

HITACHI

Reliable Solutions

Mining Business Explanatory Meeting

September 23, 2024

🌐 **Hitachi Construction Machinery Co., Ltd.**

Corporate Brand & Communications Group



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Machinery Americas

1

**Our Medium-term Management
Plan and Mining Business**

2

Business Overview

3

Business Outlook

4

**Business Strategy in the
Americas Market**

- 1. Our Medium-term Management Plan and Mining Business**
2. Business Overview
3. Business Outlook
4. Business Strategy in the Americas Market

Hitachi Construction Machinery Group

LANDCROS

Japanese Excellence—Reliable Solutions

LANDCROS



VISION
Ensure a prosperous land and society for the future
We contribute toward realizing a safe and sustainable society



Customer **Reliable** Open **Solutions**



Solution Provider

Our "Thoughts" into the new concept

Discussions about a unified symbolic keyword that represents the direction we should take

Employee surveys (5,000 responses)



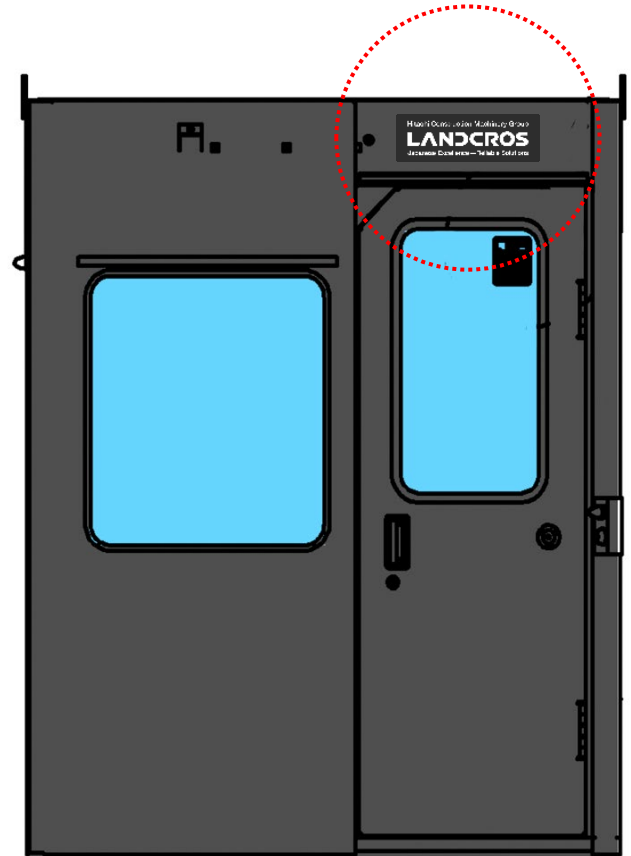
1. We want to connect with **land** through machines and contribute to ensure a prosperous land and society for the future.
2. We want to cross with our **customers** on their journey.
3. We want to be a **reliable** presence for our customers.
4. We want to **openly** co-create new businesses and value with our customers and partners, and develop together.
5. We want to propose innovative **solutions** to our customers and various stakeholders.

1-3. Towards the spread of a new concept

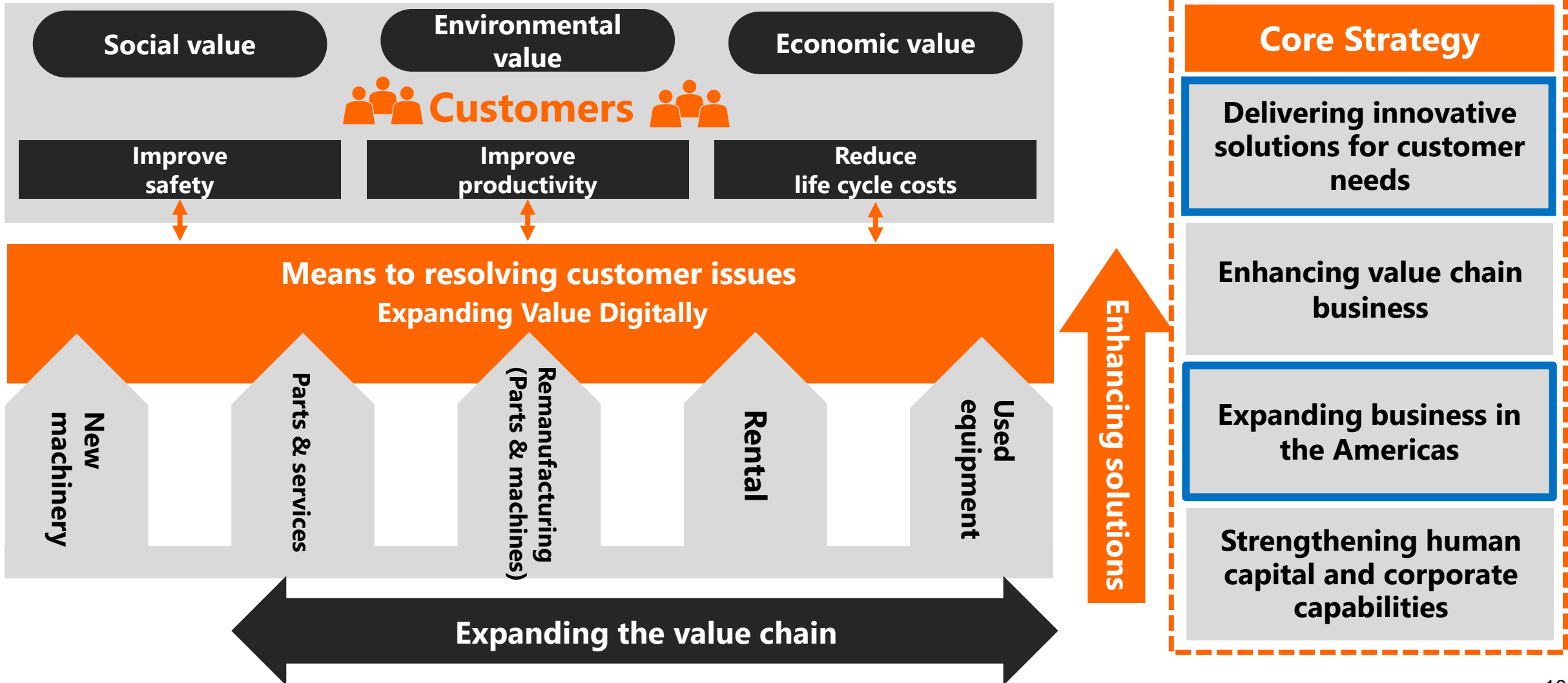


1-4. Towards the spread of a new concept

Hitachi Construction Machinery Group
LANDCROS
Japanese Excellence—Reliable Solutions



Growing as a true solutions provider by delivering innovative solutions



1-6. Objectives of Mining Business

Delivering innovative solutions to the entire mine
Strengthening the sales and services system in the Americas

Optimize the entire mine

Reduce life cycle costs

ESG

Wenco®

Improve safety

Improve productivity

envirosuite



ConSiteMine



Our mining machines



Other makers' mining machines



Excavation

Mineral Processing

1. Our Medium-term Management Plan and Mining Business
- 2. Business Overview**
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4. Business Strategy in the Americas Market

Offering a full lineup of hydraulic excavators. Specializing in the large-sized range of dump trucks. And expanding our solutions for mining operations.

Small mines

Mid-sized mines

Large mines

Hydraulic excavators

Large Construction Products (~100t)



Ultra-large Mining Products (Operating weight(t))



EX1200(120t)



EX2000(200t)



EX2600(260t)



EX3600(360t)



EX5600(560t)



EX8000(800t)

Rigid Dump Trucks

Ultra-large Mining Products

(Gross machine operating weight (t) / Nominal payload(t))



EH3500(320t/180t)



EH4000(400t/220t)

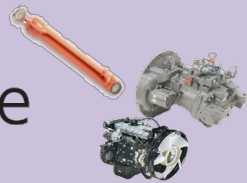


EH5000(500t/300t)

Service Solutions

ConSiteMine

Remote monitoring system



Remanufacturing business



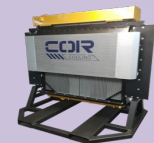
Wenco Fleet management system/AHS



Manufacturing and sale of consumable parts

HE PARTS INTERNATIONAL

After-sales service business



2-2. Our Mining Excavators

Leading the mining excavator market since developing our first hydraulic excavator made purely with domestic technologies



Development of first HE made purely with domestic technologies

**UH801(157t)
Launched**

**EX1800/
3500
Launched**

**EX2500/
5500
Launched**

**5 series/
EX8000
Launched**

**6 series
Launched**

**7 series
Launched**

1965

1979

1980s

1990s

Early 2000s

Late 2000s

2019

**Total shipments
About 2,400 units***



Wired electric mining excavators

**1st UH801E
Delivered**

**EX2500E
Launched**

**EX-5E
series**

**EX-6E
series**

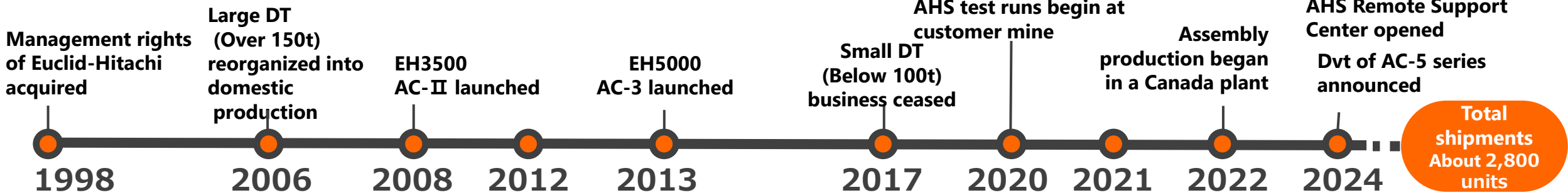
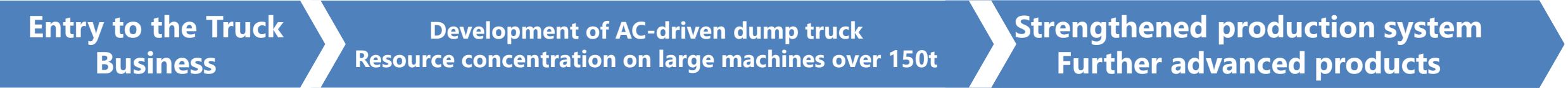
**EX-7E
series**

**Total shipments
About 200 units***

*As of June 2024

2-3. Our Rigid Dump Trucks

Focusing on large AC motor-driven models. Planning further expansion by introducing the latest models and developing trolley-powered fully electric equipment.



Trolley dump truck

First AC-II trolley machine delivered in Africa

AC-3 trolley machine launched

Joint development of fully electric dump truck with ABB

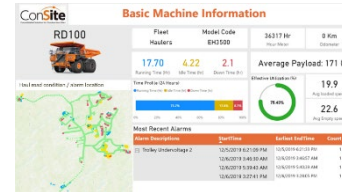
Total shipments About 130 units

Providing diverse services based on operational data. Strengthening after-sales services through M&A
Aiming to advance through autonomous/remote operation

Development of remote management solutions

Strengthened after-sales services through M&A
Entry to the field of beneficiation

Advance through autonomous/remote operation



Remote monitoring functionality becomes a standard feature for mining excavators

Wenco becomes a wholly-owned subsidiary

H-E Parts becomes a wholly-owned subsidiary
Bradken becomes a wholly-owned subsidiary

AHS test run of dump trucks begins at customer mine

Roll out ConSite Mine

Demo test of operational assistance system for mining excavators started with Rio Tinto
AHS remote support center opened
Invested in envirosuite

Early 2000s

2009

2016

2017

2020

2022

2024



Mine fleet management system



Comprehensive solutions for mining equipment



Consumable parts and beneficiation business

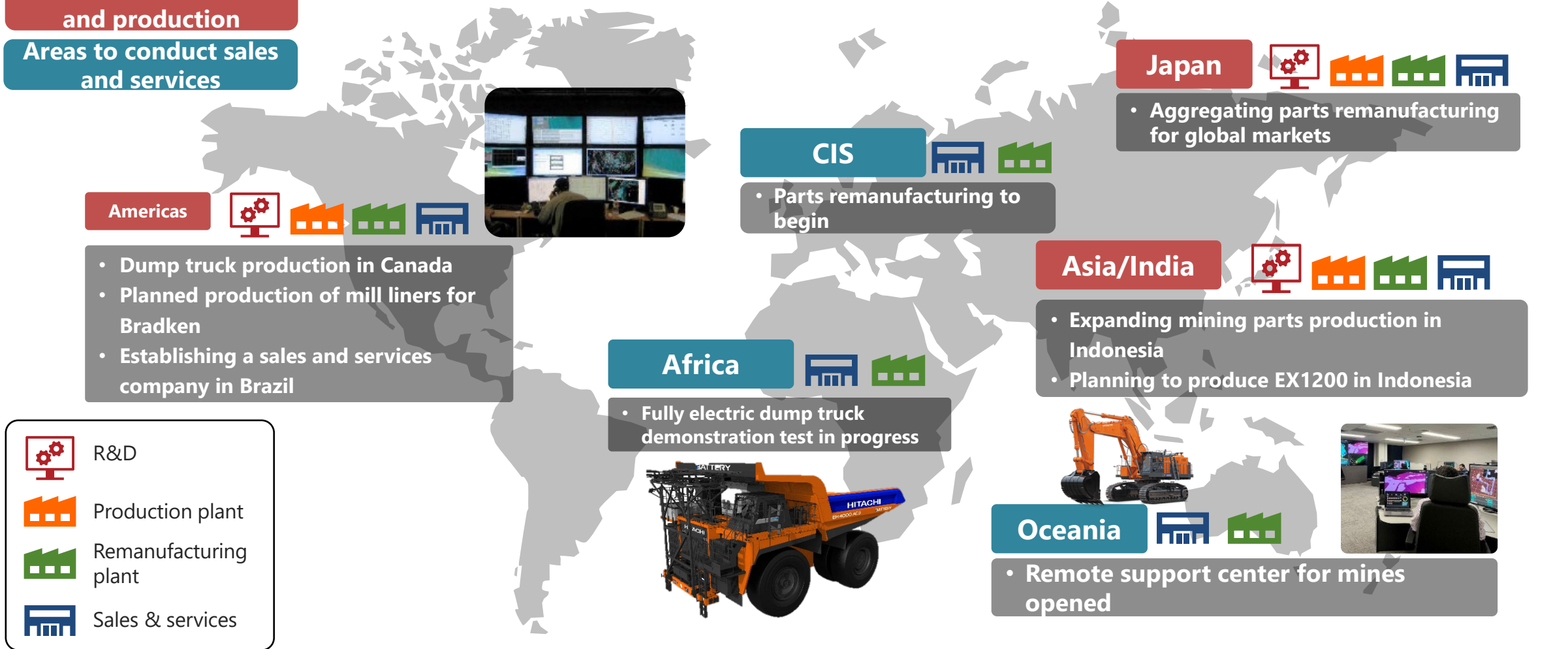


Remote monitoring using IoT and AI

Developing bases for sales, services and recycling in areas with high mining demand, and starting local production with a focus on production in Japan

Areas to conduct dev't and production

Areas to conduct sales and services

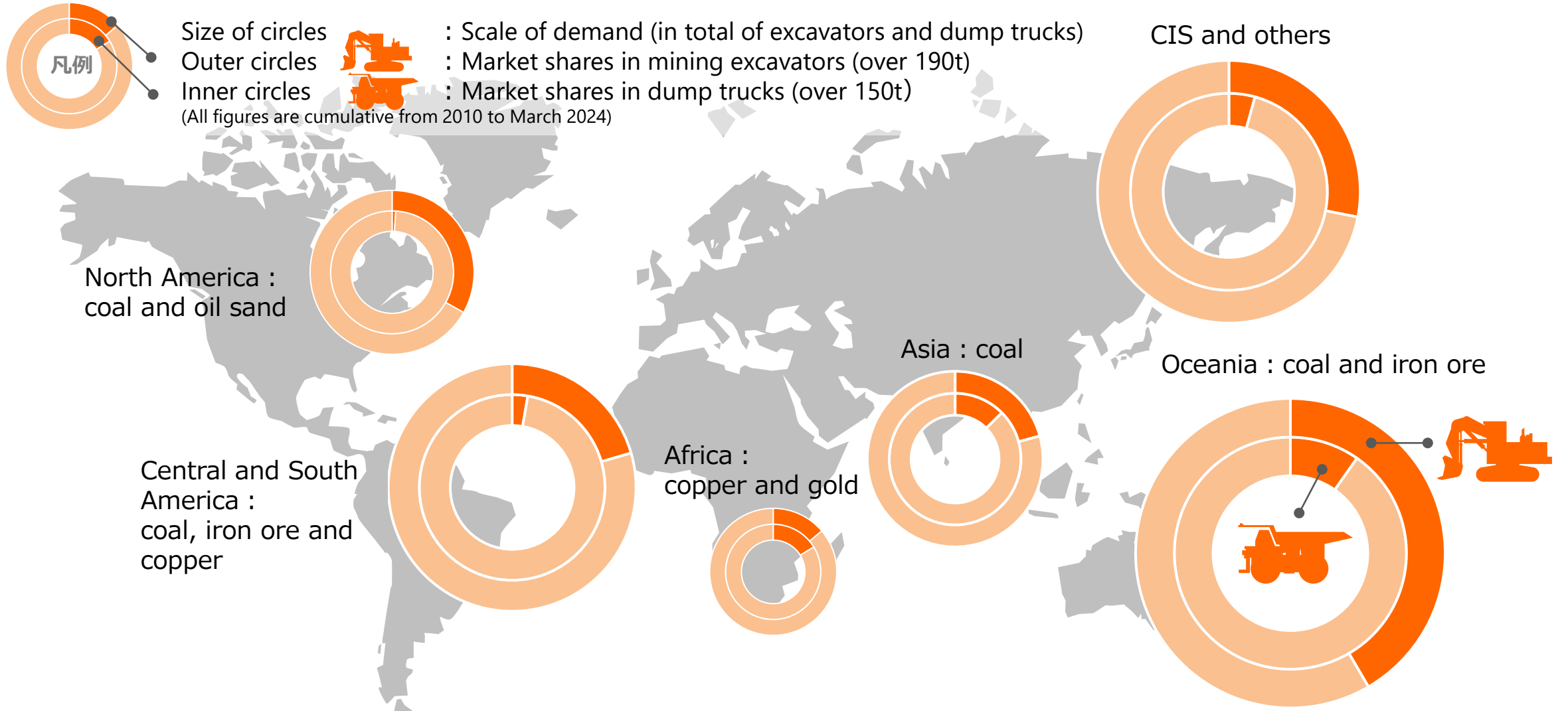


- R&D
- Production plant
- Remanufacturing plant
- Sales & services



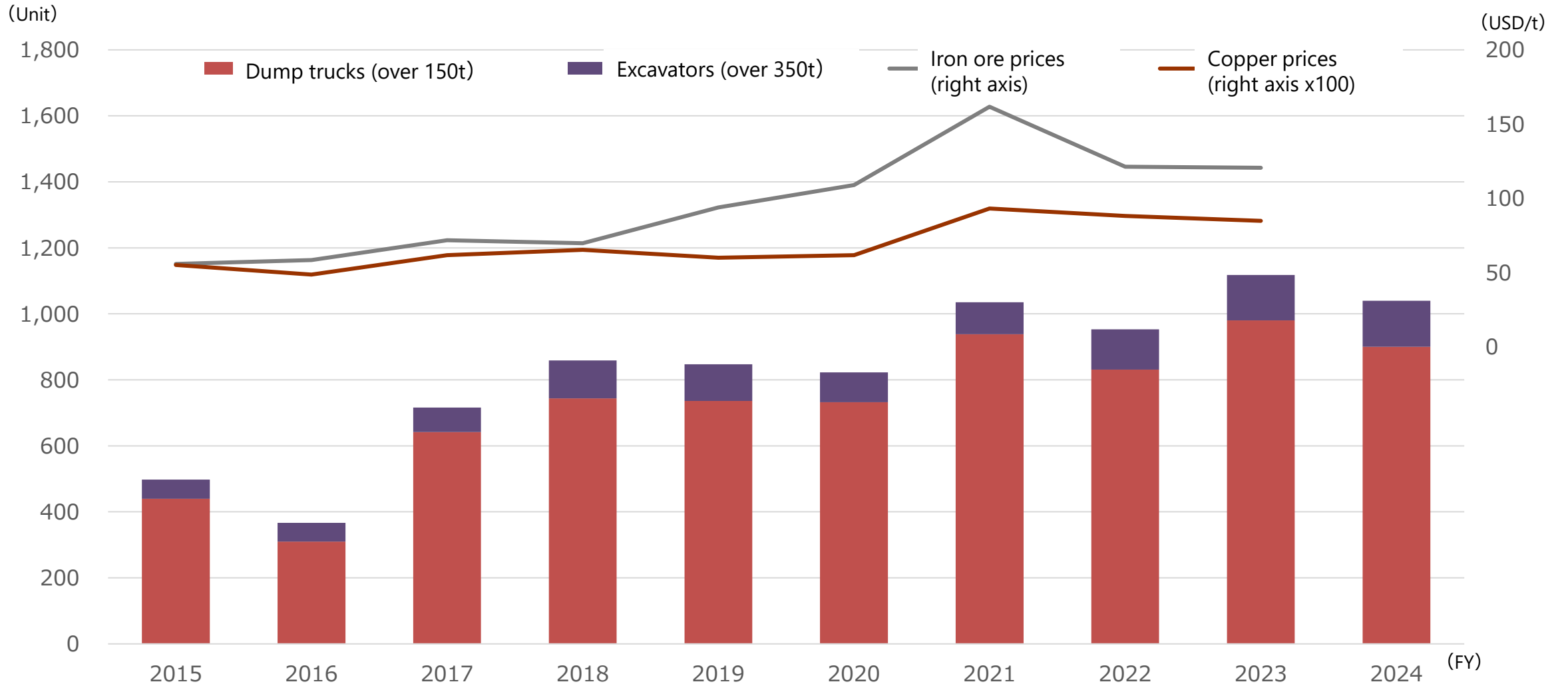
2-6. Market Shares and Major Commodities

Aiming to further increase our presence primarily in the Americas, both in excavators, in which we have a high market share, and dump trucks, in which there is still significant room for growth



2-7. Changes in the Demand of Our Ultra-large Mining Equipment

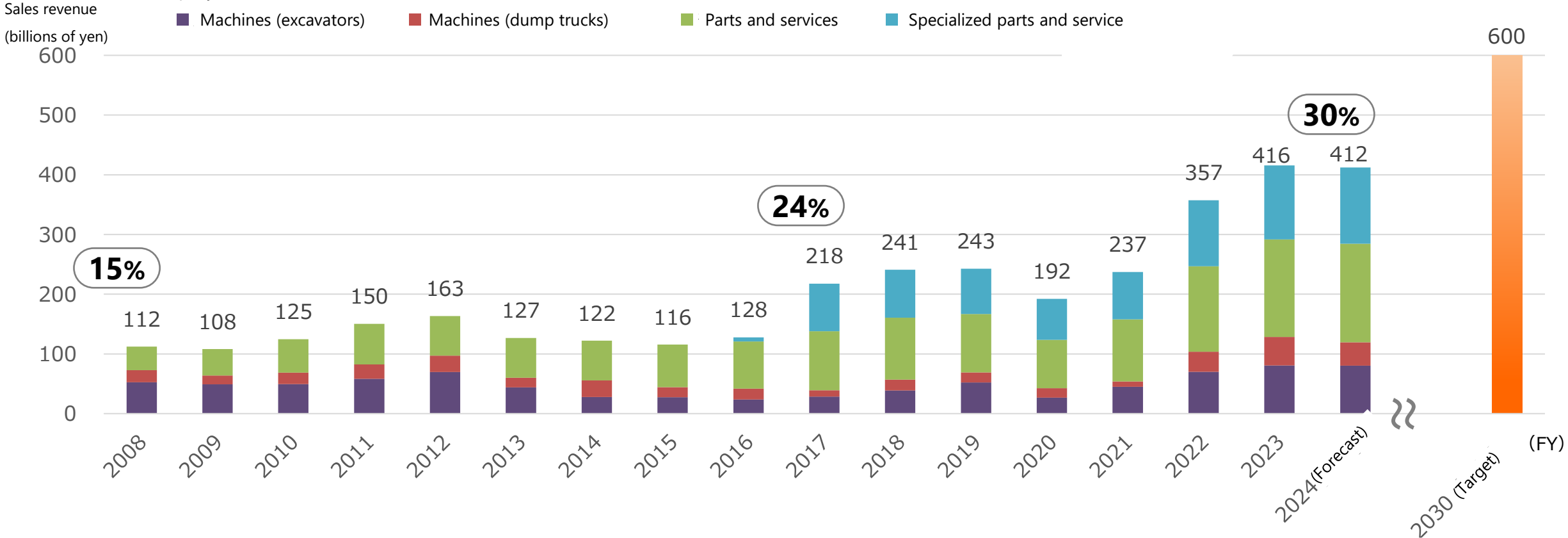
The super-large models that we specialize in are more closely related to iron ore and copper than coal, and demand has been strong in recent years.



2-8. Sales Revenues of Mining Business

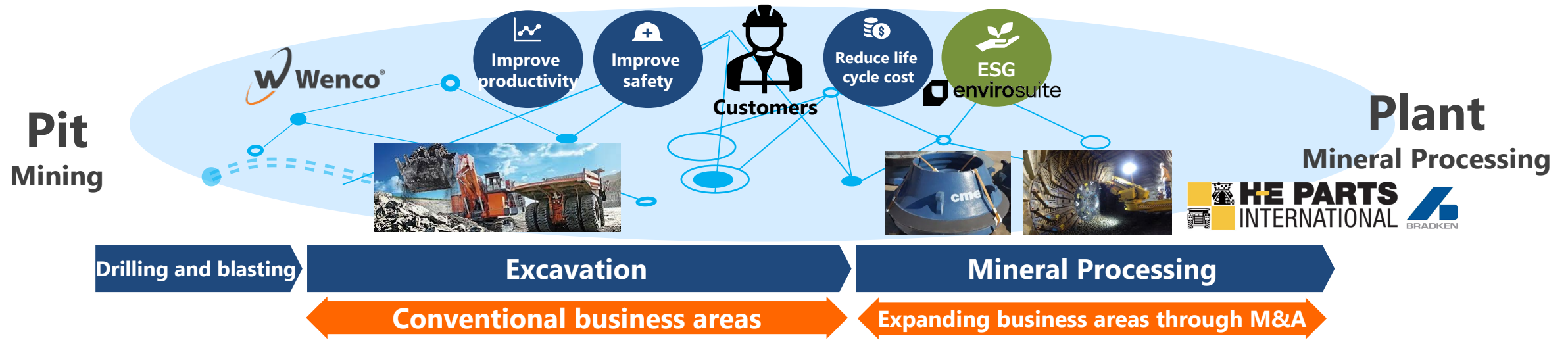
Steady growth despite market conditions. Increase in mining composition ratio contributes to improved profitability. Aiming for sales revenue of JPY600B by FY2030 through development of the Americas market, etc.

(%) = Percentage of Mining revenue in total company revenue



1. Our Medium-term Management Plan and Mining Business
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Solving customer issues through various touch points across mining operations



Zero Emission

Virtually zero greenhouse gas emissions

Wired ultra-large hydraulic excavator **Full battery rigid dump truck**

Zero Entry

Zero entry with highly automated and autonomous operation

Highly automated and autonomous operation

Zero Downtime

Zero downtime for machines in operation

Monitoring solutions

3-2. Full Battery Dump Truck

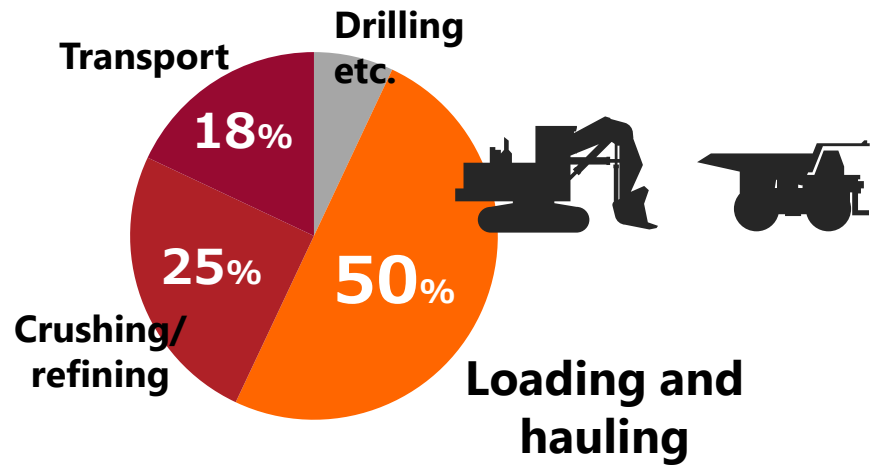
Zero Emission

HITACHI

Reliable Solutions

World's first technological feasibility trial of ultra-large full battery dump truck at mining site began in June 2024

CO2 emissions by process at mining site



Comparison between diesel engine and fully electric

20h/day, 350 days of operation	Diesel engine type	fully electric type
Diesel fuel consumption	1.2 million liter/year	0 liter/year
CO2 Emissions	3,000t/year	0t/year

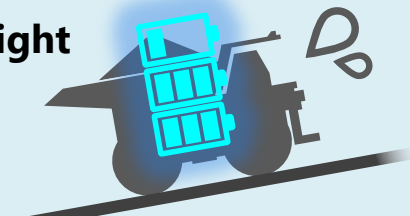
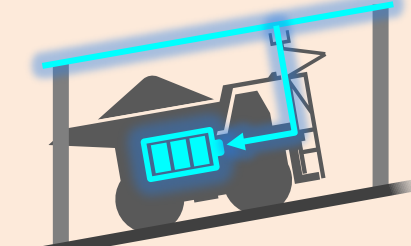

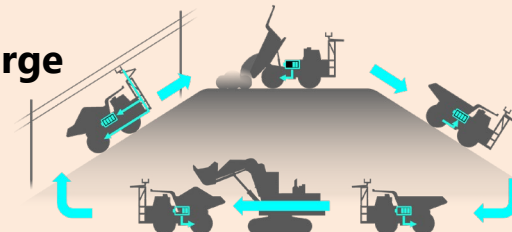
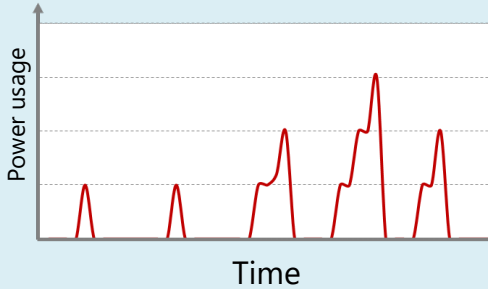
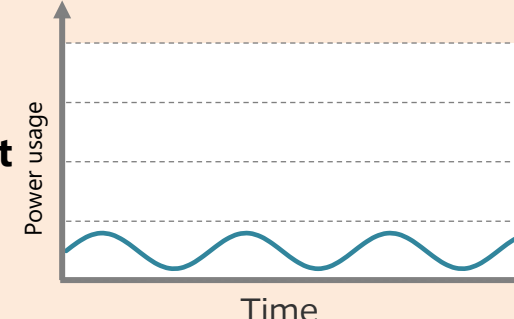
Issues in electrification

- Issue 1. Heavy batteries reduce payload
- Issue 2. Increased downtime reduces utilization
- Issue 3. Investment in fast charging equipment and reduced battery life

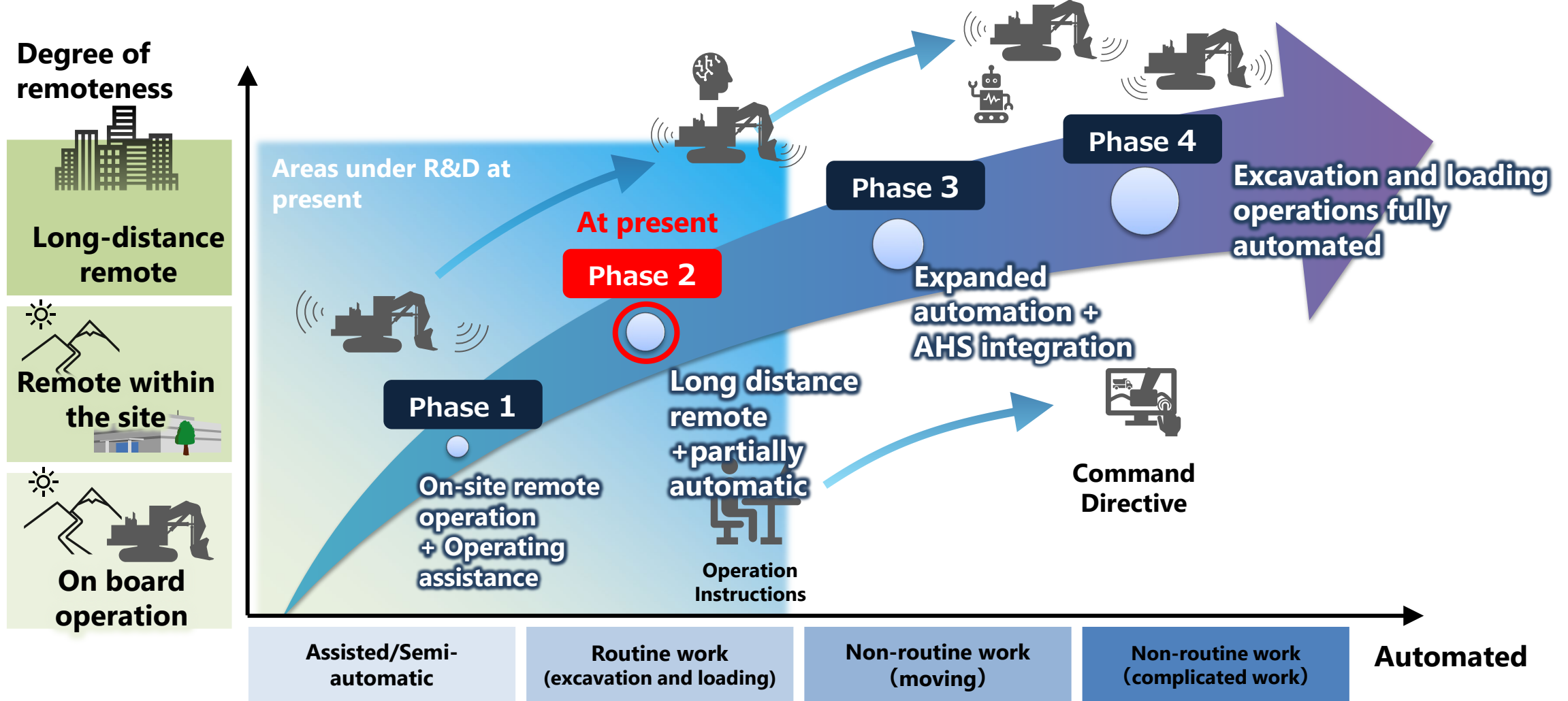


A full battery rigid dump truck based on the EH4000AC-3

Dynamic charging system with trolley is the best choice for maximized payload, high utilization, and reduced life cycle costs

	Static charging system	Dynamic charging system with trolley
<p>Issue 1 Heavy batteries reduce payload</p>	<ul style="list-style-type: none"> Requires large battery Increased machine weight Reduced payload 	<ul style="list-style-type: none"> A minimum battery only Reduced machine weight Increased payload 
<p>Issue 2 Increased downtime reduces utilization</p>	<ul style="list-style-type: none"> Downtime at every charging Lower utilization 	<ul style="list-style-type: none"> Charging while driving No need to stop to charge Maintains utilization 
<p>Issue 3 Investment in fast charging equipment and reduced battery life</p>	<ul style="list-style-type: none"> Large fluctuations in power usage Fast charging equipment required Reduced battery life 	<ul style="list-style-type: none"> Small fluctuations in power usage Allows small-scale overhead line equipment Prevents deterioration of battery life 

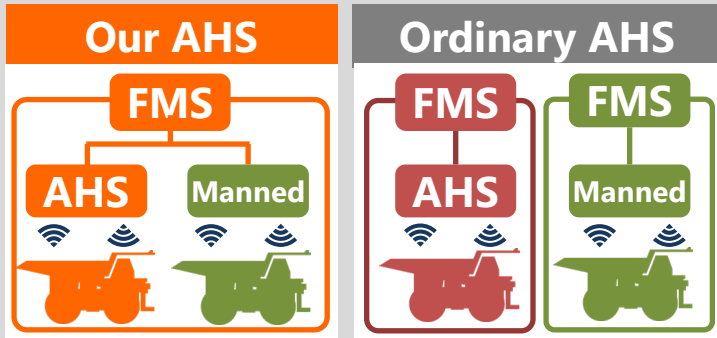
**Aiming to realize a Zero Entry Mine from a safety standpoint
--- where operators do not enter the operating area**



Mining involves a lot of repetitive tasks. Therefore, the first step is unmanned operating equipment with remote-control, and then gradual automation to increase productivity, with the aim of achieving full automation.

Commercializing AHS in 2024, and expanding sales from Australia to the world by leveraging its three strengths

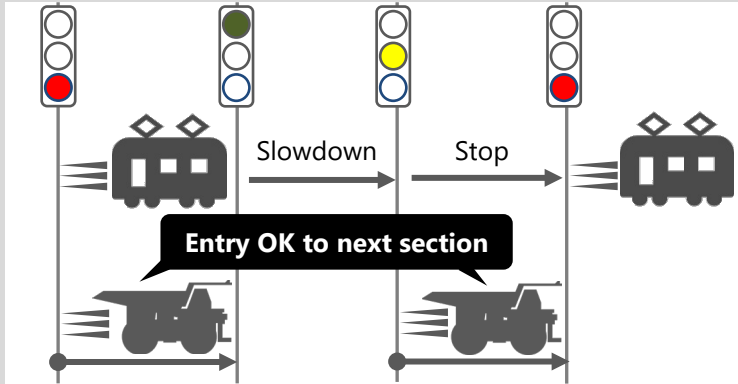
A single fleet management system for mixed operation of manned and unmanned machines



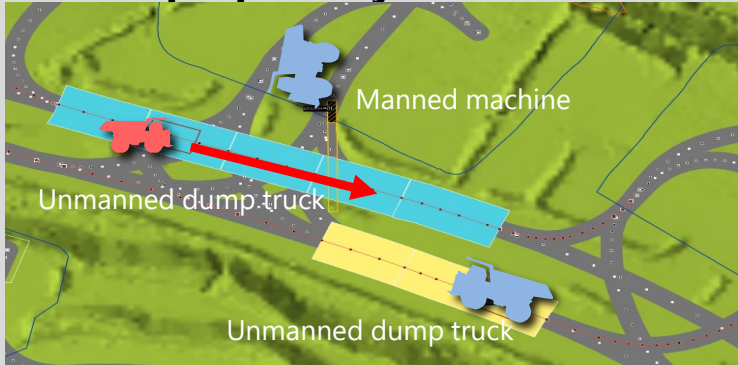
Wenco's FMS has a good track record of delivery around the world



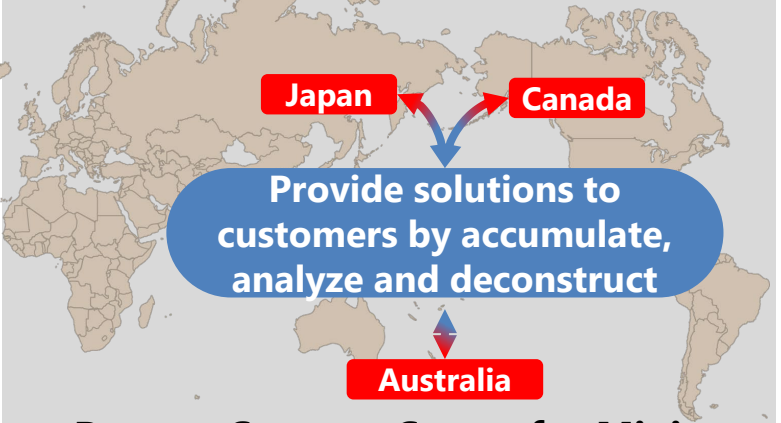
Controlling the operation of 100 machines using railway technology



Proving effectiveness with proprietary simulator



Support multiple sites 24/7



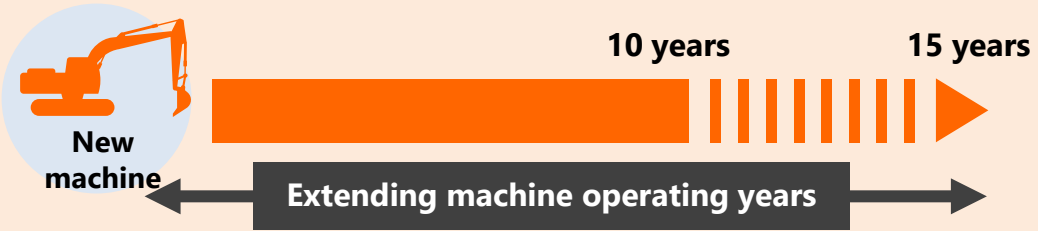
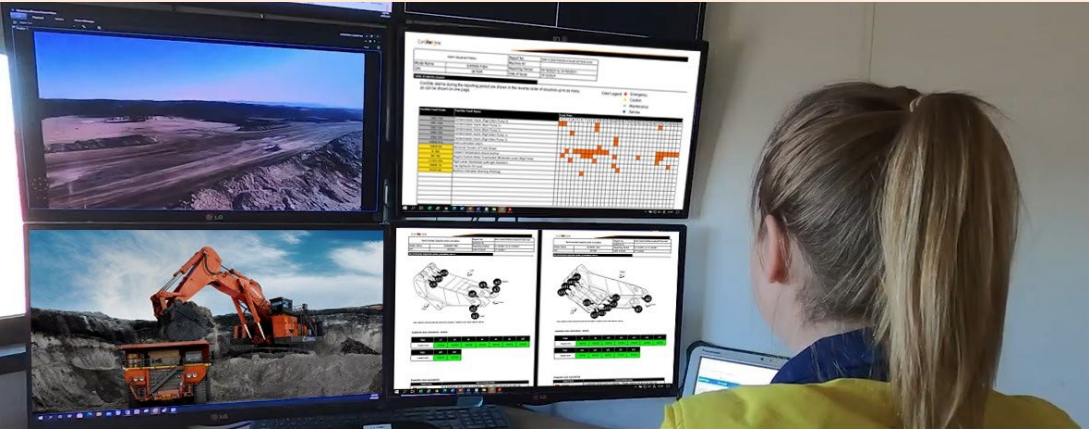
Remote Support Center for Mining



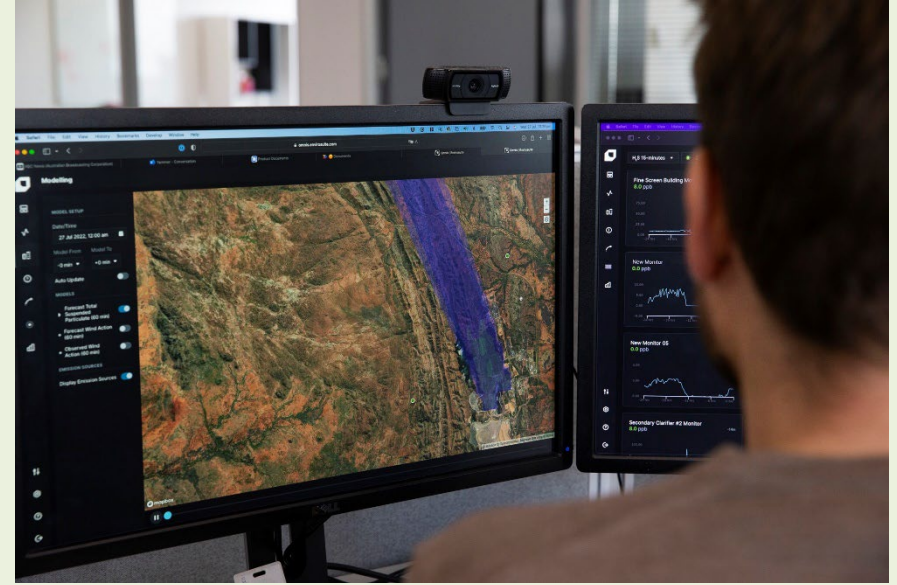
Leveraging IoT, AI, and stress analysis technology to contribute to customers with useful information for stable operation of their equipment



Improve safety and productivity and reduce life cycle costs



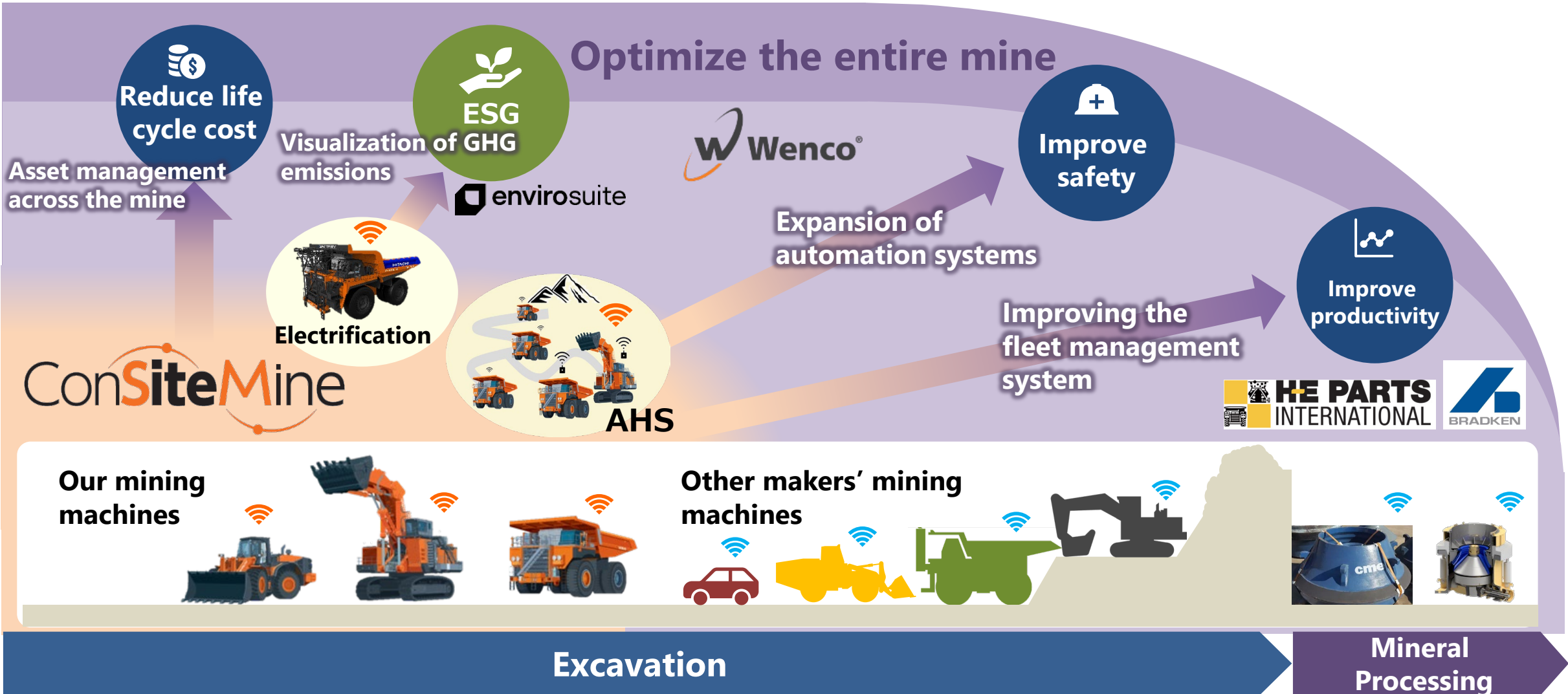
Reduce environmental impact and achieve sustainable and optimal operations



Real-time remote monitoring of air quality, dust, noise, vibration, water quality, and odors; predicting trends in each environmental indicator based on weather conditions.

3-8. Future Objectives of Mining Business

Expanding from a focus on supporting our mining machines to providing solutions for the entire mining industry using digital technology



1. Our Medium-term Management Plan and Mining Business
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- 4. Business Strategy in the Americas Market**

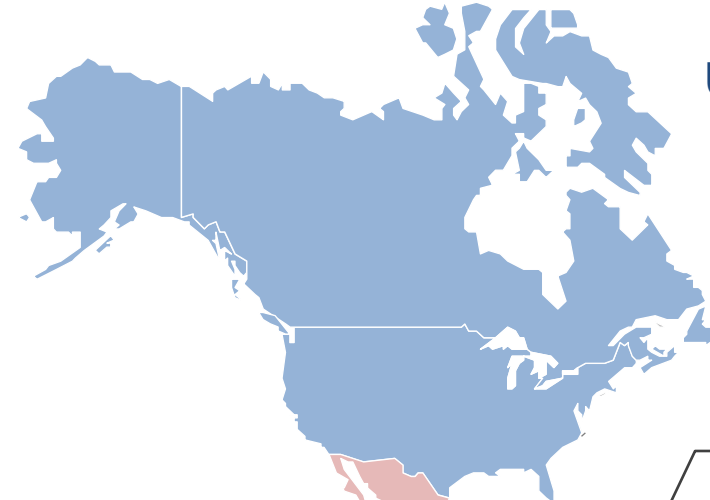
North America - a major demand area for construction Latin America - a major demand area for mining

North America

- Large demand area for construction machines, high level of demand continues
- The rental market accounts for over half of the world
- Mining also has a certain market size

Latin America

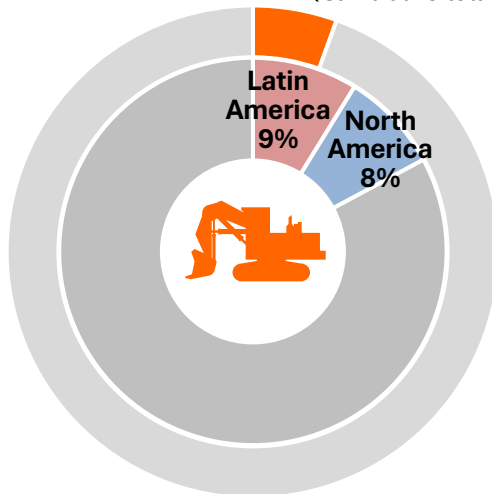
- A major mining demand area. Many large-scale mines for hard rock such as copper and iron ore.
- In Chile and Peru, machines must be adapted to the high-altitude environment.



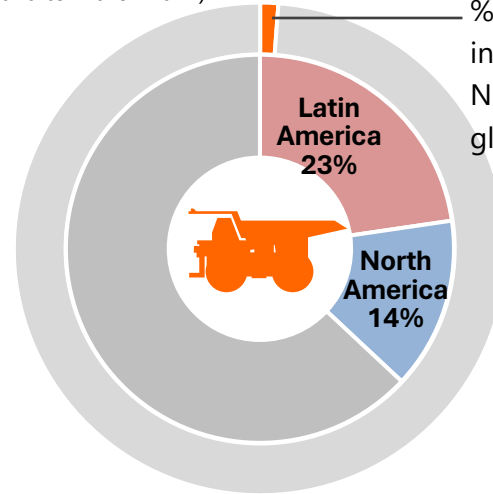
USA, Canada
: coal, oil sand

Demand in the Americas vs. global and % of our sales volume

(Cumulative total from 2010 to March 2024)



(Operating weight over 190t)

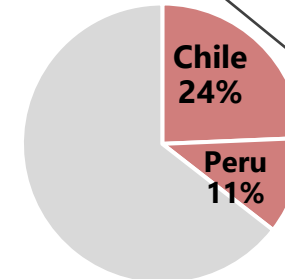


(Load capacity over 150t)

% of our sales volume in South America and North America (vs. global demand)

Chile, Peru

: copper



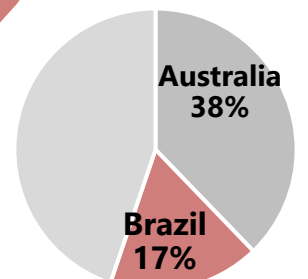
Copper ore production

Colombia

: coal (thermal)

Brazil

: iron ore

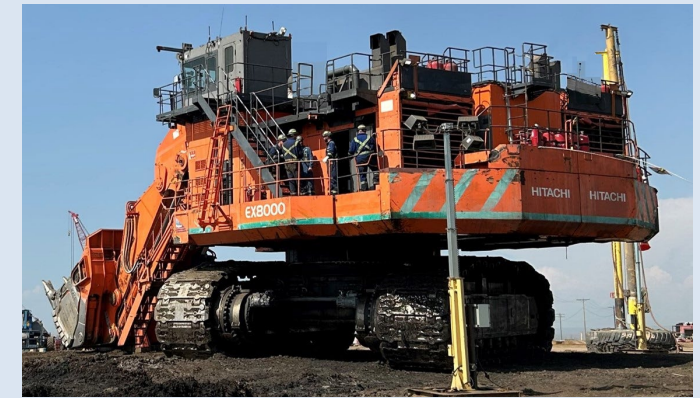


Iron ore production

Building a full support system that only a manufacturer can provide through cooperation within the Group

Case1

Understanding part replacement plans in mining and ensuring strategic, stable supply of parts



EX8000 (Canadian Oil Sands) in operation for 18 years

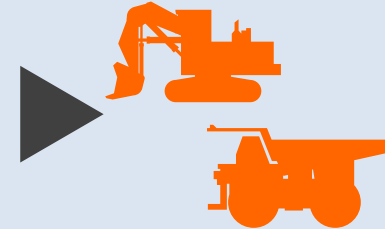
Case2

Strengthening cooperation within the Group to expand sales of Group company parts

Use of operating data



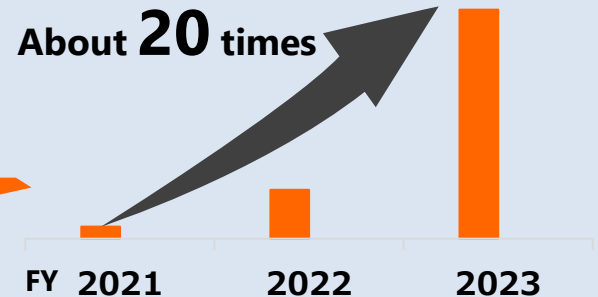
Expansion of parts sales in cooperation with Bradken



Hitachi Construction Machinery America's dealers sales of Bradken parts

Synergy effect

About 20 times



Aiming for mining sales revenue of over JPY200B in the Americas in FY2030 by rebuilding the South American system

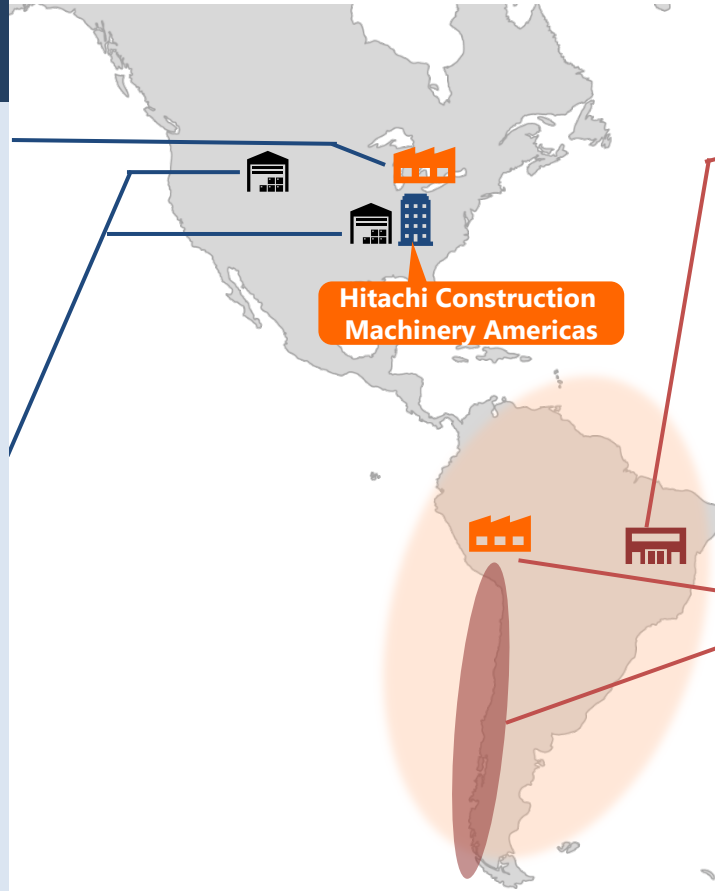
Achievements so far

- Hitachi Construction Machinery Trucks begins remanufacturing parts and assembling dump trucks
- Organizing parts supply networks



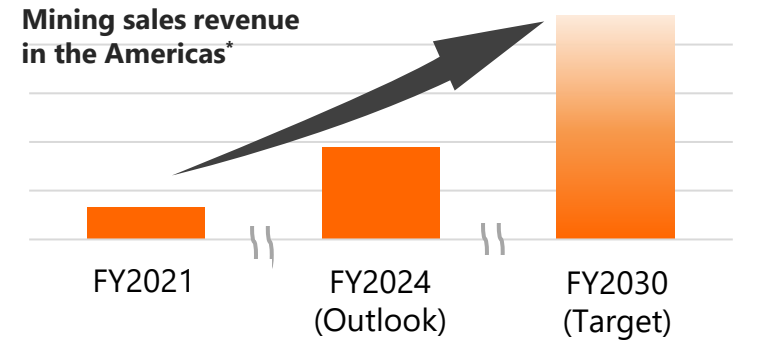
Eastern North America:
Jackson/McDonough Parts Warehouses
Western North America:
Salt Lake City Parts Warehouse

- Full-scale rollout of electric excavator EX5600-7E for the Americas



Measures and issues for the future

- Establishing a sales and services company in Brazil by January 2025
- Restructuring a sales and services structure in South America other than Brazil in cooperation with Marubeni
- Establishing a remanufacturing center and parts warehouse in South America
- Training of technical personnel
- Mill liners to be produced in Peru from 2026
- Expansion of high-altitude models for Peru and Chile



*Total of machines (excavators/dump trucks) + parts/services + specialized parts/services

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- 5. Conclusion**

1

Our Medium-term Management Plan and Mining Business

Having set the new concept of LANDCROS as proof of “the Hitachi Construction Machinery Group's desire to provide innovative solutions”, we are aiming to provide innovative solutions at various touch points throughout mining operations.

2

Business Overview

We are aiming to expand our business with diverse solutions and a global network, focusing on much-in-demand ultra-large models, to achieve 600 billion yen in mining sales revenue by FY2030.

3

Business Outlook

With Zero Emission, Zero Entry, and Zero Downtime as our keywords, we are aiming to leverage digital technology to expand our business into solutions for the entire mine.

4

Business Strategy in the Americas Market

We are aiming to rebuild our operations in South America, the main producer of hard rock, and aim to achieve over 200 billion yen in mining sales revenue in the Americas by fiscal 2030.

Cautionary Statement

This material contains forward-looking statements that reflect management's views and assumptions in the light of information currently available with respect to certain future events, including expected financial position, operating results, and business strategies. Actual results may differ materially from those projected, and the events and results of such forward-looking assumptions cannot be assured.

Factors that may cause actual results to differ materially from those predicted by such forward-looking statements include, but are not limited to, changes in the economic conditions in the Company's principal markets; changes in demand for the Company's products, changes in exchange rates, and the impact of regulatory changes and accounting principles and practices.

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September 23, 2024

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