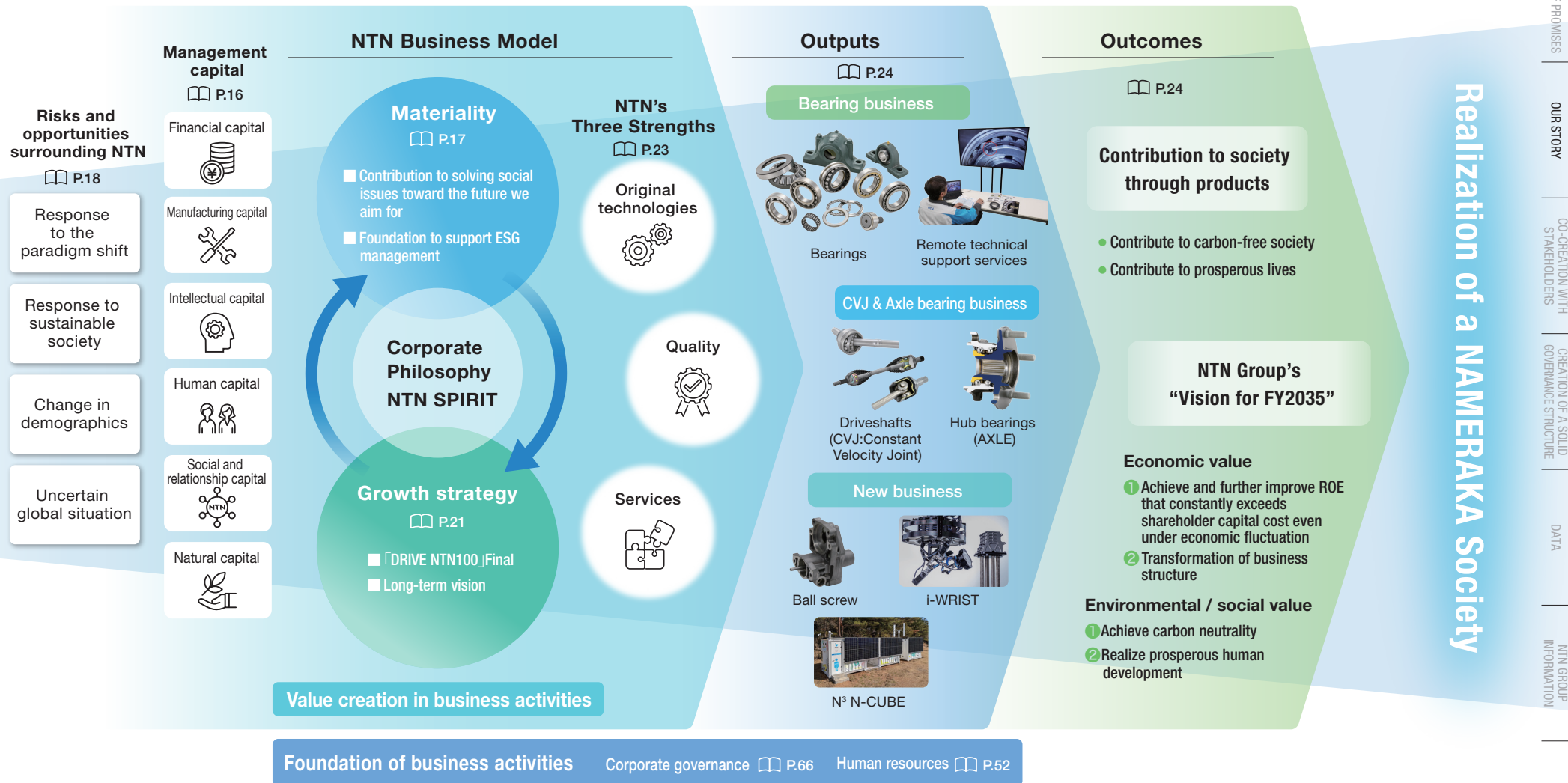


Value Creation Process

The NTN Group has identified materiality for addressing SDGs in order to solve social issues, and is conducting its business activities based on its corporate philosophy, utilizing the management capital and NTN characteristics that have been cultivated over our more than 100 years of history.

By providing products and technical services such as bearings and driveshafts and by creating environmental and social value, we aim to realize a “NAMERAKA Society” where people can easily lead a secure and fulfilling life in harmony with nature. Going forward, we will continue to promote ESG management to achieve sustainable growth and to contribute to solving social issues.



Six Forms of Capital



Financial capital

Our financial structure provides the basis for the sustainable growth of the NTN Group, and we aim to reinforce it through the steady recovery of business performance every fiscal year, sale of idle assets, thorough financial management within the Group, and other efforts, and thereby improve our free cash flow, equity to capital ratio, and net D/E ratio.

We will boost our “earning power” by improving operating margin and reducing inventory, and fully strengthening the financial structure that underpins the transformation of our business portfolio. Furthermore, we will make active use of sustainable finance, which links the achievement of targets in sustainability activities with the terms of loans, to accelerate the execution of various measures through stable financing. We aim to achieve sustainable growth and enhance our corporate value, and at the same time, contribute to resolving social issues.



Manufacturing capital

We are promoting production reforms with a view to reducing lead time across all supply chain management (SCM) processes, from material procurement to manufacturing and sales, as well as building new production processes to realize inventory reduction. Furthermore, as the human resources responsible for production in NTN, a “Monozukuri” (manufacturing) company, form the basis for our value creation, we are systematically nurturing the next generation through the “NTN Meister Certification” and other means, and developing a framework for passing on the knowledge and skills of expert technicians.

To further strengthen our “Monozukuri” capabilities, we will advance efforts to consolidate the functions for managing production technologies, standardize processing methods and equipment, and enhance “Monozukuri” education. In addition, we will support advanced and efficient production through the use of robots and AI, driving forward the transition to “smart factories.”



Intellectual capital

We have research and development (R&D) bases in Japan, the Americas, Europe, and China to support global market needs. The R&D bases mutually engage in active technological and human resource exchanges and share information through a database on the design information they have researched and developed, as well as information pertaining to prototypes and experiments, production technology, and customer projects. By doing so, we are accelerating the creation of new technologies and products from a global perspective.

The NTN Group’s intellectual property is the source of our value creation, and we globally promote the appropriate protection and utilization of intellectual property rights in line with our business strategy and R&D strategy. In addition to intellectual property rights that serve to maintain and strengthen the competitiveness of our core technologies and products, we also utilize IP landscaping in new fields to create intellectual property that can help us to secure first-mover advantage.



Human capital

Based on our belief that “the company is its people,” we are striving to strengthen the basis of human capital that is indispensable to the sustainable growth of our Group, and to develop diverse human resources. We are also working to develop rewarding environments and systems to allow employees to maximize their capabilities through work, think and act independently, and continue to grow. At our overseas business sites, local employees, including the presidents of overseas subsidiaries, play an active role in management and operate the businesses in line with the management policies of the global head office.

We aim to strengthen the development of human resources who will lead the next generation, such as by reviewing our education and training systems to promote self-directed career development, respond to rapid changes in the business environment, and realize continuous enhancement to our corporate value.



Social and relationship capital

We advocate approaching business activities based on our Management Policy of being “a company that is trusted and needed by communities including stakeholders,” and we have clearly established our “Stance to Stakeholders” in writing. We seek to maximize customer satisfaction and trust by providing products and services of superior quality, safety and reliability. We aim to build good partnerships with our business partners based on mutual trust and work together for mutual growth and development in a fair and free environment. In addition to respecting cultures and customs in the local communities where we conduct our business and meeting their expectations through our business activities, we also strive to realize return for shareholders through sustainable profit growth and build long-term trust relationships with shareholders through active communication.



Natural capital

We have positioned coexistence with the global environment as a top priority. In light of that, we are committed to preventing environmental pollution in our business activities and conserving natural capital. At the same time, we have established the Environment Policy of making constant efforts to contribute to the sustainable development of society through our technologies, and we engage in business activities in line with this policy. Bearings and driveshafts, our flagship products, are environmentally friendly products that help reduce energy loss, and green energy products are renewable environmentally friendly products that make use of sustainable energy sources.

We are quantifying the degree of environmental contribution of these efforts, and will continue working to develop and supply products that further aid the environment. In addition to managing and reducing the chemical substances used in our products and manufacturing processes within our business activities, we also put effort into conserving biodiversity and engaging in environmental contribution activities in local communities.

Materiality

Materiality identification process

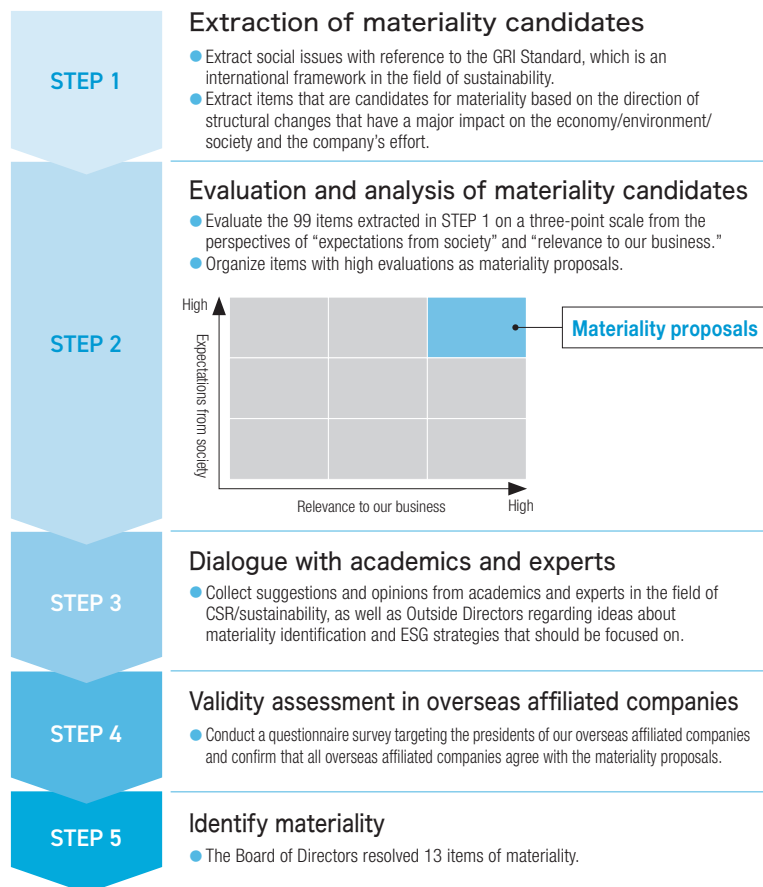
In March 2015, the NTN Group signed the United Nations Global Compact, a global framework for the international community to realize sustainable growth, and we are working toward achieving the SDGs.

In December 2020, we identified 13 items of materiality that the Group should prioritize addressing in response to the SDGs. For the materiality identified, we have formulated response measures for each fiscal year and each item, and we are driving efforts to implement these measures. Our initiatives to address our materiality are outlined in a roadmap for realizing a “NAMERAKA Society,” and progress is regularly reviewed by the Sustainability Committee, which comprises members from across the organization, and reported to the Board of Directors as appropriate.

The identified materialities are also linked to NTN’s corporate philosophy, “We shall contribute to international society through creating new technologies and developing new products.” By promoting efforts to address our materiality, we will strive to achieve sustainable growth for the Group and create environmental and social value, with the aim of realizing a “NAMERAKA Society.”



Identification process



Contribution to solving social issues toward the future we aim for

	Materiality	Related SDGs
Environment	1 Respond to climate change	13 Climate Action
	2 Realize a sustainable society using natural energy	7 Affordable and Clean Energy, 13 Climate Action
	3 Reduce energy loss	7 Affordable and Clean Energy, 9 Industry, Innovation and Infrastructure, 12 Responsible Consumption and Production, 13 Climate Action
Social	4 Provide safety and comfort	9 Industry, Innovation and Infrastructure, 11 Sustainable Cities and Communities

Foundation to support ESG management

	Materiality	Related SDGs
Environment	5 Resource recycling and pollution prevention	12 Responsible Consumption and Production, 14 Life Below Water
	6 Improve the reliability of products and services (Quality assurance, stable supply)	12 Responsible Consumption and Production
	7 Procurement activities with an emphasis on environment and society	10 Reduced Inequalities, 13 Climate Action
Social	8 Promote safety and health	8 Decent Work and Economic Growth
	9 Respect for human rights	10 Reduced Inequalities
	10 Human resource development	8 Decent Work and Economic Growth
	11 Promote diversity	5 Gender Equality
Governance	12 Thorough compliance	
	13 Strengthen governance	

Materiality

Risks and opportunities surrounding NTN

Our Group analyzes risks and opportunities across business environments including carbon neutrality, which is a global trend, as well as accelerating electrification, labor shortages, and human rights issues toward achieving carbon neutrality, and implements countermeasures in line with our materiality. To respond to drastic changes in the external environment, we are regularly reviewing anticipated risks and opportunities.

NTN's Business Environment	Risk and Opportunity(○ Opportunity , ▲ Risk)	Timing of Occurrence			Degree of Impact	Main Measures	Materiality	
		Short-term	Medium-term	Long-term				
Response to paradigm shift	Spread of next-generation mobility	○ Expansion of demand for our products due to outsourcing of in-house CVJ production by automakers	●	●		■ ■	● Deepening partnerships with customers based on problem-solving and proposal capabilities	3
		○ Expansion of demand for high-performance products for EVs		●	●	■ ■ ■	● Providing next-generation mobility modules for EVs ● Expanding profits through higher functionality of CVJs and axles where we have high market share	3
		▲ Cost increases associated with high-performance development for EVs		●	●	■ ■ ■	● Consolidating production of high-performance products for EVs (Wakayama Works)	3
		▲ Decrease in the total number of bearings used per vehicle		●	●	■ ■ ■	● Improving aftermarket ratio (FY2035: 40%)	3
		▲ Decreased cost allocation to CVJs and axles due to value concentration in motors and batteries	●	●	●	■ ■	● Considering supply of high value-added EV products and technical specification changes that contribute to cost reduction	3
	Progress of decarbonized society	○ Expansion of demand for high-performance products due to increased needs for improving power consumption (fuel efficiency)	●	●		■ ■	● Providing lightweight and highly efficient driveshafts and low-friction hub bearings	3
		○ Expansion of demand for large bearings for wind power generation	●	●		■ ■	● Expanding sales of large bearings for wind power generation	2
		○ Expansion of demand for condition monitoring system (CMS) services	●	●		■ ■	● Expanding CMS sales	2
		○ Increasing demand for energy-saving machinery	●	●		■ ■	● Reducing CO ₂ emissions through core products ● Differentiating from competitors through development of proprietary environment-friendly products	3
		○ Expansion of bearing refurbish business	●	●	●	■ ■	● Considering collaboration with business partners	3
		○ Acceleration of technology development for bearings for hydrogen energy-related equipment		●	●	■ ■	● Developing hydrogen-related products	2
		○ Expansion of product adoption and improvement of corporate value through achieving carbon neutrality goals			●	■ ■ ■	● Developing and providing products and services that minimize energy loss	1 3
		▲ Cost increases due to capital investment for energy saving and switching to renewable energy	●	●		■ ■ ■	● Setting budget frameworks and reflecting them in business plans	1
	Spread of AI and IoT	○ Productivity improvement through utilization of digital technology	●	●		■ ■	● Achieving strong QCD through smart factory implementation ● Shortening development periods through utilization of digital technology	6
		○ Increasing demand for bearing sensing	●	●		■ ■	● Providing service solutions through CMS technology ● Developing "talking bearings" (= sensorization of bearings)	3
▲ Decline in competitiveness due to delays in utilizing digital technology		●	●	●	■ ■ ■	● Building systems to strengthen IT governance ● Strengthening organization through training and acquisition of digital talent	6	
▲ Increased threats from computer viruses and cyber terrorism		●	●	●	■ ■ ■	● Global deployment of security measures ● Expanding security measures across the entire supply chain	6	

Materiality


NTN's Business Environment	Risk and Opportunity (○ Opportunity, ▲ Risk)	Timing of Occurrence			Degree of Impact	Main Measures	Materiality	
		Short-term	Medium-term	Long-term				
Response to sustainable society	Response to environmental issues	○ Expansion of demand for high-quality, long-life products	●	●		■ ■	● Development and provision of long-life products	3 6
		▲ Risk that substances previously usable can no longer be used due to strengthened environmental regulations	●	●	●	■ ■ ■	● Understanding regulatory trends ● Managing transition from prohibited substances	5
	Response to natural disasters	○ Expansion of demand for disaster prevention equipment	●	●		■ ■	● Providing street lights, disaster prevention warehouses, disaster toilets, charging stations based on independent power supply devices utilizing renewable energy	4
		▲ Suspension of operations at own factories and supply chain due to natural disasters	●	●	●	■ ■ ■	● Formulation of BCP and BCP training in the NTN Group ● Reorganization of partner manufacturers and streamlining the supply chain	7 8
		▲ Risk of heat stroke among employees at factories	●	●	●	■ ■	● Promoting proper operation of occupational safety and health management systems	8
	Human capital management	○ Improvement of employee satisfaction through promotion of health management	●	●		■ ■	● Promoting work style reforms	11
▲ Increasing social demands for implementation of human rights due diligence (transition from soft law to hard law)		●	●	●	■ ■	● Promoting human rights due diligence ● Implementing sustainable procurement questionnaires ● Responding to conflict mineral surveys from customers	9	
Changes in demographics	Labor shortage due to declining birth rate and aging population	○ Expansion of demand for solutions for automation, efficiency improvement, and labor saving at production sites (robot-related modules, etc.)	●	●		■ ■	● Providing robot-related modules such as i-WRIST in response to labor-saving challenges	4
		○ Productivity improvement through progress in labor-saving equipment	●			■ ■	● Automation and labor saving of line work through development and application of automation technology	4
		▲ Closure of suppliers	●	●	●	■ ■	● Supporting business continuity through dialogue with suppliers	7
		▲ Risk of being unable to operate due to inability to secure necessary personnel		●	●	■ ■ ■	● Ensuring sustainability through site consolidation, automation, and labor saving	10
	Extension of average lifespan	○ Expansion of demand for products and services that contribute to people's health		●	●	■ ■	● Utilization of precision coating equipment in the life sciences field	4
	Growth of emerging countries	○ Expansion of sales opportunities due to economic development in emerging countries and expansion of infrastructure demand		●	●	■ ■ ■	● Expanding product lineup and inventory ● Developing aftermarket business ● Integrated sales strategy for OEM and aftermarket	6
▲ Rising wages in emerging countries		●	●	●	■ ■	● Passing on cost increases through pricing ● Suppressing cost increases through automation and labor-saving investments	6	
▲ Infringement of intellectual property rights		●	●	●	■ ■	● Strengthening countermeasures against counterfeit products	6	
▲ Intensified price competition for conventional products due to entry of emerging manufacturers		●	●	●	■ ■ ■	● Considering technical specification changes that contribute to cost reduction	6	
Uncertain global situation	Globalization of business	○ Enhancement of NTN brand value in the aftermarket	●	●	●	■ ■ ■	● Efficient supply of general-purpose products ● Maximum utilization of global sales network	6
		▲ Profit pressure due to increased tariff costs	●	●	●	■ ■	● Suppressing cost increases through production site changes and localization	6
		▲ Suspension of production site operations due to geopolitical risks		●	●	■ ■ ■	● Formulation of BCP and regular training based on BCP	8
		▲ Supply chain instability due to geopolitical risks		●	●	■ ■	● Realizing the best mix of global and local procurement through procurement reform	7
	Changes in political and economic environment	▲ Sharp decline in production demand	●	●		■ ■ ■	● Passing on cost increases through pricing ● Reducing fixed costs	6
		▲ Rising energy procurement costs and raw material procurement costs	●	●		■ ■ ■	● Passing on cost increases through pricing ● Reducing purchase costs through design standard reviews	6

Materiality

Materiality targets and results for FY2024

Materiality	Target FY	Target	Results
Respond to climate change	FY2030	● Reduce CO ₂ emissions in business activities (Scope 1, 2) → 50% reduction (compared to FY2018)	● Approximately 35.9% reduction compared to FY2018
	FY2035	● Reduce CO ₂ emissions in business activities (Scope 1, 2) → Achieve carbon neutrality	
	FY2050	● Reduce CO ₂ emissions in business activities (Scope 3) → Achieve carbon neutrality	
Realize a sustainable society using natural energy	FY2025	● External disclosure of technologies and activities related to renewable energy and hydrogen → 1 or more cases per year	● 1 external disclosure (launched a dedicated website for “Natural Energy Products”)
Reduce energy loss	FY2024	● External disclosure of technologies and activities related to electrification and EVs → 1 or more cases per year	● 4 external disclosures (development of special heat treatment technology “HA-C” and others)
Provide safety and comfort	FY2024	● External disclosure of technologies and activities related to robot-related modules and service solutions → 1 or more cases per year	● 1 external disclosure (launched a dedicated website for “Service Solutions”)
Resource recycling and pollution prevention	FY2024	● Water consumption intensity → 3.8m ³ /million yen (Global)	● 3.45m ³ /million yen (Global)
	FY2024	● Recycling rate → 96.0% or higher (Global)	● 96.8% (Global)
Improve the reliability of products and services (Quality assurance and stable supply)	Continuous	● Maintaining high levels of customer satisfaction → 90% or higher ratio of “Excellent” and “Good”	● 92%
	Continuous	● Maintain 100% acquisition rate of quality management system certification (ISO 9001/IATF 16949)	● Maintained 100% certification
	Continuous	● Strengthening information security measures across the Group	● Started deployment of information security monitoring system (NTN-CSIRT) to overseas locations
Procurement activities with an emphasis on environment and society	FY2024	● Implementation after reviewing the content of the supplier CSR questionnaires for suppliers	● Renewed the survey content, changed the name to Sustainable Procurement Questionnaires, and started surveying business partners
Promote safety and health	Continuous	● Maintain certification as a “White 500” Certified Health & Productivity Management Outstanding Organization (Large Enterprise Division)	● Maintained certification
	Continuous	● Achievement rate of annual plan for risk surveys targeting manufacturing sites → 100%	● 100%
Respect for human rights	FY2024	● Analysis and improvement based on survey results to overseas affiliated companies	● Received complaints from employees at several companies. Necessary measures have been implemented in accordance with internal regulations
Human resource development	FY2024	● Training hours per employee (NTN) → Increase compared to previous year (FY2023 actual: 11.9 hours)	● 21.0 hours
Promote diversity	FY2026	● Ratio of female managers (NTN) → 5%	● 4.2%
	FY2026	● Male childcare leave uptake rate (NTN) → 100%	● 73.0%
Thorough compliance	Continuous	● Number of annual meetings of the Compliance Committee → 2 times	● 2 times
	Continuous	● Awareness of helpline in compliance awareness survey → 90% or higher	● 95%
Strengthen governance	Continuous	● Enhancement of corporate governance	● Enhancement of corporate governance


Note: Items marked “Continuous” in the target year are goals that we aim to achieve continuously every year.

[Related information on the website](#)
 Materiality targets for FY2025 and beyond 

Review of DRIVE NTN100 and Long-term Vision

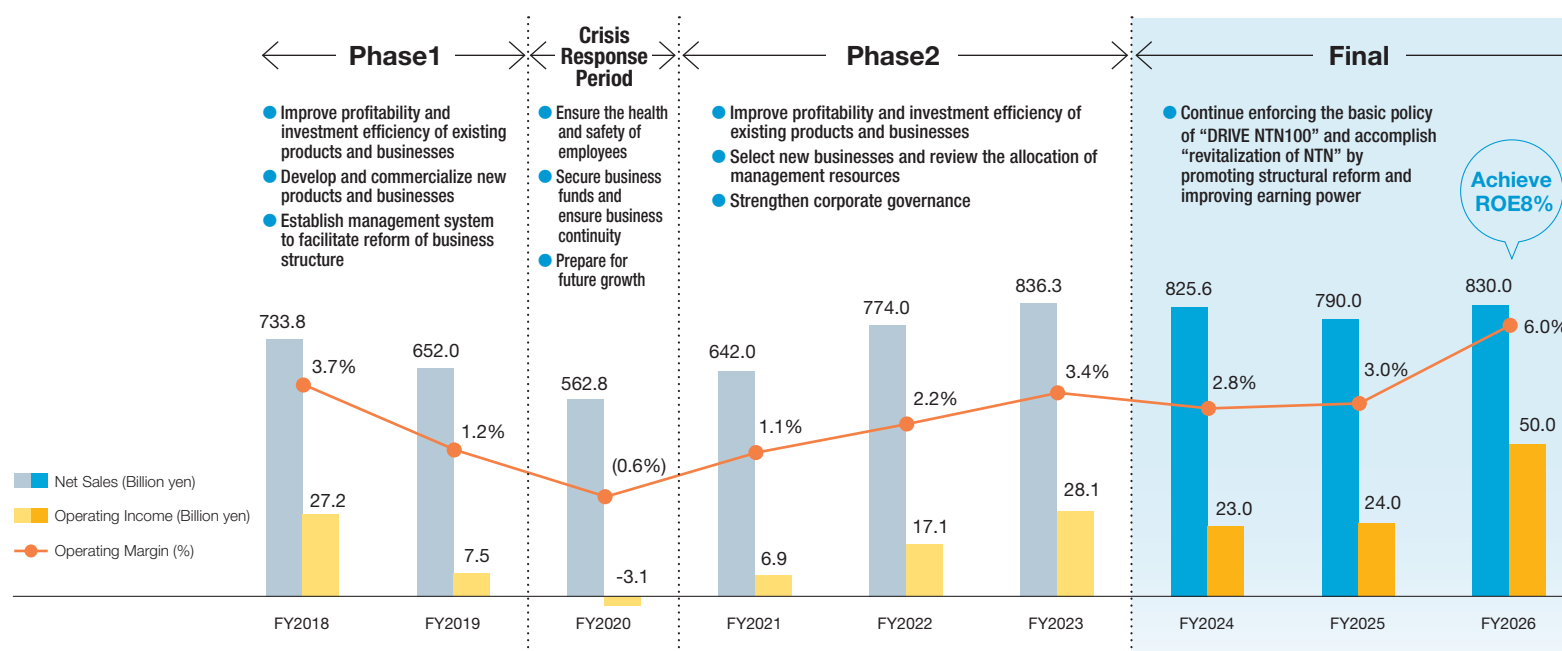
The NTN Group aims to realize a “NAMERAKA Society” through practicing its corporate philosophy and has established a “Vision for FY2035”. Under this long-term vision, we aim to enhance corporate value while improving economic value as well as environmental and social value together with all our stakeholders.

Furthermore, we have been pursuing the Medium-term Management Plan “DRIVE NTN100” Final since fiscal year 2024 by backcasting from our Vision for fiscal year 2035 while simultaneously forecasting on the basis of our progress to date. With our strong commitment to accomplish the revitalization of NTN, we will continue our initiatives with complete dedication in this, the second year as well.

[Related information on the website](#)
Medium-term Management Plan 

DRIVE NTN100

Next Medium-term Management Plan



	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026
Inventory turnover ratio (times)	3.8	3.6	3.2	3.0	3.2	3.2	3.4	3.6	4.5
Net D/E Ratio	1.2	1.9	1.6	1.4	1.2	0.9	1.0	1.0	0.7
Equity to Capital Ratio	27.4%	20.6%	20.4%	23.1%	25.4%	29.0%	27.2%	26.2%	30.0%
ROE	(2.9%)	(22.8%)	(7.1%)	4.0%	5.0%	4.4%	(9.6%)	(2.7%)	8.0%
ROIC	3.3%	1.0%	(0.4%)	0.8%	2.0%	3.2%	2.6%	3.0%	6.0%
USD (yen)	110.9	108.7	106.0	112.3	135.5	144.5	152.4	140.0	140.0
EURO (yen)	128.4	120.8	123.7	130.5	140.9	156.7	163.6	160.0	150.0

* “Royalty” which was previously included in “non-operating income,” has been changed to be included in “net sales” effective from FY2020.

FY2027~

- Early achievement of 10% or higher ROE
- New products sales ratio for bearing and others and CVJ/Axle:20%

Vision for FY2035
A company trusted and needed by stakeholders with enhanced corporate value

Generate sustainable profits that exceed capital cost

Economic value
Achieve and further improve ROE that constantly exceeds shareholder capital cost even under economic fluctuation

- Transformation of business structure
 - Sales ratio: Aftermarket **40%**, OEM **60%**
 - Create and develop new businesses

Environmental/social value
Achieve carbon neutrality, fulfill prosperous human development

- Achieve carbon neutral target (Scope1, 2)
- Foster an organizational culture that works to increase economic and environmental/social value and develop diverse human resources that can work with job satisfaction

Key Measures of “DRIVE NTN100” Final

Under the new Medium-term Management Plan “DRIVE NTN100” Final, we will promote the transformation of our business structure, and with the mindset of tackling this challenge, instill firmly the “SQCCD” approach to work and the principle of “NTN Driven based on the premise of customer-first” as we work as one to promote reforms.

Vision for FY2035

DRIVE NTN100 *Final*

Transformation of business structure

Expand aftermarket business

Improve competitiveness of OEM business

Create and develop new businesses

Strategies to support transformation

Value chain reform

- Design reform, prompt commercialization
- Procurement reform, production reform, logistic reform
- Defensive quality, proactive quality and profitable quality

Transformation of business foundation

- Strengthen portfolio with new organizational structure
- Promote measures and strengthen follow-up using KPIs
- Generate profits by utilizing digital technology

Evolution of ESG management

- Response toward achieving carbon neutrality and sustainability
- Human resource development and work styles that respect diversity
- Enhance governance and strengthen risk management

SQCCD

Safety Quality Compliance Cost & Cash Delivery & Development

NTN Driven based on the premise of customer-first

The mindset to challenge the transformation of business structure

Key points of initiatives for FY2024

Transformation of business structure

■ Expansion of aftermarket business

Through optimal allocation of production capacity via integrated operation of OEM and aftermarket, expanding external purchasing and production outsourcing, we will expand popular inventory and product lineups. Furthermore, aiming for transformation from hardware sales to business incorporating software and services, we will promote “bearing life cycle management” that provides total support from bearing selection to delivery, usage, monitoring, analysis, replacement, and maintenance.

□□ P.29 Enhancing Product Supply Capacity and Engineering Solutions in Preparation for Aftermarket Business Growth

■ Strengthening competitiveness of OEM business

Industrial Machinery We will classify our main eight industries into “expanding” and “maintaining” categories while also challenging new industries. For expanding industries, we will strengthen production capacity and expand sales; for maintaining industries, we will improve in costs and selling prices; for challenge industries, we will promote the selection of target regions and customers, approaches, and other initiatives.

Automotive We will develop and mass-produce high-performance bearings for EVs. In response to the decrease in demand for internal combustion engine (ICE) vehicles, we will promote the expansion of high-value-added products. We are currently implementing reorganization of production bases to improve profitability of CVJ and Axle bearing.

□□ P.31-P.38 Strengthening the Business Model

■ Creation of new products and development of new businesses

We have newly established key performance indicators (KPIs) for research and technology development. We will promote new business development in six new fields. We will strengthen research and development in India, which is a growth market.

□□ P.30 Accelerating development of ball screw units, a key component in the shift to EVs

Strategies to support transformation

■ Value chain reform

In addition to reforms that we have been focusing on in the SCM field, such as procurement and production, from the previous Medium-term Management Plan, we will also promote reform across our entire value chain by expanding our targets to the areas of design and quality, thereby strengthening the competitiveness of NTN Group.

□□ P.41 Strengthening competitiveness in a changing business environment: procurement, production, and logistics reforms

■ Transformation of business foundation

At NTN Group, we will utilize digital technology in all departments. We will leverage the latest digital technologies globally, including improvements in operational efficiency and business systems, and strengthening of information security, to strengthen our “earning power.”

□□ P.42 Strengthening “earning power” through digital technology utilization - Accelerating DX

■ Evolution of ESG management

To pass on a beautiful planet where humanity can live safely and securely to the next generation, we will promote sustainability activities toward achieving carbon neutrality and realizing prosperous human development while strengthening governance globally.

□□ P.45-P.58 CO-CREATION WITH STAKEHOLDERS □□ P.59-P.76 CREATION OF A SOLID GOVERNANCE STRUCTURE

NTN's Three Strengths

NTN utilizes the management capital cultivated over its more than 100-year history to strengthen its advantages in original technologies, quality, and services, thereby leading to future growth. In addition, we are deploying these strengths across our various businesses to conduct business activities that respond to the needs of society.



Original technologies

Key strengths

Our strengths lie in “tribology technology,” which we have developed through more than 100 years of research and development on bearings, “manufacturing technologies” such as precision machining and heat treatment, and “sensing technology” that enables advanced condition monitoring by incorporating sensors inside bearings.

Future direction

Tribology technology and manufacturing technology contribute to the development of high value-added products such as low friction products that achieve reduced electricity and fuel consumption, and products that support high-speed rotation to meet growing needs for compact and lightweight products. Sensing technology strengthens monitoring services such as “Talking Bearing” and CMS, contributing to reducing users’ opportunity losses.



Quality

Key strengths

Our strength lies in the high quality of our products, which is backed by a long track record of supplying products for applications that support human life, such as automobiles, Shinkansen bullet trains, and aerospace. We also consider the quality of people and work as our strength, including the passing on of know-how through the Global QC Circle Convention and the NTN Technical Skills Competition, as well as human resource development that contributes to problem solving through the improvement of AI and data literacy and reskilling.

Future direction

We will ensure stable supply of high-performance and high value-added products, and secure quality as the NTN brand by introducing NTN’s quality management systems to outsourced products in Japan and abroad. To achieve sustainable enhancement in corporate value, we will formulate a human resources strategy from both the aspects of “Securing and developing human resources”, and “Fostering organizational culture,” to enhance the quality of people and work.



Services

Key strengths

Our strengths include our “global network,” which allows us to provide products and services to customers from around 200 locations in 33 countries worldwide and respond to market needs in each region through our research and development system in four vantage points, as well as our “problem-solving customer support capabilities,” which we have honed through Japan’s largest distributor network.

Future direction

Utilizing the NTN Group’s network, we will provide technical solutions through site visits with technical service units and effectively utilizing online technology seminars. By resolving customer issues through services such as diagnostic services based on data analysis and enhancing the value of the NTN brand, we will contribute to the expansion of the aftermarket business.

Analyzing Outputs and Outcomes

Outputs

NTN Products P.4 Strengthening the Business Model P.31~38

Three added values to contribute to a sustainable society

1. Technology not to stop operation

- Contributing to reducing customers' opportunity loss and controlling operation and maintenance costs

2. Technology for longer operating life

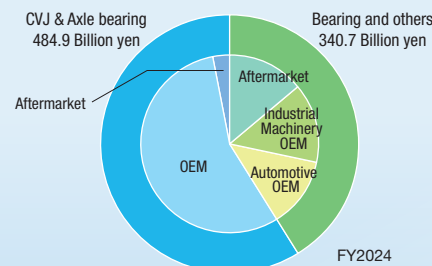
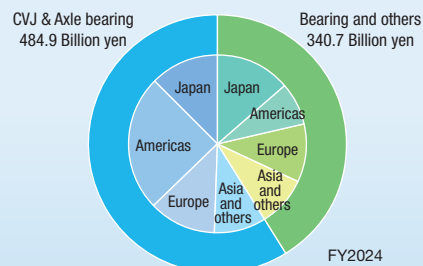
- Improving production efficiency

3. Reduce energy loss

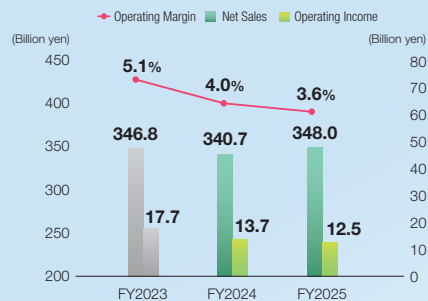
- CVJs with reduced torque loss
- Axle units with reduced friction
- Bearings that support high-speed rotation and long service life

Change in organizational structure from market-based to product-based

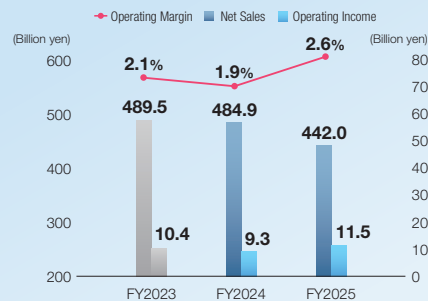
- We have established the "Bearing Business HQ." and "CVJ & Axle Bearing Business HQ." to consolidate the bearing business that was previously distributed across different departments. This allows us to strengthen our supply capabilities and build a system that can provide solution proposals, including services. At the same time, we will focus on CVJs and axle bearings as product-based business lines, leveraging our strength in handling both products to enhance our ability to respond to new needs such as electrification.
- We have established the "Innovation & Business Development HQ." to accelerate strategy planning and development initiatives in new areas such as next-generation mobility modules, robotic related modules, and natural energy.



Bearing and others



CVJ & Axle bearing



Outcomes

Our vision

- A company where the corporate philosophy is understood by all employees around the world, and where all employees think and act by themselves
- A company that has a global presence with original new products and services appreciated for high quality and functions
- A company which everyone involved can be proud of the "NTN" brand

Contribution to society through products

- Contribute to carbon-free society
- Realize a sustainable society using natural energy
- Reduce energy loss
- Develop environment-contributing product
- Contribute to prosperous lives
- Provide safety and comfort

NTN Group's "Vision for FY2035"

A company trusted and needed by stakeholders with enhanced corporate value through the improvement of economic, environmental, and social value

Economic value

- Achieve and further improve ROE that constantly exceeds shareholder capital cost even under economic fluctuation**
 - Achieve ROE of 8% (FY2026) and early achievement of ROE of 10% from FY2027 and beyond
 - Achieve ROIC of 6% (FY2026)
- Transformation of business structure**
 - Sales ratio for aftermarket: 20% (FY2026), 40% (FY2035)
 - New products sales ratio for bearing and others and CVJ/Axle: 20% (from FY2027)

Environmental/social value

- Achieve carbon neutrality**
 - Reduce CO₂ emissions by more than 30% (FY2026 compared to FY2018)
 - Achieve carbon neutral target (Scope 1, 2) (FY2035)
 - Develop and provide products and services that minimize energy loss
- Realize prosperous human development**
 - Securing and developing human resources Developing management talent to lead the Group
 - No. of succession plan candidates: 30 (FY2026)
 - Fostering organizational culture Diversity, equity & inclusion
 - Percentage of female managers: 5% (FY2026)
 - Childcare leave acquisition rate for male employees: 100% (FY2026)
 - Percentage of mid-career hires: 30% (FY2026)
 - Transformation to a workplace of bravery and mission
 - Scores related to "challenge" and "transformation" in Employee Engagement Surveys: 80% positive response (FY2026)

Message from the CFO



We aim to achieve structural reform while flexibly responding to rapid changes in the external environment, and to build a corporate structure that can generate sustainable profits that exceed capital cost

Representative Executive Officer,
Executive Officer,
CFO (Chief Financial Officer)

Masaaki Yamamoto

Key points of financial results for FY2024

Our Group launched the Medium-term Management Plan “DRIVE NTN100” Final in April 2024, aiming to continue “accelerated transformation to the business structure” and complete NTN’s revitalization.

In FY2024, the first year of this plan, our Group’s net sales were 825.6 billion yen (down 1.3% from the previous year) due to slow recovery in demand in the automotive and industrial machinery markets.

Regarding operating income, despite our efforts in the improvement of sales prices and cost reduction, as well as the impact of exchange rates due to yen depreciation, we were unable to offset the scale reduction, resulting in 23.0 billion yen (down 18.4% from the previous year). However, compared to our announced forecast, we achieved a 1.0 billion yen increase from the previous year. Ordinary income was 10.5 billion yen (down 47.6% from the previous year) due to foreign exchange losses and other factors. Net loss attributable to owners of parent was 23.8 billion yen, as we recorded minus 19.1 billion yen in extraordinary losses mainly due to structural reform costs, and the impact of tax effect accounting due to poor performance in the Americas and Europe.

On the other hand, inventories were reduced by 20.4 billion yen from the previous fiscal year-end to 244.4 billion yen, and through reviewing some capital investments, we secured a positive free cash flow of 19.7 billion yen.

Although these results were challenging, we believe that the results of our efforts toward structural improvement, including the improvement of sales prices, reduction of proportional expenses, control of fixed costs, and compression of assets including inventories, are steadily appearing in the business environment where market conditions continue to be sluggish.

FY2024 financial results

(billion yen)	FY2023	FY2024				
	Results	Results	YoY	Previous	Diff.	Q4
Net sales	836.3	825.6	(10.7)(1.3%) Excl.forex (37.1) (4.4%)	815.0	10.6 1.3% Excl.forex (0.8) (0.1%)	210.1
Operating income	28.1	23.0	(5.2)	22.0	+1.0	8.7
Operating margin	3.4%	2.8%	(0.6pt)	2.7%	+0.1pt	4.2%
Ordinary income	20.0	10.5	(9.5)	9.0	+1.5	4.7
Extraordinary income (loss)	(3.4)	(19.1)	(15.6)	(15.0)	(4.1)	(13.5)
Profit (loss) attributable to owners of parent	10.6	(23.8)	(34.4)	(16.0)	(7.8)	(15.6)
Inventories	264.8	244.4	(20.4)	242.0	+2.4	
Capital expenditure	26.6	32.2	5.6	37.0	(4.8)	
FCF	40.1	19.7	(20.5)	15.0	+4.7	
Exchange rates US\$	¥144.5	¥152.4	¥8.0	¥150.6	+¥1.8	
€	¥156.7	¥163.6	¥6.9	¥163.5	+¥0.1	

Message from the CFO

Outlook for FY2025: Key points

Regarding the business environment in FY2025, we expect the automotive market to slightly decrease compared to the previous year, and while the industrial machinery market will not achieve full recovery, we anticipate signs of recovery in some sectors such as robot gearboxes and machine tools. On the cost side, while prices of steel and other materials are stabilizing, labor costs and logistics costs are expected to continue rising, which will impact our business. Amid this business environment, our Group will continue to work on the improvement of sales prices while advancing value chain reform from upstream to downstream, including design, procurement, and production, to steadily reduce costs.

For FY2025, we expect net sales of 790.0 billion yen (down 4.3% from the previous year), operating income of 24.0 billion yen (up 4.5%), operating margin of 3.0%, and ordinary income of 11.0 billion yen (up 5.0%). We also continue to incorporate extraordinary losses of 10.0 billion yen as structural reform costs in Japan, the Americas, China, and other regions, with extraordinary losses of minus 8.0 billion yen and net loss attributable to owners of parent of 6.0 billion yen*.

*Exchange rate assumptions: 1 USD = 140 yen, 1 EUR = 160 yen. Inventories are expected to be 222.0 billion yen, a decrease of 22.4 billion yen from the previous fiscal year-end. Capital expenditures are expected to be 31.0 billion yen, a decrease of 1.2 billion yen from the previous year. Free cash flow is expected to be a positive 20.0 billion yen, similar to the previous year.

Forecast for FY2025

(billion yen)	FY2024			FY2025	
	H1 Results	H2 Results	Full year Results①	Full year Forecast②	YoY ①vs②
Net sales	413.9	411.6	825.6	790.0	(35.6) (4.3%) Excl.forex (1.7) (0.2%)
Operating income	9.9	13.0	23.0	24.0	+1.0
Operating margin	2.4%	3.2%	2.8%	3.0%	+0.3pt
Ordinary income	3.5	7.0	10.5	11.0	+0.5
Extraordinary income (loss)	(0.6)	(18.4)	(19.1)	(8.0)	+11.1
Profit (loss) attributable to owners of parent	(2.1)	(21.7)	(23.8)	(6.0)	+17.8
Exchange rates US\$	¥152.5	¥152.4	¥152.4	¥140.0	(¥12.4)
€	¥165.8	¥161.5	¥163.6	¥160.0	(¥3.6)
Inventories	255.3	244.4	244.4	222.0	(22.4)
Capital expenditure	11.4	20.7	32.2	31.0	(1.2)
FCF	2.8	16.9	19.7	20.0	0.3

Factors contributing to changes in operating income

First, regarding factors contributing to profit decline, we expect a 6.3 billion yen decrease on a volume basis for declined sales and a 3.0 billion yen negative impact from reduced scale due to production cuts etc., as market conditions continue to remain sluggish.

In addition, personnel costs are expected to increase by 6.0 billion yen mainly due to base increases in Japan, for a total of minus 2.0 billion yen, despite the effects of structural reforms and headcount reductions due to the decrease in the workforce.

Regarding foreign exchange impact, we expect a negative impact of 5.6 billion yen as we assume a stronger yen this fiscal year compared to the previous year's results.

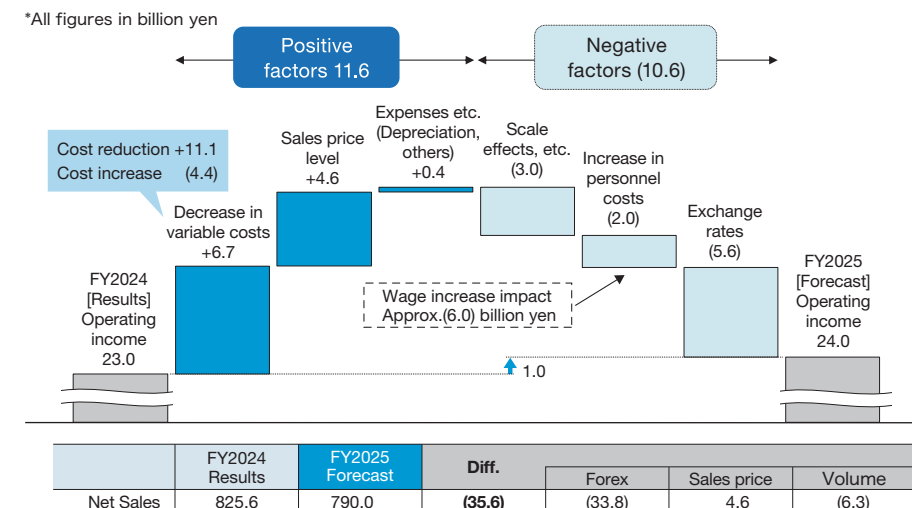
On the other hand, as factors contributing to profit increase, we expect variable cost reduction of 6.7 billion yen, improvement of sales prices by 4.6 billion yen, and expense reduction of 0.4 billion yen.

Regarding variable costs, in addition to the continued development and expanded use of competitive suppliers, the results of our value chain reform initiatives—which involve reviewing design and materials with ideas that are not bound by conventional thinking while still meeting customer requirements—are expected to achieve high-level cost reduction similar to the previous year.

Regarding the improvement of sales prices, while there is a reaction to the stabilization of steel prices, we will continue to pass on increases in labor costs and other factors, as well as improve sales prices for unprofitable businesses.

Regarding expenses, while we have incorporated costs for equipment maintenance and other factors, we expect fixed cost compression from structural reform being implemented in each region.

Changes in operating income for FY2024 and FY2025



Message from the CFO

Progress of the Medium-term Management Plan “DRIVE NTN100” Final - Improving earning power

To build a corporate structure that enables our Group to achieve sustainable growth, it is essential to improve our earning power (operating margin and asset efficiency). One of the major factors hindering this improvement in earning power is the excess fixed assets that have resulted from past investments that no longer match the current market environment.

Structural reform to reduce excess fixed assets entails significant pain, but we are determined to complete it within the current Medium-term Plan period without passing it on to the next generation.

Progress of structural reform

The NTN Group anticipates extraordinary losses of 35.0 billion yen in total over the three-year period from FY2024 to FY2026 as costs for structural reform.

In FY2024, we recorded extraordinary losses of 18.9 billion yen due to the acceleration of plans at some locations. In FY2025, we expect extraordinary losses of

10.0 billion yen in Japan, the Americas, China, and other regions, but there is no change to the three-year cumulative amount of 35.0 billion yen.

By region, structural reform in Europe and China is progressing almost as planned.

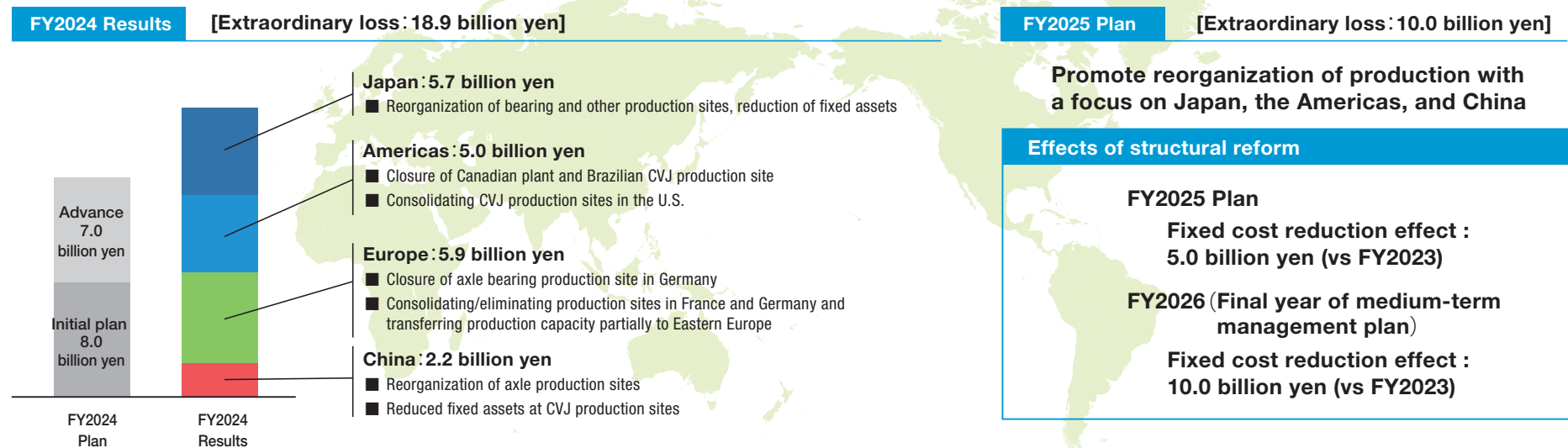
On the other hand, in Japan and the Americas, we are implementing not only simple structural reform such as factory closures, but also comprehensive reforms including production site transfers accompanying fundamental supply chain reviews.

As a result of such structural reform, we expect fixed cost reduction of approximately 5.0 billion yen in FY2025 (compared to FY2023). At the same time, from a BCP perspective, we are promoting dual source procurement with diversified supply routes. For example, we are establishing a system to procure materials from India and other countries in addition to China, while obtaining customer approval.

Going forward, we will continue to respond to unpredictable external environmental changes with speed and flexibility, while steadily advancing structural reform to complete NTN’s revitalization.

Progress of structural reform

Structural reform (35 billion yen/3 years) progresses ahead of plan



Message from the CFO

Inventory reduction

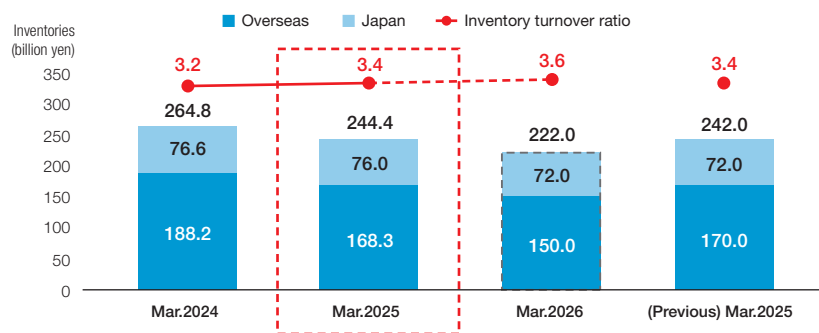
Another important point for improving asset efficiency is inventory reduction. Inventories have been increasing in recent years, mainly work-in-process inventory, due to supply chain disruptions caused by semiconductor shortages and other factors.

In FY2024, while continuing to expand inventory of popular products necessary for expanding aftermarket business, we reduced inventory stagnating in the supply chain, such as work-in-process inventory between factory processes, work-in-process inventory in transit, and inventory at overseas factories, through deepening production reform activities that have been ongoing at domestic manufacturing sites and expanding them to overseas manufacturing sites.

Inventory balance at the end of FY2024 was 244.4 billion yen, a decrease of 20.4 billion yen from the previous fiscal year-end, and the inventory turnover ratio was 3.4 times, the same as the announced figure.

We expect inventory balance at the end of FY2025 to be 222.0 billion yen, a decrease of 22.4 billion yen from the previous fiscal year-end, and the inventory turnover ratio to be 3.6 times, an improvement of 0.2 times from the previous year. Going forward, we will continue to reduce inventories and improve the turnover ratio, leading to improved earning power.

Inventory trends and outlook



(billion yen)	Mar.2024 Results	Mar.2025 Results	Mar.2026 Forecast	(For reference) Mar.2025 Forecast(Previous)
Inventories	264.8	244.4	222.0	242.0
(Japan)	76.6	76.0	72.0	72.0
(Overseas)	188.2	168.3	150.0	170.0
Inventory turnover ratio(times)	3.2	3.4	3.6	3.4

Toward building a corporate structure that can sustainably generate profits that exceed capital cost

Due to the deterioration of the external environment, including the prolonged Ukraine war, the worsening Middle East situation, and the impact of US trade policy, our current sales scale has significantly decreased from the assumptions at the time of formulating the Medium-term Management Plan.

We view the current reduction in sales scale as an opportunity to strengthen our corporate structure, and will accelerate structural reform activities while steadily implementing measures that contribute to improving the operating margin, such as “expansion of aftermarket business,” “improvement of sales prices,” and “reduction in variable cost through value chain reform,” as well as compression of inventories and fixed assets.

On the other hand, we will allocate the cash we generate to research and technological development in growth areas such as EV and electrification, services and solutions, as well as investments in achieving carbon neutrality, labor-saving measures, and digital transformation. We also plan to repay a certain amount of debt to enable diverse fundraising under favorable conditions in the future, while implementing stable and continuous shareholder returns.

With all Executive Officers working together, we aim to achieve 8% ROE in the final year of “DRIVE NTN100” Final and early achievement of 10% in the next Medium-term Management Plan, striving to build a corporate structure that can generate sustainable profits that exceed capital cost. We ask for the continued support and encouragement of all our stakeholders.



Enhancing Product Supply Capacity and Engineering Solutions in Preparation for Aftermarket Business Growth

NTN Group has traditionally focused on aftermarket business activities such as replacement parts and technical services, supporting the stable operation of customers' equipment from product delivery and during operation. This business domain has robust demand with a continuously expanding market and stable profit expectations. That is why we are working to strengthen this business and grow its scale.

Organizational changes to achieve Medium-term Management Plan targets

Of the management objectives set by NTN Group, "strengthening the aftermarket business" is one of the most important. In Medium-term Management Plan "DRIVE NTN100" Final, we aim to expand the sales ratio of the aftermarket business from 17% in FY2023 to 20% in FY2026, then 40% in FY2035.

Previously, under a business-based organizational structure, product supply tended to prioritize OEM business. Since FY2024, we have reorganized into a product-based structure and established a framework to work on strengthening supply capacity and engineering solutions in preparation for aftermarket business expansion.

Strengthening supply capacity

In the bearings and others domain, we are increasing product supply volume by enabling procurement of aftermarket products from external partners, such as outsourcing production of small ball bearings below a certain size to overseas partner companies, while investing in an aftermarket production line at Wakayama Works. Regarding product suppliers, we have established a specialized department to explore new suppliers and further enhance our supply network. Additionally, for popular products in the aftermarket, we achieved a 40% increase in FY2024 compared to FY2023, enabling timely deliveries.

In the automotive aftermarket, we are maintaining our position as a manufacturing company while expanding our lineup by skillfully incorporating externally-procured products with our in-house products. In addition to our in-house CVJs and hub bearings, we have added shock absorbers to enhance our suspension product lineup, thereby differentiating ourselves from others.



Shock absorbers

Expansion of distributor network and sales channels

In preparation for aftermarket business growth, we are setting target sectors in each region and country, pursuing optimal distributors, and expanding sales channels.

Last year, a branch was established in Ho Chi Minh City, Vietnam, expanding the sales channel in a growing market. Sales companies in each region hold technical training sessions for distributor engineers and end-user customers, promoting our technical support services. Additionally, with the relocation of automotive aftermarket headquarter functions to Europe, we are working to deploy Europe's automotive repair and sales network globally and expand our distributor network.



NTN Middle East FZE conducts technical training session at major distributor in South Africa

Relocation of automotive aftermarket headquarter functions to Europe

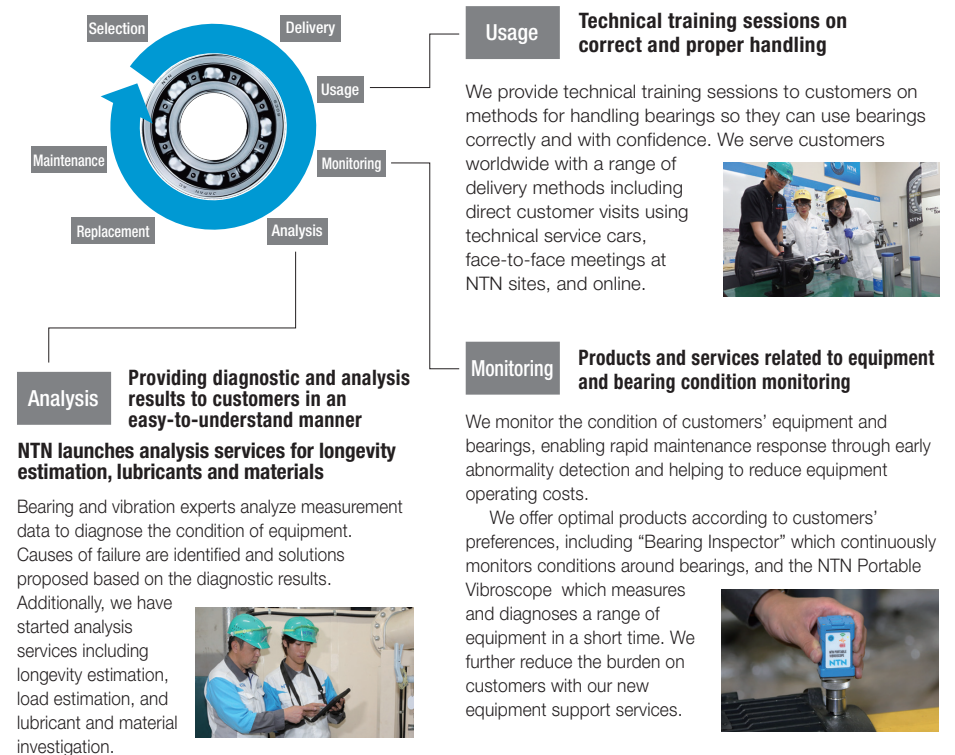


Establishment of Ho Chi Minh branch in Vietnam

Stronger engineering solutions

Our "bearing life cycle management" service provides total support from bearing selection to delivery, usage, monitoring, analysis, maintenance and replacement. In addition to immediate replacement when bearings break, our bearing condition monitoring and diagnostic service aids equipment maintenance efficiency through planned maintenance, reduced unplanned downtime and reduced replacement frequency.

Furthermore, an initiative is underway to refurbish used bearings from paper mill machinery, steel mills, rolling stock and elsewhere. In addition to recycling of bearing components after replacement, NTN also provides services such as training on bearing handling methods, based on our expertise.

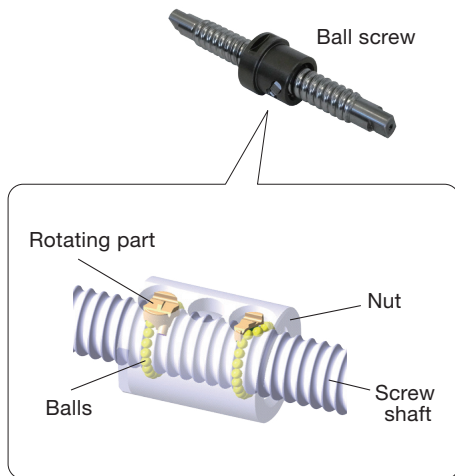


Accelerating Development of Ball Screw Units, a Key Component in the Shift to EVs

Making an early entry into the automotive ball screw market

A ball screw is a mechanical component that converts rotational motion into linear motion through rolling balls enclosed between a screw shaft and a nut, thereby enabling smooth operation with minimal friction.

In 2003, NTN withdrew from the general industrial machinery ball screw business and shifted focus to ball screws for automotive actuators—a market with strong growth potential—beginning mass production in 2004. In 2012, we began mass-producing ball screws for Electro-Hydraulic Brake systems.



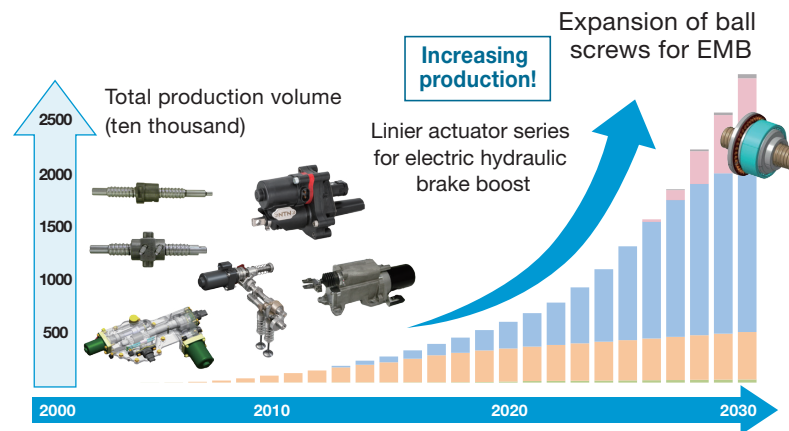
Electric Motor and Actuator

The ball screw market poised for further growth

As environmental regulations drive the spread of HEVs, BEVs, and other electric vehicles, the electrification of automotive components is expected to gain further momentum. Demand for Electric Hydraulic Brake systems utilizing ball screws is projected to increase, driven by improved fuel efficiency and the implementation of mandatory collision avoidance assist braking systems.

Currently, most Electric Hydraulic Brake systems are equipped with a single ball screw. However, as safety features improve, the shift toward non-hydraulic systems progresses, and automated driving becomes more widespread, Electric Hydraulic Brakes are expected to be replaced by Electric Mechanical Brakes (EMBs), which can independently control each of the four wheels. These EMBs will require one ball screw per wheel, increasing the total to four per vehicle.

This evolution of electric brake technology is anticipated to further increase demand for ball screw units.



Production expected to expand further in the future

Our key strengths: technological superiority and zero quality defects

Ball screws rely on three core technologies—tribology, heat treatment, and precision machining—and NTN is superior in all three, enabling us to produce highly durable, precise, and cost-effective products. In addition, we have maintained a zero-defect record in delivered products while manufacturing over one million units annually—an achievement highly valued by automotive manufacturers, who prioritize safety above all.

In recent years, demand for ball screws has grown in the development of module products incorporating bearings. In response, we are leveraging our unique strengths as a bearing manufacturer to expand our business opportunities.

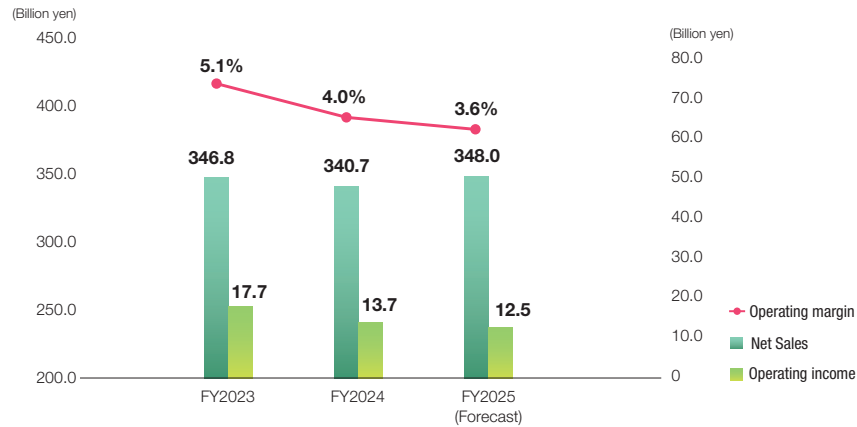
Strengthening the supply chain structure with a medium- to long-term vision

Our goal regarding products for Electric Hydraulic Brake systems is to expand sales to major brake suppliers and double our market share by FY2030. In the field of EMB systems, where the market is projected to have even greater growth potential, we are working to accumulate technologies across divisions while providing tailored support for customer prototypes, with the aim of rapidly launching products that meet market needs. To achieve these goals and strengthen our business, we plan to establish a global supply chain structure that enables us to develop, prototype, and manufacture products worldwide.

Strengthening the Business Model

Bearing and others

Performance targets



Overview

By consolidating the bearings business, which was previously handled separately for automotive, industrial machinery, and aftermarket, and by maximizing the use of management resources, we are working to further expand the aftermarket business, flexibly respond to electrification needs, and shorten development times.

For the aftermarket, we are expanding inventories of our best-selling products and meeting a wide range of requests for immediate delivery via optimal allocation and increased production capacity through integrated OEM and aftermarket operations, external purchasing, and expanded production outsourcing. We also aim to transform from selling hardware only to adding software and services by expanding the equipment condition monitoring business for customers.

For industrial machinery OEM, we have classified the eight major industries as either expanding or maintaining categories * as well as setting our sights on new industries. For the expanding categories, we are boosting production capacity and promoting sales; for maintaining categories, we are improving costs and selling prices; and for challenge industries, our approach is based on market research to set target regions and customers. For automotive OEM, as a response to electrification, we are developing bearings adapted to needs that are at a higher level in EVs than conventional vehicles such as speed, low torque, and electrical corrosion resistance, leading to improved profit due to growing sales of high value-added new products.

*Expansion sectors: Machine tools, electric motors and generator, aerospace Maintenance sectors: Construction machinery, agricultural machinery, gearboxes, rolling stocks, wind turbine

Main products and services

Remote technical support services	NTN Portable Vibroscope	Technical training / maintenance tools		
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 Type	 ULTAGE spherical roller bearings Type EA, Type EM	 Bearing units stainless series	 Plummer blocks
Construction machinery	Agricultural machinery	Gearboxes	Aerospace	Machine tools
 Applications for resource mining and civil engineering	 Helping ensure stable food production	 Helping ensure high robot productivity	 Used for worldwide jet engine applications	 Helping ensure high machining precision
Wind turbine	Rolling stock	Automobiles	Electric motors and generator	
 Support rotation of main shafts, gearboxes, generators, etc.	 Wind Doctor Improve wind turbine utilization rate through condition monitoring	 High-speed bearings and electrical corrosion resistant bearings for EVs and HEVs	 Low dust generation bearing for servo motors	

Strengthening the Business Model **Bearing and others**

Progress Update on “DRIVE NTN100” Final from Executive Officer



Experiencing the results of structural reform

In the bearing and others business, we have developed a competitive edge based on its responsiveness to major OEM customers. We have differentiated ourselves by earnestly facing exacting requirements for technical added value, quality, supply capacity, and price, and by responding accurately. However, due to intensifying price competition, it has become difficult to secure sufficient profitability.

We have a history of prioritizing orders above all and pursuing market share expansion. However, with CEO Eiichi Ukai’s appointment in 2021, we switched to fundamentally reviewing our existing mindset. With the recognition that securing appropriate profits is essential for sustainable business growth, internal mindset transformation has centered on frontline sales departments. Good results have begun to emerge in the first year of “DRIVE NTN100” Final.

Strengthening cost competitiveness is a challenge that NTN must always pursue as a manufacturer. Since prices are influenced by market conditions and competitive trends, they cannot be determined by us alone. On the other hand, cost reduction can be achieved through our efforts. This is an eternal theme for manufacturers and also the source of competitive edge. Currently, we are reforming our production in pursuit of overall optimization including existing supply chains. In addition to reducing work-in-process inventory, we will collaborate with highly competitive suppliers including those from China and India to achieve further cost reduction.

Do not underestimate emerging market manufacturers

What we should particularly watch from the perspective of price competition is the rise of emerging market manufacturers, led by China. Having been

Policy

- ① Expand aftermarket business
- ② Improve profits in bearing OEM business
- ③ Develop products for electrification and strengthen market competitiveness by reviewing application standards and design criteria
- ④ Enlarge service solutions

Main strategy

Expand aftermarket business

- **Strengthen supply capability**
 - Expand external purchasing and outsourcing
 - Optimal allocation and expansion of production capacity through integrated OEM and aftermarket operation
 - Expand inventories of popular products for the aftermarket
- **Strengthen engineering services**
 - Strengthen “bearing life cycle management” through integrated OEM and aftermarket operations
 - Expand sales by expert organization for engineering solutions
 - Expand service business such as bearing diagnosis and refurbishment

Improve profits in OEM business

- **Improve asset efficiency by reorganization of production bases in the Americas, Europe, China and Japan**
- **Drastic review on costs through production at optimal sites**
- **Price increases and reduction in unprofitable businesses**
- **Develop new products that meet market needs and introduce them to the market speedily**

■ **Bearing life cycle management**

“Resin Mold Insulated Bearing” for e-Axle

Strengthening the Business Model **Bearing and others**

stationed in China until March 2025, I felt firsthand how serious they are that “they can no longer be underestimated.” They have a strong will to challenge global brands including NTN head-on and make the world recognize their capabilities.

This corporate attitude reminds me of Japanese companies during the high economic growth period. We also moved desperately and with relentless determination to compete with Western companies. Now, they are filled with the same spirit as we had then, trying to do everything they can with all their might.

In a situation where emerging market manufacturers, as challengers, are catching up rapidly without stopping, there is only one path we should take: to continue chasing new horizons ourselves. We must now pursue new themes. If we remain complacent thinking that we can just keep on doing business as usual, it will only be a matter of time before they catch up. Rather than taking a defensive stance, we must run ahead with the determination to achieve our stated goals. As long as we continue to challenge ourselves, I am confident that we can stay out in front and achieve further growth.

Expanding the aftermarket business

In our business operations, we have often prioritized servicing OEM and sometimes underprioritized aftermarket support. During times of peak OEM demand, the supply of aftermarket products has at times been delayed. For example, we allocate 70% to 80% of production capacity at our plant to OEM and the rest to the aftermarket as part of our efforts to optimize overall capacity. Even this kind of framework has been inadequate to date.

To overcome this situation, we are currently clarifying supply allocations for OEM and the

aftermarket, and establishing a system to supply necessary products to sales departments focusing on the aftermarket in a stable manner. This enables us to respond quickly to orders that were previously lost due to supply delays, maximizing sales opportunities. This is one of the aims of changing the organization to a product-based structure.

While aftermarket inventory levels have been steadily improved, what is truly important is not securing inventory itself, but utilizing it to grow aftermarket sales and generate profits. Particularly for popular standard products, we have built a system capable of immediate delivery, contributing to improved customer satisfaction and profitability.

After establishing a supply system for finished products, the next challenge is appropriate holding of work-in-process. For products where long lead times were barriers despite predictable demand and profits, we will build a system that responds to diverse customer needs by strategically holding work-in-process to shorten the lead time from inquiry to delivery, leading to higher sales.

Achieve differentiation through enhanced engineering services

Regarding bearings, we have emphasized engineering support and troubleshooting for industrial machinery in general. Particularly in OEM support, we have built a system to provide detailed customer support from the development stage, carefully listen to needs, and appropriately deploys this internally to create optimal proposals. The sales engineering department plays the core role in this process.

For example, when some technical condition is requested for hydraulic equipment, we propose new added value that exceeds customer expectations

based on the know-how we have developed. We have achieved differentiation with our capacity to provide solutions that go beyond mere problem-solving, with the technical capabilities to commercialize them. We harness the know-how inherited from our predecessors and further developed to respond to diverse customer needs.

We are also strengthening our aftermarket sales through our know-how. Many customers have some kind of problem with the bearings used in their production equipment, and there are cases where they may be considering switching from other companies' bearings to our own. However, since bearings are key parts responsible for the rotation of machines, there is a risk that their production will stop in the event of a problem. That is why customers are cautious about switching bearings that were originally used in equipment and machinery. They strongly demand a prompt and accurate response in the event of a stoppage.










To meet such customer expectations, NTN is educating engineers at distributors and, when necessary, we as the manufacturer step forward to directly respond to high-difficulty problems. For customers, being unable to respond appropriately when machinery equipment trouble occurs is the greatest problem. Conversely, if we can respond with agility to such situations, it becomes a major competitive advantage. We will further strengthen this type of response and provide value to customers in both quality and speed of aftermarket engineering services.

Strengthening the Business Model Bearing and others

Optimal response to the customer's circumstances

Looking at the sales overview by industry of bearing and other business, there is generally a growth trend. First, for high-spec machine tools, we are strengthening our response to the market recovery and expect sales increases. For aerospace, robust demand continues after the pandemic. For railway rolling stock, we see continued sales expansion corresponding to strong demand recovery centered on the Chinese market. For construction machinery, which is our volume zone, although market recovery has been delayed, we expect demand to come back in the second half of this fiscal year. On the other hand, for wind power generation, the sales decline is expected to continue in the Chinese market, and for automotive, we anticipate weak sales in the Americas and Europe.

Sales overview by industry

	FY23 vs FY24 vs FY25(Forecast)		
 Construction machinery	↑	↑	Despite a sluggish market, sales will increase for certain customers
 Aerospace	↑↑	↑	Market conditions are firm, and our sales are expected to increase
 Agricultural machinery	↓↓	↓	Market conditions are subdued, and sales are expected to be sluggish
 Gear box	↓↓↓	↑↑	Market conditions show signs of recovery, demand recovery expected
 Rolling stock	↑↑	↑↑	Stable demand in Japan, increased sales to China
 Machine tool	↓	↑	Sales are expected to increase due to the market recovery trend
 Wind turbine	↓↓↓	↓↓	Sales in China expected to continue to decline
 Automobile	↓	↓	Sluggish sales in the Americas, Europe and China
 Aftermarket	→	↑↑	Inventory adjustment completed, sales will increase due to sales expansion measures, etc.

By region, bearings have a higher production ratio in Japan than CVJ & Axle, and we are moving forward with production reorganization. Building a system to flexibly respond to changes in market conditions and secure higher profits is an urgent task. For aftermarket, we will enhance the common inventory of popular

products while harnessing our distributor sales networks as we strive to expand sales.

The US market shows persistent demand for special bearing units in the food industry. To capture competitor market share, we will strengthen our inch-size lineup and stainless steel products with strong corrosion resistance. Since it is also a market with strong needs for bearing and equipment maintenance, we aim to achieve sales growth by offering solutions that leverage strengths such as sensing technology and the Condition Monitoring System.

Meanwhile, in Europe, price competition has intensified due to the economic downturn in Germany, which is a major market for industrial machinery, and we have begun reviewing our price strategy. In Europe, powerful rivals reign as market leaders. As an option to achieve overall business expansion under such harsh conditions, we are also considering a price strategy to flexibly adapt to market prices and increase market share.

As to China, we regard it as a supplier with strong technical competence. Since it already has excellent cost performance at this point, we are collaborating as partners to strengthen the cost competitiveness of our products. In sales, although it is a harsh market environment with the rise of local manufacturers, the need for high quality will increase in this huge and growing market, so we will respond appropriately.

For developing markets in India and ASEAN, we are strengthening initiatives toward sales growth such as expanding utilization of the common inventory of popular products and appropriate global price control. We also hope that India will become a parts supplier and we are seeking partners able to assure quality and meet our requirements.

Urgency is the top priority issue

This fiscal year, the second year of “DRIVE NTN100” Final, the business environment has changed significantly from the time the plan was formulated. A symbol of this is the US tariff issue. External factors such as exchange rates fluctuate daily, and the most important way to deal with such uncertainty is to act with urgency and speed.

The origin of my strong awareness of the importance of speed lies in my experiences during my assignment in China. Immediately after taking on the role, the economic outlook was unclear due to the impact of COVID-19, and I was cautiously trying to assess the situation. However, the situation deteriorated at a speed far faster than I could have imagined, and I keenly felt that acting with any delay leads to major risks.

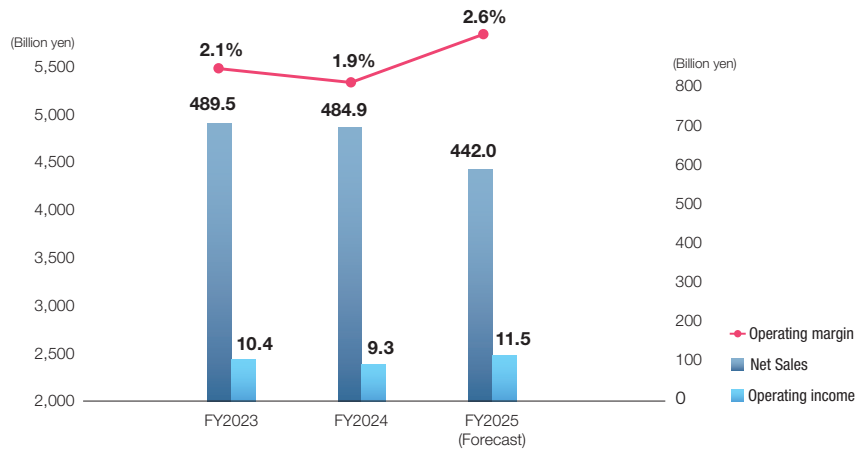
What I learned from this experience was the importance of always looking ahead and preparing multiple responses in advance. Asking myself “What if this situation occurs next?” and having options ready. Then, when the time comes, moving into action with immediate decision-making. Even if the first option does not work well, you can look to recover by trying the next option. Such speed of thinking and action is what is most necessary under rapidly changing conditions.

When considering a series of measures, I am always conscious of cost, which is an essential issue as a manufacturer. While technical response and inventory strategy are naturally important, during my assignment in China, I became convinced that cost competitiveness is an unavoidable challenge if we are to ultimately change the business landscape. Going forward, I intend to continue to work steadily to respond immediately to changes in the business environment with speed and urgency.

Strengthening the Business Model

CVJ & Axle bearing

Performance targets



Overview

With the ongoing shift toward electrification and EVs in the automobile market, there is growing demand for hub bearings and driveshafts that can help to extend the range of electric vehicles and offer strong control performance. These are flagship products of the CVJ & Axle bearing business.

As a specialist in power/drivetrain systems, NTN develops and supplies high-performance products that meet world-leading standards in low-friction performance, lightweight and compact properties, durability, and quietness, in response to rapidly growing needs for CASE (“Connected” cars, “Autonomous/Automated” driving, “Shared,” and “Electric”). By doing so, we contribute to the Earth’s environment by improving the fuel (or electrical) efficiency of vehicles, reducing CO₂ emissions.

We are also boosting supply to the aftermarket by expanding our line-up of products to include automotive aftermarket parts, with a focus on corner modules.

We will also strengthen our profit structure and build a lean business foundation by proportionately reducing costs through changes in design and procurement within the value chain, and by reducing fixed costs through production reorganization including consolidation or closure of factories in each region.

Main products and services

Hub bearings

Bearings that allow tires to rotate smoothly, and support the weight of the vehicle.



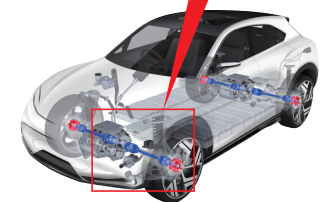
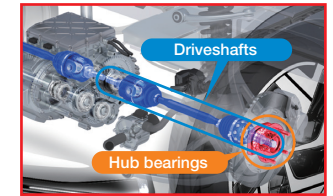
64% reduction in rotational friction
“Low Friction Hub Bearing V”

Driveshafts

Products that transmit the driving force of engines and motors to tires.



The world's highest level of efficiency during transmitting torque
High Efficiency Fixed Type CVJ “CFJ”



Development of products with even lower friction

Low Friction Hub Bearing

Roller type (GEN3 HUR)

Driveshafts

Hub joint module

Compact Lightweight Rear Driveshaft R Series

High Efficiency Fixed Type CVJ “CFJ”

Shudderless Sliding Type CVJ “PTJ”

Fixed type CVJ

Sliding type CVJ

Executive Progress Update on “NTN DRIVE100” Final



Steady improvement in profit

One year has passed since the establishment of the CVJ & Axle Bearing Business HQ. While the former Automotive Business HQ had recorded losses for four consecutive years from FY2019, the new business headquarters achieved a turnaround to profitability in FY2023. Steady results are also emerging in FY2024, the first year of the new Medium-term Management Plan.

Through organizational restructuring, key metrics including the operating margin of CVJ & Axle Bearing Business HQ and inventory assets have been identified, and we have improved the transparency of metric management at the factory level. The transition to the business headquarters system has given us a more accurate picture of the overall state of the business, brought more visibility to business activities worldwide, and various reforms are gaining momentum.

One example of improvements is the optimization of the supply chain. This initiative requires comprehensive consideration that goes beyond simply selecting new suppliers with cost advantages. It includes customer quality management checks and obtaining approval for the establishment of a logistics network. As a result of establishing a team to take on supply chain optimization, tangible effects have begun to emerge, particularly in the North American market.

Another example of major improvement is the progress being made to pass through cost increases to pricing. Japanese corporate customers have shown understanding, given the context of public sentiment and government policy. We have also been able to gain the understanding of Western companies for price adjustments, by making evidence-based logical explanations over time, and as compensation for order volume reductions.

Policy

- ① Pass-on price and set selling prices appropriately
- ② Improve profit margin of existing projects by value chain reform
- ③ Ensure profits and return on investment expected when receiving new orders
- ④ Respond to EV market needs

Main strategy

Improve profits of OEM business

- Improve asset efficiency by reorganization of production bases in the Americas, Europe, China and Japan
- Improve unprofitable businesses and adjust prices in line with market conditions
- Deepen partnerships with customers based on problem-solving and proposal capabilities
- Procurement reform, design reform, and cost reduction by design not trapped in the conventional design concepts and reviewing materials
- Maximize profits by expanding external purchasing, and restructuring supply chain of parts and finished products
- Develop new products that meet market needs and bring them to market speedily

Expand aftermarket business

- Strengthen supply capability
 - Develop alternative products and outsource production
 - Expand product lineup through external purchasing
 - Enhance axle and CVJ-related kit products
- Relocate aftermarket headquarter functions to Europe and establish sales expansion system

Strengthening the Business Model CVJ & Axle bearing

These achievements certainly did not happen overnight. They are the result of persistent efforts by the sales division, which has maintained good relationships with customers for a long time, finally bearing fruit. Many customers now see our perspective, and by leveraging the systems we have built, we will achieve further profit improvement.

Bold approach to structural reform

Progress is ahead of schedule with structural reform. First, in the Americas, change has accelerated, starting with the closure of the Canadian factory. We are also restructuring across the Americas at a cost of 5.0 billion yen, for example closing the Brazil CVJ plant.

In Europe, we are proceeding with structural reform by investing 5.9 billion yen to close an axle plant in Germany and restructure CVJ plants in France and Germany, transferring some production capacity to Eastern Europe. In China, where Japanese manufacturers are struggling, we are also restructuring our axle plants and reducing fixed assets at CVJ plants.

Going forward, we will accelerate restructuring for optimal production to match the market characteristics of each region. While moderate growth is expected for the overall automotive market, we need to accurately respond to regional differences, such as the weak demand seen in Japan and Europe. We have already outlined a global restructuring plan for the CVJ & Axle bearing business and will now gain speed in the execution phase.

Positive impacts of business restructuring on OEM and aftermarket

Regarding the impacts of business restructuring on OEM, we will identify issues by establishing a system

integrating sales, technology, and production, and through centralized and transparent metric management. For example, in Japan, the issue of an aging workforce has emerged, making it necessary to advance labor-saving methods in factories along with rapid restructuring of production.

As to the automotive aftermarket, we are spreading our wings globally by transferring head office functions to the European region, which accounts for 65% of sales, and utilizing locally-developed know-how.

Progress so far has been smooth. To expand our lineup to include suspension components in addition to CVJs and axles as target products, we made a capital investment in La Tunisie Mecanique S.A. (LTM), which manufactures automotive shock absorbers in Tunisia. This has added shock absorbers, which are closely related to our corner module products such as driveshafts and axle bearings, to our lineup, leading to improved brand value for NTN in drivetrain and chassis systems.



Shock absorbers



LTM (Tunis, Tunisia)

We have set a target to increase the overall aftermarket sales ratio to 40% of the total by 2035. To achieve this, we plan to utilize know-how developed in Europe at sales companies in other regions. We have also dispatched automotive aftermarket personnel from Japan to Europe who provide support utilizing existing networks and sales tools. We plan to harvest the fruits of these endeavors starting this fiscal year.

Better profitability in a challenging business environment

Significant sales growth is not anticipated for the CVJ & Axle Bearing business in FY2025. The reasons are that vehicle production volumes are forecast to decline slightly worldwide and Japanese carmakers, which account for a high proportion of our sales, are expected to struggle. Falling sales are also expected in the Americas and Europe. Trade tariffs are a contributing factor.

Under these circumstances, while we expect lower revenues, we plan to improve profitability and increased profits. Our structural reform and steadily progressing production, design, and procurement reforms are beginning to bear fruit, and we feel confident about earnings improvement.

By region, while vehicle production volumes in China are trending upward, the rise of local carmakers means the prominence of Japanese carmakers is in relative decline. Therefore, we have changed our approach and are promoting value chain transformation in China. Specifically, we look at China as a production base and we aim to strengthen cost competitiveness by expanding parts procurement from local sources in China.

In the Indian market, where growth is anticipated, we are establishing a network for increased production.

Strengthening the Business Model CVJ & Axle bearing

We have already deployed technical personnel and are strengthening customer service for local manufacturers with the help of local staff. Additionally, we have begun establishing a platform for upgraded R&D functions, bringing in testing equipment. We plan to start testing next year. By enhancing our structure in the Indian market, we are setting the conditions to be able to deliver value to customers at pace. We are also focusing on India's potential as a procurement base, developing new suppliers while assessing quality and other factors.

Promoting initiatives to improve profits

As we seek improved profitability, we have organized "task teams" to address issues that had not been adequately dealt with before. We are working on topics such as reducing setup changeover times in factories and automating parts manufacturing and creating systems to enhance process transparency and problem-solving. We have also assembled a team with members from various departments to look at inventory asset reduction as a priority activity. Even though our sales are expected to decline in FY2025, our intention is to achieve a year-on-year profit increase through these initiatives.

Market conditions remain opaque and particularly close attention must be paid to US tariff movements. Under such circumstances, we will strengthen ourselves through structural reform, boosting our resilience to the external environments, and secure profitability.

Furthermore, we are accelerating toward 2035, aiming to become a leading manufacturer in power/drivetrain systems with superb problem-solving capability, proposal capability, and speed of response. CVJ is a key component in power/drivetrain systems,

and its importance remains unchanged even in EVs. To respond to EV market needs, we will develop technologies that surpass our competitors with high efficiency and compact lightweight design, while differentiating ourselves by our ability to offer rapid and accurate solutions and technical response capabilities to meet customer concerns.

By consolidating CVJ and axles into one business division, moreover, synergy effects have begun to emerge. CVJ and axles are fundamentally different components, and previously there was insufficient interaction between their respective departments. Now, as a result of integrating them into one business headquarters, the direction of travel is consistent, including development, and a host of initiatives is underway.

What will be most required by markets in future is technology combining CVJ and axles premised on electrification. We have formed a development team and are setting the foundations to become a leading manufacturer in power/drivetrain system. By building this organization, communication has revitalized and new initiatives have emerged. Development of a new mechanism combining CVJ and axles is underway. We plan to offer a new mechanism that can achieve clear differentiation in the market within the next 2-3 years.

Starting initiatives looking beyond 2027

In future developments, we will accelerate the turnaround to profitability in the automotive business after four consecutive years in the red to FY2023. The driving force for this is the structural reform and production, design and procurement reforms that we have tackled as a unified organization. What will also be necessary to further this series of reforms is problem-solving capability and speed.

Regarding the automotive market, sales negotiations have already been substantially completed for the next two years, so now the focus is on 2027 and beyond. The overarching theme in new negotiations will be sustainably securing profitability.

To this end, the mindset of each individual employee must change. Some employees may have questions such as, "We have worked hard, and the operating margin has increased. Despite this, must we still work on improving profit?" However, what is necessary is continuous profit creation, and the current situation is that our financial structure remains less than solid. We are being open about these challenges with employees, and we are determined to thoroughly implement structural reform.

NTN is sharing such messages with employees not only domestically in Japan but also at our overseas locations through town hall meetings. We shall unify the mindset globally to ensure our progress toward reforms and growth looking beyond 2027.



Town hall meeting

CTO Message



Accelerating product development through concurrent engineering, with results emerging in new business areas

Executive Officer, CTO (Chief Technology Officer)

Yoshiyasu Nakano

Promoting development with clear KPIs

With the start of the new Medium-term Management Plan “DRIVE NTN100” Final, we set a target of 20% for the global sales ratio of improved products and new business products by FY2029 as a KPI (Key Performance Indicator) of research and technology development. If improved and new business products account for 20% of annual sales, NTN will be seen to be maintaining a healthy product development cycle. To achieve this target, it is necessary to lift the completion rate of development themes and the commercialization rate of products (developed and reaching the mass market). Therefore, we shall manage these indicators as sub-KPIs to achieve the above target.

For bearing-related existing businesses, the improved product that we most focus currently is the “HA-C bearing.” This bearing achieves the highest level of load capacity thanks to a special heat treatment technology that enables downsizing and lightning of bearings. The bearing was well received at last year’s exhibition. Since many customers requested samples, we established a cross-functional working team to refine the product with the aim of early prototyping in preparation for mass production. We started providing prototypes from April 2025 and a publicity

campaign is underway mainly to carmakers and Tier 1 manufacturers.

An example of something that led to a major achievement - the completion of development and launch of mass production - is the “Resin Mold Insulated Bearing” being applied to e-Axle, a driving source of EVs. When the current driving the e-Axle passes through the bearing, electrical pitting can be occurred, in some cases damaging the bearing raceway surface and leading to vibration and abnormal noise. Typically, ceramic balls as insulators are incorporated inside the bearing to counteract electrical pitting. However, our new product forms a insulation resin layer on the outer diameter surface and side surface of the bearing outer ring, insulating the bearing at lower cost than conventional products. It has already been adopted in mass-production vehicle models by overseas carmakers, and production has started.

To deliver improved products to customers of existing bearings and constant velocity joints as early as possible, a concurrent structure where manufacturing (including quality), sales, and technology work together from the development stage is important. We will shift from technology-biased development to accelerate the process from development to mass production. This will improve our commercialization rate.

New business development in the six target fields

These are the six new business areas that we have been working on since the previous Medium-term Management Plan (“DRIVE NTN100” Phase 2) and with the exception of a part of businesses, the seeds of commercialization are developing.

First, we are promoting sales of “ball screw units for mobility” as mobility modules. Demand for electric hydraulic brakes is expanding rapidly due to electrification of the vehicle, and demand is expected to grow further in the future amid the transition to electric mechanical brakes. NTN started producing ball screw units for electric hydraulic brakes in 2012, and currently delivers approximately 1 million units per year. Recently, inquiries from Europe have also increased, and we are responding in partnership with our European research and development center, NTN Europe S.A. With further advances in BEV technology, development of highly responsive hydraulic piping-free electric mechanical brakes is expected to accelerate, and the number of ball screw units used will also increase (up to four units per vehicle). Therefore, we are paying attention to market trends and developing advanced technology. Moreover, in the motorcycle market, mechanisms using ball screws are drawing attention for promoting fuel efficiency, and we are growing sales across the entire mobility field.

In robot-related modules, the wrist joint module “i-WRIST” is drawing attention for its use in automating appearance inspections of automotive die-cast parts. The aim is to automate the appearance inspection process, which currently relies on manual labor, by harnessing the wide range of motion and rapid movement of i-WRIST. We are also incorporating image processing technology and aiming to provide it as a system.

Regarding renewable energy, the Transportable Independent Power Supply N³ N-CUBE, which we have been selling for some time, is attracting attention due to the nationwide increase in disaster prevention awareness following last year’s Noto Peninsula earthquake. We dispatched one unit of the N3 N-CUBE to the disaster-

CTO Message

affected areas of the Noto Peninsula for emergency support. Another unit was mobilized in pilot tests using disaster scenarios based on guidelines for disaster prevention roadside stations selected by the Ministry of Land, Infrastructure, Transport and Tourism. The equipment was well received by the agencies and local governments. The N³ N-CUBE can generate and store power using renewable energy, and it can power air conditioning and mobile phone charging. It can also be equipped with options such as a recirculating flush toilet with treatment tank, which is garnering good reviews. Its potential application is being considered not only during disasters but also in daily life.

In the field of life sciences, the “Microscopic Coating Applicator” is being provided in the research field as a new bioprinting method, harnessing its ability to apply highly viscous liquid in ultra-small amounts with high

speed and precision. It has been adopted for antibody coating applications in high-sensitivity antigen test kits being developed by Hamamatsu University School of Medicine using electron microscopes. Since it is able to detect multiple infectious diseases in a single test, it is expected to lead not only to higher sensitivity of antigen testing but also to faster diagnosis and reduced burden on patients. We are accelerating development to advance to the clinical trial stage and demonstrate the effectiveness of the test kit as soon as possible.

In services and solutions, “Talking Bearings” have been in development for some time. We previously developed and marketed these bearings with a 70mm inner diameter, but after further miniaturization we will be offering the same functions with bearings of 40mm inner diameter. Additionally, we are working on machine tool condition monitoring by incorporating the sensing, power

generating and wireless transmission technologies developed for Talking Bearings into spacers for machine tool bearings.

Finally, we have been advancing commercialization marketing initiatives, with a particular focus on hydrogen as a next-generation energy source. Although development of new products has progressed in some areas, we have not yet found applications or technology directions that will serve as pillars of commercialization. While continuing this marketing, we are working to pioneer new areas of business through IP landscaping.

Challenges in achieving an aftermarket sales ratio of 40%

NTN has set a target of increasing the aftermarket sales ratio to 40% of the total by FY2035. To achieve this, we believe it is necessary to build a bearings lifecycle management (LCM) system. The challenges in technology research are abnormality detection and predictive maintenance utilizing sensing technology, and proposals for planned equipment maintenance. These technology developments will contribute to improved equipment utilization and optimized maintenance costs. We are creating a system to deliver high value-added solutions, and we are looking to collaborate with external partners.


Our company’s strength lies in our history of bearings manufacturing stretching back more than 100 years and the vast accumulation of data gained as a result. We already have a deep trove of bearings damage data, and by training generative AI on this data, we believe we can help to shorten maintenance time by more rapidly diagnosing causes and countermeasures based on past cases of damage. We will work on building a bearings damage analysis system, further developing our solutions business for customers.

Next-generation mobility module
 “Strengthen core technologies and products” and “Develop businesses in new areas” from perspectives of CO₂ environmental regulation and mobility



Core
New areas

Robot-related module
 Contribute to automation, labor saving, and productivity improvement in manufacturing industry from perspectives of declining working populations and robot collaboration



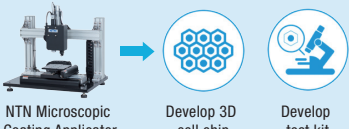
Incorporate functions of AI and sensing

Renewable energy-related
 Contribute to create a society where people can live safely and with peace of mind through independent power source technologies utilizing renewable energy power generation and storage




Independent power supply / power generation / storage / monitoring (safety)

Life science-related
 Develop next-generation products for drug discovery and diagnostic chips based on the core technology of microscopic coating
 Contribute to enriching people’s lives



NTN Microscopic Coating Applicator Develop 3D cell chip Develop test kit

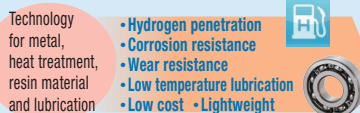
Service / solution
 Towards business providing service that leads to sales of products
 Transformation into a new business format



AI analysis CMS Bearing-related applications

Robot Machine tools Wind turbines Bearing with sensor Monitoring

Hydrogen-related
 Develop hydrogen-related products to help achieve carbon neutrality
 Gain rapidly growing market due to transition to hydrogen society



Technology for metal, heat treatment, resin material and lubrication

- Hydrogen penetration
- Corrosion resistance
- Wear resistance
- Low temperature lubrication
- Low cost
- Lightweight

Strengthening Competitiveness in a Changing Business Environment: Procurement, Production, and Logistics Reforms

As outlined in our Medium-term Management Plan, we are advancing a comprehensive reform of the entire value chain to expand our Aftermarket Business and strengthen the competitiveness of our OEM Business. In supply chain areas such as procurement, production, and logistics, we are accelerating responses to changes in the business environment and initiatives that transcend internal and external frameworks.



1 Procurement initiatives | dual source procurement

To ensure that supply of products remains steady—even in the face of natural disasters, conflicts, or fluctuations in exchange rates and tariffs—we are advancing initiatives for dual source procurement: a supply chain strategy in which components and materials are sourced from multiple suppliers. Implementing this approach requires prior approval from our customers. We communicate to customers that we can maintain the same level of quality even after switching from traditional to new suppliers. With their consent, we work to build a supply chain capable of flexibly responding to a variety of risks.

2 Production initiatives | pursuing overall optimization of the supply chain

We are implementing production reforms to eliminate the three Ms that occur in manufacturing—*muri* (overburden), *muda* (waste), and *mura* (unevenness)—not only within individual production sites, but also across sites and in relationships with suppliers, with the goal of producing only what is needed, in the necessary quantities, at the necessary times.

For example, in the production of ball bearings—where processing progresses from one of our group companies to a supplier and then to our company—there have been instances where inventory at the supplier either accumulated or ran short due to a gap between the order volume placed by our company with the group company (based on informal information provided by the customer) and the order volume placed with the supplier (confirmed order volume). To address this issue, we established a system in which the three parties closely share information on orders placed with the supplier, while the group company maintains its own inventory. As a result, we successfully optimized the supplier’s inventory level.



Advancing system building together with group company and supplier

3 Logistics initiatives | reviewing the role of each delivery service and redesigning the logistics network

In Japan, we are undertaking logistics reforms to enhance cost competitiveness while ensuring stable product supplies. In FY2024, we conducted surveys on goods movements and volume, the spatial relationships between plants and distribution centers, transportation and delivery processes, and truck loading rates, in order to identify issues. Then, we calculated the cost reduction impact of reforms for each specific issue. Based on the results of these calculations, going forward, we will review the role of each delivery service, streamline routes, consolidate and integrate warehouses to improve truck loading rates.

Under the revised Act on Advancement of Integration and Streamlining of Distribution Business implemented in April 2025 in Japan, we qualify as a specified business operator—due to the scale of our logistics operations—and are therefore required to submit medium- and long-term plans for improving logistics efficiency to the government. We will actively work to comply with the revised legislation while simultaneously striving to reduce logistics burdens and improve efficiency.

Logistics network	<ul style="list-style-type: none"> Warehouse consolidation and integration Optimization of semi-finished product logistics (installation of collection and distribution hubs, etc.)
Transportation and delivery	<ul style="list-style-type: none"> Course reorganization and streamlining Redesigning the role of each delivery service
Logistics administration	<ul style="list-style-type: none"> Visualization of logistics load PDCA-based management Centralized logistics management in Japan

Truck loading rates are generally lower for local delivery with short-distance transportation than main line with long-distance transportation. We will work with logistics companies to reduce the logistics burden and improve loading rates by redesigning the logistics network, while ensuring transportation lead times are maintained.

Strengthening “Earning Power” through Digital Technology Utilization - Accelerating DX

As a key measure of the Medium-term Management Plan, we have set forth “Generate Profits Utilizing Digital Technology” and are advancing the use of digital technology in all departments. In FY2024, under the leadership of the ICT Strategy Dept., we formulated the “NTN Global ICT Strategy” (target period: FY2024 to FY2029) and are strengthening our “earning power” through the utilization of cutting-edge technology.

Formulating the “NTN Global ICT Strategy” and promoting measures

For DX, we have completely reconstructed our aging core systems with a new information infrastructure and completely eliminated legacy systems that had been used for many years. We integrated and standardized business processes and systems that were previously fragmented, enabling the use of timely, highly accurate, and consistently detailed data using the same system.

In FY2024, we formulated the “NTN Global ICT Strategy” and are promoting eight priority DX measures based on the new information infrastructure. We are utilizing cutting-edge digital technology not only domestically but also globally to accelerate DX, including improving operational efficiency, reducing costs, enhancing operational accuracy, and enabling swift and precise decision-making.

■ Eight priority DX measures

Objective : Strengthening “earning power” through safe and secure utilization of cutting-edge digital technology

- ① Expand core system functions
- ② Regularly update core system
- ③ Promote data-driven management
- ④ Improve efficiency with AI
- ⑤ Deploy security measures globally
- ⑥ Expand security coverage
- ⑦ Develop digital human resources
- ⑧ Reduce ICT operation and maintenance costs

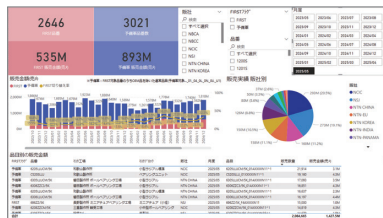
Main initiatives

The ICT Strategy Dept. formulates DX measures and implements them in collaboration with various departments including sales, R&D, and production. The ICT Strategy Dept. monitors the implementation status of each measure and regularly reports to management on progress regarding the Medium-term Management Plan.

Sales and administration

Leveraging the results of massive data analysis to improve operational efficiency

- Integrate core systems globally
- Promote data-driven management
- Improve efficiency of prediction, search, and documentation using AI



Visualize inventory of aftermarket products using Power BI

R&D

Achieving development efficiency and service sophistication through AI and IoT utilization

- Shorten development periods significantly through analysis systems using AI
- Expand abnormality detection services and condition monitoring through sensors

Production and procurement

Achieving productivity improvement through “visualization”

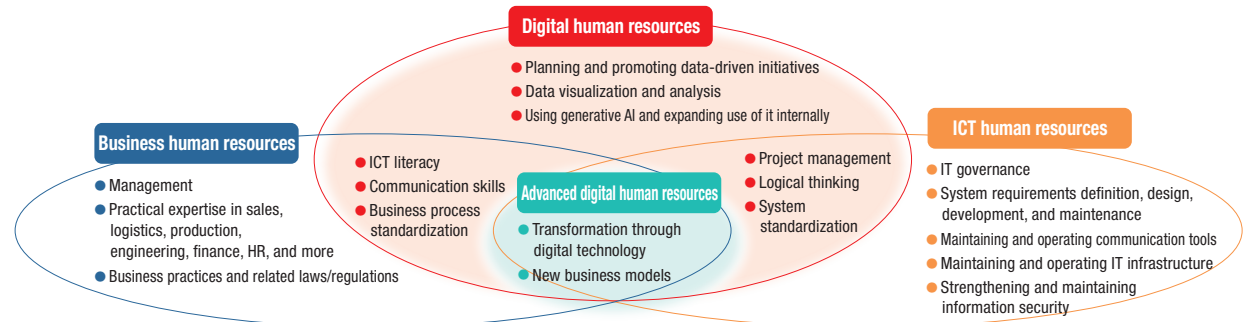
- Achieve automation and labor saving in line work by expanding smart factory
- Improve productivity through smart device utilization
- Integrate with supplier systems



At Wakayama Works, automation of production planning, lead time reduction, and inventory reduction have been achieved

Develop digital human resources

“People” are the key to utilizing digital technology, and developing digital human resources within the company is an important challenge. We are promoting the development of “digital human resources,” who possess skills in both “business human resources” and “ICT human resources,” and “advanced digital human resources” who possess more advanced skills. The ICT Strategy Dept., CAE R&D Center, Production Engineering HQ., Advanced Technology R&D Center, and other departments have traditionally provided trainings in digital technology, and in FY2025, we plan to establish a “digital human resources education system” that incorporates these trainings into the company-wide human resource development program.



Focus on developing “digital human resources” and “advanced digital human resources” who are well-versed in digital utilization such as data management and AI utilization

Message from Executive Officer in Charge of Sustainability

Enhancing our corporate value with a two-way approach, from both sustainability and financial strategy perspectives

Executive Officer

Tsuyoshi Kikuta



A “NAMERAKA Society” means reducing friction and conflict that arise in daily life

NTN Corporation established sales companies in Germany in 1962 and in the United States the following year, and set up manufacturing bases in both countries in 1971. Having pioneered overseas expansion ahead of other companies, we now generate just over 70% of our net sales from overseas markets. Against this background, many employees at our company have experienced overseas assignments for a long time, and many of my seniors and supervisors have also experienced overseas work, creating a workplace environment where overseas operations are familiar. I myself worked at our sales company in Chicago, USA for five years starting at age 29, while still relatively young. There, I found myself in the position of a foreigner (minority) within American society, learned the reality that “Japanese common sense is nonsense,” and understood that “being different is natural, and I cannot survive without accepting it.” I was able to learn many tangible and intangible things from viewing matters from various perspectives and angles, as well as from work, daily life, and travel, which greatly changed my outlook on life. What was particularly impressive was the difference in working styles - the sight of only Japanese employees’ cars remaining in the parking lot after 5 PM (though I don’t think this is unique to America) made me strongly aware of cultural differences.

Having had such experiences, the “NAMERAKA Society” that I envision encompasses not only Japan but the entire world. Our company operates globally, with a large number of people from diverse backgrounds. Even in daily life where diversity across countries with different histories and cultures is the norm, reducing obstacles and friction in matters, as well as the “uneasiness” and “concerns” in people’s hearts - that is the vision of a “NAMERAKA Society”

as I see it.

For our company, I believe it is important to share mindsets such as our corporate philosophy and the NTN SPIRIT in order to unite the hearts of our diverse employees.

Company-wide shared sustainability activities

Traditionally, customer criteria for supplier selection centered on elements such as “price,” “delivery time,” “quality,” and “technical support.” However, in recent years, our sustainability initiatives as suppliers have also come to be positioned as important evaluation criteria. In particular, the importance of evaluation indicators by third-party organizations regarding responses to climate change and human rights has been increasing, and these trends have come to be widely shared among management.

Until now, discussions about sustainability activities were mostly handled between the sustainability department and related departments, but now they are increasingly being shared among all Executive Officers. The discussed content is deployed to relevant regions and departments through Executive Officers and reflected in company-wide decision-making.

Key ESG management measures in the Medium-term Management Plan

In the Medium-term Management Plan “DRIVE NTN100” Final that started in FY2024, we have positioned “Evolution of ESG management” as one of the “Strategies to support transformation.”

E: Environment

Our company has set a target of reducing CO₂ emissions by more than 30% in FY2026 compared to FY2018, toward achieving carbon neutrality in

Message from Executive Officer in Charge of Sustainability

FY2035. The Carbon Neutrality Promotion Committee regularly follows up on the status of each site, and progress is currently proceeding smoothly.

Meanwhile, we are also undertaking initiatives linked to carbon neutrality from a financial perspective. This is called “Sustainability-Linked Loans,” financing that receives interest rate benefits according to the achievement status of carbon neutrality goals. We introduced this in 2023 and have already used this scheme for 12 deals totaling approximately 27 billion yen in borrowings, which has also led to the creation of economic value.

Furthermore, as demand for “lighter, more durable products” intensifies, we are focusing on developing and providing products that minimize energy loss to the utmost limit in diverse fields such as automobiles, aerospace, rolling stock, construction machinery, and wind power generation.

S: Social

One of the challenges facing companies, including ours, is the increase in employee turnover. While lifetime employment was once the norm, now that job changes have become common, I believe the engagement of employee is crucial for retaining valuable human resources. I consider it important for leaders of organizations both large and small to communicate their own thoughts and feelings and engage in sincere dialogue with employees. When I served as a department head, I made efforts to foster workplace unity by establishing opportunities twice a year to directly speak to and share with department members about company policies and the goals and strategies of my own department based on those policies.

In terms of recruitment, we partially introduced Initial Assignment Placement Guaranteed Hiring starting in 2024, as the traditional system where

assignment decisions are made after on-the-job training following entry had been affecting subsequent retention rates. We believe that enabling people to envision their career image before joining allows them to start working with higher motivation.

Currently, mid-career hires are increasing in many workplaces, and I feel that workplaces are increasingly being revitalized by the active participation of personnel with diverse backgrounds. Regarding the promotion of women to management positions, while there were few role models in the past, I feel that among female employees in their 30s and 40s, those who are positive about promotion to management positions have increased. Additionally, male employees taking childcare leave have steadily increased, and I feel that awareness of sharing housework and childcare has permeated. These changes represent a major step toward realizing a comfortable workplace environment and will lead to further advancement of women.

The contributions of these diverse human resources are the source of our competitiveness and form the foundation supporting sustainable growth.

G: Governance

At our company, Outside Directors serve as chairperson of the Board of Directors and as the three committee chairs of the Nominating Committee, Compensation Committee, and Audit Committee, enabling active discussions that incorporate external perspectives. Through this, we believe healthy oversight functions for management are exercised and governance functions effectively. On the other hand, we recognize that there is still room for improvement in governance at the business site level, and in 2023 we launched the “Domestic Affiliated Company Governance Strengthening Project” and are working on continuous improvement. Issues and risks identified

through operational audits, and other means are appropriately addressed by the Risk Management Committee, and necessary measures are implemented. Through this series of processes, our company strives to further strengthen our governance system and improve transparency.

The significance of concurrently serving in the Finance and Sustainability Departments

The most important thing for a company is to continue to exist. For this, a stable financial foundation is necessary, and if profit cannot be generated through business activities, sustainable activities cannot be promoted in the first place. Regarding the level of profit expected to our company, I can explain this clearly using indicators such as ROIC and ROE.

Meanwhile, I can also convey how sustainability activities through “Evolution of ESG management” contribute to business growth and enhancement of corporate value, incorporating specific examples.

Ensuring that the creation of economic value through business activities and the creation of environmental and social value through sustainability activities are both essential for corporate development permeates throughout the company - this is my role and the significance of concurrently serving in two departments.

Our company is an enterprise with 100 years of history, but in looking toward the next 100 years, it is essential to transform into a robust corporate structure through the structural reforms we are currently advancing. I strongly wish to accomplish these reforms that each region is working on with determination and connect them to the next era.