

NTN Report 2020

For the fiscal year ended March 31, 2020



NTN®

Make the World “NAMERAKA*”

The Founders’ Spirit that NTN has embraced since its foundation in 1918 is the “Frontier Spirit,” which encourages us to keep taking on challenges, and the “Coexistence and Co-prosperity Spirit,” which encourages us to develop together with society. The Founders’ Spirit is incorporated into the corporate philosophy as NTN’s DNA, and has been passed down to the employees for over 100 years.

In order to put the corporate philosophy into practice, NTN Group employees are working based on the “NTN SPIRIT,” the mindset and actions they should aim for. Through putting our corporate philosophy into practice, we aim to help solve global social issues, and achieve a sustainable “NAMERAKA Society.”

*A society where people can easily lead a secure and fulfilling life in harmony with nature.

Corporate Philosophy

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

For New Technology Network

- 1 Creation of original technologies.
- 2 Offering the technologies for additional values and service that are suitable for each customer and end user.
- 3 Improvement of employees’ standard of living, distribution of fair returns to stockholders, and contribution to society based on the steady growth of our business.
- 4 Promotion of globalization, and formation of management systems/corporate organization which are essential for NTN, as an international leading company.

NTN SPIRIT

Credos		Guidelines	
Challenge	Buds appear when we challenge with frontier spirit		<ul style="list-style-type: none">● We challenge passionately without being satisfied with the current situation.● We respond quickly to any changes, emphasizing on-site verification.● We enrich our lives by thinking, acting with initiative and continuing to grow.
Collaboration	Leaves grow through the spirit of collaboration with coexistence and co-prosperity		<ul style="list-style-type: none">● We accept and respect differences in each other.● We help each other, treating all associates honestly.● We take care of the natural environment and maintain coexistence with local community.
Commitment	Flowers bloom and fruits grow through fulfilling our commitments		<ul style="list-style-type: none">● We maximize the quality of work aiming for first-class quality under safety-first policy.● We intend to be the strongest partner delivering customer delight beyond satisfaction.● We support improving lives of people around the world through our work.

Achieving a NAMERAKA society



Bearing technology is used to smoothen the rotating parts of any type of machine.

With more precise bearing technology, shafts can rotate more smoothly, minimizing energy loss as much as possible.

Bearings are thus a technology for saving energy. The technology developed with bearings will help make electric vehicles, robots and even a natural energy-based society function more smoothly.

CONTENTS

About Us	3	A History of Building Strengths
	5	Nurtured Business
	7	Value Creation Process
	9	Risks and Opportunities Surrounding NTN
	11	Value Chain that Creates Value
NTN Revitalization Story	13	Financial/Non-Financial Highlights
	15	NTN's Future Vision
	17	Business Operating Policy for NTN Revitalization
	19	Management Commitment
Business Strategies	23	CFO Message
	27	Aftermarket
	29	Industrial machinery market
	31	Automotive market
	33	Research & Development
ESG Strategies	35	Monozukuri
	37	Initiatives for Sustainability
	39	Engagement with Stakeholders
	41	Stakeholder Dialog
	45	Contributing to Climate Change Measures through Technologies
	47	Environment
	53	Activities to disseminate the corporate philosophy
	55	Creating a Comfortable Workplace
	57	To promote and maximize the diversity of employees
	59	Supply chain CSR
	61	Coexisting with Local communities
	63	Outside Director Dialog
	67	Officer Profiles
	69	Directors/Executive Officers
	71	Corporate Governance
Financial Report	77	Compliance
	79	Internal Control/Internal Audit
	80	Risk Management
Corporate Data/ Investor Information	81	Financial and Non-Financial Summary (Past 11 Years)
	83	Management Performance/Financial Analysis
	85	Risk Factors
	86	Consolidated Financial Statements
	112	Independent Auditors' Report
	113	Global Network
	115	Third-Party Opinion
	116	Investor Information

* About product photos: some photos are of cross-sectional models of products

Editorial Policy

The NTN Group believes that building trusting relationships with shareholders and investors, customers, business partners, the international society, local communities, and employees and contribution to the global environment will lead to enhancement of corporate value. In order to report our business activities and sustainability activities to our stakeholders, we have published the “NTN Report (Integrated Report)” since the fiscal year ended March 31, 2010. We will use this report as a means of communicating with our stakeholders to deepen their understanding of us, thereby contributing to the achievement of a “NAMERAKA Society.”

Concepts behind the Production of “NTN Report 2020”

The spread of the new coronavirus has caused global economic activity to shrink, and the NTN Group is also seriously affected. Amid this environment, we have positioned the fiscal year ending March 31, 2021 as the “Crisis Response Period” for dealing with the new coronavirus problems, and we have established the Business Operation Policy to “ensure the health and safety of employees” by thoroughly implementing measures to prevent infection as well as to “secure cash and continue business” and “prepare for future growth” in the event of emergencies.

With regard to the corporate governance, we shifted to a Company with a Nominating Committee, etc. from the General Meeting of Shareholders held in June 2019, and in July 2020 we added two new Outside Directors to strengthen our corporate governance structure. We also established the Sustainability Committee in November 2019 with the aim of accelerating sustainable management. The committee, which is made up from a cross-organizational perspective, plays a key role in identifying important issues (materiality) in discussions with management for the sustainable growth of the NTN Group. This report describes these topics.

Organization Covered and Reporting Period

Reporting Period:
Fiscal year ended March 31, 2020
(April 1, 2019–March 31, 2020)
Includes some activities for the fiscal year ending March 31, 2021.

Organization Covered:
NTN Group
Includes some reports for NTN only.

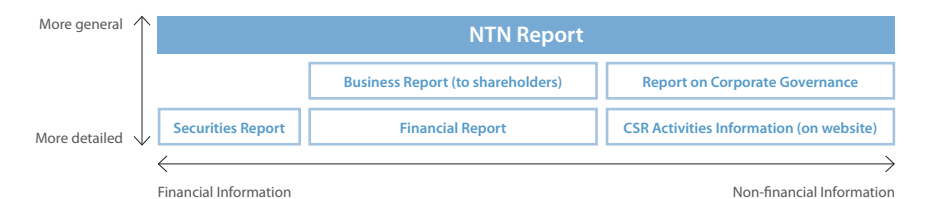
Reference Guidelines

We are enhancing disclosures with reference to the following guidelines and others.
International Integrated Reporting Council (IIRC)
International <IR> Framework
Ministry of Economy, Trade and Industry
Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation

Disclaimer

This report contains future results and forecasts regarding NTN's future plans, strategies, and business results. Please understand that actual business results may vary from the forecasts made herein by the Company.

Types of Information Provided by NTN



This report presents both financial and non-financial information, focusing on especially important topics. More detailed information is available in the Securities Reports and Financial Reports. Detailed information on the Company's CSR activities is also available on our website.

<https://www.ntnglobal.com/en/index.html>

Since its founding, NTN has maintained the quality-first approach, and built up reputation and achievements with its high level of technological expertise.

We will continue to contribute to international society through creating new technologies and developing new products.

1918

"Frontier Spirit" and "Coexistence and Co-prosperity Spirit" inherited since its foundation

Start of ball bearing research and manufacturing at Nishizono Ironworks

NTN's Founders' Spirit, which has been valued since its founding in 1918, consists of two elements: "Frontier Spirit" that leads us to always take on challenges and "Coexistence and Co-prosperity Spirit" that leads us to develop together with society. The Founders' Spirit has been incorporated into NTN's corporate philosophy as DNA, and it has been inherited over 100 years.

Young engineer Jiro Nishizono started the Nishizono Ironworks in Kuwana, Mie Prefecture in 1918 when he was 21 years old. Noboru Niwa (later the Company's first President) was running a machinery and tool trading company called Tomoe Trading Co. that he had started in Osaka at the age of 22. In 1922, Tomoe Trading Co. successfully bid for cargo of bearings that had been loaded in a Swedish vessel that sank off the coast of Japan. Niwa had transactions with Nishizono Ironworks before, and asked Nishizono Ironworks to refurbish the bearings. Niwa sold the bearings and bought grinders with the proceeds from the sale. Thus, bearing manufacturing got fully underway. The Company's products have carried the NTN logo, which stands for Niwa, Tomoe and Nishizono, since the start of the production.



Noboru Niwa



Bearings at the time of the start of the business

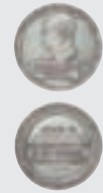


Jiro Nishizono

1954

NTN becomes the first Japanese machinery manufacturer to win the Deming Prize*

The Deming Prize is one of the world's most prestigious awards for TQM (total quality management). NTN is not only the first bearing manufacturer, but also the first Japanese machinery manufacturer to win the award. The Company was one of the first machinery manufacturers to adopt statistical quality control, and the quality control was applied throughout the Company. This effort was recognized, resulting in this honor.



*Deming Prize: A prize created by the Japanese Union of Scientists and Engineers to honor the achievements of W. Edwards Deming, a U.S. engineer, statistician, professor, author, lecturer, and management consultant who popularized statistical quality control in postwar Japan and built the foundation needed to raise the quality of Japanese products to world standards.

1927

Establishment of NTN Mfg. Co., Ltd. with capital of 50,000 yen

1937

Name changes to the Toyo Bearing Mfg. Co., Ltd.



Old head office building

1963

Start of driveshaft manufacturing

Technology partnership was formed with UK manufacturer Hardy Spicer to produce driveshafts (constant velocity joints), a promising product expected to enjoy rapid future growth in demand for automotive applications, and production started at the Kuwana Plant.



First driveshaft model produced

1964

NTN supplies journal bearings for the first 0 Series Shinkansen

NTN has helped enable faster and lighter rolling stocks by developing technology tailored to the evolution of high-speed rail and providing high-quality, high-reliability products. NTN's products have been adopted for the first 0 Series Shinkansen as well as the latest model Shinkansen. Our journal bearings for 0 Series Shinkansen were recognized as Tribology Heritage* by the Japanese Society of Tribologists.



*Tribology Heritage: Tribology-related technology and things recognized by the Japanese Society of Tribologists as having a particularly important contribution to the development of science and technology.

The late 1970s

Evolution of hub bearings

The latter half of the 1970s saw NTN release its axle bearings (GEN1) that were the forerunners of our hub bearings that now have the world's No.1 market share. In the 1980s, these products evolved into hub bearings (GEN2) by combining the axle bearings with peripheral components such as knuckles in a single unit. The evolution into GEN3 was subsequently accomplished by packaging additional parts such as hub bolts, flanges and knuckles into a single unit to improve ease of assembly on automobile assembly lines. The GEN3 began mass-production in Japan for the first time in the mid-1980s.

The lineup has continued to evolve. Refinements are still being made today, such as by adding sensors and improving ease of assembly.



GEN1

GEN2

GEN3

1960-1970s

Overseas sales and production strengthening/expansion

Since 1950, we have enjoyed more opportunities to expand exports of bearings. In 1961, NTN established its first overseas sales company in Dusseldorf, Germany, to create a system that can respond flexibly to local demand. In terms of production, NTN established a manufacturing subsidiary in Germany in 1971. It was the first Japanese manufacturer in Europe. In the same year, we established a bearing manufacturing subsidiary in the U.S. Subsequently, we strengthened the local production system by establishing not only plants for finished products, but also plants for the pre-production process.

Through these overseas expansions, we have promoted the local production to manufacture products for customers around the world in places where they need our products.

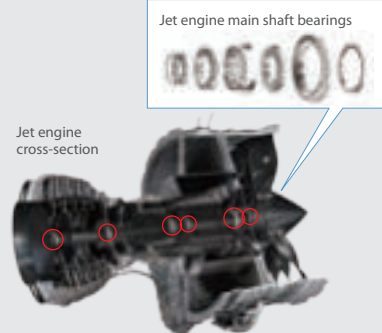


Germany Mettmann Plant

1986

Construction of Japan's first aerospace bearing plant

NTN has been producing bearings for aerospace applications with high function and high quality. We are a certified supplier of main shaft bearings to the world's four major jet engine manufacturers, a currently unrivaled achievement among Japanese manufacturers.



Jet engine main shaft bearings

Jet engine cross-section

2000-

Technical service units driving worldwide

At our sales bases around the world, we visit customers by technical service units. Technical service units are completely custom-made multifunctional vans equipped with product samples and maintenance tools. We provide technical diagnostics and technical workshops as well as detailed support for resolving customer issues.

Even after our products are delivered, we use technical service units to support enhancement in productivity and safe operation of our customers' facilities. Through direct dialog with customers, we are working to learn the problems of "customers around the world" to resolve problems in society.



1989

Name changes to NTN Corporation

In line with the company name change, we also changed the meaning of NTN to represent "For New Technology Network," and adopted it as a new direction moving into the future.



Current head office building

2014

Provide bearings to the Hayabusa 2 asteroid probe

The H-IIA Launch Vehicle No. 26 with the Asteroid Explorer Hayabusa 2 onboard was launched from the Tanegashima Space Center.

Our spherical plain bearings are used in the hinges that open the solar panels on the Hayabusa 2 in outer space, contributing to the successful completion of its mission in outer space.



Spherical plain bearing adopted for Hayabusa 2

2018

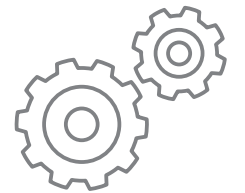
Company's 100th anniversary

On March 1, 2018, NTN celebrated its 100th anniversary and adopted a communication key phrase: "Make the World NAMERAKA, NTN."

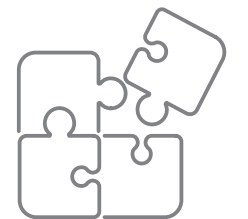
We are putting out products including bearings on the market that move machines smoothly. We will continue our efforts to achieve a "NAMERAKA Society" by making the lives of people and society around us a bit smoother. In order to achieve sustainable growth over the next 100 years, we also established our long-term vision, and to realize it, created a Medium-term Management Plan "DRIVE NTN100."



**Uniqueness of NTN
(Competitive Advantages)**



Original Technologies

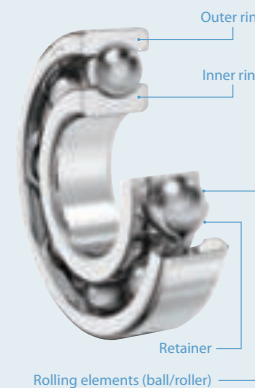


Services



Globalization

About Bearings



Bearings are eco-products that reduce energy consumption by supporting various rotating mechanical parts and reducing friction.

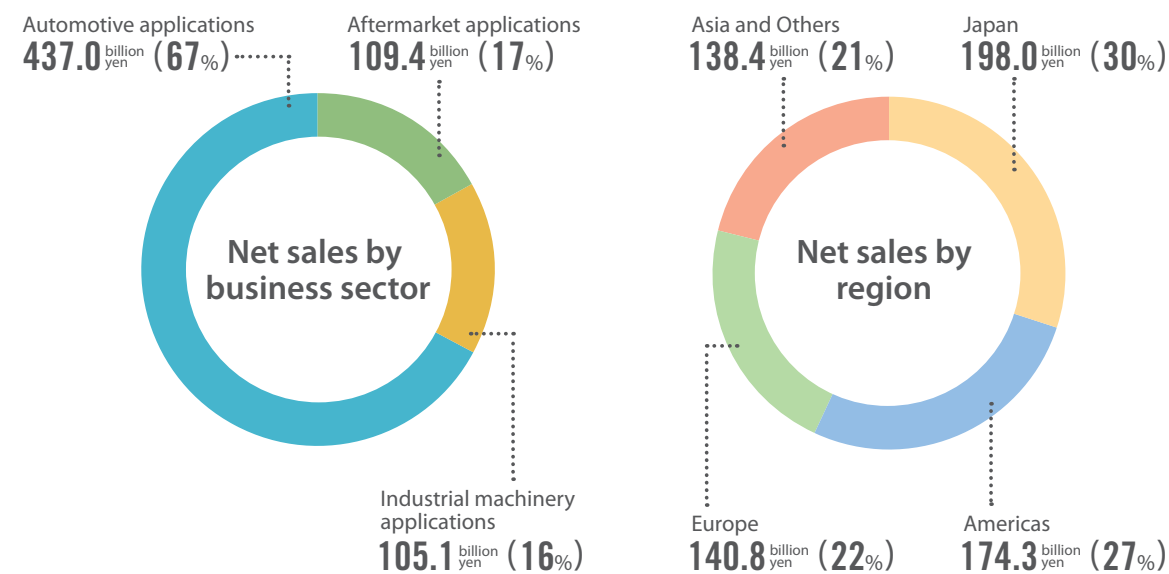
The coefficient of friction of a smoothly rotating bearing is 0.001. This means that you can move a 1,000kg object placed on the ground with a force of pulling an approximately 1kg object. Use of bearings makes it possible to move things with light force, contributing to reduction of energy consumption.

Bearings are mounted inside machinery and are usually hidden from view. But they play a key role in improving the safety and reliability of machinery, helping contribute to a "NAMERAKA Society."

General-purpose bearings are composed of four types of components: inner rings, outer rings, rolling elements (balls/rollers) and retainers. While the structure seems simple, any irregularities or cracks in the rings or rolling elements will prevent the bearings from turning smoothly. Every ball used in bearings must be manufactured with a high degree of technological expertise and enough precision to ensure that surface roughness is less than one ten thousandth of a millimeter.

Net Sales **651.5** billion yen Operating Income **7.1** billion yen

Fiscal year ended March 31, 2020



Aftermarket applications

P.27-28

Mining machinery	Metal industry equipment	Paper-making machinery	Food processing machinery	Cement equipment
ULTAGE spherical roller bearings with high-strength cage EMA Type	ULTAGE sealed four-row tapered roller bearings CROU.LL	ULTAGE spherical roller bearings Type EA, Type EM	PolyLube sealed roller bearings for food processing machinery	Plummer blocks

Auto parts	Technical training / maintenance tools
Part kits with combinations of several bearings	Induction heater
	Self-centering hydraulic puller with arms
	Technical service units

Industrial machinery applications

P.29-30

Construction machinery	Gearboxes	Agricultural machinery	Wind turbines	Aerospace
Applications for resource mining and civil engineering	Helping ensure high robot productivity	Helping ensure stable food production	Meeting growing renewable energy demand	Used for worldwide jet engine applications

Machine tools	Rolling stock	Office equipment	Electronic devices	Medical equipment
Helping ensure high machining precision	Helping ensure safety of worldwide high-speed railways	Helping ensure precision operation of copier/multifunctional printer	Used for hard disc drive and thin fan motor applications	CT scanner and artificial heart applications

Automotive applications

P.31-32

[Engines]

- Split needle roller bearings (for camshafts)
- High-density, high-strength sintered gears for starter motors
- Pulley bearings for high-speed rotation

[Accessories]

- Auto tensioner with the variable damper mechanism for ISG-equipped engine
- Mechanical clutch units for next-generation steering systems

[Steering components]

- Clutches for seat lifters

[Seats]

- Hub bearings

[Axle/Drivetrain]

- Driveshafts

[Automatic / manual transmissions]

- Needle roller bearings for rocker arms
- Long-life series TAB bearings

[Brakes]

- Ball screw drive modules for electric hydraulic brakes

[Transmissions] CVTs

- Needle roller and cage assembly bearings for planetary gear

World's No. 1 market share

World's No. 2 market share

ULTAGE tapered roller bearings for automotive applications

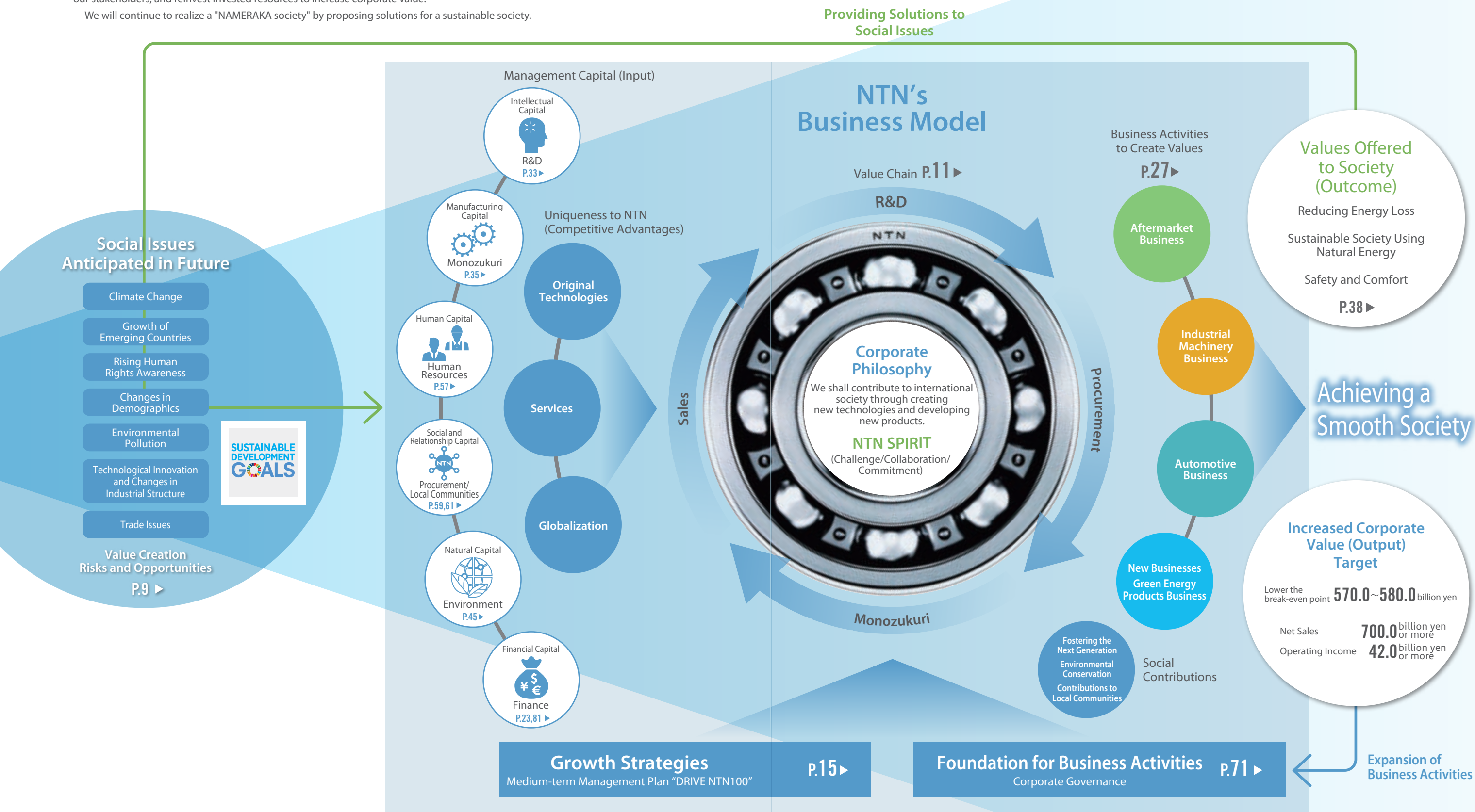
BEAREE seal rings

Thrust needle roller bearings

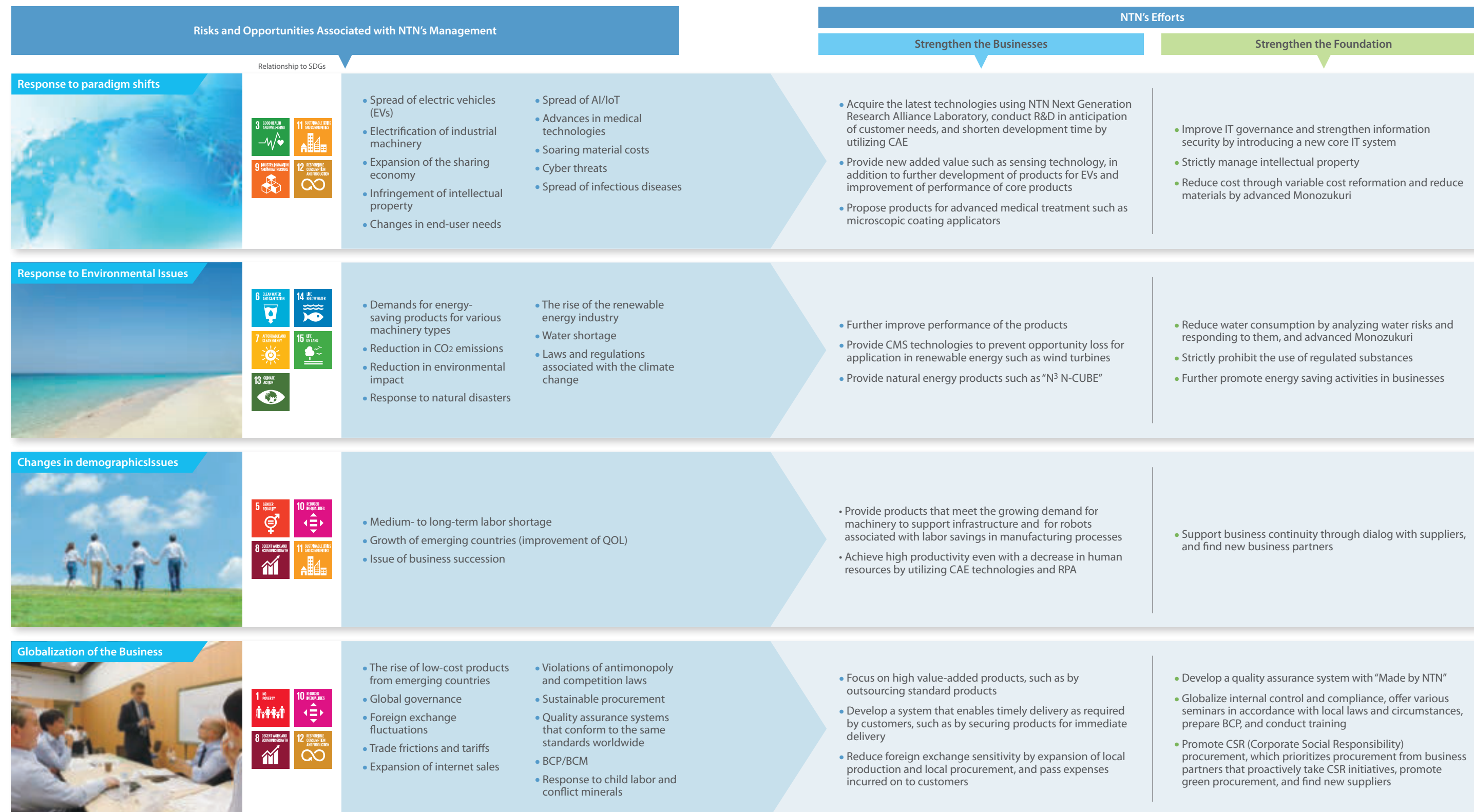
Taking advantage of NTN's uniqueness, which we have cultivated over our history, we have been devoting our resources developed over the past 100 years to the value chain of "R&D," "Procurement," "Monozukuri," and "Sales," and conducting business activities based on our corporate philosophy.

By providing bearings, driveshafts and other products and services, we will contribute to the resolution of social issues, provide value to our stakeholders, and reinvest invested resources to increase corporate value.

We will continue to realize a "NAMERAKA society" by proposing solutions for a sustainable society.



The NTN Group recognizes expected future social issues, such as climate change, growth of emerging countries, rising human right awareness, changes in demographics, environment pollution, technological innovations and changes in industrial structure and trade issues, as well as the Sustainable Development Goals (SDGs). We are strengthening the foundations that support our business activities and operations so that we can respond to the risks and opportunities surrounding our business. Through these measures, we will contribute not only to the sustainable growth of our group's businesses, but also to the resolution of social issues.



The Company's corporate philosophy is "We shall contribute to international society through creating new technologies and developing new product." Based on this philosophy, we are investing the capital cultivated over the 100 years since our foundation in the value chain and are conducting R&D, procurement, Monozukuri, and sales activities to contribute to international society.

We create value in each process and conduct business activities to lead a sustainable growth.

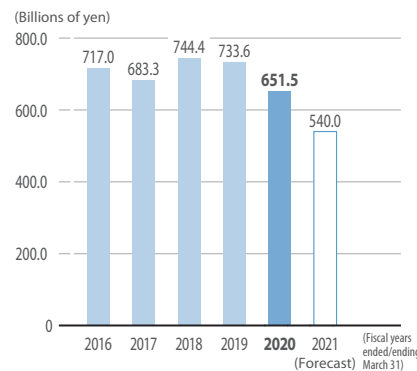


Financial Capital

* The forecast is the content announced at the end of the first quarter of the fiscal year ending March 31, 2021. At the same time, "royalty," which was previously included in "non-operating income," has been changed to be included in "net sales."

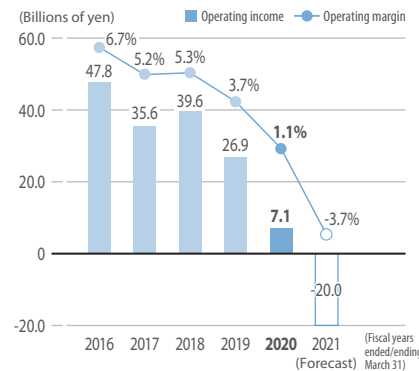
Net Sales

651.5 billion yen



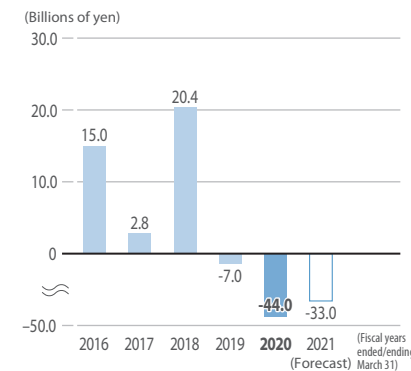
Operating Income/Operating Margin

Operating income **7.1** billion yen
Operating Margin **1.1** %



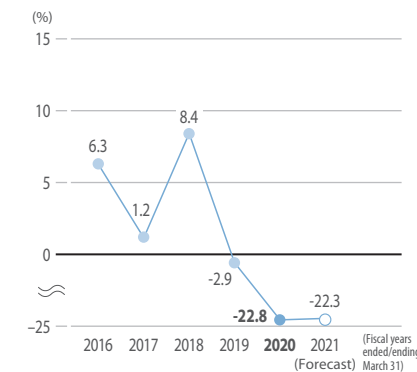
Net Income (Loss) Attributable to Shareholders (parent company)

-44.0 billion yen



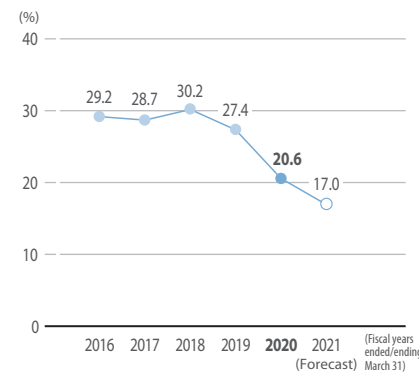
Net Income (Loss)/Average Shareholders' Equity (ROE)

-22.8 %



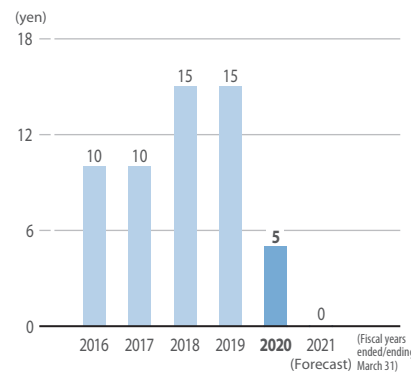
Equity to Capital Ratio

20.6 %



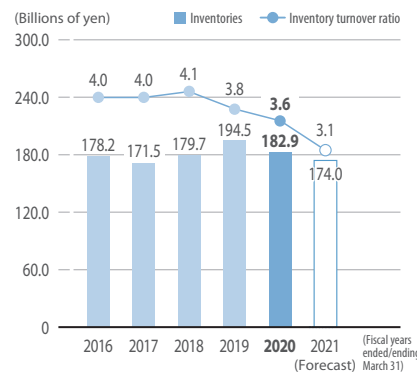
Cash Dividends

5 yen



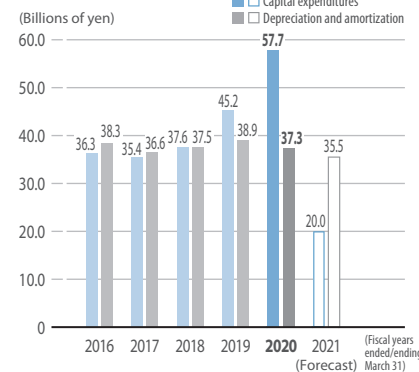
Inventories / Inventory Turnover Ratio

Inventories **182.9** billion yen
Inventory Turnover Ratio **3.6**



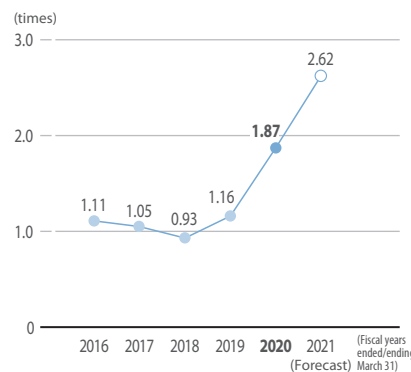
Capital Expenditures / Depreciation and Amortization

Capital Expenditures **57.7** billion yen
Depreciation and Amortization **37.3** billion yen



Net D/E Ratio

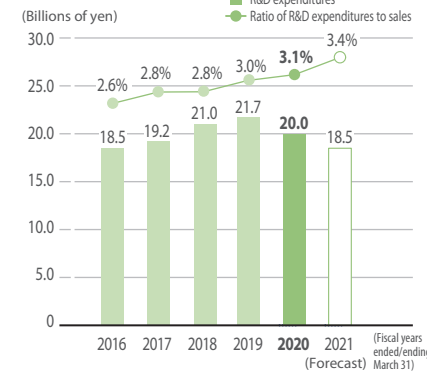
1.87 times



Non-financial Capital

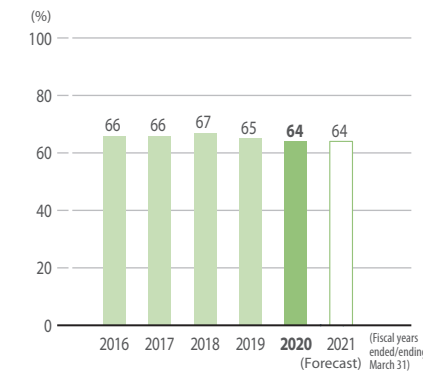
R&D Expenditures; Ratio of R&D Expenditures to Sales

R&D expenditures **20.0** billion yen
Ratio of R&D expenditures to sales **3.1** %



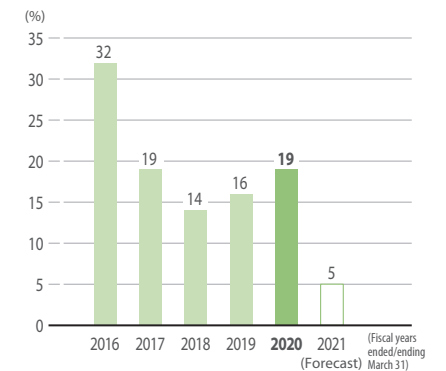
Percentage of Employees Overseas

64 %



Percentage of Hired Female Graduates*1

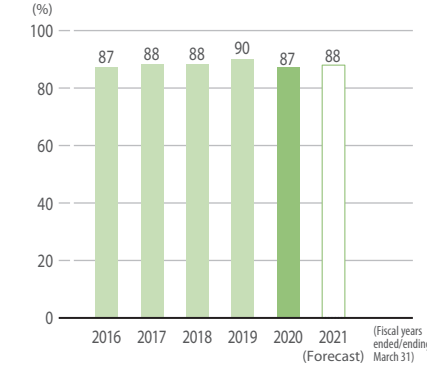
19 %



*1 Organization covered: NTN only

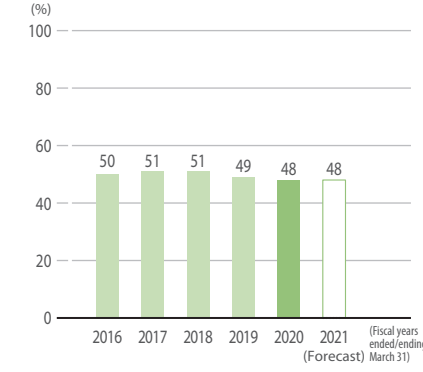
Ratio of Local Procurement

87 %



Ratio of Overseas Production

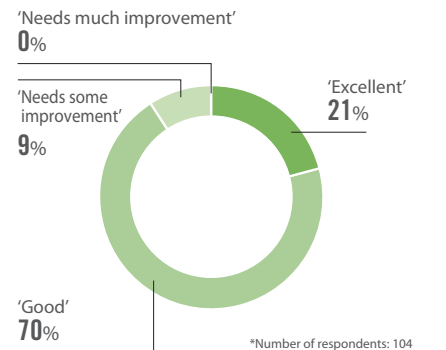
48 %



Customer Satisfaction Survey Responses*2

Either 'Excellent' or 'Good'

91 %

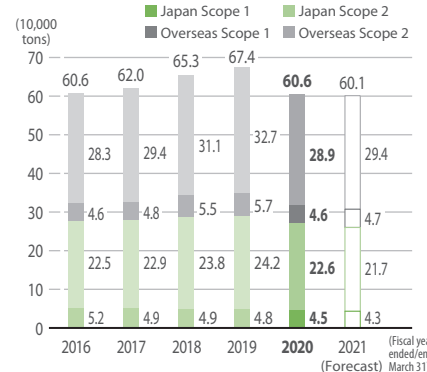


*Number of respondents: 104

*2 Survey period: From October 2018 to September 2019

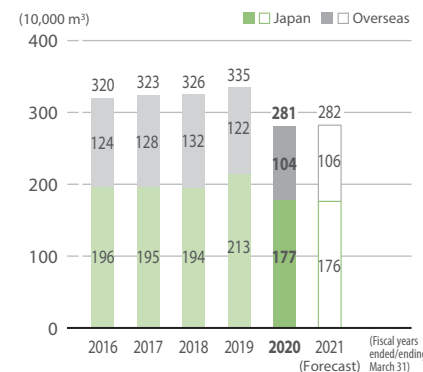
CO2 Emissions [Scopes 1 and 2]

Japan Scope 1 **45** thousand tons
Japan Scope 2 **226** thousand tons
Overseas Scope 1 **46** thousand tons
Overseas Scope 2 **289** thousand tons



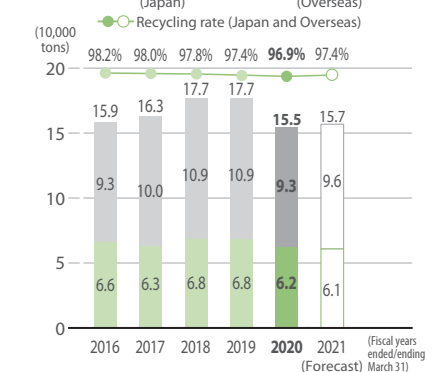
Water Consumption (Japan/Overseas)

Japan **1,770** thousand m³
Overseas **1,041** thousand m³



Waste Quantities and Recycling Rates (Japan/Overseas)

Generated waste **155** thousand tons
Recycling rate **96.9** %

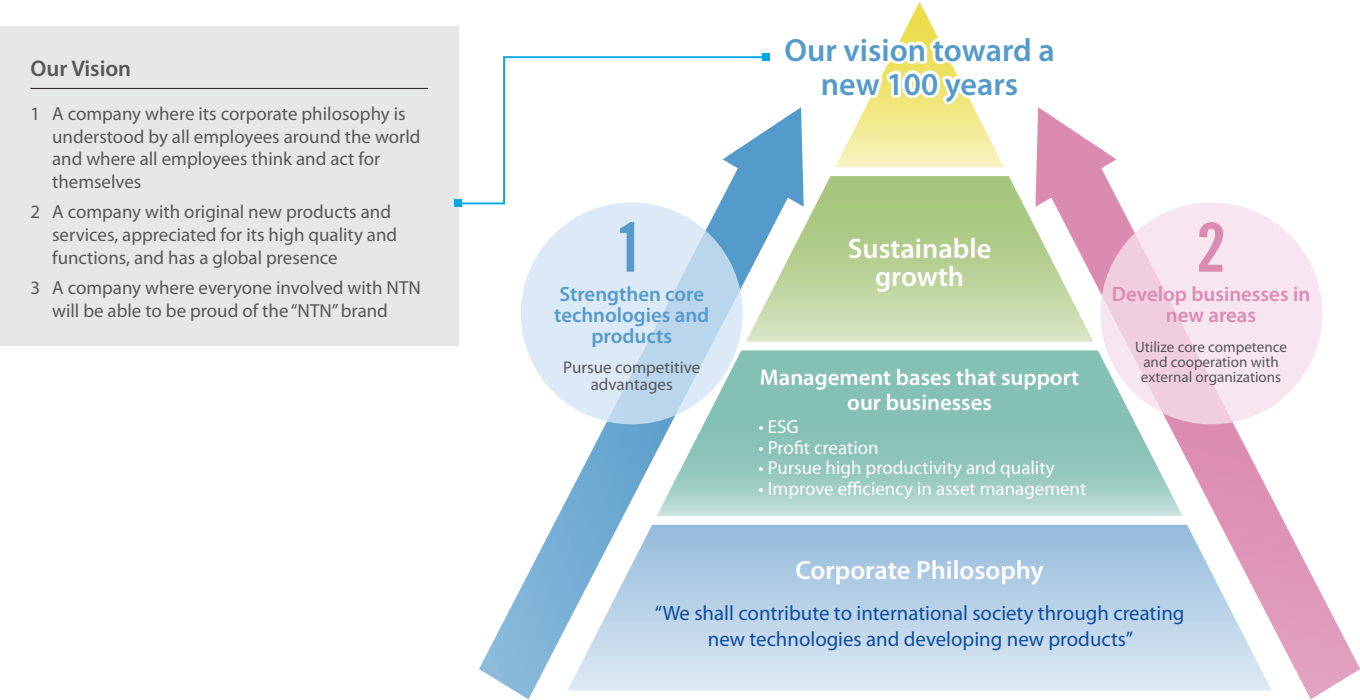


Our Vision

To enable sustainable growth over the next 100 years, we have created a long-term vision.

In order to realize “Our Vision,” we will pursue competitive advantages by strengthening our core technologies and products, while developing businesses in new areas by harnessing our core technologies and R&D achievements.

We are also stepping up our development speed by proactively collaborating with outside partnerships, while enabling sustainable growth by creating a more robust business bases to support these new business areas.

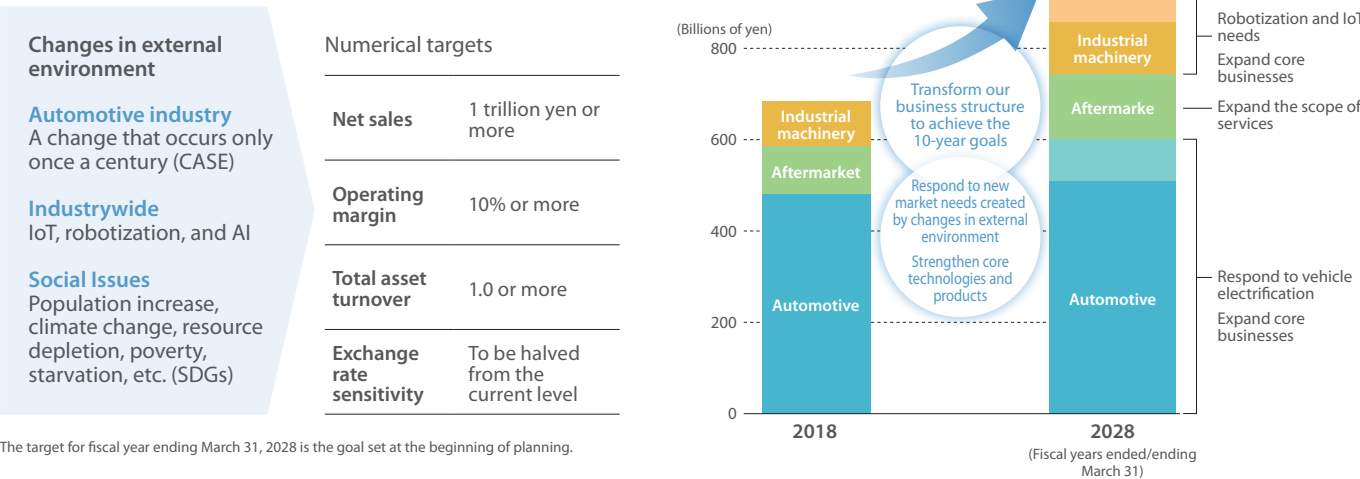


10 year targets

Before starting the “DRIVE NTN100” medium-term management plan in April 2018, we had set targets to be achieved in the 10 years after the plan.

We aim to transform ourselves from a “Manufacturing Company” into a “Company that Delivers Value to Customers through Products and Services.”

Transform from a “Manufacturing Company” into a “Company that Delivers Value to Customers through Products and Services”



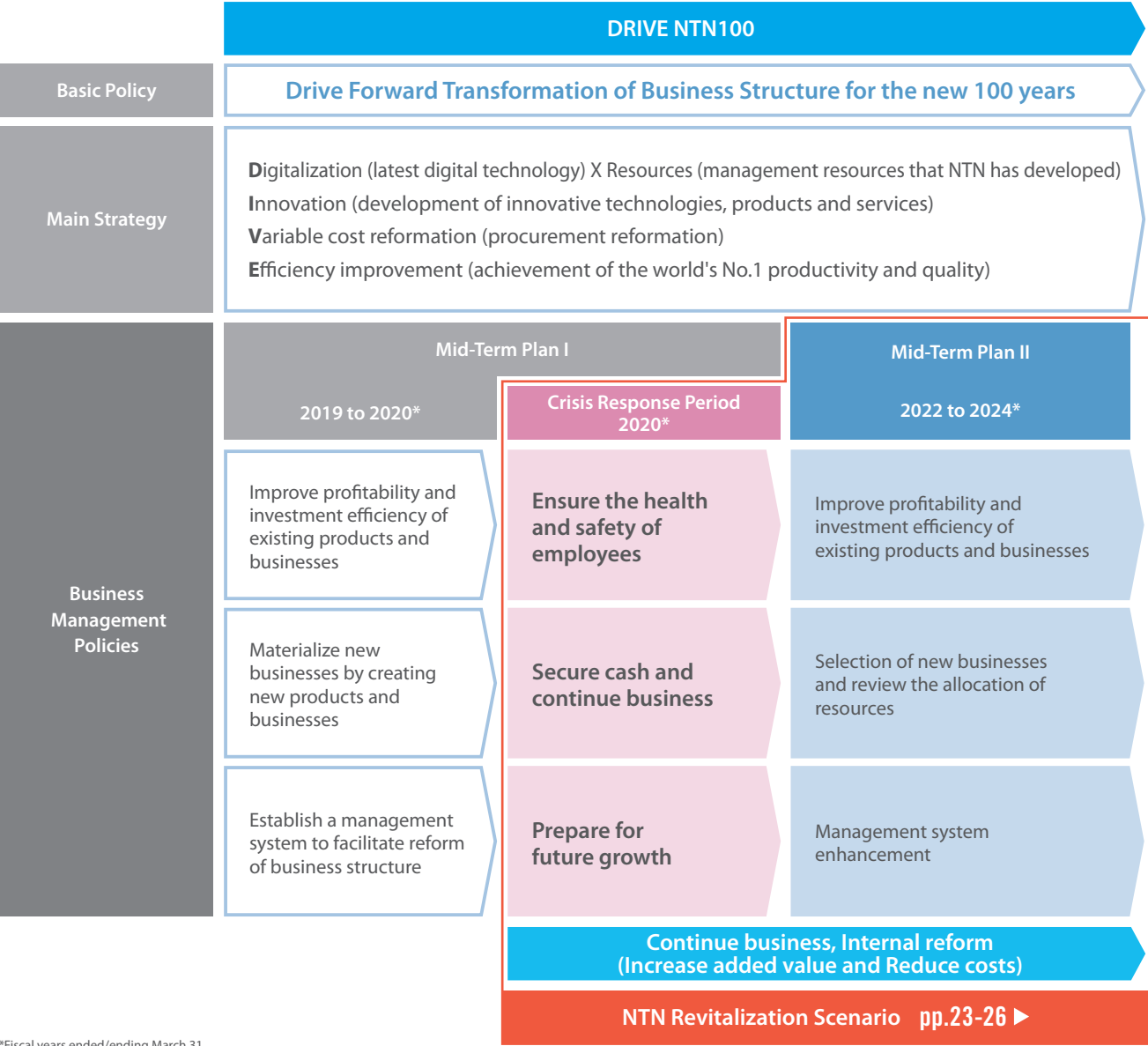
The target for fiscal year ending March 31, 2028 is the goal set at the beginning of planning.

Management Policy

In December 2019, we established a Management Policy of the NTN Group. This represents the NTN Group's management philosophy and stance, and is based on the founders' spirit consisting of the "Frontier Spirit" and "Coexistence and Co-prosperity Spirit" and on our corporate philosophy that incorporates these spirits. In addition, the NTN Group has clearly stated its stance toward all stakeholders involved in the NTN Group. By steadily implementing initiatives based on the above, we aim to realize a NAMERAKA society.



The business environment surrounding the NTN Group is facing unprecedented challenges, including a sharp deterioration in business performance due to the impact of the new coronavirus and uncertainty about the outlook for the future. Against this backdrop, we have established a Business Operating Policy for the fiscal year ending March 31, 2021 and beyond while continuing the basic policy of the "DRIVENTN100" Medium-term Management Plan. In the fiscal year ending March 31, 2021, which is regarded as the Crisis Response Period, we will promote priority measures and link them to a new Medium-term Management Plan. In doing so, we will strive to improve our corporate structure for NTN Revitalization.



*Fiscal years ended/ending March 31

Important Measures in Crisis Response Period (Fiscal year ending March 31, 2021)

Ensure the health and safety of employees

- 1. Manage employee health and control the spread of infections
- 2. Respond to requests from the national and local governments and constructing a global safety support system
- 3. Promotion of telework for the purpose of 3Cs (Closed spaces, Crowded places, Close-contact settings) prevention and social distancing
- 4. Maintenance of employees' livelihoods

Secure cash and continue business

- 1. Reduce and minimize working capital
- 2. Secure business funds
Secure ¥100.0 billion of business funds including conclusion of commitment line contract
- 3. Suppress capital investment (cut the investment by half)

Prepare for future growth

- 1. Freeze investment in capacity expansion and concentrate on investment for efficiency improvement and maintenance
- 2. Work style reforms centered on indirect departments
- 3. Withdrawal from unprofitable part numbers and expansion of aftermarket
- 4. Selection of new business and review the allocation of resources
- 5. Start and establish new IT core system, and create benefits at an early stage
- 6. Respond to SDGs

Basic Policy in New Medium-term Management Plan (Fiscal year ending March 31, 2022 to March 31, 2024)

*Detail plan to be published by March 2021

Improve profitability and investment efficiency of existing products and businesses

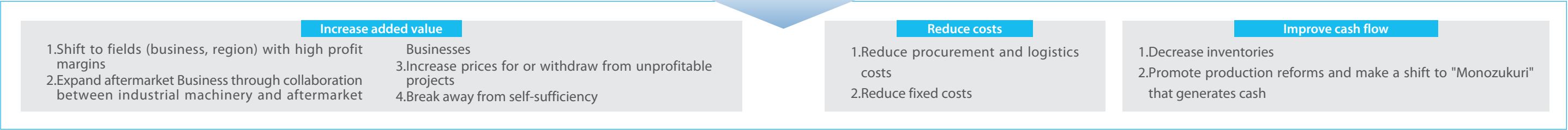
- 1. Outsource existing products and businesses, concentrate management resources on products and processes where NTN can take advantage of our technological strengths
- 2. Promote improvements in productivity and operational efficiency through cutting-edge digital technologies, such as the new factory (Wakayama) established under the new concept (smart factory), the utilization of the new IT core system, and the introduction of RPA
- 3. Strengthen financial framework by reducing inventories by shortening production LT through production reforms, etc., thinking in a different way

Accelerate new business expansion

- 1. Concentrate management resources on new businesses that are close to be commercialized and develop them into profitable businesses in a short period of time
- 2. Work on natural energy product business that contributes to environmentally friendly society

Management system enhancement, etc.

- 1. Establish strategic organization to implement measures that anticipate changes in the business environment
- 2. Strengthen further corporate governance and promote active dialog with stakeholders
- 3. Aim to achieve a work-life balance of each employee and create better work environment, promote reforms of personnel system to improve engagement
- 4. Have awareness of Sustainable Development Goals (SDGs) and contribute to solve social issues as a global Company





Director
Representative Executive Officer, President
CEO (Chief Executive Officer)

Management Commitment

Overcoming the Crisis Response Period For Future Growth

The global economy contracted due to the spread of the new coronavirus (COVID-19), and the NTN Group has also been severely affected.

We are facing an extremely difficult situation due to deterioration in our business performance. However, I believe this is a good opportunity to accelerate our transformation, and I will work toward the revitalization of NTN with the resolve to surely carry it out.

Toward NTN's Revitalization

Overview of the fiscal year ended March 31, 2020

In the fiscal year ended March 31, 2020, net sales amounted to 651.5 billion yen, down 11.2%, or 82.1 billion yen, from the previous fiscal year. This is due mainly to the impact of the spread of new coronavirus from the beginning of 2020 as well as the sluggish global demand environment caused by the intensified U.S.-China trade friction and other factors.

Operating income was 7.1 billion yen, down 73.8% or 19.9 billion yen, from the previous fiscal year. Although we moved forward with lowering variable costs and reducing fixed costs such as personnel costs and expenses, we were unable to cover a significant drop in sales. In addition, we booked an extraordinary loss of 34.2 billion yen including an impairment loss of 29.0 billion yen and as a result, a net loss attributable to shareholders of the parent company amounted to 44.0 billion yen, our largest loss ever.

In the previous fiscal year (ended March 31, 2019), we recorded an impairment loss of 17.0 billion yen for fixed assets such as equipment in manufacturing divisions in Japan. In the fiscal year under review, we did not anticipate any impairment losses, but with regard to plants and manufacturing equipment that we considered incapable of recovering the investment amounts due to the unexpected impact of new coronavirus, we recorded impairment losses.

It is truly regrettable that we were not able to distribute year-end dividends, and we paid 5.0 yen per share in annual dividends including the interim dividends of 5.0 yen. This is because our business performance has rapidly deteriorated due to the spread of the new coronavirus infections and the outlook for the future is uncertain.

Priority measures for the Crisis Response Period in the fiscal year ending March 31, 2021

In this tough business environment, the fiscal year ending March 31, 2021 is positioned as a "Crisis Response Period" in the coronavirus pandemic and we will take initiatives to "ensure the health and safety of employees" by thoroughly implementing measures to prevent infections. At the same time, we are working to "secure cash and continue business" in the event of an emergency, and to "prepare for future growth."

■ Ensure the health and safety of employees

Employees are our most important source of strength, and therefore we will implement measures to ensure the health and safety of employees and their families. In addition to establishing a safety support system on a global scale, we are working to prevent infections and promote teleworking.

■ Secure cash and continue business

We will focus on business continuity by reducing and minimizing working capital, including inventory assets, and securing 100.0 billion yen of business funds, including through conclusion of commitment line agreements.

■ Prepare for future growth

Regarding capital investment, we have decided to freeze investment for capacity expansion and concentrate on investment for efficiency improvement and maintenance. With regard to business operations, we will review the work itself that we have done so far and consider establishing a teleworking system, for example by developing a personnel evaluation system for teleworking. As for the new IT core system, which we have been switching over to as a foundation to support our business, we will put it into operation and firmly establish it, thereby producing results at an early stage.

(See pp.17-18 for more details)

New Medium-term Management Plan starting from the fiscal year ending March 31, 2022

Accelerating transformation of business structure

A New Medium-term Management Plan will begin in the fiscal year ending March 31, 2022. In "DRIVE NTN100," a 3-year medium-term management plan that began in the fiscal year ended March 31, 2019, the NTN Group has been working on "developing innovative technologies, products and services," "variable cost reformation," "achieving the world's highest productivity and quality," and "improved efficiency in asset management," by combining the latest digital technologies with the management resources we have cultivated. In response to major changes in the marketplace, we will accelerate transformation of our business structure as set forth in "DRIVE NTN 100" under the New Medium-term Management Plan.

Details of the New Medium-term Management Plan are scheduled to be announced by March 2021, and we will implement measures for ensuring business continuity and lowering the break-even point, with the aim of realizing the following three transformations.

■ Increase added value

1. Shift to fields (business, region) with high profit margins
2. Expand aftermarket business through collaboration between industrial machinery and aftermarket businesses
3. Increase prices for or withdraw from unprofitable projects
4. Break away from self-sufficiency

Going forward, we will shift our focus to highly profitable fields, businesses and regions, and endeavor to expand profits

through collaboration between aftermarket and industrial machinery businesses. While working to provide high value-added products and expand new business areas, we will also raise prices for and withdraw from unprofitable projects.

We will break away from self-sufficiency, or our integrated production system that covers everything from pre-manufacturing processes (such as forging and turning) to assembly, and expand outsourcing of the pre-manufacturing processes. In the area of finished products, we will work to expand technical assistance and outsourcing of production through alliances with partner companies.

■ Reduce costs

1. Reduce procurement and logistics costs
2. Reduce fixed costs

We will accelerate variable cost reformation that supports our global procurement system. Although the procurement of materials was not greatly affected by the new coronavirus pandemic, we will look ahead to the post-corona world and promote stable procurement that is not affected by the external environment, as well as optimal procurement in terms of cost, function, and quality.

In addition to performing centralized purchasing by strengthening cooperation with major suppliers, we will change the composition of our suppliers while adding new suppliers. We will work with our partner manufacturers to promote structural reforms, build WIN-WIN relationships, and reduce purchasing costs. In terms of logistics, we will endeavor to improve efficiency by analyzing the flow of goods in Japan, and will review the transportation of goods to overseas areas, thereby reducing logistics costs.

■ Improve cash flow

1. Decrease inventories
2. Promote production reforms and make a shift to "Monozukuri" that generates cash

Until now, we have been pursuing partial optimization that improves each process (equipment), such as reduction of cycle times. In the future, we will introduce a total optimization system that covers all areas of supply chain management, from material procurement to product sales, and produces just what is needed, only when needed, only in the quantity needed (just-in-time manufacturing). Under the leadership of the Production Reform Department established in June 2019, we are promoting company-wide production reforms. In doing so, we will construct new production processes to reduce lead times and inventories, thereby creating cash flow. (See p.35 for more details)

Strengthening ESG management

■ ESG initiatives

We held our first ESG Meeting in 2018 and communicated with institutional investors about our ESG initiatives, which helped strengthen our activities. In October 2019, we held our second ESG Meeting, as well as the first ESG Meeting for employees in order to inform them about the importance of ESG initiatives and SDG measures. We will not only use the opinions from our institutional investors to improve our activities, but will also work to deepen the understanding of our employees and strengthen our ESG-related efforts.

The Sustainability Committee was established in November 2019 and started to identify important issues (materiality) to be resolved by the NTN Group through its business activities. Responding to SDGs, sustainable development goals, means identifying business activities that are socially and economically valuable.

In 2015, we endorsed the United Nations Global Compact



and support ten principles in four areas: human rights, labour, the environment, and anti-corruption. We will work to increase the corporate value of the NTN Group by promoting our response to SDGs. (See p.37 for more details)

■ Responding to climate change

In order to respond to climate change, we have started to quantify our contributions to climate change in the fiscal year ended March 31, 2019. (See pp.45-46 for more details) This not only visualizes the value NTN provides to society, but also helps raise employee motivation in the development process. In the future, we will increase the proportion of products with a higher degree of environmental contribution and expand our contribution to CO₂ reduction. On the other hand, we recognize that we are not able to set clear medium- and long-term targets for the environment, and we will consider numerical targets in conjunction with identifying materiality.

■ Developing human resources that can play an active role on the global stage

We do not currently have any non-Japanese Directors or Executive Officers, but we have two foreign Operating Officers. In addition, our overseas employees account for more than 60% of our workforce, and many of the employees recruited locally in each country are working at the management level including top management and executives at our overseas affiliates around the world.

Since January 2019, a French Executive Officer has been leading the procurement division in strengthening global procurement. In the technical, administrative and other divisions, excellent human resources from overseas subsidiaries have demonstrated their abilities in dealing with global projects, and we will continue to expand the assignment of human resources from overseas. We will also promote diversity by strengthening the recruitment of non-Japanese employees in Japan, and promote transformation based on flexible ideas created by the fusion of diverse values.

Human resources are the foundation of our growth, and we will strengthen our business foundation by cultivating human resources that can play an active role globally.

■ Establishing basic policies for human rights, safety and health

In July 2020, we have newly established a Human Rights Policy and a Safety and Health Basic Policy. The Human Rights Policy has been established as a basis for day-to-day activities and business execution to ensure that all employees of the NTN Group share a unified sense of values, as the NTN Group further strengthens and promotes initiatives for human rights. The NTN Group contributes to international society through creating new technologies and developing new products, and supports the realization of a society in which human rights are respected. To achieve this, the NTN Group will continue its efforts to fulfill its responsibilities in respect of human rights, including the establishment and ongoing implementation of a human rights due diligence system.

The Safety and Health Basic Policy was established with the

aim of raising awareness of safety among NTN Group employees and organizations, and further enhancing corporate value. It respects safety and health policies and approaches that have been fostered by each business site and country. We have demonstrated that the realization of a work environment that ensures the safety, health and active performance of everyone working in the NTN Group is the foundation of management and the most important value that takes precedence over everything. (See p.55 for more details)

■ Strengthening corporate governance

In June 2019, NTN has made a transition from a Company with Board of Company Auditors to a Company with Nominating Committee, etc. with the aim of establishing a prompt decision-making structure and an operational execution organization, strengthening the supervision of management, and improving management transparency and fairness. At the same time, the number of Outside Directors was increased from 2 to 5, with the Nominating Committee, the Compensation Committee, and the Audit Committee all chaired by Outside Directors. In July 2020, a female Director (Outside Director) was newly appointed for the first time at the Company. We have always worked to promote diversity, and going forward, the female Director with experience in a different industry than ours will supervise management. This will enable us to integrate diverse values and accelerate transformation aimed at achieving sustainable growth.

NTN's role

■ Putting corporate philosophy into practice

Two spirits passed down from the founders of NTN are embodied in its corporate philosophy, "We shall contribute to international society through creating new technologies and developing new products." Noboru Niwa and Jiro Nishizono, the founders of NTN paved the way for the domestic production of bearings that was sought in Japan at the time. This Frontier Spirit is linked to our business activities in the second half of our corporate philosophy, "through creating new technologies and developing new products." The Coexistence and Co-prosperity Spirit cherished by our founders who hoped to contribute to the development of a variety of industries through the domestic production of bearings, remains in the first half of our corporate philosophy, "We shall contribute to international society."

In December 2019, we established a Management Policy of the NTN Group to express our management philosophy and stance on putting into practice the corporate philosophy that incorporates our founders' ideals. We also clearly stated our stance toward stakeholders in order to become a company that is trusted and needed by stakeholders. (See p.16 for more details) To ensure that the more than 24,000 employees of the NTN Group worldwide promote the corporate philosophy, we hold a NTN PROUD AWARD, which serves as an opportunity to commend our employees who put the corporate philosophy

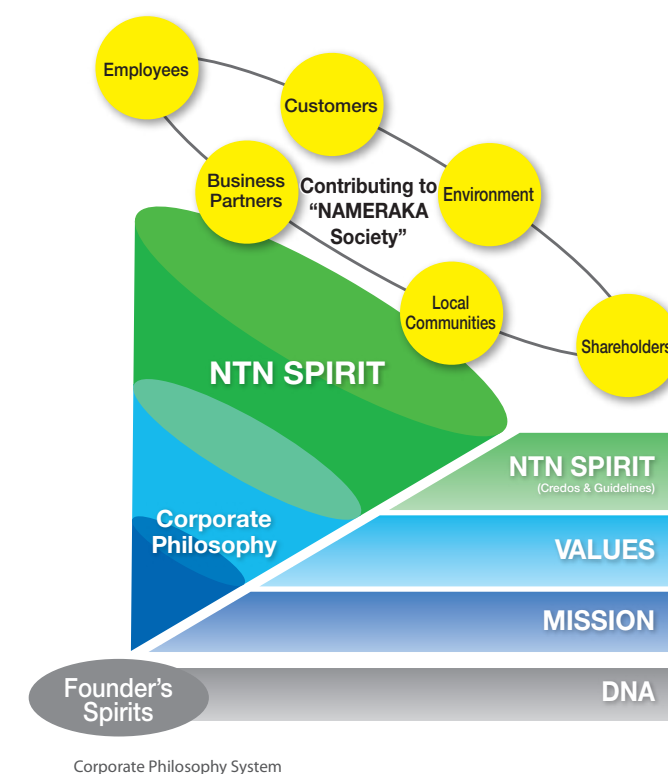
into practice. Through these activities, we endeavor to promote awareness of the corporate philosophy among our employees globally. (See pp.53-54 for more details)

■ Contributing to solving social issues through business

For more than 100 years, we have been providing bearings that are indispensable in a variety of industries. Bearings are important precision parts that support rotating parts of machines, and are eco-friendly products that contribute to reducing energy loss. Our strength lies in our original technologies and services that we have cultivated over many years, as well as our global network that spans 33 countries around the world. We provide safety and comfort while supporting people's lives globally. In addition, amid the urgent need to realize a low-carbon society on a global scale, we are contributing to a sustainable society that generates energy by applying our proprietary technologies and providing products that utilize natural energy.

Through the provision of these products and services, the NTN Group aims to realize a "NAMERAKA* society." A NAMERAKA society is a society where people can easily lead a secure and fulfilling life in harmony with nature. The NTN Group will contribute to the development of a sustainable society by resolving social issues through the creation of new technologies and the development of new products.

* "NAMERAKA" means "smooth" in Japanese.



Toward Establishing a Management Base to Realize Sustainable Growth as a Global Company

Executive Officer
CFO (Chief Financial Officer)

Tetsuya Sogo

Financial results for the fiscal year ended March 2020

Summary

As for the fiscal year ended March 31, 2020, we announced the outlook for net sales of 680.0 billion yen and operating income of 10.0 billion yen at our Financial Settlement Briefing Meeting for the third quarter that was held in February prior to the impact of the new coronavirus (COVID-19). However, the result was that net sales was 651.5 billion yen, substantially below expectations, largely due to the spread of COVID-19 in the fourth quarter.

Meanwhile, we tried to increase operating income as much as possible by thoroughly reducing fixed costs such as expenses and personnel costs in particular, thereby maintaining a level of 7.1 billion yen. Although we maintained a positive level of operating income, we posted a net loss of 44.0 billion yen, the worst figure in NTN's history. This was mainly due to the recording of extraordinary losses of 34.2 billion yen in particular, including an impairment loss of 29.0 billion yen as well as the recording of a loss of 1.8 billion yen on dissolution of unprofitable joint ventures in China and South Korea that have no prospect of recovery as non-operating expenses.

Consolidated financial results		
	Fiscal year ended March 31, 2019	Fiscal year ended March 31, 2020
Net sales	733.6	651.5
Operating income	26.9	7.1
Operating margin	(3.7%)	(1.1%)
Ordinary income	22.2	-1.7
Extraordinary income or loss	-19.3	-32.3
Net income attributable to shareholder (parent com-pany)	-7.0	-44.0
Exchange rates	US\$ 110.9	108.7
	EURO 128.4	120.8

Impairment loss

Regarding our manufacturing business units, plants and affiliated companies (CGU: Cash Generating Unit) that are expected to experience a significant deterioration in profitability in the future, we make it a rule to explain, discuss and agree with the auditing firm on our business plan for the

average remaining depreciation periods (about 7 to 8 years) of production machinery we have in each of our CGU mentioned above for our impairment examination and calculation. We calculate the business value (net present value of free cash flow generated and net realizable value of the land and building) for each CGU, and if it is lower than its respective current book value of tangible fixed assets, we will write off the difference between them. Consequently, impairment loss means that the value of such business is less than the book value of property, plant and equipment for its business activities, and we recorded impairment loss of 17.0 billion yen at NTN Corporation and five affiliated companies in Japan in the fiscal year ended March 31, 2019. In addition to external factors such as declining sales due to changes in economic conditions, exchange-rates, steel material prices and tariffs, as the competitive environment is changing and becoming more intense globally, our competitive advantage as a whole has gradually deteriorated particularly in Japan, making us unable to create sufficient business value. We did not estimate major impairment loss in the fiscal year ended March 31, 2020 as in the previous year by promoting measures, aimed at enhancing each business value, primarily at our CGUs in Japan, such as normalizing the burden of expenses with overseas operations, raising prices of unprofitable products, withdrawing from unprofitable business lines, and strengthening aftermarket business. However, after discussions with the auditing firm, we determined that the measurement of impairment loss would have to reflect the impact of COVID-19. As a result, impairment loss of 29.0 billion yen was recorded, of which 22.0 billion yen was in Japan and 7.0 billion yen was in overseas business sites. The impairment loss of 29.0 billion yen in the fiscal year ended March 31, 2020 was calculated on the basis of a very conservative assumption that net sales in the fiscal year ending March 31, 2021 would decline 20% from net sales in the business plan prior to the impact of COVID-19, the level of net sales in the fiscal year ending March 31, 2022 would still not recover to 100%, and the level of net sales would not increase and would stay flat in the remaining years of depreciation. As a result of this impairment loss, the amount of depreciation will be reduced by 3.5 billion yen per year in the future.

Breakdown of impairment loss

Impairment loss in fiscal year ended March 31, 2019:	17.0 billion yen		
• Japan	17.0 billion yen	NTN (non-consolidated)	5.3 billion yen
		Affiliated company (5 companies)	11.7 billion yen
Impairment loss in fiscal year ended March 31, 2020:	29.0 billion yen		
• Japan	22.0 billion yen	NTN (non-consolidated)	12.7 billion yen
		Affiliated company (8 companies)	9.3 billion yen
• Overseas	7.0 billion yen	Americas (1 company)	5.5 billion yen
		Europe (1 company)	1.5 billion yen

Remaining issues to improve our financial structure

In the fiscal year ended March 31, 2020, we reduced fixed costs by 6.9 billion in personnel costs, 9.2 billion yen in expenses, as well as variable costs by 3.1 billion yen, including 3.6 billion yen in our general continuous cost reduction. However, the negative impact of the scale reduction of 33.9 billion yen was extremely significant, and operating income decreased significantly. The first issue is how much variable costs can be reduced through promotion of global procurement, as the amount of cost reduction is declining year by year. Furthermore, as for the impact of the scale reduction effect, decreased sales volume was 62.4 billion yen excluding the impact of exchange rates and sales price fluctuations. On the other hand, for the entire NTN Group, the ratio of variable costs to sales is about 55%, and therefore our consolidated marginal profit ratio is 45%. Due to this, the scale reduction effect on operating income will be 28.0 billion yen. However, as we have decreased inventories drastically in line with a decrease in sales in the fiscal year ended March 31, 2020, production volume dropped by 87.0 billion yen, resulting in minus 33.9 billion yen due to the scale reduction effect causing an additional reduction in the production volume. The second issue is how to further reduce fixed costs such as personnel costs and expenses, assuming that the negative impact on operating income will be extremely significant because of a further reduction of inventories to ensure cash flow in the fiscal year ending March 31, 2021, as sales will decrease more drastically in that fiscal year. In particular, head office expenses need to be thoroughly reviewed in order to concentrate on improving strategic capabilities and shared service functions in the future. The sales price level was down 2.5 billion yen year on year, and this came mainly from a decrease of 5.8 billion yen in the sales price level for automotive OEM business only. The third issue therefore is how to differentiate ourselves from competitors in terms of technology and services to move away from intensified price competition, thereby reducing discounts and raising prices, particularly in our OEM businesses, where operating margin is noticeably declining.

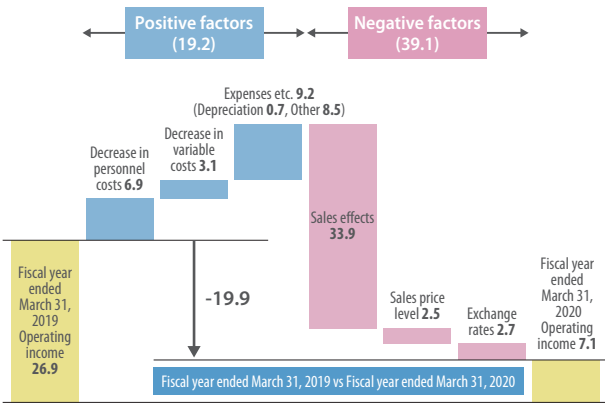
Along with addressing the above issues, Finance HQ will continue to support and follow our “Global Value Creation Activities” through our new “Decision Making System of Investments” and “Evaluation System of Business Performances” based on the shared concept of “Cost of Capital” for each business location, which we introduced in the fiscal year ended March 31, 2020.

- Strengthen global management capabilities for decision and follow-up of major investments that directly lead to improvement of corporate value through thorough implementation of our new valuation standard for investments based on NPV and IRR

Monitor the status of corporate value creation in each business, region, and company by thoroughly evaluating business performance using EVA and ROIC, and strengthen the organizational system to clarify issues and respond to them

Through the measures listed in 1 and 2 above, establish the base of “Global Learning Organization” that implements the most effective measures autonomously and promptly to maximize the value in each business, region, and company while they communicate closely with each other

Analysis of Operating Income



Major actions during the Crisis Response Period

In the fiscal year ending March 31, 2021, which is regarded as the Crisis Respond Period, we will ensure the safety of employees, endeavor to survive on a sharply falling sales scale, and prepare for recovery from the fiscal year ending March 31, 2022.

Securing sufficient cash

We explained our Revitalization Scenario to our main financing bank and secured 100.0 billion yen of funds, including under commitment line agreements with our main financing banks. Obtaining a commitment line means that we can borrow from a bank at any time within the amount and period of the commitment line. It is roughly estimated that the amount of 100.0 billion yen is an additional amount, which is sufficient to sustain ourselves in the event of a 30% decline in annual sales. At the same time, we will consider and promote the utilization of factoring (liquidation of receivables) not only in Japan but also at overseas locations, and aim to collect and utilize surplus funds globally.

Restraining outflow of funds

While securing sufficient funds, we will thoroughly restrain the outflow of funds. To achieve this, we will first limit capital expenditures to 20.0 billion yen. Within this scope, we thoroughly examine the minimum investments required, but in principle, we will freeze new investments to expand capacity and prioritize the

following: investments in production reforms to improve current situations such as throughput; overhaul of existing facilities; and flexible setup response. Furthermore, regarding inventory assets, we will strategically increase inventories for aftermarket services with the aim of increasing sales in aftermarket business. At the same time, we will reduce OEM inventories and aim to achieve the Group-wide inventory asset turnover ratio of 3.6 as in the fiscal year ended March 31, 2020.

Preparing for Revitalization

Within the Group as a whole, we will clarify the business strategies for unprofitable companies and clearly determine the direction such as reconstruction, downsizing or closure. Each Business Headquarters will play a central role for domestic operations and the Office of General Managers for overseas businesses, while these headquarters and office work together with Corporate Strategy Headquarters, Finance Headquarters, and Production Headquarters to formulate concrete plans, including consideration of asset sales and business consolidation. The progress of these plans will be tracked in the New Mid-term Management Plan. At the same time, we will accelerate the implementation and promotion of measures to strengthen the "Product Portfolio" by withdrawing from the deficit products and concentrating on the profitable products in the industrial and automotive OEM business, and measures to strengthen the "Business Portfolio" by expanding and strengthening aftermarket business.

NTN Revitalization Scenario

Definition of Revitalization

NTN Revitalization means making it possible for us to create corporate value. Since the fiscal year ended March 31, 2020, we have introduced the concept of "Cost of Capital (WACC)" in our investment decisions and business evaluations in each country globally. Assuming that the return expected by our shareholders from the Company in the Japanese stock market is 8% at present, we have designed our consolidated WACC at 5%, so our mandatory target for consolidated ROIC (Return on

Invested Capital) is 5% in the fiscal year ending March 31, 2024, to create corporate value under New Mid-term Management Plan, which is scheduled to start in the fiscal year ending March 31, 2022. In terms of management stability, our final target for Net D/E ratio is less than 1.0, and we have set the net D/E ratio of 1.5 as a mandatory target for the fiscal year ending March 31, 2024. We aim to become a company that can steadily improve corporate value in the future by achieving the above-mentioned mandatory targets, maintaining ROE of 8% or more, returning 4% to shareholders (DOE of 4%), and allocating the remaining 4% to sustainable growth in the future.

Basic assumptions for the creation of corporate value

In order to achieve ROIC of 5%, we do not rely on measures to increase net sales by expanding production capacity to increase production, and we aim to create a financial structure that can create corporate value with net sales of 700.0 billion yen. Specifically, the minimum targets of net sales and operating income are 700.0 billion yen and 42.0 billion yen (operating margin of 6%), respectively. To achieve this target, we will reduce the current variable cost rate of 55% by 3% pts (net reduction) through our efforts such as raising selling prices and reducing procurement costs. At the same time, we will further review and reduce fixed costs, which we had drastically reduced in the fiscal year ended March 31, 2020. Through these measures, we will minimize any increase in personnel costs and expenses in response to a rebound in sales from fiscal year ending March 31, 2022, and lower our break-even point. For the fiscal year ending March 2024, we will lower the break-even point to 80% of net sales, or 560.0 billion yen relative to net sales of 700.0 billion yen.

Transformation of mindset toward Revitalization

Prior to the Lehman Crisis, even though NTN's asset turnover rate was much lower than that of its domestic competitors, NTN's profitability was higher due to its superiority in self-sufficiency from the pre-process, and both its ROIC and stock price were at higher levels. We need a "Structural Reform" based on a new mindset that will allow us to break away from our

successful experiences in the past and secure a new competitive advantage. Based on this direction, we will consider and promote "Selection and Concentration" in the areas of asset sales, business integration and closure. The following section shows three reforms aimed at NTN Revitalization (corporate value creation) through an increase in free cash flows.

1 Break away from our current corporate culture that relies too heavily on a KAIZEN spirit at manufacturing sites that responds to the demand of "All" OEM customers through continuous improvement of productivity and cost reduction:

In the face of changes in the business environment caused by low-price competition driven by Korean and Chinese companies in the industrial and automotive OEM market, we need to strengthen our marketing and cost quotation functions, as well as investigation, planning, execution and follow-up functions of our pricing strategies in the sales division to secure our new competitive advantage.

In addition to selecting customers and cultivating new target customers, we aim to improve the profitability of the OEM business by withdrawing from extremely unprofitable businesses, restraining price reductions, and thoroughly negotiating price increases. (Withdraw from large loss-making products in terms of gross profit margin and thoroughly implement strategic precision pricing)

2 Break away from our current corporate culture that has not implemented drastic measures while inventory asset turnover is extremely low compared to our competitors in Japan:

In the midst of a significant deterioration in NTN's profitability, which once surpassed competitors in Japan, we need to promote manufacturing reforms based on KPIs centered on GMROI (Gross Margin Return On Inventory Investment) in order to maximize throughput to secure a new competitive advantage in the face of environmental changes, in which our low inventory asset turnover is a major impediment to competition. In addition to reducing invested capital by reducing inventory assets, we aim to expand aftermarket business and improve profitability by realizing flexible manufacturing for aftermarket services in our OEM production lines. (Break away from prioritization for OEM and ensure efficient production of profitable products for aftermarket services)

3 Break away from our current corporate culture that attempts to internally accumulate added value as well as technological know-how by carrying out the entire process of development, manufacturing, and sales on its own:

In order to secure a new competitive advantage, we need to build and strengthen WIN-WIN partnerships based on mutual trust and respect with partners that have complementary capabilities to succeed together and with which synergy is expected to be created in each of our business areas and markets. This is because the burden of investment costs has increased and we have insufficient human, financial, and technological resources due to diversified customer requirements and increasingly sophisticated requirements in the global market. Through strategic partnerships, we aim to significantly reduce investments and supplement human and technical resources.

(Break away from self-sufficiency and drastically reduce capital expenditure)

Future Vision

Since the fiscal year ended March 31, 2020, we have been explaining overview of our Revitalization Scenario through interviews with analysts and rating agencies and other means. At the Financial Settlement Briefing Meeting for 2019, we were asked the reasons why the implementation of the plan was delayed and the extent of the feasibility of the plan. Basically, this scenario is a prerequisite for the commitment line of 100.0 billion yen. It is not a matter of whether it is feasible or impossible to implement the plan, but this scenario should be recognized as the minimum requirement. The biggest factor affecting the feasibility and the speed of implementation is how each Executive Officer can take advantage of the current environment of COVID-19 as an opportunity for our fundamental change, by breaking down this scenario by each business functional field using his/her own words, and thoroughly implementing each field's reform story through inspired Middle Management people in each field.

The outlook is becoming increasingly difficult after the spread of COVID-19. As a vision for the future, under such extreme uncertainty, we will accelerate the establishment of a corporate culture, or a Global Learning Organization, that will autonomously pursue total optimization to ensure that all regions and divisions survive with a shared view to maximizing the total value of NTN Group.

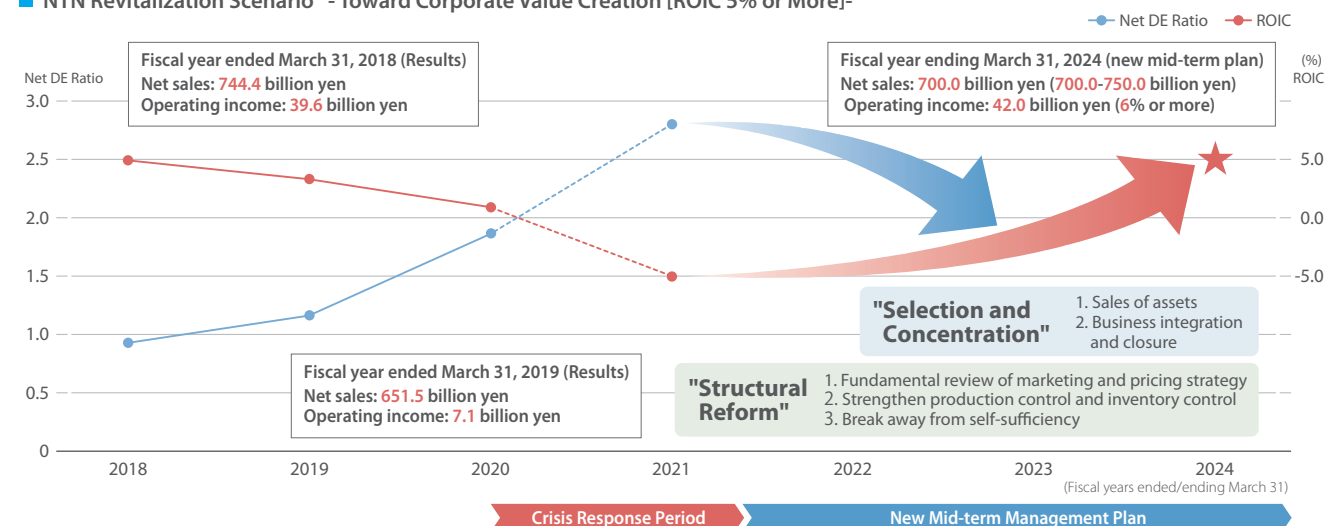
This is because, even if the clear strategies and directions of top management toward maximizing corporate value are broken down into specific tasks by function, we believe that no transformation will be achieved without the strong networking of middle management that measures, manages, and maximizes the results of value creation while coordinating between related divisions in order to resolve the contradictions between ideals of top management to aim for and realities at each working place in each business functional field.

Therefore, I myself make every effort to repeatedly explain, discuss, and exchange opinions and views on the strategies and directions that each company should take through direct dialog (including web meetings and discussions) with the leaders of all divisions in Japan and overseas.



Active online discussion with overseas sites

NTN Revitalization Scenario - Toward Corporate Value Creation [ROIC 5% or More]-



Achieve ROIC 5% or more, maintain ROE 8% or more, return 4% to shareholders, and allocate the remaining 4% to sustainable growth in the future.

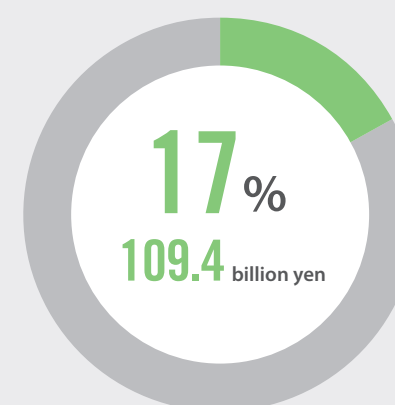
NTN provides various products for industrial machinery and automotive maintenance needs. In industrial aftermarket applications, we provide bearings for general machinery and bearings used to repair equipment used in industries such as mining, paper, steel, cement, and food manufacturing. In automotive aftermarket applications, we satisfy customer needs with a product lineup of repair parts (auto parts) composed of bearings and peripheral components.

In addition to delivering products, we also provide technical services such as by holding the "NTN Aftermarket Academy" to help customers learn about bearings through lectures and practical training, and by holding technical workshops at customers' manufacturing sites using technical service units. Also, we support customers improving productivity and ensuring stable operation of their facilities, for example, by providing the NTN PORTABLE VIBROSCOPE, which makes daily maintenance of production facilities easier.

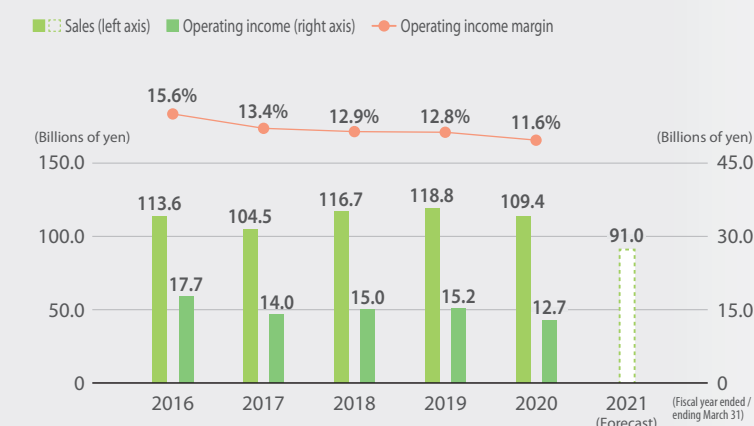
Managing Executive Officer **Eiichi Ukai**



■ Percentage of total sales



■ Trend in business performance



Business environment

One of the issues in our aftermarket business is that our brand recognition is lower in some overseas regions than in Japan. Compared to our competitors, we have actually not been able to secure our superiority not only in supplying individual products, but also in terms of overall capabilities including provision of peripheral components and after-sales service.

The challenge for us is how to increase our shares of products dealt in by overseas distributors, which sell competitors' brand as well, unlike the Japanese distributors which handle our products exclusively. To that end, it is necessary to enhance the overall attractiveness of our products and improve the value of the NTN brand by strengthening our service & support programs, improving product quality as well as packaging quality, and reinforcing countermeasures against counterfeit products.

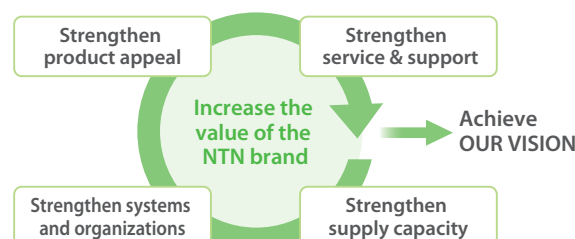
In addition, in order to increase competitiveness in overseas markets, it is extremely important to establish a system for prompt delivery of top-selling products.

Until last year, demand was high and we lost sales opportunities due to insufficiencies in our supply capacity. However, as global demand declined sharply due to the spread of new coronavirus infections, we will focus on maintaining inventory of top-selling products that are necessary for a prompt delivery system in this fiscal year so that we can avoid losing sales opportunities when the economy becomes stronger again.

Additionally, an increasing influx of low-priced products produced in emerging countries is one of the threats. We are promoting strategies to secure advantages, such as identifying the needs of each market and using different brands appropriately.

Achieve OUR VISION Transform from a "Manufacturing Company" into a "Company that Delivers Value to Customers through Products and Services."

The business environment such as the development of AI, IoT, and other digital technologies, environmental issues, and demographic shifts has been changing continually and companies are required to be flexible in accommodating new market needs to ensure sustained growth. In the aftermarket business of bearings, suppliers are faced with new expectations in addition to traditional requirements, including high-quality products, broad product lineups and prompt delivery. The role of suppliers, particularly those in the equipment aftermarket business for steel, paper and other industries, is gradually changing from a bearing supplier into a provider of



comprehensive maintenance services for equipment and peripheral components.

In order for the Company to achieve the best customer satisfaction in the aftermarket, besides surveying the needs of distributors and end-users and offering bearing repair services, we will further enhance our brand value by proposing a new business model that provides services such as monitoring of operating conditions and prediction of bearing replacement timing by utilizing our expertise for sensing technology and digital technology including AI, and IoT with an offer of the "NTN PORTABLE VIBROSCOPE" etc.

Results for the fiscal year ended March 31, 2020 and forecast for the fiscal year ending March 31, 2021

In the fiscal year ended March 31, 2020, net sales fell to 109.4 billion yen, down from the previous fiscal year. This was due to a year-on-year decline in sales from both the industrial machinery aftermarket and automotive aftermarket in Japan, the Americas, and Europe as a result of the sluggish economy. In addition, in the fourth quarter, demand declined and sales activities were restricted in some regions due to the spread of the new coronavirus. Operating income was 12.7 billion yen due to the

significant impact of a decline in demand, despite efforts to reduce variable costs and fixed costs such as personnel costs and expenses.

For the fiscal year ending March 31, 2021, net sales was 19.6 billion yen and operating income was 800 million yen in the first quarter. Although we cannot foresee the impact of the spread of the new coronavirus, we expect the net annual sales to be 91 billion yen.

Initiatives for the NTN revitalization

Initiatives to improve profitability

Focus on core products and profitable products in aftermarket

We assume that our global share is approximately 10% in the aftermarket, but that number differs according to region and product. By strategically introducing products that match the characteristics of each sales region and the price range of each market, we will strive to increase profits from regions and products where sales are expected to continue to grow in the future. For example, bearing units, one of our main products for the aftermarket, have lower market shares in the U.S. than in other sales regions, so we will strengthen product strategies for each region and work to increase the market share.

Promoting the use of outsourced products

We will also actively utilize outsourced production to build a structure that can supply products that meet the quality and price ranges demanded by each region.

Establishing a system for the post-coronavirus world

Establishing a prompt delivery structure for the aftermarket business

Products for the aftermarket, which contribute to the stable operation of customers' facilities and improvements in their productivity, must be delivered at the timing required by customers. In order to realize just-in-time supply, we will organize inventories of best-selling products and establish a structure for prompt delivery. In this way, we will work to establish a system that can provide stable supply even when demand fluctuates.

Creating a business model with future potential

By using devices such as the NTN PORTABLE VIBROSCOPE, which enables measurement of equipment vibrations, detection of bearing abnormalities, and estimation of damaged areas and can be used by simply installing the device on facilities, we will not only sell bearings, but also expand MRO business, which covers including maintenance, to create a business model with future potential. In addition, while assessing the situation, we will provide technical services in a way that is different from the previous one, such as aggressively utilizing on-line technical workshops in Japan and overseas that we carry out from a perspective of preventing the spread of the new coronavirus, even after the pandemic has ended.



NTN PORTABLE VIBROSCOPE



We are responding to the demands of our customers for long operating life, improved loading capacity, and higher speed, all of which are required by all types of industrial machinery, with the world's highest standard new-generation bearings, ULTAGE Series. In addition, through constant R&D efforts, we will launch bearings with even lower torque, more compactness and lighter weight to the marketplace, enabling environmental impact reduction in a variety of industrial machinery fields.

Looking ahead to the next generation, we will promote modularizations and intelligentization by deepening bearing technologies and integrating sensors and precision equipment technologies. In addition to developing high value-added products, we will develop new products and services by utilizing the abnormality detection technology, condition monitoring system (CMS), and IoT. Specifically, we launched sales of the Wind Doctor™ condition monitoring system for wind turbine and i-WRIST™, a Wrist Joint Module that contributes to automation and labor saving at manufacturing sites. By providing these products and services, we will contribute to the development of industry and the creation of a sustainable society.

Managing Executive Officer Eiichi Ukai

Business environment

A recent trend is that, in addition to customers of construction machinery, agricultural machinery, and machine tools, which are the foundation of the industrial machinery business, demand from social infrastructure customers such as rolling stock and wind power generation has increased against the backdrop of changes in social structure and increased environmental awareness, and we have been promoting the establishment of technology and production systems. In the future, the business environment surrounding industrial machinery is expected to change dramatically due to the progress of IoT and the development of AI technologies. Based on this understanding, we are developing condition monitoring services for predictive maintenance that apply IoT and sensing technologies to address issues shared by customers, such as saving energy, stable long-term operation, and reduced lifetime costs. For wind turbines customers, we have already proposed the Wind Doctor™ condition monitoring system for wind turbine, which has been evaluated favorably, and we have begun offering concrete suggestions for other industries, such as construction machinery, machine tools, and rolling stock.

Changes in market environment

- Rising needs for autonomous machinery operations and sensing technologies
- Competition in development of high value-added products
- Impact of policies, trade issues, and the global economy, etc. on demand
- Intensified competition due to the influx of low-priced products

NTN's Strengths

For core sectors (construction machinery, agricultural machinery, and machine tools)

- Ability to develop high-speed, high-rigidity and high-precision products
- Ability to respond to new needs in fields and parts for which we have not entered the market
- Strong relationships with manufacturers with the top shares in the industries





Construction machinery

Agricultural machinery

Machine tools

For our growth sectors (gearbox, rolling stock, aerospace, and wind turbines)

- Ability to develop products tailored to customer needs
- Experience in doing business with major customers around the world
- Ability to produce products of the sizes that other companies cannot respond to







Rolling stock

Wind turbine

Gearbox

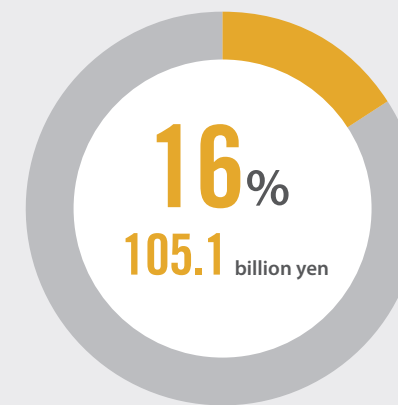
Aerospace

OUR VISION NTN will become a company that customers in the industrial machinery market rely on most for its exceptional technological competence

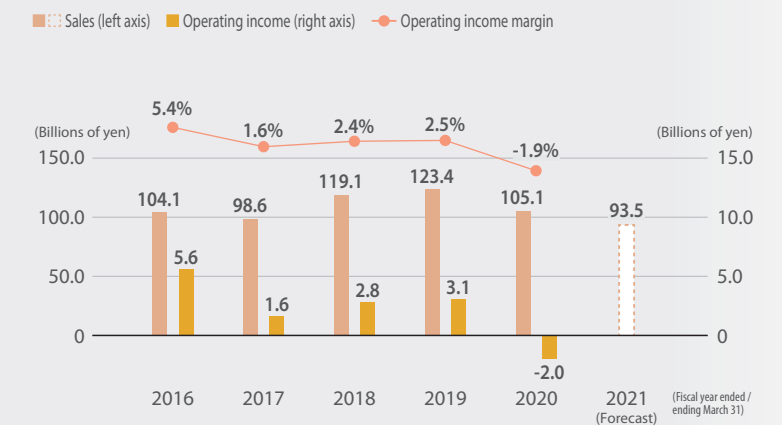
The industrial machinery market is comprised of a variety of industries, and bearings are used in a wide range of machinery. We supply bearings with a wide range of sizes, from miniature sizes of several millimeters in outer diameter used in electronic machinery to ultra-large sizes of several meters used in wind turbines and large mining equipment. In addition, products used in aircraft and high-speed railways require extremely high reliability because the stoppage of machinery affects human lives. We have accumulated product and manufacturing technologies for many years, and we utilize these technologies to

respond to a variety of market needs. In recent years, the external environment has been constantly changing due to factors such as increasing awareness of the global environment issue and changes in population dynamics, and changes in the industrial structure can also be seen as a result of a rapid progress in IT-related technologies including IoT and AI. Under these circumstances, we will utilize digital technology based on bearing technology in the industrial machinery business, thereby continuing to be an indispensable company in the industry, and will support the development of the world industry.

Percentage of total sales



Trend in business performance



Results for the fiscal year ended March 31, 2020 and forecast for the fiscal year ending March 31, 2021

Net sales was 105.1 billion yen due to the following factors: decreased sales in main industries such as construction machinery, agricultural machinery, machine tools, and reduction gears following a decline in demand caused by the impact of the US-China trade friction; and the impact of customer shutdowns and supply chain turbulence following the spread of the new coronavirus in the fourth quarter and onward. Consequently, we posted operating loss of 2 billion yen

despite reduced variable costs and a decrease in fixed cost such as personnel costs and expenses.

For the first quarter of the fiscal year ending March 31, 2021, net sales was 22.6 billion yen and operating loss was 900 million yen. Although we cannot foresee the impact of spread of the new coronavirus, the full-year net sales is expected to be 93.5 billion yen.

Initiatives for the NTN revitalization

Initiatives to improve profitability

Selection of industries

We will propose better solutions to customers through synergies between industrial machinery business and aftermarket business and establish profitable business models. In addition, by strengthening profit control of each project, we will identify any unprofitable business and work to improve profitability of our entire business. We will also distinguish between "businesses we will focus on" and "businesses we will withdraw from" according to the regions and industries, and select industry sectors in order to optimize the profitability of the entire business.

Reducing cost through optimal procurement of materials and parts

As an initiative to improve profitability other than selling prices, we will actively utilize materials from China and India. At the same time, we will implement centralized purchasing of materials and components at an appropriate price, regardless of local procurement, and strive to improve profitability by reducing costs through procurement at the most appropriate locations with the aim of distributing materials and parts to manufacturing sites that need them.

Establishing a system for the post-coronavirus world

Acquire highly profitable businesses by developing high performance products such as bearings with IoT sensors

In addition to bearing sensing technologies we have accumulated over many years, we have also developed a "Sensor Integrated Bearing Unit" for machine tool spindles, which can prevent seizure through advanced condition monitoring using the industry's first's heat flux sensor. In the future, in addition to advanced condition monitoring and control technologies, we will develop and propose a high-performance product that meets the needs of customers, such as bearings with sensors that enable manufacturing sites to be unmanned and achieve labor-saving by utilizing IoT and AI.

Establishing a fabless system in the new field of materials (i-WRIST™, Wind Doctor™)

With regard to Wrist Joint Module "i-WRIST™" and Condition Monitoring System (CMS) for wind turbines (Wind Doctor™), we will flexibly expand our new business domains through a fabless system in which we do not own these manufacturing plants and conduct outsourced production.



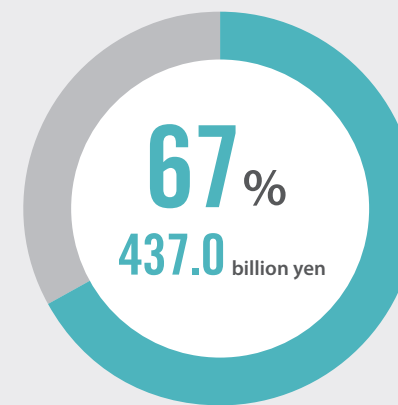


Senior Managing Executive Officer

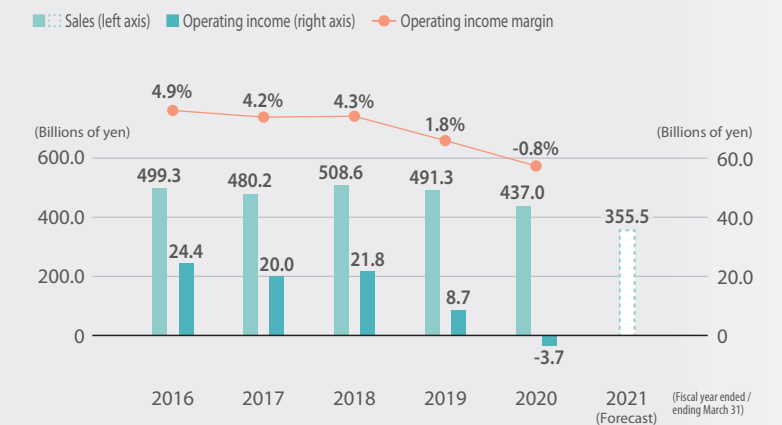
Hideaki Miyazawa

Our work in the automotive segment includes developing more advanced bearings, hub bearings and driveshafts to create higher added value. We are also combining these core products with core technologies to develop module products. To prepare for the coming era of electrification of automobiles and autonomous driving, we have released “Electric Motor and Actuators” composed of ball screws, motors and controllers. We are working on expanding their range of applications and proposing them to customers. Through collaboration with alliance partners, we are expanding these products globally while breaking away from self-sufficiency in order to meet the existing needs of the automotive market, such as low fuel consumption and increased ride comfort, as well as the rapidly increasing demand for electrification.

■ Percentage of total sales



■ Trend in business performance



Business environment

In the automotive industry, due to the impact of the new coronavirus, automotive production is seeing a significant decline globally in 2020, and it may take several years for the industry to recover to the level before the new coronavirus. Even in this environment, the electrification of vehicles, among four future trends referred to as “CASE”^{*1}, is steadily progressing, and we believe that how to transform the risks associated with major changes into growth opportunities will affect the company’s rise and fall.

In the case of EV shifts, there is a risk that the transmission, which uses many bearings, will be replaced by a reduction gear with a simple structure, resulting in a decline in demand. In the future, the transition from ownership to sharing may result in a decrease in the number of vehicles in the market, and

commoditization of vehicles as a tool may lead to intensified price competition.

On the other hand, markets related to needs for EV-specific quietness, low vibration, and high-speed rotation as well as markets related to sensor technologies and abnormality detection functions (CMSs, etc.) which are indispensable for autonomous driving are expected to grow. In addition, the needs to increase durability of components and demands for aftermarket components are expected to grow as car sharing increases the operating rate of vehicles. We recognize that the ever-changing automotive industry is now in a situation where suppliers face both the chance of breakthroughs and the risk of shakeout.

Changes in market environment

- In addition to increasing aftermarket opportunities due to accelerated car sharing, there is an increasing need for longer operating life and increased reliability of functional components
- Reduction in the total number of bearings used per vehicle due to the electrification and EV- shift, in addition to reduction in the total number of vehicles due to the shift from ownership to sharing of vehicles
- Growing demand for driveshafts due to transition to front-wheel drive (FF) vehicles in emerging countries

NTN's Strengths

- Quality and reliability backed by the high market shares of hub bearings and driveshafts used for axles/drivetrains
- Development of high value-added products by modularization and systematization
- Global production system that supports optimal supply at customer demand locations

^{*1} xConnected, Autonomous, Shared/Service, Electric

OUR VISION As an indispensable presence for the automotive market, NTN will become a company that offers products and services for vehicles all over the world

The rise of electrified vehicles throughout the world’s automotive markets calls for functional automotive components with different characteristics or more rigorous performance requirements than are required for conventional internal combustion engine vehicles. We will accommodate these needs by offering differentiated technical expertise and lineups of advanced products providing features such as size/weight reduction, higher speed rotation, lower torques and less noise/vibrations in order to secure a competitive advantage over our competitors.

Another major wave, Ride Sharing and Maas^{*2}, is based on the absolute reliability of the driving system responsible for

driving, turning, and stopping vehicles. Carmakers are shifting the focus and resource of their development work from the tangible (vehicle performance) to the intangible (services), creating an expanding range of areas in which NTN can contribute to vehicle safety, reliability and comfort.

By capturing these dynamic changes in the business environment as opportunities, we will provide values that exceeds customer expectations through product development and advanced technical services that are ahead of market needs. By doing so, we aim to become the leading manufacturer in the drivetrain component segment essential to the automotive market.

^{*2} Mobility as a Service: A new concept of “Mobility” in which traffic is clouded through the use of information and communications technology, and transportation by all means of transport other than private cars is seamlessly connected as a single service

Results for the fiscal year ended March 31, 2020 and forecast for the fiscal year ending March 31, 2021

In the midst of a global downturn in automotive sales, net sales declined to 437.0 billion yen in the fiscal year ended March 31, 2020 due to a significant drop in demand associated with the shutdown of automotive production in China and other regions as a result of the spread of the new coronavirus from the fourth quarter. We posted operating loss of 3.7 billion yen, which was largely attributable to a shrinking sales volume caused by a

sharp drop in demand along with decline in selling prices, and we were unable to offset the negative impact through cost reduction initiatives. In the first quarter of the fiscal year ending March 31, 2021, net sales was 49.7 billion yen and operating loss was 9.6 billion yen. Although we cannot foresee the impact of the spread of the new coronavirus, the full-year net sales is expected to be 355.5 billion yen.

Initiatives for the NTN revitalization

Initiatives to improve profitability without relying on scale

The impact of the new coronavirus has greatly reduced the amount of automotive production and we expect that recovery to the level before the new coronavirus will occur at a moderate pace and take several years. In the automotive business, we will move forward with transformations to an earnings structure that does not rely on scale so that we can generate profits even in an environment in which the car production scale does not recover. In the future, we will endeavor to secure profits by further promoting the development of higher-value-added and higher-performance products such as size and weight reduction, higher rotation, lower-torque, and lower vibration in response to electrification as well as to promote optimization of scale by restructuring and withdrawing from low profit businesses.

In addition, we will strive to reduce manufacturing costs by promoting local procurement and optimal procurement. At the same time, we will work to reduce fixed costs by strengthening collaboration with alliance partners. so that we can improve in profitability.

Establishing a system for the post-coronavirus world

For hub bearings and driveshafts with the world’s No. 1 and No. 2 market shares, respectively, we will concentrate resources on areas where we can leverage our strengths in technology and product functions based on our accumulated technology and global production experience, thereby ensuring that our competitiveness will improve. Meanwhile, for low-profit part numbers, we will drastically improve profitability by promoting further cost reductions, requesting price increases, and withdrawing from the market.

In order to respond to the accelerating changes in the market structure for EVs and electric motors, we will promote the mass production and commercialization of electric module product by combining bearing and ball screws technologies and motor electronic control technologies. We will also work to swiftly expand our business in new areas.



Hub bearings



Driveshafts



Electric module products

NTN's basic approach to research and development

We are committed to realizing a low-carbon society by contributing to energy saving of all machinery through the development of core technologies and new products. We are also actively developing natural energy-related products that can contribute to an energy circulation society by applying core technologies that we have cultivated into new areas. As a new initiative, we are also focusing on R&D by utilizing external collaboration to support regenerative medicine and drug discovery that will lead to early detection and treatment in a society where the birthrate is decreasing and the population is aging.

Executive Officer, CTO (Chief Technical Officer)

Masaki Egami



Strengthening systems for future growth and transformation of business category

In April 2020, we established the New Business Search and Development Department within the New Product and Business Strategic Planning Headquarters in order to accelerate the development of new products and promote transformation of the business category for the next generation. The module and system products are not developed individually by the existing engineering divisions, but are instead developed and commercialized by the New Business Search and Development Department through a totally integrated process.

Specifically, we will transfer the development of eHUB and sHUB supporting CASE applications, as well as i-WRISTTM in the robots field from our R&D centers, promote mass-production of these products, and conduct R&D to meet market needs in new areas.

Organization Chart



Technological advancement through external collaboration

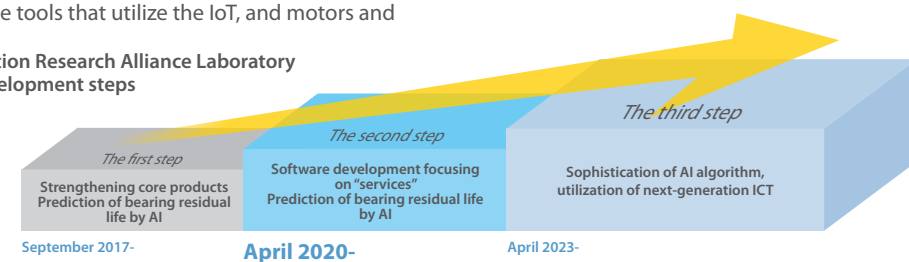
NTN Next Generation Research Alliance Laboratory: Shift from "Products" to "Services"

In September 2017, NTN Next Generation Research Alliance Laboratory was established in the Graduate School of Engineering at the National University Corporation, Osaka University with the aim of creating new business and accelerating technical innovation. In April 2020, the laboratory moved to the second step.

In the first step, we conducted research to develop superiority in core products, such as sensor-integrated bearings supporting machine tools that utilize the IoT, and motors and

control technologies combined with eHUB and sHUB, as well as research to predict the residual life of bearings by using AI. The results were transferred to the Company. As we aim to be "a company that delivers value to customers through products and services," in the second step, we will shift to research that emphasizes "services." Specifically, we will focus on upgrading the condition monitoring system and CAE technology using AI. While sharing the results with the research and engineering divisions in NTN, we will build new core competencies related to the utilization of AI technology and implement them in society.

NTN Next Generation Research Alliance Laboratory collaboration development steps



Efforts to develop and commercialize cell chips: Contribute to improving quality of life

In collaboration with Osaka University, we are working to create an artificial three-dimensional structure using iPS-derived cells by applying our precision positioning technology and the microscopic coating technology we have cultivated through repair devices. We have found that the coating of high viscosity solutions containing iPS-derived cells onto the chips, which has not been achieved so far, can be achieved with our microscopic

coating technology.

In modern societies where human longevity is increasing, there is a need to speed up and streamline the processes of drug discovery, and to reduce the invasiveness and duration of disease assessment. Therefore, we are promoting research and development using cell chips to observe cell responses and changes, and we intend to contribute to early detection and treatment, which will become increasingly important in the future.

R&D trends and results

Supporting CASE automobiles

A hub bearing is a unit product that supports the rotation of tires, and NTN has the largest market share of hub bearings in the global market. NTN has developed hub bearings with multi-functions for Connected, Autonomous, Shared and Electric (CASE) automobiles.

These are the world's first high-performance module products adapted to next-generation automobiles, such as "eHUB" which combines a hub bearing with a motor generator, and "sHUB" which integrates a mechanism that adjusts the steering angle of the tires into a hub bearing. The products will

contribute to safer and more comfortable driving of future CASE automobiles, by improving fuel efficiency, automated driving, etc.

In addition to Low Friction Hub Bearing III, which aims to achieve low fuel consumption (reduces rotational friction by 62% compared to a conventional product), we have successively received orders for mass-production of ULTAGE Tapered Roller Bearings and Ultra-low Friction Sealed Bearings for transmissions, and are contributing to solving issues in the automotive field.



eHUB



sHUB



Low Friction Hub Bearing III

Service solutions (Value creating)

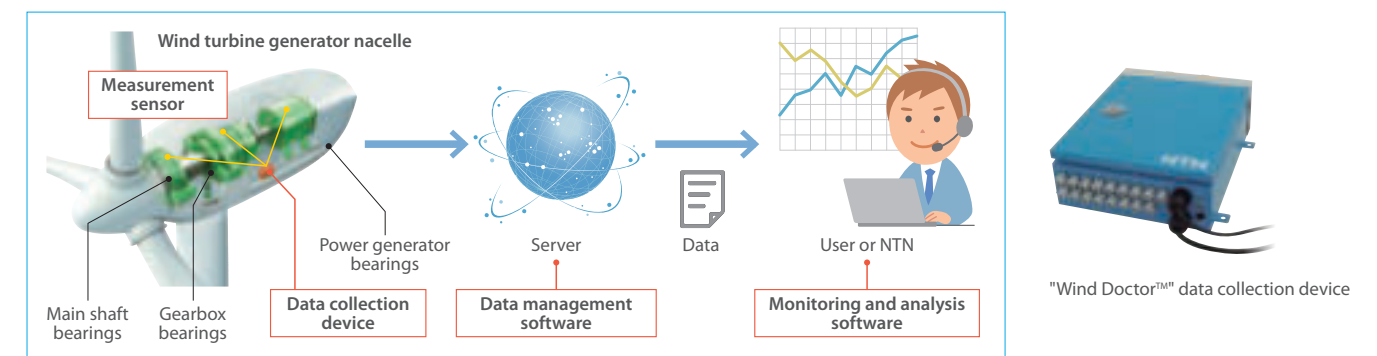
In 2012, we launched a condition monitoring system (CMS) "Wind Doctor™" to detect abnormal signs of large wind turbines at an early stage. This system is one of the services that utilize the IoT to provide operational status information, and we have received a lot of orders for that system.

The system acquires vibration data for mechanical components, such as bearings and gears, by a highly dust-resistant and water-proof data collection device and conducts diagnostics using the remote monitoring and analysis software provided by us. Many power generation companies praise the

system for its extensive analytical functions, and the number of subscribers has exceeded 200, winning the top market share in Japan. Furthermore, we are working to roll out this system on a global scale.

In the future, the development of offshore wind turbine generators is greatly anticipated in Japan as well, and CMSs are becoming increasingly important in offshore areas where maintenance is very difficult. Therefore, we will actively propose monitoring services using this system and contribute to improving the operation rate of wind turbines.

Layout of the Condition Monitoring System (CMS) for Wind Turbines



Use of CAE* Solution Technologies

In October 2018, we established the CAE R&D Center to accelerate the use of CAE in our R&D and design activities.

In addition to optimizing product designs and enhancing structural analysis, we eliminate rework in development by simulating prototypes and various experiments, leading to more efficient R&D and faster development within the Group.

* Computer Aided Engineering, computer-based analysis

In addition, we have developed new common calculation tools that can be used in the three regions including Japan, Europe, and the Americas, and have realized our own global design system. By providing reliable technical proposals based on logical data in a timely manner, we will contribute to speeding up the development process of our customers.

Building a change-resilient "Monozukuri" system that NTN aims for

In recent years, we have been facing a rapidly changing and unpredictable business environment, including large-scale natural disasters and the cessation of global economic activities due to the new coronavirus (COVID-19).

At the same time, business conditions are rapidly changing, including customer needs, and the speed of processes from product planning, including marketing, to prototyping and mass production will be the key to improving customer satisfaction in the future.

Under these circumstances, we will strengthen the linkage between the innovation process of product planning and development and the supply chain process of marketing, production, and sales, with the aim of establishing a "Monozukuri" system that is resilient to changes.

Procurement

Organizational change of the Procurement Headquarters

In order to strengthen global procurement and centralized purchasing and accelerate Variable Cost Reformation through centralized management led by the head office, the Procurement Headquarters was reorganized into 3 departments: the Global Procurement Supervising Department, the Japan Region Procurement Department, and the Procurement/Logistics Administration Department.

We will establish regional headquarters in North America, Europe, China, and ASEAN, and build an NTN global procurement network, thereby promoting local procurement and procurement in optimal locations with global suppliers. In doing so, we will endeavor to ensure stable procurement and reduce costs.

Production

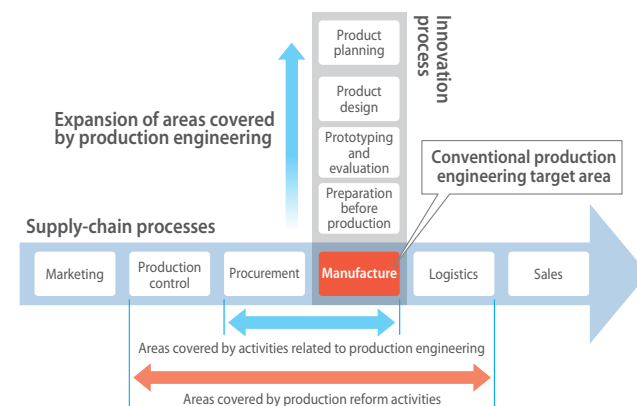
Promotion of Monozukuri Paradigm Shift "PRODUCTION REFORM"

We are promoting digitalization with the aim of realizing "Monozukuri" that determines our competitiveness. The pillar of our policy is to eliminate waste by connecting information, and to prepare for a reduction in the working population through robotization, automation, and intelligence technology.

Until now, we have pursued partial optimization (streamlining by process). In order to apply digital technology more effectively, we will introduce the overall optimization (streamlining of the entire supply chain) method to achieve more streamlined production.

We will promote streamlining with the goal of reducing production lead times and improving inventory turnover and productivity. We are aiming to create a Monozukuri system through digitalization and streamlining.

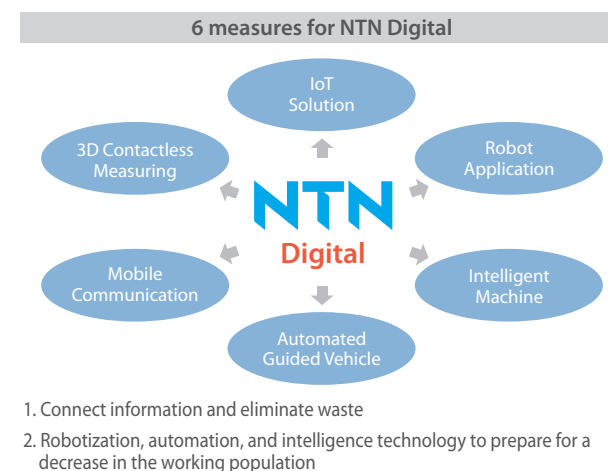
Basic approach to Monozukuri



Establishment of a Global Procurement System

In the current world, a single day doesn't pass without us hearing the word "global," and we are making efforts to build a global procurement system, which is the pillar of Variable Cost Reformation and essential to our business. We believe that not only organizational development but also human resource development is essential for building the system, and we have worked with Mr. Brelaud, Operating Officer, transferred from NTN-SNR in France, to review the procurement organization and to develop human resources that can play an active role in the international arena. To build our foundation, we will think from a global perspective about what is optimal procurement for the Company, and will continue to promote cost reductions, which are indispensable for generating income.

Promotion of Monozukuri Paradigm Shift "PRODUCTION REFORM"



Quality

Basic approach to quality and promotion system

NTN's Basic Quality Policy specifies all the basic principles that shape our manufacturing approach. We use it to work on maintaining and improving product quality throughout the world, working toward quality that satisfies all our customers.

Our products are used in many applications around us, providing daily support. They are also found in equipment where lives are at stake, such as aircraft, railway, automobile and medical equipment, and therefore, require extreme precision and durability.

Every single employee understands the importance of Quality and works earnestly toward Quality to earn our customer's trust.

Basic Quality Policy

Pursuing right quality to meet functions and specifications requested by our customers.

- Applicable quality
Our quality should immediately respond to the change of our customer's requirements.
- Competitive quality
We have to win quality competition.
- Quality for economy
Quality should benefit our company.

Quality slogan

- Quality paves the way for our future -



Quality management system

We are proactively acquiring ISO 9001 certification (international standard for quality management systems) at domestic and overseas production sites, as well as IATF16949 certification (additional standard for the automobile industry). We are also working to acquire certification for new businesses and newly launched sites. Except for the sites which are still in development, all our domestic and overseas consolidated manufacturing subsidiaries have now received the proper certification for their Quality Management System.

In addition, JIS Q9100 and Nadcap which are standards for the aerospace industry, and IRIS (Europe) and CRCC (China) which are standards for the railway industry are also obtained by relevant sites.

Major certification achievement (Fiscal year ended March 31, 2020)

ISO9001 (34 production sites certified)	
U.S.A.	NTK PRECISION AXLE CORP. (Frankfort Plant)
IATF16949 (38 production sites certified)	
U.S.A.	NTK PRECISION AXLE CORP. (Frankfort Plant)

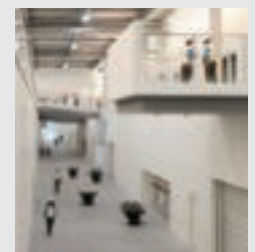
* Applies to domestic and overseas consolidated manufacturing subsidiaries (excluding sites that have not started mass production)

TOPICS

New Wakayama Works

In October 2019, we completed the construction of a new base in Wakayama Prefecture that produces radial bearings, our core products. The factory building has been constructed with a motif of "NAMERAKA" and a streamlined design of the roof. An arcade-like passageway named "Coroco-Road" is established as the central corridor of the building and serves as the main artery of transportation of goods in the building. In addition, a forum, open meeting space and other areas for exchanging information, which are designed as communication areas to create innovation, have been set up on the second floor of the building.

As of June 2020, the installation of new heat treatment facilities and ancillary facilities has been completed, and installation of new grinding and assembly facilities has begun in order to commence mass production in October. Over the next five years, we will completely transfer the facilities from the Kongo Works and restructure the production of radial bearings centered on this new plant.



Coroco-Road

Specializing in high-performance, high-value-added products

With the rapid progress of EVs and electrification in the automotive market in recent years, the market for high-performance, high-value-added products such as quietness, low vibration and high-speed rotation is expected to expand with regard to radial bearings used in motors and driving parts. At the New Wakayama Works, which serves as the mother plant of high-performance products, we will adopt the latest heat treatment facilities, FA facilities, inspection instruments, and IoT, as well as the latest technologies, including miniaturized and multistage facilities based on the manufacturing practices of the Kongo Works in order to offer a wide variety of products from small lots. Through these measures, we will work on new products that meet the needs of the market, halve the prototype delivery time, and shorten the production lead time to one-third of the previous one, thereby promptly supplying high-quality products to the world. At the same time, the Wakayama Works is aggressively pursuing energy conservation and environmental impact reduction, aiming to become the mother plant of NTN Smart Factory.

"NAMERAKA Factory" that the New Wakayama Works aims for

The New Wakayama Works calls a smart factory a "NAMERAKA factory" and aims to become a "NAMERAKA factory" that delivers satisfaction to customers in a speedy manner. The Wakayama Works aims to become a plant with streamlined processes where goods and information flow smoothly.

"NAMERAKA Factory" that the New Wakayama Works aims for

- To realize production that is highly flexible and responsive to customer needs and changes in demand
- To enhance efficiency of manual work by using robots and IoT
- To reduce in-process inventories and shorten lead time through the "Automatic Transportation System" and "Production Reform"
- To advance quality control by using IoT/AI

We have established the CSR policy in the spirit of our corporate philosophy. We define CSR as

- Engaging in corporate activities that incorporate concern for the environment and initiatives to ensure social fairness and contribution to the community
- Fulfilling the duty of accountability to stakeholders
- Working to improve corporate activities not only in the economic aspect, but also in environmental and social aspects.

In 2014, we established the CSR Headquarters to strengthen our groupwide CSR activities. In November 2019, we established the Rules for Managing Sustainability Promotion Activities with the aim of promoting CSR activities (hereafter, sustainability activities) to meet the expectations of society toward the realization of a sustainable society. At the same time, we developed the function of the former CSR Committee and established the Sustainability Committee.

Establishment of the Sustainability Committee

Recently, due to factors such as the increasing damage caused by climate change, CSR (Corporate Social Responsibility) activities have placed more emphasis on not only social fairness but also measures for resolving social issues through business activities and contributing to the realization of a sustainable society. Therefore, we developed the function of the former CSR Committee (established in 2006) in November 2019 and newly established the Sustainability Committee. The committee is chaired by the Executive Officer in charge of CSR Headquarters, and consists of the general managers of ESG-related divisions. The former CSR Committee deliberated on issues and measures to effectively promote CSR activities. In addition to previous activities, the Sustainability Committee clarifies key issues that the Group must resolve through its business activities and sets specific targets for addressing SDGs, and develops business activities based on resolutions made at Board of Directors.

Organization Chart



Promoting Sustainability Activities

United Nations Global Compact

We endorsed the United Nations Global Compact (an international initiative for developing a global framework for sustainable worldwide growth) in 2015. Under the UN Global Compact, we support ten principles in the four areas (hereafter, GC10 principles) of human rights, labour, environment, and anti-corruption. We have also joined the Global Compact Network Japan which is an organization of the United Nation Global Compact, and are working to implement GC10 principles and achieve SDGs.



Initiate identification of materiality

In formulating our 3-Year Medium-Term Management Plan, which will begin in fiscal 2021, we are identifying materiality in fiscal 2020 as our preparation for future growth. In addition, we will set targets for achieving SDGs and incorporate them in our business plans.



Contributing to SDGs through Business Activities

Value offered to society (outcome)

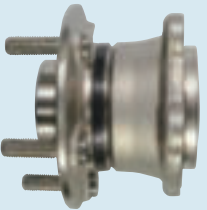
Reducing energy loss

SDGs

13 Climate Action

Development of "Low Friction Hub Bearing III" reducing rotational friction by 62%

In recent years, the fuel efficiency of automobiles has been improved, and regulations on CO₂ emissions have been strengthened globally. As a result, it has become increasingly important to reduce the energy consumption when vehicles move. In order to further improve the fuel or electricity efficiency, hub bearings that support wheel rotation are required to further reduce rotational friction in addition to satisfying the basic performance such as operating life and strength. NTN has developed the "Low Friction Hub Bearing III" that reduces rotational friction by 62% compared to conventional products by employing a seal structure with labyrinth and improves the fuel efficiency by approximately 0.53%*¹. The developed product has improved operating life and resistance to fretting so that it can prevent the fretting wear*² in low-temperature condition. We will contribute to improving fuel efficiency and environmental performance of automobiles through producing the developed product.



Low Friction Hub Bearing III

*1 Calculated based on NTN's method. Improvement in fuel efficiency by 0.53% will result in travel distance increasing by about 4.5 to 5.5 km per fueling (calculated on the basis of catalog values of 1,200 to 1,500 cc gasoline vehicles)
*2 Wear caused by micro-vibration during transportation of vehicles

Value offered to society (outcome)

Sustainable Society Using Natural Energy

SDGs

7 Affordable and Clean Energy, 11 Sustainable Cities and Communities, 13 Climate Action, 7 Renewable Energy

Implementation of Long Distance Wireless Transmission Experiments between Bases for building disaster mitigation and surveillance systems using renewable energy and IT

On November 7th 2019, NTN conducted long distance wireless transmission experiments between bases at the Suita Campus of the National University Corporation Osaka University (hereafter, Osaka University) as part of joint research on disaster prevention and monitoring using IT. We have installed three independent power supply units, "NTN Green Power Stations," which generate the electricity from wind and solar power, assuming the area around the building of the Graduate School of Human Sciences in the Suita Campus of Osaka University as a disaster area, and the Tsukumodai Elementary School of Suita City as a relief headquarters. We used long a distance wireless system to transmit and receive information on an assumed disaster situation. In the experiment, we communicated the disaster situation via application software by using independent power supply units installed in front of the building of the Graduate School of Human Sciences. A message was sent to the relief headquarters, which was about 2.5 km away from the campus, via two antennas and the two independent power supply units in the campus, and we also checked the damage status by monitoring footage from cameras.



NTN Green Power Station

In recent years, natural disasters have frequently occurred, causing power outages and communication interruptions in a wide area over a long period of time, making it difficult to understand the situation of the disaster and conduct relief activities. Establishment of a communication system that utilizes renewable energy is a solution to this kind of situation. The system will be used not only in the event of a disaster, but also in daily life for monitoring local children by equipping surveillance cameras and other equipment with the system. NTN will continue to contribute to the safety and security of local communities by building a system that will help to promote disaster prevention, disaster mitigation, and monitoring of the local community.

Value offered to society (outcome)

Safety and comfort

SDGs

8 Decent Work and Economic Growth, 9 Industry, Innovation and Infrastructure

Mass production of Wrist Joint Module "i-WRIST"

We mass produce "i-WRIST" wrist joint modules for use in appearance inspection. The "i-WRIST" modules use a special link mechanism that allows the associated device to be more compact and space-efficient, and move over a wider range of movement. The modules enable minor changes in positions (angles) to be made at high-speed like a human wrist. The operating range has been expanded, which allows appearance inspections of complex shapes or hemispheric surfaces conducted by humans to be replaced with "i-WRIST". Appearance inspections of 60 areas can be completed in just 8 seconds, depending on the shape and size of the workpiece and the speed of the image processing system. As the working population continues to decline in Japan, the demand for automation is expected to grow with regard to appearance inspections that have so far relied on manual work. NTN is focusing on automation and labor-saving technologies for such manufacturing sites, and continues developing products that further increase productivity and quality. We will create a work environment in which people can enjoy their jobs, and will contribute to society.



Wrist Joint Module "i-WRIST"



Stakeholders	Stance toward Stakeholders	Main Activities
Employees	We will respect diversity and individuality, and strive to create a workplace environment where employees can work safely and healthily.	<ul style="list-style-type: none">■ Dialogue between president and employees We hold dialogues between president and employees at business sites in Japan and overseas on the themes of "transformation," "sense of crisis," and "freely-expressed opinions to improve the company."■ Global QC Circle Convention We strive to improve safety, quality, and productivity on a global basis, and with the convention as a forum for international exchange, we exchange information on a variety of activities.■ Under the fair operation of the personnel evaluation system, which leads to revitalization, we promote the improvement and development of employees' abilities and motivation through discussions with evaluators, and further invigorate our employees by treating them based on their work results and the degree to which they demonstrate their abilities.
Customers	We will pursue customer satisfaction by responding sincerely to customers and providing safe, reliable products and services.	<ul style="list-style-type: none">■ Nationwide Distributors' Meeting We invite distributors from across Japan to briefing sessions on account settlement overview and aftermarket business measures to strengthen our bond with distributors.■ Technical service units We run completely-tailored, multi-functional technical service units worldwide, equipped with teaching materials and exhibits to introduce our products, and hold bearing technical seminars for our customers.
Business partners	We will build good partnerships based on mutual trust with business partners and work together to grow and prosper under a fair and free environment.	<ul style="list-style-type: none">■ Briefing for suppliers We share information on our globalization initiatives and the business environment surrounding our company with our business partners and have external lecturers deliver lectures targeting the business partners.■ Promotion of CSR procurement Through CSR questionnaires based on the CSR Procurement Guidelines, we promote activities with our business partners to help them understand the importance of CSR procurement.

Stakeholders	Stance toward Stakeholders	Main Activities
Local communities	We will respect the culture and customs of local communities in which we operate, and through our business activities, we will respond to the expectations of local communities and build long-term relationships of trust with them.	<ul style="list-style-type: none">■ Activities that contribute to the local community (family tours, summer festivals, etc.) We hold family tours and summer festivals at each business site as an opportunity to interact with employees' families and neighboring residents.■ NTN Rotating School As an environmental education program for children who will lead the next generation, mobile-type schools have been opened in various places to deepen regional development.■ Conservation of biodiversity In cooperation with local residents and NPOs, we are working to protect the environment of Satoyama (village forest) areas around our business sites and to protect endangered species.
Shareholders and investors	We will strive to return profits to shareholders through the creation of sustainable profits and build long-term relationships of trust through active communication.	<ul style="list-style-type: none">■ Shareholders' Meeting The Shareholders' Meeting is a forum for communication to build long-term relationships of trust with shareholders.■ ESG briefing In addition to holding results briefings for investors, we also hold ESG briefings to promote understanding of our ESG initiatives. The opinions we receive at the briefing are used to improve our sustainability activities.
Environment	We will contribute to conservation of the global environment through the provision of technologies, products, and services that help reduce environmental impact in harmony with the natural environment in our business activities.	<ul style="list-style-type: none">■ Reducing environmental impact in business activities We are working to minimize harmful environmental impacts by monitoring and reducing emissions of CO2 and regulated chemicals in our business activities.■ Sustainable resource use We are striving for sustainable resource utilization by reducing the use of resources such as raw materials and water, and by thoroughly implementing the 3Rs (reduce, reuse, and recycle) of waste.■ Developing environment-contributing products We are contributing to the realization of a low-carbon society by developing products that can help reduce CO2 emissions during product use and natural energy-related products.

6th

Stakeholder Dialog

To incorporate stakeholders’ input into our sustainable corporate activities, we have annually held our Stakeholder Dialog since 2015 with academics and experts representing a number of CSR-related fields. For this fiscal year, the 6th dialog was held in July 2020.

One of the "Prepare for future growth" measures in our Business Operating Policy for fiscal year 2020 is "Responding to SDGs." "SDG Compass," a guide for business action on the SDGs emphasizes periodic reporting and communicating with stakeholders about SDGs. Through this Stakeholder Dialog, we receive suggestions from experts on our initiatives, and based on these, we are working to determine specific details of our “Responding to SDGs” measures and to promote company-wide initiatives aimed at resolving social issues through our business activities.

Topics of the dialog

Topic 1Sustainability Promotion Activities

Topic 2Human Rights

Topic 3Environment

Topic 4How to Promote Business Activities in the coronavirus pandemic

Experts



Katsuhiko Kokubu
Vice President of Kobe University



Masaru Kaizaki
General Manager of Planning Department, Sustainability Office OMRON Corporation



Hideki Matsuoka
Special Project Manager, Asia-Pacific Human Rights Information Center (HURIGHTS OSAKA)



Eriko Nashioka (Facilitator)
Representative Director of Institute for Environmental Management Accounting, CPA

NTN

Managing Executive Officer in charge of Human Resources, CSR, Information Technology, General Affairs, and EHS (Environment, Health & Safety) Integrated Management
Toshinori Shiratori
Executive Officer and Corporate General Manager of Corporate Strategy Headquarters
Masaaki Yamamoto
Operating Officer in charge of Human Resources, General Affairs and EHS (Environment, Health & Safety) Integrated Management
Kenji Nono
Deputy Corporate General Manager of Corporate Strategy Headquarters and Manager of Corporate Planning Department
Takanobu Ozawa
Manager of Corporate Communications Department, Corporate Strategy Headquarters
Youichirou Mochida

Manager of EHS (Environment, Health & Safety) Integrated Management Department
Masayuki Yamazaki
Manager of Personnel Department
Toshiyuki Kawaguchi
Corporate General Manager of CSR Headquarters
Masaaki Masumoto
Manager of Corporate Value Promotion Department, CSR Headquarters
Kouhei Iguchi



Topic 1

Sustainability Promotion Activities

NTN: Through our business activities, we contribute to the resolution of social issues and aim to achieve a sustainable NAMERAKA Society. The biggest initiative in the fiscal year under review was a change in the management regulations for sustainability promotion activities. In 2006, we established rules for managing CSR activities, but at that time the policy related to "Responsibility" had a relative emphasis on compliance. While strengthening compliance, we have reframed the significance of "Responsibility" based on the idea that we want to be a company that meets the expectations of society, as stated in our value creation process. We have changed the term from "CSR" to "Sustainability", established the "Sustainability Committee" last year, and have started activities.

At this Sustainability Committee, "identification of our materiality" is one of the issues to be discussed. Currently, we have set up working teams centered on young employees and mid-career employees, referring to GRI standards and megatrends, identifying and evaluating issues, and working to narrow down our materiality. We would like to be able to announce it in the next fiscal year.

Kokubu: Identifying materiality is important, but every company seems to find it extremely difficult to put it into practice. This is because all items are important. If everything is important, it becomes meaningless to identify materiality. Currently, NTN has set a large theme that is applicable to any company, so why not focus on more detailed items for

discussion? When most Japanese companies plot their issues on a matrix, they use the 2 axes of "importance to society" and "relevance to business." However, GRI essentially wants companies to pay attention to not "relevance to business" but "impact on stakeholders' decision-making." I think it would be good to verify such aspect again.

Kaizaki: OMRON also identifies its materiality. However, human resources management and risk management are regarded as a matter of course, and there is an increase in cases where companies are not evaluated favorably even if they conduct such management activities. We are making improvements to express the uniqueness of OMRON more strongly. I think it would be better for NTN to consider expressing the "uniqueness of NTN" in the same way. What is more important is the period subject to materiality issues and the management system. I think it is necessary to consider how and how long materiality issues are managed in the business management process and how external evaluations are incorporated into the Company's activities.

NTN: We would also like to ask about activities to instill our corporate philosophy. With the 100th anniversary celebrated in 2018, the corporate philosophy system was revised to establish NTN SPIRIT, which serves as the basis for employees' activities, and initiatives to put the corporate philosophy into practice were launched. We are promoting activities to disseminate our corporate philosophy through the 3 steps of "Recognition," "Empathy & Understanding," and "Practice." In 2019, we held the second NTN PROUD AWARD, which is an initiative to "Practice" our corporate philosophy. The number of employees who support these activities is increasing, and we intend to continue

to firmly establish them on a global scale in the future. At the same time, we believe that there are issues regarding the positioning of the NTN PROUD AWARD in the corporate award system, how to reflect the practice of our corporate philosophy in our business goals and personnel assessment, and how to promote our corporate philosophy amid the coronavirus pandemic.

Kaizaki: OMRON has also held TOGA(The OMRON Global Awards) since 2012 to support the practice of the company philosophy. The only team-based internal award system we have is TOGA. When an employee wins the award, it is recorded in the employee's personnel evaluation sheet. However, it is extremely difficult to reflect the practice of our corporate philosophy in personnel evaluation, and we are currently looking for ways to link the system to evaluation practices.

Regarding corporate philosophy activities amid the coronavirus pandemic, we first place emphasis on the health and safety of our employees, while at the same time fulfilling our supply responsibilities as a manufacturer and contributing to society through our business activities. Our employees participated in ventilator development in Spain, but this was not a top-level order, but a voluntary action. I think this is a good example of how our corporate philosophy has been disseminated and put into practice.

Kokubu: In recent years, our corporate philosophy has become an extremely important part of our CSR activities. NTN's founders' "Frontier Spirit" and "Coexistence and co-prosperity Spirit" have a significant impact. The "Frontier" recalls "Innovation" and "Co-existence and co-prosperity" recalls "Creating Shared Value," bringing home the fact that NTN really wants to resolve social issues.

Topic 2

Human Rights

NTN: This year we formulated the Human Rights Policy. We signed the United Nations Global Compact in 2015 and changed our institutional designs to a Company with a Nominating Committee, etc. last year. These measures further clarified our Management Policy, and because "Respect for human rights" was included in the policy, we decided to formulate the Human Rights Policy. In the future, we will examine the method of operating this Human Rights Policy, the scope of applicable suppliers and the method of managing them.

Matsuoka: I feel that a mechanism for human rights due diligence is very difficult to operate, even though it is possible to create a mechanism or report to outside parties that a mechanism has been created. The main point of internal dissemination is that each and every employee understands human rights in a way that links them to their work. Human

rights risks are also linked to management risks. It is necessary not only to create a system but also to continue education in everyday life.

With regard to the scope (boundary) of suppliers, it seems that many companies actually ask Tier 1 suppliers to investigate things.

Kaizaki: The scope of application of the Human Rights Policy is also important. In the case of OMRON, a survey revealed that regular employees of OMRON accounted for less than the majority of all employees at some business sites. Based on these examples, we believe that we should not apply the policy only to employees who are directly employed by OMRON, but should also apply to temporary staff employees and contractors' employees who work at the sites.

As for the boundary, we are implementing measures by including surveys targeting Tier 2 and subsequent-tier suppliers in Tier 1 requirements.

Topic 3

Environment

NTN: In the fiscal year ended March 2020, production was reduced due to the coronavirus pandemic, resulting in a decrease in CO₂ emissions, but unit CO₂ emissions were increased. In Stakeholder Dialog last year, it was pointed out that we should indicate a change (what volume of CO₂ emissions are reduced compared with the time when products before the reduction were used), rather than indicating a reduction of CO₂ emissions. Therefore, since last year we have been quantifying environment-contributing products and consider setting the goal of eliminating CO₂ emissions in the long run. Specifically, the total volume of CO₂ generated (consumed) when products are used and CO₂ generated by NTN's business activities is offset by CO₂ reduced as a result of power generation with natural energy products, and this is an image of achieving the goal. Do you regard this as "net zero CO₂ emissions"?

Kokubu: It is better to say that "net zero CO₂ emissions" refers to maintaining a balance between human-induced CO₂ "emissions" and human-induced "absorption," such as through the promotion of tree planting. In this sense, it may be better to move away from the concept of "net zero." As the bearings industry has a fixed range of product types, we believe it will be difficult to switch to businesses that emit less CO₂ and drastically reduce CO₂ emissions. In addition, because of the concepts of SDGs and the circular economy, society as a whole is progressing toward a low-carbon society, with the automotive industry itself being targeted. Even if it is difficult for the bearings industry to do something drastic, I think it is important to consider the issue of climate change from the perspective of what "our company" can do for society.



Topic 4

How to Promote Business Activities in the coronavirus pandemic

NTN: We have identified the year ending March 2021 as "Crisis Response Period" and listed "Ensure the health and safety of employees" and "Prepare for future growth" as the major themes. Specifically, we intend to promote telework and respond to SDGs. Following the Declaration of State of Emergency, we have also been advancing telework with emphasis on the health and safety of our employees. In order to further promote telework in the future, issues such as the scope of application, attendance management rules, and personnel evaluation systems will emerge. In addition, with a focus on responding to SDGs, particularly on addressing climate change, an increasing number of parties endorse TCFD. We recognize that how to hold discussions by involving management will be an issue for the future, and we would like to hear your opinions on what kind of system should be in place and how to proceed.

Kaizaki: OMRON announced in July 2018 that it will set science-based targets (SBT) for reduction of emissions of greenhouse gases, and then the issue of TCFD emerged. Because company-wide supervision is necessary for TCFD, the Sustainability Office proposed to top management that TCFD should be endorsed. The linkage of financial information has been planned, but I believe that if you do not announce your efforts to tackle the issue of climate change, that will pose a problem.

Kokubu: Japanese companies are lagging far behind in disclosing how they manage climate change risks. Disclosure of risk information is thought to cause anxiety, but failure to disclose such information may cause more anxiety.

Responding to the new coronavirus is also an important issue. I think that the overall direction is that the "weight of

individuals" will increase. In society as a whole, focus will shift from organizations to individuals and the working environment will be changed to one in which employees can work more comfortably. Also, it will be necessary to fundamentally change the organization's work system and the method of reviewing positions.

Matsuoka: As telework progressed, the situation in which women worked at home while doing housework and raising children, as well as the case in which they suffered from domestic violence, emerged as issues. I believe that companies will be asked what they can do to address these issues and to what extent they can address them in the future.

Kaizaki: I feel that this coronavirus pandemic has shortened the time horizon for a vision we should aim for in the field of sustainability. While OMRON has begun formulating plans for the next decade, society may change at a faster pace. I think we need to address the issue with that in mind.

Kokubu: NTN established the Corporate Value Promotion Department two years ago. It is obvious that "Value" is important, but how about thinking about CSR as a whole with a focus on "Value" in the future? The point is to think about the value that can be provided to suppliers and the value that can be provided in response to climate change. As I told you about a post-coronavirus world earlier, "co-creation" in which we create something together will become more important than "competition," which has been given higher priority until now. I feel it is good to promote corporate activities from such a viewpoint.

In-house technologies for measures against climate change

NTN develops business activities based on our corporate philosophy “We shall contribute to international society through creating new technologies and developing new products,” and the paragraph 1 of the NTN Environment Policy “Technologies to help prevent global warming.”

As bearings and driveshafts, which are main products of NTN, contribute to the reduction of energy loss in final goods of our customers equipped with them (hereinafter referred as “final goods”), all of these products can be considered as environmentally friendly products. They include products which are already commonly used in society because of the achievement of predecessors, as well as those with environmental contributions further enhanced by NTN’s engineering and development capabilities.

NTN continues unwavering efforts to realize its corporate philosophy by developing and providing higher-grade products that contribute to the environment while classifying the products according to environmental contribution levels based on our standards.

Definition of environment-contributing product

Classification and grades of NTN products and their definition

Classification	Grade	Definitions
Environment-contributing products	S-eco (Super eco)	Classified according to environmental factor standards specified for different products in line with world's technology standards
	A-eco (Advanced eco)	
	B-eco (Brilliant eco)	
	C-eco (Creative eco)	
	D-eco (Diffused eco)	Products that help to reduce energy loss of final goods at the same performance level of around 1997

Calculation methods for environmental factors and eco-efficiency

To quantify products’ environmental friendliness, NTN adopted environmental factors and eco-efficiency that are defined in the formula ① and ② as follows.

Environmental factors = $\frac{\text{Eco-efficiency of developed products}}{\text{Eco-efficiency of benchmark products}^{*1}}$

...

①

Eco-efficiency = $\frac{\text{Product value}^{*2}}{\text{Environmental impact}^{*3}}$

...

②

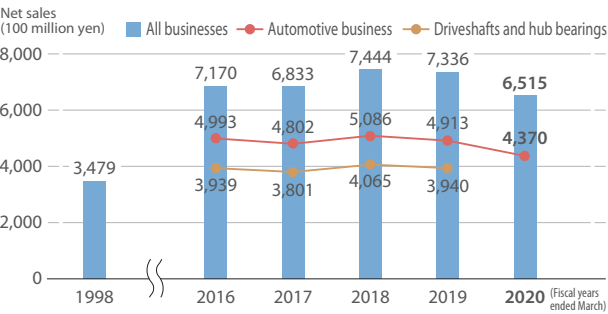
* 1. D-eco product
* 2. Values are quantified by using the QFD method (including CO2 reduction contribution as final goods)
* 3. From the perspective of evaluating contribution toward measures against climate change, environmental impact are calculated as CO2 emissions generated throughout the process of raw materials mining to production (used the LCI calculation tool by the Japan Auto Parts Industries Association)

Trends in achievements

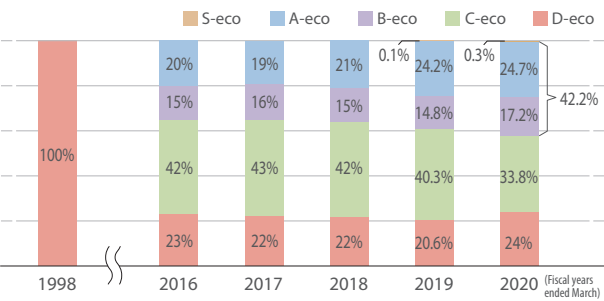
Environment-contributing product ratio of driveshaft and hub bearings

As in the previous year, driveshafts and hub bearings, our core products that account for about 70% of our net sales, were classified according to the criteria for environment-contributing products. The sales ratio of S-B-eco grade environment-contributing products, which are achievements of NTN’s development efforts in recent years, has reached 42.2% in the fiscal year ended March 31, 2020.

Trend in net sales



Trend in composition of environment-contributing products by grade(driveshafts and hub bearings)

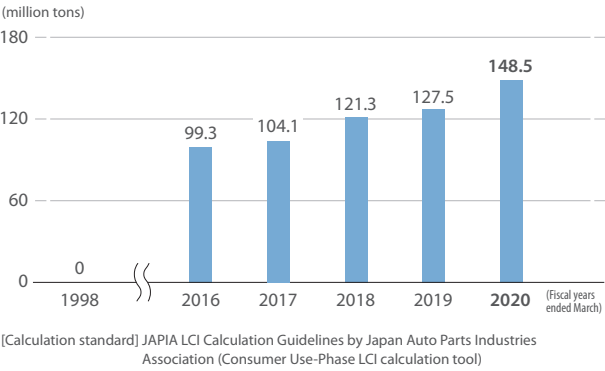


Contribution to CO2 reduction from driveshafts and hub bearings

NTN calculates the amount of CO2 emissions that can be reduced by the contribution of S to C-eco products throughout the assumed life period of final goods in comparison to the amount of CO2 emissions in case D-eco products are continued to be used in final goods instead. Such amount is defined as “Contribution to CO2 reduction” of the year the Company’s products are sold.

The contribution to CO2 reduction from environment-contributing products of the Company for the fiscal year ended March 31, 2020 was approximately 1,490,000 tons (equivalent to approximately 640,000 thousands liters of gasoline).

Contribution to CO2 reduction from driveshaft and hub bearings



Contribution to CO2 reduction from green energy products

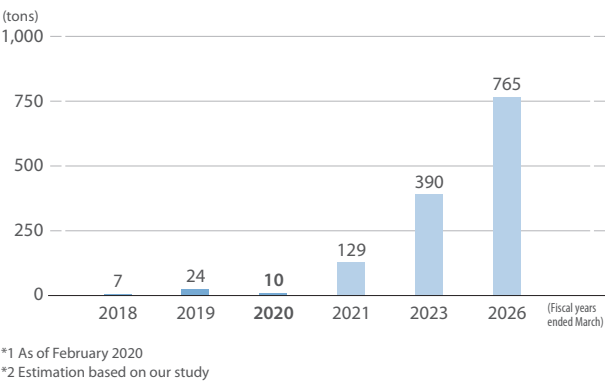
As one of our new businesses, we are conducting a green energy a business and developing products that can utilize renewable energy.

Green energy products are environment-contributing products that generate electricity using clean-energy sources such as wind, water, and solar power that exist everywhere to reduce CO2 emissions. They are expected to supply as an independent power source for the mini-grid network, which can provide efficient power supply in non-electrified areas of the world, and as a regional power source that can utilize unused energy in the region.

In addition, they are used as a power source in the event of a power failure at the time of a disaster to provide safety and security to local communities. (For details, see page 51.)

Contribution to CO2 reduction from green energy products is shown in the table.

Contribution to CO2 reduction from green energy products*1 *2



Green energy products



NTN Green Power Station



NTN Micro Hydro Turbine



N3 N-CUBE

Basic environment policy

Coexistence with the global environment is a top priority for the NTN Group. Our business activities are designed to prevent environmental pollution and preserve natural capital, while our technologies reflect our unwavering efforts to help ensure the sustainable development of society.

1. Technologies to help prevent global warming
The NTN Group will help prevent global warming by developing and releasing new technologies and products that help save and create energy worldwide.

2. Compliance with laws and regulations
The NTN Group will comply with all applicable environmental laws and regulations, while proactively addressing concerns expressed by customers, local communities and other stakeholders.

3. Reducing environmental impact from business activities
The NTN Group will minimize environmental impacts such as emissions of CO₂ and regulated substances from all NTN Group business operations, while working to identify and reduce environmental impact from both upstream and downstream supply chain processes (from suppliers to customers).

4. Sustainable resource use
The NTN Group will adhere closely to the three Rs approach (Reduce, Reuse, Recycle) as we work on reducing waste and resource inputs such as water and raw materials and other resources.

5. Rigorously managing environmentally hazardous substances
The NTN Group will practice green procurement, rigorously manage environmentally hazardous substances used in products and manufacturing processes, and work actively to replace highly hazardous substances with alternatives.

6. Protecting biodiversity
The NTN Group will work on protecting biodiversity, playing an active role in forest preservation and other environmental protection projects in partnership with local communities.

7. Communication
The NTN Group will inform all NTN Group employees about the NTN Environment Policy to raise environmental awareness. We will disseminate information on environmental initiatives widely to the general public to promote active communication with the general public.

8. Continually improving environmental management system
The NTN Group will improve our environmental performance by implementing and continually improving our environmental management system.

Environmental management framework based on the environmental management system

The NTN Group has acquired third-party certification globally for ISO 14001, the international standard for environmental management systems. Our environmental management framework is structured to promote the compliance with environmental laws and regulations of each country and continually improve environmental performance.

For business sites in Japan, multi-site certification is acquired, and all business sites work together to achieve environmental targets under the top management led by directors in charge. We also organize sectional subgroups to address individual environmental issues. For example, the Energy-saving/Resource-saving Sectional Meeting studies and promotes energy-saving measures for reducing CO₂ emissions as well as measures to introduce renewable energy. In the fiscal year ended March 31, 2020, the Company-wide Environmental Management Committee met four times and the Energy-saving/Resource-saving Sectional Meeting met twice.

To maintain or improve the management system, a “on-site audit (annual)” by on-site auditors and a mutual “cross audit (every three years)” by business units are conducted.



A list of our ISO 14001 certified business sites and their environmental performances can be viewed on our website.

<https://www.ntnglobal.com/en/csr/environment/sitereport/iso14001.html>

Environmental education


The NTN Group conducts rank-based and function-based environmental education of various kinds. For example, our rank-based education programs include basic education at new employee induction training; practical education after workplace assignment; and education for newly appointed managers upon promotion in order to work on environmental issues at each workplace from the perspective of risk-benefit management. Our function-based education programs include education for sales divisions and distributors serving as a contact point for customers on the survey regarding environmentally hazardous substances that may be contained in our products. This program allows participants to learn about how to respond to customers as well as about relevant laws and regulations. Another such program is a training session to develop internal auditors for the environmental management system. Moreover, during the Environment Month every year in June, we rigorously train all employees on important environmental measures of the year, and provide education for raising their environmental awareness. In addition to conventional group training, we are also focusing on environmental education using e-learning. During the fiscal year ended March 31, 2020, under review, we launched the environment course (beginner course), which summarizes environment issues that have a significant impact on us, as teaching material for e-learning. We are focusing our efforts on creating a mechanism that enables environmental issues to be easily understood by employees who are not engaged in environmental management.

Company-wide environmental performance for the fiscal year ended March 31, 2020

🟡 Achieved 🟠 Not achieved

Environment Policy	Environmental Targets				Results	Self-evaluation
Technologies to help prevent global warming	Developing and releasing new technologies and products that help save and create energy				N ³ N-CUBE NTN micro hydro turbine	🟡
Compliance with laws and regulations	Ongoing rigorous management of hazardous materials				Thorough inventory control and monthly self-audits	🟡
Reducing environmental impact from business activities	Reducing CO ₂ emissions	Reducing CO ₂ emissions	Japan	285,000 tons/year max.*	270,000 tons/year	🟡
			Overseas	378,000 tons/year max.	335,000 tons/year	🟡
		Reducing CO ₂ emissions intensity	Japan	25.8% reduction compared to fiscal year ended March 31, 1998*	23.1% reduction compared to fiscal year ended March 31, 1998	🟠
			Overseas	5.5% reduction compared to fiscal year ended March 31, 2007	14.2% reduction compared to fiscal year ended March 31, 2007	🟡
Sustainable resource use	Reducing water consumption	Reducing water consumption intensity	Japan	17.3% reduction compared to fiscal year ended March 31, 2011	24.0% reduction compared to fiscal year ended March 31, 2011	🟡
			Overseas	16.7% reduction compared to fiscal year ended March 31, 2015	20.1% reduction compared to fiscal year ended March 31, 2015	🟡
	Reducing waste, maintaining high recycling rates	Raising recycling rates	Japan	98.1% or more	97.6%	🟠
			Overseas	97% or more	96.4%	🟠
	Reducing paper and Styrofoam	Reducing waste intensity	Japan	3.8% reduction compared to fiscal year ended March 31, 2011	4.9% reduction compared to fiscal year ended March 31, 2011	🟡
			Japan	4.9% increase compared to fiscal year ended March 31, 2011	4.7% increase compared to fiscal year ended March 31, 2011	🟡
Rigorously management of environmentally hazardous substances	Managing and reducing PRTR substance	Reducing Styrofoam	Japan	4.9% increase compared to fiscal year ended March 31, 2011	99% reduction compared to fiscal year ended March 31, 2000	🟡
			Japan	Maintaining 99% reduction compared to fiscal year ended March 31, 2000		🟡
Protecting biodiversity	Promoting activities to protect biodiversity, such as “Corporate Forests”		Japan	1% reduction compared to fiscal year ended March 31, 2019	1.8% reduction compared to fiscal year ended March 2019	🟡
			Overseas	17 or more participating business sites	20 participating business sites	🟡
Continually improving environmental management system	Acquiring revised ISO 14001 (ISO 14001:2015) certification				12 participating business sites	🟡
					Certification of 6 business sites renewal completed in fiscal year ended March 31, 2020	🟡

* Calculated using a fixed CO₂ emissions factor of 0.381 kg-CO₂/kWh for electricity.



Business sites subject to company-wide environmental performance can be viewed on our website.

<https://www.ntnglobal.com/en/csr/environment/sitereport/iso14001.html>

Company-wide environmental targets for the fiscal year ending March 2021

Environment Policy	Environmental Targets			
Contribute to Prevention of Global Warming through In-house Technologies	Developing and releasing new technologies and products that help save and create energy / Expanding the scope of calculation for environment-contributing products			
Compliance with laws and regulations	Ongoing rigorous management of hazardous materials			
Reducing environmental impact from business activities	Reducing CO2 emissions	Reducing CO2 emissions	Japan	260,000 tons/year * or less
			Overseas	341,000 tons/year or less
		Reducing CO2 emissions intensity	Japan	24.4% reduction compared to fiscal year ended March 31,1998*
			Overseas	1.6% reduction compared to fiscal year ended March 31,2007
Sustainable resource use	Reducing water consumption	Reducing water consumption intensity	Japan	22.9% reduction compared to fiscal year ended March 31,2011
			Overseas	23.3% reduction compared to the year ended March 31,2015
	Reducing waste, maintaining high recycling rates	Improving recycling rates	Japan	97.7% or more
			Overseas	97.2% or more
		Reduction of generated waste intensity	Japan	△ 4.7% compared to the year ended March 31,2011
	Reduction of paper and styrofoam consumption		Reducing paper purchase intensity	Japan
		Reducing styrofoam		Japan
	Rigorously management of environmentally hazardous substances		Managing and reducing PRTR chemical substance	PRTR chemical substance intensities
Protecting biodiversity	Promoting activities to protect biodiversity, such as “Corporate Forests”		Increasing in the number of participating business sites	
Continuously improving environment management system	Acquiring ISO14001 revision:2015 certification			

* Calculated using a fixed CO₂ emissions factor of 0.381 kg-CO₂/kWh for electricity.

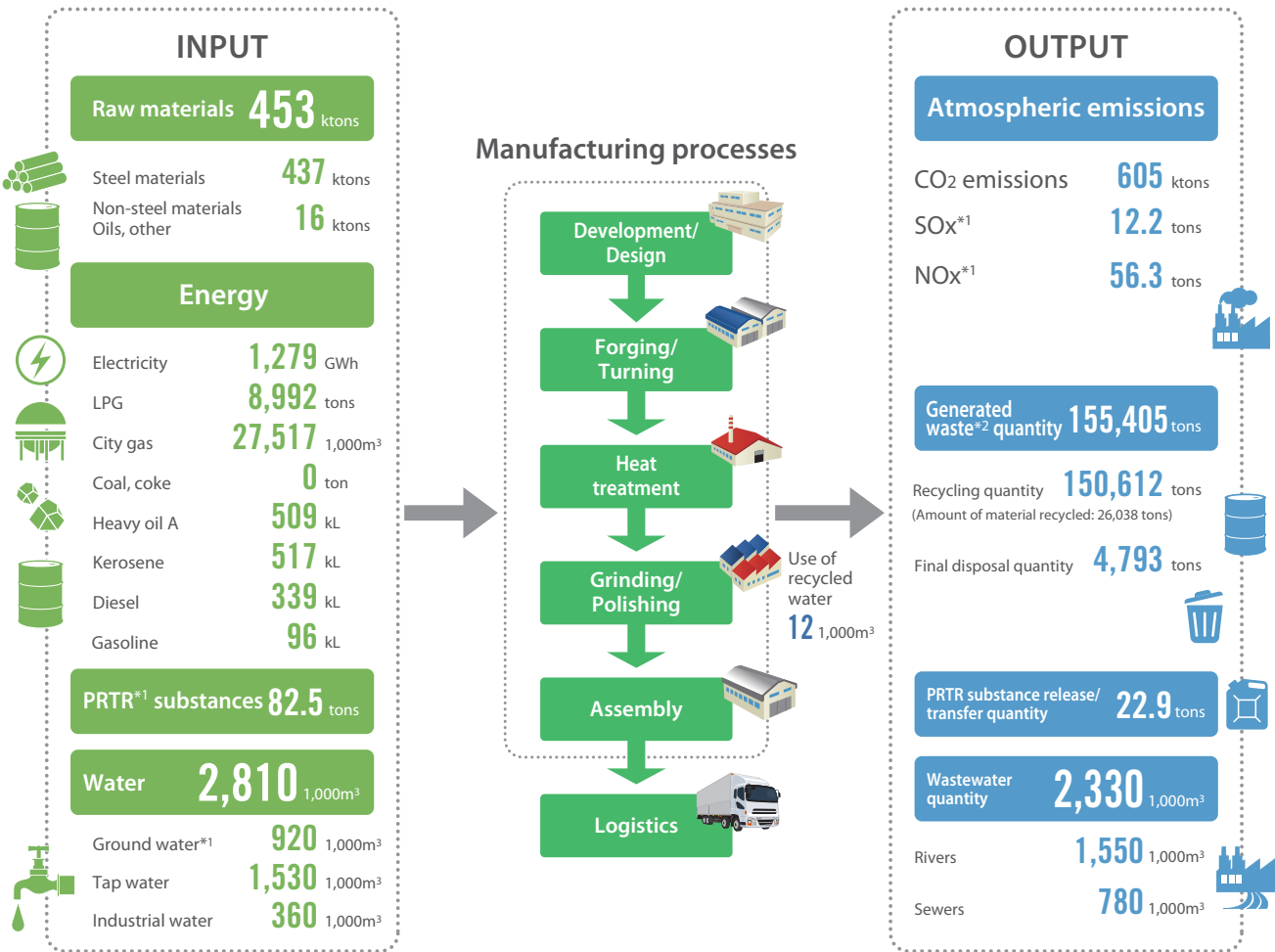


Business sites subject to company-wide environmental performance can be viewed on our website.

<https://www.ntnglobal.com/en/csr/environment/sitereport/iso14001.html>

Business Activities and environmental impact

Material flow chart (Japan and Overseas)

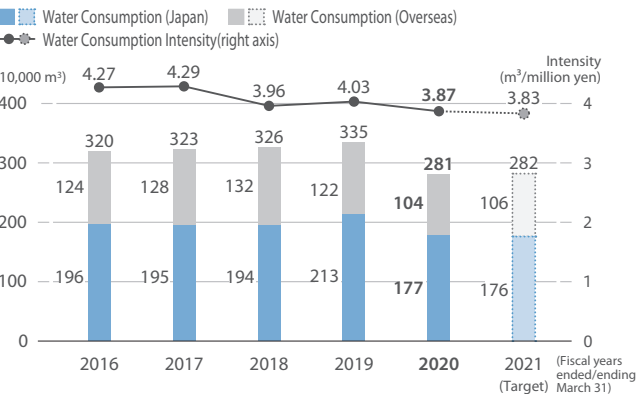


*1: NOx, SOx, PRTR and groundwater are applicable only in Japan.
*2: Industrial waste

Resource protection

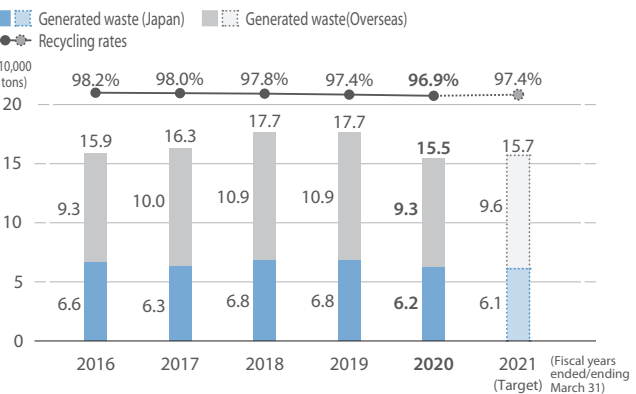
To protect the water resource, the NTN Group is globally working on reducing water consumption and improve water consumption intensity. We are also promoting mineral resource protection such as by reducing waste and maintaining/improving recycling rates.

Water Consumption and Water Consumption Intensity (Japan/Overseas)



For AQUEDUCT water stress analyses and by region water consumption, see the website.
<https://www.ntnglobal.com/en/csr/environment/v3.html>

Waste Quantities and Recycling Rates (Japan/Overseas)



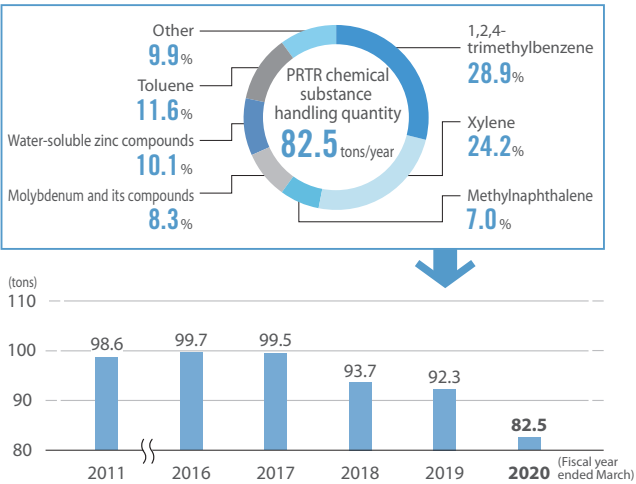
Business sites subject to water consumption/consumption intensity, Generated waste and recycling rates can be viewed on our website.
<https://www.ntnglobal.com/en/csr/environment/sitereport/iso14001.html>

Managing and reducing environmentally hazardous substances

As part of efforts to reduce impacts on the global environment, the NTN Group practices green procurement while working to manage and reduce environmentally hazardous substances.

Reducing PRTR chemical substances

We are making efforts to reduce the use of substances subject to PRTR Law in our manufacturing processes in Japan and replace them with less hazardous substances. In particular, we are focusing on reducing and replacing the use of the six substances listed in the figure below.



Protecting biodiversity

In collaboration with local residents and NPOs, we are engaged in activities to protect biodiversity, such as tree planting through corporate forestation activities, protecting endangered species in the surrounding areas of business sites, and developing natural parks. In fiscal year ended March 31, 2020, 1,428 employees and their family members participated in these activities.

Initiatives for protecting of biodiversity

Period: Fiscal year ended March 2020		
Activities	Regional businesses (number of participating sites)	Number of participants
Forest management through forest activities by companies that plant endemic trees	Japan (12), Thailand (1), India (1), China (1)	492
Protection of endangered species	Japan (2)	18
Protection of wild birds	Mexico (1), Germany (1)	11
Cleaning the waterfront	Japan (8), Thailand (1), U.S.A. (1)	471
Maintenance of natural parks, etc.	Japan (3), Mexico (1)	436
Total		1,428

NTN-Bower Hamilton(U.S.A.)

Reduction of hazardous waste through liquid waste treatment equipment

NTN-BOWER Hamilton Plant strictly stored hazardous waste liquid from the zinc phosphate coating treatment process and outsourced the disposal of the liquid as a hazardous material to a waste disposal contractor. Recently, Hamilton Plant developed the equipment that immediately neutralizes hazardous waste generated in the plant into safe materials. This equipment reduces the generation of hazardous waste by approximately 36 tons/year and improves the safety of employees when waste liquid is stored and transported.

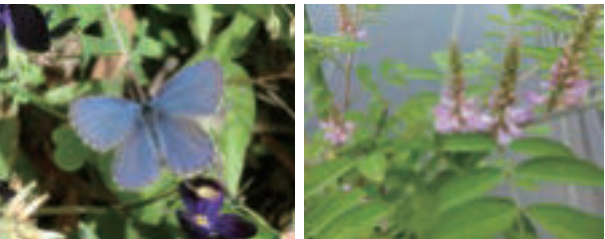


Developed hazardous liquid waste treatment equipment

NAGANO WORKS(Japan)

Protecting endangered species “Miyamasijimi”(butterflies)

Nagano Works and Nagano Prefecture have signed the agreement on biodiversity partnerships to protect *Miyamasijimi* butterflies, an endangered species. The butterflies are classified in the family Lycaenidae of the order Lepidoptera and their adults are small, about 2-3 centimeters in length and are designated as Class IB endangered species in the Red List of the Ministry of the Environment. The reason for the decrease in the number of butterflies was a decrease in the number of *Komatsunagi* (false indigo) which are both feeding and spawning sites of the butterflies. Nagano Works succeeded in testing *Miyamasijimi* egg production by planting *Komatsunagi* inside the plant. In the future, we will continue to promote the growth of *Komatsunagi*, the reproduction of *Miyamasijimi* and the conservation of the environment.

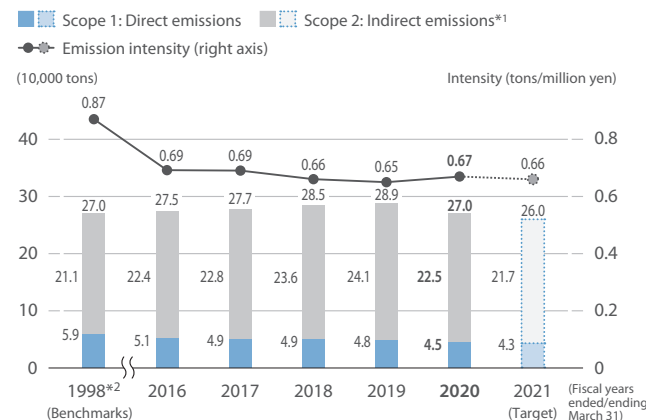


Miyamasijimi Komatsunagi (false indigo)

Measures against climate change (CO₂ Reduction)

We are committed to reduce CO₂ emissions and emissions intensity throughout our business activities. We have undergone third-party verification to ensure the reliability of the data. We are also promoting the introduction of renewable energies to accelerate our efforts to reduce CO₂ emissions.

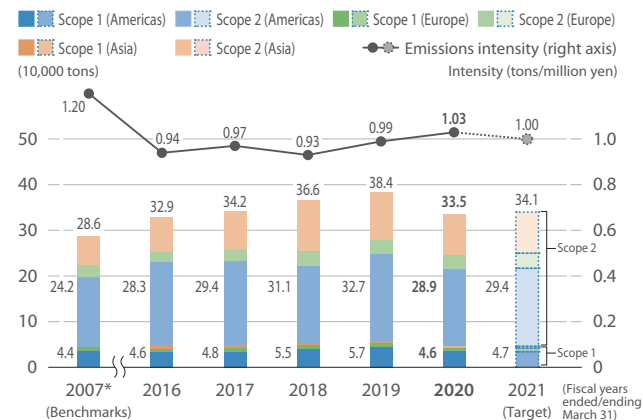
CO₂ Emissions/Emissions Intensities (Japan)



*1 Calculated using a fixed CO₂ emissions factor of 0.381 kg-CO₂/kWh for electricity in Japan.
 *2 For business sites that were established in the fiscal year ended March 31, 1998 or later, will be set the data in the year of commencement of production is to be used as the benchmark.

Third-Party Verification Statement of CO₂ emissions can be viewed on the website.
<https://www.ntnglobal.com/en/csr/pdf/kensyokuikensho.pdf>

CO₂ Emissions/Emissions Intensities (Overseas)



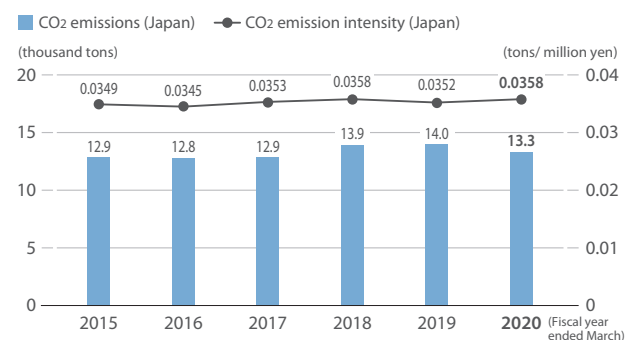
* For business sites that were established in the fiscal year ended March 31, 2007 or later, the year of commencement of production is to be used as the benchmark.

Business sites (Japan and Overseas) subject to CO₂ emissions/emissions intensities can be viewed on the website.
<https://www.ntnglobal.com/en/csr/environment/sitereport/iso14001.html>

Reducing CO₂ emissions in logistics

To reduce CO₂ emissions in the supply chain, we are working to streamline logistics. As important measures, we are reducing transportation distances through round-use of export containers and a review of transportation routes, thoroughly implementing eco-driving during truck transportation, and reducing the use of packing materials through the use of returnable steel containers. In the fiscal year ended March 2020, CO₂ emissions during shipment of products in Japan was 13,293 tons/year, and the target of 13,964 tons/year was achieved. However, as a result of a deterioration in the loading ratio due to a sudden decrease in sales and other factors, our CO₂ emissions intensity was 0.0358 tons/million yen, and we were not able to achieve the target of 0.0345 tons/million yen target. In order to further reduce emissions intensity, the entire company will strive to improve logistics efficiency by expanding the scope of measures and reducing current inventories.

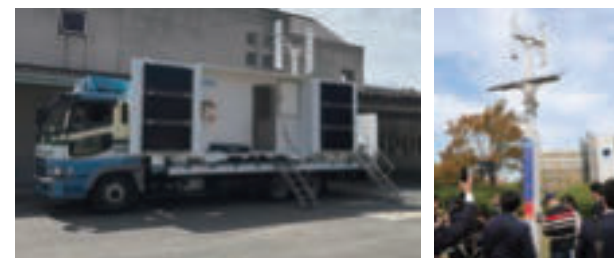
CO₂ emissions and emissions intensity in logistics



Development of products that respond to the intensification of natural disasters

N³ N-CUBE, NTN Green Power Station

We have developed the N³ N-Cube that stores power generators and storage batteries utilizing three types of natural energy (wind, water and sunlight) and that can be used as urgent power sources in the time of disasters that make it difficult to supply electricity. The N³ N-CUBE can generate and supply electricity in a short period of time. In September last year, the N³ N-CUBE was sent Kyonan-machi, Chiba Prefecture, where it became difficult to supply electricity due to the Typhoon No. 15 disaster. The N³ N-CUBE was used to recharge approximately 1,000 mobile phones and provide free Wi-Fi spots. In addition, we succeeded in implementing "Long Distance Wireless Transmission Experiments between Bases" with the National University Corporation Osaka University, which uses NTN Green Power Station to quickly ascertain the status of a disaster when it occurs. Since this system can collect and transmit disaster information safely and swiftly and can also be used as an independent power source in the event of a power loss, we will promote initiatives to bring this system into every local government.



"N³ N-CUBE" that was temporary staff to Kyonan-machi, Chiba

NTN Green Power Station

NTN-Antriebstechnik G.m.b.H. (Germany)

Switching to electricity from renewable energy sources

NTN-Antriebstechnik G.m.b.H.(NTN-AT) is located in the state of Sachsen Anhalt, Germany, where there are many wind turbine facilities and where renewable electricity is easily procured. With regard to electricity used on-site, NTN-AT has switched to renewable-energy-derived electricity since April 2020. This is expected to reduce CO₂ emissions by approximately 6,000 tons/year.

The NTN Group is working to increase its renewable energy procurement rate by not only introducing solar and wind power generation facilities within business sites but also considering switching to renewable power sources.



NTN Green Power Station (front) installed in NTN-AT and wind turbine facility of the electric power company

NTN-SNR (Europe)

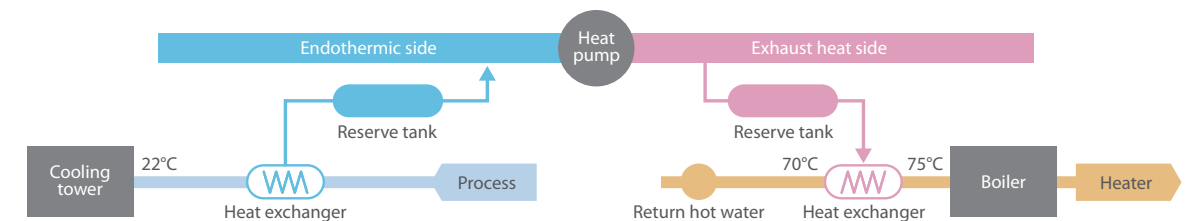
Use of waste heat by heat pump

In 2016, NTN-SNR introduced an Energy Management System (ISO50001) at seven plants to improve energy performance. Since 2016, we have been carrying out activities to identify energy loss in production facilities that use electricity and fuel. As a result, we have found that a large amount of heat loss has been occurred in compressors, cooling tower systems, and

boilers, and have been implementing energy conservation measures through the use of waste heat.

NTN-SNR was able to reduce fuel consumption by 2.7% by introducing heat pumps that utilize waste heat from cooling towers in boilers at the Seynod Plant (France), Argonay Plant (France) and the Sibiu Plant (Romania).

Diagram of a heat pump system



Reducing plastic waste (elimination of disposable cups)

NTN Driveshaft do Brasil (Brazil)

Activities to improve the environment through participation of employees

In 2018, the NTN Group established NTN PROUD AWARD, a system that enables employees to take on new challenges and create solutions by setting up an action program based on their day-to-day operations in line with its corporate philosophy. As an action program related to the environment under this system, NTN Driveshaft do Brasil (NDB) has been working to reduce the use of disposable plastic products, which have recently been identified as a source of marine contamination. After receiving an idea from employees, NDB decided to distribute eco-cups that are foldable and easy to use in everyday life and can be used repeatedly. As approximately 150 plastic cups per day were used at NDB, it succeeded in eliminating the use of such cups as a result of introduction of the eco-cups. At NDB, many employees are involved in activities focused on energy-saving and social contribution.



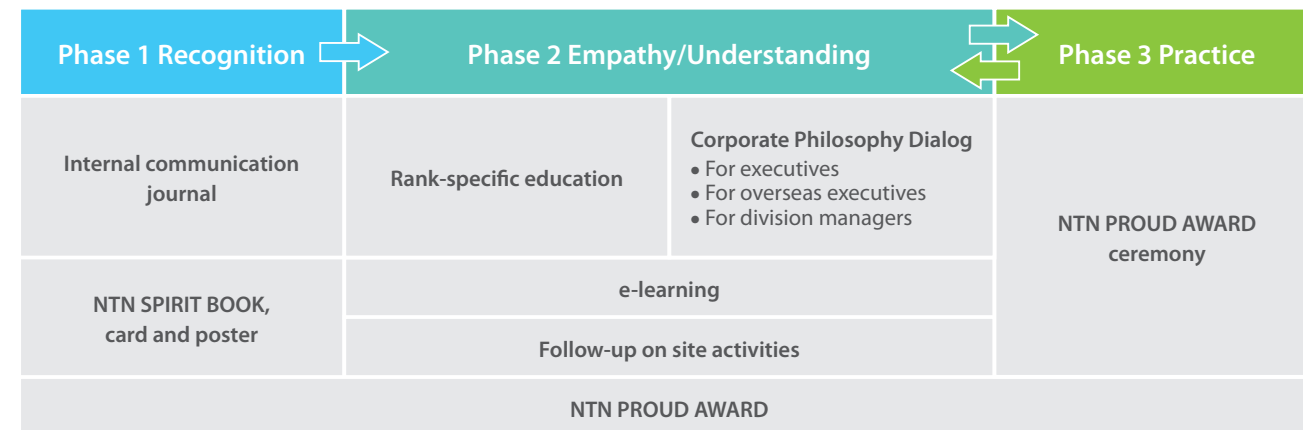
Eco-Cup

Enhancement of corporate value

Today, companies are required to produce not only business results (economic value) but they are also required to be a presence needed by society (social value). If a company is not necessary for society, growth of the company cannot be expected. In order for us to continue to be a company needed by society, it is necessary for us to face social issues and aim to realize a sustainable society by practicing our corporate philosophy.

In 2018, we established the corporate philosophy code of conduct "NTN SPIRIT" in order to instill our corporate philosophy, and NTN SPIRIT clearly stipulates the attitudes and actions we want each and every employee to pursue. We have divided the process of instillation into three steps: "recognition," "empathy and understanding" and "practice." We are pursuing measures that lead to the implementation of those three steps.

Instillation Phase Map of Corporate Philosophy



Phase 1 Recognition

Putting your thoughts into words; To each person's SPIRIT

We issued the Japanese and English versions of NTN SPIRIT BOOK in order to make our corporate philosophy system and its code of conduct "NTN SPIRIT" widely known to all employees working in the Group. This booklet encourages all employees to carry out the corporate philosophy with their dreams and goals in mind in order to create a "NAMERAKA Society." In 2019, voluntary activities aimed at disseminating our corporate philosophy were extended to other countries, and we began preparing a French version of NTN SPIRIT BOOK. Overseas employees (NTN BEARING CORP. OF CANADA LTD. and NTN-SNR) played a central role in preparing the booklet so that it is written using easy-to-understand expressions for local employees.

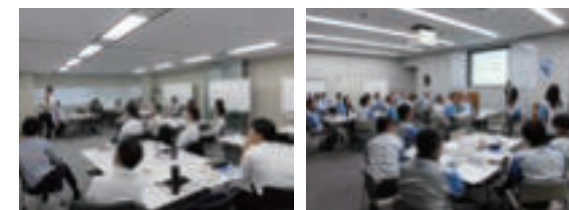


Japanese, English, and French versions of NTN SPIRIT BOOK

Phase 2 Sympathy & Understanding

Corporate Philosophy Dialogs spreading to each business site

We hold Corporate Philosophy Dialogs as a venue for interactive communications in order to help employees not only simply learn about the corporate philosophy system and NTN SPIRIT but also deepen their empathy and understanding for the system and spirit so that employees can express such concepts by using their own words. In the fiscal year ending March 2020, we held workshops at several business sites, and approximately 250 employees deepened their understanding of NTN SPIRIT and shared the values.



Corporate Philosophy Dialogs held at each business site

Phase 3 Practice

What it means to practice the corporate philosophy

We see our corporate philosophy as a common value that strongly connects each and every employee, not as words on paper. With this common value in mind, we aim to become a "presence needed by society."

The NTN PROUD AWARD was established as an "opportunity to practice our corporate philosophy" in 2018, when we celebrated our 100th anniversary, with that year being regarded as an excellent opportunity to drive forward transformation for the next 100 years. During the NTN PROUD AWARD 2 in 2019, 76 teams participated from around the world, and 8 teams that received the awards after the two-step selections were praised at the ceremony in December.



NTN PROUD AWARD 2 ceremony

Case Study

Transformation for sales activity localized in Chinese market

With regard to the huge Chinese market, economic growth is still expected in the future. On the other hand, our sales activities in the region faced a variety of issues unique to the region. By resolving these issues, we aimed to improve the NTN brand in the region.

First, we classified a series of sales activities into 4 phases: (i) new customer acquisition, (ii) prospective customer acquisition, (iii) customer base expansion, and (iv) customer maintenance, and implemented concrete actions targeting.

In order to grasp the current situation, such as issues that are identified at the site, we made thorough efforts to identify problems in each phase at meetings with branch managers and through visits to exhibitions. For example, in the (i) new customer acquisition phase, we once again analyze the reasons behind the low level of awareness of the NTN brand in the Chinese market. As a countermeasure, we are reviewing the use of our website localized to the Chinese area, improvement of our own website, and PR methods to disseminate our track records in a wide range of industries, and are restructuring sales activities and strengthening our sales system.

In the section of "Challenge," one of credos in NTN SPIRIT, it is stipulated that "We passionately challenge ourselves without being satisfied with the current situation." As in this guideline, we were able to promote the establishment of a sales structure in the Chinese market by pursuing innovations while thinking on our own without being satisfied with the current situation. In the future, we will transform our business operations with the three credos of NTN SPIRIT as our guide: "Challenge," "Collaboration" and "Commitment."



Members of the Planning and Sales Headquarters, NTN (CHINA) Investment Corporation

Four Award Categories based on the Corporate Philosophy

Employees are allowed to organize their team members on their own, and freely set themes they are interested in. In addition, by letting employees participate in four award divisions based on our corporate philosophy, we are strengthening the realization of our philosophy and the linkage between our philosophy and themes.

Participants in the NTN PROUD AWARD have expressed opinions such as "through our own thoughts and actions, we have started to implement our daily tasks proactively" and "because the team consists of members from various departments, the interaction has been deepened, causing a positive effect on our daily work."

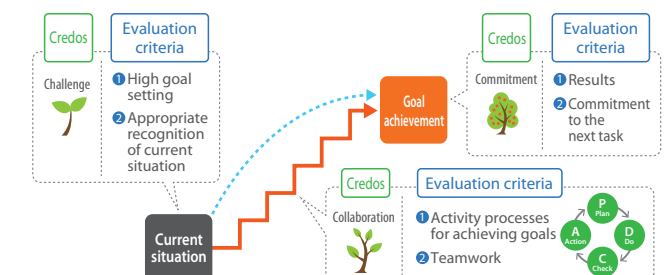
Four Award Categories Based on the Corporate Philosophy



Evaluation criteria based on NTN SPIRIT

The activities of each team are evaluated based on three credos (Challenge, Collaboration, and Commitment) that are included in NTN SPIRIT. One of the characteristics of this process is to approve and praise teams, in terms of not just results but also processes. Participants commented, "By knowing the processes in case examples from other companies, we were able to incorporate them into our own business activities, boosting our motivation," and "With 'Challenge' incorporated in the evaluation criteria, we were able to overcome our inclination to follow precedents."

Criteria based on NTN SPIRIT



Human Rights Policy

In order to further promote human rights initiatives, we have formulated a Human Rights Policy in which all Group employees share a common sense of values related to human rights and which serves as the basis for their day-to-day activities and business activities.

Based on the Human Rights Policy, we will address human rights issues which are gaining more and more global attention, as exemplified by the Sustainable Development Goals (SDGs) and the UK's Modern Slavery Act, and fulfill our corporate responsibility for respecting human rights.

Outline of Human Rights Policy

Based on the following three basic principles, we have formulated the Human Rights Policy pursuant to our Management Policy:

1. NTN will respect internationally-recognized human rights.
2. NTN will not violate the human rights of others.
3. NTN will respond appropriately to any negative impacts its business activities may have on human rights.

Safety and Health Basic Policy

Creating a workplace environment where everyone in the NTN Group can work actively, safely and healthily is the foundation of our management and the most important value that takes priority over all business activities. In order to demonstrate that to our employees, stockholders, customers, business partners and others, thereby heightening safety awareness among each one of our employees and throughout the entire organization, and further raising our corporate value, we have formulated the Safety and Health Basic Policy.

Outline of Safety and Health Basic Policy

Based on the following six basic principles, we have formulated the Safety and Health Basic Policy pursuant to our Management Policy.

1. Compliance with laws and regulations
2. Promotion of continuous improvement through the operation of an occupational safety and health management system
3. Elimination and reduction of hazardous/harmful risks
4. Promotion of employee education and training
5. Maintenance and promotion of mental and physical health
6. Creating a safety culture

Promotion of work style reform

We have promoted a work style reform which enables all employees to find their work rewarding, fulfill operational responsibilities, and comfortably lead their lives in society with harmony and peace of mind. We thoroughly manage working hours and introduce no overtime days, flextime, and an interval system to enable each employee to work efficiently. In addition, we have also worked on the reform of personnel systems, such as introducing systems responding to various types of career paths and life events (e.g. childcare and long-term care), to provide opportunities for many employees to take an active role.

Realize diverse work styles

Promotion of remote work

We participated in TELEWORK DAYS 2019, an initiative taken by MIC, METI and other organizations to encourage companies across Japan to conduct telework.

From April 2020, to prevent the spread of the new coronavirus (COVID-19), we have promoted telecommuting initiative and staggered working hours for employees, which mainly uses public transportation, and are implementing measures prioritizing ensure the health and safety of employees.

NTN Job Return Scheme

We have a rehiring system for employees who left their jobs due to life events, such as marriage, childbirth, childcare, long-term care, career development opportunities (studying abroad, job change, etc.) and spouse's job relocation. Through this approach, we promote work-life balance as well as the development of an environment where employees can make the most of their experience, knowledge, and expertise acquired in the Company or other companies after leaving the Company.

Thus far, three people have returned to work using the job return scheme.

Enhanced lineup of employee leave programs

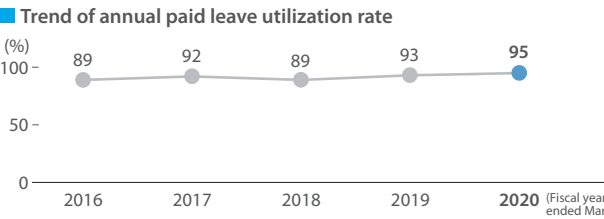
We provide maternity, childcare, and long-term care leave programs which are developed well beyond the legally mandated standards. Such approach leads to a system which allows many employees to continue their careers without suspension.

For example, the system of shortened working hours for childcare expands its scope to those who raise children who are in the third grade of elementary school or younger, and introduces staggered working hours due to childcare in Tokyo and Osaka. Such initiatives are far beyond the legally mandated standards.

We are not only working to develop such a system, but also putting our heart into making the system become vitalized and convenient for employees. We are also trying to create an office culture where employees can make full use of the system.

High rate of taking annual paid leave

Our initiative to promote the taking of annual paid leave started in the 1980s. Under the original keywords of “comfort and prosperity,” we have worked on the realization of work-life balance. We have maintained a high average utilization rate of annual paid leave, exceeding over 80% for over 25 years. Now we are aiming at a higher level, working to develop multi-skilled employees, conduct proactive job rotation, and cultivate a workplace atmosphere which encourages employees to take annual paid leave.



Basic approach to occupational safety and health

Ensuring the safety and health of everyone working in the NTN Group is the most important value. It takes priority over all our business activities and is the foundation of our management. Based on this basic stance, we aim to create a workplace environment where employees can work actively, safely and healthily.

Development of framework supporting safety and health

We work to further strengthen the management of the natural environment, and occupational safety and health in order to improve the effectiveness of the Group, by promoting integrated management of the natural environment, health and safety, which are gaining more and more attention globally.

We promote the development of a workplace with no occupational accidents, under the global safety management structure where President/CEO serves as chief director, the officer in charge as general manager of corporate safety and health, and the corporate general manager of each headquarters in Japan and the general manager of each overseas region as managers.

Occupational accident data is shared by domestic and overseas plants using a database. In particular, in the event of a serious accident, we implement measures throughout the Group, including our overseas affiliates, to unify safety standards.

By June 2019, we had acquired certification for occupational safety and health management systems (JISQ45100/ ISO45001*1) at our main domestic plants. For our affiliated companies as well, we have begun to acquire management systems according to their sizes, and have completed the acquisition of OSHMS*2 certification for two companies. We will proceed with the acquisition of certification for other group companies.

Protecting the safety and well-being of not only our employees but also everyone working in the Group, we strive to maintain compliance with laws and regulations and to continuously improve our safety and health standards.

*1. JISQ45100 is a Japanese standard with Japanese requirements added to ISO45001, which is an international standard for occupational safety and health management systems
*2. OSHMS is a Japanese standard in compliance with MHLW's "Guidelines on Occupational Safety and Health Management Systems (OSHMS Guidelines)"

Personnel training to improve safety

We train several risk prediction trainers for each plant. They will provide risk prediction training for the operators at every workplace in their plants so that they will not take or allow unsafe actions. In addition, we work to prevent human errors by providing training designed to improve social skills in every workplace, with the aim of developing human resources with social skills such as situational awareness, decision-making, communication, and leadership, which cannot be covered through systems or knowledge alone.

Development of machines in pursuit of fundamental safety

We conduct risk assessments (RA) and implement safety measures when equipment is first installed, when a certain period of time has elapsed after the installation, when equipment or operations are changed, when safety patrols reveal problems, or when near-miss incidents occur.

We train RA trainers and raise the RA level in order to estimate and assess risks appropriately. To deal with risks that have emerged in RAs, we implement safety measures using engineering measures, such as safety covers and interlocks, in addition to intrinsic measures by reviewing operations. Furthermore, we consider risk reduction by means of managerial measures (procedures, rules, etc.) and protective equipment.

Remaining risks are recorded in the residual risk management sheet in accordance with the unified company-wide residual risk management operation. Based on this, stickers indicating residual risk levels are affixed to the equipment for visualization. Furthermore, training on the residual risk of the equipment is provided to operators to make sure that they know where the hazardous risk lies.

Approach to Kenko Keiei (health management)*

In view of the fact that proactive efforts to maintain and promote the health of employees are important management factors that will affect the sustainable growth of the Company, we promote various measures to realize an employee-friendly workplace environment where each employee can perform at their full potential, in cooperation with the health insurance association.

- Enhancement of healthy working atmosphere

 - Promotion of work-life balance, and avoidance of long working hours
 - Further promotion of active communication in the workplace
 - Initiatives to promote balancing work and treatment of disease
- Enhancement of mental health

 - Improvement of workplace environment based on the results of stress checks
 - Prevention of mental illness with self-care and care by supervisors
 - Enhancement of a mental health consultation system
- Enhancement of physical health

 - Appropriate health guidance and improvement of lifestyle based on the results of medical checkups
 - Steady implementation of data health plans in cooperation with the health insurance association
 - Improvement of the participation rate of medical checkups for employees' spouses

* Kenko Keiei (health management) is a registered trademark of the NPO Health Management Research Association.

Basic approach to diversity

The economic condition and social structure surrounding us have drastically and rapidly changed, including the shrinkage of the labor force and the new normal with COVID-19.

We are working on transformation for sustainable growth, and one of the important strategies toward this transformation is promotion of diversity.

By combining these diverse values and creating flexible ideas, we will accelerate "transformation." It is necessary to create a workplace environment in which a variety of people, irrespective of nationality, culture, gender, age, or disability, can create better ideas based on open-minded thinking, and each and every employee can be proud of the company and demonstrate his or her abilities to the fullest. To support this, we are promoting work style reform, such as the introduction of remote work and a job-return scheme, in response to the diversification of lifestyles and work styles.

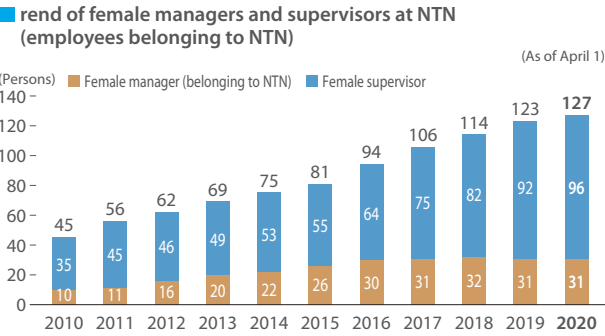
We will realize our corporate philosophy, "We shall contribute to international society through creating new technologies and developing new products" by promoting diversity.

Encouraging women in the workplace

Promotion of female managers

In order for us to continue to grow, it is essential to create a workplace that promotes diversity and generates innovative ideas. One of the themes for achieving this goal is to promote the active participation of women and promote the appointment of female managers.

To prepare for the planned appointment of female managers, we are working to develop skills of female manager candidates through seminars. First, we hold "encouragement seminars" and "next-leader training" in order to make career upgrades easier to imagine for supervisor classes.



Expansion of employment of elderly employees

Under the circumstances of the decreasing birthrate and aging population in Japan, we are working to encourage experienced employees to take an active role as important workers. After an employee reaches the retirement age of 60, we are reviewing our treatment of the employee so that we can create an environment where experienced employees can take advantage of their careers and raise their motivation.

In comprehensive consideration of their career experience, skills, workplaces, etc., employees of any of our domestic group companies can continue to work. Under this system, 84% of all the employees that reached the mandatory retirement age in fiscal year 2019 were re-employed, and the re-employment rate remained high as in the previous year.

Balancing work and childcare

We were certified by the Ministry of Health, Labor and Welfare as a company supporting child-rearing, and obtained the next-generation certification mark Kurumin. Kurumin is granted to companies that have formulated a general business operator's action plan based on the Act on Advancement of Measures to Support Raising Next-Generation Children and have achieved relevant targets and met certain criteria. We have formulated an action plan that incorporates measures to establish an in-house information system for employees on childcare leave, encourage men to take childcare leave, and have implemented childcare-supporting measures. In addition, we promoted initiatives to achieve a work-life balance that extend to employees who do not engage in child-rearing. For example, promoting the use of paid leave, and establishing a rehiring system for employees who left their job due to a life event which is not limited to childbirth and childrearing. As a result, we were able to obtain this certification.



The "Kurumin" certification logo



Next Generation Development Promotion Seminar Targeting Male Employees Engaging in Child-rearing

Promotion of employment of persons with disabilities

As a workplace where people with disabilities can take the lead and work safely, we have established three "Dream Workshops" at Kuwana, Iwata and Okayama Works. In addition, we are working to create a comfortable working environment for people with disabilities, such as by promoting barrier-free workplaces.

"Collaboration" is being promoted in every workplace, as the manufacturing sites and the administrative divisions also utilize the strengths of a variety of people and encourage them to play an active role.



Work scene at the Dream Workshops

Basic approach to human resource development

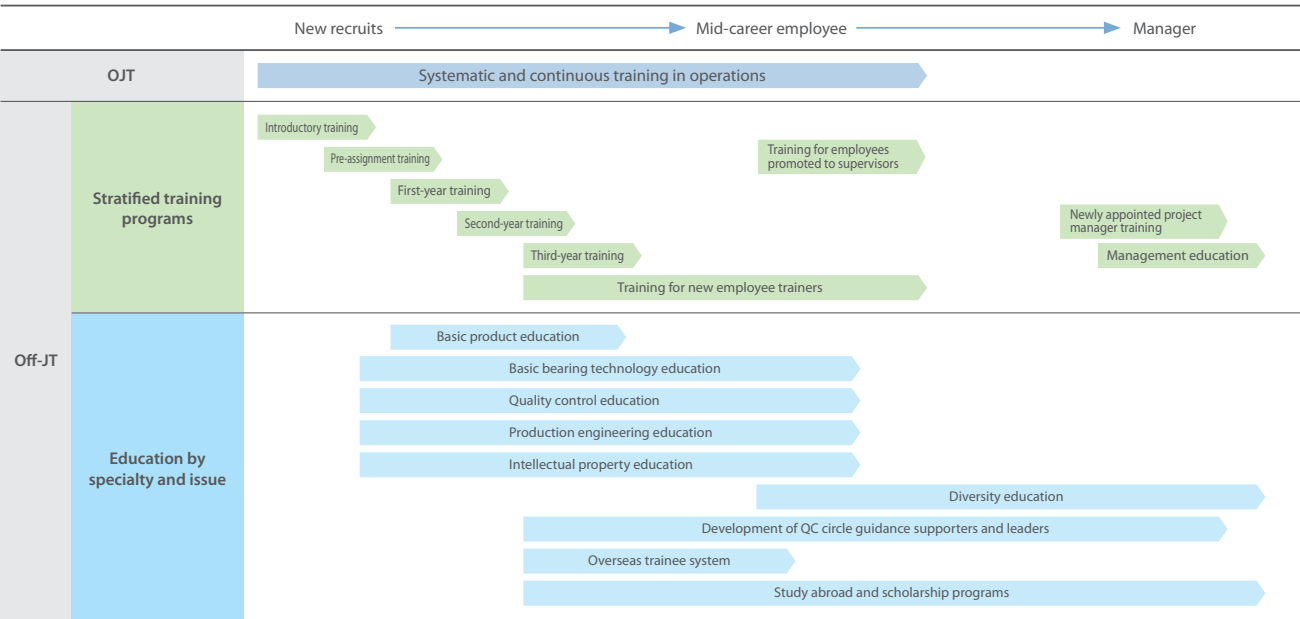
Our human resource development is based on the basic policy of realizing the NTN Corporate Philosophy through activities of human resources who grow as self-sustaining individuals, and aims to cultivate human resources who can achieve business objectives and swiftly respond to changes in the business environment.

To achieve this goal, we have adopted a basic policy for human resource development that aims to develop three types of human resources, namely: (i) Global, (ii) Self-support, and (iii) Creative. Our human resource development is generally explored through on-the-job training (OJT) based on the self-development of individuals and daily business activities. In addition to providing opportunities and various support systems to promote the training, we continuously implement systematic, well-planned and organizational training programs for employees as off-the-job-training (Off-JT) on an as-needed basis from a long-term perspective.

NTN training system

In order to ensure that employees acquire the mindset, knowledge, and techniques necessary to meet the level of skills (such as qualifications) required according to job grades and can enhance their ability to perform their duties, we are implementing human resource development programs at all levels that enable employees to think and act for themselves. In order to expand our business in the next 100 years, it is essential to develop human resources capable of playing an active role not only in Japan but also overseas. As a program to foster outstanding human resources and international human resources by raising the spirit of improvement, we are also utilizing overseas studies and scholarships.

Training structure



Implementation of online recruitment

In 2020, as part of our graduate recruitment campaign, we conducted a screening interview online to prevent the spread of the new coronavirus (COVID-19). All screening steps, including briefings on the Company, were carried out on the internet. As a result, we were able to secure the safety of selected students and our employees, as well as to reduce the burden on students who participate in screening from a long distance away. We also strive to secure opportunities for students to come into contact with NTN in all situations by utilizing the Web system in interviews with students before and after screening and in various recruitment events. In the future also, we will continue to secure human resources who support our business activities, through recruitment activities that take into account students participating in the screening process, while effectively utilizing the Web system in response to changes in the environment.

Online training programs

Graduate new employees participated in an introductory group training program for about a week after joining the Company. The training was held as an opportunity for new employees to interact with each other in conjunction and develop a mindset as a member of society and their ability to communicate in business situations. However, amid the spread of the new coronavirus, we stopped group training to prevent the risk of infection during travel and the 3 Cs, and implemented a conventional program in the form of online training. Our training program incorporates a large number of group work sessions, so it was initially uncertain whether the expected benefits of online training could be achieved. However, we were able to engage in active discussions and exchanges of opinions through the use of online group work functions.

On this occasion, we will review our existing training programs, divide them into online training programs and group training programs, and promote an approach to conducting training online.

Basic approach to procurement activities

Based on the perspectives of “Globalization,” “Fairness/Impartiality,” and “Environmental Preservation,” we have built trusting relationships with our business partners and are conducting procurement activities centered on our head office purchasing divisions. Furthermore, based on the “NTN Group Green Procurement Standards,” we are promoting green procurement, which prioritizes environmental preservation efforts and procurement from business partners with superior environmental quality. We have also established “NTN CSR Procurement Guidelines” and are requesting active promotion of CSR activities. We are also working to achieve local procurement at all of our manufacturing sites, including those outside Japan, and to procure materials from optimal locations globally.

Green Procurement Standards

Failure to comply with environment laws and environmentally-hazardous substances regulations in the supply chain is a management risk that leads to shut-down and compensation for damages to customers. We are promoting environmental control throughout the supply chain by establishing green procurement standards that require our business partners to establish an environmental control system and define the standards of environmentally-hazardous substances, which constitute the important quality characteristics of delivered products.

CSR Procurement Guidelines

We have established NTN CSR Procurement Guidelines to promote activities throughout the entire supply chain in response to social issues such as human rights and labor practices, environmental issues, the elimination of anti-social forces, and anti-corruption. We request our business partners to further promote CSR procurement activities in areas such as compliance and anti-corruption, human rights and labor, environmental issues, quality and safety, information-security, business continuity, and social contribution.

Procurement complying with environmental regulations

In order to comply with environmentally-hazardous substances regulations in Japan and overseas and customer standards, we actively switch regulated substances regardless of applications, destinations, or manufacturing locations. To comply with the RoHS Directive which was revised in July 2019 and prohibits phthalates (DEHP, BBP, DBP and DIBP), we have established a system for incoming inspection according to the risks involved. We are promoting the switching from lead-containing procured products that are currently used for applications exempted from the RoHS Directive, assuming future tightening of regulations.

CSR questionnaire for suppliers

We conduct annual surveys of business partners to further raise awareness of “NTN CSR Procurement Guidelines” and to confirm compliance.

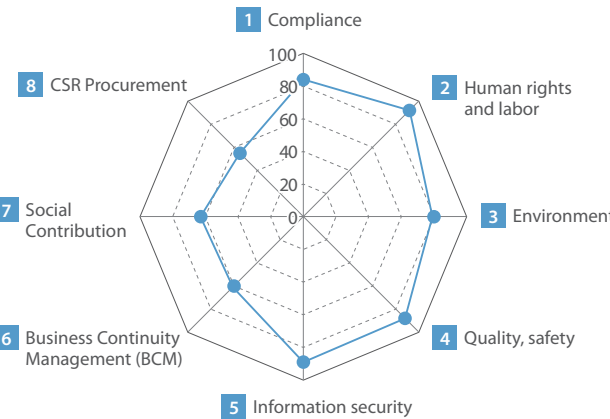
In the fiscal year ended March 31, 2020, we surveyed 240 suppliers, such as those who responded that they were not successful in the last fiscal year's survey and those who have newly begun business with us from FY2019.

In most of the items, the status of efforts has been improved since the previous survey, and they have a better understanding of the importance of CSR procurement. However, with regard to information security and business succession management, some suppliers became aware of issues such as new threats under their work systems which were introduced in line with the state of emergency declaration in response to the spread of the new coronavirus (COVID-19) infections. We will further continue to work on raising awareness of the CSR procurement.

CSR questionnaire for suppliers

Questionnaire items	
1	Compliance
2	Human rights and labor
3	Environment
4	Quality, safety
5	Information security
6	Business Continuity Management (BCM)
7	Social Contribution
8	CSR Procurement

Degree of Achievement According to CSR Questionnaire Results



Conflict minerals survey

We periodically investigate whether or not certain minerals contained in our materials or components are sources of funds of armed groups in conflict areas, which leads to human rights violations, illegal mining and smuggling.

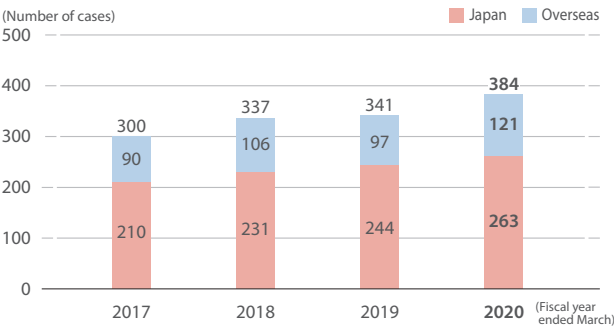
In FY2019, we traced back through our supply chain of 297 business partners to identify the material smelters, and more than 90% of such partners reported that they do not use any conflict minerals.

We will continue to conduct this survey periodically to monitor the inclusion of conflict minerals from conflict or high-risk regions.

Companies listed on U.S. Stock Exchanges are required to disclose the use of conflict minerals under the U.S. Dodd-Frank Act. Based on the results of the above survey, we respond to inquiries from our customers regarding conflict minerals. As human rights issues are gaining attention globally, corporate awareness of such issues is growing. Regardless of the U.S. Dodd-Frank Act, the number of companies voluntarily eliminating the use of conflict minerals is increasing as shown in the chart below.

NTN will continue to deal with conflict minerals as part of our supply chain CSR.

Number of conflict mineral surveys (reports to our customers)



Compliance with Subcontracting Act

We conduct self-audits of subcontract transactions with the aim of optimizing subcontract transactions. In order to voluntarily audit the compliance status of the Subcontracting Act, each business site in Japan is responsible for implementing a certification system for “subcontracting self-auditor.” In September 2019, we held a “Self-Auditor Training Course for Subcontract Transactions” and newly certified 26 employees as self-auditors. The total number of self-auditors reached 108. In the fiscal year ended March 2020, self-audits were conducted at our 22 business sites in Japan, with the self-auditors playing a leading role in such audits. We will continue to conduct activities aimed at optimizing subcontract transactions.

Risk management for suppliers

From the perspective of management of risks associated with our business partners, before starting new transactions, we check the management status of business partners as well as their management of quality and environmental issues.

We also conduct an annual survey for business partners, which we have already conducted transactions with, to continuously monitor their business conditions.

In addition, for suppliers who are deemed to have high transaction risks, we implement risk-reducing measures commensurate with the impact they may have on us in terms of procurement parts, transaction amounts, etc., in an effort to minimize procurement risks and ensure stable procurement activities at all times.

Recently, business continuity risks such as natural disasters and infectious diseases have been increasing, and we have created a crisis management database to prepare for unforeseen circumstances. In the event of an emergency, we promptly confirm the safety of our business partners and manage risks related to the stable supply of products throughout the supply chain.

Supply chain BCP

We are promoting supply chain BCP activities including logistics and business partners in order to ensure stable procurement.

We are strengthening crisis-management in preparation for natural disasters such as earthquakes and typhoons at our business partners and distribution bases. In addition, in a widespread crisis such as a pandemic, we will cooperate with our business partners to ensure the business continuity, and promote infrastructure development such as on-line business operations with our business partners, the safety confirmation at the time of disaster, sharing the safety information and the code of conduct.

Basic approach to contributing to local communities

One of the credos of NTN SPIRIT "Collaboration" states that "We take care of the natural environment and maintain coexistence with the local community." In addition to contributing to society through our business activities, we also work to help achieve the UN's Sustainable Development Goals (SDGs) through various activities tied closely to local communities around the world.

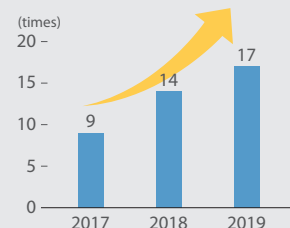
TOPICS

People and Regions connected by "NTN Rotating School"

To promote a harmonious coexistence with local communities, the Company organized NTN Rotating School in 2017 as a way to facilitate community interactions for our employees and education for the next-generation. This is a mobile school based on the concept of having children that will help the next generation learn about the environment and energy saving while having fun.

This year marks the fourth year of the school, and the number of programs is increasing year after year, deepening ties with a variety of people in each region.

Number of NTN Rotating School held

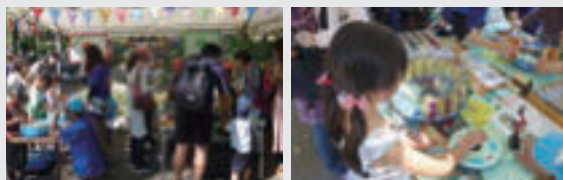


The number of events held was 40, and the total number of participants was more than 17,000.

*Only events taken charge of by the Corporate Value Promotion Department are counted.

October, 2019 Ehon(Picture Book) picnic

NTN Rotating School was held at a local exchange event in Ustubo park near the head office. Many local visitors said, "I didn't know the business line of NTN although I have seen NTN signboards for a long time," but we were able to interact with local residents through various hands-on workshops using bearings, and participants could feel a warmer affinity toward NTN as a local company.



Many families visited the NTN booth throughout the day

Jan. 2020 "LITALICO Junior" Tennoji Class*

With a twinkle in their eyes, all the children listened hard to the explanation of their "new teacher" while touching the bearings and musical instruments that they had never seen before. Even after the class, they kept playing without wanting to leave the classroom. We had each child spend a good deal of time working on a project according to his/her personality and they were able to feel the joy of being able to do something themselves.

* Child development support and after-school day services for children from young ages up through high school students

A Message from LITALICO Junior teacher

We received many comments from parents such as, "It's the first time I've seen our children enjoying themselves so much" and "I wonder if they can get a job in the machinery field in the future." It was the first time not only for children but also for instructors that a teacher not belonging to LITALICO delivered a class. Therefore, we felt anxious about how the class would be received that day. Thank you very much for letting us have such a wonderful experience.

Participant's Feedback

- I learned that bearings are used in various places and are all around us. I also learned a lot of things that I can't learn at school. (Elementary school student)
- Knowing that the earth is in danger now, I want to learn what I can do and try to do it. (Elementary school student)
- It was difficult to assemble the bearings, but I was able to fully understand the mechanism. I was surprised at the high precision of a ball. (Adult)



From a "Rotating Wallposter" in which participants report what they have experienced as a reporter

NTN Rotating School is held in an increasing number of different places and requires flexible responses tailored to local communities and participants. This is also a good opportunity for employees themselves to reflect upon their own company and communities. It is very rewarding seeing participants make new discoveries, learn something new, and return with a smile saying, "I'm glad I came!" We will continue to spread NTN Rotating School, which links people to local communities, worldwide.

Initiatives in Each Region

Japan

Related SDGs



NTN Noto Corporation and NTN Houdatsushimizu Corporation invited 11 Mexican trainees via the Japan International Corporate Agency and held training sessions to tour the manufacturing sites. This seminar aims to contribute to the promotion of quality control and productivity of companies and industries in their home country by allowing trainees to acquire the knowledge and techniques of Japanese Monozukuri (manufacturing). We are aiming to revitalize our global partnership in Monozukuri by letting the skills of experienced workers working at the site be utilized by Mexican trainees in their own country.



Manufacturing site tour with a lively question-and-answer session

Europe

Related SDGs



The Sibiu Plant of NTN-SNR Rulmenti S.R.L. has established the Environment, Health and Safety Week as one of the measures to raise the awareness of CSR among employees. Some of these activities involve a measure to raise employees' awareness of their health. For example, each employee team moves around by bicycle along the Cibin River, which runs through the city, to clean up areas around the river. As such, employees take the initiative in resolving local community issues. The interaction between employees, which goes beyond the boundaries of normal business operations and business divisions, helps to raise CSR awareness and reinforce teamwork.



Employees engaged in cleaning activities

Sales event held by people with disabilities

In collaboration with Pasona Heartful Inc., we held a sales event for Halloween in October 2019 and for Christmas in December 2019 for the purpose of expanding the employment of people with disabilities and their participation in society. These events were held during lunch breaks. At Pasona Heartful Inc., employees with disabilities are active in a variety of fields, and they sold products and confectioneries they made by themselves. Confectioneries made without any additives were particularly popular. Sales representatives were very happy about how the day went, saying "We usually have a lot of sales within the group only, so it was a new experience to interact with NTN, and we were able to have a good opportunity to learn customer service." We will continue to create such opportunities to promote diversity.



Selling all handmade Halloween gifts, including baked confectionery and candles

Americas

Related SDGs



NTN BEARING CORP. OF CANADA LTD. supports Eva's Place* as a volunteer sponsor by helping constructing simple accommodation facilities for youth and assisting the organization in holding fundraising events. The funds raised were used to help provide training, counseling and other programs to help disassociated adolescents re-establish and maintain contact with their families and communities. These activities allow employees to feel proud and happy, and boost their motivation.

* Eva's Place is a self-reliance support organization for young people that provides shelter and transitional housing for young homeless people and various support programs to enable them to return to society.



Employee supporting the setup of an event

Asia

Related SDGs



NTPT CO., LTD. (Thailand) worked with local elementary schools to hydroponically cultivate vegetables for school lunch in order to promote the health of children who will play a leading role in the future. Through repeated trial and error to enable children to continuously obtain vegetables, we created an environment in which children can nurture and eat vegetables on their own. Through these activities, we were able to give children a chance to experience the joy of Monozukuri and increase their interest in food safety and the natural environment. The employees who saw the smiles of the children who happily ate the vegetables they grew also felt a sense of fulfillment and joy, and also realized anew the importance of contributing to the local community.



Employees and local children engaged in hydroponic cultivation



We will raise corporate value by steadily promoting reforms.

Outside Director
(Chairman of Nominating Committee)

Noboru Tsuda

Jun. 2005 Operating Officer at Mitsubishi Chemical Industries Limited.
(currently Mitsubishi Chemical Corporation)
Apr. 2014 Member of the Board (Representative Director), Vice President
Executive Officer at Mitsubishi Chemical Holdings Corporation
Jun. 2016 Outside Director at NTN (current position)

Outside Director
(Chairman of Audit Committee)

Kouji Kawahara

Jun. 2010 Operating Officer at Bank of Tokyo-Mitsubishi UFJ, Ltd.
(currently The Bank of Mitsubishi UFJ, Ltd.)
Jun. 2015 Full-time statutory auditor at NTN
Jun. 2019 Outside Director at NTN (current position)

Topic 1

Achievements of Governance Reforms

In June 2019, NTN obtained approval from an Annual Shareholders’ Meeting and transitioned from a Company with Board of Corporate Auditors to a Company with a Nominating Committee, etc., but what has changed due to the transition?

Tsuda: Traditional Japanese firms did not have a clear distinction between execution and supervision, and their function of supervising execution, or so-called governance, was inadequate. The same is true for NTN. Although NTN made a good decision to introduce Outside Directors, Board of Directors decided on even minor matters as before and the content of reports on such decisions was inadequate for Outside Directors. Thus, the important supervision function of Directors remained weak. We have changed our corporate structure to a Company with a Nominating Committee, etc. because we believe it would be better to drastically change our corporate governance structure to move away from the traditional corporate structure. The number of directors, who do not concurrently serve as Executive Officer, has increased to six, accounting for the majority of Board of Directors, and I think this and other factors indicate that the Company is going in the right direction.

Kawahara: That's true. In order to speed up management, I think it is appropriate that the Company has adopted a system where Executive Officers focus on business execution and Directors are in charge of supervision. Now, President and Executive Officers execute business quickly, and Directors can fulfill their intrinsic role of “assessing personnel, compensation, and other matters, in response to the Company's major policies and status of execution.” I had served as an Outside Audit & Supervisory Board

Member for four years, but after I took office, a senior statutory auditor encouraged Outside Directors to attend every meeting of Board of Corporate Auditors as observers and as a result, such meetings served as a forum for sharing information and exchanging views among Outside Officers. This has been very helpful. On the other hand, I also felt that “measures are often taken to simply follow precedents.” When I asked “Why do you do this?” in an interview during an audit, I often received answers like, “This is what we've been doing for a long time.” Even if they thought they needed to change those points, the actual situation might not have allowed them to make a change easily.

Tsuda: The transition to a Company with a Nominating Committee, etc. provided a good opportunity to change this corporate culture.

Kawahara: That's right. However, though we took time to discuss the transition, the discussion remained as far apart as ever and did not proceed very much. I also participate in a Management Meeting and other events that are held before Board of Directors meeting is held, but there were some cases in which an issue was finally submitted to Board of Directors after many meetings were held for such issue. After the system change, Directors are able to concentrate on “supervision” tasks because executives give answers themselves. Also, the number of meetings has been reduced, and I feel the decision-making process has been accelerated and streamlined. With regard to Global Management Conference, Executive Officers have recently held active discussions themselves in their respective capacity and have not necessarily adopted resolutions unanimously.

Tsuda: Some employees still have an impression that becoming a Director means becoming important, and I feel that some employees still have an old mindset. Governance reform can't possibly be achieved overnight, but due to the change in the system, we are making steady progress toward the desired direction.

Topic 2

Awareness of Issues in the Fiscal Year ended March 2020

What issues did you consider as the head of the Nominating Committee and the Audit Committee in the previous fiscal year?

Kawahara: Let me talk from the viewpoint of an Audit Committee member. Due to the frequent occurrence of improper accounting incidents involving our overseas subsidiaries that are listed companies, strengthening internal control globally was an important theme in the previous fiscal year. In Japan, the Audit Preparation and Support Office played a central role in holding regular meetings with statutory auditors of our subsidiaries, and we implemented initiatives such as sharing case studies. As a result, practices are gradually being improved, and I feel that the initiatives are producing good results. With regard to appointment of directors and statutory auditors at our Group companies in Japan, our senior management gives direct instructions to recruit human resources that are really helpful and advantageous to those companies. On the other hand, issues still remain in our overseas Group companies. Cultures and other factors vary depending on the regions and problems are difficult to identify. If we go to a local site for an audit and have a connection, we will be able to speak frankly. However, we have not yet established a relationship with all foreign subsidiaries and affiliated companies.

Tsuda: As Mr. Kawahara has said, there are issues with internal control of our overseas Group companies. Although we have been moving forward with initiatives such as recruiting Hervé Brelaud from our French subsidiary and appointing him as Operating Officer in charge of Procurement, there has been a delay in the globalization of headquarters functions. Non-business information such as the helpline is not quickly provided to Board of Directors from overseas sites. Regarding compliance at overseas sites, it is difficult to grasp problems because information as to where a problem exists and what the situation is like is not quickly provided to NTN's Head Office.

Kawahara: In order to solve the issue, we are currently creating a channel through which the sections in charge of internal control at overseas sites provide information to the Executive Officer in charge of overseas sites who works at NTN's Head Office.

Tsuda: This may be a harsh comment, but in other respects too, I feel that the speed at which a decision made by top management is disseminated to local sites and is put into practice is slow. For example, even though we decided to “curb capital investment,” the decision was not quickly put into practice. I sometimes think it might be difficult to stop operations. In such a situation, on the contrary, it would be difficult to accelerate operations when it is necessary to do so. The same is true with the inventory. Even if inventory reduction is decided, it does not appear that the reduction proceeds quickly. Though the production process is long and divided into multiple sections, it takes time to “control” operations, because it takes time to communicate, importance is not conveyed, or each organization is unable to think and act on its own.

Topic 3

What is required of Directors

What are you doing to foster a future Director who will be responsible for management in the future? What is needed to

build confidence between Directors and personnel at the site?

Tsuda: By the way, the Nominating Committee believes that “fostering successors” is a major issue. The issue is not how we will nurture the next generation, but our focus is on how to nurture the generation after the next and the generation after such generation. Education on business skills is sufficiently provided, but it is necessary to develop the ability to hold discussions on major themes and to enhance education for raising awareness of management issues. We are currently reviewing what kind of skills are needed in Japan and globally, and what kind of education should be provided to nurture such skills, targeting people around the age of 50. In addition, we created a skill matrix so that the skills of Directors can be understood by shareholders and third parties. (See p.73 for more details.)

Kawahara: The “Notice of Convocation” for the 121st Shareholders’ Meeting (held in July 2020) also includes the skill matrix of candidate Directors.

Tsuda: I would like to use this kind of matrix to check the skills of candidate successors and strengthen each person's skills, for example, by training them if there is any skill imbalance. However, it is not enough to have many “circles” in the checkbox, and we would like those who become a Director or Executive Officer to have a profound knowledge in at least one field. In order to gain the “trust” of people, which forms the basis of a leader, I think it is also important to acquire outstanding abilities that make others think “this person is a leading expert” or “I can't best this person.”

Kawahara: With regard to “trust,” I would like to add something: when reporting the results of on-site audits to Board of Directors, we do not present any complaints, but are trying to communicate the facts frankly. Also, at the end of the audit, I try to ask, “What do you think of the current NTN? What does NTN need?” The subjects of audits are general managers of business sites and president of subsidiaries. They themselves have various thoughts, and I have heard them voicing questions like “What direction will NTN take?” Such voices are also reported and shared in Board of Directors and at other opportunities. This is because it is important to take follow-up measures to resolve problems in some way, as long as we have people at the site talk about their problems during the audit. Conversely, if we feel that the thoughts of Directors and Executive Officers are not communicated to people at the site, we may communicate them at the time of audit. Through these efforts, if we can communicate with each other and understand what trouble the work site has and what the NTN Head Office is thinking about, I believe we have fulfilled the role of auditing. We believe that realizing a smooth organization is also an important role of the auditing team.



Topic 4

Toward the Revitalization of NTN

The NTN Revitalization Scenario was announced in June 2020. Currently, a medium-term management plan is being formulated with the fiscal year ended March 2024 as the plan's final year. How do you intend to revitalize NTN?

Tsuda: The results for the fiscal year ended March 2020 were extremely unfortunate. The cash flow from capital expenditures was not in line with our expectations, causing a divergence between our initial expectations and actual results. In addition, we posted impairment losses due to the impact of the the new coronavirus (COVID-19).

Kawahara: While sales did not grow in the previous fiscal year, a burden was imposed on us due to the establishment of a new plant in Wakayama Prefecture. However, this was for the purpose of anti-seismic measures and production restructuring, and must be seen to the end. As Mr. Tsuda said earlier, the "vertical axis" of the vertically-divided system of business divisions exhibited strong effects, and the divisions' idea of "investment must be made because the project has been decided" took precedence, with the initial estimates being too optimistic and the ex-post verification of returns being not properly carried out. In such a case, I think we were not able to discuss whether to continue the business, whether to stop it, and how to control it. I would like to confirm once again how to follow up on capital investment.

Tsuda: That's right. We (Directors) are also responsible for deteriorating performance, and we have made strict evaluations and assessments in terms of personnel affairs and compensation, by taking measures such as reducing compensation. The issue is what direction to take in the future. How will you improve your business performance after you have overcome the impact of the new coronavirus? Currently, we are formulating the next medium-term management plan, and it does matter how Outside Directors will commit to it.

Kawahara: Recently, investment is no longer permitted unless a reasonable explanation is given, including estimates of revenues and expenses and growth potential of the market. At last, we have shifted our focus from scale to cash flow and profit. I believe that this is the result of effects exhibited by the "horizontal axis" such as Finance Headquarters, Corporate Strategy Headquarters, Production Headquarters, and CSR Headquarters. I feel that the idea of overall optimization is taking root with priorities based on the "horizontal axis taken into account," and the idea of individual optimization at business divisions is being discarded. I myself believe that the highest priority should be given to cash flow. One of the major reasons why investment doesn't generate cash

is that inventories are not quickly reduced, as mentioned earlier. I believe that the reason why inventories do not decrease is that the Company has its own pre-manufacturing processes. In principle, having pre-manufacturing processes should result in the retention of income, but the problem is that a burden of investment and inventory is greater than the income.

Tsuda: Recently, the idea of production reform has

been accepted, and the idea of reducing and downsizing the pre-manufacturing processes through outsourcing and fables models is being adopted.

Kawahara: That's right. We certainly suffered a great deal of losses, but these are due partially to reforms involving "bleeding," which we couldn't carry out in the past, and I feel confident about our efforts in that respect. Rather than pursuing making the "scale" larger, future investments should be made after judging "whether or not you can reliably gain profit," and investments that have already been made need to be verified after the fact. As a full-time Outside Director, I will strongly recommend such measures in the future.

Tsuda: With regard to the difficulty of "stopping operations" I mentioned earlier, we already have a long manufacturing process, and the Company clung to the idea of having all processes on its own and plunged into a situation where it had a lot of inventory as intermediate goods. Even when operations were stopped, because the entire production process is long, inventories are accumulated in respective sub-processes. In order to resolve this issue, we have begun efforts to reform production so that we do not have intermediate goods.

Kawahara: Governance reforms have enabled Executive Officer in charge of the Production Headquarters to focus on his own duties, and due partially to this, the production reforms have been facilitated.

Tsuda: In response to Executive Officer's advice, young employees at our core plants have led the way in rationalizing production, and have begun to expand this initiative to other plants. As a Director, I would like to make sure that this kind of effort is not hindered and that they are fully supported. It is very important to make investment decisions for production facilities.

Kawahara: It seems that, when requested by customers, our employees think "even if profit from this project is low, our future business will be expanded by working on the project" and as a result, they make unprofitable investments.

Tsuda: Weak cost competitiveness tends to lead to such ideas. If a manufacturer's requirements are not consistent with our strategy, we can reject them, can't we? I believe it is most important to overcome the weaknesses of our company and to build up strength that surpasses that of our competitors. To this end, I believe that the ultimate issue is to what extent we can make rationalization efforts, including production reform and sales reform.

Topic 5

Challenges for the Next Generation

What issues remain to be addressed in response to the new coronavirus infections? What initiatives will you take in anticipation of the next era?

Tsuda: The risk management system has been in place, but if you ask whether we have assumed the outbreak of infectious diseases such as the new coronavirus, we made no detailed assumption about such situation. Nevertheless, we believe that NTN has been able to respond smoothly, including ensuring the safety of its employees and promoting telework, by immediately establishing the Central Headquarters. I would like to assign a passing score to our first-stage response to manage this crisis.

Kawahara: My evaluation is similar to Mr. Tsuda's. In the event of a global pandemic, the Central Headquarters, headed by

President, has been able to collect information and manage various measures in a unified manner, with the highest priority promptly placed on the health and safety of employees. Our measures to promote work style reform and introduce telecommuting under the leadership of the Personnel Department have also helped us respond to the pandemic successfully. In the future, I think it is important to summarize the issues that have surfaced, such as overtime management and evaluation systems, and incorporate solutions to such issues into our systems. In addition, while the Procurement Headquarters is following up on the maintenance of the supply chain, it is necessary to carefully determine the extent of impacts of the new coronavirus. In addition, because our financial position significantly worsened, we must be aware of the increasingly unfavorable evaluation of our company by society, and fulfill our accountability to explain our current situation and goals to all stakeholders, as we strive to produce results in a reliable manner.

Tsuda: I think what position NTN will take in terms of the supply chain is a very important issue in light of the turbulent social situation. We need to consider the issue, considering the confrontation between the U.S. and China, which has surfaced in recent years.

Kawahara: Returning to the topic of capital investment, we should allocate budgets to "investment for renewal of aging facilities" and "investment for rationalization leading to reduced fixed cost," which have not been sufficiently carried out until now. Even if the scale of the budget for capital investments shrinks, partly due to the impact of the new coronavirus, these investments may contribute to lowering the break-even point. If you use old equipment, it seems that the cost is kept down at a first glance. However, problems arise, such as quality issues or low productivity. I believe that we need to implement control measures so that such problems do not occur.

Tsuda: If Executive Officer provides in-depth explanations to workers at the site, I believe that we will be able to respond more quickly to the issues that Mr. Kawahara mentioned. We can say that now is the time for improvement.

Kawahara: From a long-term perspective, NTN is proceeding with the identification of materiality. This is an important task for NTN to continue to be a company needed by society.

Tsuda: With regard to materiality, it may be a good idea to start with work with a rough design and update it according to the situation, instead of trying to create well-designed work from the beginning. Also, I believe that it is most important for top management to understand the significance of the issue. Materiality will also be factored into the medium-term management plan.

Tsuda and Kawahara: Despite challenging results in the fiscal year ended March 2020, we intend to increase corporate value by selecting and concentrating our businesses. As discussed in this talk, NTN's revitalization is progressing steadily through the promotion of governance reforms and other measures. We will continue to check management as Outside Directors and fully support the progress of NTN.



Messages from New Outside Directors



Tomonori Nishimura
Former Executive Vice President
of NEC Corporation,
Business Owner of NT Consul Biz.

In my previous job, I shared goals with customers and created new value together with a variety of stakeholders as an Executive Officer of the business division. Appointed as an Outside Director, I will commit to contribute to NTN's new "value creation" and "brand power enhancement" by sharing the goal of "sustainable growth" with our shareholders and linking the diverse assets hidden in the Company with the desperate needs of society.

Japan is one of the world's most advanced countries in terms of decreasing birthrate and aging population. In other words, Japan is a "developed country with various issues." In recent years, the environment surrounding society has changed dramatically, such as large-scale disasters and the outbreak of new coronavirus infections. Rather than simply streamlining operations and conducting immediate work style reform, we need to pass on techniques to the next generation corresponding to aging of workers, and accelerate management by effectively using AI through the use of IoT. These measures are essential for "sustainable growth." In addition, with a view to the global challenge of the aging society that each country will face in the future, I believe that the interests of our shareholders will be created by identifying our own ways of value creation together with our business divisions and creating social value in new business fields through industry-government-academia collaborations and cross-industry exchanges.



Yuriya Komatsu
Director of DWANGO Co., Ltd.,
Adviser of Otsuka Chemical
Co., Ltd.

In the past, corporate governance had the same meaning as being "shareholder-oriented." However, reflecting on the harmful effects of being shareholder-oriented, the importance of ESG management has increased. I believe that the present corporate governance is to promote management by pursuing sustainable growth while considering balances among stakeholders (shareholders, employees, customers, society, etc.).

I have been analyzing, evaluating and investing in Japanese and Asian companies as a member of an institutional investor for more than 20 years in Japan and the U.S. At the time, I felt that the overemphasis on shareholders' interests, which began in the U.S., would have a negative impact on long-term corporate growth, so I left the financial sector. Subsequently, as an Executive Officer and Director in operating companies, I have been involved in management by seeking a balance between the interests of stakeholders, as I have experienced difficulties in maintaining the perspective of shareholders while satisfying the interests of other stakeholders. I would like to leverage my experience as an investor and Executive Officer/Director of operating companies to contribute to improving the Company's corporate governance and corporate value from a perspective that differs from that of Inside Directors.

The global epidemic of new coronavirus infections is a major challenge for our business management, but it is also a major opportunity. At an IT company where I serve as a Director, approximately 80% of the employees have shifted to permanent telework, and they are promoting the following measures: digitization of operations that had been performed by using paper documents, such as contracts and expense settlements; review of operational procedures; and streamlining through the use of AI. NTN has also been tackling the same issue of transformation, so I will share the knowledge and work to promote its digital transformation (DX).



From the left in the back row

Director
Masaki Egami
Executive Officer

Director
Eiichi Ukai
Representative Executive Officer,
Managing Executive Officer

Director
Hiroshi Ohkubo
Representative Executive Officer,
President, Executive Officer

Director
Hideaki Miyazawa
Representative Executive Officer,
Senior Managing Executive Officer

Director
Toshinori Shiratori
Managing Executive Officer

Director
Keiji Ohashi

Outside Director
Yuriya Komatsu

Outside Director
Noboru Tsuda

Outside Director
Kouji Kawahara

Outside Director
Ryo Kawakami

Outside Director
Tomonori Nishimura

Directors  Members of Nominating Committee  Members of Audit Committee  Members of Compensation Committee ★ Chairperson of each committee

Name	Title	Age	Years of Service as Director	Number of Board of Directors and Committee Attended (Fiscal year ended March 31, 2020)		Number of Company's Shares Held (As of March 31, 2020)	Reason for Selection	
<div>Hiroshi Ohkubo</div> <div><div></div><div></div></div>	Director	67 years old (born on May 14, 1953)	8 years	100%	Board of Directors Nominating Committee Compensation Committee	14/14 5/ 5 4/ 4	113,600 shares	Mr. Hiroshi Ohkubo possesses operational experience in areas such as the Finance Division and Overseas Division, and broad knowledge of the management of the Company promoting business globally based on these achievements, among others, and has served as President and Director of the Company since June 2014 and as President, Executive Officer of the Company since June 2019. The Company selects him with an aim to continuously improve corporate value, utilizing his experience and knowledge, etc. for management.
<div>Hideaki Miyazawa</div> <div><div></div><div></div></div>	Director	59 years old (born on October 18, 1960)	6 years	100%	Board of Directors	14/14	69,800 shares	Mr. Hideaki Miyazawa possesses operational experience in areas such as the Business Division for the automotive market and Overseas Division, and broad knowledge based on these achievements, among others. The Company selects him with an aim to continuously improve corporate value, utilizing his experience and knowledge, etc. for management.
<div>Eiichi Ukai</div> <div><div></div><div></div></div>	Director	63 years old (born on February 1, 1957)	3 years	100%	Board of Directors	14/14	54,100 shares	Mr. Eiichi Ukai possesses operational experience in areas such as the Quality Assurance Division and Overseas Division, and broad knowledge based on these achievements, among others. The Company selects him with an aim to continuously improve corporate value, utilizing his experience and knowledge, etc. for management.
<div>Toshinori Shiratori</div> <div><div></div><div></div></div>	Director	62 years old (born on July 13, 1958)	5 years	100%	Board of Directors Compensation Committee	14/14 4/ 4	43,300 shares	Mr. Toshinori Shiratori possesses operational experience in areas such as the Human Resources Division and Corporate Strategy Division, and broad knowledge based on these achievements, among others. The Company selects him with an aim to continuously improve corporate value, utilizing his experience and knowledge, etc. for management.
<div>Masaki Egami</div> <div><div></div><div></div></div>	Director	62 years old (born on December 26, 1957)	New appointment				15,900 shares	Mr. Masaki Egami possesses operational experience in areas such as the Engineering Division and Research Division, and broad knowledge based on these achievements, among others. The Company selects him with an aim to continuously improve corporate value, utilizing his experience and knowledge, etc. for management.
<div>Keiji Ohashi</div> <div><div></div><div></div></div>	Director	63 years old (born on October 14, 1956)	New appointment Served as Director for 7 years from June 2012 to June 2019				109,200 shares	Mr. Keiji Ohashi possesses operational experience in areas such as the Finance Division and General Affairs Division, and broad knowledge based on these achievements, among others. The Company selects him with an aim to continuously improve corporate value, utilizing his experience and knowledge, etc. for management.
<div>Noboru Tsuda</div> <div><div>★</div><div></div></div>	Outside Director	70 years old (born on November 25, 1949)	4 years	100%	Board of Directors Nominating Committee Compensation Committee	14/14 5/ 5 4/ 4	21,100 shares	Mr. Noboru Tsuda possesses broad knowledge, etc. based on extensive experience in the management of other companies. The Company selects him with an aim to secure validity and legality of management and continuously improve corporate value through appropriate advice and suggestions from an independent standpoint, utilizing his experience and knowledge, etc.
<div>Kouji Kawahara</div> <div><div></div><div>★</div></div>	Outside Director	59 years old (born on February 3, 1961)	1 years	100%	Board of Directors (including attendance as Audit & Supervisory Board Member) Nominating Committee Audit Committee	14/14 5/ 5 10/10	32,500 shares	Mr. Kouji Kawahara possesses extensive experience in banking over many years and broad knowledge including finance, among others. The Company selects him with an aim to secure validity and legality of management and continuously improve corporate value through appropriate advice and suggestions from an independent standpoint, utilizing his experience and knowledge, etc.
<div>Ryo Kawakami</div> <div><div></div><div>★</div></div>	Outside Director	52 years old (born on October 1, 1967)	1 years	100%	Board of Directors (including attendance as Audit & Supervisory Board Member) Audit Committee Compensation Committee	14/14 10/10 4/ 4	0 shares	Mr. Ryo Kawakami possesses broad knowledge, etc. based on extensive experience as a lawyer familiar with corporate legal affairs. The Company selects him with an aim to secure validity and legality of management and continuously improve corporate value through appropriate advice and suggestions from an independent standpoint, utilizing his experience and knowledge, etc.
<div>Tomonori Nishimura</div> <div><div></div><div></div></div>	Outside Director	65 years old (born on November 5, 1954)	New appointment				0 shares	Mr. Tomonori Nishimura possesses broad knowledge, etc. based on extensive experience in the management of other companies. The Company selects him with an aim to secure validity and legality of management and continuously improve corporate value through appropriate advice and suggestions from an independent standpoint, utilizing his experience and knowledge, etc.
<div>Yuriya Komatsu</div> <div><div></div><div></div></div>	Outside Director	57 years old (born on October 18, 1962)	New appointment				0 shares	Ms. Yuriya Komatsu possesses extensive experience in financial institutions and other companies and broad knowledge including finance, among others. The Company selects her with an aim to secure validity and legality of management and continuously improve corporate value through appropriate advice and suggestions from an independent standpoint, utilizing her experience and knowledge, etc.

Executive Officers

Name	Title	Responsible
Hiroshi Ohkubo*	Representative Executive Officer, President, Executive Officer	CEO (Chief Executive Officer)
Hideaki Miyazawa*	Representative Executive Officer, Senior Managing Executive Officer	Corporate General Manager, Automotive Business Headquarters Procurement Headquarters
Yoshinori Terasaka	Senior Managing Executive Officer	Europe & Africa Region Americas Region
Eiichi Ukai*	Representative Executive Officer, Managing Executive Officer	Aftermarket Business Headquarters Industrial Business Headquarters Quality Assurance Headquarters NTN Korea Co., Ltd. ASEAN, Oceania & West Asia Region India Region
Toshinori Shiratori*	Managing Executive Officer	Human Resources CSR Headquarters Information Technology Department General Affairs Department EHS (Environment, Health and Safety) Integrated Management Department
Masaki Egami*	Executive Officer	CTO (Chief Technology Officer) Research Division New Product and Business Strategic Planning Headquarters Green Energy Products Division
Isao Ozako	Executive Officer	Corporate General Manager, Production Headquarters Production Engineering R&D Center Composite Material Product Division
Masayuki Kaimi	Executive Officer	Supply & Demand Center Cost Planning Department China Region
Koji Kametaka	Executive Officer	Deputy Corporate General Manager, Automotive Business Headquarters General Manager, Electric Module Products Division EV Module Division
Tetsuya Sogo	Executive Officer	CFO (Chief Financial Officer) Corporate General Manager, Finance Headquarters
Masaaki Yamamoto	Executive Officer	Corporate General Manager, Corporate Strategy Headquarter

* Executive Officers concurrently serving as Directors

Basic Approach

Strengthening and enhancing our corporate governance is one of our top management priorities. We take steps to make management more efficient and robust while working to increase management transparency by disclosing information in a prompt and accurate manner to shareholders and investors.

We made a transition from a Company with Board of Company Auditors to a Company with Nominating Committee, etc. upon the approval of the 120th General Meeting of

Shareholders held on June 25, 2019 (for the fiscal year ended March 31, 2019). The purpose of this transition is to establish a prompt decision-making structure and operational execution organization, strengthen the supervision of management, and improve management transparency and fairness. Under this structure, we will work on further improvement of corporate value over the medium- and long-term.

Members composing Nominating Committee, Audit Committee, and Compensation Committee

Fiscal year ending March 31, 2021 (As of July 30, 2020)

Director	Nominating Committee	Audit Committee	Compensation Committee
Hiroshi Ohkubo	○		○
Hideaki Miyazawa			
Eiichi Ukai			
Toshinori Shiratori	○		○
Masaki Egami			
Keiji Ohashi		○	
Noboru Tsuda ★(Non-standing)	◎		○
Kouji Kawahara ★	○	◎	
Ryo Kawakami ★(Non-standing)		○	◎
Tomonori Nishimura ★(Non-standing)	○	○	
Yuriya Komatsu ★(Non-standing)			○

* Please note that persons with ★ are Outside Directors, persons with ◎ are Chairpersons of committees, and persons with ○ are members of committees.

5 Management Meeting

The Management Meeting discusses important matters relating to operational execution, as a supporting body for decision-making of President, Executive Officer. The meeting is composed of President, Executive Officer, and Executive Officers who are designated by him, and held twice a month in principle.

6 Executive Officers Meeting

The Executive Officers Meeting is held by President, Executive Officer under the attendance of all Executive Officers. Matters resolved at the Board of Directors are instructed, and each Executive Officer reports about the status of operational execution. This meeting is held once a month in principle, to make operational execution more efficient and effective by sharing information among Executive Officers.

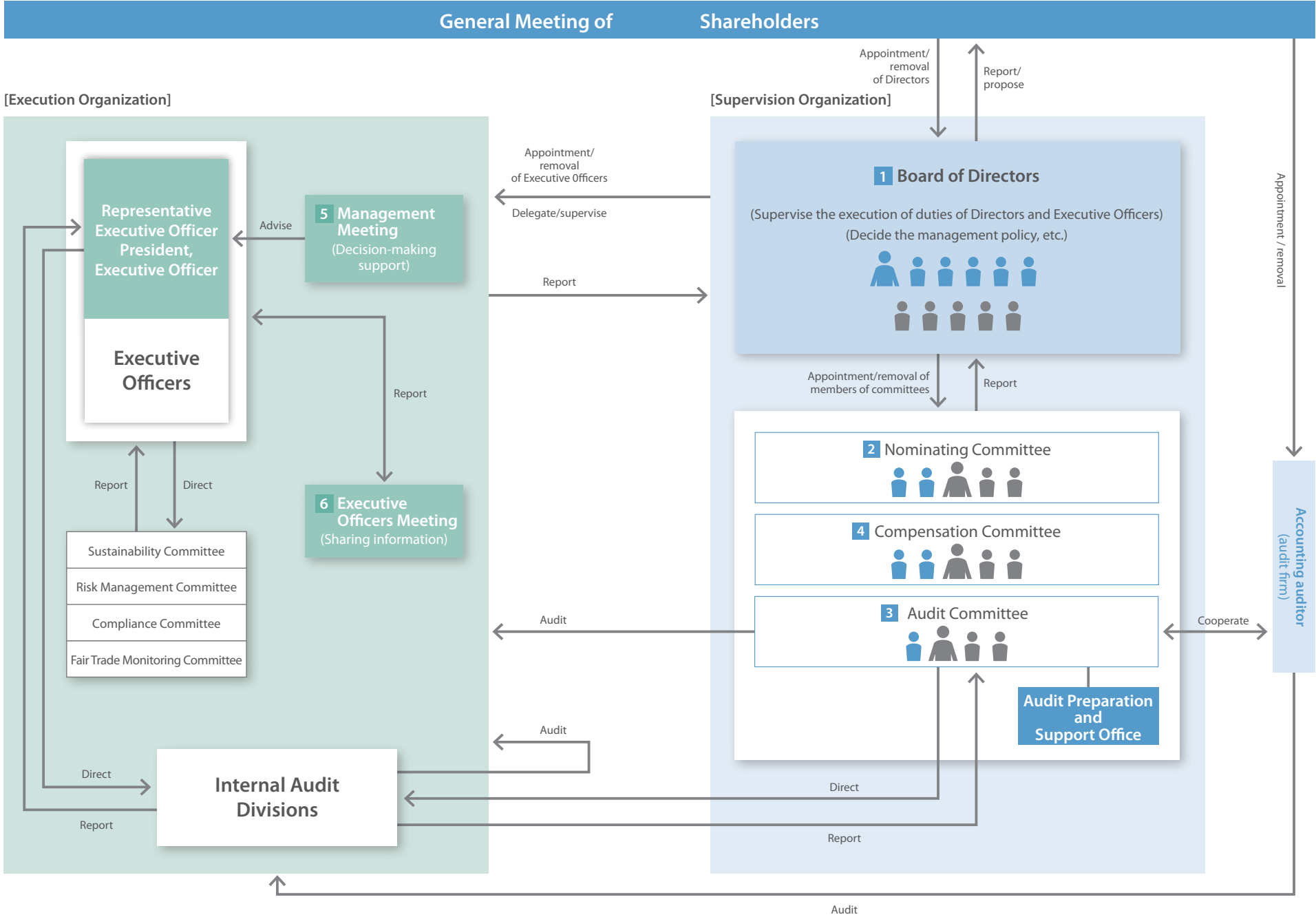
Executive Officers

Executive Officers are elected by the resolution of the Board of Directors, and are in charge of executional decision making and execution of operations delegated by the Board of Directors. Its term of office is specified as a year by the Articles of Incorporation. The number of Executive Officers is 11 as of July 30, 2020.

Basic information

Organizational design	Company with Nominating Committee, etc.
Directors	11
Of those, independent Outside Directors	5
Term of office of Directors	1 year
Executive Officers	11
Of those, Executive Officers who have the authority of representation	3
Executive Officers concurrently serving as Directors	5
Structure to support duties of Audit Committee	Available (Audit Preparation and Support Office)
Accounting auditor	Ernst & Young ShinNihon LLC

Corporate governance structure (as of July 30, 2020)



1 Board of Directors

The Board of Directors decides the basic management policies, and supervises the execution of duties of Directors and Executive Officers. Except matters stipulated by laws and regulations or the Articles of Incorporation to be resolved at the Board of Directors, the Board of Directors delegated substantial authority to Executive Officers with the aim to strengthen the supervision of management, and make decisions more promptly.

The Board of Directors is held once a month in principle, but it is also held flexibly as needed.

The Articles of Incorporation specify that the term of office of Directors shall be one year, and the number of Directors shall be within 15. The number of Directors is 11 as of July 30, 2020, and five of them are Outside Directors. The Board of Directors is chaired by Director, President, Executive Officer.

2 Nominating Committee

The Nominating Committee decides on the content of a proposal regarding appointment/removal of Directors, which is submitted to the General Meeting of Shareholders. The majority of the members are Outside Directors, and the committee is chaired by an Outside Director.

3 Audit Committee

The Audit Committee audits the execution of duties of Directors and Executive Officers, and decides on the content of a proposal regarding appointment/removal of the accounting auditor, which is submitted to the General Meeting of Shareholders. The majority of the members are Outside Directors, and the committee is chaired by an Outside Director.

Also, the Audit Preparation and Support Office is established as an organization dedicated to support the duties of the Audit Committee, including Secretariat of Audit Committee. Regarding matters relating to appointment, personnel relocation, disciplinary punishment, evaluation, etc. of staff of the Audit Preparation and Support Office, the approval from the Audit Committee shall be required for decision.

4 Compensation Committee

The Compensation Committee decides on the policy for compensation for Directors and Executive Officers, and details of compensation for individual persons. The majority of the committee are Outside Directors, and the committee is chaired by an Outside Director.

Governance-strengthening transition

2004	<ul style="list-style-type: none">Start of Operating Officer SystemThe Board of Managing Directors is reviewed and renamed as the Business Strategy Committee	2015	<ul style="list-style-type: none">Compliance Committee is establishedThe effectiveness of the Board of Directors is assessed
2006	<ul style="list-style-type: none">CSR Committee is established	2016	<ul style="list-style-type: none">Compensation Advisory Committee is established
2008	<ul style="list-style-type: none">Risk Management Committee is establishedAn Outside Director is appointed for the first time	2018	<ul style="list-style-type: none">New corporate philosophy system is established
2011	<ul style="list-style-type: none">The number of Outside Directors is increased from 1 to 2	2019	<ul style="list-style-type: none">Transition to a Company with Nominating Committee, etc.The number of Outside Directors is increased from 2 to 5Sustainability Committee is established
2012	<ul style="list-style-type: none">Fair Trade Monitoring Committee is established	2020	<ul style="list-style-type: none">Woman appointed as an Outside Director

Board of Directors

Approach of Board of Directors

Directors other than Outside Directors are appointed from a wide range of fields, including manufacturing, marketing, technology, and administrative divisions. In addition, Outside Directors are appointed after considering diversity and balance, such as being a person with knowledge of finance, experienced management, and being a lawyer. We believe that the current number of Directors is an appropriate size for strengthening corporate governance and expanding our global businesses.

Appointment of the first female Director

Upon the approval of the General Meeting of Shareholders in the fiscal year ended March 2020, a female Director (Outside Director) was newly appointed for the first time at the Company. The female Director with experience in a different industry than

ours will supervise management. This will enable us to integrate diverse values and accelerate transformation aimed at achieving sustainable growth.

Assessment of effectiveness of the Board of Directors

We conducted a self-assessment of the Board of Directors by sending out questionnaires to Directors from the viewpoints such as role/structure/management of the Board of Directors and management of committees. The result was generally positive, but there were comments regarding a succession plan of top management (CEO) and others. Based on those, discussions were held on future actions and others at the Board of Directors. We will continue to analyze and evaluate the effectiveness of the Board of Directors on a regular basis to make improvements.

The main areas of experience of Directors (Skill matrix)

Name	Main areas of experience required of Directors								
	Corporate management	Manufacturing	Technology and R&D	Marketing	Corporate and business planning	Finance and administration	Legal affairs, internal controls, compliance	Global experience	Experience of other industries, diversity
Hiroshi Ohkubo	●				●	●	●	●	
Hideaki Miyazawa	●	●		●	●			●	
Eiichi Ukai	●	●		●				●	
Toshinori Shiratori	●			●	●	●	●	●	
Masaki Egami			●						
Keiji Ohashi	●					●	●		
Noboru Tsuda	●				●	●	●		●
Kouji Kawahara				●		●	●		●
Ryo Kawakami							●		●
Tomonori Nishimura	●		●	●					●
Yuriya Komatsu					●	●	●	●	●

Nominating Committee

Members, the number of meetings, and attendance

Name	Title		Attendance	Number of attendances
Noboru Tsuda	Chairperson	Outside Director	100%	5 times/5 times
Kouji Kawahara		Outside Director	100%	5 times/5 times
Akira Wada*		Outside Director	100%	5 times/5 times
Hiroshi Ohkubo		Director	100%	5 times/5 times
Hironori Inoue*		Director	100%	5 times/5 times

* Retired at the conclusion of the General Meeting of Shareholders in the fiscal year ended March 31, 2020

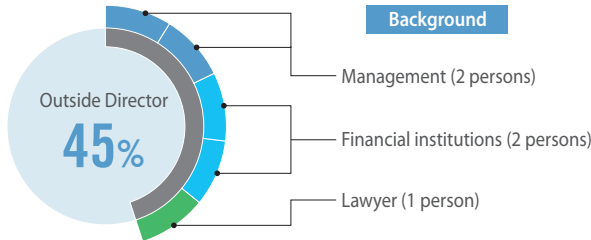
Discussions on Nominating Committee

The Nominating Committee was established in conjunction with the transition to a Company with a Nominating Committee, etc. The committee was held five times in total in the fiscal year ended March 31, 2020, with discussions held and resolutions made mainly on the standards for selection of Directors, skill matrix related to standards for selection and the standards regarding the independence of Outside Directors.

About Outside Directors

We made a transition from a Company with a Board of Company Auditors to a Company with a Nominating Committee, etc. upon the approval of the General Meeting of Shareholders for the fiscal year ended March 31, 2019. The Board of Directors consists of 11 members, including six Inside Directors and five Outside Directors, and the ratio of Outside Directors is 45%. The purpose of this transition is to strengthen the supervision of management and improve management transparency and fairness. In addition, in order to ensure appropriate corporate governance, we have established our own standards regarding the independence of Outside Directors, stipulating qualification and independence standards for them. This standard is used for appointing Outside Directors. Also, all the Outside Directors are designated as independent Officers as defined by the rules of Tokyo Stock Exchange, Inc. (TSE), and are reported to TSE.

For Outside Directors, we have established an environment where the secretariat or any other party explains the issues as appropriate prior to the Board of Directors so that active discussions can be made at the Board of Directors. Moreover, we continuously provide information necessary for Outside Directors to effectively fulfill their roles and responsibilities by creating opportunities to deepen their understanding of our business through on-site tours of business sites and other means.



Standards for Selection of Directors

The selection of candidates for Directors will be determined based on standards for selection of Directors described below, considering the gender and international diversity and balance of the Board of Directors as a whole, after careful deliberation in the Nominating Committee. The appointment of an Executive Officer shall be also determined after careful deliberation by the Board of Directors, including Outside Directors, comprehensively considering whether they possess personalities, insights, capabilities, experience/performance, etc. that are appropriate for fulfilling their duties. In addition, if it becomes clear that an Executive Officer lacks the required qualifications, he/she will be promptly dismissed by the Board of Directors, including Outside Directors.

Standards for Selection of Directors

- Must be in good condition both physically and mentally.
- Must have a high sense of ethics and a law-abiding spirit.
- Must be able to engage in constructive discussion from an objective viewpoint.
- Must be highly motivated to improve their abilities.
- Must have excellent decision-making skills from a company-wide and medium- to long-term perspective.
- Must have excellent insight and foresight concerning changes to the overall environment and to society.
- Must have a sufficient record of performance and expertise in relevant fields. (Corporate manager or expertise)
- Outside Directors must (1) have sufficient time to accomplish their duties, (2) satisfy the standards regarding the independence of Outside Directors, (3) ensure diversity between the Outside Directors, and (4) have the requisite abilities to accomplish duties as a member of any of the three Committees.

Compensation Committee

Members, the number of meetings, and attendance

Name	Title		Attendance	Number of attendances
Akira Wada*	Chairperson	Outside Director	100%	4 times/4 times
Noboru Tsuda		Outside Director	100%	4 times/4 times
Ryo Kawakami		Outside Director	100%	4 times/4 times
Hiroshi Ohkubo		Director	100%	4 times/4 times
Toshinori Shiratori		Director	100%	4 times/4 times

* Retired at the conclusion of the General Meeting of Shareholders in the fiscal year ended March 31, 2020

Discussions at the Compensation Committee

Following the transition to a Company with a Nominating Committee, etc., we held the Compensation Advisory Committee from April to June 2019 and the Compensation Committee from June 2019 to March 2020. The Compensation Committee aims to improve fairness, transparency, and objectivity of procedures regarding the decision making of compensation for Directors and Executive Officers and enhance corporate governance. Also, the committee passed resolutions regarding the details of compensation (such as compensation specified for each individual) of Officers.

Compensation Advisory Committee (April 1, 2019 -June 24, 2019)

1st	Performance of BIP Trust Results for compensation of Officers
2nd	Bonus for Directors FY2019 summer bonus for Executive Officers Discussion on composition and amount of compensation for Officers Revision of stock issuance regulations and internal regulations concerning BIP Trusts for compensation for Officers

Compensation Committee (June 25, 2019 - March 31, 2020)

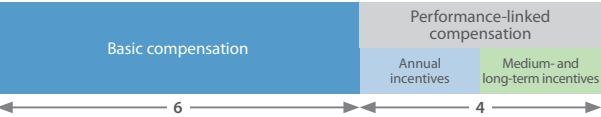
1st	Decision of the order of substitution for the chairperson in the event of an accident Policy for determining the amount, or method of calculation, of compensation for Officers Individual compensation for Directors and Executive Officers Signing a memorandum concerning the revision of stock issuance regulations, internal regulations and the trust contract Notice regarding for the revision of the system of BIP Trust for compensation for Officers Compensation Committee's annual activity plan
2nd	Reduction of compensation for Directors and Executive Officers Validation for level and structure of compensation for Directors, Executive Officers, and Operating Officers 2019 winter bonus for Executive Officers
3rd	Performance targets of BIP Trust for compensation for Officers in line with revision of Medium-Term Management Plan Prerequisites for bonus payment for Executive Officers Compensation for Directors and Executive Officers for the next fiscal year Bonus for Executive Officers
4th	Compensation for Directors and Executive Officers for the next fiscal year

Policies for determining the amount, or method of calculation, of compensation, etc., for Officers

The system and level of compensation for Officers, compensation specified for each individual, etc. are determined in the Compensation Committee chaired by an Outside Director using objective information including the level and trends of other companies as reference. Compensation for Executive Officers and compensation for Directors are determined separately, and if a Director also serves as an Executive Officer, those compensations are added up.

Compensation for Executive Officers

Compensation for Executive Officers consists of basic compensation, which is a fixed compensation, and performance-linked compensation, which fluctuates according to performance. The ratio of basic compensation to performance-linked compensation is approximately 6:4 as a standard.



Basic compensation

Basic compensation shall be determined based on a relevant Executive Officer's role and increased in the case of, for example, Executive Officers who have the right to represent.

Performance-linked compensation

Annual incentives

The payment amount shall be decided in consideration of the status of progress of measures for achieving key targets for each Executive Officer, on the basis of the performance level in the applicable fiscal year.

Medium- and long-term incentives

The Company's shares shall be issued based on the achievement level of major target figures in the Medium-term Management Plan (money equivalent to the converted amount of shares shall be paid for a certain portion) as incentives to motivate them to achieve the targets in the Medium-term Management Plan and contribute to raising shareholder value, and in order to promote the holding of the Company's shares.

Medium- to long-term performance targets include key performance indicators (consolidated operating margin, consolidated net sales, etc.) that take into account the Company's management policies.

Compensation for Directors

Compensation for Directors consists of basic compensation, which is a fixed compensation. Basic compensation shall be calculated taking into account concurrent duties of an Executive Officer, whether a Director works full-time or part-time, the committees to which a Director belongs, and his/her role.

Audit Committee

Members, the number of meetings, and attendance

Name	Title		Attendance	Number of attendances
Kouji Kawahara	Chairperson	Outside Director	100%	10 times/10 times
Tadao Kagono*		Outside Director	90%	9 times/10 times
Ryo Kawakami		Outside Director	100%	10 times/10 times
Hironori Inoue*		Director	100%	10 times/10 times

* Retired at the conclusion of the General Meeting of Shareholders in the fiscal year ended March 31, 2020

Discussions at the Audit Committee

Following the transition to a Company with a Nominating Committee, etc., we held meetings of the Board of Corporate Auditors from April to June 2019 and meetings of the Audit Committee from June 2019 to March 2020. Major items to be discussed at the Audit Committee include the formulation of the Audit Committee's auditing standards, the formulation of auditing policies and auditing plans, the evaluation of the content of auditing plans of the independent auditors, the assessment of the selection of independent auditors, and the assessment of the status of development and operation of internal control systems.

Audit Status

The Audit Committee members attend meetings of the Board of Directors and other major meetings based on auditing standards, policies, and plans determined by the Audit Committee. The Audit Committee receives reports or hears from Directors, Executive Officers, employees, etc. on the status of the execution of their duties, and audits the execution of duties by Directors and Executive Officers. In addition to the Board of Directors and Executive Officers Meeting, members of the Audit Committee attend and monitor the Risk Management Committee, the Compliance Committee, and the Fair Trade Monitoring Committee, which operate internal control systems.

Overview of the Committees

Sustainability Committee

The Sustainability Committee is chaired by Executive Officer responsible for CSR Headquarters, and is vice-chaired by corporate general manager, with members consisting of the heads of ESG-related divisions. Each employee in our group should promote sustainability activities based on the 3 fundamental principles of our Corporate Philosophy, CSR Basic Policy, and Action of Business Conduct in our day-to-day business activities. The committee is responsible for identifying key issues (materiality) and establishing targets for achieving SDGs in order to examine initiatives related to sustainability.

Compliance Committee

The Compliance Committee, chaired by Executive Officer in charge of CSR Headquarters (Overall Control Administrator of Compliance Promotion Activities), handles global compliance risks, excluding violation risks of the Anti-Monopoly Act and the Subcontracting Act. The committee members are comprised primarily of the heads of related risk management divisions. The committee members formulate and implement risk mitigation measures in cooperation with the Compliance Promotion Activities Supervisors appointed at each business unit in Japan and the Internal Control Section established at each Office of the General Manager in 5 overseas regions, and report to the committee on action plans and the status of implementation. The committee deliberates on the contents of them and reports the findings to Board of Directors.

Risk Management Committee

We have established the Risk Management Committee, chaired by Executive Officer (Executive Officer in charge of risk management), who is responsible for the Global Risk Management Department, as an advisory body on risk management to prevent risks from occurring and minimize damage in the event of a crisis. The committee consists of the general managers of the promotion department of risk management, responsible departments in subsidiaries. The committee regularly checks the situation of risks surrounding the group, and formulates the group-wide risk management plan and discusses matters such as the BCP/ BCM. The result of discussion at the Risk Management Committee is reported to Board of Directors and instructions are fed back to the relevant departments.

Fair Trade Monitoring Committee

The Fair Trade Monitoring Committee is chaired by President, Chief Executive Officer and consists of Executive Officers in charge of sales and procurement divisions, Outside Director, external lawyer and so on. In principle, this meeting is held twice a year to discuss the implementation plans and the performance reports for compliance with the Antimonopoly Act and the Subcontracting Act, and to provide supervision and guidance on effective control for fair trade practices along with education and awareness-raising activities. In addition, we have established the Fair Trade Promoting Department in CSR Headquarters as an overall supervisory department for antimonopoly compliance. Under the direction of the Fair Trade Monitoring Committee, the department conducts education, instruction, audit and other activities for relevant divisions. Furthermore, overseas subsidiaries are monitored for the implementation status of antimonopoly compliance in cooperation with the Internal Control Section, within Office of the General Manager in each region.

Basic approach to compliance

We believe that earning the trust of society is essential for us to contribute to the realization of a sustainable society and to continue to be a company needed by society. Accordingly, we are placing importance on compliance in our Management Policy. We formulated the Business Code of Conduct to specify the policy of actions which officers and employees should observe to conduct business activities in accordance with laws and regulations and generally accepted standards and practices in each country, and our internal rules. We have also established and been operating the compliance promotion structure that includes rules relating to compliance, a whistle-blower system, the Compliance Committee, and the Fair Trade Monitoring Committee.

Compliance promotion structure

We have established and been operating the Compliance Committee and the Fair Trade Monitoring Committee to promote compliance through the activities of both committees. (See page 76 for details of the activities of the two committees.)

Aside from the efforts made by the two committees, the Legal Department in CSR Headquarters conducts the rank-based training and the topic-specific training for officers and employees as part of compliance-related educational and awareness-raising activities. In addition, we hold mass training meetings for Compliance Promotion Activities Supervisors in Japan once a year. By sharing information and exchanging opinions on important issues, we are enhancing the promotion activities at each business unit and providing support for the initiatives at each business unit. Furthermore, with regard to activities for global compliance risks such as corruption prevention, we regularly exchange information and opinions with the Internal Control section at each Office of the General Manager in the 5 overseas regions and legal/compliance departments of overseas subsidiaries, confirming each other's ongoing activities and setting new issues.

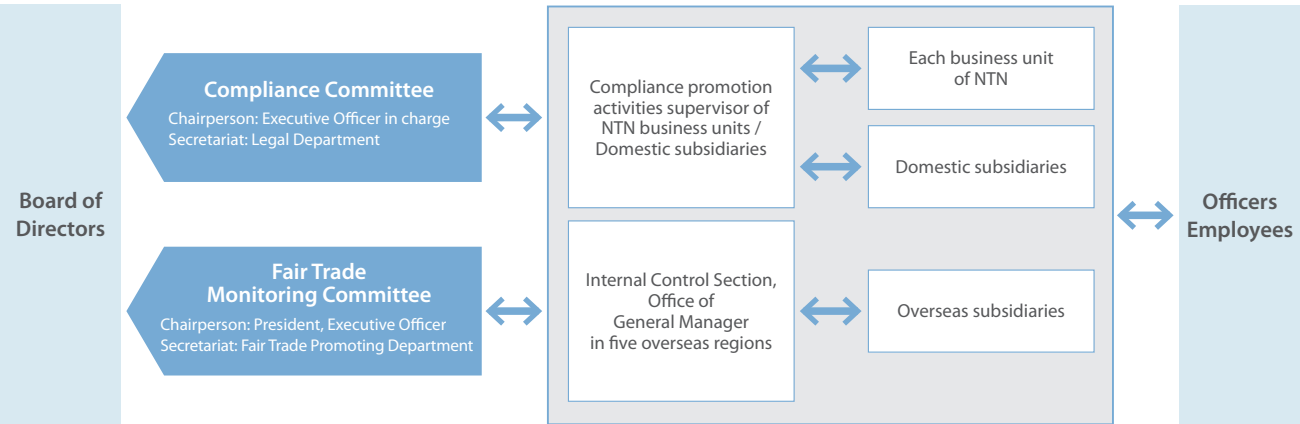
In addition, we have established the Fair Trade Promoting Department in CSR Headquarters as an overall supervisory

department for antimonopoly compliance. Under the direction of the Fair Trade Monitoring Committee, the department conducts education, instruction, audit and other activities for relevant divisions. Additionally, overseas subsidiaries are monitored for the implementation status of antimonopoly compliance in cooperation with the Internal Control Section, within Office of the General Manager in each region.

Major actions to enhance compliance

Category	Actions	Commencement (YYYY/MM)
Development of Structures/ Policies/Rules	Rules for management of compliance promotion activities are established	2015/04
	Compliance Committee is held (twice a year)	2015/04
	"NTN CSR Procurement Guidelines" for business partners, including compliance contents are issued	2016/04
	July 26 is designated as "Compliance Day" and a message from President is delivered to all NTN Group employees (once a year).	2016/07
Educational / Awareness-raising activities	Topic-specific training for important departments which especially need to be familiar with compliance by the Legal Dept., the Fair Trade Promoting Dept., Etc. (as needed)	2012/01
	Compliance training for Operating Officer is implemented (as needed)	2012/08
	Rank-based compliance training for new managers, new employees, Etc. by the Legal Dept. (as needed)	2015/04
	Original compliance training for each business unit by compliance promotion activities supervisors is implemented (as needed)	2015/04
	Mass training meeting for compliance promotion activities supervisors, and persons in charge by the Legal Dept. is implemented (once a year)	2015/04
	NTN's Compliance, which is a database for sharing compliance related information, such as compliance-related incidents and introduction of compliance promotion structure is operated	2016/08
	E-learning program about corruption prevention and antimonopoly laws is implemented (once a year)	2017/04
	Audits on antimonopoly compliance are implemented	2012/11
Audit/ Monitoring activities	Audits on rules for corruption prevention are implemented	2018/05

Structure



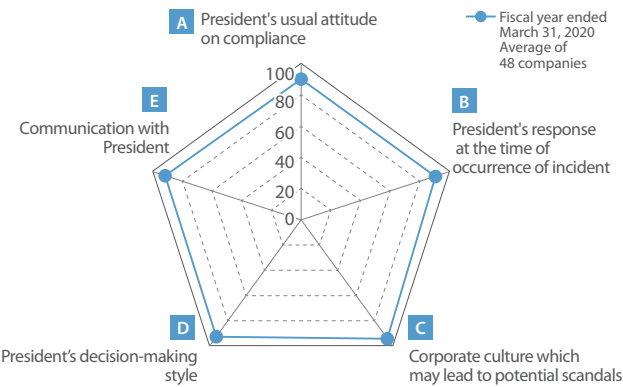
Compliance attitude survey

As part of our anticorruption efforts, we are examining employees' assessment of the compliance-related attitudes of division heads, affiliated companies' presidents and other senior executives.

It is said that improprieties within a company will be more likely to occur when motivations, pressures, opportunities, and justification triangles are met. It is important to develop rules and penalties, and at the same time, to develop an internal corporate culture and environment.

This survey focuses on the corporate culture and environment and discloses the results of the survey to senior executives, aiming to create a corporate culture that "does not cause fraud" based on the awareness that fraud is constantly seen within the company and at the head office, and to form a better compliance environment with employees.

In the fiscal year ended March 2020, we conducted a survey of 1,600 employees in our manufacturing divisions and 2,100 employees from 48 subsidiaries (12 in Japan and 36 outside Japan).



* Percentage of employees evaluated positively

Corruption prevention initiatives

Initiatives in Japan

We have established and have been practicing in-house rules and regulations based on domestic and overseas anti-corruption laws, generally accepted standards, and practices. In our in-house regulations, they not only prohibit bribery from and to domestic and overseas public officials and business partners, but also specify the rules and procedures regarding provision of property or profit by our officers or employees, and rules and procedures to prevent bribery via our business partners. In addition, under the circumstance that some countries even impose restraints on the transfer of property or profit between private companies, we have established rules and procedures for the receipt of property or profit in order to prevent bribery by officers and employees, to thoroughly ensure the conduct of fair trade, and to prevent conflicts of interest with officers and employees. Furthermore, we made it policy to decline the provision of gifts and entertainment from our business partners in principle.

We conduct in-house training and e-learning programs to raise awareness of the contents of our in-house rules and regulations, and conduct self-audits once a year to ensure thorough awareness of the relevant rules and regulations. Domestic subsidiaries have also established and have been practicing their own internal regulations that are consistent with our company policies.

Initiatives in Overseas

Our overseas subsidiaries have developed and have been operating in-house rules and regulations that are localized to reflect relevant laws, regulations, and generally accepted standards and practices in each country. They also conduct audit activities related to these rules and regulations as needed. The Legal Department is regularly sharing information and exchanging views with the Internal Control Section at each Office of the General Manager in each region on related initiatives, and coordinating the systems to prevent bribery across the whole group.

Helpline (whistle-blower system) and educational activities

In Japan, the whistle-blower system called Helpline has been established and operated with both in-house and outside contact points to provide consultation services regarding violations of laws, Business Code of Conduct, and in-house regulations. Helpline provides counseling services for cases such as suspected violations of labor-related laws, including harassment, as well as violations of in-house regulations, and conducts investigation in line with Helpline Management Rules that stipulate ensuring the confidentiality and prohibition of detrimental treatment against the whistle-blower. Through the introductions in various compliance trainings and in the Code of Conduct Guidebook, we have established a structure where all employees can utilize Helpline, not only as a tool to report misconduct, but also as a means of raising questions, opinions, and complaints regarding the Business Code of Conduct, and maintaining satisfactory relations between the company, officers, employees, and business partners.

Whistle-blower systems are being progressively created and operated also in overseas regions, where they are tailored to local needs and circumstances.



Antimonopoly compliance initiatives

We think that all antimonopoly violations represent a potential risk for the whole NTN Group. To ensure thorough antimonopoly compliance, the Fair Trade Promoting Department and the Internal Control Section in each region conduct education and awareness-raising activities related to antimonopoly compliance in accordance with local laws and the environment.

In addition, officers and employees are obliged to submit advance applications and follow-up reports when there is a possibility of contact with competitors in any event, such as at exhibits or meetings. Furthermore, we strengthen the compliance system by conducting self-audits and internal audits. Based on those results, each department proactively plans and implements improvement measures.

We work to put fair and free competition into practice by continuing to upgrade our educational activities and raising the awareness of officers and employees.

Basic approach to internal control

We recognize risk management and compliance as one of our most important managerial issues, and have established the Internal Control Policy.

Regarding internal control (Internal Control Report System) under the Financial Instruments and Exchange Act, 50 domestic and overseas companies of the Group and the Internal Audit Department made an evaluation of internal control for the fiscal year ended March 31, 2020 in compliance with the basic framework for internal control set forth in the Business Accounting Council's "Standards for Management Assessment and Audit concerning Internal Control over Financial Reporting" and "Practice Standards for Management Assessment and Audit concerning Internal Control over Financial Reporting."

More than 10 years have passed since the introduction of the Internal Control Report System, and in order to rebuild the evaluation structure, we are reviewing the scope of evaluation of business sites and business processes, and conducting education activities at domestic and overseas business sites.

We will continuously develop the internal controls and make an operational evaluation appropriately, in accordance with relevant standards, in response to changes in the business environment.

Internal audit activities

In our company, the Internal Audit Department is in charge of the internal audit operation and the overall management operation of the internal control system.

The Internal Audit Department, as an organization that is independent of the executive organization, conducts internal audits of the status of the execution of operations by each division of the company and domestic and overseas group companies from the view point of compliance with laws and internal regulations, appropriateness, and the effectiveness and efficiency of business activities.

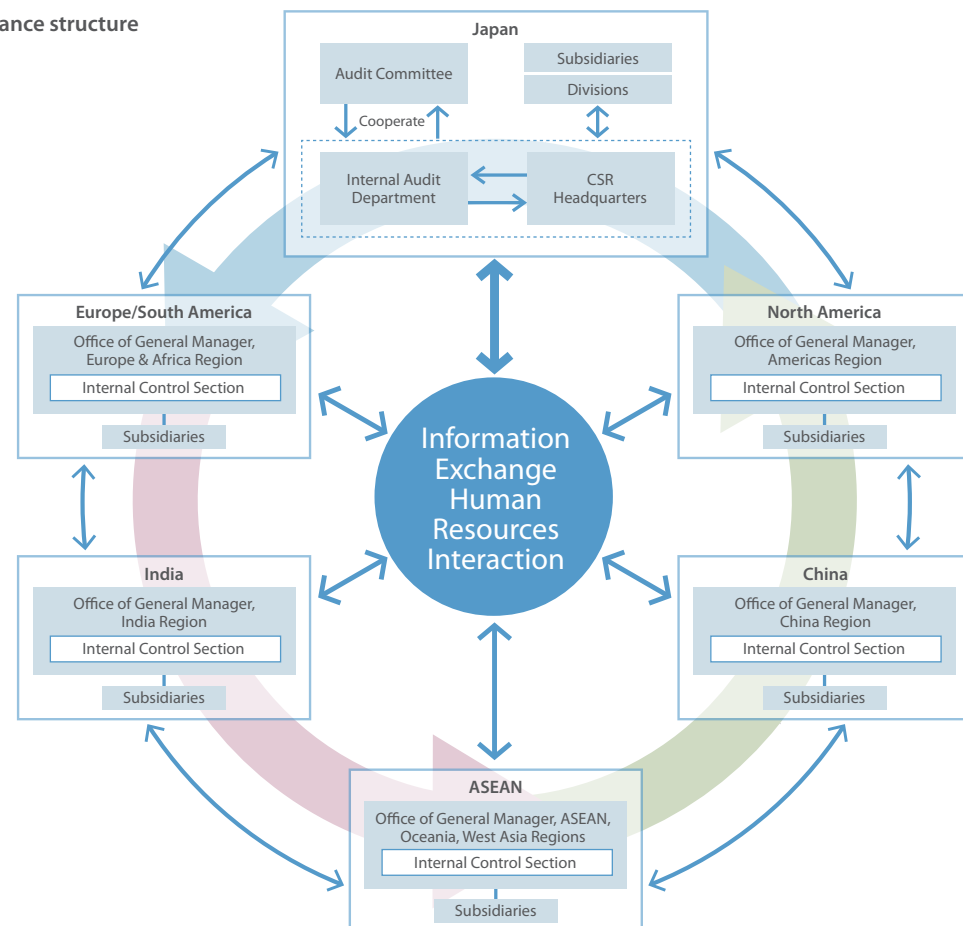
Based on the results of internal audits, we provide advice and recommendations on improvements to the departments subject to audits. We also confirm the status of implementation of improvement measures and conduct follow-up audits.

The findings of the internal audits are reported to President, Executive Officer and the Audit Committee as needed.

Outside Japan, an Office of the General Manager has been established in each region to oversee and monitor operations, each having an Internal Control Section within it. The Internal Control Section works with the Internal Audit Department and CSR Headquarters to implement policies specific to each local region and country or in accordance with local needs and characteristics.

The Internal Audit Department, the Audit Committee, and the Accounting Auditor work to improve efficiency and effectiveness of audit by regularly holding meetings and exchanging information and opinions about the policies, plans, and results of audit.

Global compliance structure



Basic approach to risk management

We have developed the Risk Management Policy that outlines our basic approach to prevention and handling of risks that may hamper the execution of the group's business, and the Risk Management Regulations that set forth risk management organizations and their roles. Through these measures, we promote group-wide risk management and BCP/BCM (Business Continuity Planning/Business Continuity Management).

We convene the Risk Management Committee as an advisory body for risk management twice a year, to regularly check the situation of risk surrounding the group's business, including changes in domestic and overseas circumstances. The committee also formulates a group-wide risk management plan and discusses measures such as the promotion of BCP and BCM. The results of the discussion at the Risk Management Committee are reported to Board of Directors.

Structural diagram



Promotion of global risk management

To promote worldwide risk management for the entire NTN Group, we selected nine risks as Global Risks that are common to both domestic and overseas subsidiaries and are expected to cause major impacts on management if they occur. The management status of nine risks of domestic and overseas affiliated companies is regularly monitored via our database, and we assess the status according to the global common standards we have developed. Based on the assessment results, we identify the current status of risk management in the Group as a whole, and push ahead with necessary measures including support for development of the internal rules. With regard to global risks identified, the Risk Management Committee conducts periodic revisions and checks on the risks identified, taking into account changes in the environment.

Global risks

- 1 Leakage of confidential information
- 2 Computer virus / cyberterrorism
- 3 Violation of antimonopoly law / competition law
- 4 Natural disaster
- 5 Fire disaster / explosion
- 6 Issue of human rights
- 7 Industrial accident
- 8 Complaint about product quality
- 9 Violation of bribery-related laws

Promotion of BCP/BCM

We have been developing a BCP/BCM structure designed to respond to major earthquakes in Japan and are working to strengthen our disaster response systems, including those of our group companies.

By the fiscal year ended March 31, 2020, we have completed the formulation of BCP to enable early disaster recovery at all domestic production sites. We have also implemented BCP training to assess the effectiveness of the formulated action plans and take necessary advance measures. In doing so, we are moving ahead with development of BCM.

As part of our supply chain management, we are also working to develop a natural disaster risk assessment system and an audit system for suppliers, and to formulate BCP at our logistics bases.



BCP training

Response to the new coronavirus (COVID-19)

In response to the spread of the new coronavirus, we established the Central Headquarters with President, Executive Officer as chief of headquarters to respond to emergencies. Based on the basic concept shown below, we are promoting the necessary measures globally. We will continue to closely monitor the future situation and take appropriate measures.

1. Give top priority to ensuring the safety of employees and their families
2. Thorough precautions should be taken to prevent an increase of infected persons as much as possible
3. Efforts are made to ensure customer business continuity

Thousands of U.S. dollars*1
(Excluding per-share values)

		2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020
Financial Data													
Net Sales	(Millions of yen)	452,746	530,056	543,468	539,595	638,971	701,900	716,997	683,329	744,373	733,569	651,496	6,041,040
Operating Income	(Millions of yen)	1,399	24,560	20,724	7,278	33,004	43,851	47,770	35,623	39,609	26,946	7,057	65,437
Operating Margin	(%)	0.3	4.6	3.8	1.3	5.2	6.2	6.7	5.2	5.3	3.7	1.1	1.1
Income (loss) before Income Taxes	(Millions of yen)	(1,838)	22,855	16,357	(13,898)	(2,451)	37,063	26,943	14,890	26,906	2,939	(33,950)	(314,803)
Net Income (Loss) Attributable to Shareholders (parent company)	(Millions of yen)	(2,015)	14,399	5,993	(14,196)	(14,648)	23,353	15,037	2,831	20,374	(6,958)	(43,993)	(407,928)
Capital Expenditures	(Millions of yen)	21,504	29,700	54,440	48,979	33,162	31,266	36,300	35,398	37,589	45,172	57,675	534,795
Depreciation and Amortization	(Millions of yen)	40,702	35,936	34,175	34,841	39,315	40,392	38,278	36,629	37,506	38,926	37,307	345,932
R&D expenditures	(Millions of yen)	14,687	15,697	17,157	16,174	17,821	18,088	18,481	19,196	21,007	21,661	19,962	185,099
Total Assets*2	(Millions of yen)	618,802	632,001	693,258	768,462	848,037	856,277	794,651	798,891	839,427	840,751	757,822	7,026,955
Net Assets	(Millions of yen)	214,551	210,353	212,126	211,743	213,369	262,559	248,505	245,050	269,760	246,405	168,378	1,561,296
Inventories	(Millions of yen)	126,663	136,985	155,107	163,287	166,484	184,128	178,220	171,482	179,738	194,505	182,923	1,696,166
Interest-bearing Debt	(Millions of yen)	231,638	223,284	271,978	360,802	381,767	359,105	325,174	320,170	320,832	350,345	362,416	3,360,535
Inventory Turnover Ratio	(Times)	3.6	3.9	3.5	3.3	3.8	3.8	4.0	4.0	4.1	3.8	3.6	
Net D/E Ratio	(Times)	1.00	0.92	1.11	1.37	1.27	1.11	1.11	1.05	0.93	1.16	1.87	
Net Income (loss)/Average Total Assets (ROA)	(%)	(0.3)	2.3	0.9	(1.9)	(1.8)	2.7	1.8	0.4	2.5	(0.8)	(5.8)	
Net Income (loss)/ Average Shareholders' Equity (ROE)	(%)	(1.1)	7.2	3.0	(7.2)	(7.3)	10.5	6.3	1.2	8.4	(2.9)	(22.8)	
NTN-ROI*3	(%)	0.2	4.2	3.4	1.1	4.6	6.3	6.5	5.1	5.7	4.0	1.0	
Equity to Capital Ratio	(%)	32.2	31.6	28.4	26.0	23.5	28.6	29.2	28.7	30.2	27.4	20.6	
PER-SHARE DATA													
Net Assets	(Yen)	374.19	376.05	370.19	375.84	374.68	461.21	436.97	431.66	477.17	433.32	294.00	2.73
Net Income (Loss)	(Yen)	(4.00)	27.08	11.27	(26.69)	(27.54)	43.91	28.28	5.33	38.36	(13.10)	(82.83)	(0.77)
Cash Dividends	(Yen)	8.00	10.00	10.00	0	2.00	6.00	10.00	10.00	15.00	15.00	5.00	0.05
Non-Financial Data													
Number of employees (consolidated)		17,961	19,174	20,793	21,398	22,156	23,360	24,109	24,665	25,493	24,988	24,199	
Percentage of employees overseas	(%)	58	61	63	63	64	66	66	66	67	65	64	
Percentage of female employees (non-consolidated)	(%)	9	9	9	9	9	9	10	10	11	11	10	
Average years of continuous employment	(Years)	19	19	19	19	18	18	18	18	19	19	19	
Number of Directors		11	12	13	12	11	11	14	14	14	14	11	
Number of Independent Outside Directors		1	1	2	2	2	2	2	2	2	2	5	
CO2 emissions	(10,000 tons)	42.3	53.1	53.9	56.7	59.3	61.7	60.5	62.0	65.3	67.4	60.6	
Energy consumption	TJ/year	4,704	5,943	5,857	6,134	6,331	6,463	6,336	6,493	6,849	6,978	6,326	
Water consumption*4	(10,000 m³)	179.4	225.2	219.7	210.9	201.8	197.3	319.7	323.0	326.4	335.3	281.1	
Generated waste	(10,000 tons)	10.9	13.2	15.0	14.1	15.0	15.4	15.9	16.3	17.7	17.7	15.5	
Exchange Rate Data													
USD Average		92.89	85.74	79.08	82.91	100.17	109.76	120.15	108.39	110.85	110.88	108.73	
EUR Average		131.18	113.13	109.02	106.78	134.21	138.69	132.60	118.80	129.64	128.41	120.84	
USD at fiscal year end		93.04	83.15	82.19	94.05	102.92	120.17	112.68	111.85	106.49	110.64	107.85	
EUR at fiscal year end		124.92	117.57	109.80	120.73	141.65	130.32	127.70	119.48	131.00	124.21	119.13	

*1: The translation of yen amounts into U.S. dollar amounts is included solely for the convenience of readers outside Japan and has been made at ¥107.845 = U.S. \$1.00, the exchange rate prevailing on March 31, 2020.
This translation should not be construed as a representation that yen can be converted into U.S. dollars at the above or any other rate.

*2: The figures for the fiscal year ended March 31, 2018 have been retroactively revised by "Partial Revision of the Accounting Standard for Tax Effect Accounting".Prior to the fiscal year ended March 31, 2018, no retroactive application was made.

*3: nsN-ROI =Net operating income after tax/(tangible fixed assets + inventories)

*4: Regarding water consumption (millions of m3), the data includes Japan only until the fiscal year ended March 31, 2015, and global data since the fiscal year ended March 31 2016.

Net sales and incomes

Sales performance

Net sales for the fiscal year ended March 31, 2020 was 651,495 million yen, a decrease of 82,073 million yen (down 11.2%) from the previous fiscal year. Considering the decrease of 17,150 million yen due to the effect of exchange rates there was an actual decrease of 64,924 million yen. Net sales overseas was 453,500 million yen, a decrease of 72.82 million yen (down 13.8%) from the previous fiscal year. Net sales overseas accounted for 69.6% of net sales (Americas 26.8%, Europe 21.6%, and Asia and other regions 21.2%), down 2.1 points from the previous fiscal year.

Net sales and incomes by business sector

In aftermarket applications, net sales was 109,417 million yen (down 7.9% year on year) due to the decreased customer demand and other factors. Despite a decline in fixed cost, operating income was 12,738 million yen (down 16.1% year on year) due to a decline in sales volume and other factors.

In industrial machinery applications, net sales was 105,072 million yen (down 14.9% year on year) due to a decreased sales of construction machinery and other factors. Despite a decline in fixed cost, operating loss of 2,001 million yen (operating income of 3,106 million yen in the previous fiscal year) was recorded due to a decline in sales volume and other factors.

In automotive applications, net sales was 437,007 million yen (down 11.1% year on year) to due to the decreased customer demand and other factors. Despite a decline in fixed cost, operating loss of 3,680 million yen (operating income of 8,655 million yen in the previous fiscal year) was recorded due to a decline in sales volume and other factors.

Net sales by region

Regarding sales in the Japanese market, sales for aftermarket applications decreased in the industrial machinery aftermarket business Sales for industrial machinery applications decreased due to decreased sales for construction machinery applications and sales for automotive applications also decreased due to decreased customer demand and other factors. As a result, net sales was 197,996 million yen (down 4.5% year on year). Regarding sales in the Americas, sales for aftermarket applications decreased in the industrial machinery aftermarket business. Sales for industrial machinery market decreased mainly in construction machinery and wind turbine applications while sales for automotive applications also decreased due to decreased customer demand. Consequently, net sales was 174,308 million yen (down 13.5% year on year),

Regarding sales in Europe, sales for aftermarket applications decreased both for industrial machinery and automotive aftermarket. Sales for industrial machinery applications decreased mainly in wind turbines, gearboxes and other applications. Also, sales for automotive applications decreased mainly due to decreased customer demand. As a result, net sales was 140,839 million yen (down 16.1% year on year).

Regarding sales in Asia and other countries, sales for aftermarket applications increased in industrial machinery aftermarket applications. In industrial machinery applications, sales for wind turbines increased, but sales for construction

machinery and other applications decreased, resulting in a decrease in overall sales. Sales for automotive applications also decreased due to decreased customer demand and other factors. As a whole, net sales was 138,353 million yen (down 11.9% year on year).

Cost of sales, selling, general and administrative expenses

Cost of sales was 549,398 million yen for the year, and its ratio to net sales was 84.3%, up 2.1 percentage points from the previous consolidated fiscal year. The amount of selling general and administrative expenses was 95,041 million yen, and its ratio to net sales was 14.6%, up 0.5 percentage points from the previous fiscal year.

Income

Although there was a factor that increases the profit such as a decline in personnel expenses and valuable cost, there was also a factor that decreases the profit such as the scale effect, selling price levels, and exchange rates. Consequently, operating income for the fiscal year under review was 7,056 million yen, down 19,889 million yen (73.8%) from the previous fiscal year. Ordinary profit margin was 1.1%, down 2.6 percentage points from the previous fiscal year.

As for other revenues and expenses, 8,755 million yen of net expense was recorded. This is roughly broken down to: 5,038 million yen of revenues including 1,084 million yen of dividend income, 988 million yen of interest income; and 13,793 million yen of expenses including 3,952 million yen of interest expense and 3,826 million yen of exchange loss. As a result, the Company recorded 1,698 million yen of ordinary loss, down 23,930million yen from the previous fiscal year. Ordinary income margin was -0.3%, (down 3.3 percentage points year on year).

In addition to these amounts, we posted 1,353 million yen of gain on sales of investment securities, 1,981 million yen of extraordinary income, 34,232 million yen of extraordinary loss (including 29,001 million yen of impairment loss), and the net loss attributable to shareholders (parent company) was 43,992 million yen, up 37,035 million yen compared to the previous fiscal year. Also, net loss per share was loss of 82.83 yen.

Regarding annual dividends for the fiscal year under review, we set a year-end dividend at 0 yen per share, which, when added to our interim dividend of 5 yen per share, totals 5 yen per share for the full year.

R&D and capital expenditures

R&D expenditures

Groupwide R&D expenditures for the fiscal year under review amounted to 19,962 million yen yen, (down 1,699 million yen year on year) and the ratio of R & D expenditures to net sales was 3.1%.

Based on our corporate philosophy "We shall contribute to international society through creating new technologies and developing new products," New Medium-term Management Plan "DRIVE NTN100," which started in April 2018, promotes R&D activities focusing on strengthening core technologies and products supporting our product development and also strengthening new business development as an expansion in new areas over the next 100 years.

By developing high-performance, high-precision products that leverage our technological strengths, such as tribology, heat treatment, precision machining, precision measurement, and CAE, we will provide products adapted to a low-carbon society, continuously improving customer satisfaction, and achieving sustainable growth.

Capital expenditures, etc.

We and our consolidated subsidiaries primarily make a capital investment in the improvement of production capacity, rationalization by labor-saving, maintenance and upgrading of existing facilities, improvement of safety environment, and R&D of new products.

In Japan, we invested 29,747 million yen, among other purposes, construct buildings and introduce bearing manufacturing facilities of Wakayama Works. In the Americas, capital expenditures was 17,627 million yen due to expansion of manufacturing facilities for constant velocity joints at NTN DRIVESHAFT, INC., expansion of manufacturing facilities for constant velocity joint parts at NTK PRECISION AXLE CORP, and expansion of manufacturing facilities for bearings at NTN-BOWER CORP. Capital expenditures in Europe was 6,034 million yen due to expansion of manufacturing facilities for bearing at NTN-SNR ROULEMENTS. In Asia and other regions, we invested 4,307 million yen for additional bearing manufacturing facilities at SHANGHAI NTN CORP. After adding adjustments of -40 million yen, including inter-segment equipment transfers, the amount of capital expenditures in the consolidated fiscal year under review was 57,675 million yen.

The required funds are self-financed and borrowed. Depreciation and amortization for the fiscal year under review was 37,307 million yen, a decrease of 1,619 million yen from the previous fiscal year.

Financial position and cash flow

Current assets decreased by 49,480 million yen (down 10.9%) from the end of the previous fiscal year and came to 405,800 million yen. This is mainly due to a decrease of 25,571 million yen in notes and accounts receivable, a decrease of 12,676 million yen in cash and deposits, and a decrease of 6,492 million yen of work in process. Fixed assets decreased by 33,449 million yen (down 8.7%) and came to 352,022 million yen compared to the end of the previous fiscal year. This is mainly due to a decrease of 17,406 million yen in investment securities, decrease of 17,220 million yen in property, plant and an equipment, and an increase of 6,091 million yen of intangible fixed assets. As a result, total assets decreased by 82,929 million yen (down 9.9%) from the end of the previous fiscal year and amounted to 757,822 million yen.

Current liabilities decreased by 2,734 million yen (down 0.9%) from the previous fiscal year and came to 286,964 million yen. This was mainly due to a decrease of 11,296 million yen in notes and accounts payable, a decrease of 4,503 million yen in electronically-recorded monetary claims, a decrease of 6,986 million yen in notes payable related to facility and an increase of 20,845 million yen in short-term loans. Fixed liabilities decreased by 2,168 million yen (down 0.7%) from the previous fiscal year and end to 302,480 million yen. This was mainly due to a

decrease of 8,772 million yen in long-term loans and an increase of 4,837 million yen in liability for retirement benefits. Consequently, total liabilities decreased by 4,902 million yen (down 0.8%) from the previous fiscal year and amounted to 589,444 million yen.

Total net assets decreased by 78,027 million yen (down 31.7%) from the end of the previous fiscal year to 168,378 million yen. This is mainly due to a 50,639 million yen decrease in retained earnings and a 12,727 million yen decrease in translation adjustments.

The equity ratio was 20.6% (down 6.8 percentage points from the end of the previous fiscal year), and net assets per share based on the total number of issued and outstanding shares at the term-end was 294.00 yen (down 139.32 yen from the end of the previous fiscal year). Interest-bearing debt increased by 12,073 million yen (up 3.4%) from the previous fiscal year and came to 362,417 million yen. Taking into account the reduced amount of 4,099 million yen due to the effects of exchange rates, the actual increase was 16,171 million yen. The ratio of interest-bearing debt to total assets was 47.8% (up 6.1 percentage points from the end of the previous fiscal year).

Net working capital was 118,836 million yen, down 46,746 million yen from the end of the previous fiscal year. The current ratio was 141.4% (down 15.8 percentage points from the end of the previous fiscal year).

Inventories turnover ratio was 3.56 (down 0.21 from the end of the previous fiscal year) and total assets turnover ratio was 0.86 (down 0.01 from the end of the previous fiscal year).

Net cash from operating activities was 43,750 million yen (a year-on-year increase of 526 million yen, or up 1.2%). This was mainly due to proceeds of 37,307 million yen from depreciation and amortization, 29,001 million yen of impairment loss, and 25,144 million yen due to a decrease of notes and accounts receivable-trade, and outflows of 33,950 million yen of net loss before income taxes and 13,681 million yen due to a decrease of trade payables.

Net cash used in investing activities was 61,808 million yen (down 3,807 million yen, or 5.8%, year on year). This was mainly due to outflows of 59,009 million yen due to purchases of tangible fixed assets and 10,075 million yen due to purchases of intangible fixed assets.

Net cash from financing activities was 7,413 million yen (down 13,333 million yen, or 64.3%). This was mainly due to proceeds of 29,795 million yen from borrowing of long-term loans, and 6,213 million yen of the net increase of short-term loans and outflows of 19,145 million yen due to repayment of long-term loans and 6,645 million yen due to dividend payment.

As a result of including a 1,595 million yen decrease in translation adjustments and a 68 million yen decrease in cash and cash equivalents due to exclusion of subsidiaries from consolidation, cash and cash equivalents at the term-end was 71,165 million yen, down 12,309 million yen (14.7%) from the end of the previous fiscal year.

Free cash flow, which is net cash from operating activities less net cash from investing activities, was -18,058 million yen. The cash flow return on sales ratio was 6.7%.

Business results and the financial position of the NTN Group are subject to the following risks.

(1) Risks Related to External Business Environment

1) Economy

The NTN Group operates global production and sales networks, and supplies customers in various industrial sectors. The financial position, business results, and cash flows of the NTN Group may be affected by a change in economic conditions in a specific country or region and a change in business conditions in industries to which our customers belong.

2) Foreign Exchange Fluctuations

Overseas sales of the NTN Group account for over 50% of consolidated sales. This percentage is expected to increase further due to continued acceleration in the global business development of the NTN Group.

Overseas subsidiaries' foreign currency-denominated business results and financial positions are converted to yen for the preparation of consolidated financial statements. Moreover, many export transactions of the Company with overseas customers are conducted in foreign currencies. Although the NTN Group hedges risks through forward foreign exchange contracts and expansion of local procurement, effects of exchange rate fluctuations in foreign currency and yen exchange rates on the financial positions, business results, and cash flows cannot be fully eliminated.

3) Declines in Market Prices

The competitive environment surrounding production and sales activities of the NTN Group is becoming harsher worldwide. As products from China and other emerging countries are gaining ground, bearings have been partially affected by falling market prices. At the same time, against a backdrop of global price competition, calls for price reductions are mounting in the automotive industry, which accounts for over half of the NTN Group sales. Although the NTN Group works continuously to reduce costs while developing new products of high quality and high added value the financial position, business results, and cash flows may be affected by downward pressure on market prices.

4) Rise in Raw Materials Prices

The NTN Group procures a wide range of raw materials from outside sources. To deal with cost increases, especially of steel materials, which pose a high weighting in material costs, measures have been taken such as mark-ups on selling prices to reflect higher material costs In addition, the Group is targeting cost reductions through enhanced production yields and VA/VE methods. Nevertheless, the financial positions, business results, and cash flows may be affected by stronger than expected increases in raw material costs.

5) Risk of Disasters and Spread of Infectious Diseases

The business sites of the NTN Group and our business partners may be affected by natural disasters such as earthquakes, flooding, fires, and the spread of infectious diseases. In preparation for large-scale disasters, the NTN Group has introduced a safety confirmation system and conducted emergency drills. In order to combat the spread of infectious diseases, we have taken various measures, such as stockpiling masks. We are prepared to minimize damage by taking immediate action in the event of a crisis. However, it is difficult to completely avoid risk, and as a result, the financial position, business results and cash flows may be affected.

The NTN Group has been temporarily suspending production at some plants in Japan and abroad since April 2020 due to requests or orders from governments in each country and declined demand from customers in response to the global outbreak of new coronavirus infections. It is currently difficult to reasonably calculate the impact of these effects on the Company's financial position, business results and cash flows.

In response to new coronavirus infections, the NTN Group is striving to prevent infections by utilizing telework, staggered work, and prohibiting business trips and visits in principle. We also promote telecommuting overseas and take other measures in accordance with the circumstances of each country.

Under these circumstances, we have positioned fiscal year 2020 as the Crisis Response Period and we will thoroughly implement anti-infectious measures to achieve "ensure the health and safety of employees" while focusing on "secure cash and continue business" in the event of an emergency.

(2) Risks Related to Business Operations

1) Dependence on Specific Industries

The NTN Group's bearing division derives approximately half of its sales revenues from the automotive industry, which also accounts for more than half of the sales of components that the constant velocity joint division produces for automotive power transmission to the drive axle. Dependence on the automotive industry is therefore high. Although the NTN Group works to expand sales of bearings and precision equipment parts to the industrial machinery sector and implements measures to achieve a balanced sales structure, a rapid shift in demand in the automotive industry could potentially affect the NTN Group's financial position, business results, and cash flows.

2) Product Defects

To ensure product quality, the NTN Group works to satisfy customers' requirements

concerning product functions and specifications, and strives to provide appropriate quality and product safety by enforcing quality assurance globally. However, a substantial product defect leading to a serious accident, claim for damages, or product recall could entail huge product warranty costs and potentially affect the financial position, business results, and cash flows of the NTN Group. Although the NTN Group has taken out global product liability insurance, complete coverage for loss (including compensation for damages) is not possible.

3) Intellectual Property

The NTN Group generates a lot of new technologies and know-how in the process of new product development and utilizes them as management resources. However, there is a possibility that a third party may violate our intellectual property rights, or that we unexpectedly violate a third party's intellectual property rights. We are striving to thoroughly implement intellectual property rights management, such as protecting rights through patent applications. However, the infringement of intellectual property rights as described above could have an impact on the Group's financial position, business results, and cash flows.

4) Global Operations

The NTN Group develops its business operations worldwide with overseas sales accounting for more than 50% of consolidated sales. Overseas business development is associated with the following risks:

- a. Risks from an unforeseen change in tax systems of or between individual countries
- b. Risks from an unforeseen change in laws of individual countries
- c. Difficulty in hiring and retaining appropriate staff
- d. Evolving technology levels and unstable labor relations in emerging economies
- e. Political instability in emerging economies

The NTN Group collects information on these risks within the Group and strives to prevent and avoid them. However, if these risks occur, they may affect the Group's financial position, business results and cash flows.

5) Information Security

The NTN Group is taking action to ensure that our employees are thoroughly aware of appropriate methods of managing information through conducting trainings for our employees as well as establishing internal regulations. However, in the event of information leakage the destruction or, alteration of important data, or system shutdown of important data are occurred, etc. due to a cyber attack, unauthorized access, and computer virus intrusion, thesey may lead to a deterioration in the NTN Group's credibilityit loss, and cause troubles in production and sales activities, and thereby affecting the Group's financial position, business results, and cash flows.

6) Statutory Regulations

The NTN Group is subjected to the various laws and regulations (tax laws, environmental laws, occupational safety and health laws, economic statutes such as Antimonopoly laws, anti-dumping laws and bribery-related laws, trade and exchange laws, and stock listing regulations of a stock exchange of the countries and regions in which it does business.

The NTN Group strives to abide by these laws and regulations and conduct fair business activities. However, if the NTN Group is ever be subjected to litigation or involved in legal proceedings because of a violation of a law or regulation, and if the decision of such litigation or legal proceedings goes against the Group, this may have an effect on the business performance or the financial position of the Group. As well, if these laws or regulations change, or if new unforeseen laws or regulations are enacted, these also may have an effect on the financial position, business performance, and cash flows of the Group. Some of NTN Group companies are subjected to the following actions.

- [1] There are ongoing investigations by the competition authorities into our consolidated subsidiaries in Brazil and elsewhere in relation to overseas sales of bearings, etc.
- [2] The Company and its consolidated subsidiaries in the U.S. and and other places are defendants in a number of class action suits in the U.S. for suspected price-fixing of bearings at a higher level with other businesses
- [3] A lawsuit has been filed against the Company and its two consolidated subsidiaries in Europe before the France Tribunal de Commerce de Lyon by Renault S.A. and its group companies, 15 in total (hereafter, "Renault"), seeking compensation of 66.7 million euros (provisional amount) for damages. In addition, a lawsuit has been filed against the Company and its two consolidated subsidiaries in Europe before the United Kingdom Commercial Court by Fiat Chrysler Automobiles N.V. and its group companies, seven in total (hereafter, "FCA"), seeking compensation for damages. These lawsuits were filed by Renault and FCA alleging that they suffered damages in connection with the infringement of the European competition laws, which was subjected to the decision adopted by the European Commission dated March 19, 2014.

- [4] The NTN Group may be subjected to claims for compensation for damages in connection with the violation of competition laws and continue to appropriately address these claims. This may affect the business results of the NTN Group. However, it is currently difficult to make reasonable estimates of the future possible effects on the results of operations, financial position and cash flows of the NTN Group.

Consolidated Balance Sheet

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2020	2019	2020
Assets			
Current assets:			
Cash and cash equivalents (Note 14)	¥ 71,165	¥ 83,474	\$ 659,882
Short-term investments (Note 14)	6,403	6,770	59,372
Trade receivables (Note 14):			
Notes	4,298	11,356	39,853
Accounts	98,937	117,450	917,400
Electronically recorded monetary claims	4,788	9,505	44,397
Allowance for doubtful accounts	(1,061)	(1,126)	(9,838)
	106,962	137,185	991,812
Inventories (Note 6)	182,923	194,505	1,696,166
Other current assets (Note 14)	38,347	33,346	355,576
Total current assets	405,800	455,280	3,762,808
Property, plant and equipment, at cost (Note 7):			
Land (Note 2(g))	32,370	32,399	300,153
Buildings and structures (Note 2(g))	214,621	207,862	1,990,088
Machinery, equipment and vehicles (Note 2(g))	767,409	793,455	7,115,851
Construction in progress	30,518	30,422	282,980
	1,044,918	1,064,138	9,689,072
Less accumulated depreciation	(782,274)	(784,275)	(7,253,688)
Property, plant and equipment, net (Note 22)	262,644	279,863	2,435,384
Investments and other assets:			
Investment securities (Notes 8 and 14)	20,923	34,242	194,010
Investments in unconsolidated subsidiaries and affiliates (Note 14)	20,862	24,949	193,444
Deferred income taxes (Note 20)	6,036	10,241	55,969
Other assets	41,557	36,176	385,340
Total investments and other assets	89,378	105,608	828,763
Total assets (Note 22)	¥ 757,822	¥ 840,751	\$7,026,955

See accompanying notes to the consolidated financial statements.

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2020	2019	2020
Liabilities and net assets			
Current liabilities:			
Short-term bank loans (Notes 9 and 14)	¥ 77,431	¥ 71,102	\$ 717,984
Current portion of long-term debt and lease obligations (Notes 9 and 14)	41,121	25,530	381,297
Trade payables (Note 14):			
Notes	836	1,601	7,752
Accounts	47,840	58,370	443,600
Electronically recorded obligations	68,685	73,188	636,886
	117,361	133,159	1,088,238
Accrued income taxes (Notes 14 and 20)	1,828	2,504	16,950
Other current liabilities	49,223	57,403	456,424
Total current liabilities (Note 22)	286,964	289,698	2,660,893
Long-term liabilities:			
Long-term debt and lease obligations (Notes 9 and 14)	249,510	255,925	2,313,598
Liability for retirement benefits (Note 10)	46,727	41,890	433,279
Provision for product defect compensation	1,118	1,108	10,367
Deferred income taxes (Note 20)	276	169	2,559
Other long-term liabilities	4,849	5,556	44,963
Total long-term liabilities (Note 22)	302,480	304,648	2,804,766
Contingent liabilities (Note 12)			
Net assets:			
Shareholders' equity (Note 11):			
Common stock:			
Authorized – 1,800,000,000 shares			
Issued – 532,463,527 shares in 2020 and 2019:	54,347	54,347	503,936
Capital surplus	67,970	67,970	630,256
Retained earnings	62,139	112,778	576,188
Treasury stock, at cost: 1,314,946 shares in 2020 and 1,320,628 shares in 2019 (Note 5)	(788)	(789)	(7,306)
Total shareholders' equity	183,668	234,306	1,703,074
Accumulated other comprehensive income (loss):			
Net unrealized holding gain on securities (Note 8)	5,094	12,020	47,234
Translation adjustments	(19,998)	(7,271)	(185,433)
Retirement benefit liability adjustments (Note 10)	(12,607)	(8,900)	(116,899)
Total accumulated other comprehensive loss, net	(27,511)	(4,151)	(255,098)
Non-controlling interests	12,221	16,250	113,320
Total net assets	168,378	246,405	1,561,296
Total liabilities and net assets	¥ 757,822	¥ 840,751	\$7,026,955

Consolidated Statement of Operations

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2020	2019	2020
Net sales (Note 22)	¥ 651,496	¥ 733,569	\$ 6,041,040
Cost of sales (Note 16)	549,398	603,082	5,094,329
Gross profit	102,098	130,487	946,711
Selling, general and administrative expenses (Note 16)	95,041	103,541	881,274
Operating income (Note 22)	7,057	26,946	65,437
Other income (expenses):			
Interest and dividend income	2,072	1,965	19,213
Interest expense	(3,952)	(3,883)	(36,645)
Equity in (losses) earnings of affiliates	(1,210)	73	(11,220)
Foreign exchange loss, net	(3,826)	(3,032)	(35,477)
Gain on sales of property, plant and equipment	627	-	5,814
Gain on sales of investment securities (Note 8)	1,353	-	12,546
Loss on impairment of fixed assets (Notes 7 and 22)	(29,001)	(16,963)	(268,914)
Loss on valuation of investment securities	(2,389)	-	(22,152)
Loss resulting from low operating capacity (Note 18)	(2,097)	-	(19,445)
Loss on surcharge payments under the Anti-Monopoly Act (Note 17)	(745)	(2,108)	(6,908)
Other, net	(1,839)	(59)	(17,053)
	(41,007)	(24,007)	(380,241)
(Loss) Profit before income taxes	(33,950)	2,939	(314,804)
Income taxes (Note 20):			
Current	3,220	5,750	29,858
Deferredrt	6,925	3,355	64,212
	10,145	9,105	94,070
Loss	(44,095)	(6,166)	(408,874)
Loss attributable to:Non-controlling interests	102	(792)	946
Owners of parent	¥ (43,993)	¥ (6,958)	\$ (407,928)

See accompanying notes to the consolidated financial statements.

Consolidated Statement of Comprehensive Income

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2020	2019	2020
Loss	¥ (44,095)	¥ (6,166)	\$ (408,874)
Other comprehensive loss (Note 19):			
Net unrealized holding loss on securities	(6,926)	(4,360)	(64,222)
Translation adjustments	(13,710)	(1,841)	(127,127)
Retirement benefit liability adjustments	(3,749)	(1,265)	(34,763)
Share of other comprehensive loss of affiliates accounted for by the equity method	(44)	(999)	(407)
Other comprehensive loss, net	(24,429)	(8,465)	(226,519)
Comprehensive loss	¥ (68,524)	¥ (14,631)	\$ (635,393)
Total comprehensive loss attributable to:			
Owners of parent	¥ (67,353)	¥ (15,124)	\$ (624,535)
Non-controlling interests	¥ (1,171)	¥ 493	\$ (10,858)

See accompanying notes to the consolidated financial statements.

Consolidated Statement of Changes in Net Assets

	Millions of yen									
	Number of shares in issue	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Net unrealized holding gain on securities	Translation adjustments	Retirement benefit liability adjustments	Non-controlling interests	Total net assets
Balance at April 1, 2018	532,463,527	¥54,347	¥67,970	¥127,887	¥(816)	¥16,380	¥(4,681)	¥(7,683)	¥16,356	¥269,760
Cumulative effect of change in accounting principle	-	-	-	(177)	-	-	-	-	-	(177)
Restated balance at April 1, 2018	532,463,527	54,347	67,970	127,710	(816)	16,380	(4,681)	(7,683)	16,356	269,583
Cash dividends paid	-	-	-	(7,974)	-	-	-	-	-	(7,974)
Loss attributable to owners of parent	-	-	-	(6,958)	-	-	-	-	-	(6,958)
Purchases of treasury stock	-	-	-	-	(1)	-	-	-	-	(1)
Sales of treasury stock	-	-	-	-	28	-	-	-	-	28
Other changes	-	-	-	-	-	(4,360)	(2,590)	(1,217)	(106)	(8,273)
Balance at April 1, 2019	532,463,527	54,347	67,970	112,778	(789)	12,020	(7,271)	(8,900)	16,250	246,405
Cumulative effect of change in accounting principle (Note 3)	-	-	-	(1)	-	-	-	-	-	(1)
Restated balance at April 1, 2019	532,463,527	54,347	67,970	112,777	(789)	12,020	(7,271)	(8,900)	16,250	246,404
Cash dividends paid	-	-	-	(6,645)	-	-	-	-	-	(6,645)
Loss attributable to owners of parent	-	-	-	(43,993)	-	-	-	-	-	(43,993)
Purchases of treasury stock	-	-	-	-	(1)	-	-	-	-	(1)
Sales of treasury stock	-	-	-	-	2	-	-	-	-	2
Other changes	-	-	-	-	-	(6,926)	(12,727)	(3,707)	(4,029)	(27,389)
Balance at March 31, 2020	532,463,527	¥54,347	¥67,970	¥62,139	¥(788)	¥5,094	¥(19,998)	¥(12,607)	¥12,221	¥168,378

	Thousands of U.S. dollars (Note 1)								
	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Net unrealized holding gain on securities	Translation adjustments	Retirement benefit liability adjustments	Non-controlling interests	Total net assets
Balance at April 1, 2019	\$503,936	\$630,256	\$1,045,742	\$(7,316)	\$111,456	\$(67,421)	\$(82,526)	\$150,679	\$2,284,806
Cumulative effect of change in accounting principle (Note 3)	—	—	(10)	—	—	—	—	—	(10)
Restated balance at April 1, 2019	503,936	630,256	1,045,732	(7,316)	111,456	(67,421)	(82,526)	150,679	2,284,796
Cash dividends paid	—	—	(61,616)	—	—	—	—	—	(61,616)
Loss attributable to owners of parent	—	—	(407,928)	—	—	—	—	—	(407,928)
Purchases of treasury stock	—	—	—	(9)	—	—	—	—	(9)
Sales of treasury stock	—	—	—	19	—	—	—	—	19
Other changes	—	—	—	—	(64,222)	(118,012)	(34,373)	(37,359)	(253,966)
Balance at March 31, 2020	\$503,936	\$630,256	\$576,188	\$(7,306)	\$47,234	\$(185,433)	\$(116,899)	\$113,320	\$1,561,296

See accompanying notes to the consolidated financial statements.

Consolidated Statement of Cash Flows

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2020	2019	2020
Cash flows from operating activities:			
(Loss) profit before income taxes	¥ (33,950)	¥ 2,939	\$ (314,804)
Adjustments for:			
Depreciation and amortization	37,307	38,926	345,932
Loss on impairment of fixed assets	29,001	16,963	268,914
Loss resulting from low operating capacity	2,097	–	19,445
Loss on surcharge payments under the Anti-Monopoly Act	745	2,108	6,908
(Decrease) increase in allowance for doubtful accounts	(22)	157	(204)
Decrease in provision for directors' and audit & supervisory board members' bonuses	(119)	(15)	(1,103)
Increase (decrease) in provision for product defect compensation	22	(401)	204
Increase in liability for retirement benefits	1,754	600	16,264
Interest and dividend income	(2,072)	(1,965)	(19,213)
Interest expense	3,952	3,883	36,645
Translation adjustments and foreign exchange loss, net	1,040	1,363	9,643
Equity in (losses) earnings of affiliates	1,210	(73)	11,220
Gain on sales of fixed assets	(627)	–	(5,814)
Gain on sales of investment securities	(1,353)	–	(12,546)
Loss on valuation of investment securities	2,389	–	22,152
Decrease in trade receivables	25,144	10,534	233,149
Decrease (increase) in inventories	3,994	(16,184)	37,035
(Decrease) increase in trade payables	(13,681)	198	(126,858)
Other	(6,288)	687	(58,306)
Subtotal	50,543	59,720	468,663
Interest and dividend income received	2,586	2,471	23,979
Interest paid	(3,955)	(3,893)	(36,673)
Surcharge payments under the Anti-Monopoly Act	(1,233)	(6,399)	(11,433)
Payments for Loss resulting from low operating capacity	(1,546)	–	(14,335)
Income taxes paid	(2,645)	(8,675)	(24,526)
Net cash provided by operating activities	¥ 43,750	¥ 43,224	\$ 405,675
Cash flows from investing activities:			
Increase in short-term investments, net	¥ (142)	¥ (4,265)	\$ (1,317)
Purchases of property, plant and equipment	(59,009)	(42,381)	(547,165)
Proceeds from sales of property, plant and equipment	857	–	7,947
Purchases of other assets	(10,075)	(10,846)	(93,421)
Proceeds from sales of investment securities	2,411	–	22,356
Purchase of investments in affiliated company	(497)	(9,180)	(4,608)
Proceeds from sales of investments in affiliated company	4,301	1,145	39,881
Other	346	(87)	3,208
Net cash used in investing activities	¥ (61,808)	¥ (65,614)	\$ (573,119)
Cash flows from financing activities:			
Increase in short-term bank loans, net	¥ 6,213	¥ 13,643	\$ 57,610
Proceeds from long-term debt	29,795	74,297	276,276
Repayment of long-term debt, including current portion	(19,145)	(58,360)	(177,523)
Cash dividends paid	(6,645)	(7,974)	(61,616)
Repayment of lease obligations	(1,370)	(287)	(12,703)
Other	(1,435)	(573)	(13,306)
Net cash provided by financing activities	¥ 7,413	¥ 20,746	\$ 68,738
Effect of exchange rate changes on cash and cash equivalents	(1,596)	(970)	(14,799)
Net decrease in cash and cash equivalents	(12,241)	(2,614)	(113,505)
Cash and cash equivalents at beginning of the year	83,474	86,088	774,018
Decrease in cash and cash equivalents resulting from exclusion of subsidiaries in consolidation	(68)	–	(631)
Cash and cash equivalents at end of the year	¥ 71,165	¥ 83,474	\$ 659,882

See accompanying notes to the consolidated financial statements.

Notes to Consolidated Financial Statements

1.Basis of Preparation

The accompanying consolidated financial statements of NTN Corporation (the “Company”) and consolidated subsidiaries are prepared on the basis of accounting principles generally accepted in Japan, which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards, and are compiled from the consolidated financial statements prepared by the Company as required by the Financial Instruments and Exchange Act of Japan.

In preparing the accompanying consolidated financial statements, certain reclassifications have been made to the consolidated financial statements issued domestically in order to present them in a format which is more familiar to readers outside Japan. In addition, certain notes included herein are not required under accounting principles generally accepted in Japan but are presented as additional information.

Certain amounts in the prior year’s financial statements have been reclassified to conform to the current year’s presentation. Such reclassification had no effect on consolidated profit or net assets.

The translation of yen amounts into U.S. dollar amounts is included solely for the convenience of readers outside Japan and has been made at ¥107.845 = U.S. \$1.00, the exchange rate prevailing on March 31, 2020. This translation should not be construed as a representation that yen can be converted into U.S. dollars at the above or any other rate.

2. Summary of Significant Accounting Policies

(a) Principles of consolidation

The accompanying consolidated financial statements include the accounts of the Company and the significant companies which it controls directly or indirectly. Companies over which the Company exercises significant influence in terms of their operating and financial policies have been included in the accompanying consolidated financial statements on an equity basis.

The financial statements of certain consolidated subsidiaries whose fiscal year end is December 31 have been included in consolidation on the basis of a full fiscal year closing on March 31 for consolidation purposes.

(b) Foreign currency translation

Monetary assets and liabilities denominated in foreign currencies are translated into yen at the rates of exchange in effect at the balance sheet date. Revenues and expenses are translated at the rates of exchange prevailing when the transactions were made.

Assets and liabilities of overseas consolidated subsidiaries are translated into yen at the exchange rates in effect at the respective balance sheet dates, except for the components of net assets excluding non-controlling interests which are translated at the respective historical rates. Revenue and expenses are translated at the average rates of exchange for the respective years. Differences arising from translation are reflected in “Translation adjustments” and “Non-controlling interests” in the accompanying consolidated balance sheet and statement of changes in net assets.

(c) Cash and cash equivalents

Cash and cash equivalents consist of cash on hand, deposits with banks withdrawable on demand, and short-term investments which are readily convertible to cash subject to an insignificant risk of any change in their value and which were purchased with an original maturity of three months or less.

(d) Allowance for doubtful accounts

The allowance for doubtful accounts is computed based on the actual historical percentage of bad debts and an estimate of uncollectible amounts determined after an analysis of specific individual receivables.

(e) Short-term investments and investment securities

The accounting standard for financial instruments requires that securities be classified into three categories: trading, held-to-maturity or other securities. Trading securities are carried at fair value and held-to-maturity debt securities are carried at amortized cost. Marketable securities classified as other securities are carried at fair value with any changes in

unrealized holding gain or loss, net of the applicable income taxes, included directly in net assets. Cost of securities sold is determined by the moving average method. Non-marketable securities classified as other securities are carried at cost based on the moving average method.

(f) Inventories

Inventories are principally stated at lower of cost, determined by the average method, or net selling value.

(g) Property, plant and equipment (other than leased assets)

Property, plant and equipment are stated at cost. The Company and its domestic consolidated subsidiaries calculate depreciation by the straight-line method over the estimated useful lives of the respective assets. The foreign consolidated subsidiaries principally calculated depreciation by the straight-line method over the estimated useful lives of the respective assets.

The principal estimated useful lives are as follows:

Buildings and structures	10 to 50 years
Machinery, equipment and vehicles	5 to 12 years

Contributions granted by national and municipal governments are deducted directly from the acquisition costs of the related fixed assets as stipulated in the Corporation Tax Law of Japan. The property, plant and equipment accounts on the consolidated balance sheet at March 31, 2020 and 2019 were reduced by the following amounts:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Land	¥ 799	¥ 799	\$ 7,409
Buildings and structures	404	410	3,746
Machinery, equipment and vehicles	71	92	658
	¥ 1,274	¥ 1,301	\$ 11,813

(h) Liability for retirement benefits

Liability for retirement benefits has been provided principally at an amount calculated based on the retirement benefit obligation after the fair value of the pension plan assets are deducted. The estimated benefit is attributed to each period by the benefit formula method over the estimated years of service of the eligible employees.

Past service cost is amortized as incurred primarily by the straight-line method over a period of principally 15 years, which is within the estimated average remaining years of service of the eligible employees.

Net unrecognized actuarial gain or loss is amortized commencing in the year following the year in which the gain or loss was recognized primarily by the straight-line method over a period of principally 15 years, which is within the estimated average remaining years of service of the eligible employees.

(i) Provision for product defect compensation

Provision for product defect compensation is provided at an estimated amount in order to cover the anticipated compensation.

(j) Leases

For lease transactions involving the transfer of ownership, the leased assets are depreciated by the same methods used for owned fixed assets.

For lease transactions not involving the transfer of ownership, leased assets are depreciated over the lease period using the straight-line method with a nil residual value.

(k) Research and development costs and computer software

Research and development costs are charged to income as incurred. Expenditures relating to computer software developed for internal use are charged to income when incurred, except if the software is expected to contribute to the generation of income or to future cost savings. Such expenditures are capitalized as assets and are amortized by the straight-line method over their respective estimated useful lives, generally a 5-year period.

(I) Deferred income taxes

Deferred income taxes are provided for temporary differences between the balances of assets and liabilities reported for financial reporting purposes and the corresponding balances for tax reporting purposes.

(m) Derivative financial instruments and hedging activities

All derivatives are stated at fair value with any changes in fair value included in profit for the period in which they arise, except for derivatives which meet the criteria for deferral hedge accounting under which unrealized gain or loss, net of the applicable income taxes, is deferred as a component of net assets. Receivables and payables hedged by forward foreign exchange contracts which meet certain conditions are translated at the corresponding foreign exchange contract rates. Interest-rate swaps which meet certain conditions are accounted for as if the interest rates applied to the interest-rate swaps had originally applied to the underlying debt.

Interest-rate and cross currency swaps which meet certain conditions are accounted for as if the interest rates and currencies applied to the interest-rate and cross currency swaps had originally applied to the underlying debt.

(n) Distribution of retained earnings

Under the Corporation Law of Japan and the Company’s Articles of Incorporation, the distribution of retained earnings with respect to a given financial period is made by resolution of the shareholders at a general meeting held subsequent to the close of the financial period. The distribution of retained earnings with respect to the interim financial period is made by resolution of the Board of Directors. The accounts for the period do not reflect such distributions.

(o) Consolidated taxation system

The Company and certain domestic consolidated subsidiaries adopted the consolidated taxation system, which allows companies to file tax returns based on the combined profits or losses of the parent company and its wholly owned domestic subsidiaries.

(p) Adoption of tax effect accounting for transition from consolidated taxation system to group tax sharing system

The Company and certain domestic subsidiaries calculated the amounts of deferred tax assets and deferred tax liabilities based on the Japanese Income Tax Act prior to amendment in accordance with the treatment under Paragraph 3 “Practical Solution on the Treatment of Tax Effect Accounting for the Transition from the Consolidated Taxation System to the Group Tax Sharing System” (Accounting Standards Board of Japan (hereinafter referred to as the “ASBJ”) Practical Issues Task Force No.39 March 31, 2020) instead of adopting the provision of Paragraph 44 of “Implementation Guidance on Tax Effect Accounting” (ASBJ Guidance No. 28, February 16, 2018), regarding the transition to the group tax sharing system established in the “Act for Partial Amendment of the Income Tax Act, etc.” (Act No.8 of 2020), related to items for which the non-consolidated taxation system has been reviewed in accordance with the transition to the group tax sharing system.

3. Accounting Changes

Application of IFRS 16

A number of the Company’s overseas consolidated subsidiaries have applied IFRS 16, “Leases,” effective from April 1, 2019. The cumulative effect of applying IFRS 16 was recognized by adjusting the amounts of tangible fixed assets, intangible fixed assets, lease liabilities and retained earnings at the beginning of the fiscal year ended March 31, 2020, in accordance with the transitional treatment provided in this standard. However, the effects of applying IFRS 16 on the consolidated financial statements were immaterial.

4. Standards Issued but Not Yet Effective

Accounting Standard and Implementation Guidance for Revenue Recognition

(i) Overview

On March 31, 2020, ASBJ issued “Accounting Standard for Revenue Recognition” (ASBJ Statement No.29), “Implementation Guidance on Accounting Standard for Revenue Recognition” (ASBJ Guidance No.30) and “Implementation Guidance on Disclosures about Fair Value of Financial Instruments” (ASBJ Guidance No.19). The International Accounting Standards Board (hereinafter referred to as the “IASB”) and the Financial Accounting Standards Board (hereinafter referred to as the “FASB”) in the United States co-developed comprehensive accounting standards for revenue recognition and issued “Revenue from Contracts with Customers” (issued as IFRS 15 by the IASB and Topic 606 by the FASB) in May 2014. The ASBJ developed comprehensive accounting standards on revenue recognition and issued them in conjunction with the implementation guidance based on the fact that IFRS 15 was applied from fiscal years starting on or after January 1, 2018 and Topic 606 was applied from fiscal years starting after December 15, 2017.

As the basic policy in developing accounting standards for revenue recognition, the ASBJ defined the accounting standard starting with incorporating the basic principle of IFRS 15 from a standpoint of comparability between financial statements, which is one benefit of ensuring consistency with IFRS 15. Furthermore, the ASBJ added alternative accounting treatment without impairing comparability when there are matters to be considered related to accounting practices, etc. common in Japan.

(ii) Scheduled date of adoption

The Company expects to adopt the accounting standard and implementation guidance from the beginning of the fiscal year ending March 31, 2022.

(iii) Impact of the adoption of accounting standard and implementation guidance

The Company is currently evaluating the effect of the adoption of the accounting standard and the implementation guidance on its consolidated financial statements.

Accounting Standard and Implementation Guidance for Fair Value Measurement

(i) Overview

On July 4, 2019 the ASBJ issued “Accounting Standard for Fair Value Measurement” (ASBJ Statement No.30), “Accounting Standard for Measurement of Inventories” (ASBJ Statement No.9), “Accounting Standard for Financial Instruments” (ASBJ Statement No. 10), “Implementation Guidance on Accounting Standard for Fair Value Measurement” (ASBJ Guidance No.31) and “Implementation Guidance on Disclosures about Fair Value of Financial Instruments” (ASBJ Guidance No.19). Based on the fact that the IASB and FASB have established almost the same detailed guidance for fair value measurement (issued as IFRS 13 “Fair Value Measurement” in IFRS and Topic 820 “Fair Value Measurement” by the FASB), the ASBJ worked on ensuring consistency between Japanese GAAP and IFRS regarding the guidance and disclosure on fair value of financial instruments and issued “Accounting Standard for Fair Value Measurement” etc.

As the basic policy in developing accounting standards for Fair Value Measurement, the ASBJ incorporates the rules of IFRS 13 from a standpoint of improving the comparability between financial statements of Japanese companies and overseas companies by using the unified calculation method. Furthermore, the ASBJ defined the other accounting treatment for the particular matters without impairing comparability considering accounting practice, etc. common in Japan.

(ii) Scheduled date of adoption

The Company expects to adopt the accounting standard and implementation guidance from the beginning of the fiscal year ending March 31, 2022.

(iii) Impact of the adoption of accounting standard and implementation guidance

The effect of the adoption of the accounting standard and the implementation guidance on its consolidated financial statements is to be decided.

Accounting Standard for Disclosure of Accounting Estimates

(i) Overview

On March 31, 2020, the ASBJ issued “Accounting Standard for Disclosure of Accounting Estimates” (ASBJ Statement No. 31). As for the disclosure of “Sources of estimation uncertainty” required by paragraph 125 of International Accounting Standard (IAS) 1 “Presentation of Financial Statements” (hereinafter referred to as the “IAS 1”) issued in 2003 by the IASB, because this information is valuable for users of the financial statements, there were requests to consider disclosing this under Japanese GAAP as information in the notes and the ASBJ developed and issued the “Accounting Standard for Disclosure of Accounting Estimates” (hereinafter referred to as the “Standard”).

The basic approach taken by the ASBJ in the development of the Standard was, not to enrich individual notes, but to state the general principle (purpose of disclosure) and to allow entities to determine the specific contents to be disclosed in light of the purpose of disclosure. In the developing the Standard, the ASBJ referred to the provisions of paragraph 125 of IAS 1.

(ii) Schedule date of adoption

The Company expects to adopt the accounting standard from the end of the fiscal year ending March 31, 2021.

Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Corrections

(i) Overview

On March 31, 2020, the ASBJ issued “Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Corrections” (ASBJ Statement No.24). In response to a proposal to consider enriching the information in the notes on “principles and procedures for accounting treatment adopted in cases where the provisions of relevant accounting standards and regulations are not clear,” the ASBJ made the necessary revisions in the standard and issued it as “Accounting Standard for Accounting Policy Disclosures, Accounting Changes and Error Corrections.”

Furthermore, when an entity attempts to enrich the information in the notes on “principles and procedures for accounting treatments adopted in cases where the provisions of relevant accounting standards and regulations are not clear” in order not to affect the conventional practices in the case where the provisions of relevant accounting standards and regulations are clear, it is assumed the provisions of Annotations on the Corporate Accounting Principles (Annotation No. 1-2) will apply.

(ii) Schedule date of adoption

The Company expects to adopt the accounting standard from the end of the fiscal year ending March 31, 2021.

5. Additional Information

Performance-linked stock compensation scheme

The Company introduced a performance-linked stock compensation scheme (hereinafter referred to as the “Scheme”) for its executive officers (excluding executive officers who do not reside in Japan; the same applies hereinafter), which serves as an officer remuneration system that is closely linked to corporate performance targets in the mid-term management plan and which is highly transparent and objective in nature.

(i) Overview of transactions

The Scheme adopts a mechanism known as an officer remuneration BIP (Board Incentive Plan) trust (hereinafter referred to as the “BIP Trust”). The BIP Trust is an incentive plan for officers based on the performance share scheme and the restricted stock scheme in the U.S., and has a system in which the Company’s shares acquired by the BIP Trust and funds equivalent to the proceeds received when converting into cash or disposing of such shares are distributed and paid according to the officers’ positions and the degree of achievement of performance targets disclosed in the mid-term management plan, and other factors.

(ii) The Company’s shares remaining in the trust

The Company’s shares remaining in the trust are recorded as treasury stock in the net asset section, based on their book value (excluding the amount of incidental expenses) recorded in the accounts of the trust. The book value and number of shares of such treasury stock at March 31, 2020 totaled ¥150 million (\$1,391 thousand) and 472,666 shares, and at March 31, 2019 totaled ¥152 million and 479,761 shares, respectively.

Impact of the Spread of the Novel Coronavirus on Accounting Estimates

With regard to the spread of the novel coronavirus, there is a high degree of uncertainty regarding the future spread and the timing of its containment. Therefore, the Company and its consolidated subsidiaries have made accounting estimates related to impairment accounting, etc., based on the assumption that the spread of the novel coronavirus will have an impact on the financial results of the Company and its consolidated subsidiaries for a year during the fiscal year ending March 31, 2021.

6. Inventories

Inventories at March 31, 2020 and 2019 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Finished goods	¥ 96,616	¥ 102,677	\$ 895,879
Work in process	48,928	55,419	453,688
Raw materials and supplies	37,379	36,409	346,599
	¥ 182,923	¥ 194,505	\$ 1,696,166

7. Impairment of Fixed Assets

The Company and its consolidated subsidiaries group fixed assets used for manufacturing by management segment into minimum units which generate identifiable cash flows (e.g., a factory). They also group fixed assets used at the head office or used for sales activities as shared assets, and group fixed assets on an individual basis when they do not expect any future use.

The Company and its consolidated subsidiaries wrote down the following assets to their respective net recoverable values because the Company and its consolidated subsidiaries do not expect them to be recoverable. Consequently, the Company and its consolidated subsidiaries recorded related losses on impairment of fixed assets of ¥29,001 million (\$268,914 thousand) and ¥16,963 million in the accompanying consolidated statement of operations for the years ended March 31, 2020 and 2019, respectively:

			Millions of yen		Thousands of U.S. dollars
Location	Usage	Classification	2020	2019	2020
Japan	Production equipment and other	Buildings and structures	¥ 4,360	¥ 3,114	\$ 40,428
		Machinery and equipment	16,355	12,851	151,653
		Land	400	489	3,709
		Construction in progress	249	167	2,309
		Other	591	342	5,480
Americas	Production equipment	Machinery and equipment	5,518	–	51,166
Europe	Production equipment and other	Buildings and structures	273	–	2,531
		Machinery and equipment	1,220	–	11,313
		Other	35	–	325
			¥ 29,001	¥ 16,963	\$ 268,914

The recoverable value of the fixed assets presented in the above table has been measured primarily at net realizable value or value in use. If a fixed asset is unlikely to be sold or diverted to other usage, such asset is valued at nil. Value in use is measured as the sum of anticipated future cash flows by each business units mainly discounted at rate of 6% for the year ended March 31, 2020 and 2019.

8. Securities

(a) Information regarding marketable securities classified as other securities at March 31, 2020 and 2019 is summarized as follows:

	Millions of yen					
	2020			2019		
	Carrying value	Acquisition costs	Unrealized gain (loss)	Carrying value	Acquisition costs	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition costs:						
Equity securities	¥ 17,124	¥ 8,986	¥ 8,138	¥ 29,866	¥ 11,798	¥ 18,068
Securities whose carrying value does not exceed their acquisition costs:						
Equity securities	3,512	4,372	(860)	4,088	4,999	(911)
Total	¥ 20,636	¥ 13,358	¥ 7,278	¥ 33,954	¥ 16,797	¥ 17,157

	Thousands of U.S. dollars		
	2020		
	Carrying value	Acquisition costs	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition costs:			
Equity securities	\$ 158,783	\$ 83,323	\$ 75,460
Securities whose carrying value does not exceed their acquisition costs:			
Equity securities	32,566	40,540	(7,974)
Total	\$ 191,349	\$ 123,863	\$ 67,486

(b) Sales and aggregate gain on investment securities are summarized as follows:

The Company sold certain available-for-sale securities with a fair value of ¥2,410 million (\$22,347 thousand), and recognized gain of ¥1,353 million (\$12,546 thousand) for the fiscal year ended March 31, 2020.

9. Short-Term Bank Loans, Long-Term Debt and Lease Obligations

Short-term bank loans principally represent short-term notes with average annual interest rates of 1.03% and 1.54% at March 31, 2020 and 2019, respectively. Long-term debt and lease obligations at March 31, 2020 and 2019 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Loans from banks and other financial institutions, due through 2029, at an average annual interest rate of 0.94%	¥ 254,986	¥ 249,243	\$ 2,364,374
0.405% unsecured bonds due 2025	10,000	10,000	92,726
0.490% unsecured bonds due 2027	10,000	10,000	92,726
0.430% unsecured bonds due 2028	10,000	10,000	92,726
Lease obligations due through 2053	5,645	2,212	52,343
	290,631	281,455	2,694,895
Less current portion	(41,121)	(25,530)	(381,297)
	¥ 249,510	¥ 255,925	\$ 2,313,598

The aggregate annual maturities of long-term debt and lease obligations subsequent to March 31, 2020 are summarized as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2021	¥ 41,121	\$ 381,297
2022	53,056	491,965
2023	51,350	476,146
2024	41,242	382,419
2025	51,234	475,071
2026 and thereafter	52,628	487,997
	¥ 290,631	\$ 2,694,895

10. Retirement Benefits

1. Outline of retirement benefits for employees

The Company and certain domestic consolidated subsidiaries have defined benefit pension plans (i.e., corporate pension fund plans and lump-sum payment plans), covering substantially all employees who are entitled to lump-sum or annuity payments, the amounts of which are determined by reference to their basic rates of pay, length of service, and the conditions under which termination occurs. They also have defined contribution pension plans and advance payment plans. Certain overseas consolidated subsidiaries have defined benefit pension plans and/or defined contribution pension plans. The Company has also established an employees' retirement benefit trust.

2. Defined benefit pension plans

(1) The changes in the retirement benefit obligation for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Retirement benefit obligation at the beginning of the year	¥ 102,441	¥ 102,839	\$ 949,891
Service cost	3,553	3,380	32,945
Interest cost	1,705	1,799	15,810
Actuarial gain	166	(407)	1,539
Benefits paid	(5,500)	(5,131)	(50,999)
Other	(1,016)	(39)	(9,421)
Retirement benefit obligation at the end of the year	¥ 101,349	¥ 102,441	\$ 939,765

* Certain domestic consolidated subsidiaries calculate the liability for retirement benefits based on the simplified method.

(2) The changes in plan assets for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Plan assets at fair value at the beginning of the year	¥ 60,551	¥ 62,446	\$ 561,463
Expected return on plan assets	1,434	1,463	13,297
Actuarial gain or loss	(5,153)	(2,575)	(47,782)
Contributions by the employers	3,357	3,716	31,128
Benefits paid	(4,240)	(4,310)	(39,316)
Other	(1,327)	(189)	(12,304)
Plan assets at fair value at the end of the year	¥ 54,622	¥ 60,551	\$ 506,486

(3) The balance of retirement benefit obligation and plan assets at fair value, liabilities and assets recognized in consolidated balance sheets as of March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Funded retirement benefit obligation	¥ 94,896	¥ 96,191	\$ 879,929
Plan assets at fair value	(54,622)	(60,551)	(506,486)
	40,274	35,640	373,443
Unfunded retirement benefit obligation	6,453	6,250	59,836
Net amount of liabilities and assets recognized in the consolidated balance sheet	46,727	41,890	433,279
Liability for retirement benefits	46,727	41,890	433,279
Net amount of liabilities and assets recognized in the consolidated balance sheet	¥ 46,727	¥ 41,890	\$ 433,279

(4) The components of retirement benefit expenses for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Service cost	¥ 3,553	¥ 3,380	\$ 32,945
Interest cost	1,705	1,799	15,810
Expected return on plan assets	(1,434)	(1,463)	(13,297)
Amortization:			
Actuarial loss	1,219	352	11,303
Past service cost	67	35	622
Retirement benefit expenses	¥ 5,110	¥ 4,103	\$ 47,383

(5) The components of retirement benefit liability adjustments included in other comprehensive income (before tax effect) for the years ended March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Actuarial gain or loss	¥ (2,567)	¥ (1,817)	\$ (23,803)
Past service cost	24	24	223
Total	¥ (2,543)	¥ (1,793)	\$ (23,580)

(6) The components of retirement benefit liability adjustments included in accumulated other comprehensive income (before tax effect) as of March 31, 2020 and 2019 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Unrecognized actuarial loss	¥ (12,500)	¥ (9,934))	\$ (115,907)
Unrecognized past service cost	(209)	(233)	(1,938)
Total	¥ (12,709)	¥ (10,167)	\$ (117,845)

(7) The fair value of plan assets, by major category, as a percentage of total plan assets as of March 31, 2020 and 2019 are as follows:

	2020	2019
Equities	29.9%	38.4%
Bonds	41.2	33.9
General accounts at life insurance companies	15.1	16.1
Other	13.8	11.6
Total	100.0%	100.0%

The expected long-term rate of return on plan assets is determined as a result of consideration of both the portfolio allocation at present and anticipated in the future, and long-term expected rate of return from multiple plan assets.

(8) The assumptions used in accounting for the defined benefit plans are as follows:

	2020	2019
Discount rate	Principally 1.2%	Principally 1.2%
Expected long-term rate of return on plan assets	Principally 1.5%	Principally 2.5%

3. Defined contribution pension plans

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Contributions to defined contribution pension plans	¥ 1,629	¥ 1,670	\$ 15,105

11. Shareholders’ Equity

(a) The Corporation Law of Japan (the “Law”) provides that an amount equal to 10% of the amount to be disbursed as distributions of capital surplus (other than the capital reserve) and retained earnings (other than the legal reserve) be transferred to the capital reserve and the legal reserve, respectively, until the sum of the capital reserve and the legal reserve equals 25% of the capital stock account. Such distributions can be made at any time by resolution of the shareholders or by the Board of Directors if certain conditions are met.

Retained earnings include the legal reserve provided in accordance with the provisions of the Law. The legal reserve of the Company included in retained earnings amounted to ¥8,639 million (\$80,106 thousand) at March 31, 2020 and 2019.

(b) Movements in shares issued and treasury stock during the years ended March 31, 2020 and 2019 are summarized as follows:

	Number of shares			
	2020			
	April 1, 2019	Increase	Decrease	March 31, 2020
Shares issued:				
Common stock	532,463,527	–	–	532,463,527
Treasury stock:				
Common stock	1,320,628	1,413	7,095	1,314,946
	2019			
	April 1, 2018	Increase	Decrease	March 31, 2019
Shares issued:				
Common stock	532,463,527	–	–	532,463,527
Treasury stock:				
Common stock	1,405,959	1,829	87,160	1,320,628

The increase in treasury stock of 1,413 shares was due to purchases of shares of less than one voting unit and the decrease in treasury stock of 7,095 shares was mainly due to disposal of shares by the “Officer Remuneration BIP Trust” for the year ended March 31, 2020 (Please refer to Note 5). Additionally, the Company included 472,666 shares held by the “Officer Remuneration BIP Trust” in the number of treasury stock at March 31, 2020.

The increase in treasury stock of 1,829 shares was due to purchases of shares of less than one voting unit and the decrease in treasury stock of 87,160 shares was mainly due to disposal of shares by the “Officer Remuneration BIP Trust” for the year ended March 31, 2019 (Please refer to Note 5). Additionally, the Company included 479,761 shares held by the “Officer Remuneration BIP Trust” in the number of treasury stock at March 31, 2019.

12. Contingent Liabilities

Lawsuits, etc.

- (1) There are ongoing investigations by the authorities into consolidated subsidiaries in Brazil and elsewhere on suspicion of violating competition laws of each country in connection with overseas sales of bearings.
- (2) In the U.S., a number of class action suits was filed against the Company and its consolidated subsidiaries for suspected price-fixing of bearing sales with business competitors.
- (3) In Europe, a lawsuit has been filed against the Company and its two consolidated subsidiaries in the France Tribunal de Commerce de Lyon. The suit seeks the payment of damages of €66.7 million (provisional amount) to Renault S.A. and its total 15 group companies (hereinafter referred to as “Renault”). In addition, another lawsuit has been filed against the Company and its two consolidated subsidiaries in Europe in the United Kingdom Commercial Court by Fiat Chrysler Automobiles N.V. and its total 7 group companies (hereinafter referred to as “FCA”).
- These suits have been filed because Renault and FCA claimed damages incurred in connection with the alleged violation of the European Competition Law, which is the subject of a decision made by the European Commission on March 19, 2014.
- (4) The Company and its related companies may be subject to claims for compensation for damages in connection with the past violation of the Anti-Monopoly Act of Japan or the European Competition Law, etc. and continue to address these claims. Depending on the results of the claims, the results of operations of the Company and its consolidated subsidiaries could be affected. However, it is currently difficult to make reasonable estimates of the future possible effects on the results of operations and financial position of the Company and its consolidated subsidiaries.

13. Operating Leases

Future minimum lease payments subsequent to March 31, 2020 for non-cancelable operating leases were as follows:

Years ending March 31,	Millions of yen	Thousands of U.S. dollars
2021	¥ 760	\$ 7,047
2022 and thereafter	3,068	28,448
Total	¥ 3,828	\$ 35,495

The total amount for the year ended March 31, 2020 did not include the lease obligations of ¥2,796 million (\$25,926 thousand) recorded in accordance with the application of IFRS 16.

14. Financial Instruments

Overview

(a) Policy for financial instruments

The Company and its subsidiaries (collectively, the “Group”) raise necessary funds in accordance with management plans mainly by bank borrowings and issuance of corporate bonds in support of operations related to the manufacture and sales of bearings, constant-velocity joints (CVJs) and precision equipments. The Group utilizes bank borrowings for short-term operating funds, and bank borrowings and issuance of corporate bonds for long-term capital investments and finances. Temporary surplus funds are managed by low-risk financial assets. The Group utilizes derivatives to avoid or mitigate risks as described in the later part of this note and does not hold them for speculative purposes.

(b) Types of financial instruments and related risks

Trade receivables, notes, accounts receivable and electronically recorded monetary claims, are exposed to credit risk of customers. In addition, as a result of the business of the Group, which operates globally, foreign currency trade receivables are exposed to currency rate fluctuation risk, which is mitigated by utilizing forward foreign currency exchange contracts. Securities are mainly composed of stocks of the companies with which the Group has business relationships and they are exposed to fluctuation risk of market prices.

Trade payables, notes, accounts payable and electronically recorded obligations, are due within one year. Certain trade payables resulting from the import of raw materials are denominated in foreign currencies. These are exposed to fluctuation risk of foreign currencies. However, the risk is mitigated because the trade payables, notes and accounts payable denominated in foreign currencies are within persistently the range of accounts receivable denominated in the same currencies.

Loans are mainly utilized for business operations of the Group. Short-term loans are mainly utilized for financing of operating activities. Long-term loans are mainly utilized for capital investments and financing. These have maturity dates of 10 years or less, at the longest, subsequent to March 31, 2020. Certain loans are exposed to fluctuation risk of interest rates and fluctuation risk of exchange rates and this risk is hedged by derivative transactions of interest rate swap agreements and interest-rate and cross currency swap agreements.

The Group has a policy to utilize derivative transactions involving forward foreign currency exchange contracts, currency option agreements, currency swap agreements, interest rate option agreements and interest rate swap agreements for the purpose of avoiding future fluctuation risk of foreign currencies trade receivables and payables and mitigating future fluctuation risk of interest rate of loans and corporate bonds. The Group utilized forward foreign currency exchange contracts, interest rate swap agreements and interest-rate and cross currency swap agreements for the year ended March 31, 2020. Refer to “(m) Derivative financial instruments and hedging activities” in Note 2 “Summary of Significant Accounting Policies.”

(c) Risk management for financial instruments

- (i) Monitoring of credit risk (the risk that customers or counterparties may default)
- In accordance with internal rules and manual, the credit management section periodically monitors financial conditions of major customers, manages collection due dates and balances of each customer and tries to identify credit risk of customers with worsening financial conditions at the early stage and mitigate the risk. Credit risk of securities is quite low because the Group utilizes certificate of deposits with high credit ratings, up to a limited amount, which is approved by the Company. The Group believes credit risk of derivative transactions is almost nil because counterparties are financial institutions with high credit ratings.
- (ii) Monitoring of market risks (the risks arising from fluctuations in foreign currency exchange rates, interest rates and others)
- The Group mainly utilizes forward foreign currency exchange contracts for hedging of fluctuation risk which is identified by each currency. Depending on the market conditions of foreign currencies, the Group utilizes forward foreign currency exchange contracts for forecasted export transactions with a maximum period of 6 months.
- The Group utilizes interest rate swap agreements and interest-rate and cross currency swap agreements to mitigate fluctuation risk of interest rates and fluctuation risk of loan principal due to floating exchange rates.
- The Group continuously reviews securities holdings by monitoring periodically the market value and financial condition of securities’ issuers (companies with business relationships with the Group) and by evaluating those relationships.
- The Group has established policies which include maximum upper limits and reporting obligations for derivative transactions and complies fully with these guidelines. Derivative transactions are entered into by the Company’s Accounting Department and certain consolidated subsidiaries. The Company carries out mutual supervision and monitoring of the derivative transactions in accordance with management policies and its consolidated subsidiaries apply the same approach. Each derivative transaction of the Company is reported to the responsible director when entered into. The consolidated subsidiaries are required to report the status of their derivatives transactions to the Company on a monthly basis and are also required to consult with the Company when they enter into derivative transactions other than forward foreign currency exchange contracts.
- (iii) Monitoring of liquidity risk (the risk that the Group may not be able to meet its obligations on scheduled due dates)
- The Group manages liquidity risk with the responsible section preparing and updating cash flow plans and keeping necessary funds based on reports of each section.

(d) Supplementary explanation of the fair value of financial instruments

The fair value of financial instruments is based on their quoted market price, if available. When there is no quoted market price available, fair value is reasonably estimated. Since various assumptions and factors are reflected in estimating the fair value, different assumptions and factors could result in different fair value. In addition, the notional amounts of derivatives in Note 15 “Derivative Financial Instruments and Hedging Activities” are not necessarily indicative of the actual market risk involved in the derivative transactions.

Fair Value of Financial Instruments

The carrying value of financial instruments on the consolidated balance sheets, fair value and the difference as of March 31, 2020 and 2019, are shown in the following table. The table does not include financial instruments for which it is extremely difficult to determine the fair value. (Please refer to Note 2 below).

	Millions of yen					
	2020			2019		
	Carrying value	Fair value	Difference	Carrying value	Fair value	Difference
(1) Cash and cash equivalents	¥ 71,165	¥ 71,165	¥ –	¥ 83,474	¥ 83,474	¥ –
(2) Short-term investments	6,403	6,403	–	6,770	6,770	–
(3) Notes and accounts – trade receivables	103,235	103,235	–	128,806	128,806	–
(4) Electronically recorded monetary claims	4,788	4,788	–	9,505	9,505	–
(5) Investment securities	20,636	20,638	2	33,954	33,958	4
(6) Short-term loans receivable included in other current assets	2,652	2,652	–	71	71	–
Total assets	¥ 208,879	¥ 208,881	¥ 2	¥ 262,580	¥ 262,584	¥ 4
(7) Short-term bank loans	77,431	77,431	–	71,102	71,102	–
(8) Current portion of long-term debt	39,845	39,845	–	25,330	25,330	–
(9) Notes and accounts – trade payables	48,676	48,676	–	59,971	59,971	–
(10) Electronically recorded obligations	68,685	68,685	–	73,188	73,188	–
(11) Accrued income taxes	1,828	1,828	–	2,504	2,504	–
(12) Long-term debt	245,140	248,523	3,383	253,912	256,307	2,395
Total liabilities	¥ 481,605	¥ 484,988	¥ 3,383	¥ 486,007	¥ 488,402	¥ 2,395
Derivative transactions (*)	¥ 1,331	¥ 1,331	¥ –	¥ 896	¥ 896	¥ –

	Thousands of U.S. dollars		
	2020		
	Carrying value	Fair value	Difference
(1) Cash and cash equivalents	\$ 659,882	\$ 659,882	\$ –
(2) Short-term investments	59,372	59,372	–
(3) Notes and accounts – trade receivables	957,253	957,253	–
(4) Electronically recorded monetary claims	44,397	44,397	–
(5) Investment securities	191,349	191,367	18
(6) Short-term loans receivable included in other current assets	24,592	24,592	–
Total assets	\$ 1,936,845	\$ 1,936,863	\$ 18
(7) Short-term bank loans	717,984	717,984	–
(8) Current portion of long-term debt	369,466	369,466	–
(9) Notes and accounts – trade payables	451,352	451,352	–
(10) Electronically recorded obligations	636,886	636,886	–
(11) Accrued income taxes	16,950	16,950	–
(12) Long-term debt	2,273,077	2,304,446	31,369
Total liabilities	\$ 4,465,715	\$ 4,497,084	\$ 31,369
Derivative transactions (*)	\$ 12,342	\$ 12,342	\$ –

* Assets and liabilities arising from derivative transactions are shown at net value with the amount in parentheses representing net liability position.

Note 1: Methods to determine the fair value of financial instruments and other matters related to securities and derivative transactions

(1) Cash and cash equivalents, (2) Short-term investments, (3) Notes and accounts-trade receivables, (4) Electronically recorded monetary claims and (6) Short-term loans receivable included in other current assets

Since these items are settled in a short time period, their carrying value approximates fair value.

(5) Investment securities

The fair value of equity securities is based on quoted market prices.

(7) Short-term bank loans, (9) Notes and accounts-trade payables (10) Electronically recorded obligations and (11) Accrued income taxes

Since these items are settled in a short time period, their carrying value approximates fair value.

(8) Current portion of long-term debt and (12) Long-term debt

Long-term debt is composed of corporate bonds and long-term loans. The fair market value of corporate bonds is based on quoted market prices. The fair value of long-term loans is based on the present value of the total of principal and interest discounted by the interest rate to be applied assuming new loans under the similar conditions to existing loans are made.

Certain long-term loans with floating interest rates have been hedged by interest rate swap agreements and interest-rate and cross currency swap agreements. These have been accounted for as loans with fixed interest rates. The fair value of those long-term loans is based on the present value of the total of the principal, interest payments and net cash flows of the swap agreements discounted by the interest rates to be applied assuming new loans under similar conditions are made.

Derivative Transactions

Please refer to Note 15 “Derivative Financial Instruments and Hedging Activities” section of these Notes to Consolidated Financial Statements.

Note 2: Financial instruments for which it is extremely difficult to determine the fair value are as follows:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Unlisted stocks			
Stocks of subsidiaries and affiliates	¥ 20,862	¥ 24,949	\$ 193,444
Other	287	288	2,662
Total	¥ 21,149	¥ 25,237	\$ 196,106

Because no quoted market price is available and it is extremely difficult to determine the fair value, the above financial instruments are not included in the preceding table.

Note 3: Redemption schedules for cash and cash equivalents, receivables and marketable securities with maturities at March 31, 2020 and 2019 are as follows:

	Millions of yen			
	2020			
	Within one year	More than one year and within five years	More than five years and within ten years	More than ten years
Cash and cash equivalents	¥ 71,165	¥ –	¥ –	¥ –
Short-term investments	6,403	–	–	–
Trade receivables	103,235	–	–	–
Electronically recorded monetary claims	4,788	–	–	–
Short-term loans receivable included in other current assets	2,652	–	–	–
Total	¥ 188,243	¥ –	¥ –	¥ –
	2019			
	Within one year	More than one year and within five years	More than five years and within ten years	More than ten years
Cash and cash equivalents	¥ 83,474	¥ –	¥ –	¥ –
Short-term investments	6,770	–	–	–
Trade receivables	128,806	–	–	–
Electronically recorded monetary claims	9,505	–	–	–
Short-term loans receivable included in other current assets	71	–	–	–
Total	¥ 228,626	¥ –	¥ –	¥ –

	Thousands of U.S. dollars			
	2020			
	Within one year	More than one year and within five years	More than five years and within ten years	More than ten years
Cash and cash equivalents	\$ 659,882	\$ –	\$ –	\$ –
Short-term investments	59,372	–	–	–
Trade receivables	957,253	–	–	–
Electronically recorded monetary claims	44,397	–	–	–
Short-term loans receivable included in other current assets	24,592	–	–	–
Total	\$ 1,745,496	\$ –	\$ –	\$ –

Note 4: The redemption schedule for long-term debt is disclosed in Note 9 “Short-Term Bank Loans, Long-Term Debt and Lease Obligations” section of these Notes to Consolidated Financial Statements.

15. Derivative Financial Instruments and Hedging Activities

(a) Derivative transactions to which hedge accounting is not applied

The estimated fair value of the derivatives positions outstanding which do not qualify for deferral hedge accounting at March 31, 2020 and 2019 is summarized as follows:

Currency-related transactions

Classification	Transaction	Millions of yen			
		2020			
		Notional amount	More than one year	Fair value	Valuation gain (loss)
Forward foreign currency exchange contracts	Selling:				
	Euro	¥ 4,676	¥ –	¥ 17	¥ 17
	U.S. dollars	13,638	–	(63)	(63)
	Other	2,751	–	268	268
	Over-the-counter transactions				
	Buying:				
	Other	–	–	–	–
	Interest-rate and cross currency swaps				
	Receive/fixed yen and pay/fixed Euro	15,264	7,874	1,403	1,403
	Other	3,285	–	(294)	(294)
Total		¥ 39,614	¥ 7,874	¥ 1,331	¥ 1,331

Classification	Transaction	Millions of yen			
		2019			
		Notional amount	More than one year	Fair value	Valuation gain (loss)
Forward foreign currency exchange contracts	Selling:				
	Euro	¥ 6,419	¥ –	¥ 30	¥ 30
	U.S. dollars	14,939	–	(129)	(129)
	Other	2,760	–	(24)	(24)
	Over-the-counter transactions				
	Buying:				
	Other	572	–	6	6
	Interest-rate and cross currency swaps				
	Receive/fixed yen and pay/fixed Euro	15,398	12,731	916	916
	Other	4,328	–	97	97
Total		¥ 44,416	¥ 12,731	¥ 896	¥ 896

Classification	Transaction	Thousands of U.S. dollars			
		2020			
		Notional amount	More than one year	Fair value	Valuation gain (loss)
Forward foreign currency exchange contracts	Selling:				
	Euro	\$ 43,359	\$ –	\$ 158	\$ 158
	U.S. dollars	126,459	–	(584)	(584)
	Other	25,509	–	2,485	2,485
	Over-the-counter transactions				
	Buying:				
	Other	–	–	–	–
	Interest-rate and cross currency swaps				
	Receive/fixed yen and pay/fixed Euro	141,536	73,012	13,009	13,009
	Other	30,460	–	(2,726)	(2,726)
Total		\$ 367,323	\$ 73,012	\$ 12,342	\$ 12,342

The fair value of forward foreign currency exchange contracts is computed using prices provided by counterparty financial institutions.

(b) Derivative transactions to which hedge accounting is applied

The estimated fair value of the derivatives positions outstanding which qualify for deferral hedge accounting at March 31, 2020 and 2019 is summarized as follows.

		Millions of yen		
		2020		
Method of hedge accounting	Transaction	Notional amount	More than one year	Fair value
Swap rates applied to underlying long-term debt	Interest rate swaps			
	Receive / floating and pay / fixed	¥ 6,000	¥ 2,500	(*1)
Forward foreign currency exchange contracts applied to underlying accounts-trade receivable	Forward foreign currency exchange contract			
	Selling:			
	U.S. dollars	¥ 66	¥ -	(*2)
		Millions of yen		
		2019		
Method of hedge accounting	Transaction	Notional amount	More than one year	Fair value
Swap rates applied to underlying long-term debt	Interest rate swaps			
	Receive / floating and pay / fixed	¥ 6,000	¥ 6,000	(*1)
Forward foreign currency exchange contracts applied to underlying accounts-trade receivable	Forward foreign currency exchange contract			
	Selling:			
	U.S. dollars	¥ 130	¥ -	(*2)
		Thousands of U.S. dollars		
		2020		
Method of hedge accounting	Transaction	Notional amount	More than one year	Fair value
Swap rates applied to underlying long-term debt	Interest rate swaps			
	Receive / floating and pay / fixed	\$ 55,635	\$ 23,181	(*1)
Forward foreign currency exchange contracts applied to underlying accounts-trade receivable	Forward foreign currency exchange contract			
	Selling:			
	U.S. dollars	\$ 612	\$ -	(*2)

*1 Because interest rate swap agreements are accounted for applying swap rates to underlying long-term debt, their fair value is included in that of long-term debt disclosed in Note 14 “Financial Instruments.”

*2 Because forward foreign currency exchange contracts are accounted for applying forward foreign exchange rate to underlying accounts-trade receivable, for the years ended March 31, 2020 and 2019, respectively, their fair value is included in that of accounts-trade receivable.

16. Research and Development Costs

Research and development costs included in cost of sales and selling, general and administrative expenses totaled ¥19,962 million (\$185,099 thousand) and ¥21,661 million for the years ended March 31, 2020 and 2019, respectively.

17. Loss on Surcharge Payments under the Anti-Monopoly Act

The Company has negotiated the compensation of damages with a part of customers in association with investigations by the authorities about the competition laws. Nevertheless, in overall consideration of the effects to operations of the Company and its consolidated subsidiaries due to extended negotiations, the Company reached the conclusion to pay the settlement amount because the Company considered that an amicable and early resolution would accord with the overall benefits for both parties.

As a result, the Company and its consolidated subsidiaries recorded loss on surcharge payments under the Anti-Monopoly Act in the amount of ¥745 million (\$6,908 thousand) and ¥2,108 million for the years ended March 31, 2020 and 2019, respectively.

18. Loss Resulting from Low Operating Capacity

The Company recorded loss resulting from low operating capacity in the amount of ¥2,097 million (\$19,445 thousand) for the year ended March 31, 2020. This represents fixed costs recorded during the period attributable to some overseas consolidated subsidiaries that had temporarily suspended operations due to the spread of the COVID-19 infection worldwide.

19. Other Comprehensive Income (Loss)

The following table presents the analysis of other comprehensive income (loss) for the years ended March 31, 2020 and 2019.

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Net unrealized holding loss on securities:			
Amount arising during the year	¥ (8,526)	¥ (6,254)	\$ (79,058)
Reclassification adjustments for gains included in profit	(1,353)	-	(12,546)
Before tax effect	(9,879)	(6,254)	(91,604)
Tax effect	2,953	1,894	27,382
Total	(6,926)	(4,360)	(64,222)
Translation adjustments:			
Amount arising during the year	(13,710)	(1,939)	(127,127)
Reclassification adjustments for gains included in profit	-	98	-
Before tax effect	(13,710)	(1,841)	(127,127)
Tax effect	-	-	-
Total	(13,710)	(1,841)	(127,127)
Retirement benefit liability adjustments:			
Amount arising during the year	(5,258)	(2,114)	(48,755)
Reclassification adjustments for gains included in profit	2,810	457	26,056
Before tax effect	(2,448)	(1,657)	(22,699)
Tax effect	(1,301)	392	(12,064)
Total	(3,749)	1,265	(34,763)
Share of other comprehensive loss of affiliates accounted for by the equity method:			
Amount arising during the year	(44)	(936)	(407)
Reclassification adjustments for gains included in profit	-	(63)	-
Total	(44)	(999)	(407)
Other comprehensive loss, net	¥ (24,429)	¥ (8,465)	\$ (226,519)

20. Income Taxes

Income taxes applicable to the Company and its domestic subsidiaries comprise corporate taxes, inhabitants’ taxes and enterprise taxes which, in the aggregate, resulted in statutory tax rates of 29.9% and 30.0% for the years ended March 31, 2020 and 2019, respectively. Overseas subsidiaries are subject to the income taxes of the respective countries in which they operate.

The details of the differences between the statutory tax rate and effective tax rate for the year ended March 31, 2020 are omitted because the Company and its consolidated subsidiaries recorded a loss before income taxes for the year.

The effective tax rate for the years ended March 31, 2019 differs from the Company's statutory tax rate for the following reasons:

	2019
Statutory tax rate	30.0%
Permanent non-deductible expenses	4.9
Permanent non-taxable income	(68.0)
Elimination of dividend income	96.7
Equity in earnings of affiliates	(1.0)
Difference in overseas consolidated subsidiaries' applicable tax rates	(53.1)
Increase in valuation allowance	267.2
Decrease in deferred tax assets due to change in statutory tax rates	(1.7)
Tax credit for research and development expenses	(1.6)
Unrealized inter-company profit	29.5
Other	6.9
Effective tax rate	309.8%

The tax effects of temporary differences which gave rise to significant portions of the deferred tax assets and liabilities at March 31, 2020 and 2019 are presented below:

	Millions of yen		Thousands of U.S. dollars
	2020	2019	2020
Deferred tax assets:			
Tax loss carryforwards	¥ 19,467	¥ 16,616	\$ 180,509
Liability for retirement benefits	15,601	15,503	144,661
Impairment loss	11,492	5,882	106,560
Accrued expenses	2,975	4,115	27,586
Valuation loss on investment securities	1,452	895	13,464
Inventories	1,011	990	9,375
Other	4,941	4,101	45,816
Gross deferred tax assets	56,939	48,102	527,971
Valuation allowance for tax loss carryforwards	(17,387)	(11,118)	(161,222)
Valuation allowance for taxable temporary differences	(23,153)	(10,605)	(214,688)
Less: valuation allowance	(40,540)	(21,723)	(375,910)
Total deferred tax assets	16,399	26,379	152,061
Deferred tax liabilities:			
Depreciation and amortization	(6,459)	(8,895)	(59,892)
Unrealized holding gain on securities	(2,172)	(5,126)	(20,140)
Reserve for deferred gain on property included in retained earnings	(1,143)	(1,167)	(10,599)
Other	(865)	(1,119)	(8,020)
Total deferred tax liabilities	(10,639)	(16,307)	(98,651)
Net deferred tax assets	¥ 5,760	¥ 10,072	\$ 53,410

Note 1: Valuation allowance is increased ¥18,817 million (\$174,482 thousand) in the years ended March 31, 2020. The main reason for this increase is that valuation allowance for taxable temporary differences increased ¥12,549 million (\$116,363 thousand).

Note 2: Tax loss carryforwards and related deferred tax assets as of March 31, 2020 and 2019 expired or will expire as follows:

	Millions of yen		
	2020		
Year ending March 31,	Tax loss carryforwards (*1)	Valuation allowance for tax loss carryforwards	Deferred tax assets for tax loss carryforwards
2021	¥ 658	¥ (401)	¥ 257
2022	514	(169)	345
2023	386	(64)	322
2024	437	–	437
2025	120	(2)	118
2026 and thereafter	17,352	(16,751)	601
	¥ 19,467	¥ (17,387)	(*2) ¥ 2,080

	Millions of yen		
	2019		
Year ending March 31,	Tax loss carryforwards (*1)	Valuation allowance for tax loss carryforwards	Deferred tax assets for tax loss carryforwards
2020	¥ 444	¥ (266)	¥ 178
2021	890	(612)	278
2022	698	(379)	319
2023	546	(184)	362
2024	528	(55)	473
2025 and thereafter	13,510	(9,622)	3,888
	¥ 16,616	¥ (11,118)	(*2) ¥ 5,498

	Thousands of U.S. dollars		
	2020		
Year ending March 31,	Tax loss carryforwards (*1)	Valuation allowance for tax loss carryforwards	Deferred tax assets for tax loss carryforwards
2021	\$ 6,101	\$ (3,718)	\$ 2,383
2022	4,766	(1,567)	3,199
2023	3,579	(593)	2,986
2024	4,052	–	4,052
2025	1,113	(19)	1,094
2026 and thereafter	160,898	(155,325)	5,573
	\$ 180,509	\$ (161,222)	(*2) \$ 19,287

(*1) The tax loss carryforwards in the above table are measured using the statutory tax rates.

(*2) The balance of deferred tax assets of ¥2,080 million (\$19,287 thousand) and ¥5,498 million arising from tax loss carryforwards of ¥19,467 million (\$180,509 thousand) and ¥16,616 million calculated after multiplying the loss amount with the statutory tax rates as of March 31, 2020 and 2019, respectively. A certain portion of tax loss carryforwards was considered to be recoverable in future income taxes because it is probable that future taxable profit would be available.

21. Amounts per Share

Amounts per share at March 31, 2020 and 2019 and for the years then ended were as follows:

	Yen		U.S. dollars
	2020	2019	2020
Net assets	¥ 294.00	¥ 433.32	\$ 2.73
Loss attributable to owners of parent:			
Basic	(82.83)	(13.10)	(0.77)
Cash dividends	5.00	15.00	0.05

Amounts per share of net assets are computed based on the number of shares of common stock outstanding at the year end.

Basic loss attributable to owners of parent per share is computed based on the profit or attributable to owners of parent of common stock and the weighted-average number of shares of common stock outstanding during the year. Diluted profit attributable to owners of parent per share has not been presented because there were no potentially dilutive shares of common stock, and the Company and consolidated subsidiaries recorded loss attributable to owners of parent for the years ended March 31, 2020 and 2019.

The Company recorded shares held by the “Officer Remuneration BIP Trust” (Please refer to Note 5) as treasury stock in the consolidated financial statements as of March 31, 2020 and 2019. Accordingly, to compute “net assets per share,” the Company’s shares held by the trust (472,666 shares and 479,761 shares at March 31, 2020 and 2019, respectively) are included in treasury stock that is excluded from the number of shares outstanding as of March 31, 2020 and 2019. In addition, to compute “Loss attributable to owners of parent per share,” the Company’s shares held by the trust (474,565 and 516,314 average number of shares for the years ended March 31, 2020 and 2019, respectively) are included in treasury stock that is excluded from the computation of the average number of shares for the years ended March 31, 2020 and 2019.

Cash dividends per share represent the cash dividends proposed by the Board of Directors as applicable to the respective years together with the interim cash dividends paid.

22. Segment Information

1. Outline of reporting segments

The Group’s reporting segments are divisions of the Group for which separate financial information is available, and whose operating results are reviewed regularly by the highest management decision-making body (the Board of Directors meeting of the Company) in order to allocate management resources and assess performance of operations.

The Group’s main business lines consist of the manufacture and sales of bearings, CVJs and precision equipments for the aftermarket, general industrial machinery market, and automotive market. Business activities in Japan are controlled by the Company (the Head Office), and overseas business activities are controlled by the General Manager responsible in each region. Business entities in each region prepare their own plans and strategies to conduct business activities while analyzing profitability and the investment efficiency of operations.

Accordingly, the Group has four reporting segments based on geographic business segmentation controlled by the Head Office or the General Managers: Japan, the Americas, Europe, and Asia and other areas. Each reporting segment engages in the manufacture and sale of bearings, CVJs, and precision equipments and other products.

2. Calculation methods used for net sales, profit or loss, assets, liabilities and other items on each reporting segment

The accounting policies of the segments are substantially the same as those described in Note 2 “Summary of Significant Accounting Policies.” Inter-segment sales and transfers are recorded at the same prices used in transactions with third parties.

(Application of IFRS 16)

Certain overseas consolidated subsidiaries have applied IFRS 16, “Leases” from the beginning of the fiscal year ended March 31, 2020. The cumulative effect of applying IFRS 16 was recognized by adjusting the amounts of tangible fixed assets, intangible fixed assets, lease liabilities and retained earnings at the beginning of the fiscal year ended March 31, 2020, in accordance with the transitional treatment provided in this standard. However, the amounts recorded for the previous fiscal year ended March 31, 2019 have not been revised. In addition, the effects of applying IFRS 16 on segment information are immaterial.

3. Information as to net sales, profit or loss, assets, liabilities, and other items for each reporting segment for the years ended March 31, 2020 and 2019

Reportable segment information for the years ended March 31, 2020 and 2019 is summarized as follows:

	Millions of yen						
	2020						
	Reporting segments					Adjustments	Consolidated
	Japan	Americas	Europe	Asia and other areas	Total		
Sales, profit and assets or liabilities by reporting segments:							
Net sales:							
Sales to third parties	¥ 205,371	¥ 169,879	¥ 152,582	¥ 123,664	¥ 651,496	¥ –	¥ 651,496
Inter-segment sales and transfers	123,726	1,194	3,058	11,266	139,244	(139,244)	–
Total	329,097	171,073	155,640	134,930	790,740	(139,244)	651,496
Segment profit or loss	¥ (1,282)	¥ (6,438)	¥ 402	¥ 11,419	¥ 4,101	¥ 2,956	¥ 7,057
Segment assets	¥ 584,431	¥ 161,409	¥ 128,354	¥ 170,303	¥ 1,044,497	¥ (286,675)	¥ 757,822
Segment liabilities	¥ 417,340	¥ 112,518	¥ 101,592	¥ 38,182	¥ 669,632	¥ (80,188)	¥ 589,444
Other items:							
Depreciation and amortization	¥ 13,424	¥ 9,719	¥ 7,363	¥ 6,801	¥ 37,307	¥ –	¥ 37,307
Capital expenditures	¥ 38,754	¥ 18,047	¥ 6,097	¥ 4,692	¥ 67,590	¥ (41)	¥ 67,549

	Millions of yen						
	2019						
	Reporting segments					Adjustments	Consolidated
	Japan	Americas	Europe	Asia and other areas	Total		
Sales, profit and assets or liabilities by reporting segments:							
Net sales:							
Sales to third parties	¥ 216,268	¥ 194,668	¥ 179,827	¥ 142,806	¥ 733,569	¥ –	¥ 733,569
Inter-segment sales and transfers	136,804	3,635	4,177	12,771	157,387	(157,387)	–
Total	353,072	198,303	184,004	155,577	890,956	(157,387)	733,569
Segment profit	¥ 682	¥ 4,345	¥ 955	¥ 17,218	¥ 23,200	¥ 3,746	¥ 26,946
Segment assets	¥ 609,258	¥ 176,903	¥ 143,805	¥ 173,683	¥ 1,103,649	¥ (262,898)	¥ 840,751
Segment liabilities	¥ 417,716	¥ 107,032	¥ 110,503	¥ 45,417	¥ 680,668	¥ (86,322)	¥ 594,346
Other items:							
Depreciation and amortization	¥ 15,285	¥ 9,687	¥ 7,117	¥ 6,837	¥ 38,926	¥ –	¥ 38,926
Capital expenditures	¥ 27,253	¥ 13,600	¥ 9,366	¥ 5,146	¥ 55,365	¥ (553)	¥ 54,812

	Thousands of U.S. dollars						
	2020						
	Reporting segments					Adjustments	Consolidated
	Japan	Americas	Europe	Asia and other areas	Total		
Sales, profit and assets or liabilities by reporting segments:							
Net sales:							
Sales to third parties	\$ 1,904,316	\$ 1,575,214	\$ 1,414,827	\$ 1,146,683	\$ 6,041,040	\$ –	\$ 6,041,040
Inter-segment sales and transfers	1,147,258	11,072	28,355	104,464	1,291,149	(1,291,149)	–
Total	3,051,574	1,586,286	1,443,182	1,251,147	7,332,189	(1,291,149)	6,041,040
Segment profit or loss	\$ (11,887)	\$ (59,697)	\$ 3,728	\$ 105,883	\$ 38,027	\$ 27,410	\$ 65,437
Segment assets	\$ 5,419,176	\$ 1,496,676	\$ 1,190,171	\$ 1,579,146	\$ 9,685,169	\$ (2,658,214)	\$ 7,026,955
Segment liabilities	\$ 3,869,813	\$ 1,043,331	\$ 942,019	\$ 354,045	\$ 6,209,208	\$ (743,549)	\$ 5,465,659
Other items:							
Depreciation and amortization	\$ 124,475	\$ 90,120	\$ 68,274	\$ 63,063	\$ 345,932	\$ –	\$ 345,932
Capital expenditures	\$ 359,349	\$ 167,342	\$ 56,535	\$ 43,507	\$ 626,733	\$ (380)	\$ 626,353

The total amount of segment profit is adjusted to operating income of the consolidated statement of operations.

Other than those corresponding to segment assets, adjustments relate to the elimination of inter-segment transactions, etc. The adjustments for segment assets consist of inter-segment elimination, etc. of ¥307,596 million (\$2,852,205 thousand) and ¥297,147 million and the corporate assets of the Group of ¥20,922 million (\$194,001 thousand) and ¥34,249 million for the years ended March 31, 2020 and 2019, respectively. The corporate assets are mainly long-term investment funds (investment securities) for the years ended March 31, 2020 and 2019.

4. Related information

(1) Sales by products and service

Sales by products and service classified by the similarity of the market for the years ended March 31, 2020 and 2019 are summarized as follows:

	Millions of yen			
	2020			
	Aftermarket	Industrial machinery	Automotive	Total
	Aftermarket	Industrial machinery	Automotive	Total
Sales to third parties	¥ 109,417	¥ 105,072	¥ 437,007	¥ 651,496
	Millions of yen			
	2019			
	Aftermarket	Industrial machinery	Automotive	Total
	Aftermarket	Industrial machinery	Automotive	Total
Sales to third parties	¥ 118,849	¥ 123,398	¥ 491,322	¥ 733,569
	Thousands of U.S. dollars			
	2020			
	Aftermarket	Industrial machinery	Automotive	Total
	Aftermarket	Industrial machinery	Automotive	Total
Sales to third parties	\$ 1,014,576	\$ 974,287	\$ 4,052,177	\$ 6,041,040

(2) Regional information

(a) Sales

Sales categorized by country and region based on locations of customers within the Group for the years ended March 31, 2020 and 2019 are summarized as follows:

Millions of yen				
2020				
Japan	Americas	Europe	Asia and other areas	Total
¥ 197,996	¥ 174,308	¥ 140,839	¥ 138,353	¥ 651,496
Millions of yen				
2019				
Japan	Americas	Europe	Asia and other areas	Total
¥ 207,249	¥ 201,464	¥ 167,826	¥ 157,030	¥ 733,569
Thousands of U.S. dollars				
2020				
Japan	Americas	Europe	Asia and other areas	Total
\$ 1,835,931	\$ 1,616,283	\$ 1,305,939	\$ 1,282,887	\$ 6,041,040

“Americas” includes the U.S.A., Canada and Central and South America. “Europe” includes Germany, France, the U.K. and others. “Asia and other areas” include China, Thailand, India and others. The sales of the “Americas” segment above include the sales to customers in the U.S.A. of ¥146,644 million (\$1,359,766 thousand) and ¥171,062 million for the years ended March 31, 2020 and 2019, respectively. The sales of the “Asia and other areas” segment above include the sales to customers in China of ¥79,886 million (\$722,068 thousand) for the years ended March 31, 2019.

(b) Property, plant and equipment

Property, plant and equipment categorized by country and region within the Group at March 31, 2020 and 2019 are summarized as follows:

Millions of yen				
2020				
Japan	Americas	Europe	Asia and other areas	Total
¥ 100,474	¥ 78,120	¥ 45,225	¥ 38,825	¥ 262,644
Millions of yen				
2019				
Japan	Americas	Europe	Asia and other areas	Total
¥ 104,182	¥ 79,046	¥ 48,400	¥ 48,235	¥ 279,863
Thousands of U.S. dollars				
2020				
Japan	Americas	Europe	Asia and other areas	Total
\$ 931,652	\$ 724,373	\$ 419,352	\$ 360,007	\$ 2,435,384

1. Property, plant and equipment in “Americas” in the amount of ¥70,347 million (\$652,297 thousand) and ¥70,062 million is located in the U.S.A. at March 31, 2020 and 2019, respectively.
2. Property, plant and equipment in “Europe” in the amount of ¥29,688 million (\$275,284 thousand) and ¥31,930 million is located in France at March 31, 2020 and 2019, respectively.
3. Property, plant and equipment in “Asia and other areas” in the amount of ¥27,623 million (\$256,136 thousand) and ¥35,843 million is located in China at March 31, 2020 and 2019, respectively.

5. Loss on impairment of fixed assets

Loss on impairment of fixed assets by reporting segment for the years ended March 31, 2020 and 2019 is summarized as follows:

Millions of yen					
2020					
Japan	Americas	Europe	Asia and other areas	Adjustments	Total
¥ 21,955	¥ 5,518	¥ 1,528	¥ –	¥ –	¥ 29,001
Millions of yen					
2019					
Japan	Americas	Europe	Asia and other areas	Adjustments	Total
¥ 16,963	¥ –	¥ –	¥ –	¥ –	¥ 16,963
Thousands of U.S. dollars					
2020					
Japan	Americas	Europe	Asia and other areas	Adjustments	Total
\$ 203,579	\$ 51,166	\$ 14,169	\$ –	\$ –	\$ 268,914

23. Subsequent Event

1. Suspension of plant operations

The Company and its consolidated subsidiaries temporarily suspended production at some domestic and overseas plants even after April, 2020 at the request of the government in each country and due to decreased customer demand. At the present time, it is difficult to reasonably estimate the impact on the Group's financial position, business results and cash flow.

2. Significant borrowings

The Company 1) borrowed funds and 2) entered into a commitment line contract below to mitigate liquidity risk due to the effects of the novel coronavirus infection disease.

1. Purpose of funds: working capital
2. Financial institutions: MUFG Bank, Ltd. and Development Bank of Japan Inc.
3. Amounts:

1) Borrowings: ¥30,000 million (interest rate is based on the market interest rate)

2) Commitment line contract : ¥70,000 million (maximum amount) (no borrowings under such commitment line contract at the moment)
4. Borrowing date: Starting from May 18, 2020
5. Term: Maximum of 3 years
6. Pledged assets: Yes (land, building and structure and investments in securities)



Japan



Company name	Paid-in capital	Holdings as percentage (%)
① NTN Corporation (parent company)		
② Industrial Business Headquarters, Kuwana Works		
③ Industrial Business Headquarters, Nagano Works		
④ Industrial Business Headquarters, Kongo Works		
⑤ Automotive Business Headquarters, Iwata Works		
⑥ Automotive Business Headquarters, Okayama Works		
⑦ Automotive Business Headquarters Mikumo Works		
⑧ Composite Material Product Division, Engineering Plastics Works		
① NTN SALES JAPAN CORP.	JPY 480,000,000	100
② NTN MIE CORP.	JPY 3,000,000,000	100
③ NTN HOUDATSU SHIMIZU CORP.	JPY 1,250,000,000	100
④ NTN NOTO CORP.	JPY 1,000,000,000	100
⑤ NTN FUKUROI CORP.	JPY 1,500,000,000	100
⑥ NTN AKAIWA CORP.	JPY 1,250,000,000	100
⑦ NTN Advanced Materials Corp.	JPY 266,000,000	97.4
⑧ NTN Advanced Materials Corp.	JPY 400,000,000	99.34
⑨ NTN CASTING CORP.	JPY 450,000,000	100
⑩ NTN KINAN CORP.	JPY 450,000,000	100
⑪ NTN KAMIINA CORP.	JPY 725,000,000	80
⑫ NTN TECHNICAL SERVICE CORP.	JPY 200,000,000	100
⑬ NTN LOGISTICS CO., LTD.	JPY 10,000,000	100 (100)
◆ New Product Development R&D Center		
◆ Production Engineering R&D Center		
◆ CAE R&D Center		
◆ Advanced Technology R&D Center		
◆ NTN Next Generation Research Alliance Laboratory		

Americas



Company name	Paid-in capital	Holdings as percentage (%)
⑭ NTN USA CORP.	USD 200,620,000	100
⑮ NTN BEARING CORP. OF AMERICA	USD 24,700,000	100 (100)
⑯ NTN DRIVESHAFT, INC.	USD 54,580,000	100 (100)
⑰ NTN DRIVESHAFT ANDERSON, INC.	USD 19,500,000	100 (100)
⑱ AMERICAN NTN BEARING MFG. CORP.	USD 24,330,000	100 (100)
⑲ NTN-BOWER CORP.	USD 117,000,000	100 (100)
⑳ NTK PRECISION AXLE CORP.	USD 15,000,000	60 (60)
㉑ NTA PRECISION AXLE CORP.	USD 20,000,000	62.5 (62.5)
㉒ NTN BEARING CORP. OF CANADA LTD.	CAD 20,100,000	100
㉓ NTN-SUDAMERICANA, S.A.	USD 700,000	100
㉔ NTN MANUFACTURING DE MEXICO, S.A.DE C.V.	MXN 594,205,718	100 (5)
㉕ NTN do Brasil Produção de Semi-Eixos Ltda.	BRL 390,739,432	100 (2.72)
㉖ ASAHI FORGE OF AMERICA CORP.	USD 10,100,000	19.8 (19.8)
㉗ Seohan-NTN Driveshaft USA CORP.	USD 6,000,000	49
◆ NTN Automotive Center		

One consolidated subsidiary in addition to the Group companies above

Europe



Company name	Paid-in capital	Holdings as percentage (%)
⑳ NTN Wälzlager (Europa) G.m.b.H.	EUR 14,500,000	100
㉑ NTN Kugellagerfabrik (Deutschland) G.m.b.H.	EUR 18,500,000	100
㉒ NTN Mettmann (Deutschland) G.m.b.H.	EUR 25,000	100 (100)
㉓ NTN Antriebstechnik G.m.b.H.	EUR 50,000	100
㉔ NTN BEARINGS (UK) LTD.	GBP 2,600,000	100 (0.04)
㉕ NTN-SNR ROULEMENTS	EUR 123,599,542	100
㉖ NTN TRANSMISSIONS EUROPE	EUR 82,843,207	100
㉗ NTN TRANSMISSIONS EUROPE CREZANCY	EUR 11,500,000	100 (100)
◆ NTN-SNR R&D Center		

Six consolidated subsidiaries in addition to the Group companies above

Asia and Others



Company name	Paid-in capital	Holdings as percentage (%)
⑶ NTN BEARING-SINGAPORE (PTE) LTD.	SGD 36,000,000	100 (0.97)
⑷ NTN BEARING-MALAYSIA SDN.BHD.	MYR 10,000,000	100 (100)
⑸ NTN BEARING-THAILAND CO., LTD.	THB 780,000,000	100 (99.999)
⑹ NTN MANUFACTURING (THAILAND) CO., LTD.	THB 1,311,000,000	100 (99.999)
⑺ NTPT CO., LTD.	THB 700,000,000	75 (10.73)
⑻ PT. NTN BEARING INDONESIA	USD 7,300,000	100 (100)
⑼ NTN BEARING INDIA PRIVATE LTD.	INR 300,000,000	100 (0.1)
⑽ NTN NEI Manufacturing India Private LTD.	INR 4,808,000,000	97.4 (24.96)
⑿ NTN KOREA CO., LTD.	KRW 500,000,000	100
⓫ NTN (CHINA) Investment Corporation	USD 388,547,500	100
⓬ NANJING NTN CORP.	USD 180,000,000	100 (86.67)
⓭ SHANGHAI NTN CORP	USD 166,500,000	95 (95)
⓮ Guangzhou NTN-Yulon Drivetrain Co., Ltd.	USD 12,500,000	60 (12)
⓯ Xiangyang NTN-Yulon Drivetrain Co., Ltd.	USD 34,000,000	60 (60)
⓰ NTN-RAB (CHANGZHOU) CORP.	USD 28,440,000	100
⓱ NTN CHINA LTD.	HKD 2,500,000	100
⓲ TUNG PEI INDUSTRIAL CO., LTD.	TWD 1,257,232,620	27.35
⓳ TAIWAY LTD.	TWD 160,000,000	36.25
⓴ BEIJING NTN-SEOHAN DRIVESHAFT CO., LTD.	USD 6,000,000	40 (6.67)
⓵ Seohan-NTN Bearing CO., LTD.	KRW 75,780,330,000	49
⓶ NTN-DONGPAI (Shanghai) Bearing Sales Co, Ltd.	USD 1,460,000	25 (25)
⓷ PT.TPI MANUFACTURING INDONESIA	USD 55,415,050	28.8 (0.002)
⓸ PT. Astra NTN Driveshaft Indonesia	IDR 120,000,000,000	49
⓹ NTN-LYC (LUOYANG) BEARING CORP.	USD 73,800,000	50 (50)
◆ NTN China Technical Center		

One consolidated subsidiary in addition to the Group companies above

NOTES 1. The scope of consolidation as of March 31, 2020 consisted of NTN Corporation and 57 consolidated subsidiaries (13 domestic and 44 overseas subsidiaries). A total of 10 affiliates (all overseas affiliates) were accounted for by the equity method.
The following changes to the scope of consolidation and application of the equity method were made during the fiscal year under review.
◆Consolidated subsidiaries: No additions/1 removals
◆Affiliates: 2 additions/No removal
2. Of the above subsidiaries, the following companies are specified subsidiaries: NTN USA CORP., NTN DRIVESHAFT, INC., NTN-BOWER CORP., NTN do Brasil Produção de Semi-Eixos Ltda., NTN Wälzlager (Europa) G.m.b.H., NTN-SNR ROULEMENTS ('NTN-SNR'), NTN TRANSMISSIONS EUROPE, NTN NEI Manufacturing India Private LTD., NTN (CHINA) INVESTMENT Corporation, Nanjing NTN Corp., and SHANGHAI NTN Corporation

3. Figures in curved brackets under "Holding as percentage" indicate the percentage of indirectly owned holdings, and are included in the total holding.
4. None of the companies has submitted a securities registration statement or securities report.
5. Of the above subsidiaries, NTN BEARING CORP. OF AMERICA and NTN-SNR have sales (excluding internal sales between consolidated companies) accounting for more than 10% of consolidated sales. Figures for NTN-SNR are consolidated figures encompassing eight NTN-SNR subsidiaries.
6. Of the above subsidiaries, ① to ④ are NTN Corporation business units, 1 to 25 and 28 to 51 (in symbols ●●■) are consolidated subsidiaries, and 26, 27 and 52 to 59 (in symbols ●■) are affiliates subject to the equity method.

NTN Report 2020 third-party opinion



Professor, Faculty of Economics, Takasaki City University of Economics

Takeshi Mizuguchi

Profile

After working at a trading company and auditing firm, Mizuguchi became a lecturer of the Faculty of Economics at Takasaki City University of Economics in 1997. He assumed his present role in 2008. Mizuguchi specializes in responsible investment and non-financial information disclosure. He has served as Chair of the Green Bonds Working Group (Ministry of the Environment), a member of the ESG Working Group (Ministry of the Environment) and Director of the Society for Environmental Economics and Policy Studies. His major publications include *Responsible Investment—Changing the Future through the Flow of Capital* (Iwanami Shoten, Publishers; winner of the SEEPS Commentary Award), *ESG Investment—Form of the New Capitalism* (Nikkei Publishing) and *An Era of Sustainable Finance—ESG/SDGs and the Bond Market* (Written and Edited by KINZAI).

A sense of crisis is spreading to the message of top management. Many companies around the world are struggling with COVID-19, and your company has positioned the term ending March 2021 as the "crisis response period." In this situation, I believe it was a good idea for NTN to strengthen its ESG management and to demonstrate its unchanged stance in responding to climate change. "Green recovery" has been advocated mainly in Europe, and the recovery from the pandemic is being linked to the creation of a green economy. I hope that NTN will strongly contribute to that move and turn the crisis into an opportunity.

This pandemic has also increased attention to the issue represented by ESG's "S". The existence of people who are unable to take measures against infectious diseases underscores that economic inequality is exactly the inequality of life. Your company cites "ensuring the health and safety of employees" as the first step in responding to crises, and I would like to praise this point. However, in the future, I think that efforts for "S" will be required in a broader range, including suppliers and business partners. In Europe and North America, Black Lives Matter movements are boiling over, while in China, concerns about human rights are becoming a focus in various issues including those in the Xinjiang Uyghur Autonomous Region. I truly appreciate that you established the Human Rights Policy in July 2020. In the near future, however, not only on-site decisions but also management decisions regarding those human rights issues around world may draw attention.

This year, I also read the dialog between the two Outside

Directors and found it very interesting. They talked over issues, which consumed 4 pages and is reminiscent of a discussion at a meeting of Board of Directors. I think it good that NTN created and published a skill matrix this time. Director selection criteria was also made public, increasing the transparency of corporate governance.

Initially, I thought that a skill matrix should include "knowledge on sustainability," but director selection criteria includes "Must have excellent insight and foresight concerning changes to the overall environment and to society," indicating that the ability related to sustainability is regarded as qualifications rather than skills. A woman has joined Board of Directors for the first time, and diversity has increased. The ratio of Outside Directors is also high, and it conveys the intention to make the "G (Governance)" of ESG work properly.

In this sense, it is somewhat regrettable that you have a sustainability-related committee only on the executive side. Of course, executives should be in charge of practical operations, and the final decisions, such as on the identification of materiality, are to be made by Board of Directors, however, it would be an idea to formally position Outside Directors as the center of the framework that will be the counterpart of the sustainability committee of the executive team. I hope that from a broader, higher and longer-term perspective, those Directors will hold discussions about how the Company will confront global issues such as climate risks and risks of social division and how the Company will fulfill its social roles.

Response to the third-party opinion

We would like to thank Professor Mizuguchi for his valuable opinions.

We have positioned the fiscal year ending March 2021 as a crisis response period, and in the section of "Prepare for future growth," which is a part of the Business Operating Policy, we aim to identify key issues (materiality) that we must prioritize, and to contribute to the achievement of SDGs by putting our response to key issues into our business strategy.

This fiscal year, we established a new Human Rights Policy. This represents our commitment to encouraging the respect of human rights not only within the Group but also at the Group's suppliers, and we will build a mechanism for human rights due diligence that will address the challenges that are occurring worldwide. We believe that addressing global issues such as climate risks and risks of social division is an extremely important perspective.

In addition, the key issues discussed by the Sustainability Committee will be resolved by Board of Directors from a long-term view, and we will work to take them into account when setting a major direction of management. We will listen sincerely to the valuable opinions we have received and strive to increase corporate value over the medium- to long-term.

Managing Executive Officer
CSR Headquarters
Toshinori Shiratori

Head Office

NTN Corporation
3-17, 1-chome, Kyomachibori, Nishi-ku,
Osaka 550-0003, Japan

Transfer Agent for Common Stock

Mitsubishi UFJ Trust and Banking Corporation
4-5, 1-chome, Marunouchi, Chiyoda-ku,
Tokyo 100-8212, Japan

General Meeting of Shareholders

The General Meeting of Shareholders was
held on July 30, 2020; Osaka

Common Stock

Authorized: 1,800,000,000
Issued and Outstanding: 532,463,527

Stock Exchange Listings

First Section of Tokyo Stock Exchange (#6472)

Stock Price Range in the Fiscal Year ended March 31, 2019

High: 365 yen
Low: 189 yen

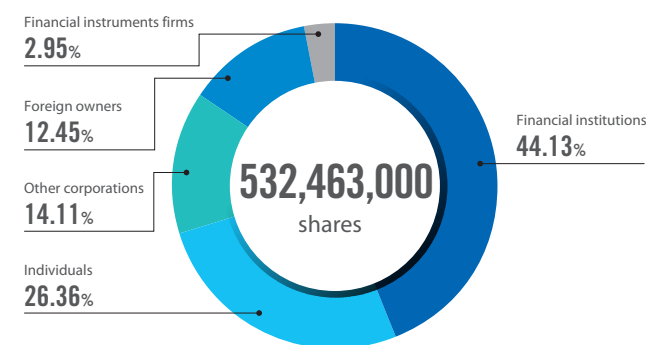
Number of Shareholders

48,773

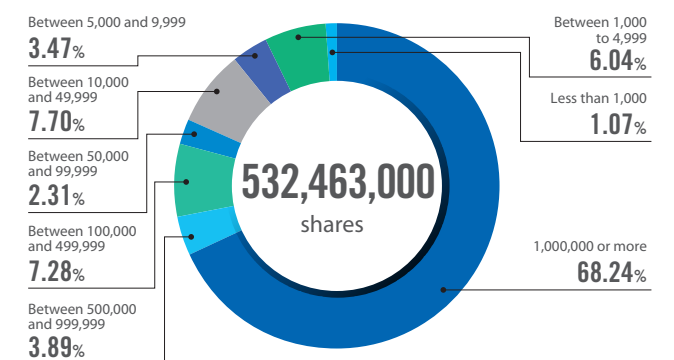
Independent Audit Firm

Ernst & Young ShinNihon LLC

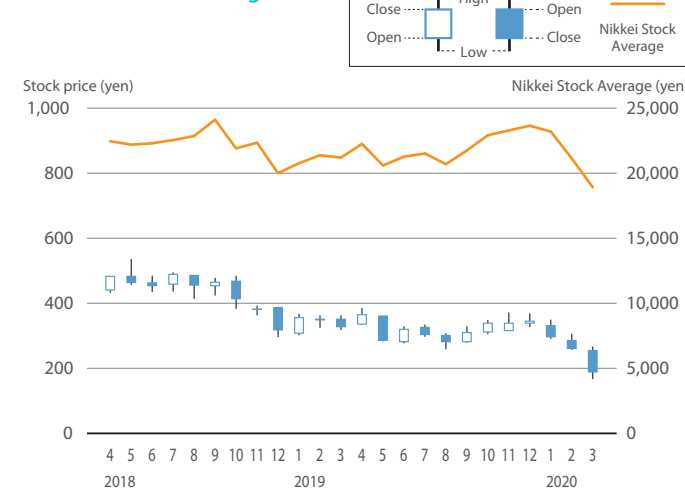
Breakdown of Shareholders



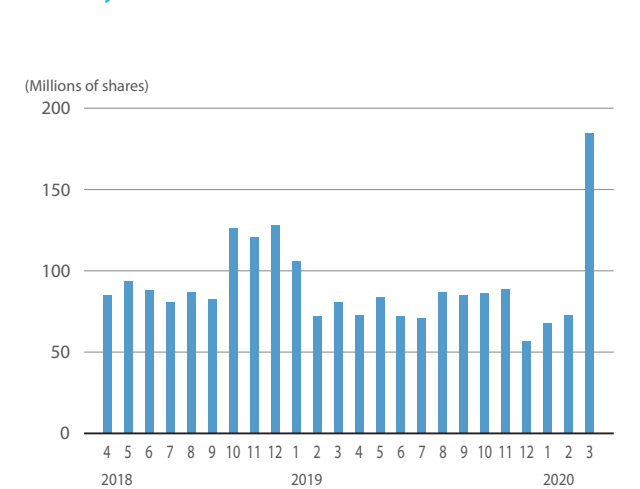
Breakdown of Number of Shares Held



Recent Stock Price Range



Monthly Volume Traded



Status of inclusion in ESG indexes

FTSE Blossom Japan Index



FTSE Blossom Japan

MSCI Japan ESG Select Leaders Index*



2020 CONSTITUENT MSCI JAPAN ESG SELECT LEADERS INDEX

S&P/JPX Carbon Efficient Index



SNAM Sustainability Index



FTSE4Good



*1 Inclusion status as of the end of September 2020.

*2 The inclusion of NTN Corporation in any MSCI index, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement, or promotion of NTN Corporation by MSCI or any of its affiliates. The MSCI indexes are the exclusive property of MSCI. MSCI and the MSCI index names and logos are trademarks or service marks of MSCI or its affiliates.

Inquiries

Corporate Communications Department

T E L : 06-6449-3528

F A X : 06-6443-3226

E - m a i l : irmanager@ntn.co.jp

NTN on the Internet

NTN's website offers a variety of corporate and product information, including the latest NTN Report and financial results.

<https://www.ntn.co.jp/>



NTN corporation

1-3-17, Kyomachibori, Nishi-ku, Osaka 550-0003, Japan
<https://www.ntnglobal.com/en/>



ZX01 CAT. No.1000-2/E 20.10.160 TK/TK