

## **Fourth ESG Explanatory Meeting** **Sustainability Initiatives and DX Strategy**

February 27, 2024

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

Corporate Brand & Communications Group



President and  
Executive Officer, COO

**Masafumi Senzaki**



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President of New  
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**Seimei Toonishi**



President of  
Sustainability Promotion  
Group

**Atsushi Tamane**

1

## **Value Creation Strategy of Hitachi Construction Machinery Group**

2

## **DX Strategy for Accelerating Value Creation**

Organization building/corporate culture reform  
/specific initiative case examples

3

## **Progress of the Sustainability Initiative**

# **1. Value Creation Strategy of Hitachi Construction Machinery Group**

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## Changes in the social, technological, and economic environment

- Aging and a shortage of workers in secondary industry
- Broadly defined software, shift to utilization value, and progress in digital technology
- Acceleration of economic transformation to realize a sustainable global environment
- Emergence of geopolitical risks

## Changes in the competitive environment

- Accelerating development of decarbonization technologies including electrification in developed countries and mining markets
- Firm establishment of conversion of customer needs "from hardware products to solutions"
- Rise of Chinese manufacturers in emerging countries
- Competition or cooperation with other industries with digitization

## Capital structure changes

- **Hitachi, Ltd.** — Collaborative creation with the Hitachi Group in various R&D fields to accelerate environmental responses and the circular economy
- **ITOCHU Corporation** — Acceleration of business expanding in North America and promotion of business
- **Japan Industrial Partners, Inc.** — Strengthening of the medium- to long-term management foundation and enhancement of corporate capabilities

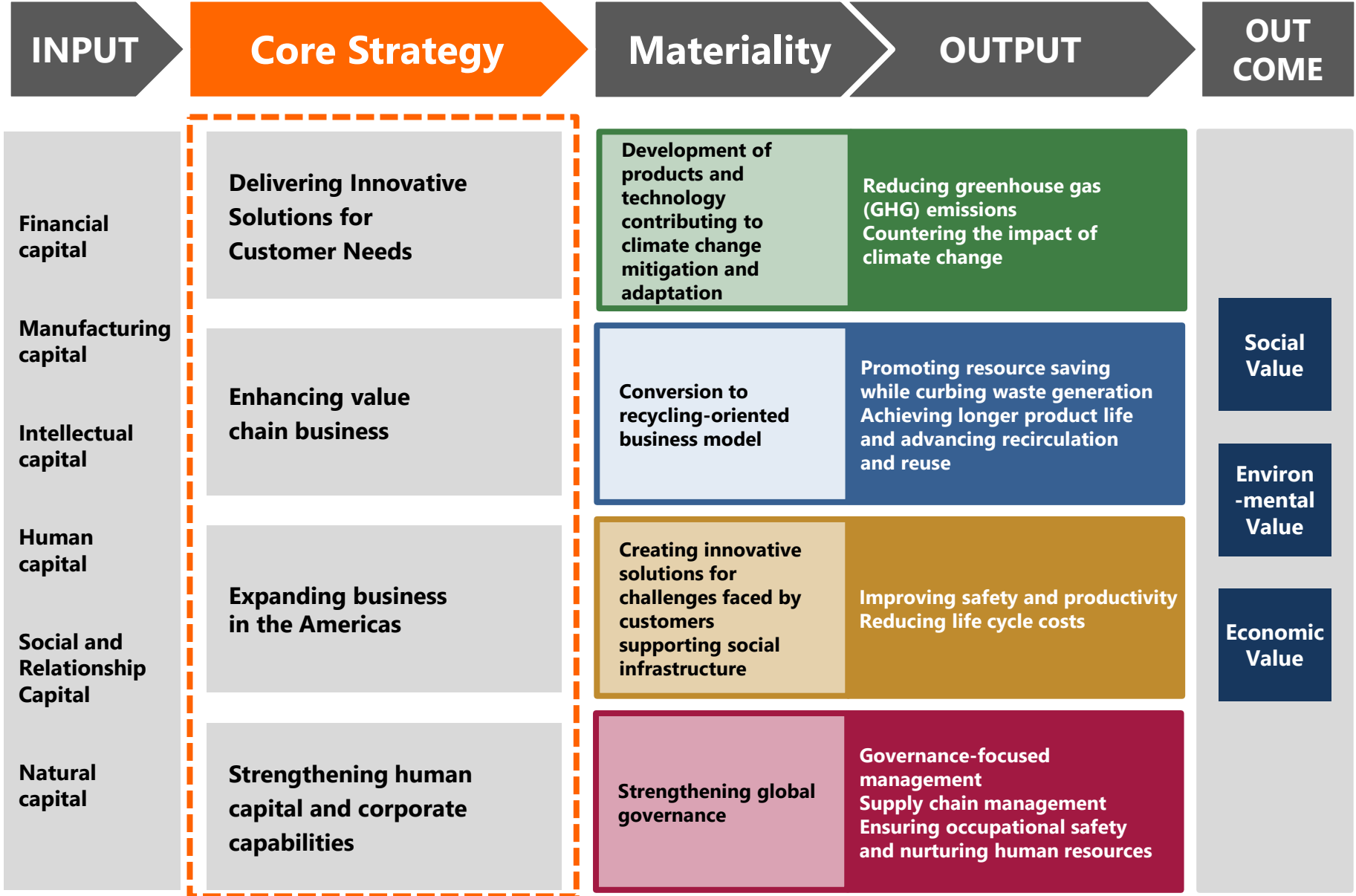
**Hitachi Construction Machinery is entering a new phase of growth with various changes**

## Formulating our own group identity in response to business environmental changes

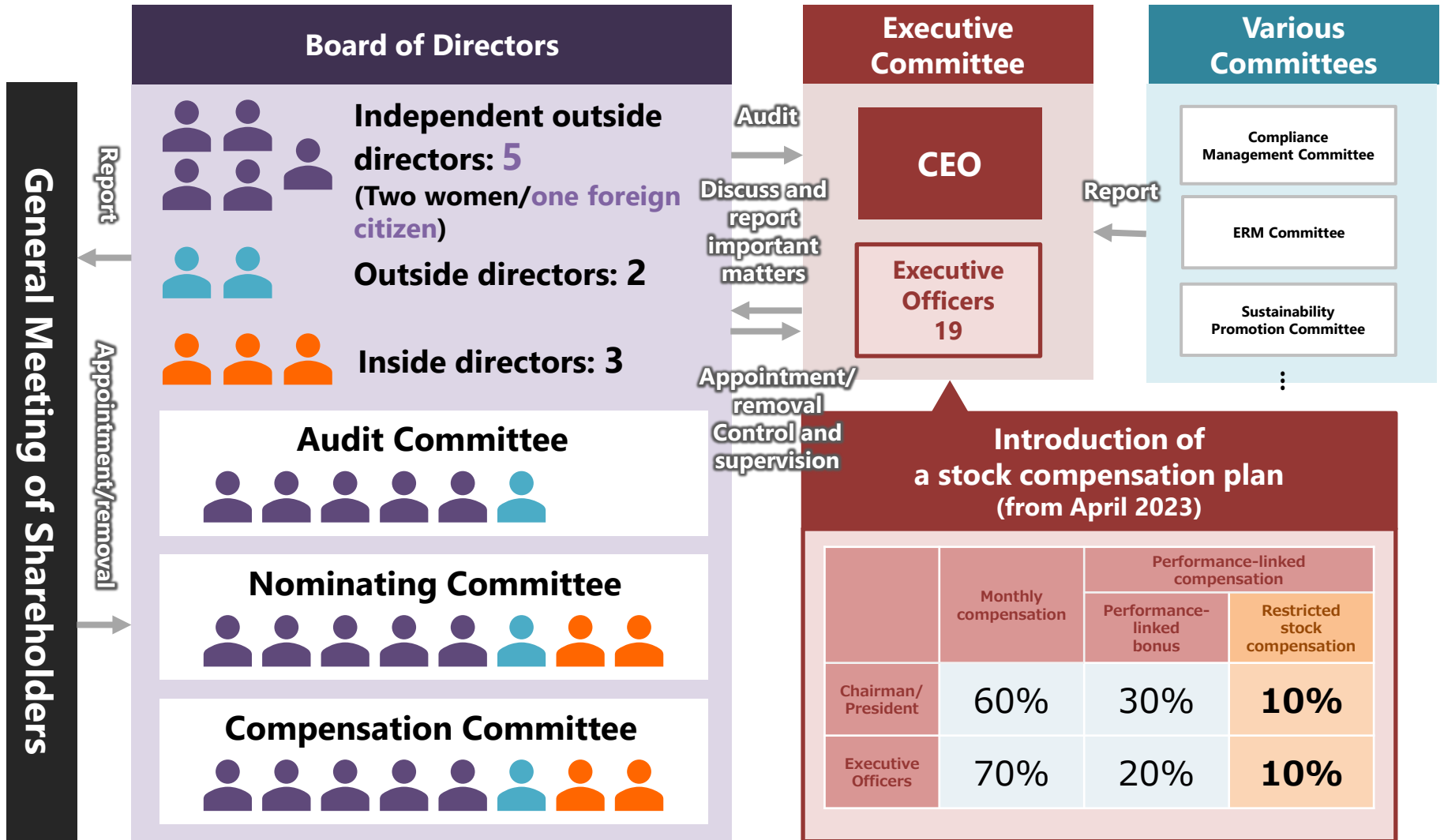
**Reliable Solutions** We are a reliable solutions partner with/for our customers



# Value Creation Process



Increase the ratio of independent outside directors to 50% and ensure independence and diversity  
Further promote shareholder-focused management by introducing a stock compensation plan





## **2-1. DX Strategy and Organization Building for Accelerating Value Creation**

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We always take our customers' issues as the starting point for our actions to resolve them



**Aiming to grow as a true solutions provider**

## Customer issues are unchanging

Safety improvement

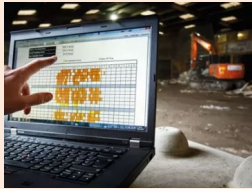
Productivity improvement

Reduction of lifecycle cost

Environmental response

## Solutions are becoming more complex due to technology innovation

AI



Autonomy



Electrification



ICT construction

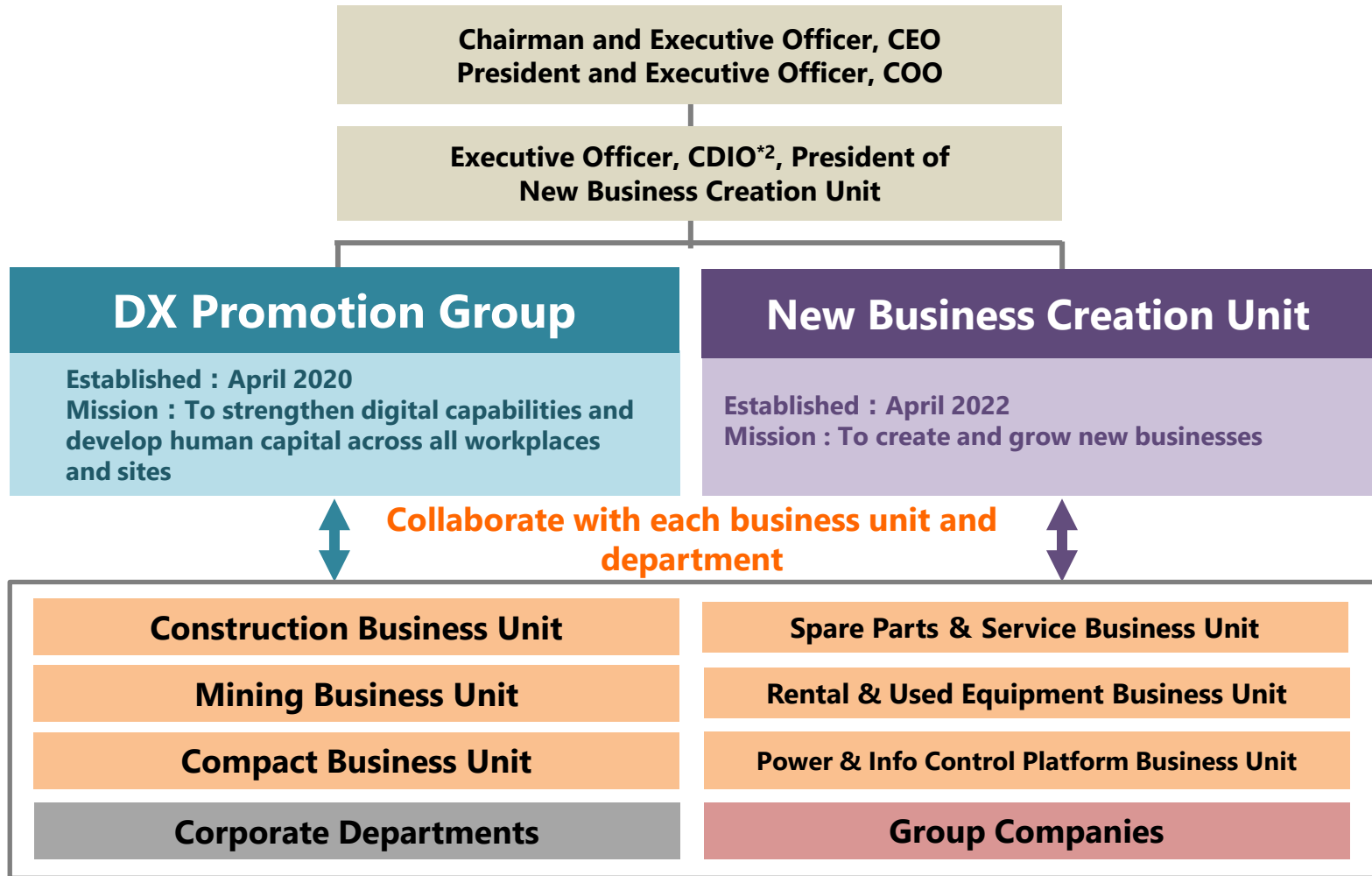


IoT



It is essential that we provide products, services, and solutions that utilize digital technologies to solve customer issues

Fostering an “agile corporate culture<sup>\*1</sup>” through the commitment of top management



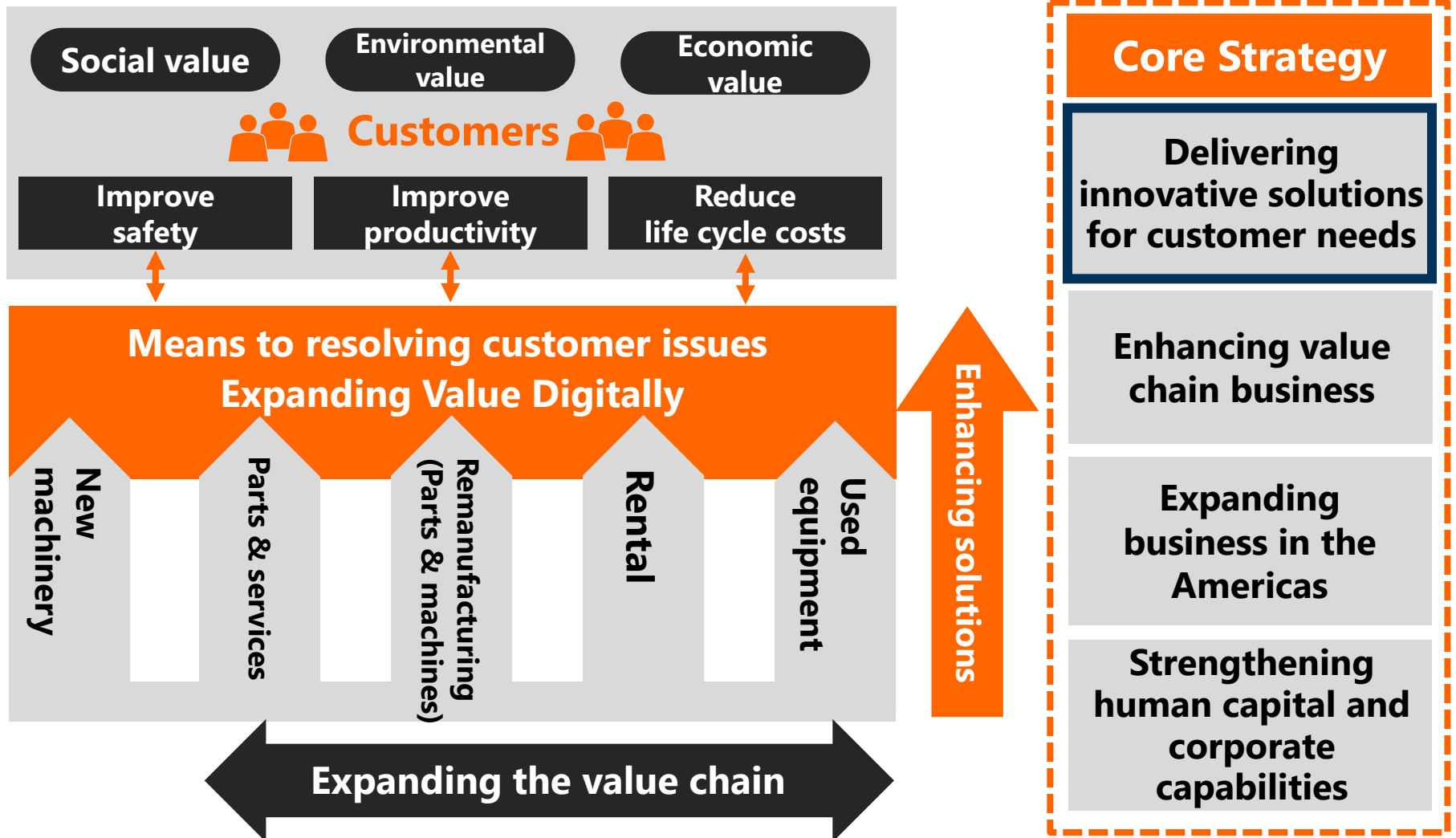
\*1 A corporate culture that quickly perceives changes in the world and circumstances, develops flexible ideas and the ability to execute them, and takes the action in its own initiatives

\*2 Chief Digital & Information Officer

## **2-2. DX Strategy and Corporate Culture Reform**

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## Growing as a true solutions provider by delivering innovative solutions



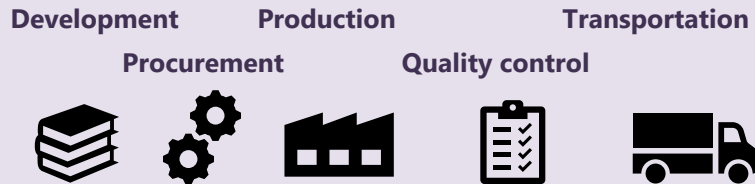
Provide solutions to realize CIF that aggregate and maximally utilize the data generated by all business processes

CIF perspective Rapidly respond to changing needs

Optimal proposal for customers

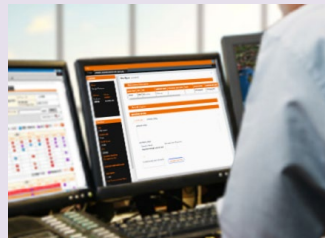
Development and production

Sales, rentals, and services



Smart factories

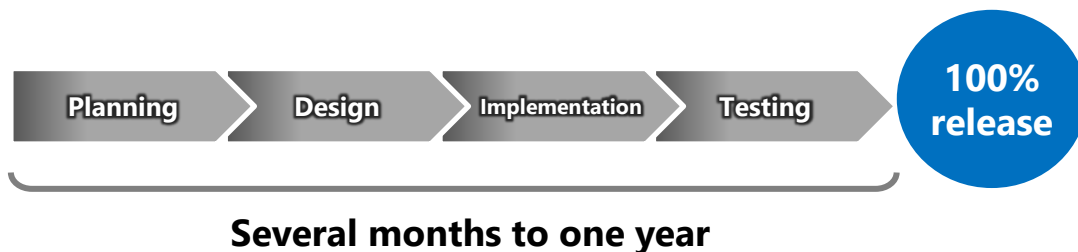
Data-driven proposal activities



Customer requests and issues

In addition to the waterfall development, also introduce agile development  
Rapidly respond to customer needs with the optimal method

## Waterfall development



All features are released when they are complete

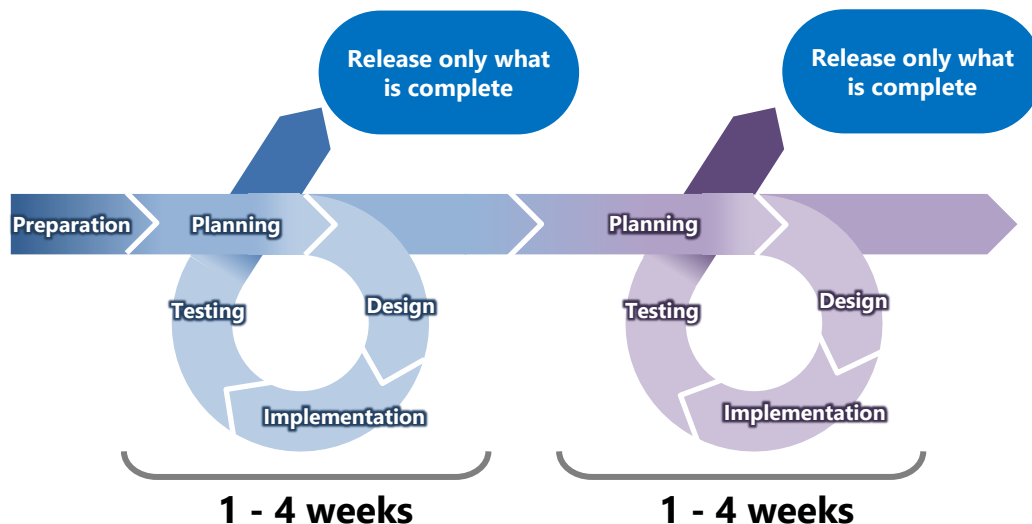
Ensures high quality with progress management for each phase based on a detailed plan



Product development

Core system

## Agile development (newly introduce)



Prioritize and release important features

Quickly provide value with a short cycle while incorporating user feedback

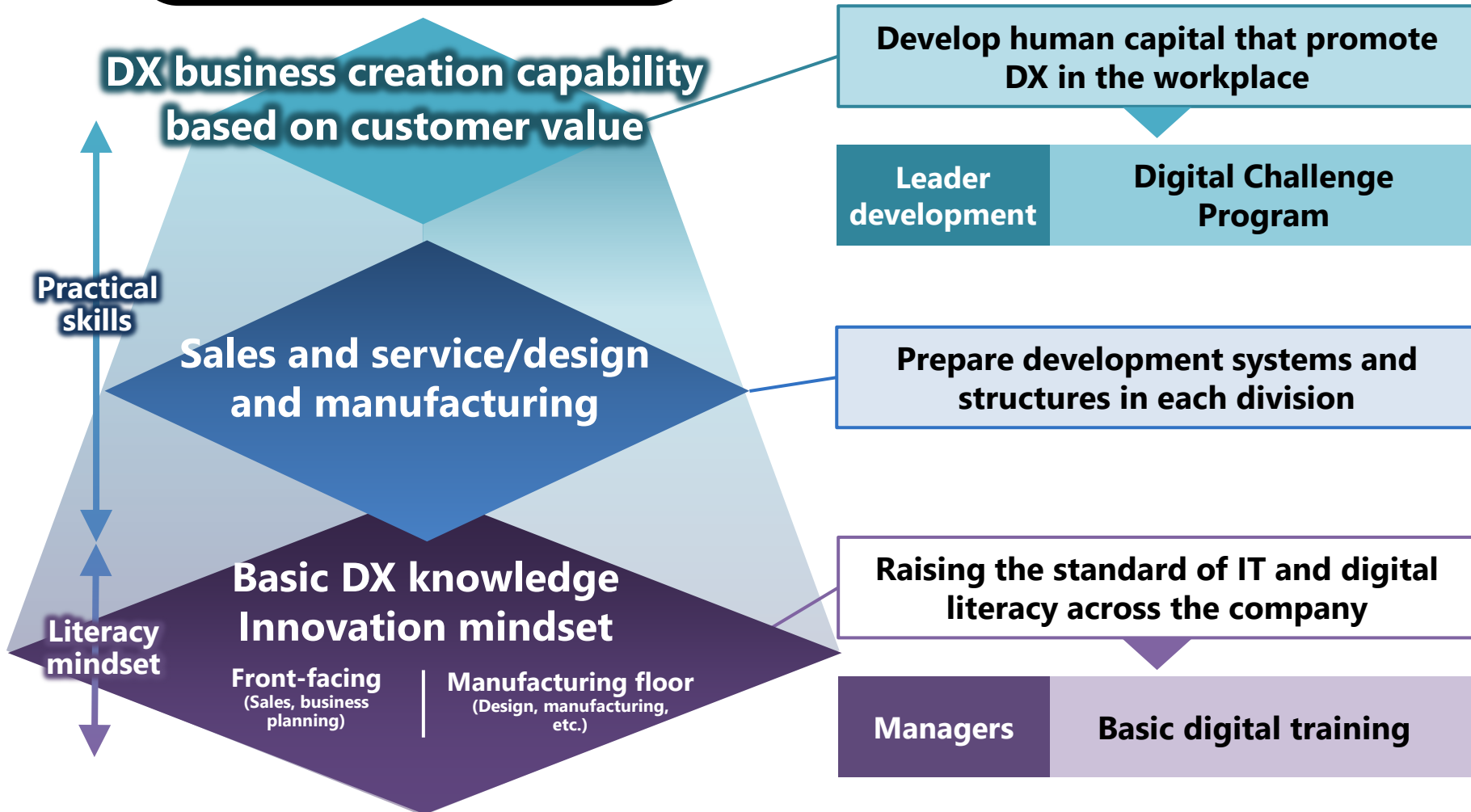


Services / solutions development



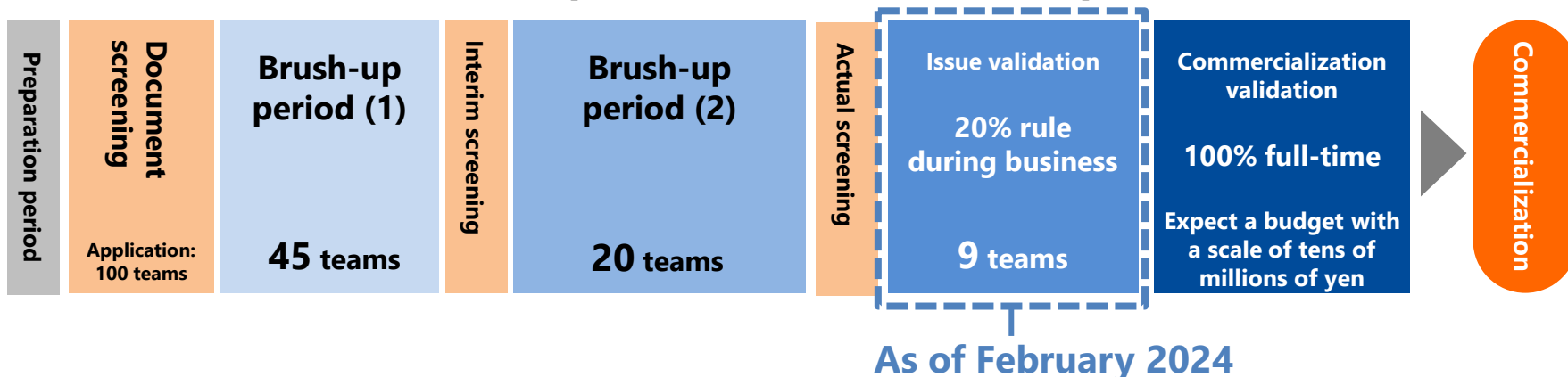
## Improve digital skills and literacy across the company

Digital human capital development system diagram



Learn not only value creation know-how but aim to actually commercialize it

## First (FY2022-2023) KENKI BUSINESS CHALLENGE (KBC)



### Efforts aimed at commercialization

- Members can allocate up to 20% of their working hours during the issue validation period. They shift to full-time during the commercialization validation period.
- Continuously hosted every year. There were 58 team applications for the 2nd challenge (FY2023-2024), which are preparing for actual screening.

Encourage continuous challenges with the aim of creating new core businesses



Scene from the actual screening

## Expand "strategic investment" that leads to innovative solutions

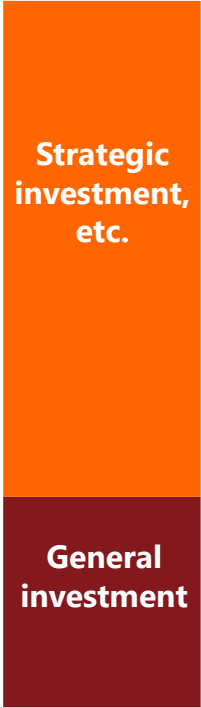
### Medium-term Management Plan (three years) Information technology investment

Roughly 50B JPY

Roughly 30B JPY



Previous Mid-term Management Plan (FY2020-FY2022)



Current Mid-term Management Plan (FY2023-FY2025)

- DX service expansion (ConSite, etc.)
- Supply chain reform
- Factory IoT

- Core system maintenance and operation
- IT infrastructure maintenance and operation
- Cybersecurity

## 2-3. Specific Initiative Case Examples

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Promote customer-focused digital utilization including operational data



Mine operation management system developer  
Wenco becomes a consolidated subsidiary

2009

## Solution Linkage

Start offering the  
Solution Linkage Cloud  
ICT construction solution

2017

2000

Start acquiring  
operational data  
with Global e-Service

Cumulative total of  
**450K Units\***



World's first hydraulic excavator  
with satellite communications

2013

Start offering the  
ConSite service solution



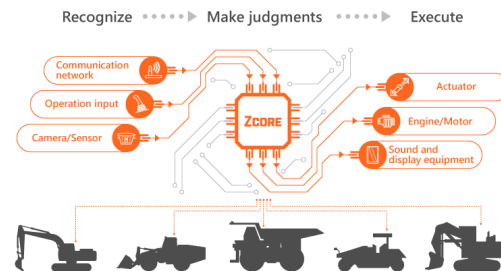
Consolidated Solution for Construction Sites

**Contracted 200K Units\***  
113 countries/regions

\* As of December 2023

2020

Development of the  
"ZCORE" system  
platform for autonomous  
construction machinery



True solutions provider

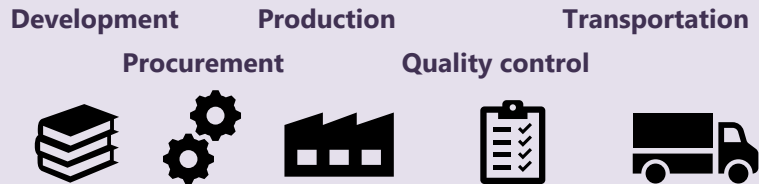
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CIF perspective Rapidly respond to changing needs

Optimal proposal for customers

Development and production

Sales, rentals, and services



Smart factories



Data-driven proposal activities



Customer requests and issues

## Realize the optimal production, supply and inventory according to customer requests and supply chain fluctuations

### Characteristics and Challenges

- Industry with large fluctuations in demand/supply
- High-mix low-volume production
- A wide variety of transportation routes and cargo types

### Ideal Vision

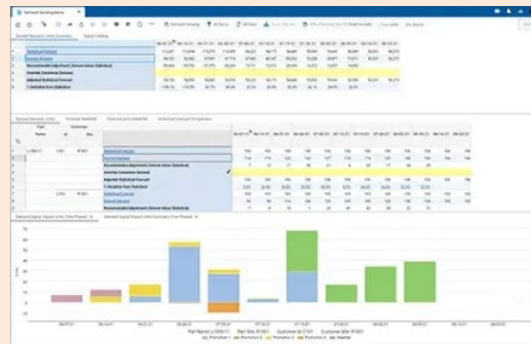
- Aggregate and centrally manage data for the entire supply chain to simulate multiple production plans
- Implement the optimal production and transportation, and deliver to the customer

## Hitachi Construction Machinery

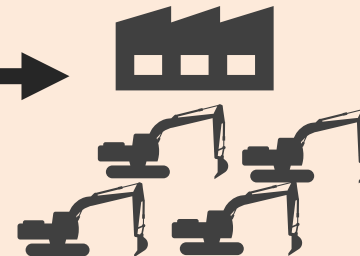
Data aggregation and central management  
Automatic plan generation



Instant simulation of all kinds of production plans



Optimal production, supply and inventory



Dealers

Quantity needed by model/  
specification/country and region



Procurement

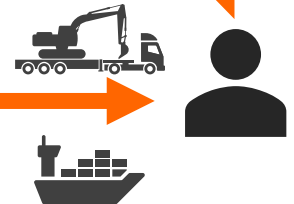
Availability of each component



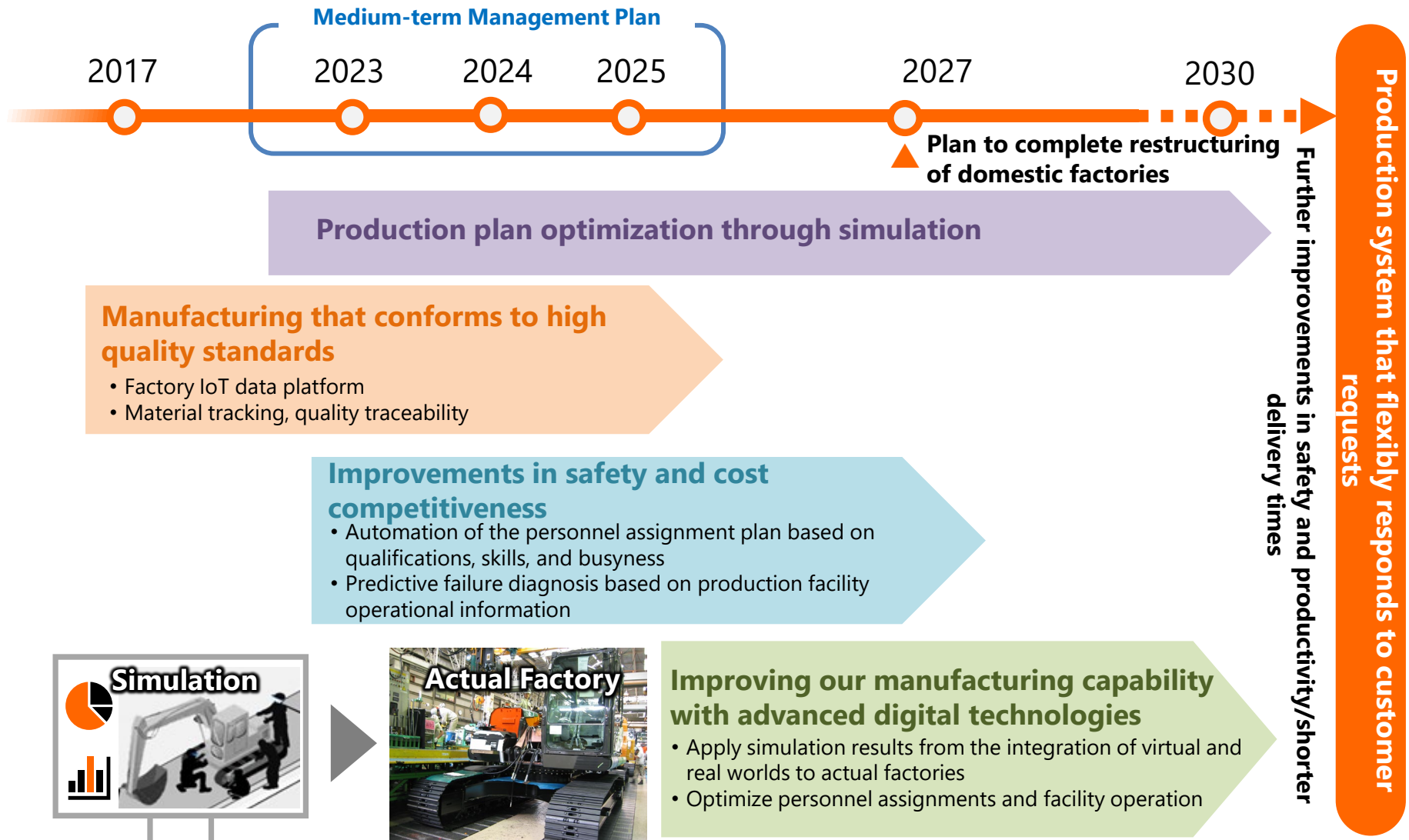
Transportation

Vessel availability by product/  
country and region

Dealers  
Customers

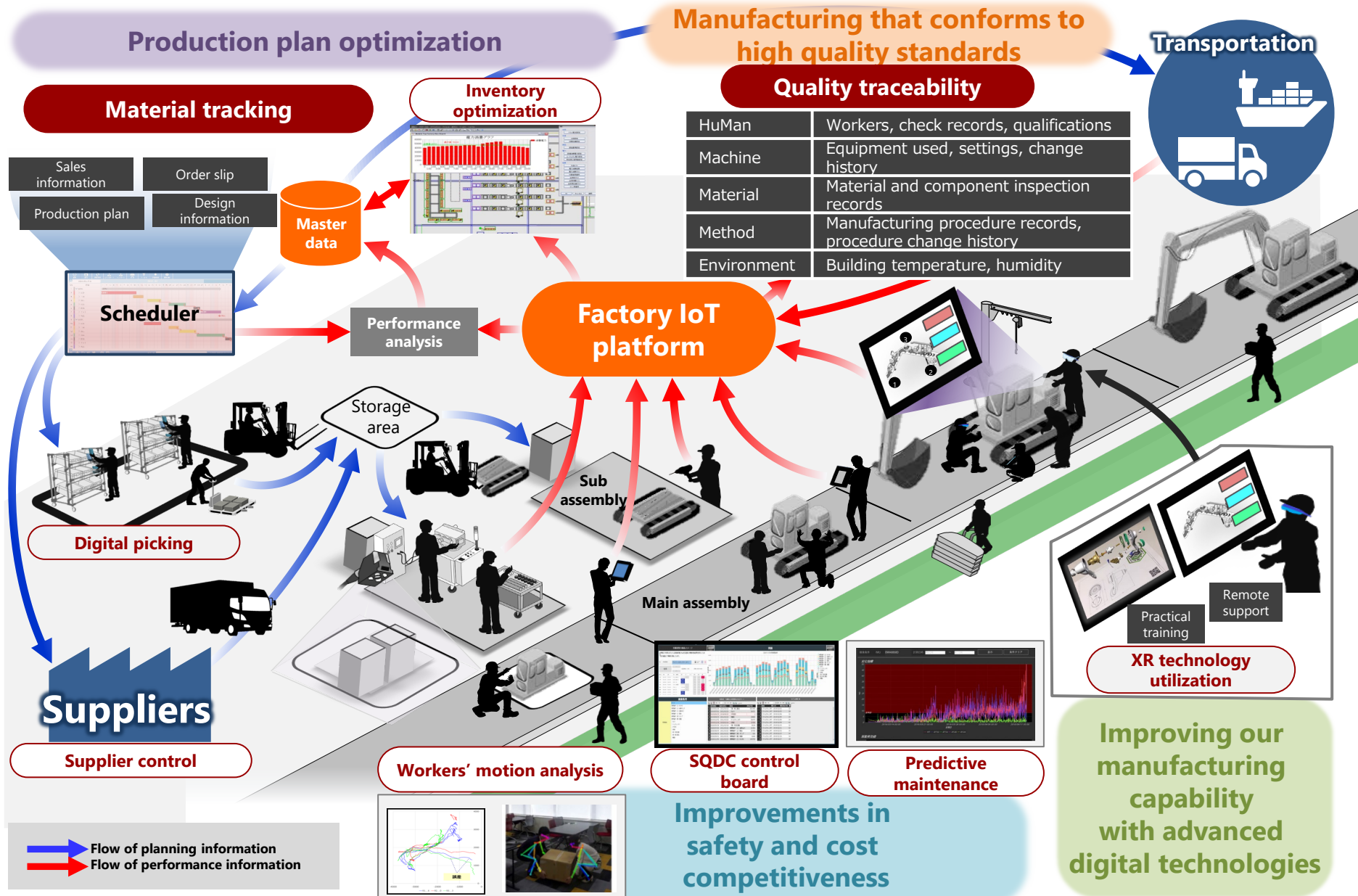


Reliably delivering high-quality products in a shorter period of time to meet customer needs





# Smart Factory: Overview



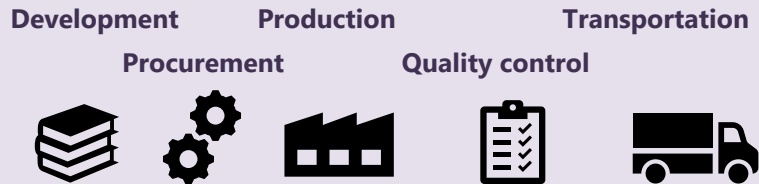
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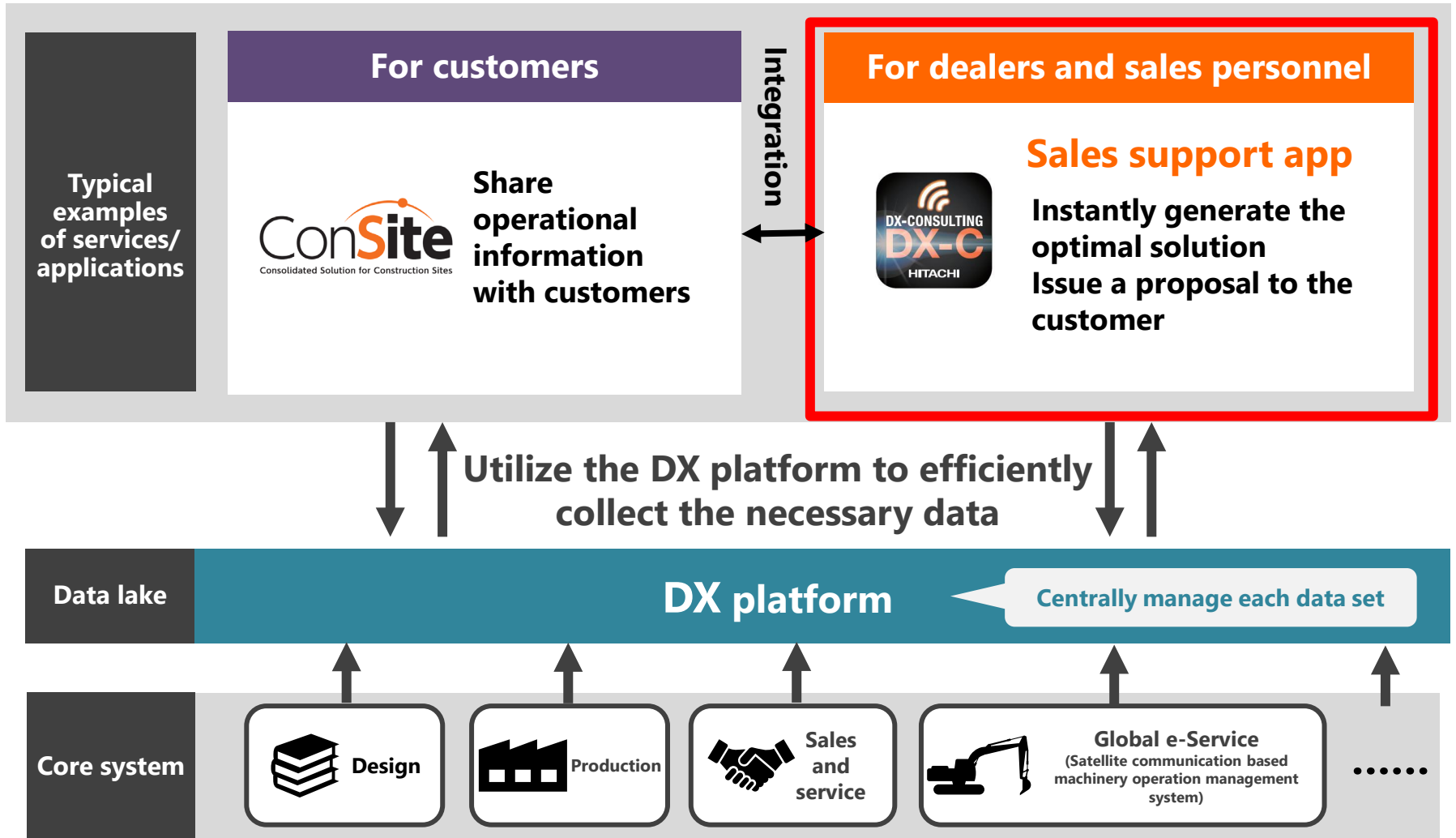


Data-driven proposal activities



Customer requests and issues

**Aim for the optimal proposal for individual customer issues and maximize data utilization**



To be able to rapidly provide the optimal proposal for each customer, utilize and apply big data to enhance sales and service capabilities

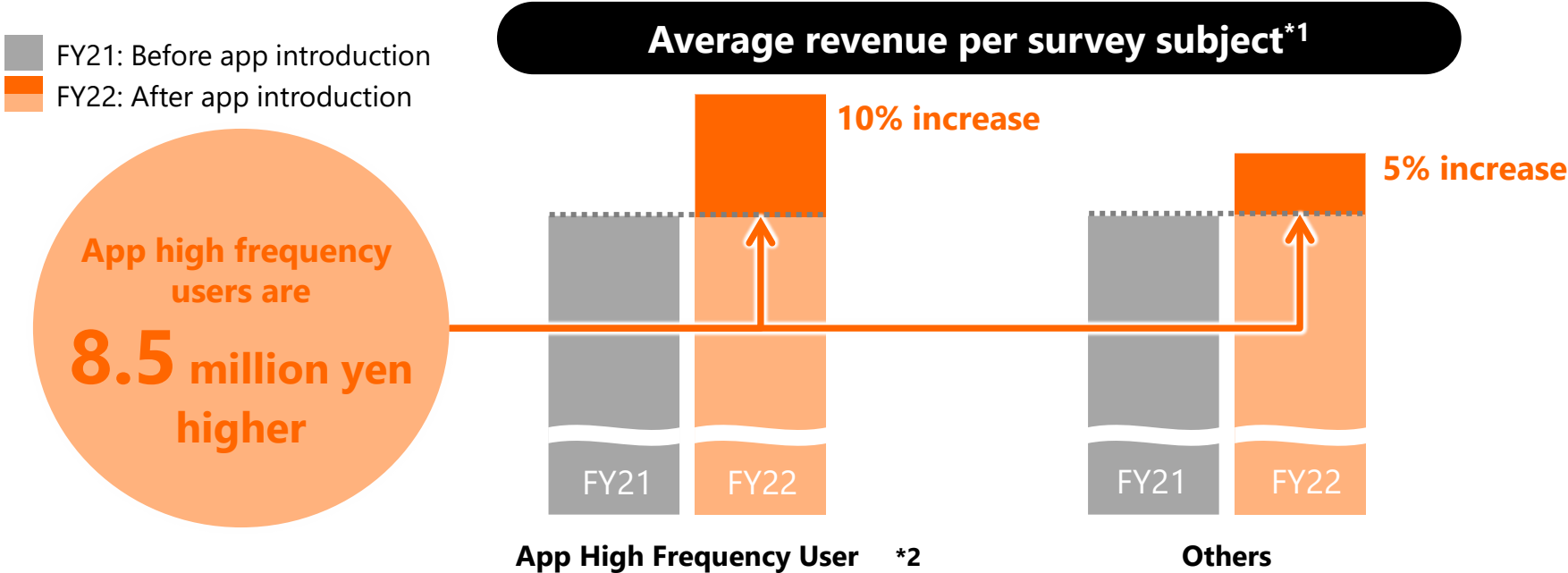
## Application for sales and service personnel

- Aggregates separately managed information and instantly analyzes it with big data and AI
- Enables various proposals according to the customer

- Repair fees have increased, so we **recommend a new machinery!**
- The operation rate is low, why not **trade it in as used equipment?**
- Right now, we can offer **the latest model as a rental machinery**, so what do you think?



## Use of the app to propose solutions to the issues has significantly increased revenue

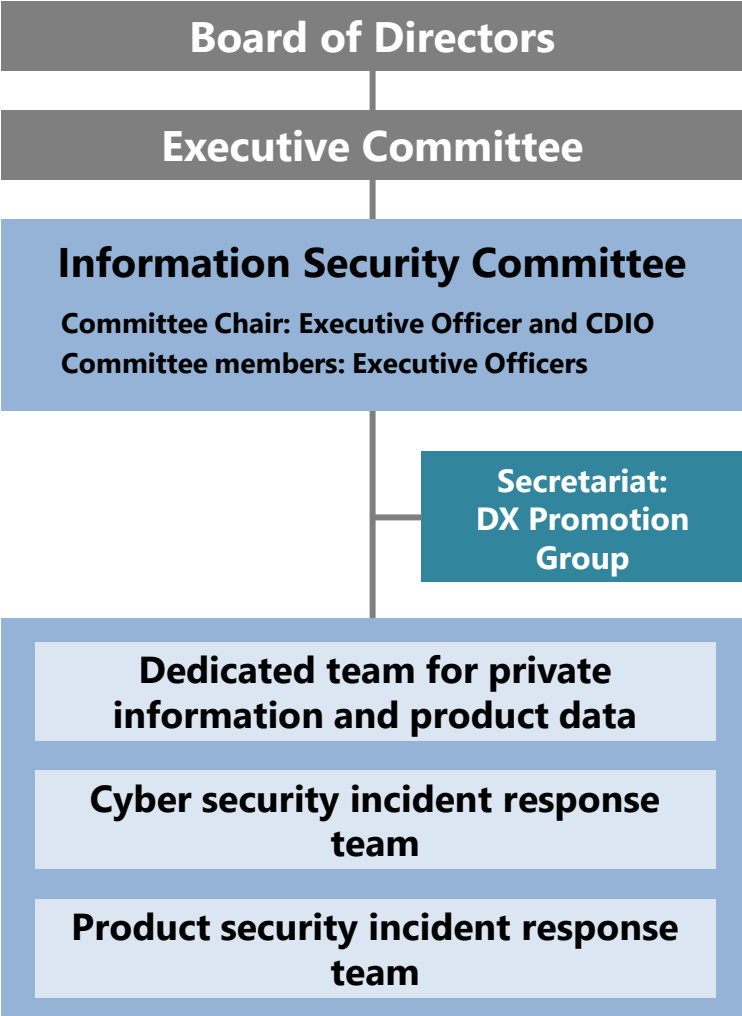


Contribution to results (2022 compared to 2021)	Increased revenue of App high frequency users	Number of App high frequency users	Increased revenue from app usage
		<b>8.5 million yen</b>	<b>x 220 people</b>

\*1: Aggregation limited to members with the same occupation, position, and area in 2021 and 2022. Negative revenue and other singular data values were excluded to calculate the average.

\*2: Sales personnel with an annual average of using the sales support app one or more times in two weeks  
 Approximately 1,000 sales and service personnel are app users

To appropriately manage big data including customer information, strengthen the risk management system in the "Information Security Committee"



## Formulation and disclosure of the data governance policy

Clarify the basic policies for protecting operational data entrusted by customers and promote trust enhancement with stakeholders



Rapidly provide the optimal solution for individual customer needs through product evolution, data integration, and digital utilization

Expansion of Solution 1.0

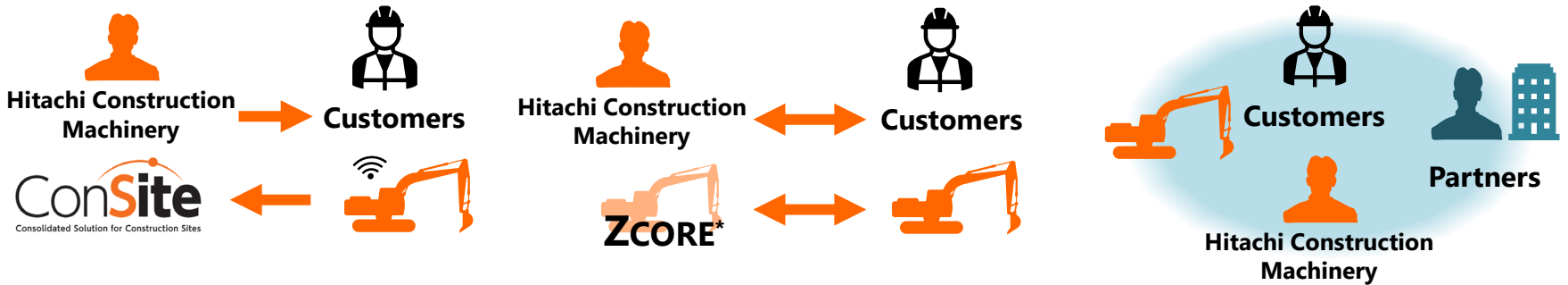
Enhancement of Solution 2.0

Challenge to Solution 3.0

Provide services through data utilization

Product evolution through data utilization

Co-creation with customers and other industries



\*ZCORE: system platform for remote operation and autonomous operation

- **Accelerate and promote DX to realize CIF (Customer Interest First)**
- **Introduce agile methods to cultivate a culture that provides the optimal solutions**
- **Aggregate and maximally utilize the data generated by all business processes and solve individual customer issues with optimal solutions**



**Promote the DX strategy and aim for growth as a true solutions provider**



## **3. Progress of the Sustainability Initiative**

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# Progress of the Sustainability Initiative

**1991** Environment Group established

**2005** CSR Promotion Department established  
Environmental Report issued

**2011** Integrated Report issued

**2015** Eight Materiality themes identification

**2016** Environmental long-term goals for 2030 released

**2019** SBT certification acquired  
Sustainability Promotion Group established

**2020** Announced endorsement of the TCFD Recommendations  
TCFD scenario analysis  
Published four management indicators (ESG indicators)  
First ESG Explanatory Meeting

**2021** Reorganization into four materiality themes  
Second ESG Explanatory Meeting

**2022** Establishment of the ERM Committee  
Adopted ESG evaluation as one of the evaluation indicators for executive performance-linked compensation  
Declared carbon neutral in 2050 (converted to 1.5°C scenario)  
Introduction of Sustainable Finance  
Third ESG Explanatory Meeting

- 2023**
- **Priority measures and KPI updates tied to the four materialities**
  - **Promote open innovation directed at realizing zero emissions at construction sites**
    - Zero Emission Business Model Planning Project established
    - Expanded cooperation on mobile energy storage systems
    - ZERO EMISSION EV-LAB established
  - **Further strengthening of our commitment to sustainability**
    - Participation in the GX League
    - Acquired human capital-related ISO certification
    - Green bonds issued

**2030** Achievement of 2030 targets (environmental value, social value)

**2050** Towards achievement of carbon neutrality

## The adoption of electric construction machinery faces many challenges and providing hardware alone is not enough

Improvement of the grid power supply



Improvement of charging infrastructure



Power management method



Support on the policy and system side



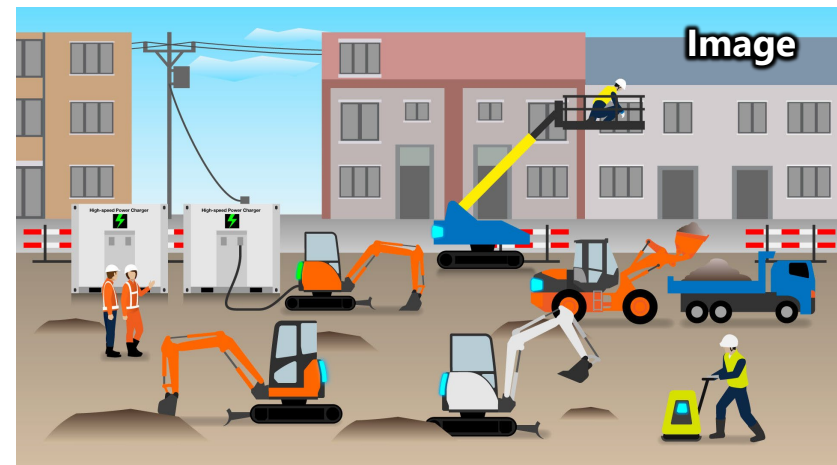
Collaboration with partners including public-private partnerships is essential to provide electrification solutions for entire construction sites

### "Zero Emission Business Model Planning Project" established (October 2023)

- Promote open innovation with the goal of developing electrification business models for construction sites with agile methods

New Business Creation unit

Zero Emission Business Model Planning Project



## Accelerating cooperation with business partners aiming for the co-creation of electrification solutions

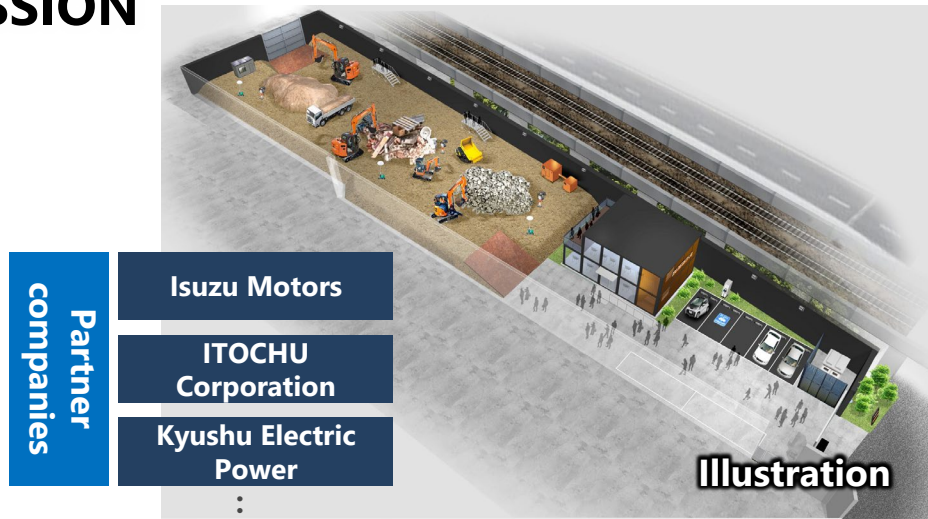
### Expanded cooperation on mobile energy storage systems

Japanese market	European market
Joint development	Sales, rentals
Kyushu Electric Power	ITOCHU Corporation
	Alfen B.V.



### Establishment of the ZERO EMISSION EV-LAB (From May 2024)

- Permanent demo area that recreates a construction site and a communication area for visitors
- In addition to electric excavators, mobile energy storage systems, EV trucks, compaction equipment, and carrier dump trucks are scheduled to be installed

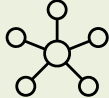

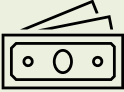


## Participation in the GX League (from FY2023)



### GX (Green Transformation) League

Forum for collaboration between "industry, academia, government, and financial institutions" working to transform the entire economic social system directed at achieving carbon neutrality by 2050 (led by METI)  
Full-scale, voluntary trading of emissions between the participating companies is scheduled to start in FY2026

<b>Participation goals</b>	 <b>Cooperation with other companies</b>	 <b>Participation in rule formation</b>	 <b>Subsidies/preferential treatment</b>
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## Acquired human capital-related ISO certification (November 2023)

- First machinery manufacturer to acquire ISO 30414 certification, international guidelines for the disclosure of human capital reporting information.
- Issued the "Human Capital Report"
- Strengthen information disclosure, deepen dialogue with stakeholders, and utilize that to improve human capital management



# Issuance of a Green Bond

## Hitachi Construction Machinery plans to issue a Green Bond as its second sustainable financing initiative

### Overview

<b>Total amount of issue</b>	<b>10 billion yen (planned)</b>
<b>Term of issue</b>	<b>5 years (planned)</b>
<b>Issue date</b>	<b>March 2024 (planned)</b>
<b>Notes</b>	<b>Reporting to be implemented after issuance</b>

### Purpose of funds (examples)



## 4. Summary

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1

## Value Creation Strategy of Hitachi Construction Machinery Group

We have formulated a new group identity for our "Second Start-up". We aim to realize a safe and sustainable society through our four materiality initiatives.

2

## DX Strategy for Accelerating Value Creation

Organization building/corporate culture reform/specific initiative case examples

**Accelerating DX to achieve Customer Interest First (CIF).**  
We provide the best solution for each customer's issue by using agile methods and data utilization.

3

## Progress of the Sustainability Initiative

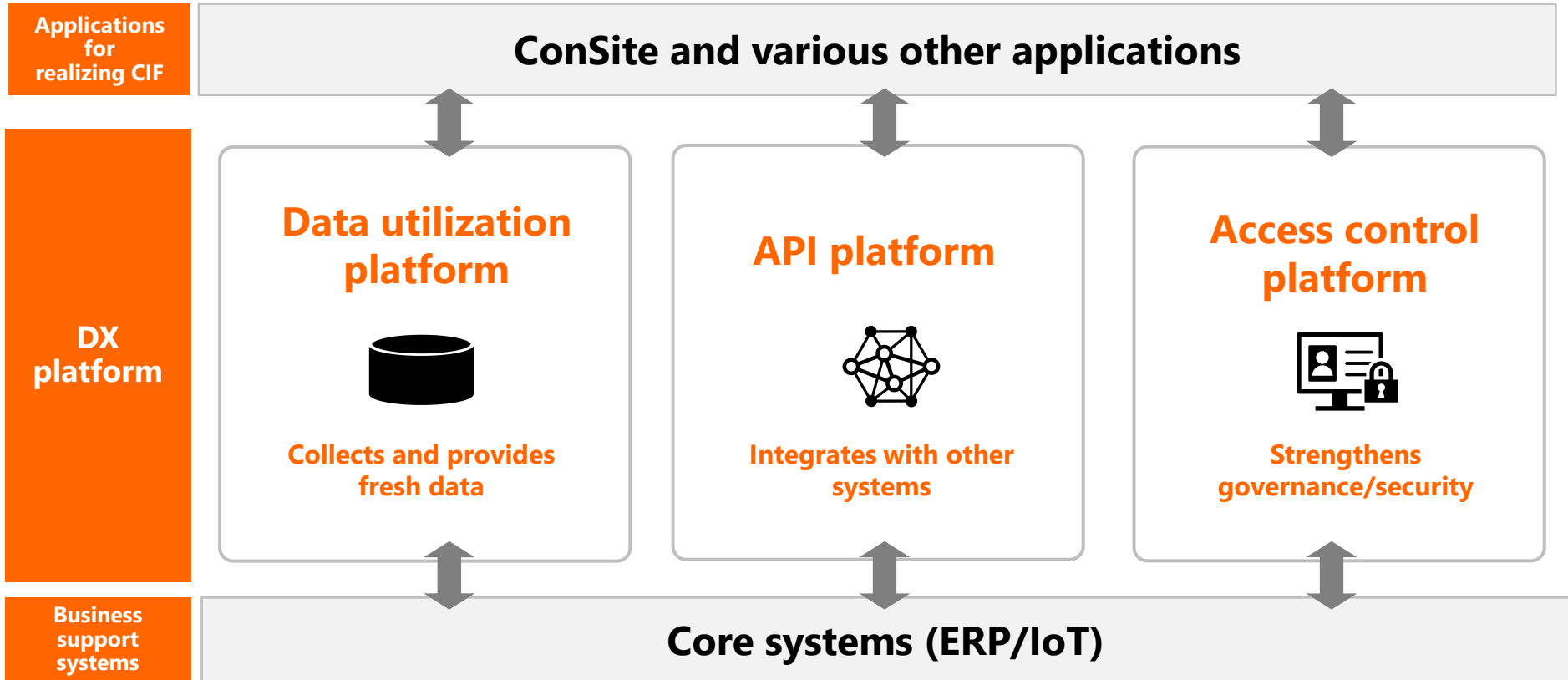
Expanding collaboration with partners to achieve zero emissions at construction sites.

We strengthen our commitment to sustainability in terms of information disclosure and financing, aim to achieve carbon neutrality.



# Reference Materials

Provides Hitachi Construction Machinery's business data, machine and cloud data with a "data freshness that is close to reality"

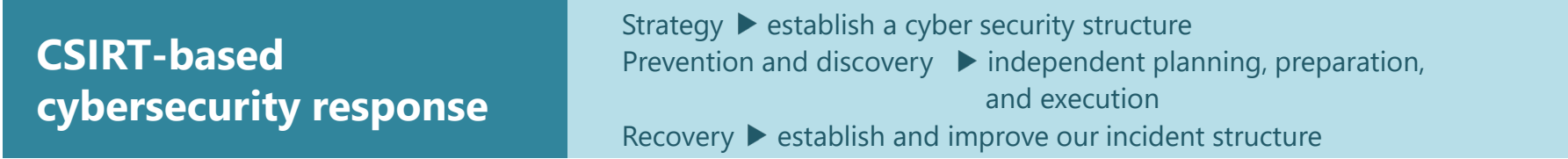


## Ensure business continuity by strengthening computer cyber security Build a global CSIRT\* with the goal of implementing a robust structure

**Background: cyber attacks increasing globally and becoming more complex and advanced**





**Initiative: build a CSIRT to enable early incident detection and early recovery of affected systems by responding under normal and emergency conditions**



\*CSIRT: Computer Security Incident Response Team. Name of an organization that handles computer security-related incidents. CSIRT activities include the constant collection and analysis of incident-related information, vulnerability information, and signs of attack and the formulation of response policy and procedures, etc.

# Priority Measures and Company-wide KPIs

•••New or changed KPIs


Materialities	Priority measures	KPIs		FY2022	FY2025	FY2030	
				Results	Targets	Targets	
Product and technology development contributing to climate change mitigation and adaptation  	Accelerating the development of decarbonization technologies	CO2 reduction	Product use (Scope3, Category11)	CO2 reduction (absolute emissions) : compared to fiscal 2010	▲21.9%	▲22%	▲33%
	Introduce renewable energy and systematically invest in high-efficiency facilities		Production (Scope1+2)	CO2 reduction (absolute emissions) : compared to fiscal 2010	▲33.0%	▲40%	▲45%
Conversion to recycling-oriented business model  	Developing parts reuse and recycling business, against the backdrop of a circular economy	Resource recycling	Value chain	Growth rate of reused parts (weight basis) via remanufacturing : compared to fiscal 2022	±0%	+40%	+150%
	Reduction of waste		Waste	Recycling rate (Japan)	93.7%	94%	Aiming for 99.5% or higher
	Effective use of water resources		Water	Usage reduction (intensity) compared to fiscal 2010	▲31.7%	▲34%	Advanced water recycling usage / Minimization of regional impact
	Develop branded used equipment that is well-maintained and include warranties	Regional coexistence through the promotion of a circular economy		Expansion in used equipment business sales revenue : compared to fiscal 2022	±0%	+8%	Adoption of products that meet regional needs
	Improving the operation of rental equipment using data			Growth rate of certified used equipment*1 under warranty : compared to fiscal 2022	±0%	+5%	+10%
				Expansion in sales revenue from the rental business : compared to fiscal 2022	±0%	+30%	Adoption of products that meet regional needs
				Rental occupancy rate in Japan (total of 3 products*2) : compared to fiscal 2022	±0%	+4%	+9%

※1 : "PREMIUM USED" is a product brand for used equipment with warranty certified by Hitachi Construction Machinery. These products are provided with warranty only after passing inspection and satisfying set criteria stipulated by Hitachi Construction Machinery Group and authorized dealers.

※2 : Hydraulic Excavators, Mini Excavators, and Wheel Loaders

# Priority Measures and Company-wide KPIs

 ... New or changed KPIs

Materialities	Priority measures	KPIs	FY2022	FY2025	FY2030	
			Results	Targets	Targets	
Creating innovative solutions for challenges faced by customers supporting social infrastructure 	Contribute to cooperative construction machinery, operation support systems, and site safety	Improving safety	Functionality to reduce accidents caused by Hitachi Construction Machinery's products	Release assistance equipment designed to reduce collision damage (small-size road construction machines)	Achieve cooperative control between people and machinery	Contribute to "zero" overturn and fatal accidents
	Accelerating the development of automated and remote operation of construction machinery	Increasing productivity	Develop and expand products and system that contribute to increasing productivity	Develop and promote the demonstration test of engine less, full-electric Dump Truck New Model Development Sec. at the Kansani Copper and Gold Mine (Zambia) by the end of FY2023	Disclose information on efforts to develop and expand products and system that contribute to improved Productivity	Aiming for the standardization of automated and labor saving construction machinery
	Reduce life cycle costs through stable construction machinery operations	Reducing life cycle costs	"ConSite Pocket" <sup>※3</sup> number of monthly access users	3,619 users	5,500 users	7,000 users
			Number of used equipment status changes <sup>※4</sup>	1,356	3,000	4,200
Engine oil change implementation rate by "ConSite OIL" <sup>※5</sup> condition monitoring			77%	80%	90%	
Accelerate the development of products and solutions	R&D system	Ratio of R&D costs to sales revenue	1.9%	3% or higher	3% or higher	



※3 : A smartphone app that monitors the status of customer-owned machines to achieve appropriate service support and down time savings. Timely alarm reports are provided by "ConSite Pocket" to realize appropriate preventive maintenance.

※4 : Transferring the machine data on system so that used equipments flowing from other regions can be managed in the area where they are in operation. The status will be changed to extend the life of the machine by strengthening support for used equipment users.

※5 : 24-Hour Monitoring Solution with oil Monitoring sensor. By monitoring the condition with "ConSite OIL" and reliably implementing oil changes, machine failure is prevented.

# Priority Measures and Company-wide KPIs

... New or changed KPIs

Materialities	Priority measures	KPIs	FY2022	FY2025	FY2030	
			Results	Targets	Targets	
<b>Strengthening global governance</b>  	Respect for Human Rights in the Value Chain	Respect for human Rights	Participation rate of education on "Business and Human Rights"	94.6%	100%	100%
	Promoting Global Human Resource Management	Global leaders	Leadership training enrollment ratio (global)	84% (total)	100% (total)	100% (total)
	Diversity, Equity & Inclusion (DE&I)	Diversity initiatives	Ratio of managers by gender (Consolidated)	Female 11.2% Male 16.0%	Female 13% Male 15%	Aim for gender parity
			Localization ratio of GM or higher in overseas group companies	72%	75%	87%
	Global occupational safety and health management	Occupational hazards	Zero occupational hazards (compared to the previous FY)	145% (Compared to FY2021)	-50% (Compared to FY2024)	Aim for zero
	Fair and responsible procurement	Fair and responsible procurement	Implementation of supply chain sustainable survey	84%	95%	Aim for 100% recovery through stable operations
	Increased transparency of management decision-making and the process leading to results	Corporate governance	Outside directors, female directors, non-Japanese directors	Outside directors : 6 out of 10 Female directors, non-Japanese directors : 2	Majority of each of Nominating/Compensation and Audit Committee is composed of independent Outside Director.	Shift to a system suitable for strengthening the business and improving governance
	Corporate ethics and Compliance	Eradicate corruption and bribery	Number of corruption and bribery legal violations	0 cases	0 cases	0 cases
Corporate ethics and behavior		Thorough legal compliance in business activities	0 serious violations	0 serious violations	0 serious violations	

### **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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