addition to standard rental offerings, Hitachi Construction Machinery will offer options to purchase the equipment at the end of the rental term. For used equipment, the company will offer retrofitting with ICT functions and modifications for specific applications. Given the increasing rate at which electric construction machinery is being adopted, we are now facing a need to design machinery with its ongoing utility in mind, not just as a new product but as used equipment. For example, we need to consider making battery replacement easier and ensuring compatibility with locally procured batteries.

### Transition to a Recycling-Oriented Business Model

In the context of contributing to the circular economy, Hitachi Construction Machinery utilizes its proprietary service solution tool ConSite for preventive maintenance services. With ConSite, we can manage information for each piece of equipment and, based on that unit's history, properly maintain it for eventual repurposing as PREMIUM USED equipment. Furthermore, we aim to extend product service life through initiatives like remanufacturing used equipment for sale. By highlighting these advantages, we aim to contribute to our customers' businesses by offering products they can trust and use over the long term.



Rental wheel loader removing snow from a blocked road





## New Medium-term Management Plan: Strategies by Business

# Power & Info Control Platform Business Unit

## Development of Next-Generation Products and Solutions in Close Collaboration with the Research & Development Group

Hitachi Construction Machinery Co., Ltd.  
Vice President and Executive Officer,  
CTO, President, Power & Info Control  
Platform Business Unit and  
Research & Development Group

**Kazunori Nakamura**



### Collaborating with Research & Development Group to Forge Ahead in the Creation of Next-Generation Products and Solutions

The Power & Info Control (PIC) Platform Business Unit comprehensively oversees the technological development and manufacturing of products ranging from hydraulic components, electronic controls, vehicle transmissions and software to the vehicular systems that integrate and control them. Beyond the supply of hydraulic components and other components like controllers, the PIC Platform Business Unit was established in April 2023 for the purpose of system development, which, in turn, has become an area of strength. The business unit also includes a manufacturing division, which aids in the creation of more manufacturable and cost-competitive components by providing feedback to the development and engineering division. By integrating hydraulic component development, electronic control development and manufacturing, we are able to intricately design functions. We aim to be the industry leader as the business unit responsible for vehicular system development and manufacturing.

With about 500 engineers, the PIC Platform Business Unit has relocated to the newly operational Engineering Building, called the Orange Innovation Plaza (nicknamed the Orange Plaza), at Tsuchiura Works. This is a research and development hub where around 2,500 employees, including those from the Mining Business Unit

and the Construction Business Unit, gather to collaborate closely with other business units. This hub is developing next-generation products and solutions for the autonomous operation and electrification of construction machinery with ICT and IoT compatibility.

Functions traditionally created through hardware technologies are rapidly being replaced with digital solutions. Components and systems handled by the PIC Platform Business Unit need to be developed before the vehicle bodies and provided in a timely manner. The Research & Development Group is responsible for this advanced development. The reason I, as the CTO, concurrently serve as the President of the PIC Platform Business Unit is to ensure efforts are seamlessly coordinated between the PIC Platform Business Unit and the Research & Development Group.

### Initiatives to Develop Next-Generation Products and Solutions

As part of its contribution to the circular economy, Hitachi Construction Machinery is advancing initiatives to extend product service life by 1.5 times. To extend the operational years of a vehicle body from 10 to 15 years, we must extend the supply period for components, including electronic parts. As electrification progresses, for example, if the battery undergoes a model change, a design that allows easy

replacement or one that allows an easy switch to locally procured components is a requirement. The PIC Platform Business Unit not only pursues cutting-edge technologies but also places importance on the development and provision of systems and components that contribute to CO<sub>2</sub> reduction, the achievement of SDGs and more value for the customer.

Digital twin is one such next-generation technology. By connecting construction sites and construction machinery to a network and digitally monitoring all activities, we aim to provide products and systems that help customers manage their worksites. This contributes to resolving challenges faced by construction sites, such as improving safety, productivity and the work environment, while addressing labor shortages.

As outcomes of these efforts, we have developed the ZCORE system platform for cooperative construction machinery that enable humans and machines to work in harmony, and base models for hydraulic excavators that are compatible with remote operation and automated solutions.

To make these construction sites envisioned by Hitachi Construction Machinery a reality in the future, components and systems compatible with advanced digital technologies are essential. Collaboration with various companies and industries is also vital. With this in mind, we have been working in collaboration with the Open Innovation Promotion Office, which was newly established in the Research and Development Group in April.



## New Medium-term Management Plan: Strategies by Business

# New Business Creation Unit

## Creating New Businesses, Aiming for Operational Excellence

Hitachi Construction Machinery Co., Ltd.  
Executive Officer, CDIO, President, New  
Business Creation Unit

**Seimei Toonishi**



### How is the Hitachi Construction Machinery Group's approach to DX unique?

Advancing DX is indispensable to the continuous creation of new value. Often perceived as the introduction of tools or systems, DX means changing processes through digitalization, i.e., a digital transformation. As the head of the DX Promotion Group until last fiscal year, my initial goal was to acquire a transformative capability at the ground level that competitors could not emulate, in other words, operational excellence. Notably, under the concept of CIF (Customer Interest First: a focus on solving customers' problems first), we worked with Hitachi Construction Machinery Japan to co-create the Sales Support Application, which was launched in fiscal 2022. This application has significantly transformed our domestic sales methods and service processes in Japan. In fact, "internal DX" has taken hold more than we expected, leading us to further accelerate "external DX" and efforts to create new businesses. Attitudes about DX have significantly changed, and I feel that a culture supportive of DX has been cultivated throughout the Hitachi Construction Machinery Group. I think that various transformations are in store for us in the future.

Internally, there is a growing momentum to venture into new businesses, and an entrepreneurial culture is taking shape. The business contest "KENKI BUSINESS CHALLENGE" (KBC) was launched for domestic employees of the Hitachi Construction Machinery Group in fiscal 2022, and we plan to develop this contest

into a full-blown event from fiscal 2023. Collaborating with various business units and working across departments, we aim to foster a culture of agility throughout the Hitachi Construction Machinery Group.

The CIF concept, which is also an aim of the business unit system, will be important as we progress on various fronts. Engaging in related activities as these ideas seep into the organization, we recognize this as a unique aspect of DX in the Hitachi

Construction Machinery Group. Although the New Business Creation Unit has been active for a year, it is still standing at the starting line. Going forward, we will coordinate with each business unit and advance team building. Eventually, the New Business Creation Unit's "Agile Team" will become members within each business unit and collaborate on the development of digital solutions. By pursuing such cross-organizational initiatives, we believe we can continually create new value.

### Reforms in Sales and Service Processes (Sales Support Application)

#### Work-style reforms

##### Shorten time required to prepare proposals

Before

More than two hours to collect and analyze data and put together proposal documents; it is always the end of the work day when all this is finished

After

- Time to prepare proposals significantly reduced!
- Number of visits per day increased!
- Work hours reduced by one hour!

#### Gain trust and increase opportunities to win orders

##### Win trust of customers by quickly replying

Before

Unable to reply right away, requiring re-visiting the client, which sometimes takes up to four hours in total. One reason why opportunity missed to win orders

After

- Able to reply right away to most inquiries!
- Travel time can be used for other negotiations!
- Earn trust and win orders!

#### Advances in ways tools are used

##### Promote use of various sales support tools

Before

Few people could truly understand and use all features of a tool. As a result, they were specialized tools only people in the know could use

After

- The Sales Support Application can act as a portal to other existing apps
- Service operations also use app for sales!

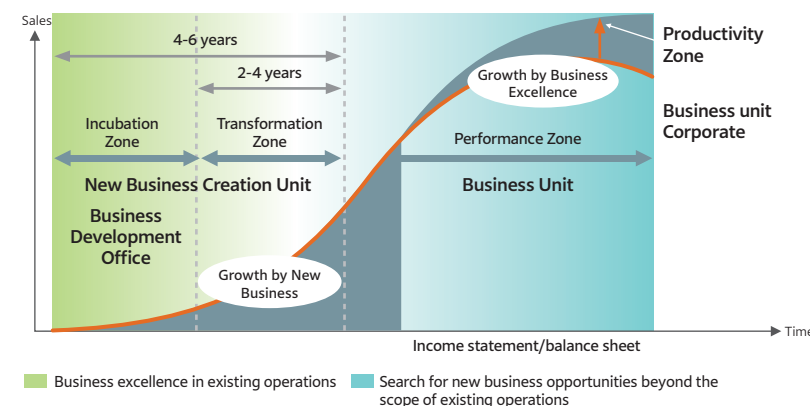


## New Business Creation Unit

### New Business Creation Unit's Initiatives in Three Zones

In the New Business Creation Unit, we are advancing initiatives in three zones: the Incubation Zone to create and nurture new businesses, the Transformation Zone to expand new businesses and the Productivity Zone to enhance the productivity of current businesses. The Productivity Zone is the area responsible for the previously mentioned operational excellence. The Performance Zone is the domain that produces results in existing businesses.

#### Scope of DX in Zone Management



In the Incubation Zone, we have launched the aforementioned KBC and have been brushing up the business ideas that were submitted. In fiscal 2023, we will accelerate initiatives that aim to take on the challenge of business commercialization based on these ideas. Taking into account new employment systems, we will advance the transformation of our corporate culture into one that creates new businesses and then take these activities to the next level (see page 36 for details). In the Transformation Zone, aiming to reduce costs related to productivity, safety and product life cycles for our customers, we will continue to provide new value by developing customer problem-solving solutions on the ICT and IoT solution platform Solution Linkage.

In September 2022, we began offering for the domestic market the cloud-based compaction management solution called Solution Linkage Compactor, which enhances productivity at construction sites. This service enables the automatic

recording of compaction status in real-time, which helps increase work efficiency, shorten construction periods and reduce operator workload. Moreover, we are advancing the development of solutions that address labor shortages and disasters, which are increasing in frequency.

At disaster sites, for example, the use of remotely controlled construction machinery is expected to serve as a solution to ensure the safety of operators. The Ministry of Land, Infrastructure, Transport and Tourism aims to increase the use of cutting-edge technologies at construction sites by organizing annual tech workshops. In September 2022, in anticipation of the eruption of Mount Asama, we provided a remote-control solution combining ICT and remote-control support technologies for the construction of embankments in Tsumagoi Village, Gunma Prefecture.

We will continue to develop the Solution Linkage platform with the intention of offering one-stop ICT construction solutions that ensure high levels of on-site safety and productivity covering all types of worksites.

In addition to ICT construction solutions, Hitachi Construction Machinery will continue to provide individual solutions tailored to customer issues, such as onsite safety and product life cycle cost reduction.

As for the newly introduced Productivity Zone, our goal is to establish operational excellence, a goal that had previously been overseen by the DX Promotion Group; adopt a unique onsite reform capability that cannot be imitated by rivals; and take on the challenges of process reforms in every facet of our operations. Especially this fiscal year, we will focus on process reforms in collaboration with the Spare Parts & Service Business Unit and the Mining Business Unit.

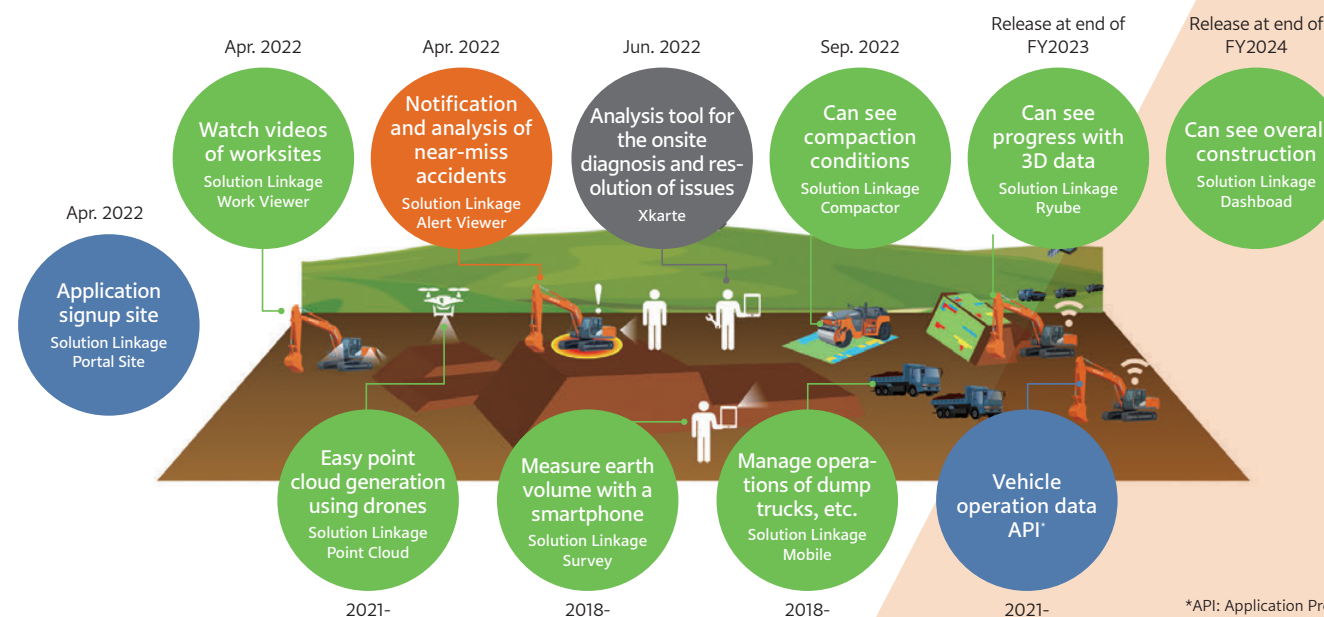
### Towards Realizing the Group's Identity

To become a company that consistently creates new value for customers, it is essential that we cultivate a corporate culture that consistently embraces challenges without fear of failure. Communication is vital for this to happen. Above all, we are convinced that when employees are consistently and strongly motivated to take on challenges, they can acquire the ability to reform and create new value.

To overcome the rapid changes characterizing the VUCA\* era, Hitachi Construction Machinery will challenge itself to transform into a highly agile organization.

\* VUCA stands for Volatility, Uncertainty, Complexity and Ambiguity

### One-Stop Solutions for Improving Safety and Productivity at All Worksites



\*API: Application Programming Interface

## New Business Creation Unit

## TOPICS

## Aim to be a Company Able to Consistently Generate New Value

### Business Development Office Initiatives Focused on New Business Creation

Marking what is effectively the *second founding* of Hitachi Construction Machinery, we officially launched activities to create new pillars of business for the Hitachi Construction Machinery Group from fiscal 2022. Since its establishment in 2022, the Business Development Office of the New Business Creation Unit has been working with the mission of creating new businesses and establishing a culture and framework for spawning new businesses.

Being able to continuously create new businesses signifies the ability to perpetually create new value for customers. To enable each division to achieve this ability on their own, the Business Development Office has started projects in collaboration with each business unit. These projects focus on skill acquisition, like design conceptualization, idea creation and the effective communication of ideas, while advancing new business development. By running these projects each year, we aim to expand the number of employees who can move such initiatives forward.

### Hitachi Construction Machinery Group Business Contest: KENKI $\beta$ BUSINESS CHALLENGE

As a new activity, the Business Development Office holds the Hitachi Construction Machinery Group Business Contest KENKI  $\beta$  BUSINESS CHALLENGE (K $\beta$ C), which commenced in fiscal 2022, as a forum for how to turn one's original ideas into a business. 100 teams (124 individuals) submitted business ideas. To make sure that people without a business idea could participate as long as they have enthusiasm, we conducted a workshop for idea creation before the K $\beta$ C event. Approximately 400 employees participated in this idea workshop.

The K $\beta$ C event is unique in that it enables applicants to learn how to create new value while learning, and that it truly intends to commercialize viable businesses. After they submit their business ideas, participants have access to workshops and mentoring by experts that are designed to impart upon them the necessary skills for business creation. Moreover, participants who pass the intermediate and final evaluations emerge as the winners of K $\beta$ C and are allowed to spend 20% of their work hours on issue verification. Following this, they can move to the Business Development Office and focus exclusively on the commercialization of their business idea.

To instill a culture of creating new value within the Group, Hitachi Construction Machinery will continue to carry out these activities, enabling employees to acquire skills and gain experience in business commercialization.



Presentation at K $\beta$ C Evaluation Panel

### Business Commercialization Process

