



NTN Corporation

ESG Meeting

December 18, 2023

Event Summary

[Company Name]	NTN Corporation	
[Company ID]	6472-QCODE	
[Event Language]	JPN	
[Event Name]	ESG Meeting	
[Fiscal Period]		
[Date]	December 18, 2023	
[Number of Pages]	42	
[Time]	13:00 – 14:12 (Total: 72 minutes, Presentation: 34 minutes, Q&A: 38 minutes)	
[Venue]	Webcast	
[Venue Size]		
[Participants]		
[Number of Speakers]	7	
	Eiichi Ukai	Director, Representative Executive Officer, President, Executive Officer, CEO
	Yuriya Komatsu	Outside Director
	Masaki Egami	Executive Officer, Chief Technology Officer
	Yasuhiro Kawabata	Executive Officer
	Shumpei Kinoshita	Executive Officer
	Masayuki Yamazaki	Carbon Neutrality Strategy Promotion Dept.
	Tatsuo Nagao	Corporate Strategy Dept.
[Analyst Names]*	Tsubasa Sasaki	Mitsubishi UFJ Morgan Stanley Securities
	Tomohiko Sano	JPMorgan Securities
	Yuichiro Isayama	Goldman Sachs
	Hirosuke Tai	Daiwa Securities

*Analysts that SCRIPTS Asia was able to identify from the audio who spoke during Q&A or whose questions were read by moderator/company representatives.

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Presentation

Nagao: Now that we are at the scheduled time of 1:00 PM, we will now begin the ESG presentation of NTN Corporation. Thank you very much for taking time out of your busy schedule today to attend our ESG meeting.

First, let me introduce the attendees. Representative Executive Officer, President and CEO, Ukai.

Ukai: This is Ukai. Thank you very much.

Nagao: Egami, Executive Officer, CTO, in charge of Research Division and New Product & Business Strategic Planning Headquarters.

Egami: My name is Egami. Thank you.

Nagao: Kawabata, Executive Officer, in charge of Human Resources Strategy Department and Personnel Department.

Kawabata: I am Kawabata. Thank you.

Nagao: Kinoshita, Executive Officer, in charge of ESG Promotion Department and Carbon Neutrality Strategy Promotion Department.

Kinoshita: This is Kinoshita. Thank you.

Nagao: Yamazaki from the Carbon Neutral Strategy Promotion Department.

Yamazaki: My name is Yamazaki. Thank you.

Nagao: Next, I would like to introduce the participants who are participating remotely other than the head office. Komatsu, Outside Director and Chairperson of the Board of Directors.

Komatsu: My name is Komatsu. Thank you.

Nagao: I, Nagao, and Kouge from the Corporate Strategy Department will serve as the secretariat. Thank you for your cooperation.

Today's briefing will follow the briefing materials distributed earlier via e-mail. The documents are also available on our website, so please check it if you do not have it.

Today, President Ukai and Outside Director Komatsu will explain the overview of ESG management and its specific activities. A Q&A session will follow, with the event scheduled to end at 2:15 PM.

Now, President Ukai, please go ahead.

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1. Overview of ESG Management

2. Environment (E)

3. Social (S)

4. Governance (G)

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Ukai: My name is Ukai from NTN. Thank you very much for taking time out of your busy schedule today to attend our ESG meeting. We would also like to take this opportunity to thank our shareholders and analysts for their continued support.

Today, I would like to explain an overview of our company's ESG management and our efforts over the past year, focusing on the E for environment, S for society, and G for governance. Regarding governance, Director Komatsu will provide an explanation from the perspective of an Outside Director.

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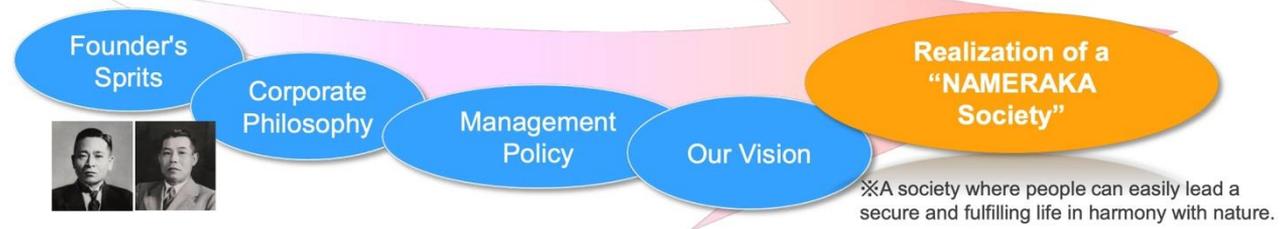
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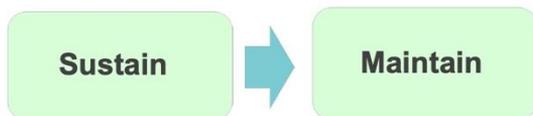
NTN Group Vision

Through the implementation of our corporate philosophy, **“We shall contribute to international society through creating new technologies and developing new products,”** we aim to contribute to solving social issues surrounding the world and realize a **“NAMERAKA Society”**, a society where people can easily lead a secure and fulfilling life in harmony with nature.



From sustainability perspective -Contribute to the future of the earth-

- Longer product operating life
- Technology not to stop operation



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Toward the Realization of a “NAMERAKA Society”

Materiality
||
Issues requiring priority response toward the Realization of a “NAMERAKA Society”



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Please see page four of the document. First of all, I would like to present the overall vision of the NTN Group.

For more than 100 years since our founding in 1918 to the present, we have believed that it is important to continue to contribute to solving social issues while pursuing profits.

From a sustainability perspective, we will contribute to the future of the earth through technology that extends the operating life of our products so that they can be used for longer periods of time and through technology that keeps machines running.

The word sustain in the word sustainable means to sustain, and we believe that sustain is similar to maintain. We will strive to realize a sustainable “NAMERAKA Society” by mastering the technologies to enhance the longevity of our products and connecting them to maintenance through technology that quickly detects the condition of bearings used in our customers' machines.

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Roadmap for Realizing a "NAMERAKA Society"



Aim to enhance NTN Group's corporate value and sustainable growth, and create environmental and social value

< Contribution to solving social issues toward the future we aim for >

ESG issues		Materiality	FY2022 Results (excerpt)
Environment	Realize carbon neutrality	Respond to climate change	Scope1,2⇒ -22.6% compared to FY2018 Scope3 ⇒ Develop and promote action plans
	Contribute to carbon-free society	Realize a sustainable society using natural energy	Launch of one-stop service that provides everything from bearing supply to abnormality detection and maintenance for wind turbines
		Reduce energy loss	Develop High Speed Deep Groove Ball Bearings for EVs and HEVs
Social	Contribute to prosperous lives	Provide safety and comfort	"N ³ N-CUBE" was adopted by several municipalities

Realization of a "NAMERAKA Society"

< Foundation to support ESG management >

Please refer to NTN Report 2023([Link](#)) for all KPIs and targets for the year ending March 2023.

ESG issues	Environment/ Environmental protection	Social/ Sustainable supply chain	Social/ Prosperous human development		Governance
Materiality	Resource recycling and pollution prevention	Improve the reliability of products and services (quality assurance and stable supply)	Promote safety and health	Human resource development	Thorough compliance
		Procurement activities with an emphasis on environment and society	Respect for human rights	Promotion of diversity	Strengthen governance

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Please see page five of the document. We share within the Company a road map that shows the path toward the realization of our vision of a "NAMERAKA Society."

The two wheels of our business are to enhance our corporate value and grow sustainably as a company and to create environmental and social value. We have identified materiality to address social issues and to respond to the SDGs, and we will contribute to each of the ESG issues through our business activities.

KPIs have been set for 13 materiality items related to each ESG issue, and a system has been established to promote ESG management based on the road map on a company-wide basis by having each department aim to achieve its targets.

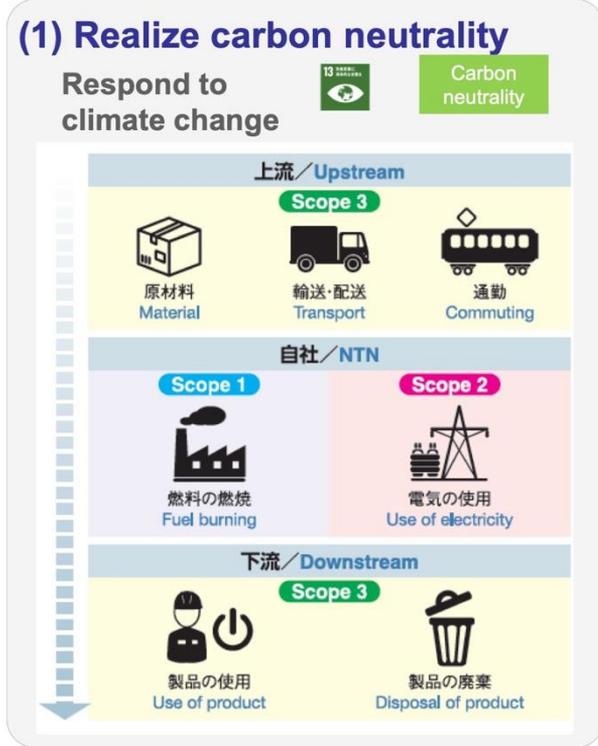
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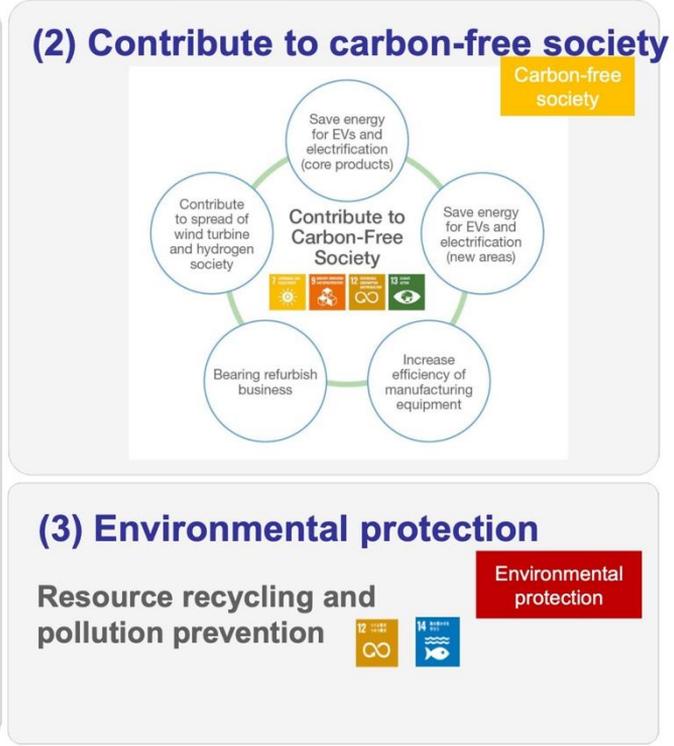
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Contribute to Solving Social Issues



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Next, I will explain our environmental initiatives.

Please see page seven of the document. From here, I would like to explain our efforts in the following three frameworks: one, realize carbon neutrality; two, contribute to carbon-free society, and three, environmental protection.

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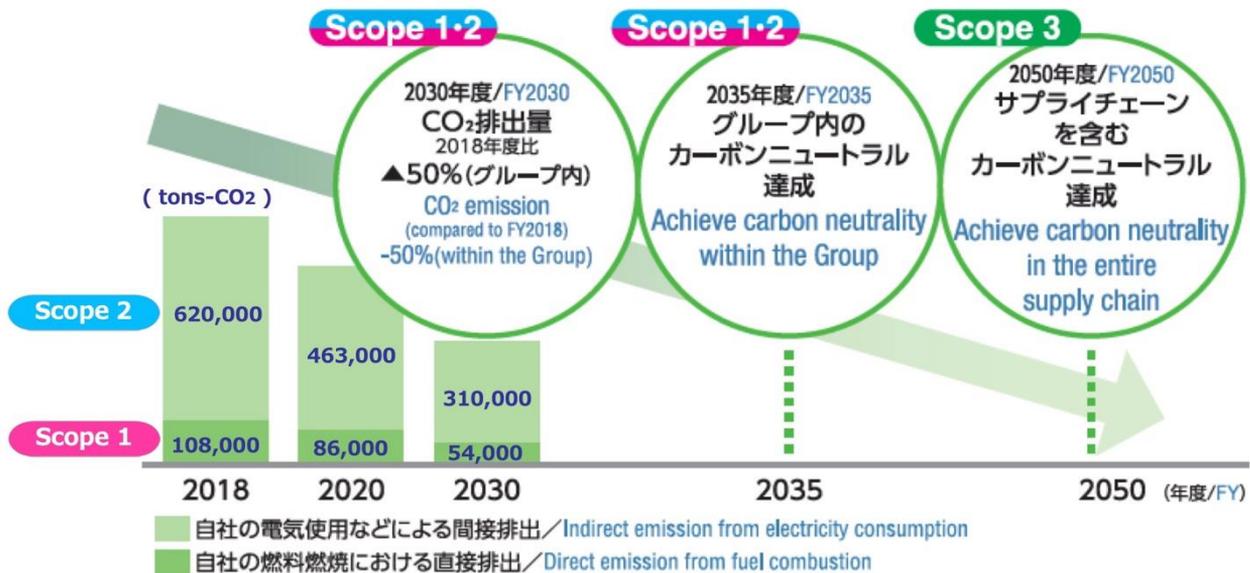


(1)-1 Target for Carbon Neutrality

Carbon neutrality



Set target year for achievement for each scope



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Please see page eight of the document. We are presenting our goals for achieving carbon neutrality.

The Group's goal is to achieve Scope 1 and 2 carbon neutrality by 2035, and Scope 3 carbon neutrality in the supply chain, including raw material manufacturing and transportation, by 2050. In addition, the goal is to halve the CO₂ emissions from Scope 1 and 2 by 2030 compared to FY2018.

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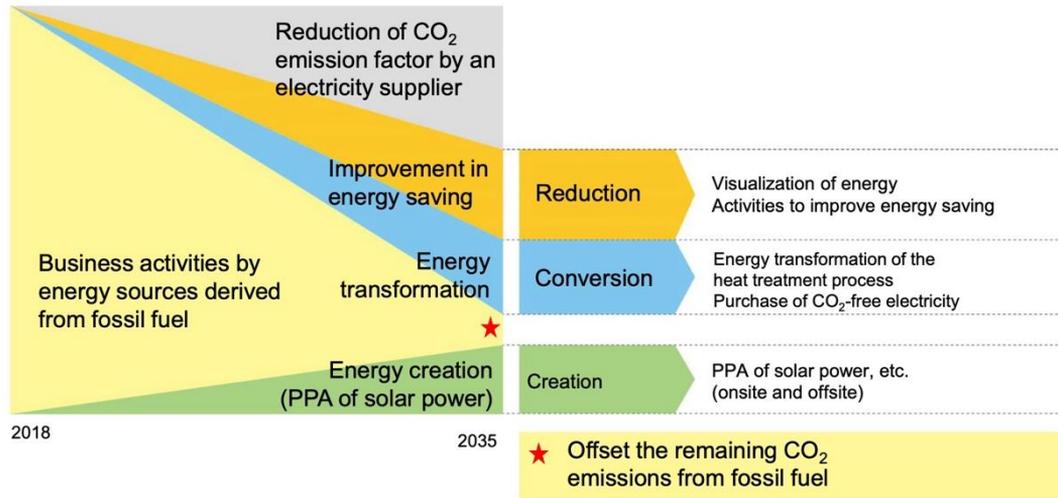
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(1)-2 Carbon Neutrality Realization Image

Steadily promote action plan for achieving carbon neutral targets

<Main measures>



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See page nine. This shows main measures to achieve the carbon neutrality goal.

As a measure to reduce CO₂ emissions, we will reduce CO₂ emissions generated by processing machines and heat treatment facilities by visualizing energy in the manufacturing process and improving waste.

In terms of conversion measures, we are promoting energy transformation of heat treatment facilities and purchase of CO₂-free electricity to reduce fossil fuel-derived CO₂ emissions. We will also promote energy creation by natural energy such as solar power PPA. In addition, the Company plans to offset the remaining fossil fuel-derived CO₂ emissions through the purchase of credits.

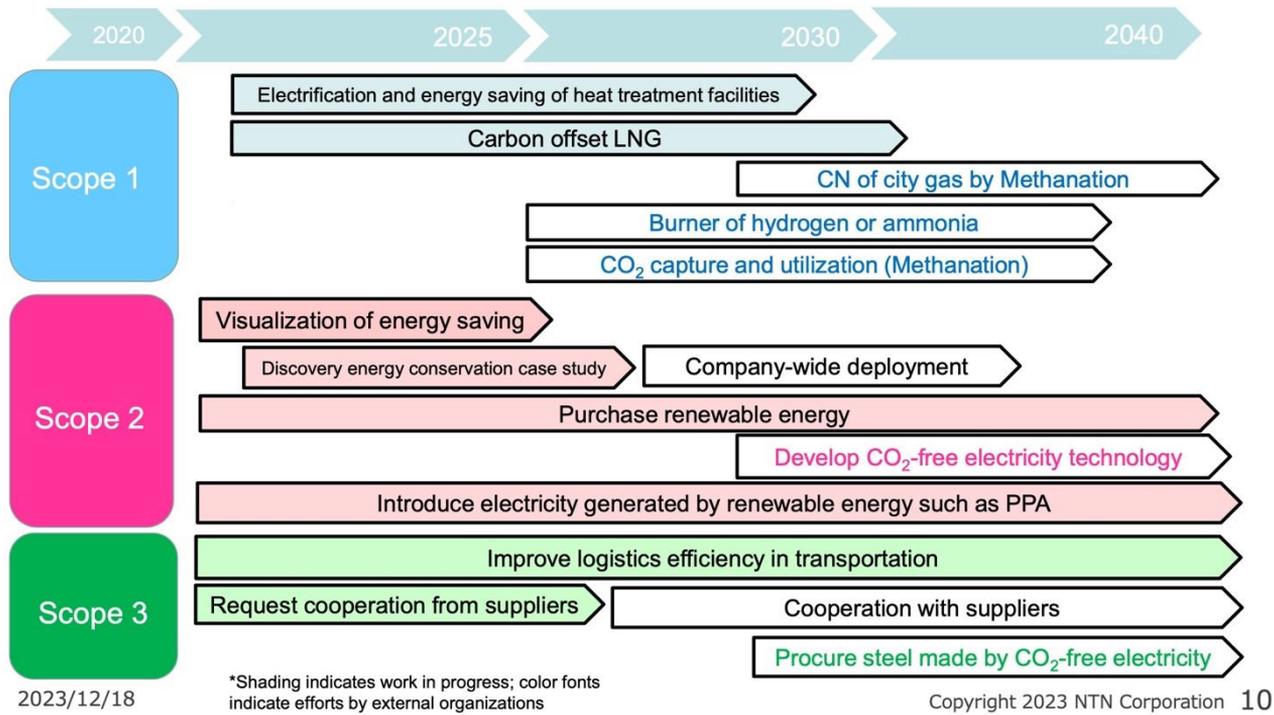
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(1)-3 Initiatives for Each Scope

Accelerate activities by promoting our own initiatives and collaborating with external parties



See page 10. This slide shows the overall picture of efforts in each of Scope 1, 2, and 3.

Specific examples of Scope 1, 2, and 3 initiatives will be introduced later, but we will promote improvement activities within the Company to reduce CO₂ emissions, such as electrification, energy conservation, and the introduction of natural energy generation, as well as collaborate with external organizations to accelerate these activities.

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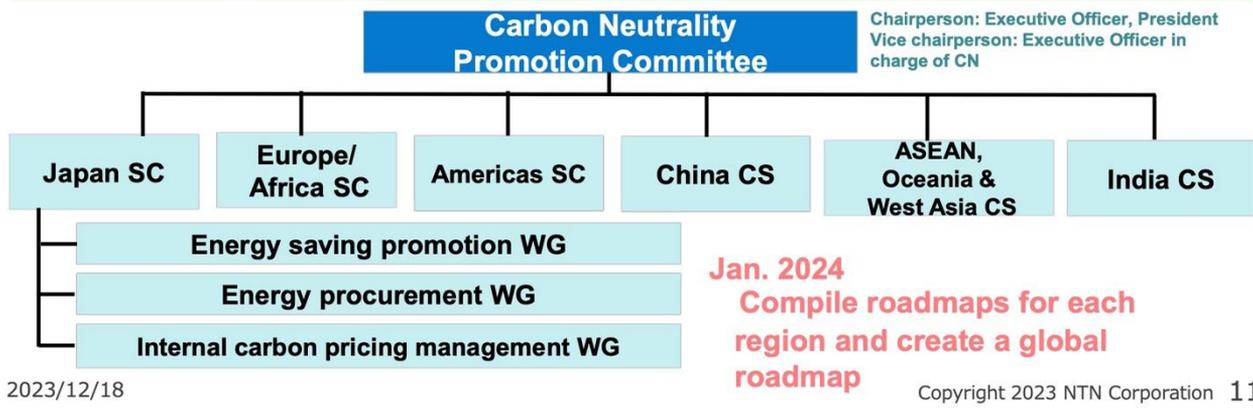
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(1)-4 Promote Activities Globally

Global promotion system for achieving carbon neutral targets

Dec. 2021	Creation of the roadmap for realizing a “NAMERAKA Society” (Carbon neutral targets for Scope1,2: 2040)
Jun. 2022	Moving the target forward (Scope1,2: 2035)
Jul. 2022	Carbon Neutrality Promotion Project launched
Apr. 2023	Carbon Neutrality Strategy Promotion Dept. newly established
Jul. 2023	Carbon Neutrality Promotion Committee and subcommittee newly established
Oct. 2023	Sign Sustainability Linked Loan Agreement with The Norinchukin Bank



Please see page 11 of the document. A system is in place to promote internal activities, etc. on a global basis.

Since the establishment in December 2021 of a road map showing the overview of our ESG management, we have set a carbon neutrality goal and have been promoting project activities to develop and promote measures to achieve that goal.

From April this year, the Carbon Neutrality Strategy Promotion Department will continue and develop its activities. In July, a company-wide Carbon Neutrality Promotion Committee and regional subcommittees consisting of members from each global region were newly established to develop a global promotion system.

A second Carbon Neutrality Promotion Committee meeting is scheduled to be held in January 2024 as a plenary session. By consolidating the road maps of each region for achieving the carbon neutrality target, we will create a global map and incorporate it into our business plan to steadily implement activities to achieve the target.

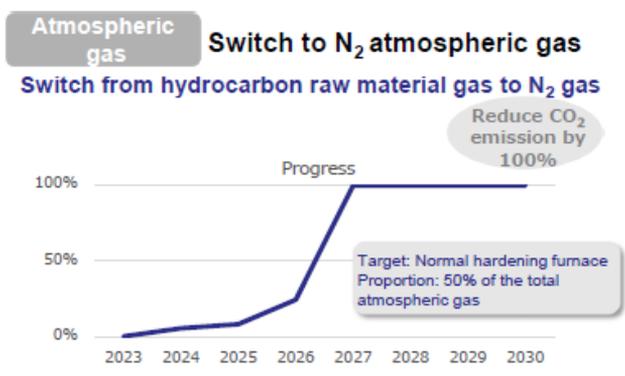
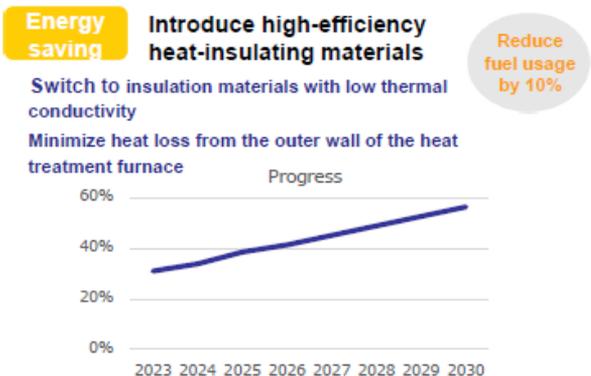
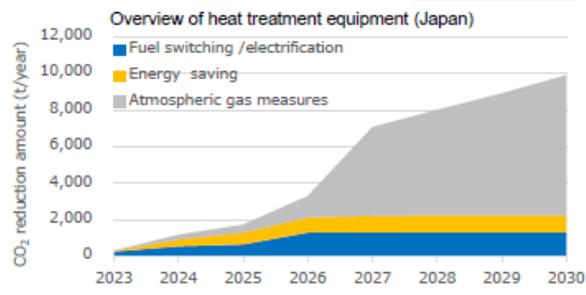
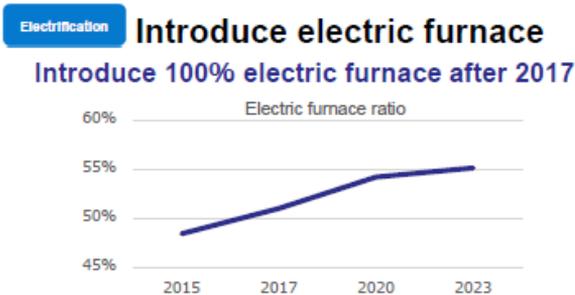
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(1)-5 Initiative for Scope 1

Energy saving and electrification measures for heat treatment equipment

Scope 1



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See page 12. Some specific examples of initiatives for each Scope are introduced below.

First, Scope 1. The upper right graph shows the overview of efforts at heat treatment facilities in Japan. About half of the CO₂ emissions from Scope 1 in Japan come from combustion in the heat treatment process, which is essential to the processing of our bearings.

To reduce CO₂ emissions from heat treatment facilities, we are currently promoting three measures: electrification, energy saving, and atmospheric gas measures. For example, since 2017, all new heat treatment furnaces we have introduced have been electric furnaces, and high-efficiency insulation has been introduced to minimize heat loss from the outer walls of heat treatment furnaces, reducing fuel use by 10%.

In addition, the furnaces dedicated to normal hardening, which account for 50% of the total atmosphere gas, will switch from conventional hydrocarbon material gas to nitrogen N₂ gas, thereby reducing CO₂ emissions from these furnaces by 100%.

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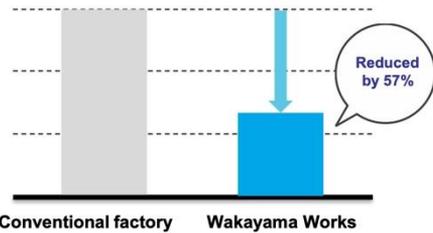
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(1)-6 Initiative for Scope 1, 2

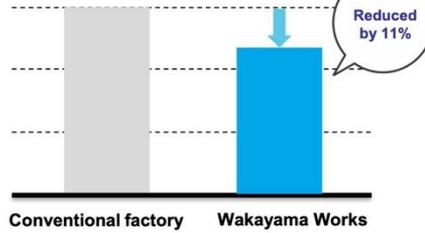
Case of Wakayama Works that completion ceremony was held in October 2023

- **Energy saving and electrification of heat treatment equipment**

Reduced liquefied petroleum gas (LPG) consumption by adopting an electric heat treatment furnace



Reduced power consumption by using high-efficiency insulation material on the outer wall of the heat treatment furnace

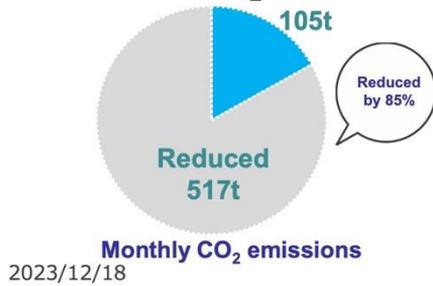


Scope 1

Scope 2



- **Introduce CO₂-free electricity**



- **Utilize natural energy power generation**



N³ N-CUBE



NTN Green Power Station



Solar panel (plan)

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See page 13. This is the case of Wakayama Works, which held an completion ceremony in October 2023 and started full-scale operations.

All hardening furnaces are electric furnaces, promoting electrification at Scope 1, and reducing LP gas consumption by 57% compared to non-electric furnaces.

In addition, the installation of high-efficiency insulation in this exterior wall reduced power consumption by 11% compared to the case where high-efficiency insulation was not used. All electricity used in the plant is CO₂-free electricity. As a result, CO₂ emissions at the plant have been reduced by approximately 85% compared to the amount of CO₂ emissions without CO₂-free electricity.

In addition, we are also utilizing natural energy for power generation and have already installed the N³ N-CUBE, which combines wind power and solar panels in a container, and the NTN Green Power Station, an independent power source that combines wind power and solar panels. In addition, NTN plans to install solar panels on the roof of the plant in the future.

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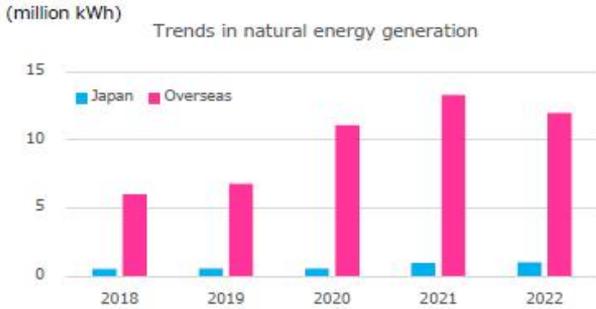
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(1)-7 Initiative for Scope 2

Introduce natural energy power generation and promote CO₂-free electricity purchase

Scope 2

● Accelerate introduction in Japan and overseas



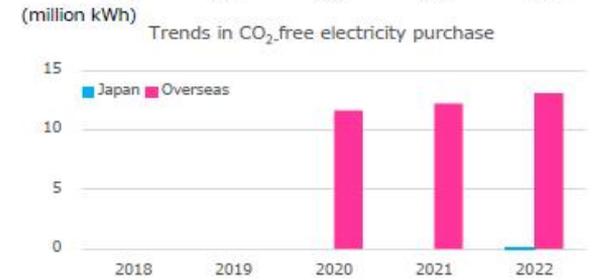
<Examples of sites introducing solar panels>



NTN Mie Corp.
(from Apr. 2023)



NTN BEARING-SINGAPORE (PTE)LTD.
(from May. 2023)



NTN MANUFACTURING DE MEXICO,S.A.DE C.V.
(from Aug. 2023)



NTN BEARING-MALAYSIA SDN.BHD.
(from Jun. 2023)

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See page 14. Next is Scope 2, efforts to reduce CO₂ emissions from electricity use.

We have been ahead of Japan in China in terms of power generation from natural energy, and in Japan, we introduced solar power generation utilizing PPA for the first time at Kuwana Works in 2021. As shown in the photo to the right, we are accelerating the introduction of solar power generation in Japan and abroad.

As for CO₂-free electricity, we have started purchasing it in Germany from 2020. In Japan, we have already introduced 100% CO₂-free electricity at the Wakayama Works, which I mentioned earlier, and at some of our sales offices, and we will consider expanding the introduction of CO₂-free electricity in the future.

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(1)-8 Initiative for Scope 3

Collaboration with suppliers and others
Improve logistics efficiency

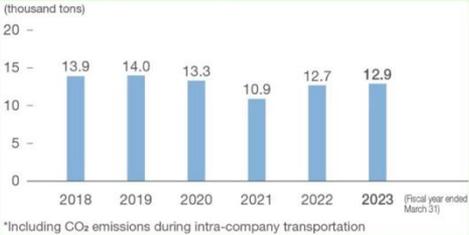
Scope 3

- **Procure steel materials made by CO₂-free electricity**
 - Promote information collection and investigation
- **Require suppliers to commit to carbon neutrality**
 - Share background and targets of carbon neutrality
 - Introduce examples of energy saving
 - Plan to periodically survey CO₂ emission data and status of energy saving efforts



- **Improve efficiency during transportation**
 - Shorten transportation distance by optimizing distribution routes
 - Increase the loading ratio by expanding the use of module outer boxes
 - Reduce the number of containers by increasing the loading ratio of export containers
 - Reuse and recycle (repair) of wooden pallets

<CO₂ emissions in logistics (Japan)>



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See page 15. Finally, Scope 3, CO₂ emission reduction in the supply chain.

As we aim to achieve carbon neutrality for Scope 3 by 2050, we will continue to gather information and consider ways to procure steel materials produced using CO₂-free electricity in the future.

In May of this year, we shared the background and goals of our carbon neutrality efforts with suppliers at a presentation of our business policy and introduced energy-saving case studies, among other activities to promote collaboration. We are also working to reduce CO₂ emissions during product transportation by improving logistics efficiency, such as by optimizing distribution routes to shorten transportation distances.

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(2)-1 Energy Conservation through Products

Carbon-free society



Provide products that minimize energy loss

Low Torque



2018 'CHO' MONODZUKURI Innovative Parts and Components Awards, Mobility Components Award

"Ultra-low Friction Sealed Ball Bearing"
Reduce rotation torque by 80% compared to conventional product



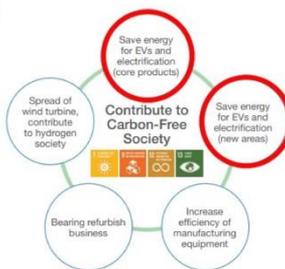
2020 'CHO' MONODZUKURI Innovative Parts and Components Awards, Mobility Components Award

"Low Friction Hub Bearing III"
Reduce rotational friction during driving by 62%



2022 'CHO' MONODZUKURI Innovative Parts and Components Awards, Grand Award

High Efficiency Fixed Type CVJ "CFJ"
Reduce torque loss rate by 50%



Compact & lightweight



- **World's smallest and lightest rear CVJ product**
Reduce weight by 30% compared to conventional product
Reduce outer ring outer diameter by 3~5%
- **Expanding sales since the start of mass production in 2018**
Adopted for BEVs for European premium brands

⇒ **Contributing to a sustainable society through energy conservation by automotive axle and power/drive train products**

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Please see page 16 of the document. We now turn to our second environmental theme, our contribution to a carbon-free society.

The figure on the upper right of the slide shows the five initiatives that the NTN Group is focusing on to achieve a carbon-free society. For automotive applications, we offer products that reduce energy loss to the utmost limit through the low-torque, compact, and lightweight technologies we have cultivated over the years.

Our low-torque products have received recognition as products that contribute to CO₂ emissions reduction in the 'CHO' MONODZUKURI Innovative Parts Awards hosted by the MONODZUKURI Nippon Conference and the Nikkan Kogyo Shimbun, Ltd.

The R Series, the world's smallest and lightest rear driveshaft, has been used by several Japanese and European automakers in their SUVs and EVs, mainly rear-wheel-drive vehicles, thanks to its high fuel efficiency.

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(2)-2 Contributing to Expansion of Next-generation Mobility

Carbon-free society



Shift to value-added product creation

EV & Electrification

● Respond to various technology trends of e-Axle



e-Axle, increasing speed of drive motors due to demand for high output and downsizing

High speed



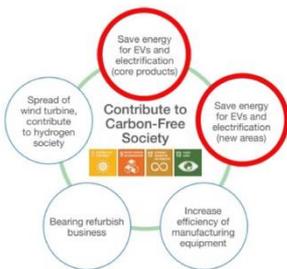
High Speed Deep Groove Ball Bearing for EVs and HEVs

Compact & lightweight



CreepLess Bearing

モノづくり
部品大賞
2021 'CHO'
MONDZUKURI
Innovative Parts and
Components Award,
Nippon Brand Award



● Energy saving for EVs by module products with multi-functions





eHUB
sHUB
Ra-sHUB

● HUB and CVJ are increasingly adopted for BEVs



Fiscal Year	HUB (volume)	CVJ (volume)	HUB (EV-ratio)	CVJ (EV-ratio)
FY2023	~5%	~5%	~10%	~10%
FY2024	~8%	~8%	~16%	~16%
FY2025	~12%	~12%	~24%	~24%
FY2026	~15%	~15%	~30%	~30%
FY2027	~18%	~18%	~36%	~36%
FY2028	~22%	~22%	~44%	~44%

⇒ Lead to sustainable growth for NTN

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Please see page 17 of the document. For EVs and electrification, we not only provide highly functional products for e-Axle, where drive motors are becoming faster, smaller, and lighter in accordance with technological trends, but also contribute to energy saving of EVs through module products with steering functions and other features.

Hub bearings and driveshafts, our main products also used in EVs, are expected to see an increase in EV projects in the future, as shown in the graph. The shift to EVs is an opportunity for us, and by shifting to the creation of high-value-added products, it will also lead to sustainable growth for our company.

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(2)-3 Breaking away from Fossil Fuels

Carbon-free society



Promote the use of alternative energy sources that do not emit CO₂

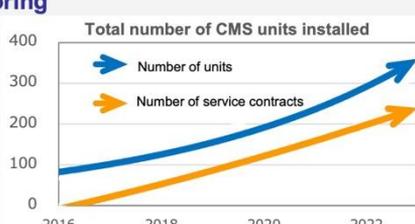
● Wind turbine

Provide products that support the rotation of power generation equipment and services through condition monitoring

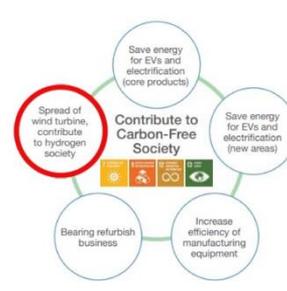



Condition monitoring system

Total number of CMS units installed



Year	Number of units	Number of service contracts
2016	~80	~0
2018	~150	~20
2020	~250	~80
2022	~350	~180



Contribute to Carbon-Free Society

● Hydrogen

Supporting technology development to “produce”, “transport”, “storage” and “use”

[Example 1]
Development of product for application



[Example 2]
Starting sample prototyping and delivery of Hydrogen Embrittlement Resistant Bearings

[Example 3]
Resin products have been adapted as sealing components for hydrogen environment

[Example 4]
Project for development of basic technology for low-cost and advanced hydrogen stations that NTN participates in adopted as NEDO public offering project (Collaboration with industry and academia)



Hydrogen Embrittlement Resistant Bearings

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Please see page 18 of the document. As wind power and hydrogen, which do not emit CO₂, are attracting worldwide attention as next-generation clean energy sources, and we provide technologies to promote their utilization.

For wind power, we provide not only long-life bearings that support the rotation of the generating equipment but also technologies and services to keep the power generation from stopping.

The Company boasts the number one share of the domestic market for installed units of its CMS condition monitoring system, and contracts for services that use CMS technology to distribute operating status to wind power generators are increasing each year, contributing to higher operating rates for wind power generation equipment.

In addition, from 2022, we have also formed a business alliance with Hokutaku Co., Ltd., which specializes in maintenance, and our customers appreciate the fact that they can receive a series of services from abnormality detection to the arrangement of repair bearings.

Hydrogen technology development is being actively pursued on a global scale in all aspects to produce, transport, storage, and use, with a view to its future utilization. We are available for specific technical development and sample delivery and will support the development of hydrogen-related technologies.

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(2)-4 Improve Utilization of Manufacturing Equipment

Carbon-free society



Contribute to further long operating life by the technology that makes products last longer and maintenance through condition monitoring

Sustain



Maintain

● Longer product operating life

Contribute to further long operating life by special heat treatment, low-torque lubricants and other technologies



"ETFA Bearing" realizing more than 6 times longer operating life (comparing to conventional product)



● Technology not to stop operation

Contribute to appropriate maintenance by CMS and services for each use



"Wind Doctor™" for wind turbine



"NTN Portable Vibroscope"

Started diagnostic report business (from Mar. 2023)



Bearing Diagnostic Edge Application



"Talking Bearing™"

モノづくり 部品大賞

2023 'CHO' MONODZUKURI Innovative Parts and Components Awards, Machinery & Robot Component Award

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Please see page 19 of the document. With regard to manufacturing facilities, we are pursuing technological improvements in the products themselves in order to increase operating rates, and we will continue to make every effort to achieve an overwhelmingly long service life through technologies such as special heat treatment and low-torque lubricants.

In addition to the CMS for wind power generation equipment mentioned earlier, we also offer other technologies to keep equipment running, such as NTN Portable Vibroscope, which is palm-sized and can spot-monitor equipment status, and Talking Bearings, which are built into machinery and equipment and transmit information when there is an abnormality. We have a wide range of system products to meet customer needs.

With these products, we are also developing an abnormality detection service, which will lead to appropriate maintenance, thereby contributing to a sustainable society where manufacturing facilities can be used for longer periods of time.

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(2)-5 Contributing to Realize Recycling Society

Carbon-free society



Reduce environmental impact through bearing refurbish



- **Extension of bearing operating life**
 Reconditioning based on technical know-how before a failure occurs

Customer

Cost reduction

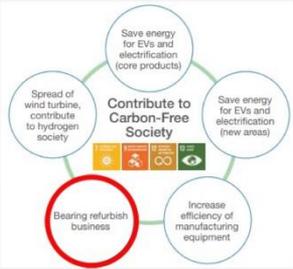
Shorter lead times for purchase

- **Sustainable use of natural resources**
 Reduce environmental impact through efficient use of limited resources

Environment

Reduce CO₂ emission and manufacturing energy

Reduce use of steel material





Extra-large sized spherical bearing for paper mill application

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Please see page 20 of the document. We have been in the business of bearing refurbish since 2018.

This service is to recondition bearings used in machinery and equipment such as paper manufacturing, steel making, and rolling stock. Since bearing life is extended based on our technical know-how before failures occur, customers can reduce costs and purchase lead time compared to purchasing new products.

From an environmental standpoint, the reuse of limited resources reduces manufacturing energy and CO₂ emissions, as well as waste.

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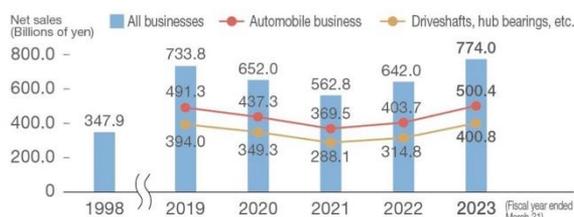


(2)-6 Indexing the Contribution to Decarbonization

Promote development of products with higher grades of environmental contribution

● **Targets** Driveshafts, hub bearings, green energy products

● **Trend in net sales**

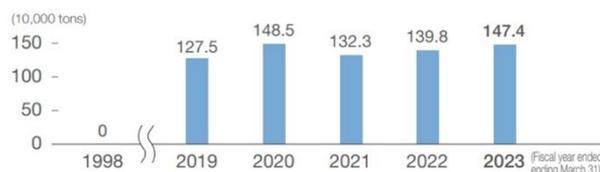


● **Trend in composition of environment-contributing products by grade**



● **Contribution to CO₂ reduction**

Contributes to annual reduction of approximately **1.5 million tons** (comparing to 1998)



Calculation standard
 JAPIA LCI Calculation Guidelines by Japan Auto Parts Industries Association
 (Consumer Use-phase LCI calculation tool)
 *Applicable to S to C-eco products

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Please see page 21 of the document. This slide shows how we are quantitatively contributing to a carbon-free society.

The target products are driveshafts, hub bearings, which are our core products, and green energy products and the environmental contribution of these products is classified into five levels based on our standards. These products have contributed to an annual reduction of approximately 1.5 million tons of CO₂ emissions in the fiscal year ended March 31, 2023, and we will continue to promote the development and provision of higher-grade products.

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(3) Biodiversity Preservation

Environmental contribution to the community



Explained about preservation activities at Mt. Tado as part of SDGs education of local junior high school



Nagano Works presented with "CO₂ Absorption Certificate"

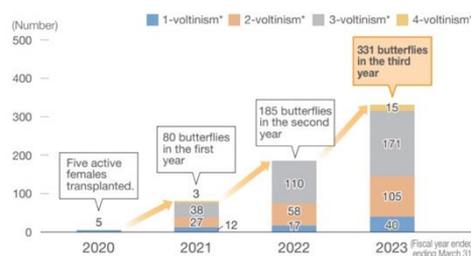


Clean activity by NTN BOWER located in USA

Conservation activities for the endangered Reverdin's Blue



Conduct protection activities in Nagano Works based on the partnership agreement signed with Nagano Prefecture



*There are 1, 2, 3, and 4 voltinism, respectively, depending on the number of generations per year, and those that are 3 or more voltinism are called multi-voltinism.

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Please see page 22 of the document. The last theme in the environment, environmental protection, is explained here.

In our business activities, in addition to managing and reducing chemical substances used in our products and manufacturing processes, we are also involved in biodiversity conservation and local environmental contribution activities. As an example, in March of this year, NTN introduced local junior high school students to examples of our activities such as tree planting and tree thinning at the NTN Komorebi no Mori, located in Tado Mountain in Kuwana City, where we have our office, and the N³ N-CUBE and eco-toilet models that use renewable energy as part of our SDG education activities.

Overseas, NTN Bower in the US is continuing its cleanup activities, and Singapore Sales is expanding its activities both in Japan and overseas, including a new river cleanup this year. In addition, as part of our biodiversity preservation activities, we signed an agreement with Nagano Prefecture to protect and nurture the endangered Reverdin's Blue butterfly, an endangered small butterfly, on the Nagano Works premises, and its population has been steadily increasing.

Next, I will explain our social initiatives.

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Strengthen Sustainable Supply Chain



Build relationships of trust with business partners

- Promote green procurement (from Mar. 2007)
- Request active promotion of CSR activities (From Apr. 2016)
- Formulate a Procurement Policy corresponding to SDGs (Apr. 2021)
- Announcement of our Declaration of Partnership Building (Jun. 2022)

Strengthen information security

- Establish the Basic Policy of Information Security (Oct. 2022)
- Start a cross-department emergency system NTN-CSIRT* (Apr. 2023)
※Computer Security Incident Response Team
- Revision of information security management regulations, etc. (Apr. 2023)

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Please see page 24 of the document. Initiatives related to strengthening sustainable supply chains.

We promote green procurement, giving priority to suppliers with outstanding environmental conservation efforts and environmental quality, and have established NTN CSR Procurement Guidelines, requesting suppliers to actively promote CSR activities.

In addition, through initiatives such as the formulation of a Procurement Policy in response to the SDGs and the Declaration of Partnership Building, we are building relationships of trust with our suppliers and conducting procurement activities.

In response to the growing risks of cyber-attacks and information leaks, NTN is also strengthening information security to ensure stable supply to customers by establishing a Basic Policy of Information Security, and initiating activities of the NTN-CSIRT, an emergency system.

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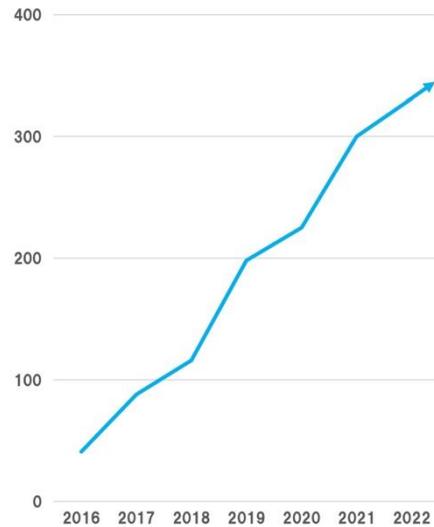


Strengthen Resilience for Disaster

Independent power supply generated by 100% renewable energy
Adoption increase as storage facilities in preparation for natural disasters and infrastructure equipment etc.



● Cumulative installed number of green energy products



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Please see page 25 of the document. With the increase in the number of natural disasters caused by abnormal weather and other factors, disaster prevention centers are being built in various locations to serve as bases for disaster relief activities and as stockpiles of emergency food, medical supplies, and other items.

We have developed the N³ N-CUBE, a mobile independent power supply that contains a wind power generator, solar panels, and storage batteries, and its introduction is accelerating nationwide for use in disaster prevention.

We are also developing an eco-friendly toilet model equipped with a circulating flush toilet for use in mountainous areas where commercial power sources have not been installed and in parks, and a charging station model capable of supplying power to a personal mobility vehicle and vending machines, etc.

We will continue to contribute to disaster prevention and mitigation and the decarbonization of various facilities and equipment through the further development of N³ N-CUBE applications.

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Promote ESG Management across NTN Group

Prosperous
human
development



New system from 2022 to encourage ESG activities by employees “NTN PROUD AWARD” – the first global convention was held



Teams from around the world made presentations and shared their efforts online



Q&A session by judges including President Ukai

➔ Recognize the links between ESG and own works, and work to solve issues across the Group

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Please see page 26 of the document. For three pages starting from this slide, I will explain our approach to employees, which is the foundation supporting ESG management.

In order to promote ESG management throughout the Group through the efforts of not only management but also each and every employee, we have newly launched the NTN PROUD AWARD in 2022 to encourage ESG activities by our employees.

The purpose of this program is to recognize outstanding initiatives and to share the details of these activities with the entire group, and then lead to further enhancing corporate value. In June of this year, we held our first global competition, where 12 teams from around the world that passed the qualifying rounds presented their efforts in ESG activities online.

Based on the content of the presentations and the Q&A session, the judges discussed with the panel and awarded the President's Award to the manufacturing subsidiary in China in the environmental category and to the Canadian subsidiary in the social category. In addition, the President's Special Award was presented to the Joint European Team in appreciation of their ongoing support of Ukrainian refugees.

We will continue to promote group-wide activities to resolve issues in the ESG field.

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Dialog through Town Hall Meetings

President and Executive Officers visit region/department in charge to explain company policy and exchange opinions face to face with employees



Osaka HQ. region



Americas region



Europe region



Iwata region



China region



ASEAN region

→ Lead the company policy to root globally, enhance employee engagement, and improve management

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Continued on page 27 of the document. Based on my belief that a company is its people, I have visited each of our offices and engaged in dialog with our employees since becoming president in 2021. With the pandemic calming down, I have been actively traveling overseas to explain NTN's current situation and company policies and to exchange views face-to-face with employees.

Starting this year, in addition to my own briefings, executive officers are visiting the districts or divisions for which they are responsible in order to provide more opportunities for exchange of opinions between executive officers and employees than ever before. Using common materials, we explain the Company's performance and future direction and then exchange opinions with employees through a question-and-answer session in order to disseminate the Company's policies on a global basis and improve employee satisfaction.

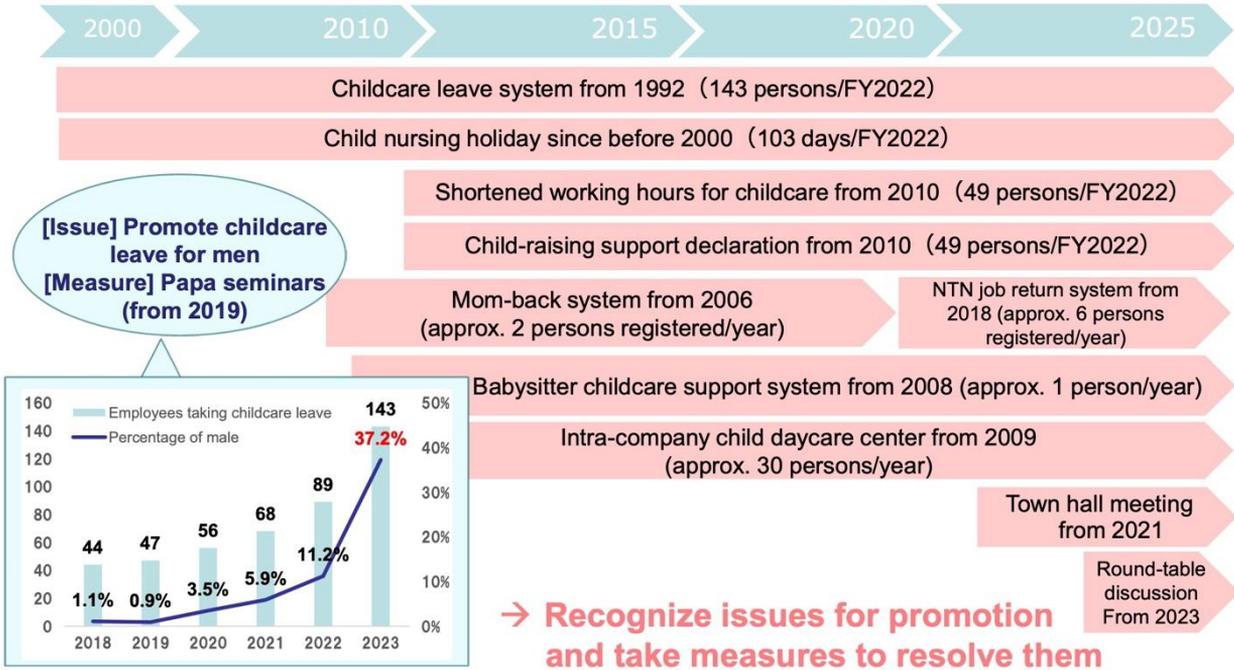
Employee feedback is a driving force for change in the Company, and we want to use it to improve management. As a specific example, at a town hall meeting, a female employee suggested that we provide a forum for exchanging ideas with those who are working while raising children but feel they have to interrupt their own careers due to life events. I participated in an online roundtable discussion with employees who are actually working while raising children or caring for family members.

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Develop the system and foster a corporate culture for utilization



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See page 28. We have been developing various systems to promote women's activities. In order to realize work-life balance while encouraging employees of child-rearing age, who are the future of the Company, to play an active role, we have taken measures such as holding seminars for fathers since recognizing the low rate of male employees taking childcare leave as an issue, and the rate of male employees taking childcare leave has greatly improved to 37.2% in the fiscal year ended March 2023.

This year, employee feedback at the town hall meetings led to the first roundtable discussion. The first meeting raised requests for better benefits and support for mid- to long-term career planning, and a second meeting is scheduled in the beginning of the next year.

We will continue to recognize issues and employee concerns to make the system active, communicate with each other to resolve them, take actions that the Company can respond to, and foster a corporate culture that allows employees to freely express their opinions.

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Women's bib partner for World Athletics

Prosperous
human
development

NTN

Part of responding to diversity as a social contribution to improve corporate value



■ Our partnership with World Athletics

Event name	Event date	Location
World Athletics Championships	August 19-27, 2023	Budapest, Hungary
World Athletics Road Running Championships	October 1, 2023	Riga, Latvia
World Athletics Cross Country Championships	March 30, 2024	Belgrade, Serbia
World Athletics Indoor Championships	March 1-3, 2024	Glasgow, UK
World Athletics Race Walking Team Championships	April 21, 2024	Antalya, Turkey
World Athletics Relays	May 4-5, 2024	Bahamas
World Athletics U20 Championships	August 26 - 31, 2024	Lima, Peru

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Please see page 29 of the document. This is the last slide in the society section. We concluded an official partner agreement with World Athletics and sponsored the World Athletics Championships held in Budapest, Hungary in August this year as the women's bib partner.

Sports are universal and enrich the feelings of both players and spectators. The decision to sign on as a women's bib partner was based on our desire to take advantage of this opportunity to support women athletes in addition to support the world's top athletes in taking on the challenge of competing in the event and to help boost the excitement of the event. If the opportunity arises in the future, we will consider taking action as a social contribution that contributes to the enhancement of corporate value by making appropriate profits in the future.

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Global Management Conference

Governance



Build a sense of unity to ensure achievement of the next Medium-term Management Plan



A total of approx. 220 of management executives including online participants gathered all at once



Discussion on key measures by team beyond the boundaries of regions and functions



Issues to achieve the measures were shared at overall presentation and discussion



Ceremony for ESG company award "NTN PROUD AWARD"

→ Lead to transform mindset/actions aimed at improving corporate value

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From here, I will explain our governance initiatives.

See page 31. The Global Management Conference, GMC, was held in October this year for the first time in five years.

The 220 global executives gathered together to share management policies and deepen discussions. In the past, global conferences like this have been in the form of one-way presentations by Japanese management, but from this year, the 16 teams were divided across regional and functional boundaries and had the opportunity to discuss the major measures that the Group will take as a group to achieve NTN's transformation.

We exchanged opinions not only on issues related to individual products, such as driveshafts, hub bearings, and bearings, but also on policies for new product development, design and procurement systems, and other issues, clarifying the direction we should take and fostering a sense of unity to achieve the next mid-term business plan.

From the perspective of corporate governance, NTN will align its vectors globally and continue its efforts to enhance corporate value.

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Localization of Management Personnel

Global HQ. formulates management policy and local managements play an active role in overseas business operation

(as of end of Mar. 2023)

Region	Management personnel	Male	Female	Total
		%	%	%
Americas	Managers	85%	15%	
	of which local	83%	100%	85%
Europe	Managers	77%	23%	
	of which local	96%	99%	96%
ASEAN	Managers	79%	21%	
	of which local	83%	100%	86%
China	Managers	80%	20%	
	of which local	83%	100%	86%
Overseas	Managers	79%	21%	
	of which local	89.5%	99.7%	92%
Japan	Managers	96%	4%	
	of which foreign nationality	0.5%	0%	0.4%
Global	Managers	85.3%	14.7%	100%

* Percentage for "of which local" and "of which foreign nationality" shows ratio of local or foreign managers in all managers

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See page 32. As of March 31, 2023, the Company's overseas sales accounted for approximately 70% of its net sales and overseas employees accounted for approximately 60% of its total employees.

Management policies formulated by the global headquarters are shared with overseas business sites through GMC and town hall meetings, as I have explained earlier. However, in the business operations of overseas business sites, local management is active in positions of responsibility, including the presidents of overseas subsidiaries.

In Europe and the US, local management is often at the top and the heads of local companies do business with each other, but we do not believe that local top management is necessarily better due to the characteristics of each country and region. The Americas region has a local management ratio of 85%, but this is due to a temporary increase in the number of Japanese expats temporarily transferred from NTN in preparation for the restructuring of NTN.

One notable issue is that the percentage of Japanese women in management positions is 4%, which is low compared to the global rate of 14.7%. In order to create innovation through diverse opinions and ideas, NTN has introduced a leadership development program for female employees and has established an environment in which women can take on the challenge of management positions by systematically providing step-up training, etc. NTN will promote various measures to achieve a 9% ratio of women in management positions at NTN on a non-consolidated basis.

Continuing with the strengthening of corporate governance, Director Komatsu will give an explanation.

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Strengthen Corporate Governance



● Support system for Outside Directors

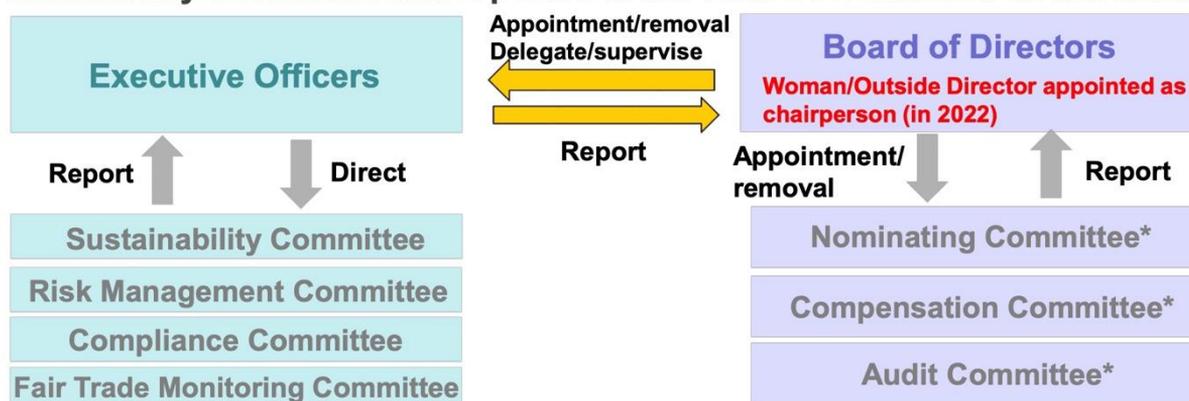
<Issue> Information gap between execution/supervision organization
 <Measure> Strengthen information sharing with Outside Directors

● Human development

Selection of executive officer candidates
 Enhancement of various training programs

● Sustainability promotion system

Risks/opportunities and its initiatives are deliberated/confirmed by the Sustainability Committee and reported to the Board of Directors as necessary



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* Each chairperson is Outside Director
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Komatsu: I am Director Komatsu. I was appointed as an Outside Director of the Company in June 2020 and have served as chairperson of the Board of Directors since June 2022.

I would like to explain how we are strengthening our corporate governance.

In 2019, the Company transitioned to a company with a nominating committee, etc., and established a governance structure in which the Board of Directors supervises management, and the executive officers are responsible for business execution.

After the transition to a company with a nominating committee, the current president, Mr. Ukai, was the first person to be nominated by the nominating committee. Under President Ukai's strong will and leadership to transform NTN, he has been taking control of the Company's management. Based on some changes such as members of the Board of Directors, an issue emerged of a gap in information between Non-standing Directors and Executive Officers. As a countermeasure, we have created a new forum that the Executive Officer and Internal Director explains the background and details of matters to the Non-standing Outside Directors prior to the Board of Directors' meetings to share information necessary for adequate deliberation.

As a framework for promoting sustainability activities, we have established the Sustainability Committee, chaired by the Executive Officer in charge of the ESG Promotion Department, as an advisory body. The Sustainability Committee deliberates on and confirms the progress of the content of risks and opportunities surrounding the Group's business and its initiatives, and a system has been established to report the content of such deliberations to the Board of Directors as appropriate.

We also focus on developing human resources who will be responsible for future management. In addition to selecting and training candidates for Executive Officers, we are also working to enhance training for current Officers in order to improve the level of governance at the Company.

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We are striving to enhance corporate value over the medium to long term by developing mechanisms to strengthen governance, recognizing the challenges we face, improving and operating them, and at the same time, developing human resources for the next generation.

That concludes my explanation.

Nagao: Thank you very much, President Ukai and Director Komatsu.

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Question & Answer

Nagao [M]: We will now move on to the Q&A session.

Mr. Sasaki of Mitsubishi UFJ Morgan Stanley Securities, please go ahead with your question.

Sasaki [Q]: My name is Sasaki from Mitsubishi UFJ. Thank you for your time today. I would like to ask for three brief points from me.

First of all, let me ask you the first question. Since Ms. Komatsu, an Outside Director, is here, I would like to ask her to tell us how she views NTN's current governance issues.

I remember that just last year at the ESG meeting, Ms. Komatsu made the strong comment that the current management structure has considerably increased the speed of management compared to the past. From your point of view, what is the current status of NTN's management system, what are the challenges, and conversely, what are the improvements compared to the past? Please share with us your view of NTN's current management structure from the perspective of an Outside Director from a year ago. That's all for the first question.

Komatsu [A]: If I were to compare this year's performance with last year's, I would repeat what I said last year. Since the transition to a Company with a Nominating Committee, etc. and the appointment of President Ukai, who was nominated by the Nominating Committee, I feel that he has given clear instructions with a sense of speed regarding the goals of reform, the speed of reform, and what needs to be done and how it needs to be done, and that these instructions have been implemented.

The biggest improvement between this year and last year, I feel, is that everyone is well aware of the sense of crisis, what needs to be changed, and the speed of change, as far as I have talked with the Board of Directors and the Executive Officers. I was concerned that many companies, not only NTN, but also top management, middle management, general employees, and the bottom line, have various issues regarding whether or not their philosophy is shared and whether or not the sense of crisis is properly shared.

As President Ukai has just explained, the town hall meeting and the global conference, as well as President Ukai's other Executive Officers have been strengthening communication with people on the frontlines, and I believe that awareness of company-wide reforms and risks has increased considerably. As a result, I expect that the various reforms and measures to be implemented this year and next will be accelerated. I hope this answers your question well.

Sasaki [Q]: Thank you very much. As for the latter part of your comment, I would say that the awareness of the management level has been spreading to the end of the line. I would like to confirm that in the NTN Integrated Report that just came out in September, Ms. Komatsu mentioned in the report that the improvement of automotive business is behind of industrial and aftermarket businesses and that Ms. Komatsu pointed out the problem of inventory turnover ratio.

When I looked at the second quarter financial results that were completed, the facts were that the Company was quite profitable onboard and that the inventory turnover ratio was under control and free cash flow was generated. I would like to know if you think that the changes that Ms. Komatsu has just mentioned are appearing in the figures, and what are your perceptions and views on this?

Komatsu [A]: I believe that we are seeing the results of these efforts. Of course, speed is the key, but as I mentioned earlier, it has taken some time to start running in the same direction from the top to the bottom.

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I think the frustration that built up before the results came in may have led to the comments in the previous Integrated Report. At this point, I think we are moving forward on-track.

Of course, whether or not the current speed is appropriate is another issue, and we hope that everyone will continue to speed up the process.

Sasaki [M]: I understand very well. Thank you very much.

Komatsu [M]: Thank you.

Sasaki [Q]: The second question I would like to ask President Ukai is, in the first half of your presentation, I think you mentioned that you have been quite strategic in your efforts to reduce CO₂ emissions in Scope 1 and 2.

As you say, there are many things that need to be done, but it seems that there are many things that will require capital investment in the future. I would like to know how your company should consider its capital investment in the future with regard to efforts to reduce CO₂ emissions.

Ukai [A]: Thank you very much. Ukai will answer your question. The first thing we did was to visualize energy waste, and the biggest waste of energy is air in factories. Air pressure means that the compressor keeps running from the moment the plant starts to the moment it is closed. However, the air pressure is not always used, and there are areas where it is used and areas where it is not used, so this kind of thing is flowing through the piping, but you cannot see it from the outside. First, we visualized how much air is flowing now.

The other is electricity. By visualizing the voltage and wattage of the electricity flowing through the wires, we can visualize the waste on a global scale. Naturally, this initiative requires an initial investment, and we are already making the initial investment in this area, as we are prepared to do so on a global basis.

By visualizing these reductions, we can take various measures to reduce them. By visualizing these measures, we can actually see the reduction effect quantitatively, which is now being promoted on a global scale. We have estimated that the initial investment will pay for itself if we continue such improvements for four to five years. Therefore, while the initial investment is of course necessary, we believe that the cost itself can be reduced and the initial investment can be covered by saving energy or changing to a different energy medium, and we are promoting this as one of the initiatives we are taking. This is especially true for Scope 2.

For Scope 1, as explained earlier, we have decided to electrify the heat treatment system and use electricity for heating. We have been using fossil fuels as the main source of atmospheric gases to protect products from oxidation, but by using nitrogen gas or inert gases, we have been reducing the environmental impact of the gases themselves. We are now in the process of further accelerating this process.

Beyond the conversion to electricity, there is the possibility of a paradigm shift or paradigm change, such as power generation by nuclear fusion, which is often talked about, although of course, we cannot do this through our own efforts alone. We will continue to make this kind of shift, but the source of electricity itself will change.

Now, of course, there is solar power and natural energy, but the enormous amount of energy, especially the kind that comes into Scope 3 and is used by steel makers, will be very insufficient in terms of volume if only the existing natural energy is utilized, so this kind of new energy, the source of supply of electric energy will change. By making firm preparations toward this goal, we hope to achieve our goals for Scope 1 and 2 by 2035 and for Scope 3 by 2050.

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Although there is a special initial investment required, we believe that this investment will be covered by somehow increasing energy efficiency or lowering costs.

Sasaki [Q]: In that sense, is it my understanding that the energy costs can be recovered relatively well here, so it is possible to make an investment with a high ROIC?

Ukai [A]: When we switch from fossil fuels to hydrogen fuels, for example, for heat treatment burners, we will need to install ancillary equipment for hydrogen, such as tanks and new hydrogen piping in the plant, and many other things will happen at the same time.

As I mentioned earlier, hydrogen production is also very costly at present, but as I mentioned earlier, some countries have started to produce hydrogen by electrolyzing water with electricity generated by offshore wind power and wind power generation, and this will be CO₂-free.

So, as I mentioned earlier, we believe that the situation in the hydrogen production process will change with the emergence of this new alternative energy source using natural energy. Therefore, we believe that the initial investment used here can be covered in the future.

Sasaki [Q]: Thank you very much. Finally, as to the third point, I think the term bearing refurbish was one of the keywords in this presentation. Please tell us about the business model of this bearing refurbish business and how you think it will impact NTN's business performance.

In particular, I think this is related to the aftermarket business that your company is focusing on, so may I ask you to explain how you think about this bearing refurbish business?

Ukai [A]: Exactly as you mentioned, Mr. Sasaki, this is the value of the aftermarket, the ability to provide customers with shorter lead times and lower costs.

However, I wonder if each country or region has its own sense of value or value consciousness about the use of recycled materials. For example, in the Japanese market, there are countries where the preference for new products is still strong, and there are also countries and regions where such refurbish technology has advanced to a certain degree, and there are countries and regions where businesses can operate well with such products. In particular, in regions where this is possible, such as North America and South America, the refurbish business can be used to shorten the lead time by 70% to 80% or less of the cost of large bearings that would otherwise cost a lot to produce new ones.

We are focusing on that now, but we are also gradually increasing the number of cases, such as the large bearings for paper machinery in Canada and axle bearings for railway rolling stock in China. As we expand our business in the future, we would like to strengthen our system by tying up with such companies in each country to refurbish and repair local products locally and then deliver them to our customers.

Sasaki [Q]: I'm sorry, but do you have any figures on the scale of your sales? If you don't have it, it doesn't matter. Also, is this a profit margin that is going to increase? Could you please share your thoughts on that?

Ukai [A]: The profit margin is around 20%, as it is now in the aftermarket business. We are planning to target that area first. I am sure there will be more than that depending on the product, though. What is important is to establish such a system on a global scale and to work not only with ourselves but also with local manufacturers in regions that are willing to recognize such business.

We apologize. We have not been able to quantify this at this point, so we would like to raise the numerical targets as we develop the system.

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Sasaki [M]: This was very helpful. Thank you very much.

Nagao [M]: Thank you for your question, Mr. Sasaki. Continuing on, Mr. Sano of JPMorgan Securities, please go ahead with your questions.

Sano [Q]: My name is Sano from JPMorgan. Thank you for your explanation. I would like to make three points as well.

The first point I would like to ask Ms. Komatsu. In the process of announcing the forecast of this fiscal year's results last time, I think you deviated a lot from the mid-term management plan. First of all, I would like to know what kind of issues you are aware of regarding the medium- to long-term incentives in terms of performance-linked remuneration and incentives for Directors.

In addition, looking at the H1 performance so far this year, I think that the full-year performance target is quite difficult to achieve. Therefore, I would like to ask if Ms. Komatsu would like to comment on how the performance plan is made and whether sufficient incentives are provided to achieve the plan for the full year. Please.

Komatsu [A]: Regarding your question, I understand that you are asking how incentives are determined and whether they are appropriate, including medium- to long-term improvements in share value, even in the case of poor performance or good performance.

First of all, our Directors and Executive Officers receive a fixed salary, although not a very high percentage. Next, they receive a performance-linked bonus in cash, and in addition, we distribute shares of stock as compensation based on their medium- to long-term performance. From a medium- to long-term perspective, I believe that the design of the Company is such that Directors and Executive Officers are incentivized to commit themselves to improving the share price and corporate value.

In terms of short-term performance, for example, regarding the previous fiscal year, I am a member of the Compensation Committee, so I am in a position to be consulted regarding the compensation of Directors and Executive Officers, but since this year's performance is still in the future, there is quite a bit of variation regarding last year's performance. The Compensation Committee decided to give a positive evaluation to those who performed well and a negative evaluation to those who did not perform well, and even zero is possible. I believe that this is a situation in which Directors and Executive Officers are committed to corporate reform to a certain extent by linking performance. I hope this answers your question well.

Sano [M]: I understand. Thank you very much. I thought that the market would be more receptive to the plan if it reflected not only the results of the project but also the steady implementation of the plan, especially at the planning stage.

Komatsu [M]: Thank you.

Sano [Q]: One more question, Ms. Komatsu. President Ukai mentioned earlier that the percentage of women in management positions for your company in Japan is 4%, and you mentioned leadership training and programs to raise this percentage. Ms. Komatsu, if you have any comments on the 4% situation in NTN, especially in Japan, and whether or not the content is likely to increase in the future as these efforts are repeated, please let us know.

Komatsu [A]: First of all, I expect that the current efforts to create a comfortable working environment for women and to change attitudes toward promotion, for example, will progress, and in this sense, I believe that the process will be on track.

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On the other hand, as you know, in the manufacturing industry, for example, the number of women in dangerous jobs in the manufacturing sector is still very small to begin with. Therefore, I think that the Company should also apply KPIs to increase the ratio of women in management positions in each department to the same extent as men.

We are also implementing various measures and systems. In my experience or from what I have heard from female employees at other companies, there is an unconscious bias or a boss who thinks that it is pitiful to ask a woman to do something like this and does not assign her to a position where she can gain experience, or a woman alone does not feel comfortable going to an all-male meeting.

There is also the opinion, not only at NTN, that it is difficult because there are not many female role models or other female superiors with whom one can consult. Therefore, I would like to contribute to raising the ratio of women in management positions as quickly as possible by listening to the people at the end of the process at NTN and proposing measures, which are not special measures, such as eliminating anxiety about female employees being promoted to management positions or creating places for communication among female managers. I would like to contribute to raising the ratio of female managers as quickly as possible. I hope this answers your question well.

Sano [Q]: Thank you very much. I would like to ask one last point to President Ukai. Regarding the NTN PROUD AWARD and how the entire group can recognize the linkage of ESG, please tell us about the initiatives that President Ukai felt in the course of working with the field to improve corporate value, if you can introduce any of them. That is all.

Ukai [A]: Thank you very much. As I mentioned in my explanation, there are many displaced persons who have left the country, especially in the case of Ukraine in Europe. We have a manufacturing plant in Romania, a neighboring country of Ukraine, where about 50 refugees and displaced persons are currently employed and are actually working in our manufacturing plants.

In this situation, volunteers from France, Germany, and Romania gathered together and immediately after the outbreak of the war, not only their employees but also other employees gathered supplies and sent a large trailer full of relief goods to the region. We are pleased to present this year's special award to this group for their activities to contribute to society by addressing some of the major issues and problems in the region.

This has led to the creation of a system that directly leads to actual business improvement. In the case of China, there are many factories in the provinces where our plants are located, but only three plants have obtained environmental-level certification. As you know, strict rules are about to be enacted in the midst of the air pollution problem, and we have awarded the President's Award to the manufacturing site that has been evaluated through various audits and has set a good example for the community through their operational activities and social contribution activities.

We share this information globally, and as I mentioned earlier, at the global management conference where 220 people from overseas gathered, we presented awards on the spot and introduced case studies. This has led to the further expansion of our activities. This ends my answer to your question.

Sano [M]: Thank you very much. I have heard that this is a very good initiative. Thank you very much. That is all.

Nagao [M]: Thank you for your question, Mr. Sano. Continuing on, Mr. Isayama of Goldman Sachs Securities, please go ahead with your questions.

Isayama [Q]: My name is Isayama, Goldman Sachs. Thank you very much. Let me ask you two questions.

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I apologize if this is off topic, but I was wondering if ESG factors and CO₂ reduction are actually discussed in the bearing industry, for example, in business meetings with automotive customers.

The reason I am asking is that I have seen other companies' integrated reports and other reports that say they contribute to CO₂ reduction, but I was wondering if the industry has actually become an industry where this can be used as a KPI on products, etc., which is why I am asking this question.

To put it simply, I want to ask that if you talk about the fact that you are able to reduce CO₂ emissions more than your competitors or not. I am sorry if this is not the purpose of today's discussion, but I would like to know if you have any case studies on this topic. Best regards.

Ukai [A]: Thank you very much. Ukai will reply to you. Although there is no direct exchange of information on CO₂ reduction in direct business negotiations, customers basically ask us to propose new technologies to reduce energy consumption, such as fuel efficiency and electricity costs.

Therefore, we design products to reduce torque and friction as much as possible, while still satisfying functional requirements. We also have many requests for products that may not directly contribute to CO₂ reduction but may indirectly lead to CO₂ reduction. We believe that this is one of our major tasks, and that bearings and the products we use contribute to this task. I hope this answers your question well.

Isayama [Q]: Thank you very much. The intent of this question was to see if there was any way to show how much ESG benefits are reflected in the added value. From what you say, I think it is still an extension of the conventional approach. I'm hoping that something positive from an ESG perspective, including CO₂, might be recognized as an increase in added value or something.

What do you think? Are there any examples where unit prices have increased as a result of reflecting the themes discussed today or where customers have actually recognized the increase in added value?

Egami [A]: Egami will answer your question. As you asked, we do not have many absolute comparisons of CO₂ emission reductions with our competitors.

However, for example, there is the high efficiency CFJ, which was mentioned during the discussion. In response to fuel efficiency improvement regulations in various countries, customers are working to reduce overall CO₂ emissions to improve fuel efficiency. When there are areas where they cannot meet the fuel efficiency standards, they can achieve them only by adopting CFJ. There have been situations where our products have been recognized for their added value and used in such situations, and I believe this will continue to increase in the future.

Isayama [M]: I understand. That's all from me. Thank you very much.

Ukai [M]: Thank you very much.

Nagao [M]: Thank you very much, Mr. Isayama. Continuing on, Mr. Tai of Daiwa Securities, please go ahead with your questions.

Tai [Q]: My name is Tai. I would like to ask you a few questions, Ms. Komatsu.

First, do Outside Directors participate in the Global Management Conference, which is listed on page 31?

Komatsu [A]: Yes. However, I was the only one who did not attend due to scheduling conflicts, but other Outside Directors were in attendance.

Tai [Q]: Are you also participating in the town hall meeting on page 27?

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Komatsu [A]: No Outside Directors participated in that meeting.

Ukai [M]: No. They have not.

Tai [Q]: I see. There was a discussion about how people at the top are aware of various issues, but whether they have penetrated to the bottom line, and I think there was a lot of discussion at the global meeting about how there are many people with other-blaming characters. I was rather thinking that an Outside Director could appear at the town hall meetings and do the work of penetrating the end of the Company as an outside voice, transcending the boundaries of Directors and Executive Officers.

Komatsu [A]: Yes, we will consider it. The schedule will be discussed among the Outside Directors, including how often they do it, and whether they split up to go around and participate together. Thank you for your suggestion.

Tai [Q]: I understand. Second, I believe the CFO retired this spring under the bylaws for executive retirement. I think many people in the stock market were quite surprised to see the CFO being replaced in the middle of the mid-term plan with only one year left.

On the other hand, the current CFO is only one year younger than the previous CFO, so I am concerned that if the same trend continues, he will already be replaced next spring. I was wondering if you could share with us, to the extent possible, what you have been discussing as chairperson of the Board of Directors in this area.

Komatsu [A]: Regarding the replacement of the former CFO, I have received feedback from the stock market, especially with regard to the medium-term management plan, which was going well in the first year.

However, the current CFO is not much older than the former CFO, so I cannot say whether the CFO will be replaced again because it will be discussed internally in the future. In my opinion, in order to maintain a sense of speed, to have people work at full capacity and to eliminate the so-called old-timers that exist in many Japanese companies, although not in this company, it would be good for the Company to keep the retirement age for Directors to rejuvenate itself through renewal. I believe that the other Outside Directors agree with me.

Therefore, with regard to the CFO change this year, whether it is in the middle of the term or not, President Ukai and each Director has the driving force to promote the Company, so I do not think that the change of CFO will cause a slowdown in the Company. As I mentioned earlier, I also believe that the retirement age for Directors should be maintained unless there is a major problem, so I do not think there have been any major governance problems.

I will refrain from discussing what will happen to the current CFO next year, as that is a story for the future.

Tai [Q]: Of course. Sorry, I understand perfectly. Thank you very much.

Just one more thing, the last one is a totally different topic, but I think there are of course various ESG discussions that need to be made as part of the discussion to bring PBR back to 1x, but I am sorry if this is a question that is slightly off from ESG, but what kind of discussions are you having as chairperson of the Board of Directors? I know that it is not something that can be decided overnight, and I am aware that stock prices do not move that easily, but is there anything you can share with us? That is all.

Komatsu [A]: I am not at liberty to say too much about something that has not yet been announced externally. At least at board meetings, or in other situations, such as the time before the board meeting starts, the stock market places importance on various things, and as we have stated in this mid-term plan, unless ROE and ROIC exceed the cost of capital in the mid- to long-term, they will not be evaluated in the first place.

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Also, unless the top line and profits continue to grow, it is not the goal if PBR exceeds 1x, but such a growth path and profitability, including capital and assets, are important and need to be improved, and how to specifically put this into the KPIs of the organization. We have been discussing these issues.

However, there have been a number of problems in the recent past, especially in the automotive business, which we are concerned about, and we are working hard to return the business to profitability. Once that is settled, I believe that the Company will probably implement the next stage, which is to properly manage the business portfolio with KPIs. In this process, if the market is convinced that the Company will eventually achieve the high level of ROE and ROIC that the market is demanding, the share price will be converted.

Tai [M]: Very clear. I understand very well. Thank you very much. That is all.

Nagao [M]: Thank you for your question, Mr. Tai. Does anyone have any other questions? Any more questions? Thank you very much.

This concludes today's ESG presentation by NTN Corporation. Thank you very much for taking time out of your busy schedule to join us today.

Ukai [M]: Thank you very much.

Komatsu [M]: Thank you very much.

[END]

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