NTN
Make the world NAMERAKA

FY2024 ESG briefing session

DRIVE
Digitalization Resources Innovation Variable cost reformation Efficiency improvement
NTN100
Final



2024.12.20

NTN Corporation

Attendees

Representative Executive Officer, President, CEO（Chief Executive Officer）	Eiichi Ukai
Outside Director, Chairperson of Board of Directors	Yuriya Komatsu
Executive Officer Human Resources Strategy Dept. and Personnel Dept.	Yasuhiro Kawabata
Executive Officer Corporate Strategy Dept., ESG Promotion Dept. and Carbon Neutrality Strategy Promotion Dept.	Shumpei Kinoshita
Executive Officer, CTO（Chief Technology Officer） Research Division, Innovation & Business Development HQ., New Product and Business Strategy Planning Dept. and Intellectual Property Strategy Dept.	Yoshiyasu Nakano
Manager, Carbon Neutrality Strategy Promotion Dept.	Masayuki Yamazaki

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Contents

I. ESG Management of NTN Group
II. E（Environment）
III. S（Social）
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1-1 NTN Group Vision

NTN Group Philosophy

Corporate Philosophy

We shall contribute to international society through creating new technologies and developing new products

What we aim to be

Realization of a “NAMERAKA Society”





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1-2 NTN Group Basic Approach to Sustainability Activity

Our Sustainability Activity

Through the NTN Group's business activities,

we pass on to future generations a beautiful planet on which humanity can live safely and securely.

Environmental responses as a "Monozukuri"(manufacturing) company

- Carbon neutrality in business activities
- Environmental contribution by products and services



- Human development
- Contribution to society
- Preparing for natural disasters

A company is its people

Enhancement of governance

- Effectiveness enhancement by each committee
- Enhancement of audit system

DX（Utilization of digital technology）

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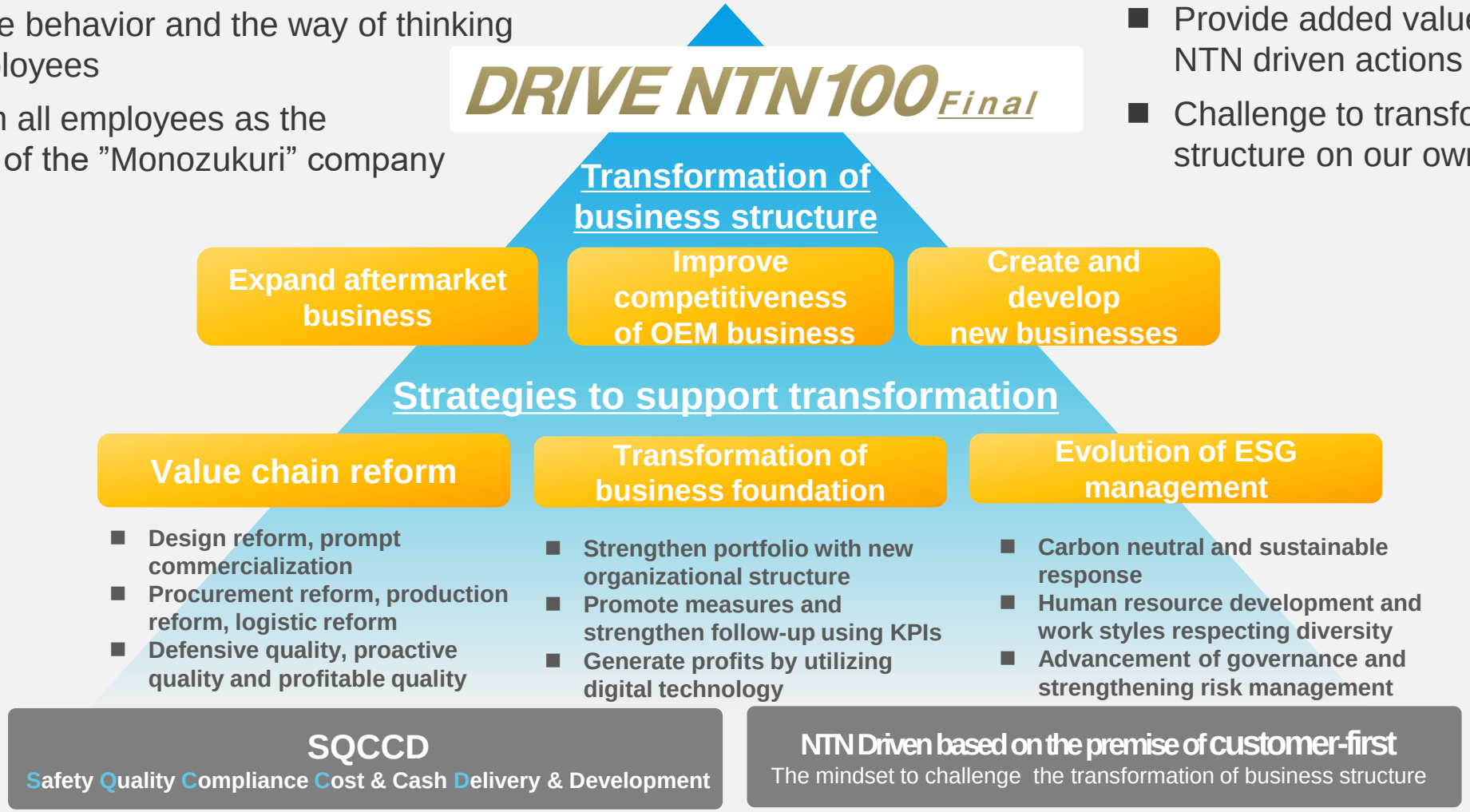
1-3 Foundational Action Guidelines

“SQCCD” and “NTN Driven”

SQCCD : Pillar of business operation

- Reform the behavior and the way of thinking by all employees
- Share with all employees as the backbone of the ”Monozukuri” company

Vision for FY2035



NTN Driven : Mindset

- Provide added value through NTN driven actions
- Challenge to transform business structure on our own initiative

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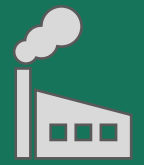
2-1 Environmental Responses as a “Monozukuri” Company

Carbon neutrality in business activities

Reduce environmental impact by CO_2 emission reductions

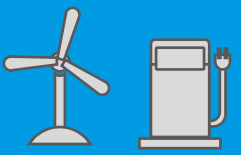
- Direct emission from fuel consumption
- Indirect emission from electricity consumption
- Emission in the supply chain



Environmental contribution by products and services

Contribute to a decarbonized and sustainable society

- Technology not to stop operation
- Technology for longer operating life
- Reduce energy loss



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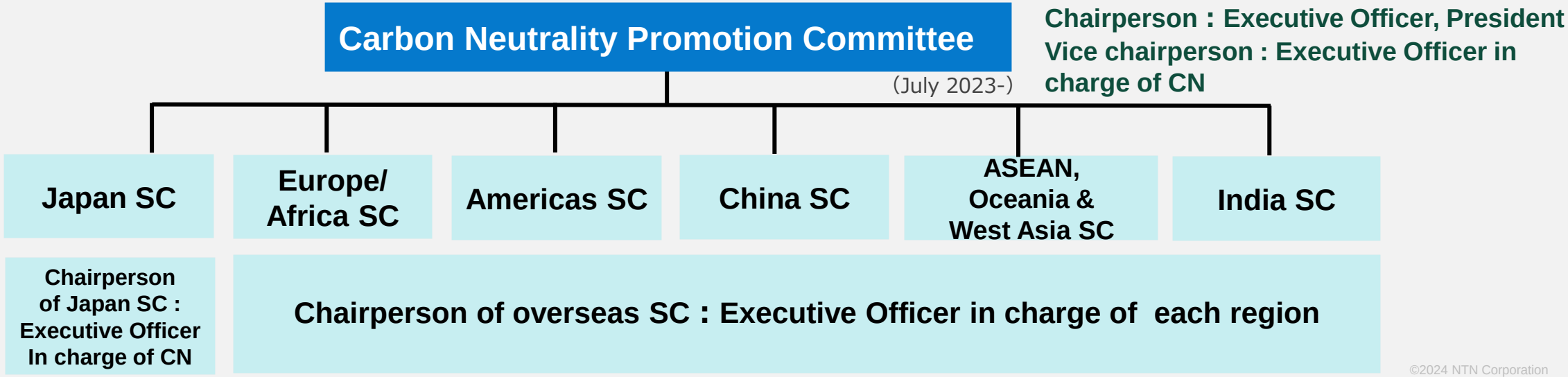
2-2 Target and Promotion System for Carbon Neutrality in Business Activities

NTN Group target for carbon neutrality

CO_2 emission reduction target（Scope 1 and Scope 2）
50% reduction by FY2030（compared to FY2018）
Achieve carbon neutrality by FY2035

CO_2 emission reduction target（Scope 3）
Achieve carbon neutrality by FY2050

Promotion system for carbon neutrality



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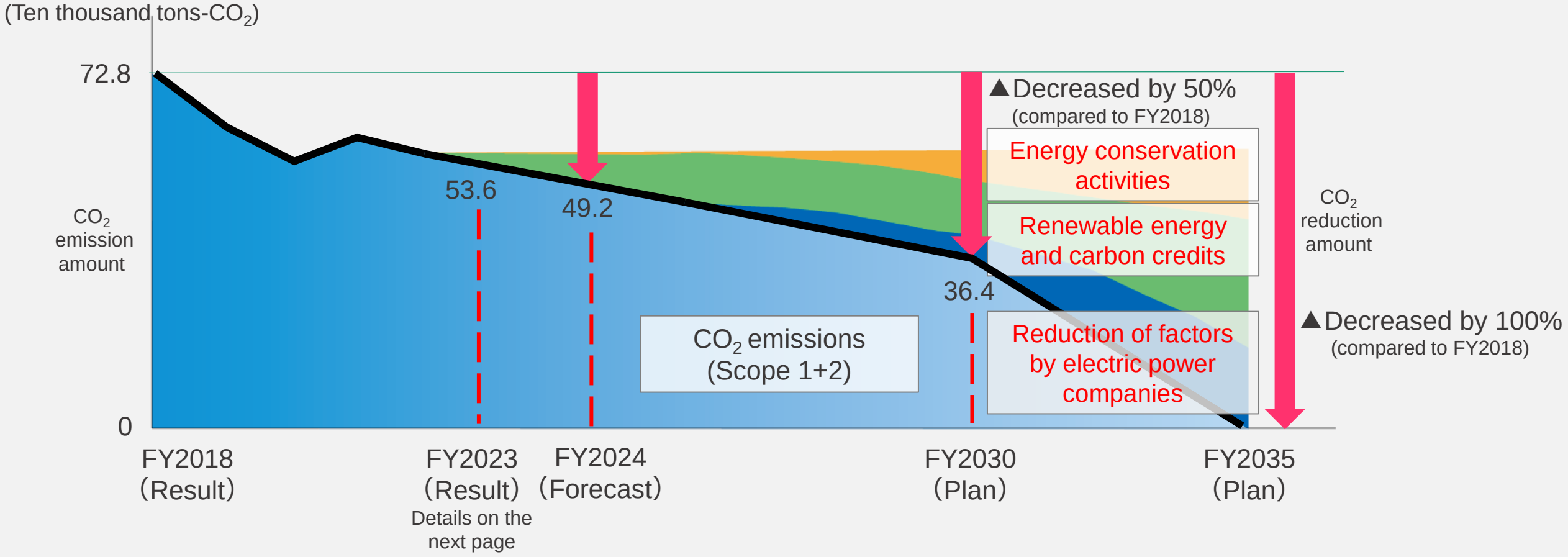
2-3 Global Roadmap for Carbon Neutrality

Promote activities based on the carbon neutrality roadmap

- Global roadmap that aggregates roadmaps for each region was shared at the Carbon Neutrality Promotion Committee in January 2024
- We will achieve global target through activities in each region



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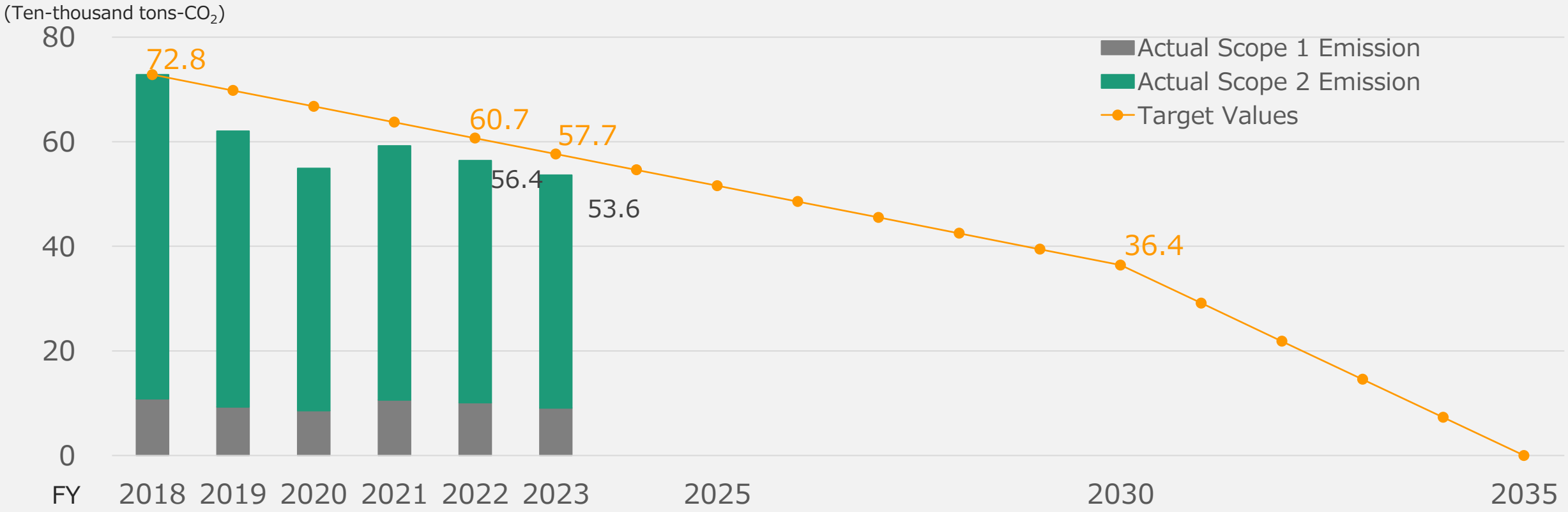
2-4 CO_2 Reductions in Business Activities

Remained at a level that meets annual targets

■FY2023 Results

Scope 1 （Direct emission）90,943 tons（Japan:50,591 tons, Overseas:40,352 tons）

Scope2（Indirect emission）445,425 tons (Japan: 219,669 tons , Overseas: 225,756 tons ）



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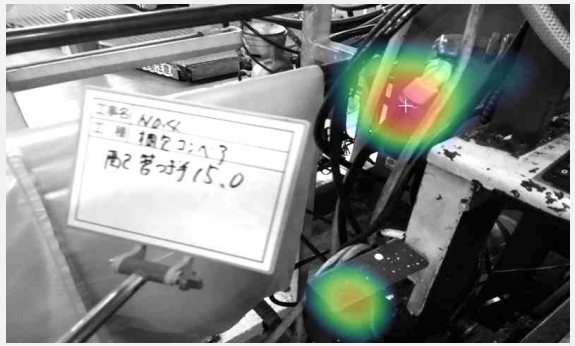
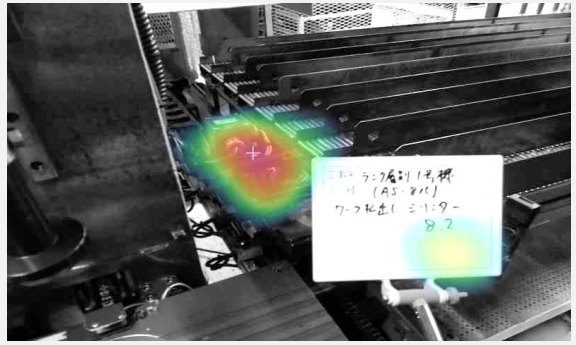
2-5 Reduction of Energy Used in Business Activities

Visualize energy wastage and reduce energy use

- Effective energy-saving measures are being databased and deployed to overseas
- Internal carbon pricing has been introduced as an investment decision indicator for new capital investment (from FY2023)



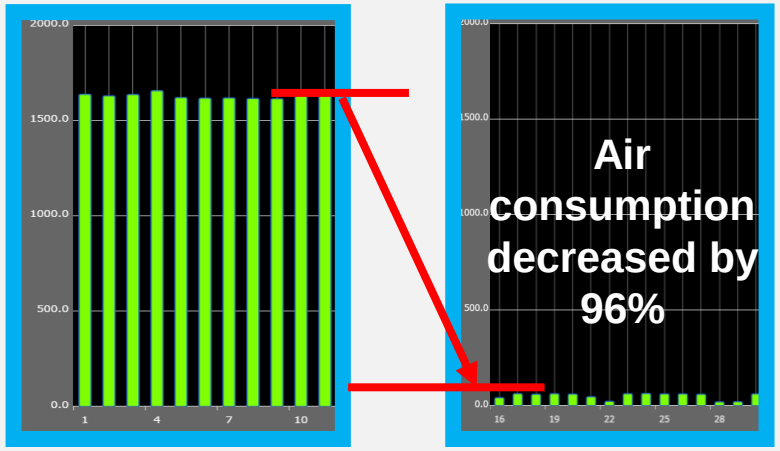


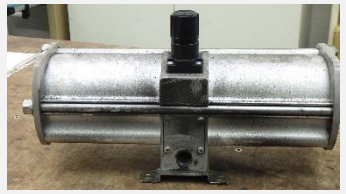
CO_2 reduction amount
17,051kg-CO_2/year
(Implementation area:275)

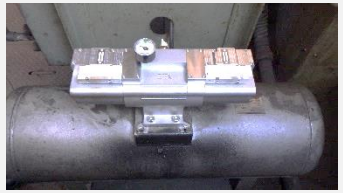
Example of identifying and repairing a target area using the “Air Leak Viewer,” which visually displays the location of air leaks (Iwata Works)

Before

After







CO_2 reduction amount
27,141kg-CO_2/year

Visualization of air consumption per process by installation of an air flow meter revealed an air leak in the pressure booster tank, and countermeasures were taken (Kuwana Works)

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2-6 Utilizing Natural Energy in Business Activities

Expand the use of solar power generation at domestic and overseas sites

■ On-site PPA model





Wakayama Works
(from October 2024)

■ Self-investment through tax incentives





Solar Panel System Installation Ceremony at Manufacturing Site in Thailand（August 2024）

→ In addition to promoting carbon neutrality, reducing electricity procurement costs will lead to cost reductions

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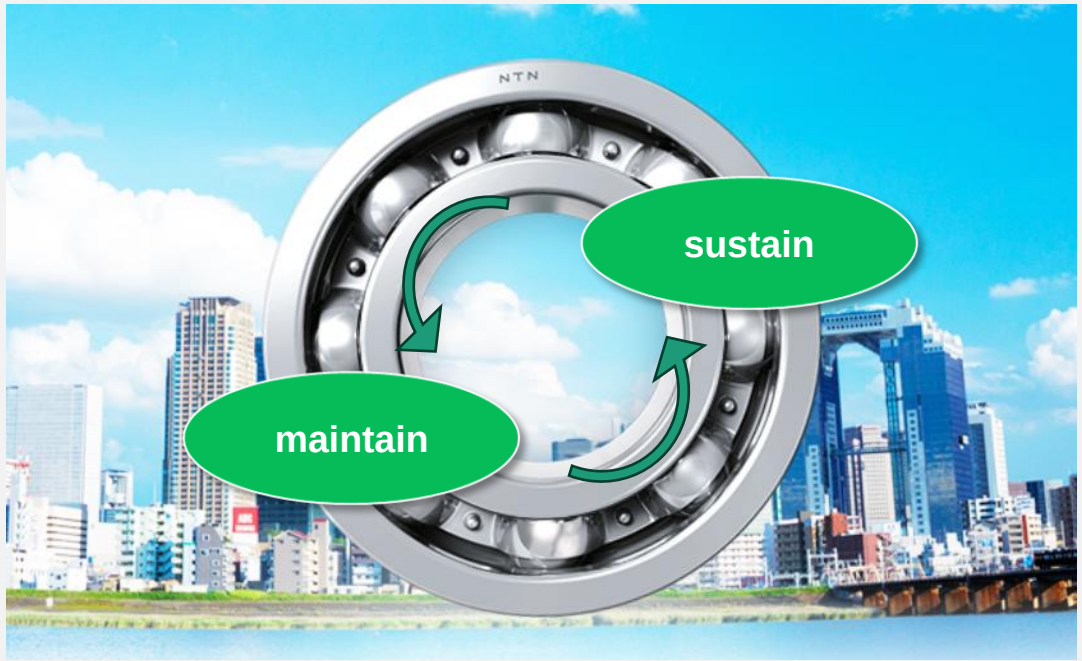
2-7 Environmental Contribution through Products and Services （NTN's added value）

Contribution to solving social issues

NTN’s added value for realizing a “NAMERAKA Society”

1) Technology not to stop operation
2) Technology for longer operating life
3) Reduce energy loss



Realization of a “NAMERAKA Society”

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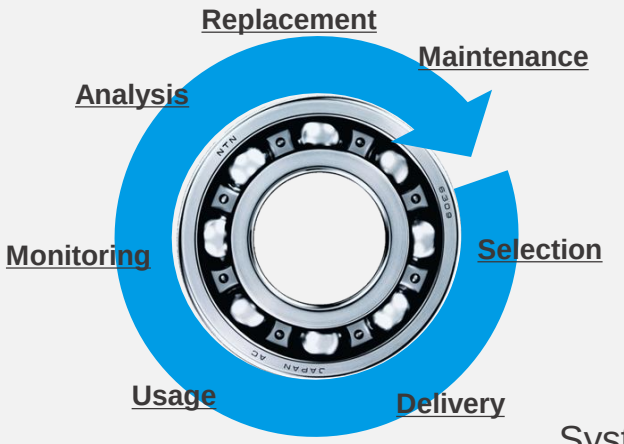
2-8 Environmental Contribution through Products and Services （Technology not to stop operation）

1) Technology not to stop operation

- **Improve operating rate due to appropriate maintenance on a variety of services**
- **Contribute to reduce opportunity loss for customers whose equipment and machinery stops**

[Examples of our services]

- Condition monitoring： Reduce equipment maintenance costs by detecting bearing abnormalities at an early stage
- Diagnostic Proposal：Provide report results after analyzing and diagnosing the monitored data
- Inspection and investigation : Inspection and damage condition investigation to determine bearing condition
- Bearing maintenance : Provide bearing maintenance services for stable operation





Condition Monitoring System ”CMS“ for Wind Turbines



NTN Portable Vibroscope



“Talking Bearing”









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2-9 Technology Not to Stop Operation : Contribute to Utilize Natural Energy

Build a foundation for wind turbine through the introduction of our CMS

■Condition Monitoring System ”CMS“ for Wind Turbines

Monitoring wind power conditions → Anomaly detection → Appropriate maintenance → Not to stop operation of wind turbines → Creating a sustainable society

■Expansion of sales opportunities

Installation of wind power PPA with our Condition Monitoring System ”CMS“ for Wind Turbines



Condition Monitoring System ”CMS“ for Wind Turbines



Nacelle



Wind turbines（image）

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2-10 Environmental Contribution through Products and Services (Technology for longer operating life)

2) Technology for longer operating life

- **Provide bearings with superior technology and quality, contributing to improved production efficiency and energy saving**
- **Contribute to energy saving by extending the operating life of bearings and making them to be used longer**

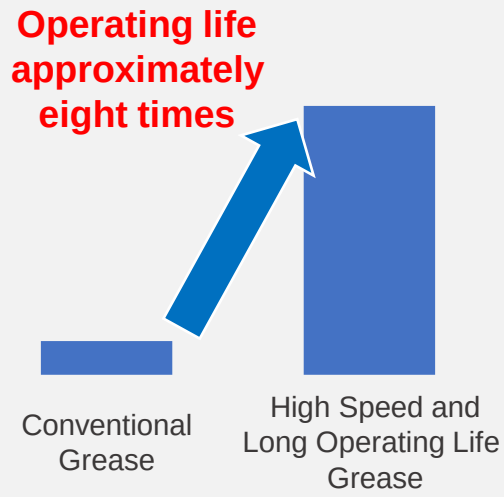
[Examples of products]

- High Speed and Long Operating Life Grease for Grease Lubricated Bearings for Machine Tool Spindles
- Lubricating Unit for Grease Lubricated Bearings
- Special Heat Treatment Technology “HA-C”





“High Speed and Long Operating Life Grease” for Grease Lubricated Bearings for Machine Tool Spindles





“ Lubricating Unit for Grease Lubricated Bearings” for Machine Tools Spindles



Special Heat Treatment Technology “HA-C”

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2-11 Environmental Contribution through Products and Services (Reduce Energy Loss)

3) Reduce energy loss

- **Provide products with excellent rigidity and durability required for EV/HEV**
- **Expand development and sales of products that pursue environmental contribution**

[Examples of products]

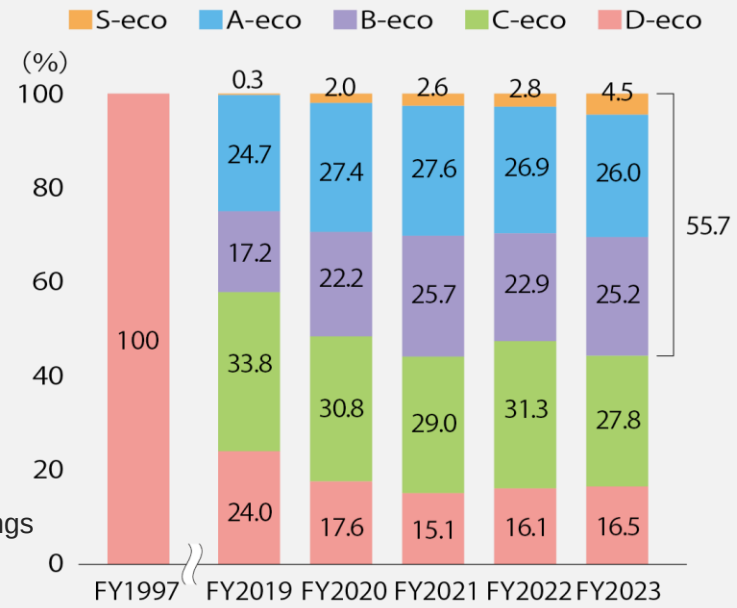
- High Efficiency/Shudderless Driveshaft for EVs
- Low Friction Hub Bearing series
- Large Diameter Deep Groove Ball Bearings for Coaxial e-Axles

[Definition of environment-contributing product]

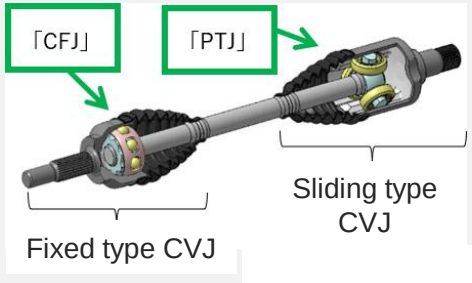
Using products with a performance level around the level in 1997 as our benchmark, NTN classifies environment-contributing products in five grades from S- to D-eco, based on environmental factor standards that are prescribed for each product

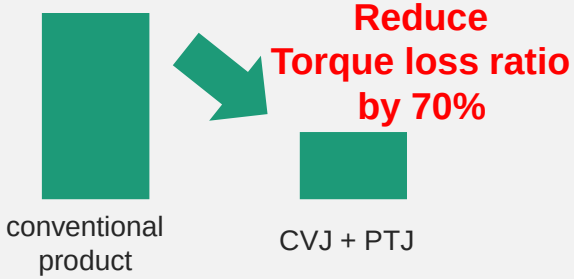
Grade	Definition
S-eco	Products are classified according to environmental factor standards for different products in line with technology standards across the world
A-eco	
B-eco	
C-eco	
D-eco	Products that help to reduce energy loss of finished products at the same performance level as that of around 1997

Trend in composition of environment-contributing products by grade



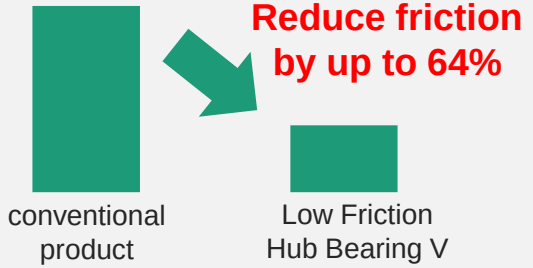
High Efficiency/Shudderless Driveshaft for EVs





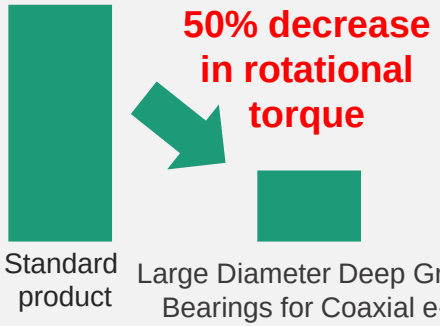
Low Friction Hub Bearing V



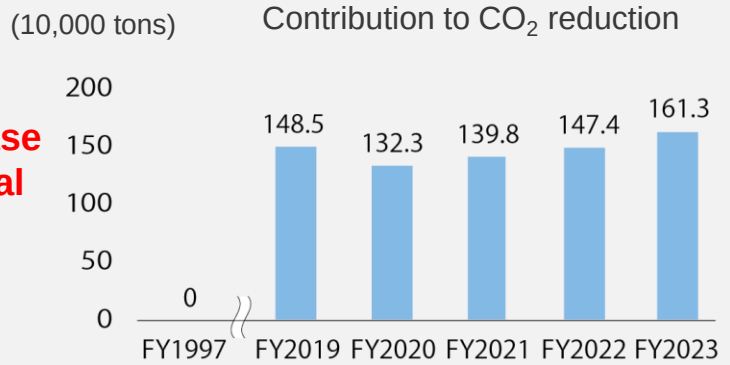


Large Diameter Deep Groove Ball Bearings for Coaxial e-Axles





Contribution to CO_2 reduction



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3-1 Strengthen Communication with Shareholders and Investors

Renewal of the integrated report “NTN Report

■ Positioned domestic and overseas investors as the main readers

Enhanced disclosures that lead to medium- and long-term improvements in corporate value, including financial and non-financial information

■ Eliminated distribution of booklets, specializing in electronic versions

Improved searchability and support for AI analysis, which are highly demanded in capital markets, and contribution to global environmental protection




Outside Director Dialogue

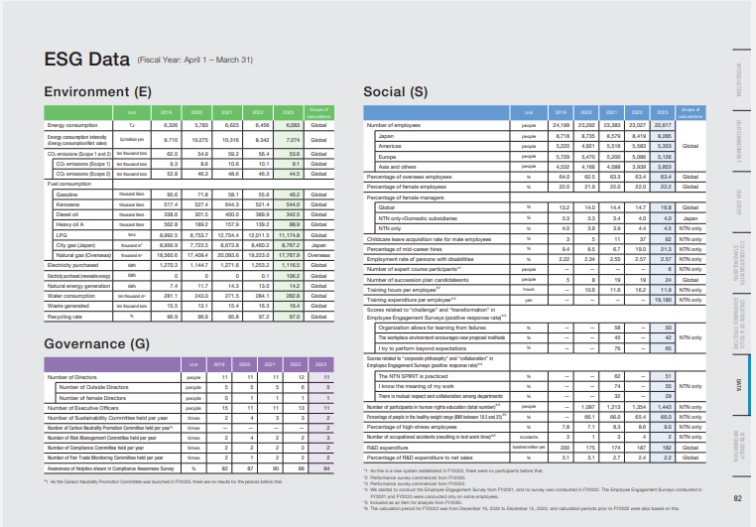
Outside Director Ryo Kawakami
Outside Director Yuriya Komatsu
Outside Director Yasuo Kitani

Every year, the NTN Report provides an opportunity for Outside Directors to discuss NTN's management and sustainability issues.
The contents of discussion is published as “Outside Director Dialogue.” This year, Director Komatsu, Chairperson of the Board of Directors, Director Kawakami, who has been a director of NTN for many years, and Director Kitani, who was appointed to the Board last June, held a frank and honest talk about NTN's current situation and challenges.

Reflecting on the Medium-term Management Plan “DRIVE NTN100” Phase 2

—The Medium-term Management Plan “DRIVE NTN100” Phase 2, aimed at achieving the revitalization of NTN, reached its final year in FY2023. Reflecting on efforts over the past three years, could you tell us your assessment?

Kitani Under “DRIVE NTN100” Phase 2 (hereafter “Phase 2”), which began in FY2021, we have been working on eliminating deficits, increasing profit margins, and improving our cash flow and financial position. As FY2023 marks the final fiscal year of the plan, we have reflected on our progress. Unfortunately, our conclusion does not allow us to beat the drums in victory and declare that we had done a great job.
Among the numerical targets, while we achieved our target net sales and free cash flow, we failed reach the target operating income, operating margin, inventory turnover ratio, ROIC, and ROE. In addition, challenges remain in areas such as procurement reform and new product development. With regard to reorganization of production , although we made progress in outsourcing the production of bearings, there have been delays from the initial plan.
On the other hand, I think that we performed well in the aspect of price negotiations. We adopted the approach of basically passing on all costs, including inflation costs, to selling prices, and also negotiated price increases for low-profit transactions. Although the results of negotiations currently vary depending on the region and customer, I think that we deserve recognition for achieving an operating profit in the automotive business for the full fiscal year in the final year of Phase 2.
Komatsu We have also heard from investors that while they have high expectations of Phase 2 even if the targets are not achieved, they wonder if the next Medium-term Management Plan will truly be able to produce results.
Kitani Currently, in the aspect of corporate value, as the current PER and PBR figures indicate, we do not pale in comparison with our domestic competitors. Rather, we are in a superior position.


ESG Data (Fiscal Year: April 1 – March 31)

Environment (E)

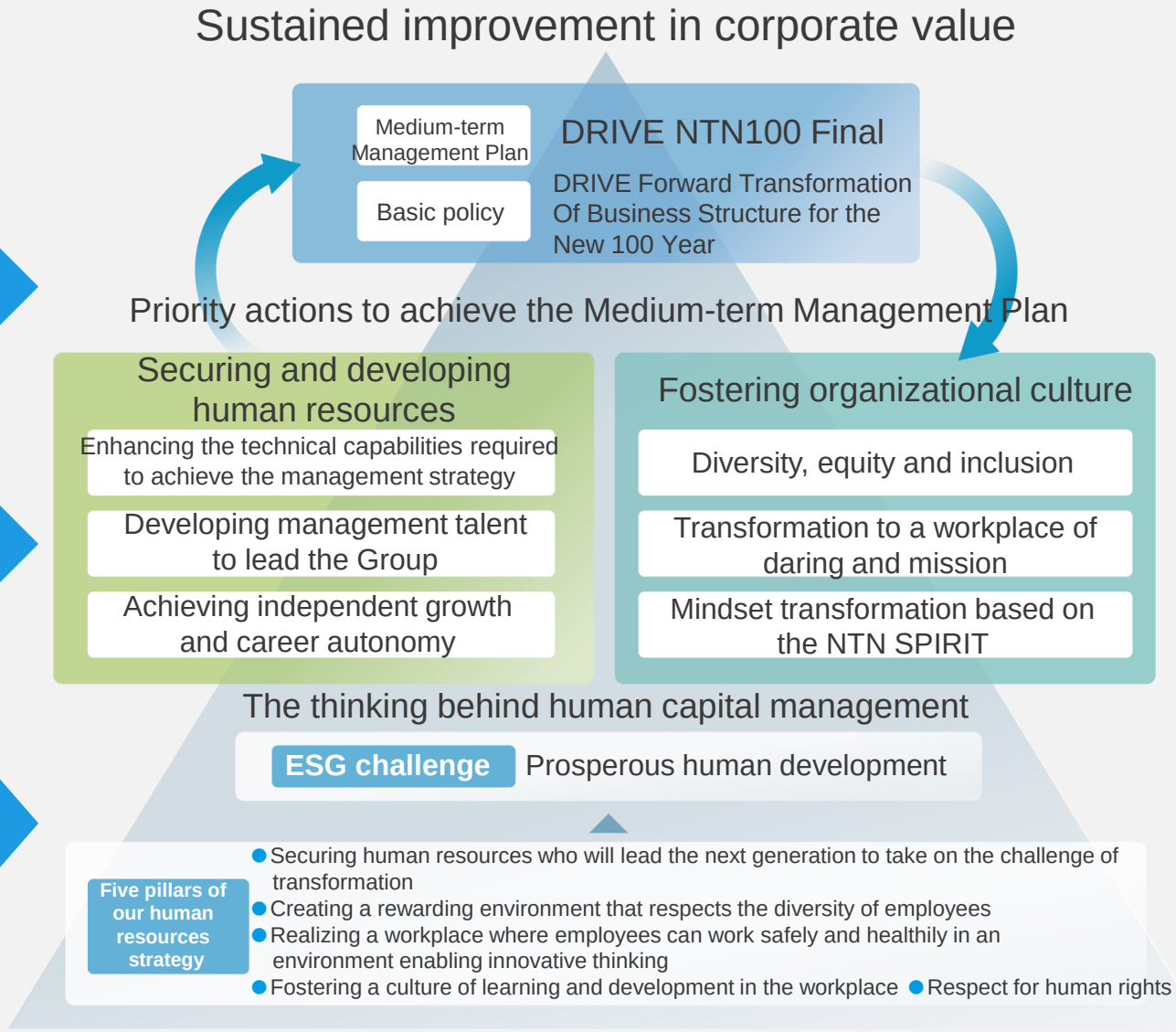
Social (S)

Governance (G)

3-2 NTN's Human Resources Strategy

- Employee growth leads to company growth:
  "the company is its people"

- Strengthen technological competitiveness as a machine manufacturer
- Develop business using AI, data scientists, and other digital technologies
- Create an environment in which diverse employees can fully exercise their abilities autonomously



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3-3 Human Resources Strategy (Human Resource Development to Support Competitiveness and Business Development)

Strengthen technological competitiveness as a machine manufacturer

[Global QC Circle Convention]

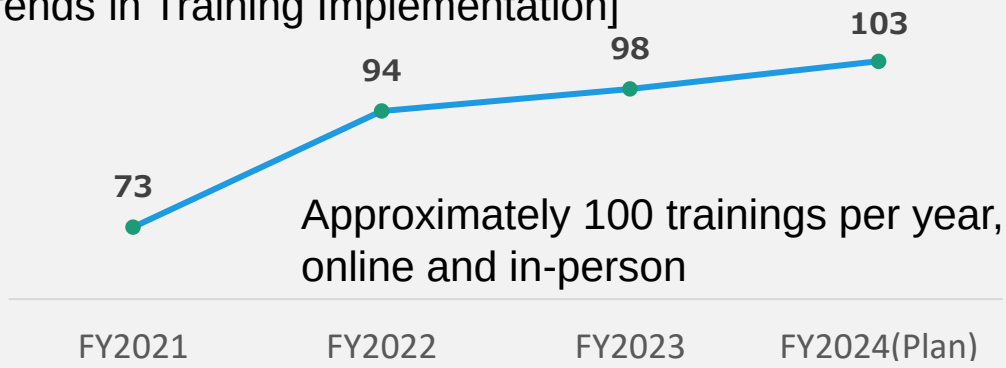


[Specialty-based and rank-based training, etc.]





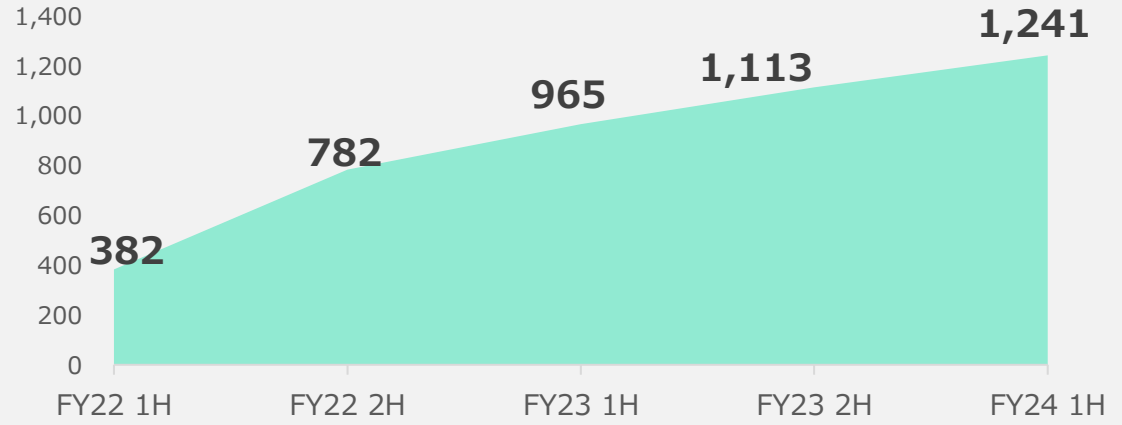
[Trends in Training Implementation]



Develop business using digital technologies

[Number of employees enrolled in data literacy and AI literacy courses]

unit：Total attendance



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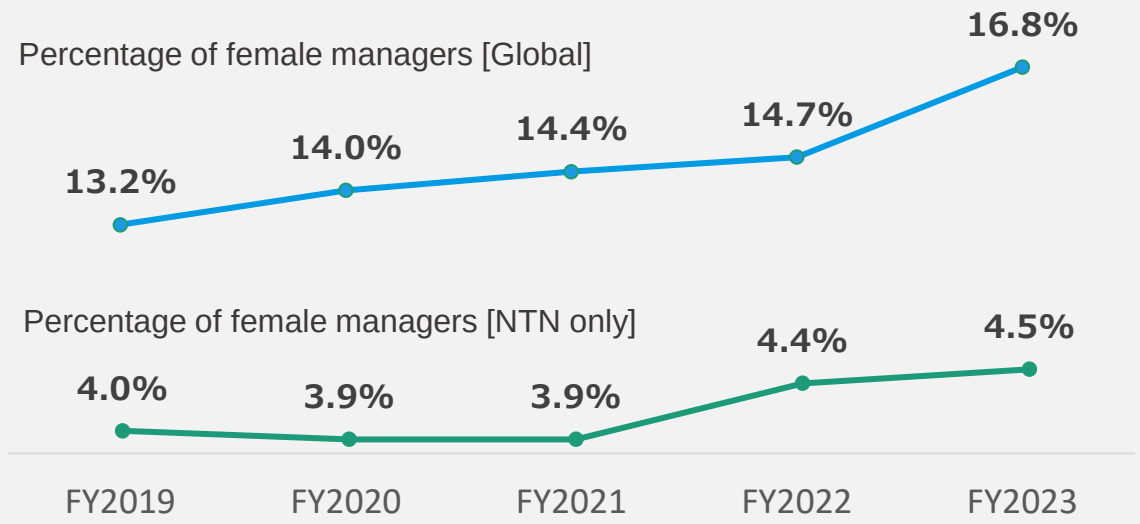
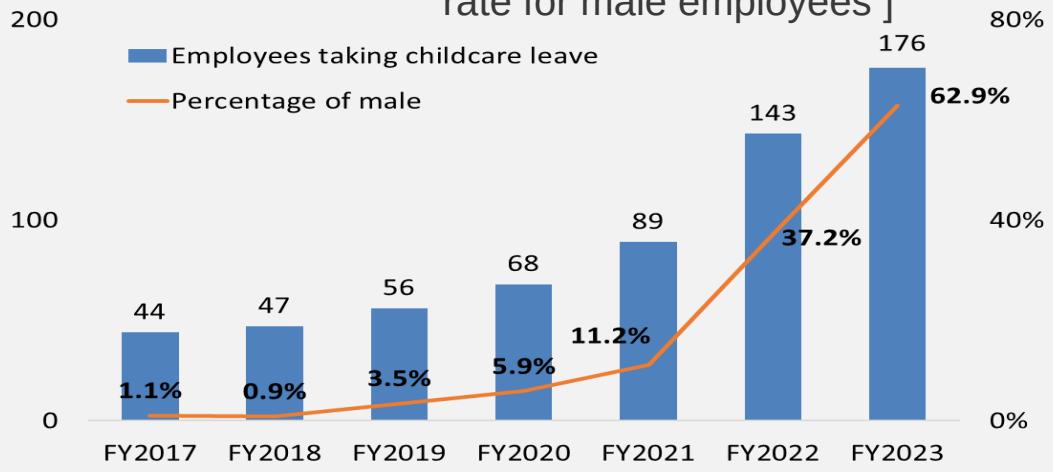
3-4 Human Resources Strategy (Creating Environment)

Diversity & Inclusion

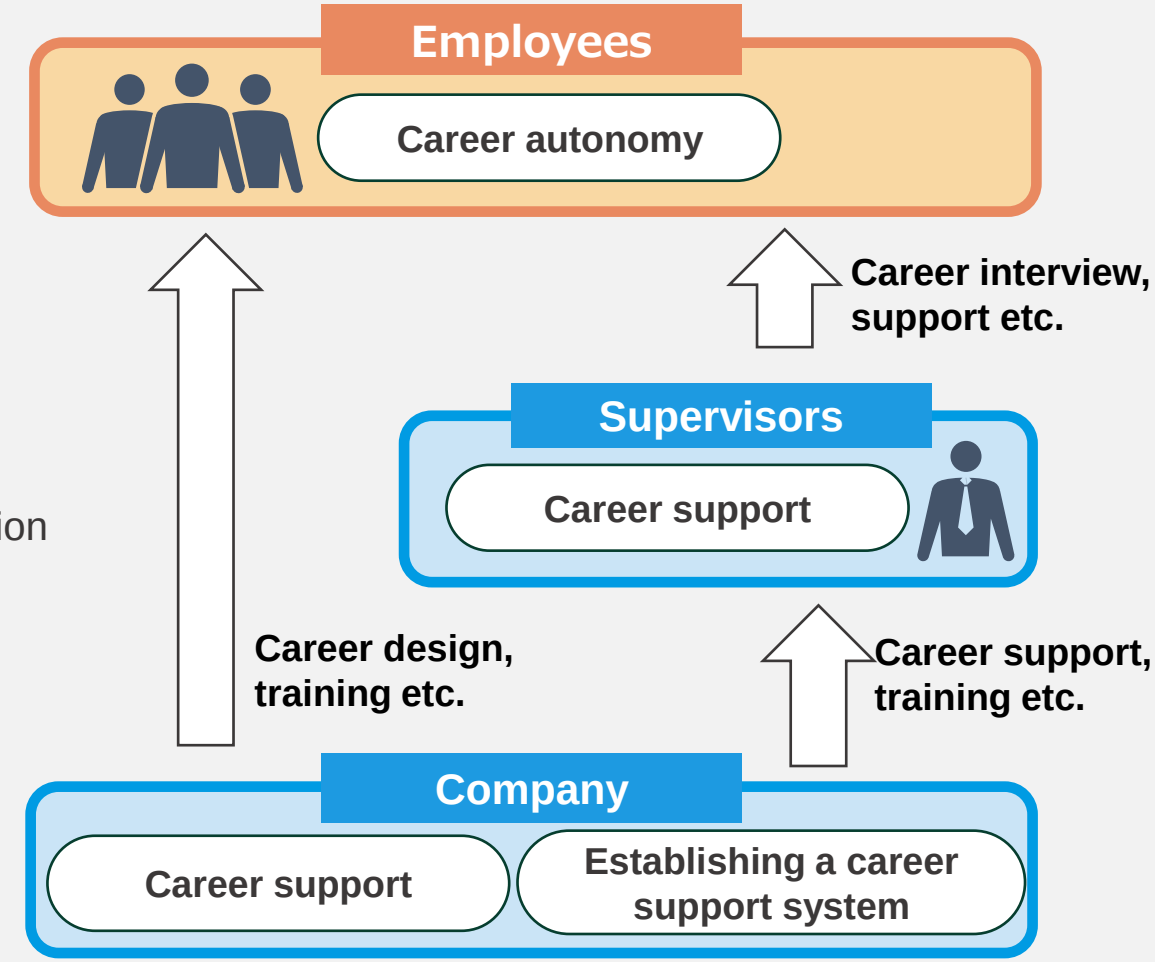
[Percentage of female managers Global 16.8% NTN only 4.5%]



[Numbers of employees taking childcare leave and childcare leave acquisition rate for male employees]



Support for autonomous career formation



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3-5 Contributing to People's Safe and Secure Lives

Preparation for natural disasters by disaster prevention and mitigation

■ Transportable Independent Power Supply "N^3 N-CUBE"



Adopted as independent power supply for flood prevention center in Yoshida Town, Shizuoka Prefecture (from 2022)



Demonstration test held at the roadside station "Itano" which is one of the "disaster prevention roadside stations" selected by the Ministry of Land, Infrastructure, Transport and Tourism （September 2024）

Building an environmentally friendly living infrastructure

■ Bike station in Europe



Bike station unveiling ceremony held outside Geneva (November 2024)

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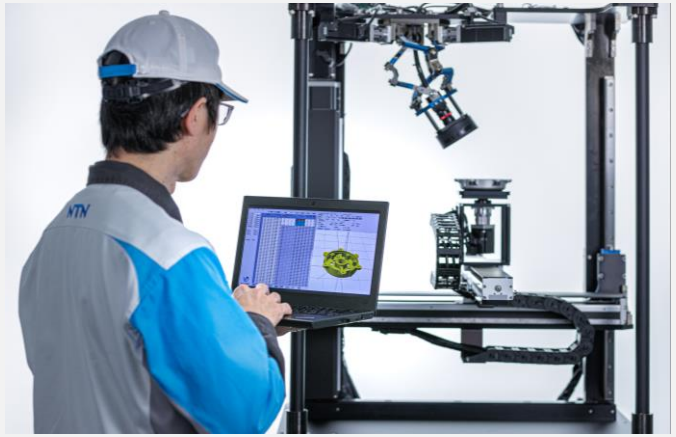
3-6 Responding to Threats from Population Decline and Climate Change

Contribution to robotization



Automatic appearance inspection



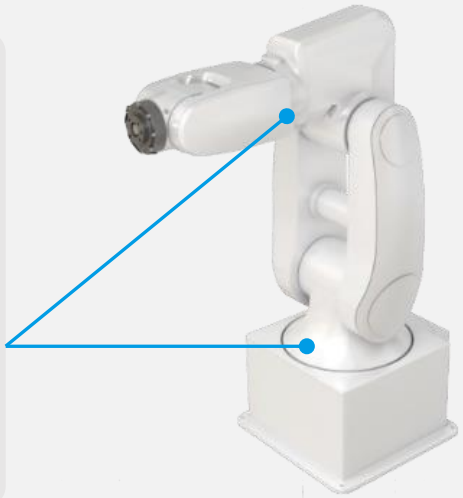
Wrist Joint Module i-WRIST”



High precision angle detection "Multi Track Magnetic Ring"



Enable downsizing and higher power output of servo motors “Low Dust Generation Bearing for Servo Motors”



Robot

Life Science Field



Microscopic Coating Applicator



(Ex) iPS-derived Cardiomyocyte



(Ex) Portable medical test kit

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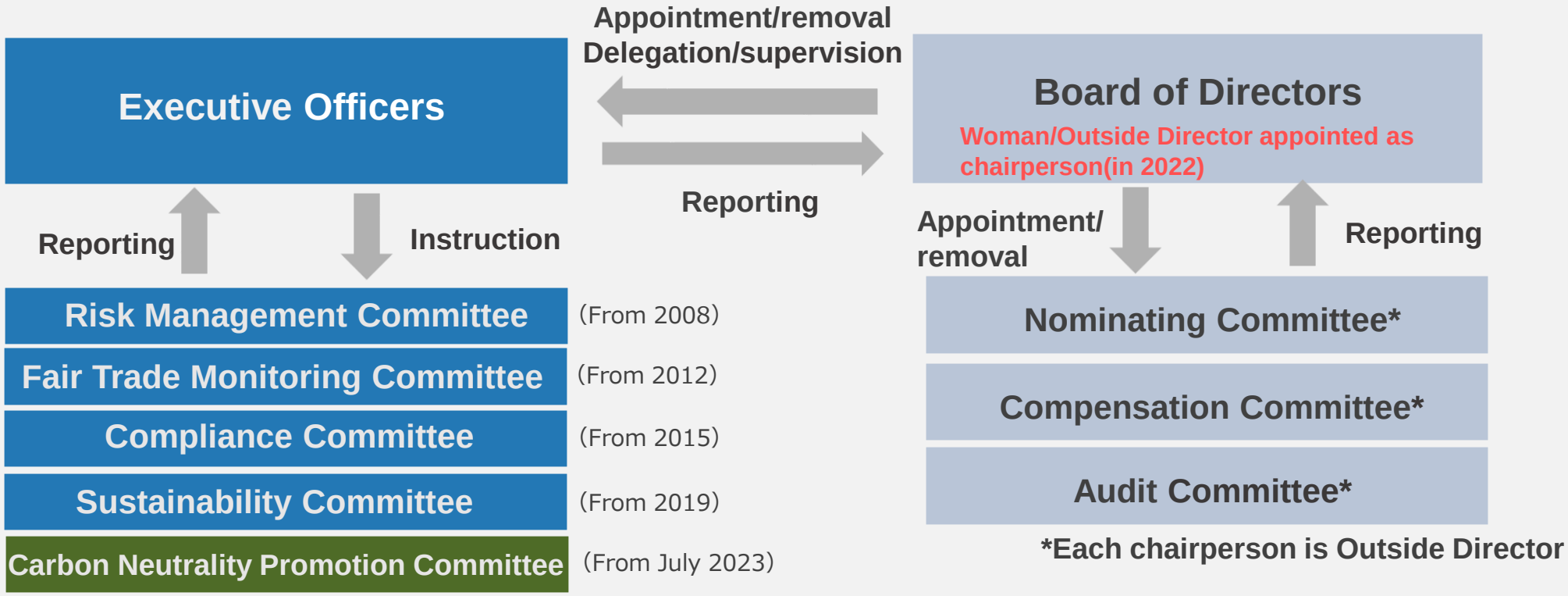
4-1 Corporate Governance Structure

Strengthen governance structure

Established “Carbon Neutrality Promotion Committee” to improve the effectiveness of carbon neutrality



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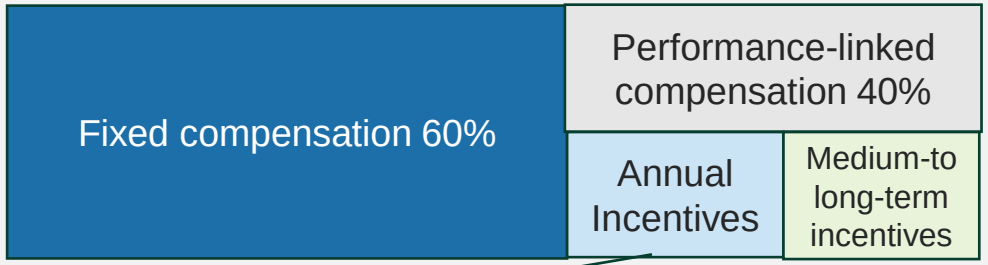
4-2 Enhancement of Governance

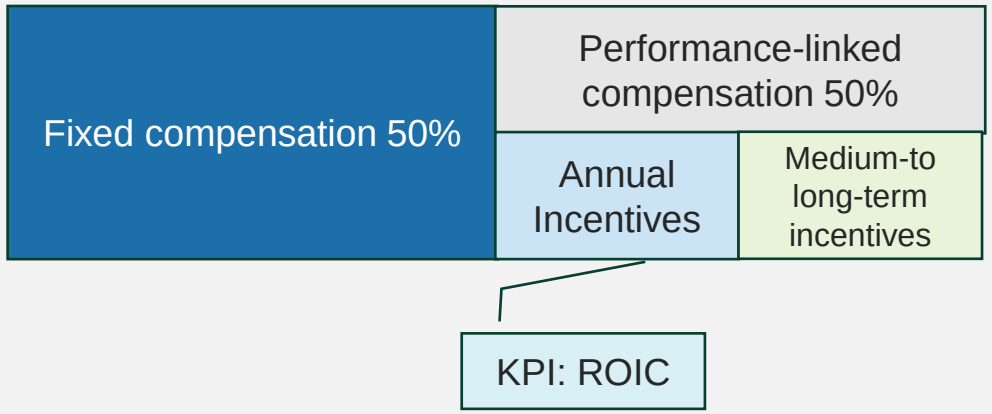
Activities of Compensation Committee

■ Review of compensation for Executive Officers

Past

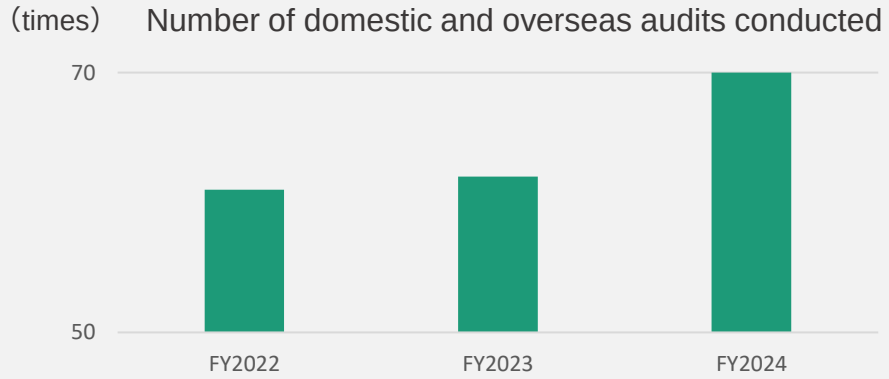


From September 2024



Activities of Audit Committee

■ Enhancement of the Audit Committee structure and actual operation under the established system



■ Promotion of employees understanding through internal communication



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