

# INNOVATING A SUSTAINABLE FUTURE FOR PEOPLE AND PLANET

Integrated  
Report

2023



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For detailed financial and non-financial data, please refer to "Financial and Non-Financial Data" on our corporate website at [https://group.ntt/en/csr/data/financial\\_nofinancial](https://group.ntt/en/csr/data/financial_nofinancial).

## Forward-looking Statements

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The forward-looking statements and projected figures concerning the future performance of NTT and its subsidiaries and affiliates contained or referred to in this report are based on a series of assumptions, projections, estimates, judgments, and beliefs of the management of NTT in light of information currently available to it regarding the economy, the telecommunications industry in Japan, and other factors.

These projections and estimates may be affected by the future business operations of NTT and its subsidiaries and affiliates, the state of the economy in Japan and abroad, possible fluctuations in the securities markets, the pricing of services, the effects of competition, the performance of new products, services, and new businesses, changes to laws and regulations affecting the telecommunications industry in Japan and elsewhere, and other changes in circumstances that could cause actual results to differ materially from the forecasts contained or referred to in this report.

## Editorial Policy

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This report has been compiled with the primary objective of helping our diverse stakeholders, including shareholders and investors, to better comprehend the NTT Group's growth strategy. This strategy aims to create new value for our customers and society at large, and to transition towards a sustainable society through our business activities. Starting from fiscal 2023, we have merged the previously independent Annual Report and Sustainability Report into a single Integrated Report. This allows us to communicate more comprehensively to all our stakeholders about the NTT Group's mid- to long-term corporate value enhancement efforts and initiatives. With regard to sustainability information, this report provides details on our materiality (key issues) and their relevance to our medium-term management strategy. Further details on our initiatives can be found on the Sustainability page of our corporate website. We sincerely hope this Integrated Report will assist all stakeholders in deepening their understanding of the NTT Group.

## Note about Abbreviations

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In this Annual Report, "NTT DOCOMO" refers to NTT DOCOMO, INC., "NTT Communications" refers to NTT Communications Corporation, "NTT East" refers to Nippon Telegraph and Telephone East Corporation, "NTT West" refers to Nippon Telegraph and Telephone West Corporation, "NTT DATA Group" refers to NTT DATA Group Corporation, "NTT DATA Japan" refers to "NTT DATA Japan Corporation," "NTT Urban Solutions" refers to NTT Urban Solutions, Inc., and "NTT Anode Energy" refers to NTT Anode Energy Corporation.

## Other Materials

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Financial and Non-Financial Data

[https://group.ntt/en/csr/data/financial\\_nofinancial](https://group.ntt/en/csr/data/financial_nofinancial)

NTT Group Sustainability

<https://group.ntt/en/csr/>

Securities Report

<https://group.ntt/en/ir/library/yuho/>

Shareholders' Meeting Materials

[https://group.ntt/en/ir/shares/shareholders\\_meeting/](https://group.ntt/en/ir/shares/shareholders_meeting/)

Corporate Governance Report

<https://group.ntt/en/ir/mgt/governance/>

Presentation Materials

<https://group.ntt/en/ir/library/presentation/index.html>



# NTT Group's Roots

NTT Group has continued to develop a range of solutions as a partner that enables society and industry to move ahead.

It was some 70 years ago that the telephone and telegraph services provided by the Ministry of Communications and Ministry of Telecommunications were handed over to Nippon Telegraph and Telephone Public Corporation. With economic growth booming following the country's post-war recovery, the company began exploring a range of avenues to meet growing public demand for telephone services that connect in an instant. The company was privatized as Nippon Telegraph and Telephone Corporation (NTT) in 1985. We have expanded our business into regional communications (telephone and FTTH, etc.), integrated ICT (mobile and internet), global solutions, real estate, energy, and others based on our corporate activities to respond to customers' voices and industrial and social challenges.

Going forward, NTT will continue to take on challenges for new value creation and global sustainability.



**Privatized in 1985.**

## **Our Dynamic Loop – The Heart of NTT**

The single continuous curve represents the dynamism and our commitment for continuous innovation and delivering value to people and society.



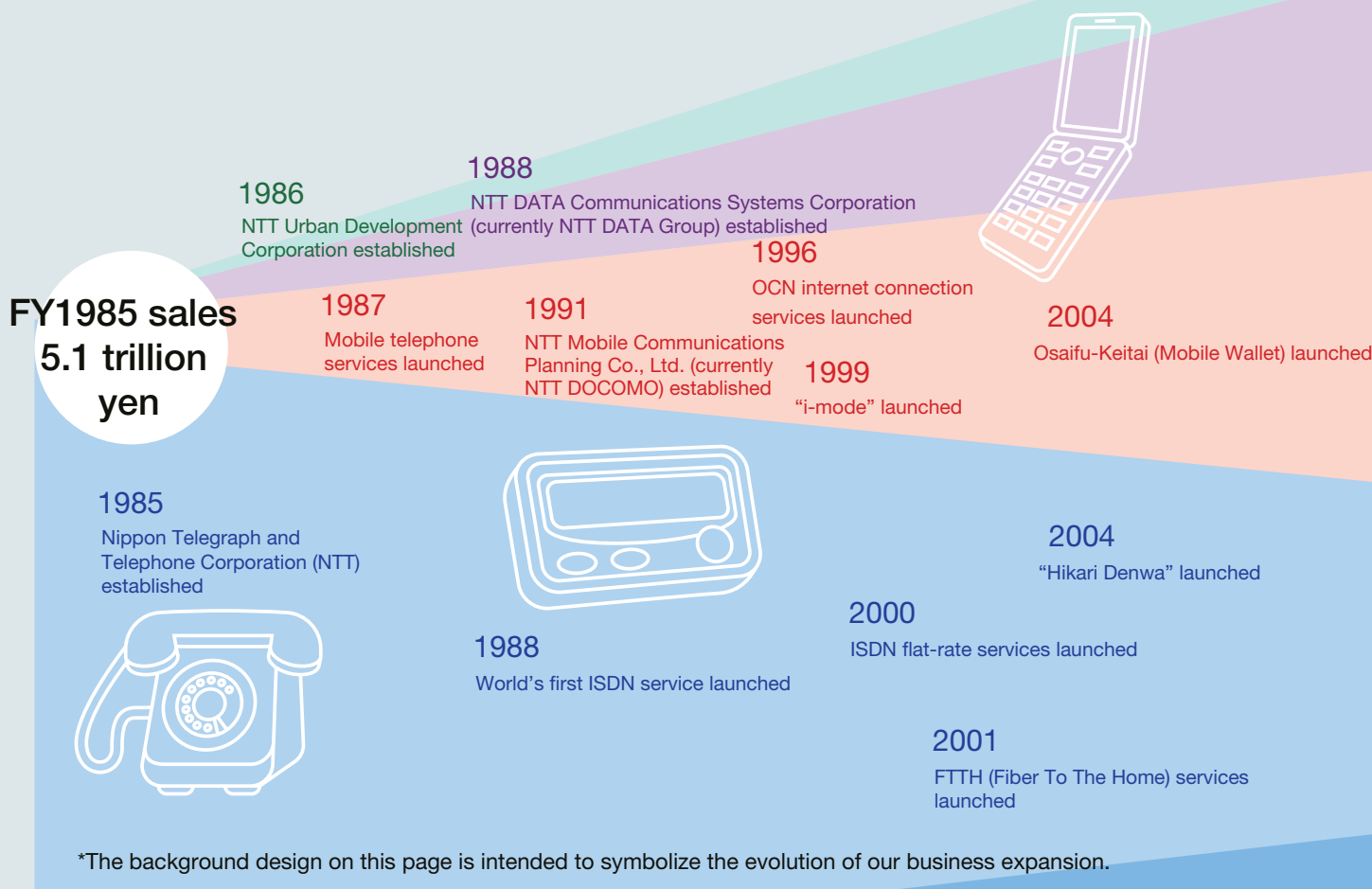
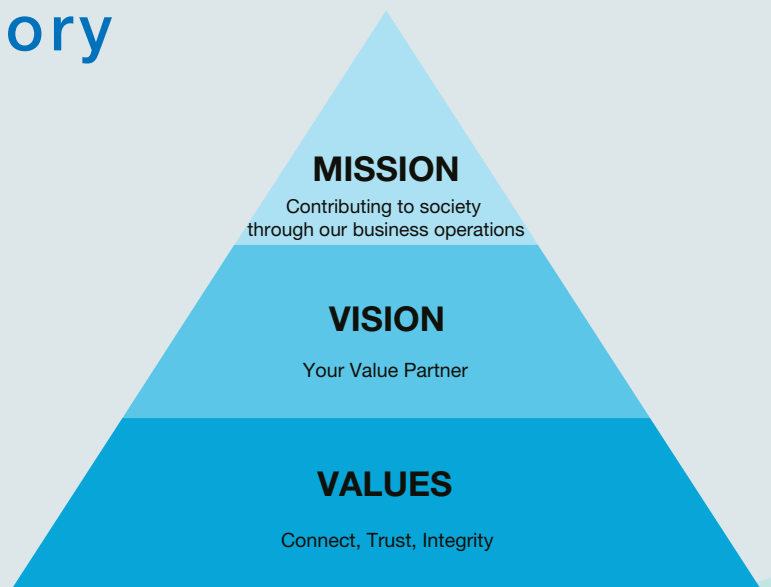
A small inner loop at the top of the mark ensures that the voice of customers and society is always heard.

This symbol represents NTT's vision and its commitment to developing a harmonious society through both business and cooperation.

# NTT Group's History

## We are NTT.

NTT will continue to innovate through imagination and by challenging ourselves. We always listen to our clients, employees, and the world at large. NTT's culture is based on our core belief of responding to the needs of our clients and society to help achieve their best future possible. This is NTT's vision and its commitment to developing a harmonious society through both business and co-operation.



**1999**

Transitioned to holding company structure

**1985 - 1990s**

**Expansion of telephone services**

**2000s**

**Shift to broadband**



**FY2022 sales**  
**13.1 trillion**  
**yen**

**2019**

NTT Urban Solutions established  
NTT Anode Energy established

**2023**

Transition to a holding company structure under which there is the domestic (Japanese) operating company NTT DATA Japan and NTT DATA Inc., which manages overseas business

**Others (Real Estate, Energy and Others)**

**2016**

Acquired Dell Services (currently NTT DATA, Inc.)

**2010**

Acquired Keane (currently NTT DATA, Inc.)  
Acquired Dimension Data

**FY2022 overseas sales**  
**2.6 trillion yen**

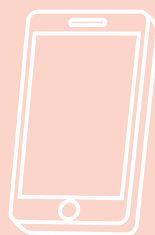
**Global Solutions Business**

**FY2012 overseas sales**  
**0.95 trillion yen**

**Integrated ICT business (mobile and internet)**

**2008**

"Hikari TV" launched



**2018**

Mobile payment service "d Payments" launched

**2009**

Android OS smartphones launched  
Cloud services launched

**2010**

LTE (Xi) services launched

**2015**

"docomo Hikari" launched

**2020**

5G services launched  
NTT DOCOMO becomes a wholly owned subsidiary

**Regional communications business (telephone and FTTH, etc.)**

**2015**

"Hikari Collaboration Model" launched

**Telephone**

**FTTH, etc.**



**2019**

IOWN concept announced

**2021**

Green Innovation toward 2040 announced  
NTT Group Global Sustainability Charter revised

**2023**

Medium-term management strategy titled "New Value Creation & Sustainability 2027 Powered by IOWN" announced  
APN IOWN 1.0 launched

**2010s**

Expansion of global business

**2020s**

New structural transformation

Transitioning from CSR to sustainability as a pillar of business strategy

- Initiatives launched from these conferences aim to achieve significant growth in a decade



A woman in a light-colored blazer is standing in front of a large blue screen. The screen displays a table with the following data:

Year	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Population	10.0	10.1	10.2	10.3	10.4	10.5	10.6	10.7	10.8	10.9	11.0	11.1	11.2	11.3	11.4	11.5	11.6	11.7	11.8	11.9
GDP	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4	2.5	2.6	2.7	2.8	2.9
Urbanization	55.0	56.0	57.0	58.0	59.0	60.0	61.0	62.0	63.0	64.0	65.0	66.0	67.0	68.0	69.0	70.0	71.0	72.0	73.0	74.0
Life expectancy	72.0	73.0	74.0	75.0	76.0	77.0	78.0	79.0	80.0	81.0	82.0	83.0	84.0	85.0	86.0	87.0	88.0	89.0	90.0	91.0
Healthcare expenditure	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2	2.3	2.4
Education expenditure	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0	2.1	2.2
Environment expenditure	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.1	1.2	1.3	1.4	1.5	1.6	1.7	1.8	1.9	2.0

The diagram illustrates two bus operation models. The left model, 'Bus operation with fixed schedules and fixed routes', shows a circular route with stops A through F and a bus icon. The right model, 'Bus operation using "AI" Bus', shows a more complex network with stops A through F, a bus icon, and a person icon. It includes labels for 'Shortcuts' and 'Available at the user's convenience'.



# Introducing Our 10th Conference MVPs June 12, 2023

First public awards ceremony open to the media:

118 entries, 58 nominations (34 from overseas), 12 winners

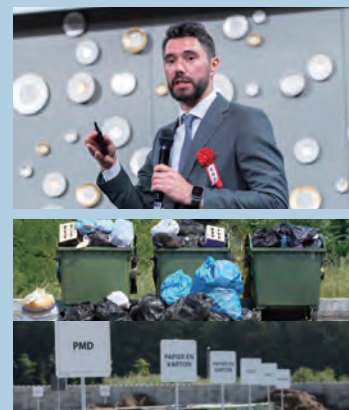
## Building a Supply Chain for Medical Supplies Using Drones NTT DATA Business Solutions (Germany)

In Malawi, Africa, NTT DATA Business Solutions is addressing medical supply chain issues using high-performance drones by Wingcopter Inc. In Malawi, it took a full day or more to transport medical supplies from medical centers to rural clinics due to poor road infrastructure. In this initiative, the strong delivery capabilities of Wingcopters were extended through a new digital logistics platform provided by SAP S/4HANA cloud, enabling local procurement of more than 100 types of medical supplies by delivery drone in just 20 minutes. Wingcopter's drone-based delivery networks also create new hightech job opportunities by training local youth to become Wingcopter drone pilots and technicians, helping to solve social issues in two dimensions: saving and improving lives.



## Using AI to Improve Recycle Park Convenience (UX) NTT Ltd Belgium (Belgium)

NTT Ltd Belgium has optimized the replacement of containers for recycle by combining a camera developed in collaboration with Cisco and NTT's AI technology for container detection and monitoring. The AI equipped in the camera reads the amount of garbage in real time and analyzes it together with historical data, making it possible to predict the optimal timing of container replacement. By solving the problem of collection containers being full, NTT Ltd Belgium contributed to reducing the stress on the people of the city, as well as reducing illegal dumping.



## Achieving a Carbon-Neutral Society Through Forestry DX NTT West

As part of its Forestry DX initiative, NTT WEST is providing a Forest Cloud application that uses satellite and drone measurements as well as AI analysis to collect forest information such as the number of trees, types, and height, calculate and data the asset value of the forest and the amount of CO2 absorbed, which can be viewed on smartphones and tablets. As a result, forest research operations will be reduced to 1/30 of the previous level, and timber supply and demand matching using the cloud will result in transactions at prices 2% higher than those in the general timber market (empirical results). In addition, carbon credit revenues, a new value added to forests, will be returned to affluent forest development, thereby contributing to the carbon neutrality of the region and companies (approximately 300 million yen worth of credits are expected to be generated\*). \*Target forest: Approximately 180ha, 16-year project



# New Medium-Term Management Strategy

New Value Creation & Sustainability 2027

Powered by IOWN

## *Innovating a Sustainable Future for People and Planet*

### 1 NTT as a Creator of New Value and Accelerator of a Global Sustainable Society

- |  |  |
|--|--|
| <p><b>① IOWN-Driven Creation of New Value (from concept to commercialization)</b></p> <ul style="list-style-type: none"><li>i. Establishment of manufacturing company for photonic-electronic convergence devices</li><li>ii. Acceleration of IOWN research and development/commercialization</li></ul> <p><b>② Data-Driven Creation of New Value</b></p> <ul style="list-style-type: none"><li>i. Strengthening the personal business</li><li>ii. Strengthening the use of DX/data in society and industry</li><li>iii. Expansion and upgrade of data center infrastructure</li></ul> | <p><b>③ Achievement of a Circular Economy Society</b></p> <ul style="list-style-type: none"><li>i. Develop sustainability solutions for customers</li><li>ii. Creating Circular Economy businesses</li><li>iii. Progression towards Net-Zero</li></ul> <p><b>④ Further Strengthening of Business Foundations</b></p> |
|--|--|

### 2 Upgrading the Customer Experience (CX)

- ⑤ Fusion of Research and Development with a Market-Focused Strategy**
- ⑥ Strengthening of Services that Emphasize Customer Experience (CX)**

### 3 Improving the Employee Experience (EX)

- ⑦ Open and Innovative Corporate Culture**
- ⑧ Support Career Growth**
- ⑨ Global Benefits for Employees and their Families**



## Medium-Term Financial Targets

Company-wide Targets	EBITDA
	<b>+20% increase<sup>*4</sup> (approx. ¥4.0 trillion) (FY2027)</b>
Growth Areas <sup>*1</sup>	EBITDA
	<b>+40% increase<sup>*4</sup> (FY2027)</b>
	Overseas Operating Income Margin <sup>*2</sup>
	<b>10% (FY2025)</b>
Existing Areas <sup>*3</sup>	EBITDA
	<b>+10% increase<sup>*4</sup> (FY2027)</b>
	Return on Invested Capital (ROIC)
	<b>9%<sup>*5</sup> (FY2027)</b>

## Sustainability-Related Targets

### New Female Manager Promotion Rate

**at least 30% each year**

### Greenhouse Gas Emissions

**targeting carbon neutrality in 2040, as well as Net-Zero**

### Engagement Rate

**To be improved**

<sup>\*1</sup> IOWN, digital/data centers, power/energy, Smart Life, real estate, AI/robots, etc.

<sup>\*2</sup> NTT DATA Group consolidated. Excludes temporary expenses, such as M&A-related depreciation costs of intangible fixed assets.

<sup>\*3</sup> NTT DOCOMO's consumer telecommunications businesses, NTT East and NTT West

<sup>\*4</sup> Compared to FY2022

<sup>\*5</sup> FY2022 results: 8.2%



島田 明

**Akira Shimada**

President and Chief Executive Officer  
Representative Member of the Board



## Seizing the Age of Change as an Opportunity

The NTT Group has been taking proactive steps to transforming itself, evolving its business while consistently addressing social issues. Roughly 40 years ago, when NTT was privatized, it primarily generated revenue from its telephone business. However, nowadays, revenue from voice-related services accounts for only 15% of our total operating revenues. We have rapidly adapted to changes in technology and societal trends, reallocating our existing resources and incorporating new ones while keeping a close eye on the evolution of technologies and devices such as telephones, pagers, PCs, mobile devices, and smartphones, as well as other changes across the globe. Looking ahead to the years 2040 and 2050, there is no doubt that the world will differ significantly from what it is today. NTT views these impending changes as opportunities and is committed to its ongoing transformation. To that end, it is imperative for us to continuously evolve our business portfolio. However, this is not as simple as suddenly deciding to venture into entirely new business domains. It is crucial for the NTT Group to leverage its existing technologies and expertise, consolidate its personnel, collaborate with partners across various sectors, and work tirelessly to solve the issues facing society. To continue to be people's company of choice, one that supports the sustainability of society, we will place emphasis on dialogue with our investors and with all other stakeholders as we continue to meet their expectations.

## Connect, Trust, Integrity

One of NTT's core strengths is its ongoing commitment to integrity, earning trust, and continuing to build on its efforts step by step. Delivering reliable products naturally leads to a greater degree of trust, and a consistent foundation of integrity is essential for this cycle to function. We define "Connect," "Trust," and "Integrity" as the Shared Values constituting the foundation that unites our employees—our DNA, as it were. These key terms have been established through extensive global discussions, and must be preserved moving forward. Given that NTT's origins lie in telecommunications, the concept of "Connect" also encapsulates the critical element of human connection. Trust is indispensable when it comes to forming meaningful human connections, and establishing Trust requires a foundation of Integrity. With these three cornerstone values in place, customers can forge lasting relationships with NTT. This "DNA" also plays a pivotal role in contributing to the achievement of a sustainable society. For instance, NTT DATA Japan launched an emergency medical service in 2012 in which patients are loaded into ambulances and crucial data is quickly entered on a tablet in the ambulance to be sent to the receiving hospital. This solution was first provided in Takamatsu City. A decade later, it has expanded across Kagawa Prefecture and has been adopted in other prefectures as well.

Another example is a project that began 10 years ago to digitize ancient books in the Vatican Library. This project involves creating digital archives with funding in the form of donations from all over the world. Nowadays, this initiative has been extended to include efforts in Japan, such as digitizing texts from Mount Koya and the Kobo Daishi era from more than a thousand years ago. Additionally, NTT ArtTechnology Corporation, established in 2021, focuses on leaving a legacy for future generations. For example, the company is creating a business that digitizes Hokusai's paintings and examines how to display them to future generations, as well as how to display other delicate items such as paintings created around the world. In this manner, we aim to achieve growth in our business and advancements in sustainability initiatives at the same time while also capitalizing on the DNA of the NTT Group. We remain committed to consistently delivering services that enhance our customers' businesses and lifestyles.

## Recent Performance and Human Capital Initiatives

Since taking office as CEO in June 2022, I've focused on a significant theme: transforming the NTT Group into an entity that delivers new experiences and excitement to our customers. This has been our concerted effort over the past year. We have become increasingly diligent in questioning whether the products and services we offer are genuinely satisfying our customers. In today's competitive environment, any stagnation, however minor, can ultimately impact the organization as a whole. We must continue to strive to satisfy our customers. Fueled by this sense of urgency, and as a result of the reforms we have implemented, the NTT Group's consolidated results for fiscal 2022 has set new records, with increases in operating revenues, operating profit, and net income. This achievement partly reflects the gradual impact of our Group-wide reorganization, and it is also the result of our unwavering commitment to cost-efficiency and successfully meeting our customers' digitization and other needs on the front lines of each company.

Despite escalating global tensions, rising electricity costs, increased interest rates, inflation, and semiconductor shortages, our fiscal 2023 performance forecast plans for new record highs in operating profit and net income. We believe that by harnessing the collective strength of the NTT Group's 340,000 personnel, we can navigate this uncertain landscape and achieve our goals.

To this end, it is crucial to establish an environment where a diverse array of talented individuals can fully exercise their abilities. The NTT Group in Japan introduced a job-based personnel system for all managers in October 2021, and in April 2023, we revised the personnel system for general employees with a focus on specialization. Our aim is to support the autonomous career development of each and every employee and enhance their engagement by providing a system that encourages growth. We aim to continue transforming our company into one where each individual feels a sense of growth, fulfillment, and excitement in their work.

In addition, a conviction I have held since the beginning of my tenure is to always focus on the

front lines and be there for every single employee. To put this into practice, I have been hosting dialog sessions with employees both in Japan and overseas. I have organized these sessions not only within Japan, but also in North America, South America, Asia, and Europe. In terms of within Japan, there have been discussions with employees in solutions, urban development, smart agriculture, XR, and digital comics. I believe that by being present with employees who are making daily efforts on the front lines in a wide variety of sectors, understanding their perspectives, and integrating them into our managerial decisions, we can further enhance the NTT Group's corporate value.



Dialogue with members of NTT Asia Pacific Pte. Ltd and the Singapore subsidiary (Singapore)

## NTT as a Creator of New Value and Accelerator of a Global Sustainable Society

This past May, we announced our new Medium-Term Management Strategy, “New Value Creation & Sustainability 2027 Powered by IOWN.” As our Basic Policy, we have declared that “Innovating a Sustainable Future for People and Planet.”

Based on this guiding philosophy, we have identified three major pillars for our specific initiatives. The first pillar is “NTT as a Creator of New Value and Accelerator of a Global Sustainable Society.” Sustainability and business do not conflict with one another. Our vision for a sustainable society is to realize both, rather than having to choose only one. We aim to resolve a variety of social issues, contributing to a world where Earth and humanity can sustainably coexist—striving for a resource-recycling future, not a resource-consuming one. This message is embedded within our medium-term strategy. The second and third pillars serve as mechanisms to support the first,





Dialogue with NTT DATA Business Solutions members (Germany)

with the second being "Upgrading the Customer Experience (CX)" and the third "Improving the Employee Experience (EX)." Everything new comes from people. To achieve our goal, we need our employees to be lively, feel job satisfaction, and take on challenges. Creating excitement in each employee (namely, EX), will form a small ring in NTT's Dynamic Loop logo, generating CX that will lead to greater customer satisfaction, which is the big ring. We will only be able to make our customers feel excitement if our employees feel excitement and joy. Moreover, the "thank you" from customers increase our motivation. This virtuous cycle of CX and EX will deliver value to the world, and be the driving force in creating a sustainable society.

To that end, we will expand our investments in growth areas, with plans to invest eight trillion yen over the next five years, a 50% increase over prior investments. Including existing areas, the total investment amount comes to 12 trillion yen. Moreover, we are looking to expand our cash generation capacity for the future. EBITDA (Earnings Before Interest, Taxes, Depreciation, and Amortization), an indicator that shows how much cash flow a company has generated through its core business, has been flat thus far. However, through expanding investments in growth areas, we aim to achieve a 20% increase in EBITDA, with a target of four trillion yen by fiscal 2027. We intend to generate new cash flows through these growth investments and channel them into further growth initiatives.

We will strive to continually transform the NTT Group's business portfolio by consistently staying abreast of global trends and shifts, focusing on regions and sectors where we can leverage our strengths through a comprehensive market-in approach that centers customer needs.

## ■ Initiatives for Shareholder Returns/Expanding the Investor Base

Contributing to the creation of a sustainable society through our business and delivering the resulting benefits to our shareholders remains a key management issue. Our approach of ensuring consistent dividend growth and flexible share buybacks remains unchanged within our new medium-term management strategy.

For fiscal 2023, we plan a 13th consecutive year of dividend growth, which will result in a 10-fold increase in the dividend per share compared to 20 years ago. Regarding share buybacks for fiscal 2023, a resolution was made in August to buy back up to 200 billion yen of our own shares.

Additionally, in July, we dramatically reduced the investment unit through a 1:25 stock split. In anticipation of the new NISA system starting in 2024, we aim to facilitate investment in NTT shares and broaden our individual investor base across a diverse range of generations who share our belief in the NTT Group's sustained growth.

To meet the expectations of our many stakeholders, our mission is to continue to contribute to the realization of a better society by placing sustainability at the core of our management. We will continue to take on the challenge of making NTT an organization that supports a global sustainable society through the creation of new value.

We sincerely hope for your continued support in the years ahead.



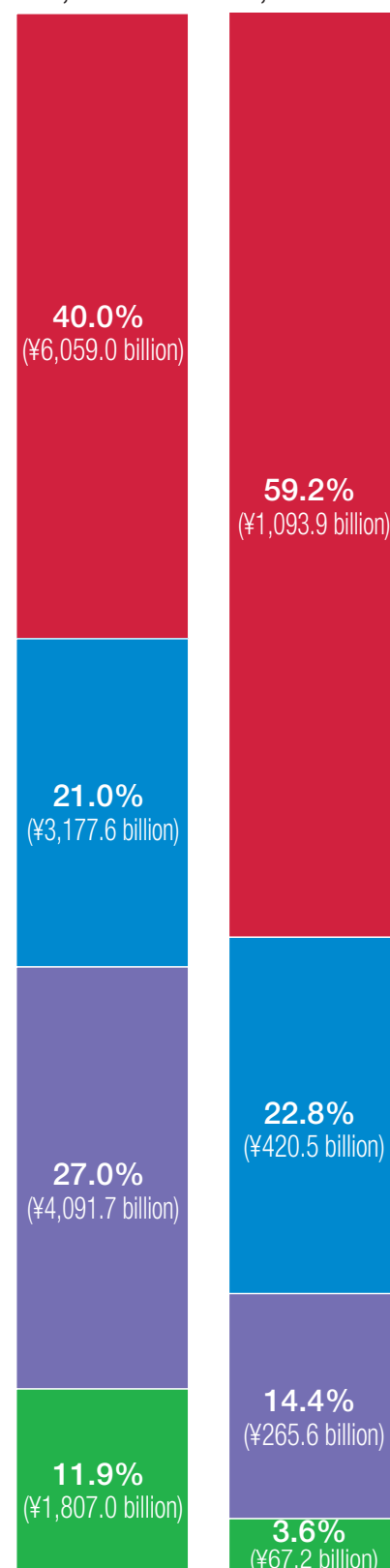
# NTT at a glance



Business	Services and Main Companies
Integrated ICT Business	<p>The principal services in the Integrated ICT Business are mobile phone services, domestic inter-prefectural communications services, international communications services, solutions services, and system development services and related services.</p>
Regional Communications Business	<p>The principal services in the Regional Communications Business are domestic intraprefectural communications services and related ancillary services.</p>
Global Solutions Business	<p>The principal services in the Global Solutions Business are system integration services, network system services, cloud services, global data center services, and related services.</p>
Others (Real Estate, Energy and Others)	<p>Other Group companies</p> <p>Others include the real estate business, energy business and others.</p>

Operating Revenues  
(FY2022)  
¥13,136.2 billion

Operating Profit\*  
(FY2022)  
¥1,829.0 billion



\*Percentage of simple sum of each segment (including intersegment transactions)



## Financial Highlights (International Financial Reporting Standards (IFRS))

Unit: Billions of yen

	FY2020	FY2021	FY2022
Operating revenues	11,944.0	12,156.4	13,136.2
Operating profit	1,671.4	1,768.6	1,829.0
Profit attributable to NTT	916.2	1,181.1	1,213.1
Total assets	22,965.5	23,862.2	25,308.9
NTT shareholders' equity * <sup>1</sup>	7,562.7	8,282.5	8,561.4
Capital Investment	1,728.3	1,687.6	1,862.4
EBITDA* <sup>2</sup>	3,111.6	3,247.1	3,290.2
EPS (Yen) after stock split * <sup>3</sup>	9.9	13.2	13.9
EPS (Yen) before stock split	248	329	348
ROE (%)	11.0	14.9	14.4
ROIC (%)	7.2	7.5	7.4
Cash flows from operating activities * <sup>4</sup>	3,009.1	3,010.3	2,261.0
Cash flows from investing activities	(1,424.5)	(1,699.2)	(1,736.9)
Free cash flows (Cash flows from operating activities + Cash flows from investing activities)	1,584.5	1,311.1	524.1
Cash flows from financing activities	(1,689.5)	(1,438.1)	(590.2)

\*<sup>1</sup> NTT shareholders' equity does not include the portion attributable to non-controlling interests.\*<sup>2</sup> EBITDA = Operating income + Depreciation and amortization + Loss on sales of property, plant and equipment + Impairment loss

NTT Group has excluded all depreciation expenses related to right-of-use assets from EBITDA and depreciation, as a component of EBITDA.

\*<sup>3</sup> NTT conducted a 25-for-1 stock split of its common stock with an effective date of July 1, 2023. The figures reflect the impact of this stock split.\*<sup>4</sup> If the closing date falls on a holiday, the effects of that (such as the postponement of accounts receivable payment deadlines from the end of the month to the beginning of the following month) are excluded.

## Non-financial Highlights

Indicator <sup>5</sup>			FY2020	FY2021	FY2022
Climate change	Greenhouse Gas Emissions	Scope 1, 2	3.99 million tons	2.90 million tons	2.53 million tons
		Scope 3 <sup>6</sup>	22.23 million tons	20.82 million tons	19.49 million tons
Human capital	Employee Engagement Rate		—	57%	57%
	New Female Manager Promotion Rate		—	29.1%	29.7%
	Male Childcare Leave Rate		—	—	114.1%
	Direct Dialogue Rate with Key Suppliers		—	—	100%
Creating new value	Amount of B2B2X Revenues		—	¥544.1 billion	¥815.4 billion
Resilience	Number of Serious Incidents <sup>7</sup>		2	1	3
	Number of Telecommunications Service Interruptions due to External Cyberattacks		0	0	0

\*<sup>5</sup> The scope of the above indicators is as follows.

Greenhouse Gas Emissions: our company and its consolidated subsidiaries

Employee Engagement Rate: about 100 domestic Group companies (we plan to extend this to our overseas Group companies in the future)

New Female Manager Promotion Rate/Male Childcare Leave Rate: six major domestic companies (NTT, NTT DOCOMO, NTT Communications, NTT East, NTT West, and NTT DATA Japan)

Direct Dialogue Rate with Key Suppliers: 40 companies chosen each year from among the key suppliers who account for more than 90% of the total procurement expenditures of the NTT Group (as of fiscal 2022, this includes 126 companies)

Amount of B2B2X Revenues: the Integrated ICT Business Segment, the Regional Communications Business Segment, and the Global Solutions Business Segment

Number of Serious Incidents/Number of Telecommunications Service Interruptions due to External Cyberattacks: four specified public institutions (NTT East, NTT West, NTT Communications, and NTT DOCOMO)

\*<sup>6</sup> Estimated based on the Ministry of the Environment's "Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain."\*<sup>7</sup> A "significant incident" is defined as an event meeting the following conditions that disrupt or degrade the quality of telecommunications services:

- Voice services that handle emergency calls (110, 119, etc.): Lasting more than 1 hour and impacting over 30,000 people
- Voice services that do not handle emergency calls: Lasting more than 2 hours and impacting over 30,000 people, or more than 1 hour and impacting over 100,000 people
- Internet-related services (free): Lasting more than 12 hours and impacting over 1 million people, or more than 24 hours and impacting over 100,000 people
- Other services: Lasting more than 2 hours and impacting over 30,000 people, or more than 1 hour and impacting over 1 million people

# NTT's Vision for a Sustainable Society

## —NTT Group Global Sustainability Charter—

In today's society, there exist conflicting phenomena that cannot be understood in a black-and-white manner, whether it be global versus local, environmental versus economic, or human rights issues. It is also true that a single phenomenon can have a different meaning and significance based on the perceiver.

NTT believes that realizing a paraconsistent society, in which these opposing concepts and phenomenon are included and diverse values are accepted, will contribute to the realization of a sustainable society.

The concept of “Self as We” will form the basis of NTT Group's efforts to contribute to the realization of such a sustainable society.

Through this concept, people are encouraged to find themselves within the “We” and to realize that we are supported by the connections between diverse people, things, and technologies. We look to implement various initiatives founded on the principles of altruistic co-existence through which people will seek to increase their happiness along with the happiness of others. The “Self as We” concept casts light on the need to contribute to the realization of a sustainable society through initiatives for ensuring the positive coexisting of nature and humanity, improving prosperity for all people and cultures, and maximizing well-being for all.

### NTT's Vision of a Sustainable Society

Conflicting phenomena exist in society  
Cannot be understood with traditional dualistic thinking

Events differ depending on the actor  
Different reality or meaning depending on perspective

Paraconsistent  
(concepts achieved inclusively)

Vision for a “Sustainable Society”

Basic Philosophy

Promoting “Self as We”

### NTT Group Global Sustainability Charter

#### NTT Group Global Sustainability Charter

Ensuring the positive  
coexisting of nature and  
humanity

Addressing Environmental  
Challenges

Improving Prosperity for  
All People and Cultures

Addressing Social Issues

Maximizing Well-being  
for All

Addressing Human Rights,  
Diversity & Inclusion

#### Complementary Policies, etc.

Environment and  
Energy Vision

New Management Style

Human Rights Policy

## Process for Selecting Important Issues (Comprehensiveness and Priority of the 30 Activities)

Material issues (materiality) are selected **as 30 activities** using the following steps based on the GRI materiality standards and processes.

The 16 activities plotted in areas I, II, and III are classified into four more important categories (climate change, human capital, new value creation, and resilience). We disclosed our strategies, indicators, and targets for each of the more important items in our 38th Annual Securities Report, "Sustainability-Related Principles and Initiatives."

### STEP1 Identifying material issues

Using evaluation organizations like third party institutions, ISO 26000 and GRI Standards, global trends, internal workshops, and materiality at other companies as a guide, we identify material issues through comprehensive review of new problems related to sustainability, in order to discuss and select important issues that the NTT Group should address on a global scale.

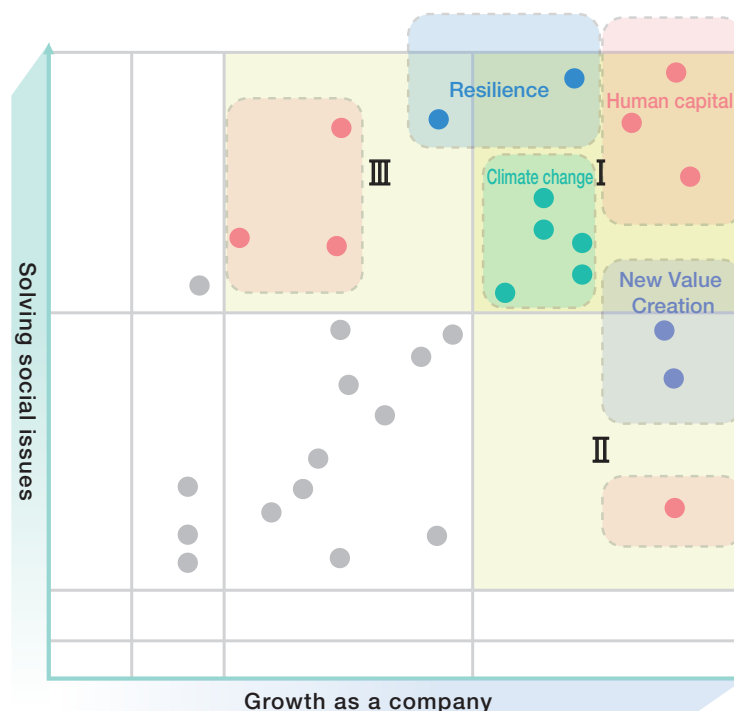
### STEP2 Setting priorities

NTT assesses the priorities to be addressed based on their impact on two aspects, "Growth as a company" and "Solving social issues." To achieve management that simultaneously helps resolve social issues and achieve business growth, NTT assesses priorities by incorporating the opinions of outside experts.

### STEP3 Confirming validity & approval

NTT also incorporates the opinions of third parties from a global perspective, which are then deliberated by the Sustainability Committee and approved by the Board of Directors.

\* These are reviewed regularly (once per year) and revised when necessary.



## Organization for Implementation

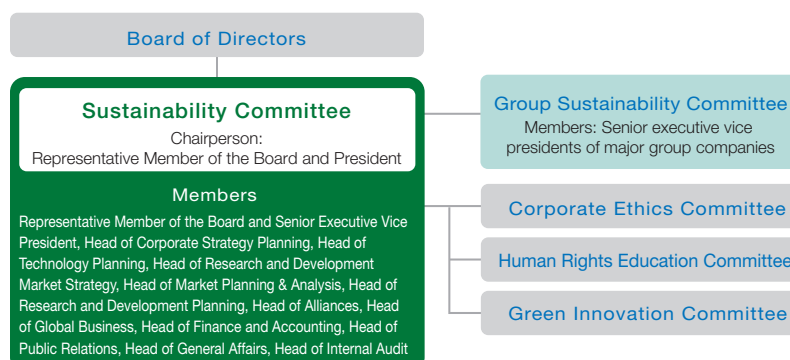
The NTT Group regards the promotion of sustainability as an important management issue, and items of particular importance, such as creating environmental targets for the entire Group, are decided based on discussions held with directors. Under the governance structure overseen by the Directors, we have established a Sustainability Committee (chaired by the President and Chief Executive Officer) directly reporting to the Board. This committee is responsible for managing the policy direction and progress of sustainability initiatives across the entire Group. Policies related to sustainability (the Charter and creating and abolishing accompanying policies, particularly deciding critical

indicators) will be decided by the Board of Directors via the Sustainability Committee. In addition, the Sustainability Committee includes the Corporate Ethics Committee, Human Rights Committee, and Green Innovation Committee to handle the individual topics relevant to each sub-committee. Furthermore, Group Sustainability Committee meetings (with senior executive vice presidents and others from major Group companies) are held to share common challenges and successful examples from each Group company, as well as to monitor progress on sustainability implementation with respect to PDCA cycles and further promoting a sense of unity throughout the Group.

### ● Sustainability Initiatives

In fiscal 2022, the Sustainability Committee convened on one occasion, while the Group Sustainability Committee convened twice. These meetings focused on discussing strategies towards achieving net-zero emissions, as well as the incorporation of sustainability metrics into performance-based bonuses, specifically employee engagement rates. The findings were subsequently reported to the Board of Directors.

### ● Sustainability Promotion System





# Key Sustainability Issues and Topics for Fiscal Year 2023

Out of the 30 activities outlined in NTT Group Global Sustainability Charter, 16 have been selected as key sustainability issues for this year. These issues are organized under the four main categories of Climate Change, Human Capital, New Value Creation, and Resilience, and key indicators have been established for each.

3 Themes	9 Challenges	30 Activities
<b>Ensuring the positive coexisting of nature and humanity</b>	<b>Moving toward a decarbonized society</b>	1) Promoting energy conservation 2) Reducing power consumption by introducing IOWN technologies 3) Developing and expanding the use of renewable energy 4) Providing new services that contribute to carbon neutrality 5) Creation of innovative environment and energy technology
	<b>A commitment to a resource-recycling future</b>	6) Increasing the reuse and recycling of communications equipment, mobile terminals, and other technologies 7) Reduction in plastics use and promotion of recycling 8) Proper treatment, storage, and management of hazardous waste 9) Appropriate and efficient management of water resources
	<b>A future where people and nature are in harmony</b>	10) Thoroughly implementing environmental assessments 11) Contributing to natural ecosystem conservation
<b>Improving Prosperity for All People and Cultures</b>	<b>Establish shared ethical standards</b>	12) Establishing and thoroughly complying with ethical standards 13) Appropriately managing conduct risk 14) Thoroughly reinforcing corporate governance and compliance 15) Sharing high ethical standards with business partners
	<b>Prepare for a new future with the power of digital technologies</b>	16) Promoting the B2B2X model 17) Protection and respect for intellectual property 18) Contribution to the revitalization of local communities and economies
	<b>Moving toward a safe, secure, and resilient society</b>	19) Ensuring the stability and reliability of services 20) Strengthening information security and personal information protection 21) Promoting a decentralized society based on remote work
<b>Maximizing Well-being for All</b>	<b>Respect for human rights</b>	22) Compliance with the NTT Group Global Human Rights Policy 23) Encouraging society as a whole to respect human rights
	<b>Diversity &amp; Inclusion</b>	24) Promoting recruitment, training, and education of diverse human resources and women's advancement in the workplace 25) Encouraging of understanding of LGBTQ and promoting the advancement of disabled people 26) Support for balancing work and life such as childcare and nursing care
	<b>Creating new work styles and workplaces</b>	27) Promoting remote work and other workplace models 28) Achieving zero fatal accidents as well as maintaining and promoting employee health 29) Supporting autonomous capacity development 30) Promoting paperless operations

Selection of Material Issues (16 Items)	Four Key Categories	Principal Indicators
1) Promoting energy conservation 2) Reducing power consumption by introducing IOWN technologies 3) Developing and expanding the use of renewable energy 4) Providing new services that contribute to carbon neutrality 5) Creation of innovative environment and energy technology	<b>Climate change</b>	<ul style="list-style-type: none"> <li>• Greenhouse Gas Emissions</li> </ul>
22) Compliance with the NTT Group Global Human Rights Policy 23) Encouraging society as a whole to respect human rights 24) Promoting recruitment, training, and education of diverse human resources and women's advancement in the workplace 25) Encouraging of understanding of LGBTQ and promoting the advancement of disabled people 26) Support for balancing work and life such as childcare and nursing care 28) Achieving zero fatal accidents as well as maintaining and promoting employee health 29) Supporting autonomous capacity development	<b>Human capital</b>	<ul style="list-style-type: none"> <li>• Employee Engagement Rate</li> <li>• New Female Manager Promotion Rate</li> <li>• Male Childcare Leave Rate</li> <li>• Direct Dialogue Rate with Key Suppliers</li> </ul>
16) Promoting the B2B2X model 18) Contribution to the revitalization of local communities and economies	<b>New value creation</b>	<ul style="list-style-type: none"> <li>• Amount of B2B2X Revenues</li> </ul>
19) Ensuring the stability and reliability of services 20) Strengthening information security and personal information protection	<b>Resilience</b>	<ul style="list-style-type: none"> <li>• Number of Serious Incidents</li> <li>• Number of Telecommunications Service Interruptions due to External Cyberattacks</li> </ul>

# Climate Change

## Related New Medium-Term Management Strategy Initiatives

### 1 NTT as a Creator of New Value and Accelerator of a Global Sustainable Society

- ① IOWN-Driven Creation of New Value (from concept to commercialization)
  - i. Establishment of manufacturing company for photonic-electronic convergence devices
  - ii. Acceleration of IOWN research and development/ commercialization
- ② Data-Driven Creation of New Value
  - i. Strengthening the personal business
  - ii. Strengthening the use of DX/data in society and industry
  - iii. Expansion and upgrade of data center infrastructure
- ③ Achievement of a Circular Economy Society
  - i. Develop sustainability solutions for customers
  - ii. Creating Circular Economy businesses
  - iii. Progression towards Net-Zero
- ④ Further Strengthening of Business Foundations

### 2 Upgrading the Customer Experience (CX)

- ① Fusion of Research and Development with a Market-Focused Strategy
- ② Strengthening of Services that Emphasize Customer Experience (CX)

### 3 Improving the Employee Experience (EX)

- ① Open and Innovative Corporate Culture
- ② Support Career Growth
- ③ Global Benefits for Employees and their Families

## Strategies Related to Climate Change

### Risks

Given the widespread acknowledgement of climate change as a significant global risk, insufficient measures or disclosures on NTT Group's part for climate change and resource circulation could potentially undermine the understanding and support of our stakeholders, including customers, partners, shareholders, employees, and communities, thereby affecting our business operations. Additionally, the introduction of new laws and regulations, or the tightening thereof, could increase our costs, impacting the NTT Group's business performance and financial conditions.

### Addressing Risks

To address these risks, NTT Group formulated its NTT "Green Innovation toward 2040" environment and energy vision and is advancing initiatives to reduce its environmental impact to achieve carbon neutrality by 2040. Besides promoting renewable energy usage as part of its own efforts to promote green power, the company is also working to enhance its environmental energy initiatives and information disclosure by promoting IOWN research and development aimed at achieving extremely low power consumption, introducing an internal carbon pricing system, and utilizing green bonds.

### Opportunities

With regard to opportunities, we are focusing on expanding renewable energy options at data centers, aiding in the development of processes for visualizing greenhouse gas emissions, and broadening the sale of green energy to both corporate and individual clients.

## Indicators and Targets Related to Climate Change

Indicator	Target	Results
Greenhouse Gas Emissions	<b>[Scope 1, 2]</b> FY2030: 80% reduction (compared to FY2013) FY2040: Carbon neutrality <b>[Scope3]</b> FY2040: Net zero	<b>[Scope 1, 2]</b> FY2022: 2.53 million tons, 45% reduction (compared to FY2013) <b>[Scope3]</b> FY022: 19.49 million tons, 18% reduction (compared to FY2018)

(Notes) 1. The scope of the greenhouse gas emission calculations includes our company and its consolidated subsidiaries.

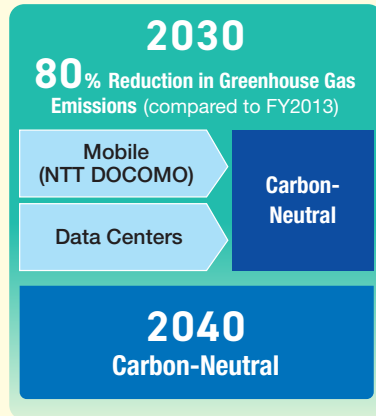
2. Scope 1 and 2 are in line with the Plan for Global Warming Countermeasures, which is outlined by the Japanese government, using fiscal 2013 as the base year. For Scope 3, the base year was set to fiscal 2018, the year calculations began under the same calculation scope currently being used, including our overseas Group companies.



## Initiatives Related to Climate Change in the New Medium-Term Management Strategy (Progression towards Net-Zero)

NTT Group aims to simultaneously achieve zero environmental impact and economic growth by reducing the environmental impact of its business activities and coming up with breakthrough innovations. In accordance with the “NTT Green Innovation toward 2040” that NTT Group announced in September 2021, with the aim of achieving zero environmental impact, we aim to include Scope 3 emissions in addition to our Scope 1 and 2 initiatives.

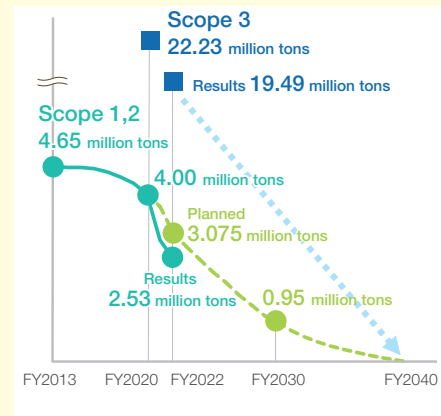
### NTT Green Innovation toward 2040<sup>\*1</sup>



### Expansion to Scope 3



### ● Illustration of NTT Group Greenhouse Gas Emission Reductions (Domestic + Overseas)

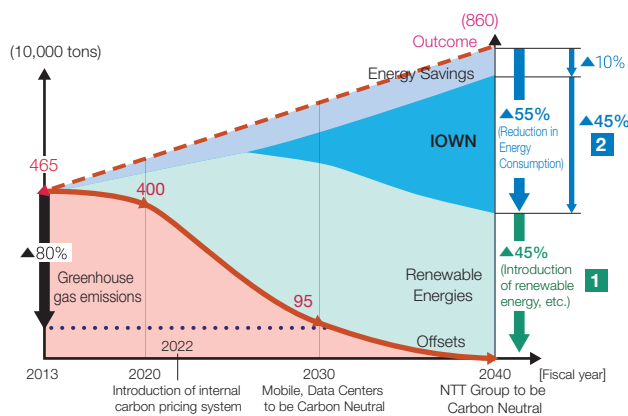


<sup>\*1</sup> GHG protocol: Scope 1 (own direct emissions of GHG) and Scope 2 (indirect emissions from using electricity, heat and steam supplied by other companies)

## Reduction of greenhouse gas emissions for Scope 1, 2

### Illustration of NTT Group Greenhouse Gas Emission Reductions (Domestic + Overseas)

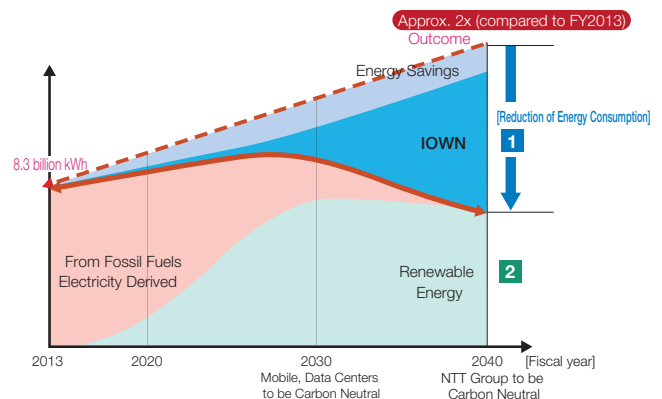
- **Increased use of renewable energy:** Reduce greenhouse gas emissions by 45%<sup>\*3</sup> **1**
- **Lower energy consumption with IOWN technologies:** Reduce greenhouse gas emissions by 45%<sup>\*4</sup> **2**



### Overview of Shifts in NTT Group's Energy Consumption (Domestic + Overseas)

Energy consumption outcome: will be approximately doubled by FY2040

- **Approximately half** of energy consumption will be reduced by introducing IOWN **1**
- **Renewable energies** will be introduced for the other approximate half<sup>\*5</sup> **2**



<sup>\*2</sup> GHG Protocol: for Scope 1 and 2

<sup>\*3</sup> Estimated Introduction of Renewable Energy (including actual renewable energy through Non-Fossil Fuel Certificates) FY2020: 1.0 billion kWh; FY2030 to FY2040: approx. 7.0 billion kWh

The introduction of renewable energy will have the optimal types of energy determined on the basis of each country's energy composition and other factors.

Approximately half of the domestic renewable energy usage is anticipated to be from energy sources owned by NTT (FY2030).

<sup>\*4</sup> Estimated reduction of energy consumption through the introduction of IOWN (comparison to outcome) →  
FY2030 target: Reduce by 2.0 billion kWh (15% reduction) FY2040 target: Reduce by 7.0 billion kWh (45% reduction)  
Percentage of introduction of IOWN (photonics-electronics convergence technologies, etc.) out of total energy volume → FY2030: 15%; FY2040, 45%

<sup>\*5</sup> Estimated Introduction of Renewable Energy (including actual renewable energy through Non-Fossil Fuel Certificates) FY2020: 1.0 billion kWh; FY2030 to FY2040: approx. 7.0 billion kWh

The introduction of renewable energy will have the optimal types of energy determined on the basis of each country's energy composition and other factors. Approximately half of the domestic renewable energy usage is anticipated to be from energy sources owned by NTT (FY2030).

## Climate Change

### Expansion of Renewable Energy Generation Business

#### Acquisition of Green Power Investment Corporation and Other Renewable Energy Operators

On August 3, 2023, NTT Anode Energy and JERA Co., Inc. (JERA) completed the acquisition of shares in Green Power Investment Corporation (GPI), owned by U.S. renewable energy operator Pattern Energy Group LP, based on the stock purchase agreement concluded on May 18, 2023.

Moving forward, NTT Anode Energy, JERA, and GPI will

#### ● Assets Acquired Through the Acquisition (Including portions owned by other companies)

Phase	Type	Total power generation capacity (10,000 kW)
Operational	Solar	5.6
	Onshore wind	28.1
Under construction	Onshore wind	8.0
	Offshore wind	11.2
In development	Onshore wind	Approx. 150*
	Offshore wind	(Before Public Announcement)

\* Applicable only to FIT-certified projects

In the NTT Group, as declared in our Environment and Energy Vision "NTT Green Innovation toward 2040", announced in September 2021, we are working towards the development of renewable energy power plants to achieve our target of an 80% reduction in greenhouse gas emissions by 2030. We have set a goal of introducing about 8 billion kWh of renewable energy by 2030, and this acquisition has brought us much closer to achieving this goal.

synergize their respective expertise, insights, and strengths in renewable energy operations, with the goal of contributing to Japan's goal of becoming carbon neutral by 2050 through further initiatives, thereby promoting the adoption of renewable energy within Japan.



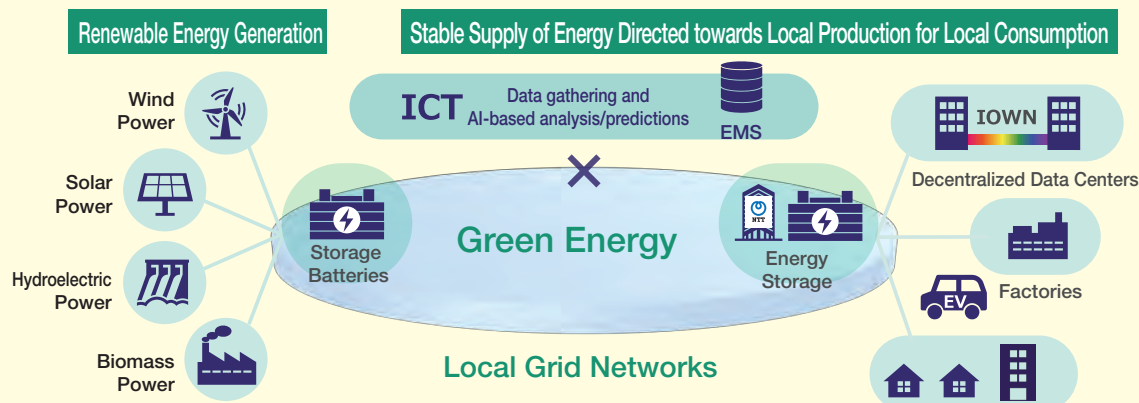
Wind Farm Tsugaru (Provider: GPI)

NTT Anode Energy is actively expanding its renewable energy generation business and promoting eco-friendly economic activities through the stable supply of locally produced, locally consumed, optimized, efficient electricity. This is in alignment with the NTT Group's new medium-term management strategy, "New value creation & Sustainability 2027 powered by IOWN," which aims for a resource-recycling future.

#### Initiatives Related to Climate Change in the New Medium-Term Management Strategy (Develop Sustainability Solutions for Customers)

We are looking to promote green solutions achieved through the combination of green energy and ICT, with an investment of approximately one trillion yen over the next five years.

We plan to expand renewable energy generation projects while ensuring stable power supply optimized at the local level, utilizing technologies like storage batteries and EMS<sup>\*1</sup>.



<sup>\*1</sup> Energy Management System

## Examples of Business Opportunities Resulting from Climate Change

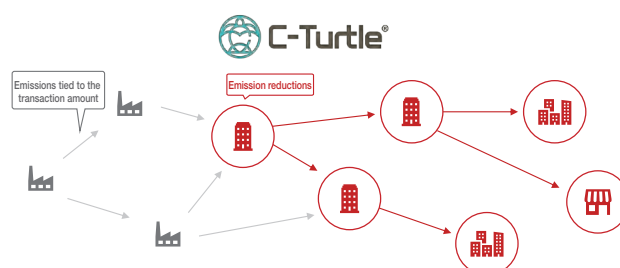
### Contributions to Reducing Society's Environmental Impact (1): ~NTT DATA Japan's Greenhouse Gas Emission Visualization Platform C-Turtle®~

NTT DATA Japan provides the greenhouse gas emissions visualization platform C-Turtle® to aid in the achievement of carbon neutrality for society as a whole. Recently, there has been a growing demand for companies to make their greenhouse gas emissions transparent. However, there are numerous options for calculation methods, making it challenging to select the most appropriate one. Typically, a company's emissions are calculated using the formula "Activity Level (purchased amount/number of procured products)" × "Emission Coefficient (a fixed emission level determined for each product, based on industry averages)." One problem with using industry averages is that it does not reflect any emission reductions made by individual suppliers in the company's indirect emissions (Scope 3 Categories 1 and 2). An alternative is the "Total Emissions Allocation Method," which uses the formula "Activity Level (amount of transactions per supplier)" × "Emission Coefficient per Supplier (emissions per unit revenue for each supplier)" instead of industry averages. A unique feature of C-Turtle® is its adoption of the "Total Emission Allocation Method," which not only calculates emissions but also incorporates actions taken

by suppliers to reduce emissions, enabling collaborative efforts.

In August 2022, we became the first Japanese company to sign a usage license agreement for greenhouse gas emissions data and other data on global companies held by the international NGO CDP<sup>\*1</sup>. This allows C-Turtle® to combine data collected by NTT DATA Japan with data held by CDP, enabling accurate emission calculations consistent with each company's actual emissions.

<sup>\*1</sup> CDP is an NGO run by a British charitable organization that operates a global information disclosure system that allows investors, companies, nations, regions, and cities to manage their environmental impacts. <https://www.cdp.net/en>



Because emission reduction efforts are integrated into downstream companies via transaction amounts, this will not only have an impact on the company itself, but lead to the decarbonization of society as a whole

### Helping Reduce Society's Environmental Impact (2): Introducing N.mobi, an EV Adoption and Operational Support Solution for Municipalities and Corporations

NTT Business Solutions Corporation (NTT Business Solutions) has teamed up with NTT Anode Energy Group to launch N.mobi, a comprehensive solution to assist municipalities and corporate clients in adopting EVs and optimizing electricity use through both EVs and EV batteries.

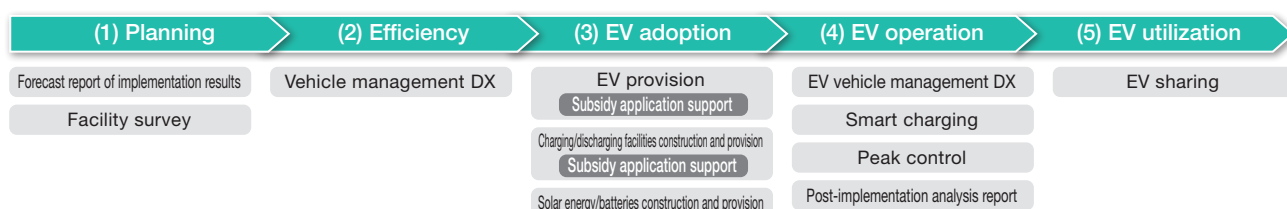
Amid a growing call for carbon neutrality initiatives, there is an increasing demand for using EVs as commercial vehicles. However, the higher vehicle costs of EVs compared to gasoline cars, as well as issues such as the rise in electricity bills due to increased peak demand from EV charging and limitations on driving range due to a lack of charging infrastructure, pose significant challenges for municipalities and corporations looking to adopt EVs. Against this backdrop, we offer visibility into the use of commercial vehicles by municipalities and corporations in an effort to optimize fleet sizes. We also assist in devising plans for a cost-effective transition to EVs. In addition to offering a charge control platform to manage electricity costs during EV operation and address the inconveniences related to mid-journey charging, we provide a one-stop solution for introducing EV vehicles, charging/discharging equipment,

and the design and construction of solar power generation facilities for PPA<sup>\*1</sup>). This allows us to offer ongoing support for our customers' transition to EVs for their commercial fleets.

Going forward, NTT Business Solutions and NTT Anode Energy Group aim to further enhance the utility of EVs by developing new features such as EV sharing between municipalities and corporations, and VPP<sup>\*2</sup> services that utilize numerous EVs within a community as virtual batteries. Together with municipalities and corporations, we will contribute to the creation of prosperous and sustainable local communities through optimal EV utilization.

<sup>\*1</sup> Power Purchase Agreement

<sup>\*2</sup> Virtual Power Plant





## Climate Change

### TCFD

#### Governance

The NTT Group regards the promotion of sustainability as an important management issue, and items of particular importance, such as creating environmental targets for the entire Group, are decided based on discussions held with directors.

Under the governance structure overseen by the Directors, we have established a Sustainability Committee (chaired by the President and Chief Executive Officer) directly reporting to the Board. This committee is responsible for managing the policy direction and progress of sustainability initiatives across the entire Group. Policies related to sustainability (the Charter and creating and abolishing accompanying policies, particularly deciding critical indicators) will be decided by the Board of Directors via the Sustainability Committee.

In FY2021, for the processes selected as key issues and activities to be addressed from among the sustainability-related issues, we used evaluation organizations like third party institutions, ISO 26000 and GRI Standards, global trends, internal workshops, and materiality at other companies as a guide to identify material issues through comprehensive review of new problems related to sustainability, in order to discuss and select issues that the NTT Group should address on a global scale. In addition, NTT assessed the priorities to be addressed based on their impact on two aspects, "Growth as a company" and "Solving social issues." To achieve management that simultaneously helps resolve social issues and achieve business growth, NTT assesses priorities by incorporating the opinions of outside experts.

The validity of the specific issues we have identified and their level of priority is subject to an annual review by the Board of Directors, following discussions within the Sustainability Committee. During the Board of Directors held on April 20, 2023, we determined four key categories for sustainability in fiscal 2023 based on the reviewed priorities: 1) Climate Change, 2) Human Capital, 3) New Value Creation, and 4) Resilience.

In relation to climate change, we are managing progress on greenhouse gas emissions and other factors through the Green Innovation Committee, a subcommittee under the Sustainability Committee, and the Group Green Innovation

Committee, which includes all companies within the NTT Group.

#### Risk Management

The NTT Group discusses risks and opportunities related to key sustainability issues at Sustainability Committee meetings and reports these to the Board of Directors.

Additionally, as part of the NTT Group's risk management process, the Business Risk Management Promotion Committee—headed by the senior executive vice president—along with the Group Business Risk Management Promotion Committee are central to establishing and operating a PDCA cycle for risk management, with the aim of anticipating and preventing the occurrence of the potential risks close at hand and minimizing losses in the event that risks do materialize. The processes concerning the identification, evaluation, and management of sustainability-related risks are integrated into the NTT Group's overall risk management framework.

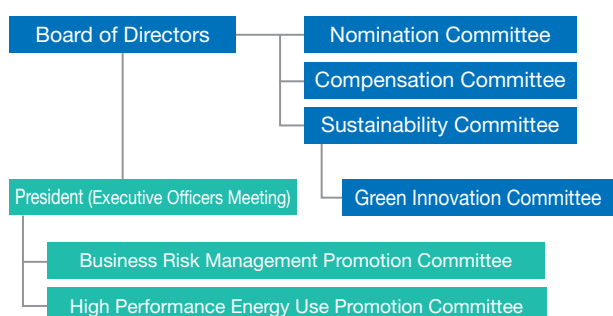
Climate change is treated as one of the business environment and strategy-related risks within the Business Risk Management Promotion Committee.

#### Strategy

The NTT Group formulated its Environment and Energy Vision "NTT Green Innovation toward 2040" and is advancing initiatives to reduce its environmental impact to achieve carbon neutrality by 2040. Besides promoting renewable energy usage as part of its own efforts to promote green power, the company is also working to enhance its environmental energy initiatives and information disclosure by promoting IOWN research and development aimed at achieving extremely low power consumption, introducing an internal carbon pricing system, and utilizing green bonds.

With regard to opportunities, we are focusing on expanding renewable energy options at data centers, aiding in the development of processes for visualizing greenhouse gas emissions, and broadening the sale of green energy to both corporate and individual clients.

Also, in alignment with our new medium-term management strategy announced in May 2023, the NTT Group is committed to achieving a Circular Economy Society. This includes promoting green solutions through the combination of Green Energy and ICT, expanding our renewable energy generation business, optimizing and efficiently securing a stable supply of locally produced, locally consumed electricity, recycling resources among various industries, and further accelerating regional development, all with the aim of creating a sustainable society. At the same time, we aim to extend the scope of "NTT Green Innovation toward 2040" to include Scope 3, as part of our efforts to achieve net-zero emissions.



## STEP 1 Scenario Definitions

Scenario	Overview	Reference Methodology for Scenario
Transition Risk Scenario	Scenario in which the decarbonization of society is achieved rapidly .....a future in which the target increase of 1.5°C has been attained	IEA World Energy Outlook 2022
Physical Risk Scenario	Scenario in which physical risks materialize ..... a future in which the average temperature has risen by 4°C	IPCC Sixth Assessment Report, Climate Change 2022: Summary for Policymakers (SPM) Based on Natural Science

## STEP 2 Risks and Opportunities Identified with Scenario Analysis (Overview)

Overview	Scenario <sup>*1</sup>		Type	Timeframe <sup>*2</sup>	Response
	1.5°C	4°C			
Increase in costs for decarbonization, renewable energy charges, and renewable energy implementation	Loss ▼	—	Transition risk (policy/regulations)	Long-term	<ul style="list-style-type: none"> <li>Initiatives for realizing the IOWN concept</li> <li>Introducing and expanding the use of renewable energy</li> <li>Promotion of energy conservation, high-efficiency data centers</li> </ul>
Social criticism related to fewer efforts toward ESG (drop in market share)	▼	Minor	Transition risk (market/criticism)	Long-term	<ul style="list-style-type: none"> <li>Proactive disclosure of information on environmental initiatives</li> </ul>
Expanding sales of services that help reduce society's environmental impact	▲ ▲	▲ Profit	Opportunity (products and services, energy)	Long-term	<ul style="list-style-type: none"> <li>Creating new services that contribute to carbon neutrality</li> <li>Increase in green electricity retail</li> </ul>
Achieve the IOWN concept	▲ ▲	▲	Opportunity (investment toward R&D)	Long-term	<ul style="list-style-type: none"> <li>Acceleration of DX and promotion of remote world</li> <li>Reduction of greenhouse gases across the supply chain</li> </ul>
Disasters caused by heavy rain and typhoons	—	▼	Physical risk (acute)	Short-term	<ul style="list-style-type: none"> <li>Provide disaster response and disaster prevention training</li> </ul>
Increased air-conditioning costs due to increasing temperatures	—	▼	Physical risk (chronic)	Long-term	<ul style="list-style-type: none"> <li>Promoting energy conservation</li> </ul>

\*1 Degree of impact with 1.5°C scenario and 4°C scenario in FY2030 \*2 Timeframes refer to Short-term (less than 3 years), Medium-Term (3 to less than 6 years), Long-term (6 years or more). Degree of impact expressed in 3 levels (▲, Low; ▲▲, Medium; ▲▲▲, High)

\*Estimated impact on annual profits:

- 1) If carbon pricing introduced (approx. -¥17 billion)
- 2) Increased cost of renewable energy charges and implementation of renewable energy (approx. -¥10 billion yen)
- 3) Repairs for damage caused by heavy rainfall and typhoons (FY2020: approx. -¥5 billion, FY2021: approx. -¥0.2 billion, FY2022: approx. -¥3 billion)
- 4) Higher air conditioning costs as temperatures rise (-¥0.6 billion if outdoor temperatures rise 1 degree)

[Assumptions and basis for calculations]

- 1) Carbon pricing (\$140 USD/t-CO<sub>2</sub>) x fiscal 2030 emission goals (Aim for 80% reduction by fiscal 2030 with a baseline of 4.65 million tons of Scope 1 + 2 emissions from fiscal 2013)  
<Carbon pricing: Estimated unit price for FY2030 on IEA World Energy Outlook 2022, Advanced economies: 140USD>
- 2) Renewable energy charges in FY2030: ¥4.1/kWh, FY2022: ¥3.45/kWh  
Estimate assumes certificates cost ¥1.0/kWh
- 3) Estimated impact from repairs to damage caused by heavy rainfall and typhoons from FY2020 to FY2022
- 4) Estimated air conditioning costs increase based on domestic electricity consumption in FY2022

## Indicators and Targets

## Climate Change Indicators and Targets

Indicator	Target	Results
Greenhouse Gas Emissions	<b>[Scope 1, 2]</b> FY2030: 80% reduction (compared to FY2013) FY2040: Carbon neutrality <b>[Scope3]</b> FY2040: Net zero	<b>[Scope 1, 2]</b> FY2022: 2.53 million tons, 45% reduction (compared to FY2013) <b>[Scope3]</b> 2022: 19.49 million tons, 18% reduction (compared to FY2018)

(Notes) 1. The scope of the greenhouse gas emission calculations includes our company and its consolidated subsidiaries.

2. Scope 1 and 2 are in line with the Plan for Global Warming Countermeasures, which is outlined by the Japanese government, using fiscal 2013 as the base year. For Scope 3, the base is fiscal 2018, the year calculations began under the same calculation scope currently being used, including our overseas Group companies.

## Climate change

## Column

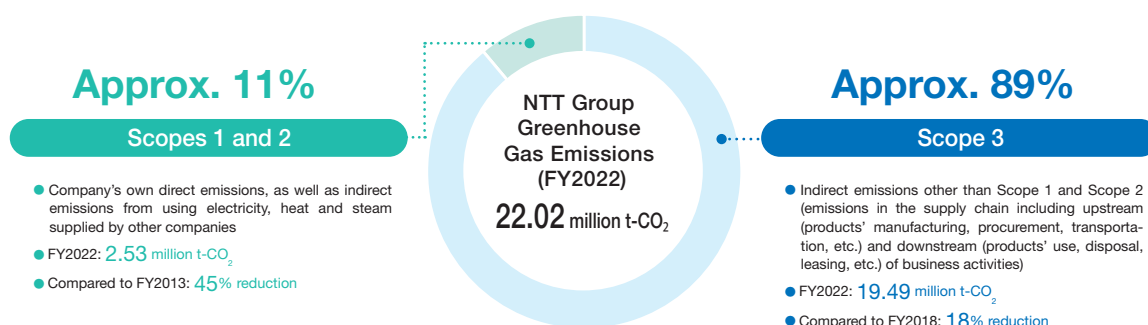
## Initiatives to reduce greenhouse gas emissions for Scope 3

To reduce greenhouse gas emissions under Scope 3, we will further strengthen cooperation with suppliers to reduce emissions during product manufacturing, and contribute to customers' decarbonization efforts by reducing emissions during product use.

As for our initiatives for suppliers, we are deepening understanding of decarbonization initiatives through briefings and direct dialogues on the NTT Group's initiatives toward net zero emissions, as well as providing support for visualization of suppliers' greenhouse gas emissions and formulation

of emission reduction targets. In addition, we promote the introduction of renewable energy and energy-saving equipment to our customers.

In fiscal 2022, we became the first telecommunications carrier in Asia to join Joint Audit Co-Operation (JAC), a joint audit consortium of global telecommunications carriers. Discussions are underway within the JAC through participation in the WorkStream toward reducing greenhouse gas emissions, and the entire telecommunications industry, beyond just our own companies, is working to reduce Scope 3 emissions.



## Column

## Procurement Through NTT Group Green Finance

NTT Group has formulated the NTT Group Green Finance Framework with the goal of strengthening its commitment to Group-wide efforts to achieve a sustainable society and promoting them vigorously, including from a financial perspective. Since its establishment in June 2020 as the NTT Group Green Bond Framework, this framework has been revised in accordance with the Group's initiatives for making a sustainable society a reality. NTT FINANCE CORPORATION (NTT FINANCE), the Group's core financial company, will issue green bonds or procure funds through green loans in accordance with the Green Finance Framework. The funds raised will be invested in

projects that contribute to solving environmental issues at Group companies.

When raising funds, NTT FINANCE will evaluate and select investment projects based on conformity with the NTT Group Global Sustainability Charter. It will also centrally manage procured funds and confirm their appropriation for projects. The Group will report annually on the allocation of funds and the project's environmental impact.

The Green Finance Framework as well as Fund Allocation Reporting and Impact Reporting are available on the NTT FINANCE website.

([https://www.ntt-finance.co.jp/ir/greenbond/index.html?link\\_id=g41l](https://www.ntt-finance.co.jp/ir/greenbond/index.html?link_id=g41l))

● Green Bond Issuance Status

June 2020	¥40 billion total	Target project: Green buildings
October 2021	¥300 billion total	
December 2021	EUR 1.5 billion total	Eligible projects: 5G-related investments, FTTH-related investments, R&D for achieving the IOWN concept, is considered equivalent
July 2022	USD 1.5 billion total	
July 2023	¥380 billion total	



## Column

## Contributing to Biodiversity Preservation and Transitioning to a Circular Economy

In our core business of telecommunications, the NTT Group is somewhat reliant on certain natural capital when conducting business activities.

With regard to our impact on natural capital, we investigated our impact on ecosystems with respect to the impact of mining on ecosystems and water resources resulting from use of metals in smartphones, and effects on the ecosystem with regard to the creation and operation of communication buildings, cables, wireless base stations, data

centers, and renewable energy facilities. We acknowledge that we have a limited impact on natural capital.

That being said, we believe the increasing focus on biodiversity and a recycling-oriented society opens up new business opportunities. We will continue to contribute to the achievement of a sustainable society through our business activities.

We will continue to verify and disclose risks and opportunities related to biodiversity and resource circulation for the NTT Group.

## TOPIC 1

## Biodiversity

We at the NTT Group are committed to carrying out environmental assessments for our facilities, including data centers and solar power installations. Guided by our unique Green Building Design Guidelines, we make an effort to understand the historical, social, geographical, and biological aspects of the environmental characteristics of building sites and their surrounding regions, incorporating them into our designs as necessary.

Additionally, we are engaged in supporting coral ecological surveys utilizing underwater drones to assist in the preservation of biodiversity in society.



Provider: Okinawa Institute of Science and Technology (OIST)

## TOPIC 2

## Appropriate management of water resources

In the context of NTT Group's business operations, we consume almost no water resources. According to statistics from the Ministry of Land, Infrastructure, Transport and Tourism, the annual water usage in Japan\* stands at approximately 25.2 billion cubic meters, comprising both residential and industrial consumption. By contrast, the NTT Group's water withdrawal amount is about 4.63 million cubic meters, accounting for less than 0.02% of Japan's total. Additionally, our water usage is dispersed across Japan, leading us to believe that there are no water sources significantly affected by our activities. Furthermore, the NTT Group has reduced its reliance on tap water by utilizing reclaimed water and rainwater.

At NTT DATA Italia, we offer cloud solutions optimized for water management operations to Acea, an Italian utility company involved in water and electricity services.

\*Based on data from the Ministry of Land, Infrastructure, Transport and Tourism website.

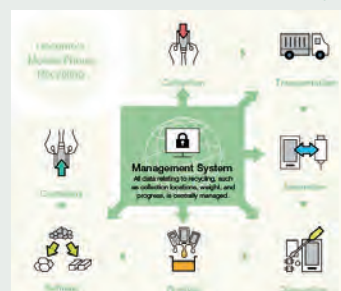
Water usage statistics for 2019 indicated an annual consumption of approximately 78.5 billion cubic meters—approx. 14.8 billion for residential use, approx. 10.3 billion for industrial use, and approx. 53.3 billion for agricultural use.



## TOPIC 3

## Increasing the reuse and recycling of communications equipment, mobile terminals, and other technologies

For fiscal 2030, the NTT Group has set the goal of achieving a recycling rate exceeding 99% for waste generated within the Group. Given that we offer a broad range of services, including telecommunications, significant resources are essential for maintaining business continuity. For this reason, we have established this objective to both mitigate business continuity risks and facilitate resource circulation. In fiscal 2022, our waste recycling rate stood at 98.2%. We are committed to furthering our recycling efforts to meet or surpass our target of 99%.



# Human Capital

## Related New Medium-Term Management Strategy Initiatives

### 1 NTT as a Creator of New Value and Accelerator of a Global Sustainable Society

- ① IOWN-Driven Creation of New Value (from concept to commercialization)
  - i. Establishment of manufacturing company for photonic-electronic convergence devices
  - ii. Acceleration of IOWN research and development/ commercialization
- ② Data-Driven Creation of New Value
  - i. Strengthening the personal business
  - ii. Strengthening the use of DX/data in society and industry
  - iii. Expansion and upgrade of data center infrastructure
- ③ Achievement of a Circular Economy Society
  - i. Develop sustainability solutions for customers
  - ii. Creating Circular Economy businesses
  - iii. Progression towards Net-Zero
- ④ Further Strengthening of Business Foundations

### 2 Upgrading the Customer Experience (CX)

- ① Fusion of Research and Development with a Market-Focused Strategy
- ② Strengthening of Services that Emphasize Customer Experience (CX)

### 3 Improving the Employee Experience (EX)

- ① Open and Innovative Corporate Culture
- ② Support Career Growth
- ③ Global Benefits for Employees and their Families

## Human Capital Strategy 1 <Strengthening Employee Engagement>

### Risks

In both the telecommunications and information services markets, various players, both domestic and international, are rapidly joining the fray. With services and equipment diversifying and becoming increasingly sophisticated, we anticipate that this landscape will continue to evolve at an accelerating pace, especially around cloud services. Given the situation, enhancing employee engagement is pivotal for improving productivity, sparking creativity, and retaining top-tier talent. Decreased engagement could adversely affect areas such as the development of new technologies, the introduction of new services, the refinement of existing services, and the execution of growth strategies, potentially impacting the NTT Group's financial performance.

### Addressing Risks

To address such risks, the NTT Group conducts employee engagement surveys and is intensifying efforts to tackle the challenges identified. We introduced a new personnel and salary system in April 2023 that is grounded in specialization. This system aims to cultivate an environment where each employee can acquire and exhibit higher degrees of expertise and skill. At the same time, through the expansion of open recruitment, we are providing more opportunities for our employees to challenge themselves and excel. In terms of managerial positions, we have adopted a job-based personnel system that facilitates optimal staff assignments irrespective of age or tenure. Additionally, we are establishing forums for bi-directional communication between management and employees to ensure that our corporate strategy is communicated and understood. Also, given that creating an environment where diverse talent can thrive serves as a foundation for improving employee engagement, we will continue our efforts to realize a balanced work-life environment.

### Opportunities

In terms of opportunities, we anticipate that boosting employees' willingness to take on challenges and acquire specialized skills will enhance their job satisfaction and sense of fulfillment. This, in turn, is expected to elevate employee engagement, thereby improving labor productivity and creativity across the NTT Group.

## Indicators and Targets Related to Strengthening Employee Engagement and Ensuring Diversity of Human Resources

Indicator	Target	Results
Employee Engagement Rate	To be improved (year-over-year)	FY2022: 57%
New Female Manager Promotion Rate	Each year: 30%	FY2022: 29.7%
Male Childcare Leave Rate	FY2023: 100%	FY2022: 114.1%

(Note) 1. The scope of the employee engagement rate calculation includes about 100 domestic Group companies (we plan to extend this to our overseas Group companies in the future).  
 2. The scope for the rate of newly appointed female managers and male employees taking paternity leave includes six major domestic companies: NTT, NTT DOCOMO, NTT Communications, NTT East, NTT West, and NTT DATA Japan.

### ● (Reference) Other Indicators and Targets Related to Diversity

	Indicator	Target	Results
Women	Hiring Ratio	Every year: 30%	FY2022: 35.8%
	Management Ratio	FY2025: 15%	FY2022: 10.4%
	Executive Officer Ratio	FY2025: 25-30%	June 2023: 21.0%
External Hires	Ratio of Mid-Career Hires	FY2023: 30%	FY2022: 40.7%

(Note) 1. The scope for the above indicators includes six major domestic companies: NTT, NTT DOCOMO, NTT Communications, NTT East, NTT West, and NTT DATA Japan.  
 2. As of the date of this report, the percentage of female board members at our company is as follows: 30.0% for directors, 40.0% for Audit & Supervisory Board Members, and 40.0% for executive officers.

## Group Human Resources Strategy

People are the driving force behind creating a sustainable society by delivering value to the world.

We place a strong emphasis on Employee Experience (EX) and are committed to creating a positive cycle where people are the key drivers of value.

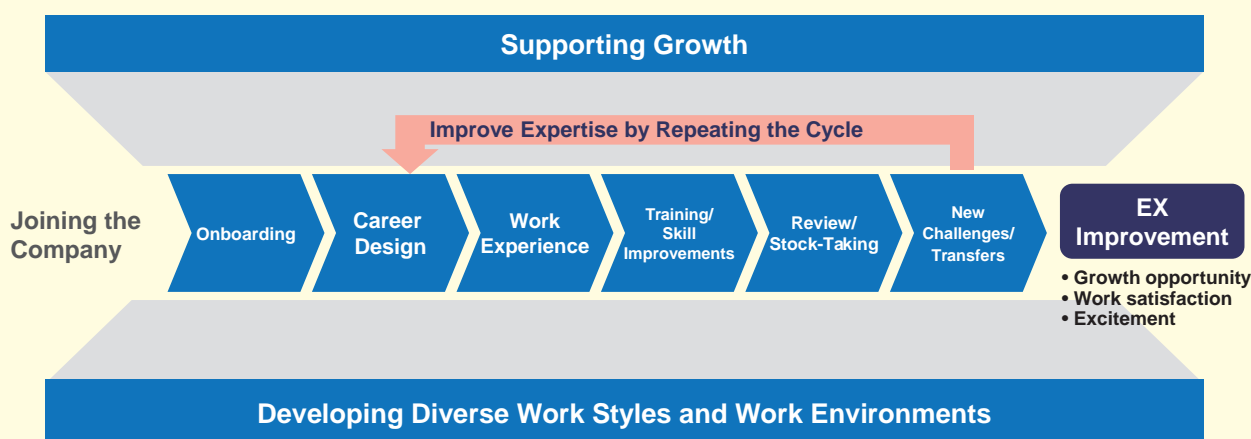
Within the NTT Group, we believe that the key to improving EX lies in a diverse group of employees taking charge of charting their career paths from the moment they are hired, gaining work experience, supplementing skills through training, and taking on new challenges after reflection and self-assessment.

To enable each employee to independently shape their career, as shown in the below diagram, we provide an environment of implementing various HR policies from both perspectives of **Supporting Growth** and **Developing Diverse Work Styles and Work Environments**. We strive to create an environment where each individual employee takes the initiative to act, thereby generating a sense of growth, job satisfaction, and excitement, and ultimately improving their EX.

### Initiatives Related to Human Capital in the New Medium-Term Management Strategy (Support Career Growth)

We will expand our human capital investments to assist employees in autonomously shaping their careers, thereby supporting the growth of our business.

In line with the specialized personnel system introduced this past April, we will enhance support for obtaining external qualifications and enrich training programs across 18 specializations. We will also expand career consulting functions to offer career design advice. Additionally, we will offer comprehensive career development support that includes life events like childbirth, childcare, and nursing care.



\*The scope of implementation of initiatives related to human capital described on page 32-38 applies to the main domestic group companies.

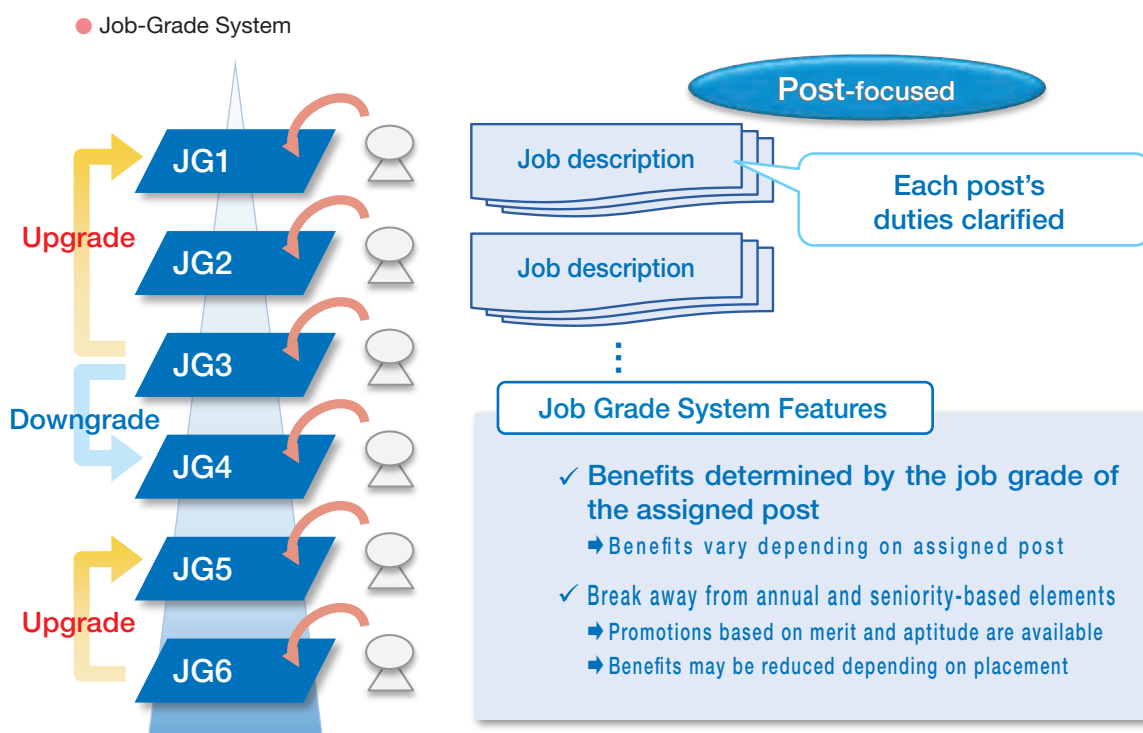


## Human Capital

### Supporting Growth: Reviewing the Human Resources System

As we shift our business structure and new value creation becomes a necessity, it is crucial to heighten the synergy between our business strategy and human resources more than ever.

The job-type personnel salary system we introduced for all management positions in October 2021 aims to break away from annual and seniority-based systems. It shifts the focus from placing the right person in the right job to finding the right job for the right person. This system more closely aligns compensation with both company and individual performance, thus enabling the positioning of talent where it is most needed to achieve strategies and creating expanded opportunities for employees to take on challenges.



For regular employees, we introduced a new personnel and salary system this April aimed at nurturing them into true professionals with high levels of expertise and skills who can carve out their own careers.

Specifically, we have established 18 specialized areas with an awareness of external markets, including sales (sales, SE, etc.), development (services, product development, etc.), IT (IT architects, IT specialists, etc.), infrastructure engineers, corporate (general affairs, human resources, finance, etc.), real estate and construction, smart energy, and research and development. We have also established “grading standards” that clarify the required expertise and level of action for each area. In addition, based on these “grading standards,” we have implemented an absolute evaluation system that allows high-performing employees to be duly recognized, abolished the minimum years of service required for promotions, and established a system in which employees are promoted and paid according to the degree of expertise they have acquired and demonstrated.

Moving forward, in every phase—from recruitment and development to placement—we aim to shift towards operations that emphasize specialization, thereby facilitating the autonomous career development of our employees.

In addition, coinciding with the introduction of our new personnel and salary system for regular employees focusing on specialized expertise, we have also established a Specialist Grade. This grade offers higher compensation to employees who possess particularly marketable skills and deliver exceptional performance.

By implementing a framework that allows for treatment on par with management roles based solely on high levels of specialization—without the need to become a manager—we intend to broaden career options for our employees, thereby boosting motivation and performance even further.

## Supporting Growth: Training Options and Career Consulting

To enhance the effectiveness of skill acquisition in the 18 specialized areas attuned to external markets, we have expanded our training programs. These now include roughly 650 courses structured around three main frameworks: (1) Training to support acquiring external certifications tailored to each area of specialization, (2) Training to improve unique specialized skills not solely obtained through certifications, and (3) Training to gain common skills necessary in various fields, such as facilitating meetings. Employees can select from these training programs based on their own career plans and skill development goals, and proceed with their learning accordingly.

However, we recognize that employees may find it challenging to choose the most suitable training program from the multitude of options available. To address this issue, we plan to introduce recommendation features into our Group-wide talent management system that are tailored to each employee's specialized field and rank.

In the context of our new personnel and salary system, it is essential that employees take an active and autonomous approach to designing their careers, leveraging their high levels of specialized expertise. However, a variety of factors, including the field in which they wish to work, desired roles and positions, specialized skills, strengths and weaknesses, and life events, can impact career planning. As such, some employees may require targeted support. To meet this need, we deployed Group-specific career consultants starting in July 2023. These consultants, who hold national certifications and are rich in experience, will provide individualized career advice to each employee.

Additionally, we plan to educate supervisors (primarily department heads; about 10,000 target individuals in fiscal 2023), who are considered the consultants most accessible to regular employees, on career consulting methodologies. By elevating the career consulting abilities of our supervisors, we aim to offer day-to-day and periodic interview-based support to employees as they shape their autonomous career paths.



## Column

### NTT University

In an ever-changing business environment, we operate NTT University as an initiative for developing a diverse range of management personnel who possess broad perspectives and experience and are filled with the ambition to lead the world. In addition to the Next Executive Course (Next EC) aimed at those striving to be promoted to executive officers within five years, in July 2023, we launched the Future Executive Course (Future EC) aimed at potential future executives.

We select personnel regardless of their years of service or age who are committed to becoming executives based on meritocratic principles, and we support their growth as management-level personnel. Centered around difficult assignments that entail solving critical and challenging management issues, we provide a mentoring program that offers opportunities for learning and insights through dialogue with current executives, as well as external conferences, seminars, training, and other selective support programs.

A total of approximately 180 students (30% women) spanning the first through third years in Next EC, as well as 130 first-year students in Future EC, are committed to becoming the next generation of leaders.

## Human Capital

### Supporting Growth: Diverse Career Paths (Diversified Hiring and Employment) and Side Jobs

We conduct a wide range of recruitment activities, and we do not limit ourselves to hiring new graduates, but also actively recruit experienced professionals. While we set a target of 30% for fiscal 2023, our performance for fiscal 2022 significantly exceeded this, reaching 40.7%.

Additionally, for both new graduates and experienced hires, we avoid uniform grading at the time of recruitment. Instead, to assign appropriate grades, we assess employee expertise and skills.

In terms of career planning after employees join the

company, we have introduced a Specialist Grade and a Professional Employee System to better reward high-performing staff. Our employees are excelling across various industries and sectors.

Moreover, we offer titles such as Fellow, Senior Special Researcher, and Special Researcher to individuals who have demonstrated high expertise in specific fields and are recognized globally as truly exceptional, top-class researchers with significant achievements.

#### ● Systems & Benefits with High Specialization

Specialist Grade	A new track that allows employees with high levels of specialization to receive benefits on par with managerial roles. <Examples> <ul style="list-style-type: none"> <li>Have achieved exceptional research outcomes as data scientists and are actively engaged in external activities</li> <li>Security engineers with advanced skills who handle complex cases and have an extensive network through written contributions and group activities</li> </ul>
Professional Employee System	A structure that enables highly specialized skills and experience in specific industries and fields to be fully leveraged, offering higher levels of compensation <Examples> <ul style="list-style-type: none"> <li>As a foremost authority in the financial payment sector, manage the entire wallet service business and actively pursue partnerships with strategic partners</li> <li>As a specialist in networking and IoT, also holds a position as a guest researcher at universities and makes appearances at numerous international conferences</li> </ul>
Fellow	A special title given to emblematic researchers who have exceptional research achievements that are recognized worldwide
Senior Special Researcher	A title given to exceptionally talented researchers from among the Special Researchers who are expected to provide long-term contributions
Special Researcher	A title given to innovative researchers recognized for their excellence around the world

Further, at NTT Group, to foster skill development and independent career growth, we encourage side jobs. This system allows employees to allocate a portion of their work hours to tasks in other departments while maintaining their responsibilities in their current roles.

Specifically, up to 20% of an employee's work hours can be devoted to tasks in another department for training purposes. This not only facilitates the practical application of

their current skills, but also offers the opportunity to acquire new skills and higher levels of specialization that may not be achievable in their existing roles. This system has been making headway in some Group companies, including NTT East, NTT West, and NTT DOCOMO.

Going forward, we plan to further expand the scope and create an environment that fosters proactivity and self-growth for employees within the NTT Group.

## Column

### NTT Group Job Board (Open Recruitment)

To enable each employee to take ownership of their careers and develop them autonomously, we have introduced a mechanism that supports personnel transfers for those who wish to take on challenges called the "NTT Group Job Board," which facilitates constant and timely application opportunities.

Since the initiation of this program on July 1, 2023, 602 job postings were listed by August.

We aim to continue transforming our company into one where employees are more active and each individual can experience growth, job satisfaction, and excitement.



## Developing Diverse Work Styles and Work Environments: Diversity & Inclusion

We promote diversity and inclusion for the sustainable growth of NTT Group and the realization of a sustainable society. We believe that in order to be a company that flexibly adapts to changes in the external environment and continues to create innovation, we must transform ourselves from a homogeneous organization to one in which a diverse

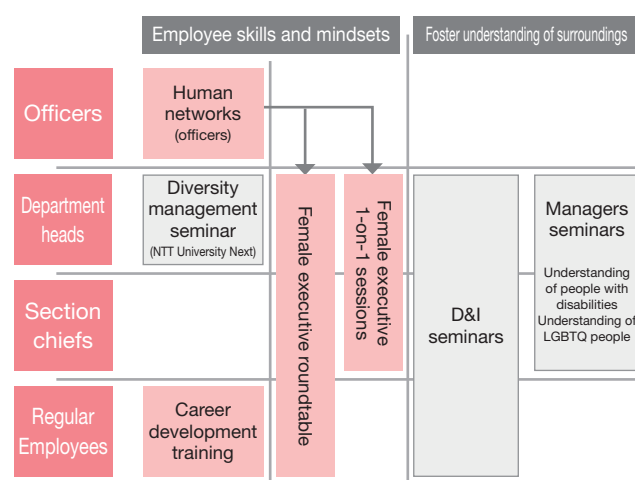
workforce thrives. We also believe that we can contribute to the realization of work-life balance and a sustainable society by improving the wellbeing of our employees, providing fair opportunities, and creating an environment in which diverse human resources can play an active role.

## Developing Diverse Work Styles and Work Environments: Women's advancement in the workplace

In the NTT Group, we have established numerical targets for female board members, female managers, and newly-appointed female managers to ensure that a diverse range of opinions is represented in decision-making processes. In June 2023, the percentage of female directors was 21.0% (+3.3 points year-on-year). With regard to fiscal 2022 results, the percentage of new female managers was 29.7% (+0.6 points year-on-year), and the percentage of female managers was 10.4% (+1.7 points year-on-year).

In terms of ensuring diversity, we aim for a continuous promotion of female employees into key managerial roles. At NTT University, we have maintained a female ratio of over 30% among the targeted participants. We carry out various training programs targeted at female employees across all layers of the organization, as well as for those returning from maternity leave and their superiors.

Also, in addition to off-the-job training, we provide on-the-job training, including putting employees in tough assignments, with the intention of training female employees with the skills, mindsets and experiences necessary for promotions.



## Developing Diverse Work Styles and Work Environments: Gender pay gap (indicator)

In our human resources and salary system, there is no wage gap based on gender.

The main factors for the wage disparity between men and women are as follows:

- (1) For regular employees:  
the ratio of women in managerial positions is lower than that of men
- (2) For non-regular employees:  
men occupy a larger percentage of high-paying specialized posts

NTT Group announced the Plan to Double the Number of Female Managers in December 2013, setting a target of 30% women in new graduate hires. Since fiscal 2013, we have been actively hiring women, leading to a younger age demographic among female employees, and currently, most are in non-managerial roles.

In September 2021, as part of the Transformation to a New Management Style, we set a target for 30% of newly appointed managers to be women. The numbers have been making steady gains, increasing to 29.1% in fiscal 2021 and 29.7% in fiscal 2022.

● Female employee wage ratio when male employee wages are set to 100 (Fiscal 2022)

All employees	Regular employment	(Repost) Managers	(Repost) Non-managers	Non-regular employment
76.8%	77.0%	91.5%	82.2%	79.3%

(Note) The data covers six major domestic companies (our company, NTT DOCOMO, NTT Communications, NTT East, NTT West, and NTT DATA Japan).



## Human Capital

### Developing Diverse Work Styles and Work Environments: Empowering Those with Disabilities

The NTT Group has an employment rate of people with disabilities of 2.51% (+0.04 points over the previous year), and employs approximately 4,000 people with disabilities. Among them, about 1,000 are working in our special subsidiary companies\*. In addition to direct employment at workplaces, at our special subsidiaries, examples of work that are performed by people with disabilities include web accessibility diagnosis, production of hand-made paper

from recycled paper, office massages, and agricultural and cleaning projects in cooperation with local communities. As a part of the initiative to promote the active participation of people with disabilities, we have been pushing forward with the NTT Art Contest and various initiatives using the remote-controlled robot OriHime.

\* Special subsidiary companies: NTT Claruity Corp., NTT West Lucent Corp., NTT DATA DAICHI Corporation, and DOCOMO PlusHearty, Inc.

### Developing Diverse Work Styles and Work Environments: LGBTQ Initiatives

The NTT Group conducts training for managers and holds ally meetings across the Group to foster understanding of LGBTQ people. In addition, the NTT Group actively supports various events, and participates in Tokyo Rainbow Pride, one of the largest such events in Japan, and the DIVERSITY CAREER FORUM, one of the largest career forums in Japan related to diversity. Moreover, with respect to the approximately 200,000 employees of NTT Group companies

in Japan, in April 2018, we began the application, in principle, of all systems for spouses to same-gender partners who have the equivalent of spousal relationships with employees.

24 NTT Group companies were awarded gold ratings in the PRIDE Index 2022, an evaluation index for LGBTQ initiatives in the workplace developed by the organization work with Pride, which indicates achievement in all five indicators of the certification criteria.

### Developing Diverse Work Styles and Work Environments: Balancing Work and Childcare/Nursing Care/Medical Treatment

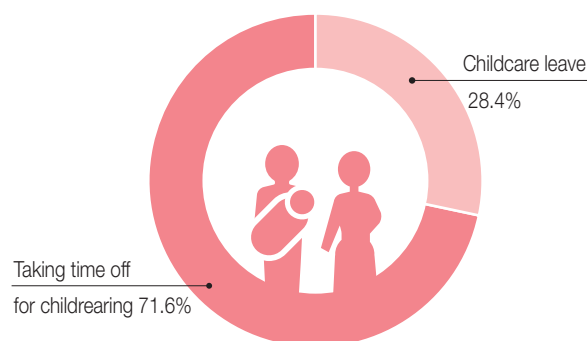
NTT Group encourages active participation in childcare to enhance the work-in-life of employees. In accordance with the revision of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members, NTT Group revised its childcare leave system on April 1, 2022, prior to the revision of the Act, and enhanced the leave system for the period up to eight weeks after childbirth.

Since fiscal 2021, we have been conducting seminars to encourage employees to actively participate in childcare, and are also working to foster such a workplace culture.

#### Ratio of Male Employees Taking Time Off Work for Childcare

The rate of paternal leave for childcare is calculated based on the Kurumin certification formula\*. Following amendments to the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members, we actively encouraged our employees to take advantage of the available leave systems through individual meetings and other channels. We managed to achieve a result of 114.1%, exceeding our fiscal 2022 target of 100%. However, the uptake is mostly for short-term leave at 71.6%, while long-term childcare leave is at 28.4%. To forge an environment in which it is easy to take long-term childcare leave, we will continue to not only promote uptake among individuals, but also actively encourage organizations and supervisors to support this.

\* Percentage of male workers using paternity leave or other leave for childcare purposes (number of male employees with children up to the beginning of elementary school enrollment in fiscal 2022 who took time off work for childcare / number of employees whose partners gave birth in fiscal 2022)



#### Balancing Work and Nursing Care

In anticipation of an era of intensive nursing care, we are holding nursing care study sessions across Group companies to create an environment in which employees can balance work and nursing care. There is high interest among employees, and many have taken part. We plan to continue holding these sessions going forward.

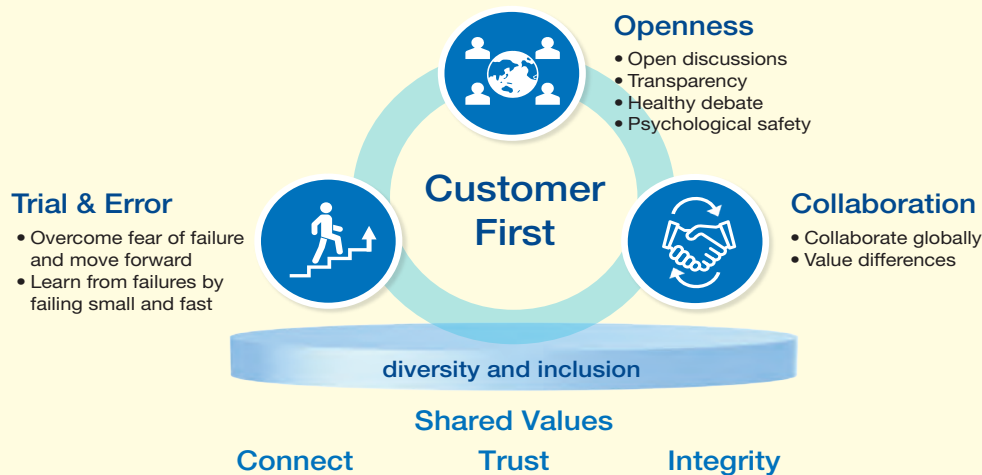
#### Balancing Work and Medical Treatment

To create a comfortable work environment for employees who have constraints due to medical treatment, we are implementing training to build human networks and to educate those around them (especially superiors) to foster better understanding and a transformed mindset and corporate culture.

We have established systems for balancing work with taking leave for medical treatment and are working to create an environment in which it is easy to take leave. Optional seminars to foster understanding are being planned.

### Initiatives Related to Human Capital in the New Medium-Term Management Strategy (Open and Innovative Corporate Culture)

We will continue to prioritize our focus on customers while advancing a culture that values openness, collaboration, and trial and error. At the same time, we will continue to enhance our diversity and inclusion efforts.



### Developing Diverse Work Styles and Work Environments: Remote Standard, Hybrid Work

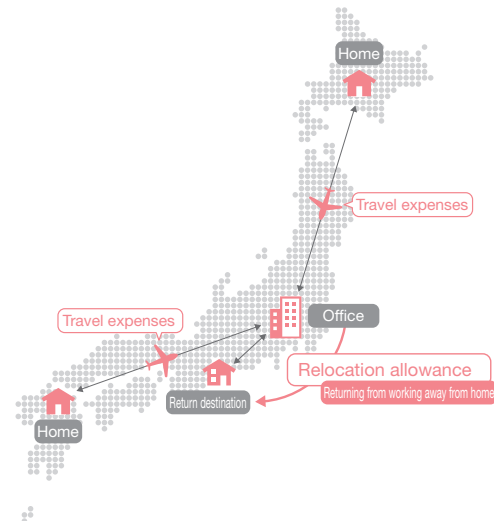
At NTT Group, to further the “work as a part of life” concept, we are creating a flexible work environment through enhancements such as a remote work system, remote work allowances, flexible hours, split shifts, and expanded satellite offices. In July 2022, we introduced the Remote Standard, aiming to eliminate the traditional work style that assumes relocations or temporary solo assignments away from family.

- Any residence in Japan is acceptable
- Any reasonable transportation method to and from work that can be considered travel expenses (lodging expenses provided as well) is acceptable
- No need to relocate to a remote location if the new location is an organization that accepts the Remote Standard

Since the introduction of the remote standard system, we have been enhancing work-life balance, including the decrease in the number of employees given solo transfer assignments by about 800, and the increase in the number of employees who work while residing in remote locations. The remote work implementation rate for fiscal 2022 was 74%.

We also increased the number of satellite office locations to 580 by the end of FY2022, with the goal of 260 or more by the end of FY2022, in order to establish places to work outside of the home and office.

Due to the introduction of the Remote Standard and other measures, there is greater freedom in terms of working hours, locations, and places of residence, thereby expanding the



options for work styles suited to individual lifestyles.

However, depending on the state of the team and the work situation, sometimes it is necessary to focus autonomously on work through remote work, while other times call for coming in to the office and working on-site to experience the work firsthand or to enhance teamwork. We believe that there is a need to devise further ways of working according to our objectives.

Moving forward, we will aim to implement an optimal work style (hybrid work) that combines the strengths of both face-to-face and remote interactions, aiming for both flexibility in the way employees work and increased organization and team productivity.

## Human Capital

### Employee Engagement Survey

At NTT Group, we commenced employee engagement surveys in fiscal 2021. Four indicators for measuring engagement have been established as NTT Group Key Performance Indicators (KPIs).

We have rolled out a Group-wide experience platform, Qualtrics, to approximately 100 Group companies in Japan. This has enabled us to measure engagement scores and pinpoint areas that require improvement. By performing analyses for the purpose of improving engagement, we hope to increase the number of highly engaged employees who

identify with the company's and organization's policies and strategies, as well as feel pride and take initiative in their work.

Additionally, with the aim of improving employee engagement as a company, we have incorporated it as an indicator for executive compensation and also set it as a criterion for the performance bonuses of all management staff. As a company and as an organization, we are committed to elevating employee engagement.

#### ● NTT Group's Four KPIs

##### —The willingness to make voluntary contributions—

(1) I am motivated to contribute more than is required to get the job done at the company

##### —Attachment to and pride in the company—

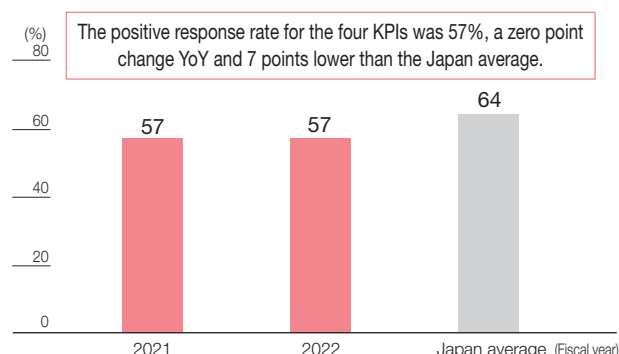
(2) I am proud to work at this company

(3) I would recommend our company as a great place to work to those I know

##### —Job satisfaction—

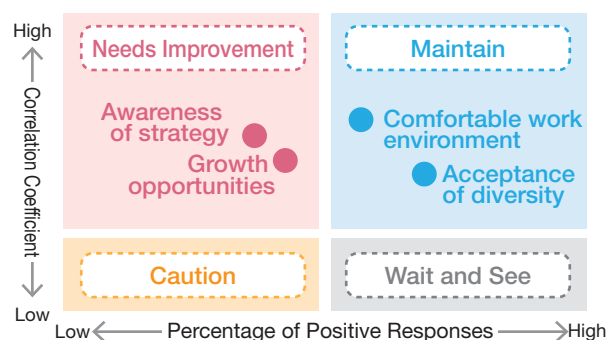
(4) I gain a sense of personal accomplishment through my work

#### ● FY2022 Survey Results



#### Specific Initiatives

We have conducted correlation analyses with engagement (four KPIs) and have identified the elements that have an impact, and we prioritize our strategies accordingly.



#### Maintenance Area Initiatives

The items showing a strong correlation and receiving positive evaluations with engagement were “Comfortable work environment and culture” and “Acceptance of diversity (proper recognition and respect as an individual).”

At NTT, we have been advocating for various work styles such as remote work, flexible hours, and the Remote Standard system that do not impose restrictions based on time, location, or place of residence. We believe that these efforts are reflected in the enrichment of the work-life balance. (For specific measures, please refer to “Developing Diverse Work Styles and Work Environments: Remote Standard, Hybrid Work (P. 37)”)

#### Areas Needing Improvement Initiatives

The items with a strong correlation to engagement but lower positive evaluations were “Opportunities for growth (ability to achieve career goals)” and “Strategy penetration (having confidence in the future of the company)/change management (receiving support for organizational changes).”

To support growth, in April 2023, we revised the system to allow for salary hikes and promotions depending on the acquisition and demonstration of expertise. We have also enriched the career consulting function, which allows employees across the Group to discuss their career plans. Additionally, we have established the NTT Group Job Board as a framework for supporting those who want to try to transfer jobs through public recruitment. This has made it possible for each employee to take ownership of their careers and act accordingly. Furthermore, we have prepared around 650 training courses both for specialized fields and as common training. Through NTT Group's internal newsletters, we are also actively introducing a variety of role models. (For specific measures, please refer to “Supporting Growth (P. 32-34)”)

For strategic penetration/change management, we are broadening the scope of management outreach. We are also holding discussions regarding survey results within each company and organization, consistently deliberating over organizational-specific issues. We also implement initiatives that get leaders at each level to commit to their respective actions.

## Human Capital Strategy 2 <Health and Safety>

### Risks

Failing to adequately secure employee health and safety could result in decreased labor productivity and potentially impact the NTT Group's business performance and financial stability.

### Addressing Risks

To address such risks, we at NTT Group not only comply with Labor Standards Act and other related laws, but have also established safety and health management policies. We continue to take a variety of measures and enhance safety awareness throughout the entire NTT Group to prevent accidents and create a safe working environment in the construction of the telecommunications facilities that support NTT Group's business, which includes our subcontractors.

### Opportunities

In response to the opportunity, we are pursuing health management as a key corporate strategy with the understanding that initiatives for maintaining and improving employee health also enhance motivation and productivity and ultimately lead to higher corporate earnings. Specific measures include initiatives such as using a smartphone app (dHealthcare) to encourage employees to improve their health and conducting regular Pulse Surveys to monitor employee health conditions and detect any imbalances.

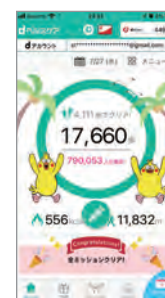
## Promotion of Health Management

Health management is pursued as a key corporate strategy with the understanding that initiatives for maintaining and improving employee health also enhance motivation and productivity and ultimately lead to higher corporate earnings. We also believe that giving due consideration for the health of our employees as well as their families will motivate and invigorate each of them (improve EX) and lead to the growth and development of the Group as a whole. Below, we introduce key initiatives being undertaken in NTT Group on various fronts to help employees maintain and improve their health while collecting and analyzing various types of data (PHR, work information, etc.).

### Promoting health activities and behavioral changes with "d Healthcare" at the core (healthcare portal)

We are working to implement effective measures through central management and analysis of various information on health promotion measures that have been individually developed. As part of these efforts, we implemented initiatives to make d Healthcare into a portal for an array of healthcare services.

- (1) "Pulse Survey" for promoting self-care and line care <Improving convenience>
- (2) Viewing the results of periodic health checkups (including physical examinations), etc. <Promoting health activities and behavioral change>
- (3) Stress checks <Improving convenience and promoting health activities and behavior change>



Healthcare Portal  
Concept Image

### 2023 Certified Health & Productivity Management Outstanding Organization (Large Enterprise Category [White 500])

We were chosen as a 2023 Certified Health & Productivity Management Outstanding Organization (Large Enterprise Category [White 500]) by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi. We will continue to strengthen our efforts to further encourage health management.



\* Certified Health & Productivity Management Outstanding Organizations Recognition Program: A program that recognizes corporations, including both large and small-to-medium-sized corporations, that practice particularly excellent health and productivity management based on initiatives that address local health issues and the health promotion initiatives supported by the Nippon Kenko Kaigi.

### Initiatives Related to Human Capital in the New Medium-Term Management Strategy (Global Benefits for Employees and their Families)

As a way to strengthen and enhance our support programs, including for the families of our employees worldwide, we will enhance our program to partially support the educational expenses of employees' children up to college graduation in the event of an employee's death.



## Human Capital

### Human Capital Strategy 3 <Human Rights>

#### Risks

Should forced labor, child labor, or other forms of human rights violations occur within our Group or supply chain, there is a risk that it could erode the NTT Group's credibility and corporate image, as well as potentially affect our financial performance and business results.

#### Addressing Risks

To address such risks, we at the NTT Group are engaged in various initiatives aimed at enhancing awareness and management of human rights across the entire Group. These include conducting human rights due diligence by leveraging external assessment agencies, providing training on human rights issues, and establishing and operating consultation services focused on human rights.

#### Opportunities

Regarding opportunities, we believe that actively engaging in direct dialogue with key suppliers as part of our human rights due diligence, as well as disclosing these processes and their outcomes in a transparent manner, will improve our brand image and help us earn the trust of all of our stakeholders.

### Indicators and Targets Related to Human Rights

Indicator	Target	Results
Percentage of direct dialogue with important suppliers	FY2023: 100%	FY2022: 100%

(Note) The scope for gauging the rate of direct dialogue with key suppliers is based on 40 companies per year chosen from among the key suppliers who account for more than 90% of the total procurement expenditures of the NTT Group. As of fiscal 2022, this includes 126 companies.

### Background of NTT Group Global Human Rights Policy and Approach

NTT is committed to respecting global human rights and believes it is an important corporate social responsibility. NTT Group will strive to correctly understand and recognize each country and region's laws, cultures, religions, and values. We aim to create a safe, secure, prosperous and sustainable society by fulfilling this responsibility. We included the existing NTT Group Global Human Rights Charter in the NTT Group Global Sustainability Charter and established the new NTT Group Global Human Rights Policy in November 2021. While supporting international covenants and treaties as a company with global operations, NTT Group internally and externally discloses its global human rights policy. This policy applies to all employees and board members of NTT Group, and we ask all of our suppliers and business partners to support this policy and respect human rights.

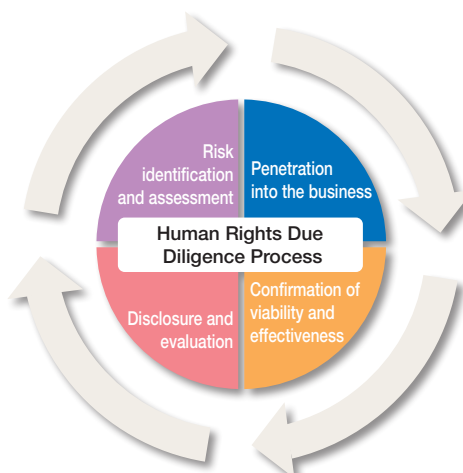
NTT Group Global Human Rights Policy

<https://group.ntt/en/newsrelease/2021/11/10/211110c.html>



### Due Diligence

Based on the UN Guiding Principles on Business and Human Rights, we will use the human rights due diligence process to identify, prevent, mitigate, and correct human rights issues globally. And we will strive to improve human rights awareness and human rights management throughout NTT Group. In addition, due diligence will be conducted among the stakeholders in the entire business value chain, and direct dialogue will be the basis of our efforts, especially with major suppliers. The status of these initiatives will be disclosed on our website in an effort to continuously evaluate and improve the process.



## Value Chain Management

### Policy and Approach

In recent years, companies find themselves required to monitor the ESG risks and impact on sustainability, including consideration of human rights and mitigation of environmental impacts, of not only their own Group companies, but also throughout the entire value chain, from raw materials and supplies procurement to disposal and recycling. The NTT Group is committed to deepening mutual understanding and building a trustful relationship with all the suppliers that make up our supply chain. By dedicating ourselves to creating and sustaining a safe and reliable supply chain with everyone under high ethical standards, we aspire to proactively and enthusiastically contribute to a sustainable society. To implement this vision, we have established the "NTT Group

Basic Procurement Policy" <sup>\*1</sup>.

For our suppliers, we have published the NTT Group Supply Chain Sustainability Promotion Guidelines<sup>\*2</sup>, which contain detailed requirement items in the seven areas of human rights/labor, health/safety, the environment, fair trade/ethics, quality/safety, information security, and business continuity plans. We ask suppliers to comply with these guidelines by including them in contracts and other agreements. In addition, we have also published the NTT Group Green Procurement Standards<sup>\*3</sup> as a supplement to our environmental guidelines and are advancing efforts to reduce greenhouse gas emissions throughout the supply chain.

NTT Group Basic Procurement Policy	Basic procurement activity policy for achieving a sustainable society
NTT Group Supply Chain Sustainability Promotion Guidelines	Requests to suppliers regarding social issues established based on the Basic Procurement Policy
NTT Group Green Procurement Standards	NTT Group's environmental energy policies, target figures, specific laws and standards suppliers must reference, procurement evaluation items, etc.

### Supplier Engagement Initiatives

Building upon the aforementioned NTT Group Supply Chain Sustainability Promotion Guidelines, we are conducting activities aimed at establishing a reliable partnership with our suppliers. While NTT Group previously conducted an NTT-specific Supply Chain Sustainability Survey for the Group's key suppliers, beginning in fiscal 2022, we initiated new ESG risk assessments carried out by Ecovadis<sup>\*4</sup>, a third-party evaluation organization.

Based on the results of these surveys, we are promoting the enhancement of supplier engagement activities, including direct dialogue with suppliers.

Additionally, in July 2022, our company joined Joint Audit Co-Operation (JAC)<sup>\*5</sup>, a joint audit consortium consisting of global telecommunications carriers, and we became the first telecommunications provider from Asia to do so. Starting in fiscal 2023, we are planning to conduct sustainability audits at the factories of NTT Group suppliers based on JAC's audit standards.

Through these activities, NTT Group will help make a sustainable society a reality by building and maintaining a safe and secure supply chain.

<sup>\*1</sup> <https://group.ntt/en/procurement/policy/index.html>

<sup>\*2</sup> [https://group.ntt/en/procurement/supplier/pdf/NTT\\_Group\\_Guidelines\\_for\\_Sustainability\\_in\\_Supply\\_Chain.pdf](https://group.ntt/en/procurement/supplier/pdf/NTT_Group_Guidelines_for_Sustainability_in_Supply_Chain.pdf)

<sup>\*3</sup> [https://group.ntt/en/procurement/supplier/pdf/NTT\\_Group\\_Green\\_Procurement\\_Standards.pdf](https://group.ntt/en/procurement/supplier/pdf/NTT_Group_Green_Procurement_Standards.pdf)

<sup>\*4</sup> <https://ecovadis.com/>

<sup>\*5</sup> <https://jac-initiative.com/>

# New Value Creation

## Related New Medium-Term Management Strategy Initiatives

### 1 NTT as a Creator of New Value and Accelerator of a Global Sustainable Society

- ① IOWN-Driven Creation of New Value (from concept to commercialization)
  - i. Establishment of manufacturing company for photonic-electronic convergence devices
  - ii. Acceleration of IOWN research and development/commercialization
- ② Data-Driven Creation of New Value
  - i. Strengthening the personal business
  - ii. Strengthening the use of DX/data in society and industry
  - iii. Expansion and upgrade of data center infrastructure

- ③ Achievement of a Circular Economy Society
  - i. Develop sustainability solutions for customers
  - ii. Creating Circular Economy businesses
  - iii. Progression towards Net-Zero
- ④ Further Strengthening of Business Foundations

### 2 Upgrading the Customer Experience (CX)

- ⑤ Fusion of Research and Development with a Market-Focused Strategy
- ⑥ Strengthening of Services that Emphasize Customer Experience (CX)

### 3 Improving the Employee Experience (EX)

- ⑦ Open and Innovative Corporate Culture
- ⑧ Support Career Growth
- ⑨ Global Benefits for Employees and their Families

## Strategy for Creating New Value

### Risks

The NTT Group is committed to the B2B2X business model, which aims to create new value and solve social issues in collaboration with various partners to enhance the customer experience. Should the progress of the B2B2X model not proceed as expected, it could adversely affect our market competitiveness, thereby potentially impacting NTT Group's financial standing and business performance.

### Addressing Risks

To mitigate such risks, we have established a Marketing Strategy Committee, chaired by the President, to facilitate project expansion while ensuring alignment within the NTT Group. Additionally, we strive to grow our B2B2X business through intra-Group conferences, which serve to share best practices among our various companies.

### Opportunities

With regard to opportunities, we believe that combining the expertise and customer bases that our partners possess with the NTT Group's digital services and data management technologies will allow us to offer new value to our partners' customers (users). Specifically, we are implementing initiatives across the full breadth of the NTT Group in areas such as 1) the evolution of industrial value chains, 2) advancements in customer relations, 3) the utilization of mobile data, and 4) the development of community-rooted services and urban planning.

## Indicators and Targets Related to New Value Creation

Indicator	Target	Results
Amount of B2B2X Revenues	FY2023: ¥870.0 billion	FY2022: ¥815.4 billion

(Note) The scope of B2B2X earnings includes the Integrated ICT Business Segment, the Regional Communications Business Segment, and the Global Solutions Business Segment.

## Initiatives Related to New Value Creation in the New Medium-Term Management Strategy

(Establishment of manufacturing company for photonic-electronic convergence devices, Acceleration of IOWN research and development/commercialization)

In light of the increased energy consumption accompanying the widespread adoption of AI, we established NTT Innovative Devices Corporation in June 2023 to expedite the commercialization of photonics-electronics convergence devices that achieve low energy consumption. The company was launched with an initial investment of 30 billion yen, and we are considering subsequent capital increases.

Our aim is to broadly provide photonics-electronics convergence products to hyperscalers and IT/communication equipment vendors. In addition to recruiting external talent and gathering the necessary resources for development, we will integrate NTT Electronics Corporation, which possesses hardware manufacturing capabilities, to accelerate the development of products and services.

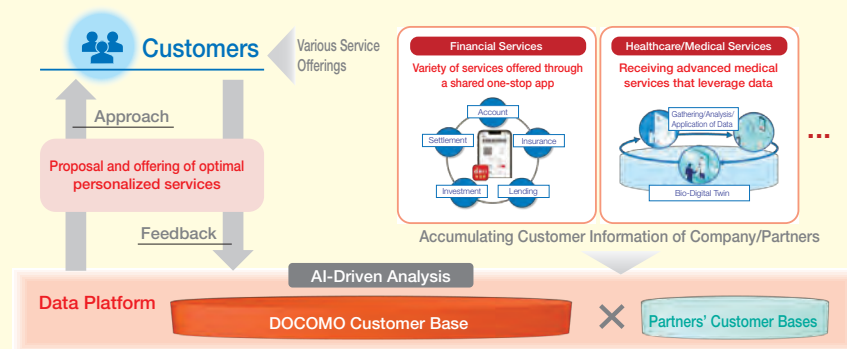
For the accelerated R&D and practical application of IOWN, including 6G, we plan to invest approximately 100 billion yen in fiscal 2023. We will continue to invest funds and accelerate the practical application of servers and digital twin computing, among other technologies.

(Please see [page 58-61](#) for more details on IOWN.)

## Initiatives Related to New Value Creation in the New Medium-Term Management Strategy (Strengthening the personal business, Strengthening the Use of DX/Data in Society and Industry, Expansion and Upgrade of Data Centers)

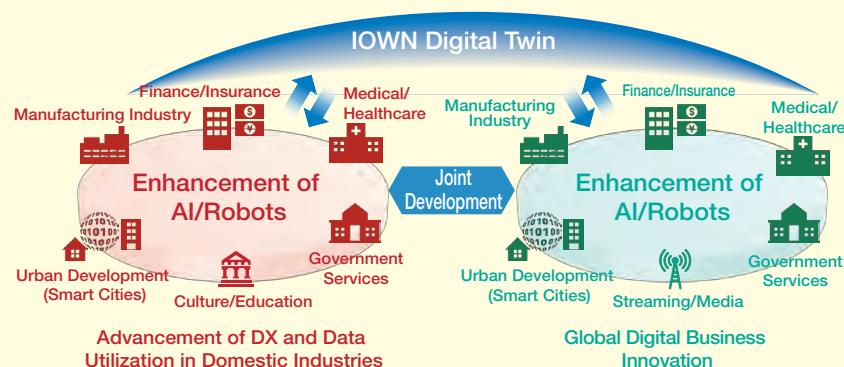
To strengthen our personal business centered around individual customers, we will boost NTT DOCOMO's Smart Life business and actively invest more than one trillion yen over the next five years.

For instance, we will focus on expanding and enhancing services in various sectors like finance and healthcare/medical. Through the analysis of diverse data obtained via these services, we aim to deliver highly personalized and optimal services.



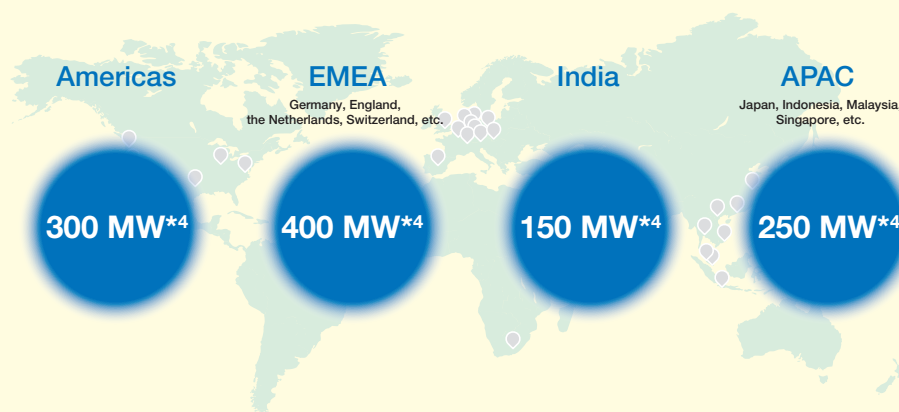
For our corporate clients, we will leverage technologies such as AI, robotics, IOWN, digital twins, and security to offer solution and platform services on a global scale, thereby transforming industries that underpin daily life and society.

Over the next five years, we intend to invest more than three trillion yen in this area.



We are actively expanding the data center infrastructure of the NTT Group, which currently ranks as the third largest in the world<sup>\*1</sup>. Additionally, we plan to further expand this infrastructure and enhance its capabilities through the introduction of IOWN technologies. Toward this goal, we will invest over 1.5 trillion yen in the next five years<sup>\*2</sup>, doubling the current data center capacity of 1,100 MW.

Additionally, we will continue our efforts to achieve carbon neutrality for our data centers by fiscal 2030<sup>\*3</sup>.



<sup>\*1</sup> Recalculated from the Structure Research 2022 Report while excluding Chinese operators

<sup>\*2</sup> Investments in facilities using third-party capital are not included

<sup>\*3</sup> Reduction targets: GHG protocol Scope 1 (own direct emissions of GHG) and Scope 2 (indirect emissions from using electricity, heat and steam supplied by other companies) emissions at data centers

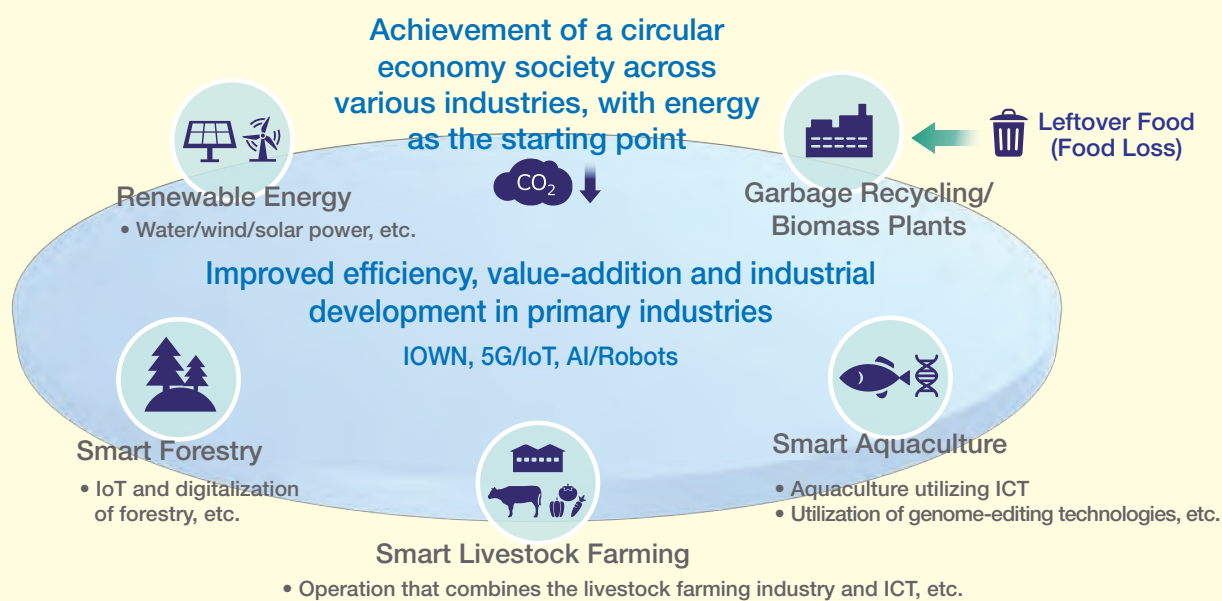
<sup>\*4</sup> As of March 2023, power capacity in specialized data center buildings owned by the NTT Communications Group and NTT Ltd. Group (including JVs with third parties)



## Initiatives Related to New Value Creation in the New Medium-Term Management Strategy (Creating Circular Economy-Oriented Businesses)

We will also work towards a sustainable society by promoting the reuse of waste across various industries and enabling resource circulation.

With the application of technologies like IOWN, 5G/IoT, and AI/Robotics, we will improve the efficiency and value-added attributes of primary industries, thereby contributing to industrial development and regional revitalization.



## Column

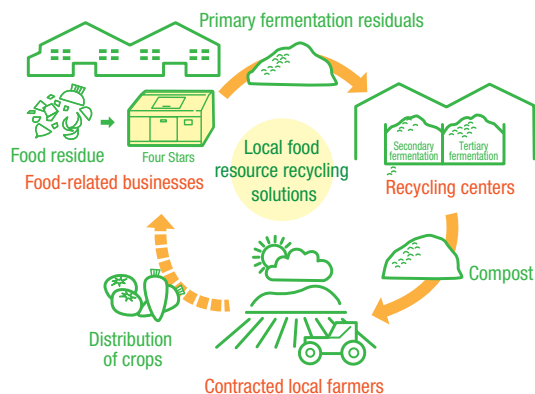
## NTT Group and The Norinchukin Bank Group Business Collaboration to Achieve a Recycling-oriented Society and the SDGs

NTT Business Solutions Corporation (NTT Business Solutions) provides a local food waste recycling solution in which it recycles food waste from food-related businesses for composting and channeling this into new crop production. In August 2022, companies from both The Norinchukin Bank Group and NTT Group\* began a business collaboration aimed at achieving a recycling-oriented society and the SDGs. This collaboration involves offering this solution to customers deeply involved in the food processing and retail industries, among others, to effectively utilize food waste and reduce food loss. Measures include supplying compost generated from food waste to producers.

Going forward, we will contribute to solving local issues such as food loss and the creation of a recycling-oriented society through our local food waste recycling solution. This entails linking various data from waste generated by businesses, the process leading up to composting, and the compost required by producers, as well as creating a sustainable social system in which we assist businesses in reducing their waste and improving their recycling rates while also supplying the necessary compost to producers.

In this manner, B2B2X businesses become initiatives that improve customer value and solve societal issues through the use of data. We strive to cultivate a culture where we all understand each other's projects and take on new challenges based on new concepts. To this end, we held an internal conference aimed at sharing useful example cases across the Group on February 22, 2023, to advance initiatives across the entire NTT Group.

\* Biostock Corporation, NTT Communications, NTT Business Solutions



## Initiatives Related to New Value Creation in the New Medium-Term Management Strategy (Fusion of Research and Development with a Market-Focused Strategy, Strengthening of Services that Emphasize CX)

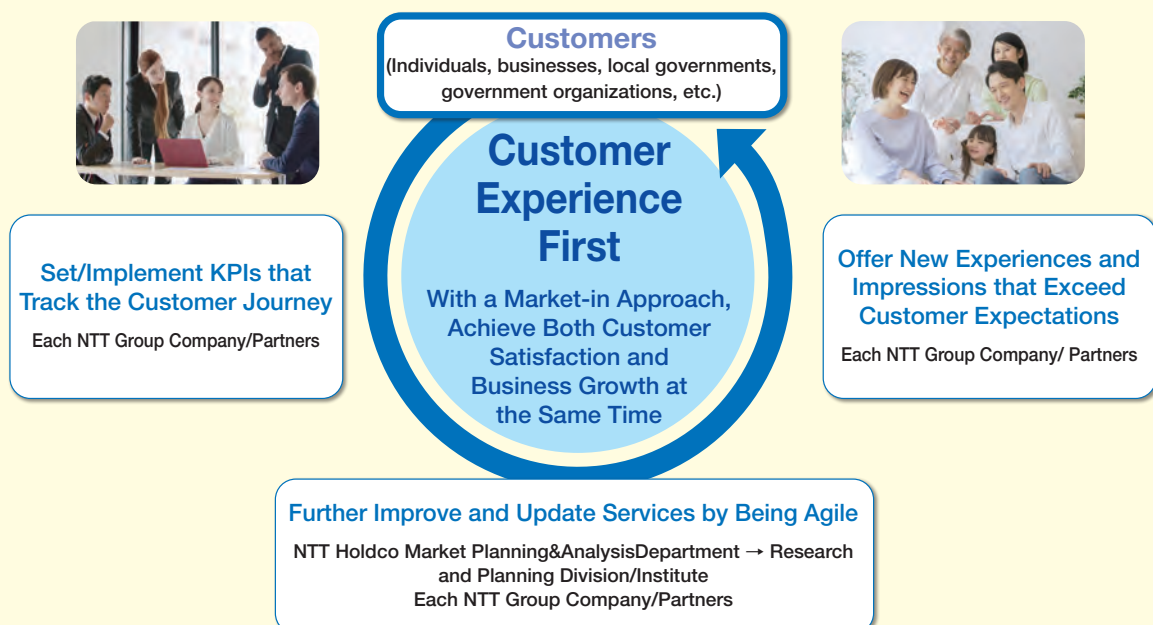
We established a new Research and Development Market Strategy Division by integrating and strengthening our research, marketing, and alliance functions as an R&D organization with marketing capabilities.

In addition to strengthening product-out R&D, we will collaborate with customers and partners globally to carry out everything from R&D to product delivery, promoting alliances with a variety of partners.



We will consider all stakeholders to be customers and partners and prioritize customer experiences.

By constantly improving and updating our services in an agile manner, we aim to exceed customer expectations and provide new experiences and excitement in an effort to be the NTT Group that continues to be people's choice.



# Resilience

## Related New Medium-Term Management Strategy Initiatives

### 1 NTT as a Creator of New Value and Accelerator of a Global Sustainable Society

- ① IOWN-Driven Creation of New Value (from concept to commercialization)
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- ④ Further Strengthening of Business Foundations

### 2 Upgrading the Customer Experience (CX)

- ⑤ Fusion of Research and Development with a Market-Focused Strategy
- ⑥ Strengthening of Services that Emphasize Customer Experience (CX)

### 3 Improving the Employee Experience (EX)

- ⑦ Open and Innovative Corporate Culture
- ⑧ Support Career Growth
- ⑨ Global Benefits for Employees and their Families

## Resilience Strategies (1) <Natural Disasters, Large-Scale Failures and Other Similar Events>

### Risks

The NTT Group is active around the globe, providing a myriad of services that sustain both social and economic activities as well as safeguarding daily life. These include communications networks, information systems, and other essential life-supporting services such as finance and payment solutions. There is a risk that the provision of these services could be compromised due to natural disasters like earthquakes, tsunamis, typhoons, and floods, as well as physical attacks including military invasions and terrorism, delays in development or glitches in vital systems, or the occurrence of significant network malfunctions. Such events have the potential to negatively impact the trustworthiness and corporate image of the NTT Group.

### Addressing Risks

To address such risks, the NTT Group has implemented a variety of strategies to ensure that the systems and networks necessary for service delivery operate safely and reliably. These strategies include fortifying the seismic and flood-resistant capabilities of communication buildings, diversifying transmission routes, and enhancing emergency power supplies for communication buildings and base stations during extended power outages. Particularly for large-scale failures, our concrete measures involve not only swift and accurate service restoration, but also rapid identification of the root causes. We will continue to enact cross-Group initiatives aimed at 1) comprehensive assessments and recurrence prevention for apparent risks, and 2) building a more resilient network based on an inventory of cross-Group risks, considering that unforeseen incidents are inevitable.

### Opportunities

In terms of seizing opportunities, we believe that improvements in network resilience and faster recovery capabilities will boost the reliability of our communication networks and information systems. This, in turn, will elevate customer satisfaction and enhance our brand image. For customers demanding even higher reliability, we will offer new value by expanding our range of solutions designed to reinforce their Business Continuity Plans.

## Indicators and Targets Related to Natural Disasters, Large-Scale Failures and Other Similar Events

Indicator	Target	Results
Number of Serious Incidents	FY2023: 0	FY2022: 3

(Note) 1. The scope for counting significant incidents is limited to the four designated public telecommunications companies (NTT East, NTT West, NTT Communications, and NTT DOCOMO).

2. A "significant incident" is defined as an event meeting the following conditions that disrupt or degrade the quality of telecommunications services:

- Voice services that handle emergency calls (110, 119, etc.): Lasting more than 1 hour and impacting over 30,000 people
- Voice services that do not handle emergency calls: Lasting more than 2 hours and impacting over 30,000 people, or more than 1 hour and impacting over 100,000 people
- Internet-related services (free): Lasting more than 12 hours and impacting over 1 million people, or more than 24 hours and impacting over 100,000 people
- Other services: Lasting more than 2 hours and impacting over 30,000 people, or more than 1 hour and impacting over 1 million people

## Column

### Initiatives for Rapid Public Announcement Responses during Large-Scale Failures

To achieve swift public relations responses when issues such as system malfunctions, network failures, or service glitches occur, the NTT Group has been working on establishing a framework in compliance with the guidelines set by the Ministry of Internal Affairs and Communications for public notification

and communication. By sharing best practices for emergency public relations throughout our Group companies, we are committed to improving the quality of our public relations response. We believe that driving these initiatives forward will lead to higher levels of customer satisfaction and a stronger brand image.

## Disaster Countermeasure Initiatives

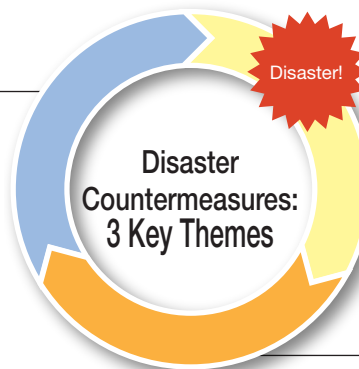
As a designated public organization, the NTT Group is making a daily effort to ensure emergency and critical communication channels. Furthermore, in recent years, there is an escalating risk of physical attacks, such as armed assaults and acts of terrorism, on top of the increasing frequency of large-scale, expansive, and long-lasting natural disasters. Recognizing the potential for natural disasters to have greater impacts on telecommunications facilities and services and for recovery efforts to be prolonged, NTT is increasing the resilience of its facilities and taking steps to expedite recovery efforts.

### Improving communications network reliability

Building facilities resistant to disasters such as earthquakes, fires, and wind and flood damage, as well as different transmission routes.

Network monitoring and control 24 hours a day, 365 days a year.

- Earthquake-resistant design of communication buildings to withstand magnitude 7 tremors
- Implementing non-combustible and fire-resistant building features, including fire shutters and fire doors in telecom equipment rooms
- Tsunami and flood countermeasures with water barriers and reinforcement materials
- Installation of backup power supplies such as batteries and engines
- Geographical dispersion of key communication buildings to avoid simultaneous impact from disasters
- Training and education for personnel engaged in maintenance and operations etc.



### Securing critical communications

Securing emergency service communications, e.g. 110 and 119, and critical communications.

- Installation of special public telephones in disaster-affected areas
- Provision of safety confirmation services during disasters
- Early resolution of communications blackouts, etc.

### Prompt restoration of telecommunications services

Early restoration of services by utilizing disaster countermeasure equipment, procurement of materials, equipment, and manpower for restoration purposes.

- Enhancement of organization for disaster countermeasure operations
- Development and deployment of crisis management talent and skills etc.

## Further Enhancing Our Ability to Respond to Severe Disasters

### Consideration of our disaster response based on unexpected scenarios for possible future catastrophic disasters

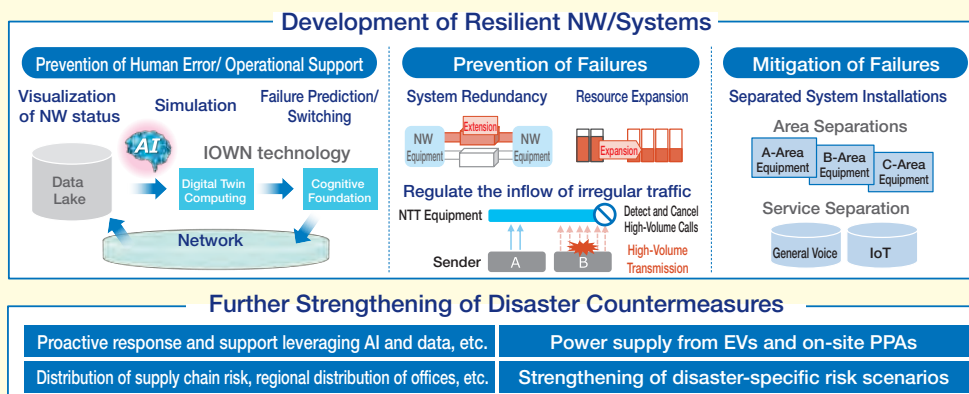
- **Faster:** Predictive support for complex troubleshooting that exceeds human judgment through DX, such as AI and data utilization
- **Stronger:** Utilizing self-supplied energy, such as battery-equipped electric vehicles and on-site renewable energy generation
- **Safer:** Implement BCP measures such as diversifying supply chains and dispersing business locations and employee residences

### Initiatives Related to Resilience in the New Medium-Term Management Strategy (Further Strengthening of Business Foundations)

Learning from past experiences and lessons in telecommunications failures, we will create a robust network/system that takes into account the occurrence of major malfunctions and cyber-attacks, thereby strengthening social infrastructure. In addition, we will strengthen measures to cope with natural disasters, which are becoming increasingly severe. Looking toward this goal, we will invest around 160 billion yen<sup>\*1</sup> by fiscal 2025.

To build a resilient network system, we will proceed based on the assumption that unexpected events will inevitably occur, implementing preventive measures against human errors and malfunctions while minimizing the impact if a failure does occur.

Furthermore, we will enhance disaster preparedness and globally standardized cybersecurity measures, with a view toward safe and secure service delivery.



<sup>\*1</sup> Including other reliability enhancement measures



## Resilience

## Resilience Strategies (2) &lt;Security&gt;

## Risks

Should we experience security incidents such as cyber-terrorism that lead to service outages, degradation in service quality, or the leakage, alteration, or loss of information, there is a risk that the NTT Group's reputation and corporate image could suffer. This, in turn, could potentially impact our business performance and financial stability.

## Addressing Risks

To mitigate such risks, the NTT Group is actively engaged in risk-based information security initiatives. These are grounded in the belief that cyber incidents are inevitable and that minimizing damage is crucial. Measures include the implementation of a "3 lines of defense" principle, performing a fundamental review of Group-wide regulations to achieve a secure remote work environment and transitioning to Zero Trust IT systems, collecting and utilizing global threat information, adopting the latest technologies for early detection and quick response, verifying security measures from an attacker's perspective, practicing incident response for potential scenarios, and delivering basic operational training to all employees.

## Opportunities

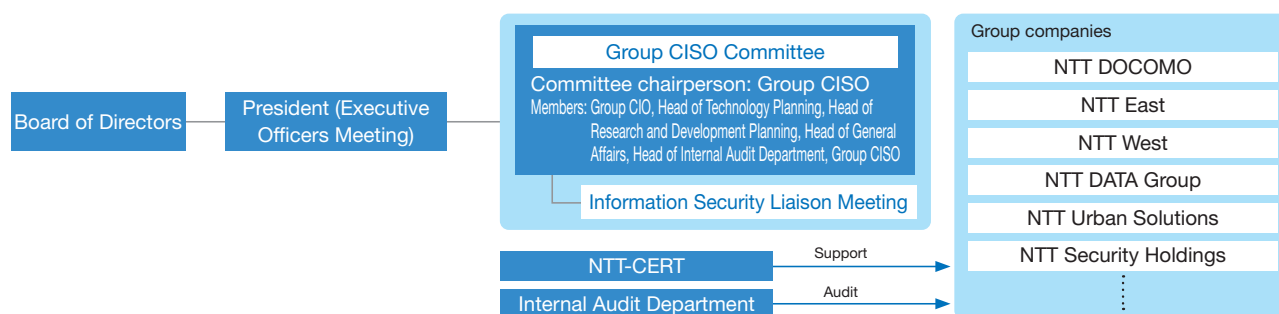
As for capitalizing on opportunities, we are committed to nurturing security specialists endowed with state-of-the-art technology and deep expertise. Furthermore, we are actively offering risk management support services to businesses and communities outside the Group by leveraging the knowledge and insights accumulated through our risk-mitigation efforts.

## Indicators and Targets Related to Security

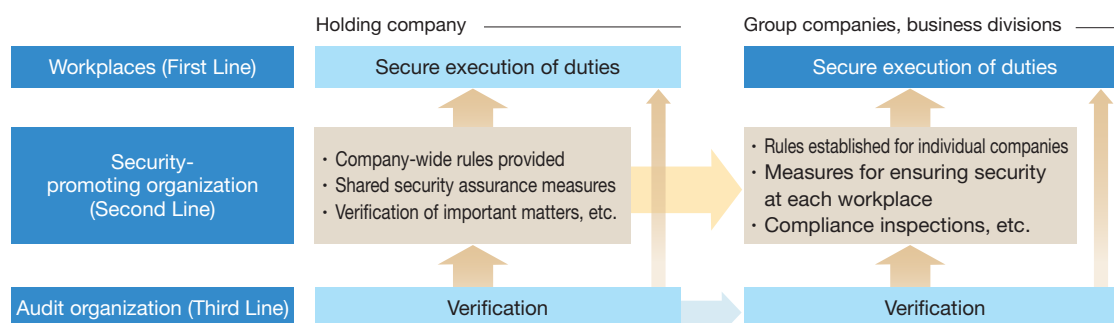
Indicator	Target	Results
Suspension of telecommunications services due to external cyberattacks	FY2023: 0	FY2022: 0

(Note) The scope of tallying the number of telecommunications service interruptions due to external cyberattacks includes four specified public institutions: NTT East, NTT West, NTT Communications, and NTT DOCOMO.

## ● Organization for Implementation



## ● NTT Group's Security Governance Goals



## TOPIC

## Enhancing Security 1) Global Collaboration

## Collection and Utilization of Global Threat Information

NTT has joined the Joint Cyber Defense Collaborative (JCDC), a U.S. government cybersecurity and resilience initiative, as its first Asian member.

Established by the U.S. Cybersecurity and Infrastructure Security Agency (CISA) in 2021, the JCDC is spearheading the collaborative development of cyber defense plans, information sharing on cybersecurity, and the dissemination of cyber defense guidance to reduce risks to critical infrastructure and essential national functions. Private sector members include major telecommunication companies, technology giants, and major security companies, such as AT&T, Verizon, Lumen, Microsoft, Google, Cisco, Mandiant, and Palo Alto Networks. Moreover, U.S. government intelligence agencies and cybersecurity-related departments from countries allied with the U.S. are also participating. By leveraging the global

intelligence gained from the JCDC, NTT can offer more effective protection of vital information networks and improved responses to cyber incidents. Additionally, sharing information with other JCDC members enables NTT to further advance its own cybersecurity initiatives.

Building on our existing foundation of trust and collaboration with CISA and the U.S. government, we will contribute a unique Asian perspective to the JCDC while sharing NTT's leadership along with its expansive global experience and specialized expertise in security. In an era of continued global uncertainty surrounding cybersecurity, we firmly believe that a collaborative approach between the public and private sectors in cybersecurity is essential, not just in the United States but also globally, to defend against cyberattacks that threaten the critical social infrastructure upon which our daily lives depend.

## Enhancing Security 2) Defense from an Attacker's Perspective

## Red Team

NTT formed a Red Team in 2019. A Red Team conducts simulated cyberattacks from the perspective of external attackers. In the realm of cybersecurity, it is a never-ending game of cat and mouse, with new types of attacks emerging no matter how much one defends. Moreover, while attackers only need to succeed once with any variety of assaults, defenders must block every single one, creating an imbalance that favors the attackers. To address this challenge, NTT's Red Team was established to formulate countermeasures

from the attacker's viewpoint. The ultimate goal is to improve defensive capabilities; the activities are not limited to just conducting simulated attacks. The Red Team's activities also include analyzing and reporting vulnerabilities and organizational challenges in the targeted systems after the simulated attack and even providing actionable advice for improvement. In some cases, the team may assist with implementing these improvements.

## Bug Bounty Program

NTT began a Bug Bounty Program on a trial basis in 2022 and fully launched it in 2023. A bug bounty is a reward given to individuals who discover security loopholes in an information system. NTT has implemented this program with two specific aims.

- 1) To identify and rectify vulnerabilities before they can be exploited by malicious third parties, thereby enhancing the overall security posture of the NTT Group.
- 2) To offer employees who participate an avenue to refine their security skills from an attacker's

viewpoint, thereby nurturing the development of security talent.

The trial phase demonstrated that the program not only contributed to enhancing corporate security, but also helped in discovering undiscovered security talent and further honing their skills. Although fully operational only since 2023, the program will be continually refined, and we aim to broaden the understanding that improving security is a collaborative effort involving all employees.

# Medium-Term Management Strategy

— Our New Medium-term Management Strategy —

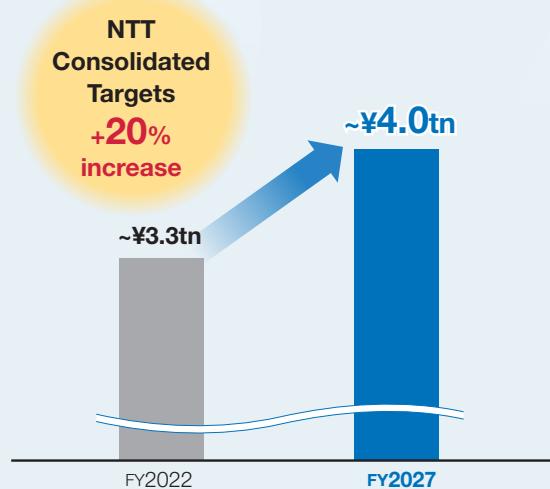
*Innovating a Sustainable Future  
for People and Planet*

## Medium-Term Financial Targets

Target Indicators		Target Levels (FY2027)	Establishing Sustainability Indicators
Company-Wide Targets	EBITDA	+20% increase (compared to FY2022)	<ul style="list-style-type: none"> <li>● <b>New Female Manager Promotion Rate:</b> at least <b>30%</b> each year</li> <li>● <b>Greenhouse Gas Emissions:</b> targeting <b>carbon neutrality</b> in <b>2040</b>, as well as <b>Net-Zero</b></li> <li>● <b>Engagement Rate:</b> To be improved</li> </ul>
Growth Areas <sup>*1</sup>	EBITDA	+40% increase (compared to FY2022)	
	Overseas Operating Income Margin <sup>*2</sup>	10% (FY2025)	
Existing Areas <sup>*3</sup>	EBITDA	+10% increase (compared to FY2022)	
	ROIC	9% (FY2022 Results: 8.2%)	

<sup>\*1</sup> IOWN, digital/data centers, power/energy, Smart Life, real estate, AI/robots, etc.

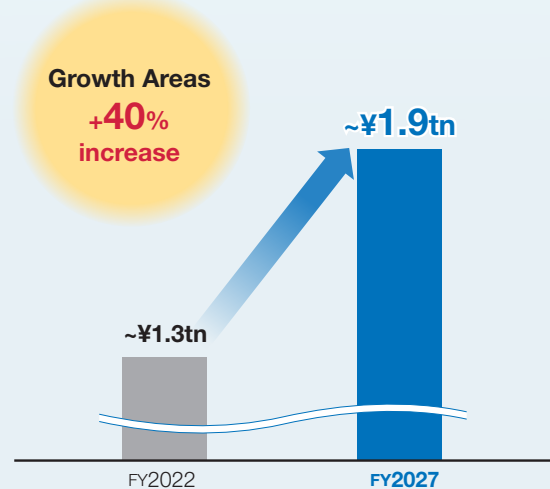
<sup>\*2</sup> NTT DATA Group consolidated. Excludes temporary expenses, such as M&A-related depreciation costs of intangible fixed assets. <sup>\*3</sup> NTT DOCOMO's consumer telecommunications businesses, NTT East and NTT West.



Regarding our Medium-term financial goals, we will use EBITDA as the primary indicator and target a 20% increase compared to fiscal 2022.

In growth sectors, which will be the drivers of this increase, we aim for a 40% rise in EBITDA compared to fiscal 2022. Furthermore, in global businesses within these growth sectors, we have set a target overseas operating profit margin of 10% for fiscal 2025.

We hope to continue generating profits in existing sectors as well, with our goal being a 10% EBITDA increase compared to fiscal 2022, and we have set a



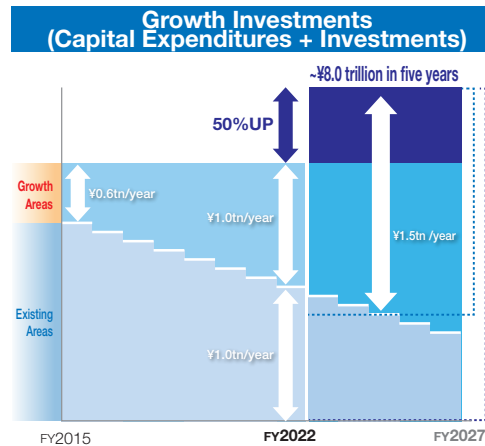
ROIC target of 9% to improve capital efficiency.

We also aim to attain both sustainable growth and shareholder return and maintain EPS growth at levels similar to those seen previously.

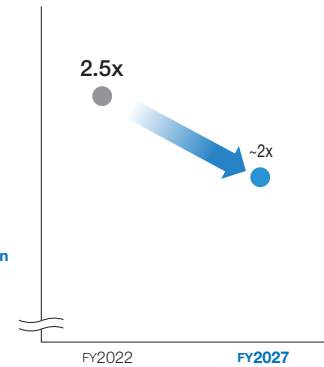
Additionally, we are setting targets for three sustainability-related non-financial indicators based on our Sustainability Charter and NEW Environment and Energy Vision: New Female Manager Promotion Rate, Greenhouse Gas Emissions, Engagement Rate.

## Expansion of Investment for Further Growth

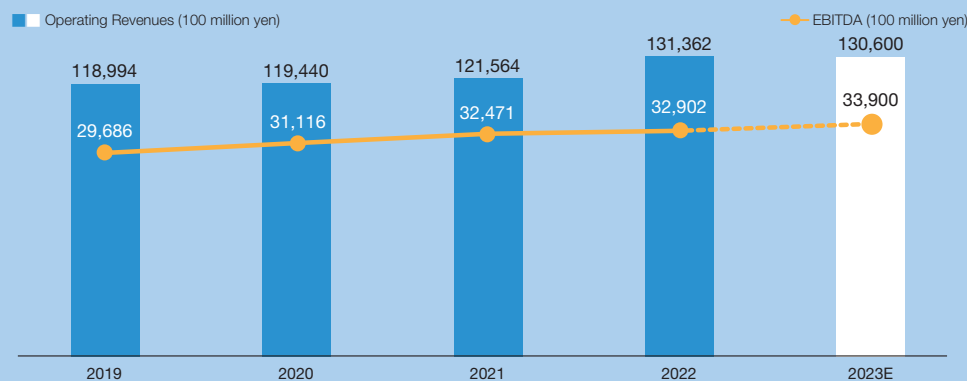
We plan to allocate approximately 8 trillion yen toward investments and capital contributions in growth sectors over the next five years, representing a 50% increase over previous levels. Overall, we are planning investments totaling about 12 trillion yen. Although the larger scale of investment for further growth will increase our need for capital, we aim to maintain or reduce the level of interest-bearing debt at around twice the level of EBITDA, with attention given to capital efficiency.



### Debt-to-EBITDA Ratio



### Changes in Revenue and EBITDA



## Fundamental Policy on Shareholder Returns

### Dividend Policy

Our basic policy is to implement steady increases in dividends

### Share Buybacks

We will flexibly conduct share buybacks to improve capital efficiency

Regarding our fundamental policy on shareholder returns, we will continue to principally aim for a steady increase in dividends, while flexibly conducting share buybacks to improve capital efficiency.

## Column

### Stock Split

On July 1, 2023, NTT executed a stock split in which each share held as of June 30, 2023 would be split into 25 shares. As a result, the investment unit for NTT shares was significantly reduced, becoming a level comparable to that of blue-chip stocks in the U.S. stock market.

We expect that this initiative will expand the individual investor base for NTT stock to a wide range of generations, including younger investors with less capacity for investment.

Split ratio

**25-for-1**

Record date of the split: June 30, 2023 (Friday)

Effective date: July 1, 2023 (Saturday)

Example: If 100 shares of NTT shares were held before the split (share price: 4,500 yen)

100 shares held before the split:  
100 shares: 450,000 yen

After split

100 multiplied by 25 is 2,500 shares  
2,500 shares: 450,000 yen



# Enhancing Sustainable Corporate Value by Achieving Both Business Growth and Strengthening of Sustainability

Representative Member of the Board  
Senior Executive Vice President  
CFO CCO CHRO

**Takashi Hiroi**



## Business Strategy and Sustainability

As society and the economy undergo significant transformations, NTT has been proactive in self-reforming and contributing to the achievement of a sustainable society by addressing various social issues via its business activities. For continued medium- to long-term growth, it has become important to comprehensively promote management strategy and sustainability.

In recent years, we have shifted our style to place importance not only on financial management but, non-financial management as well. On the financial side, we integrated ROIC into our medium-term goals alongside the traditional EPS goal, starting in fiscal 2018. By adopting a management strategy that prioritizes capital productivity within the Group, we have managed to instill a mindset that looks not just at the amount of returns, but also at the efficiency of invested capital. This has been instilled throughout the organization to a significant degree, and it has been particularly noticeable when discussing various

investment projects and so on. On the non-financial side, we set goals such as achieving carbon neutrality and promoting the appointment of women to managerial positions for fiscal 2021. In fiscal 2022, we added sustainability indicators to the KPIs for executive compensation. We have been developing a base for non-financial management that aligns with our business strategy and expanding it within the Group.

In May 2023, we announced a new medium-term management strategy that declared our new basic approach as follows: "Innovating a Sustainable Future for People and Planet." We aim to deepen our existing initiatives and further improve corporate value by tackling the enhancement of business growth and sustainability simultaneously. To this end, we have set financial targets for growth areas and existing areas, and we have also set sustainability-related indicators such as the achievement of net-zero by 2040, among other efforts.

## Capital Allocation in the New Medium-Term Management Strategy

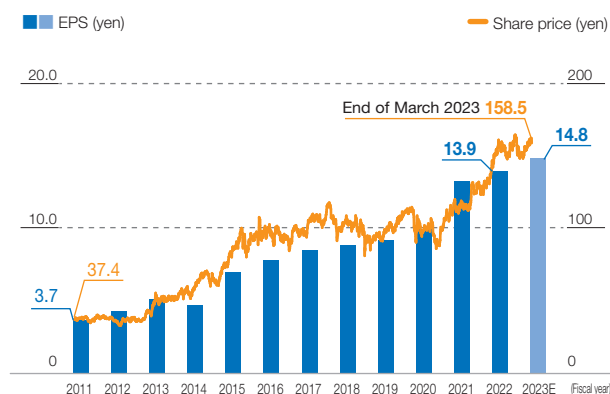
Since fiscal 2012, NTT Group has set EPS as a key performance indicator, and it has achieved EPS growth through steady implementation of its Medium-term

management strategy for profit growth coupled with share buybacks. During this period, EPS increased approximately fourfold from 3.7 yen in fiscal 2011 to 13.9 yen in fiscal 2022,

and our stock price has also risen in tandem. However, EBITDA has been hovering around 3 trillion yen, and we believe it is critical to enhance corporate value by increasing our cash-generating ability and achieving profit growth for the sake of sustainable growth going forward. Based on this belief, in our new Medium-term management strategy, we

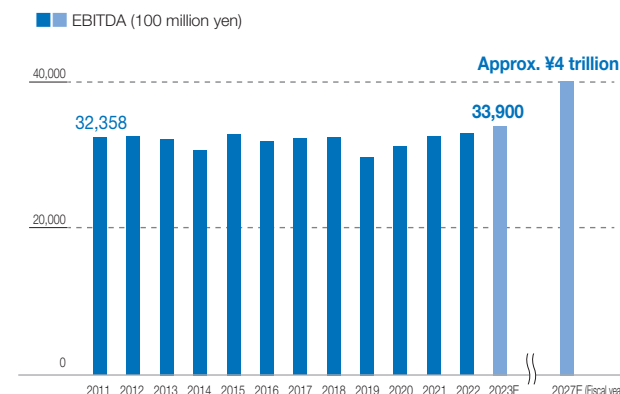
have set EBITDA as a key indicator and aim to expand it through increased investments in growth areas. At the same time, enhancing shareholder returns remains one of our most critical management issues, and we will work to accomplish this while simultaneously expanding investments in growth areas.

#### ● EPS Growth and Share Price



Note: EPS and stock prices are adjusted for stock splits.

#### ● EBITDA



## Investments in Growth Areas

As expectations for digitalization, cloud services, and AI increase in the market, we recognize that increased investment in growth areas is essential for the NTT Group's sustainable growth in the future.

The main sectors where we will expand our investments include DX business, data centers, smart life, green solutions, and the IOWN sector.

Among these, the sectors where significant investment amounts are expected and short-term growth is likely are our DX business (approximately 3 trillion yen over 5 years) and data centers (approximately 1.5 trillion yen over 5 years). Given the robust market demand, we have already been investing, but will scale up our investment for further growth.

For our Smart Life business (approximately 1 trillion yen over 5 years), we plan to expand our business, mainly focusing on financial and payment services like "d payment" and credit cards. We aim to grow our revenue by leveraging our "d Point Club," which has about 96 million members, and offering various services. Beyond financial and payment services, we will invest in video services and healthcare/medical sectors to further enrich our existing services.

In our Green Solutions business (approximately 1 trillion yen over 5 years), we will expand our renewable energy generation projects such as solar and wind power, and invest in storage batteries and energy management systems.

We aim to achieve net-zero emissions by fiscal 2040 and develop solution services that combine green energy with ICT. In August 2023, we acquired Green Power Investment Corporation, which has expertise and experience in wind power generation, with the goal being long-term, stable returns based on the FIT system, in addition to securing renewable energy sources for achieving net-zero by fiscal 2040.

As for IOWN, which is a next-generation communications infrastructure initiative we are promoting, it has now transitioned from the conceptual phrase to the implementation phase. In March 2023, we launched APN IOWN 1.0, which leverages one of IOWN's key features, low latency. In June 2023, we established NTT Innovative Devices Corporation to commercialize photonics-electronics convergence devices. We anticipate investing around 100 billion yen in fiscal 2023, including a 30-billion yen investment in NTT Innovative Devices Corporation, and will decide on further investment expansion based on the progress of photonics-electronics convergence devices.

## Message from the CFO

### Improving Return on Invested Capital

As previously mentioned, in our new medium-term management strategy, we plan to actively invest in growth areas. For existing areas, however, we aim to maintain service quality while promoting efficiency, thereby adequately controlling the total investment amount. Moreover, when executing investments in growth areas, we will hold discussions from various perspectives with the Directors and Audit & Supervisory Board Members,

and make implementation decisions using hurdle rates such as ROIC in pursuit of appropriate returns. We have accumulated know-how and experience in line with the expansion of our business, such as DX business and data centers, and have begun to achieve steady growth. After carrying out investments, we will monitor them regularly to check for any deviations between initial plans and actual performance and promptly take corrective measures.

### Enhancing Shareholder Returns

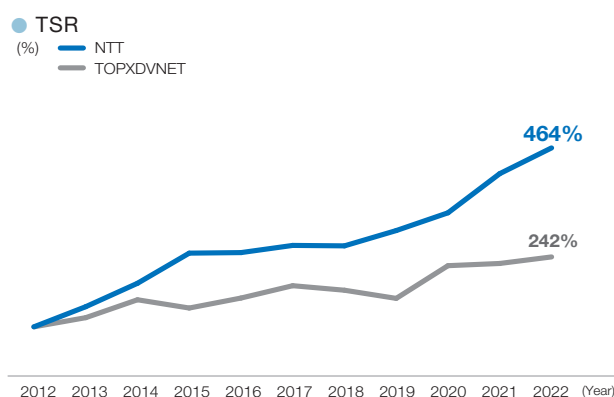
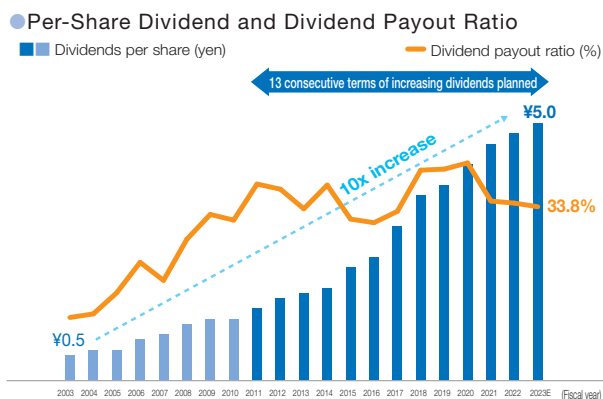
Our core philosophy regarding shareholder returns continues to prioritize steady dividend growth and aims to improve capital efficiency through flexible share buybacks. This stance remains unchanged in our new Medium-term management strategy.

Regarding dividends, we have planned for a 0.2 yen per share increase in fiscal 2023, marking our 13th consecutive year of dividend growth. This means that compared to fiscal 2003, the per-share dividend is expected to have increased

tenfold, reaching 5 yen.

For share buybacks, as of fiscal 2022, we have executed approximately 5.3 trillion yen's worth and have set a cap of 200 billion yen for fiscal 2023.

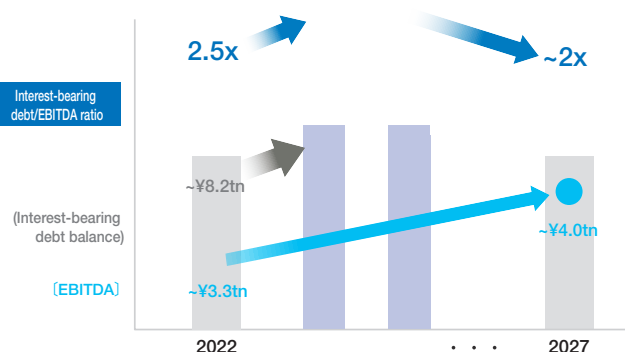
The Company's total shareholder return, which accounts for dividends and stock price fluctuations, was 464% over the past 10 years, outperforming the TOPXDVNET index, which is calculated post-tax and including dividends.



### Interest-Bearing Debt

We believe that the stable cash flows generated by our business activities will be sufficient to cover the increased cash outflow arising from both expansion of investments into growth areas and enhancements in shareholder returns. While investments in growth areas may include projects that generate returns over the long term, causing them to be viewed as initial investments, we do anticipate that the interest-bearing debt/EBITDA ratio could temporarily rise. However, we will maintain our financial health. In the medium term, we plan to bring down the interest-bearing debt/EBITDA ratio to around two by fiscal 2027 by expanding EBITDA in growth areas through investments.

#### ● Visualization of Interest-Bearing Debt, EBITDA, and the EBITDA Ratio



## Key Issues in Sustainability

In fiscal 2022, we conducted regular reviews while checking the progress of activities and indicators set forth in the NTT Group Global Sustainability Charter, and we conducted a re-evaluation of our materiality. Discussions were held in the Sustainability Committee, which reports directly to the Board of Directors, and decisions were made regarding the selection of key issues, setting of key performance indicators, and establishment of KPIs for executive compensation.

The method for selecting material issues incorporates a variety of perspectives, including disclosure ordinances, corporate governance codes, opinions from investors obtained during dialogue concerning ESG, inquiries from sustainability research institutions, and exchanges of opinions with experts, all based on two axes: “Growth as a company” and “Solving social issues.” The Global Sustainability Charter stipulates that regular reviews will be conducted annually, and for fiscal 2022, four key sustainability categories have been selected.

The first category is addressing climate change. With the goal of achieving Scope 1 and 2 carbon neutrality by 2040, we have been promoting energy conservation, expanding the use of renewable energy, and implementing IOWN. Our greenhouse gas emissions for fiscal 2022 stood at 2.53 million tons, a 45% reduction compared to 2013, so we are making steady progress. We also aim to achieve net-zero emissions by 2040, including Scope 3, in our new medium-term management strategy. From upstream suppliers to downstream customers throughout our supply chain, we aim to expand decarbonization initiatives through dialogue and engagement. We intend to apply the expertise gained from being an early adopter in emerging markets such as emissions visualization and green solutions to convert business opportunities into reliable sources of revenue.

The second category is human capital. In fiscal 2022, we introduced the Remote Standard system and have

developed diverse work styles and environments. In April 2023, we introduced a new personnel salary system focused on expertise, enrich mechanisms for employee growth, and create an environment where employees can fully utilize their capabilities. We believe that increasing employee engagement by enhancing job satisfaction and the desire for challenges will contribute to productivity and innovation. Although efforts are being made to introduce the system, various issues need to be addressed for the system's operation and implementation, and it is important to better link management and human resource strategies in order to resolve issues in these operations. We will continue to work on visualizing human capital by identifying talent that aligns with business strategies, devising acquisition and development tactics, and setting monitoring indicators and objectives.

The third category is creating new value. We hope to provide new experiences and emotional engagement that exceed our customers' expectations. Under our new medium-term management strategy, in addition to global co-creation, NTT's R&D will focus on enhancing customer experience (CX) more than ever thanks to the establishment of a new R&D organization that includes marketing functions.

The fourth category is resilience. As a company providing communication services, we see this materiality as our duty. In addition to dealing with large-scale outages caused by natural disasters, our response to cybersecurity is backed by specialists with advanced technology and expertise. We strive for further strengthening of our business foundation to continuously achieve NTT's values of Connect, Trust, and Integrity in the future.

## Strengthening Engagement and Dialogue with Stakeholders

To support the NTT Group's business growth and sustainability enhancement, we are looking to enhance our information disclosures. We will also accelerate the PDCA cycle in order to incorporate feedback that has further enriched dialogue with all of our stakeholders into our business strategies and develop new initiatives as appropriate, which will lead to enhanced corporate value. Specifically, regarding the goals and measures of our new Medium-term management strategy, we intend to keep everyone updated on our performance while also enriching our disclosures and providing comprehensive explanations.

Additionally, we will respect the perspectives of a diverse range of stakeholders—not just shareholders and investors, but also business partners across our supply chain and alliances, as we strive to transition toward an open and innovative corporate culture. We also intend to instill a culture that emphasizes trial and error among our employees through ongoing town meetings and similar forums.

As we continue to shoot for sustainable growth in the NTT Group, we look forward to engaging in meaningful dialogue with everyone as we strive to stay ahead in a rapidly changing society.





# We Will Achieve A World of Well-Being Through NTT's Technology

Representative Member of the Board  
Senior Executive Vice President  
CTO CIO CDO

**Katsuhiko Kawazoe**

## Steady Progress Towards Practical Applications of the IOWN Concept

With regard to NTT's R&D, our endeavors are aimed at ushering in a new smart society, and we are making concerted efforts to achieve the groundbreaking IOWN initiative as the innovation necessary for this vision. In March 2023, we launched our first IOWN commercial service (IOWN 1.0), the low-latency network part of this initiative. When we first introduced the IOWN initiative in 2019, our goal was to offer a package that included low latency, high bandwidth, and low power consumption, targeting a 10-year timeline. However, the spike in communication traffic amid the pandemic reaffirmed the necessity for IOWN, prompting us to accelerate its deployment.

Numerous use cases have already emerged. For example, in the realm of telemedicine, we have connected the remote surgical support robot "hinotori" from Medcaroid Corporation to its operators via the All-Photonics Network (APN), achieving low-latency and stable data transmission, which in turn enables stable robotic operations. In the field of financial transactions, when accessing the processing system in Tokyo from Sapporo or Osaka within the Japan Exchange Group, latency occurred due to transmission distance. However, with the introduction of APN, it is possible not only to suppress overall latency, but also to adjust the latency difference due to distance using the latency adjustment function. This ensures the fairness of the entire system regardless of transmission distance.

IOWN is the cornerstone of the strategy in our new Medium-term Management Strategy "New Value Creation & Sustainability 2027 Powered by IOWN," which was announced in May 2023. As mentioned above, NTT East and NTT West have already started commercial provision of APN IOWN 1.0. In addition to progress in introduction by a variety of private companies, its use is also spreading to the national government and local governments. For example, Shibuya city agreed on collaboration for new urban development utilizing IOWN in June 2023. In recognition of these efforts to realize the IOWN initiative, I received the special award "2023 CTO of the Year Chosen by Nikkei xTECH." As the CTO, I will continue to provide steady management.

Furthermore, it is indispensable to involve global partners and solidify specifications and standards to promote the spread of IOWN. The IOWN Global Forum, for which I have served as President and Chairperson since its establishment in January 2020, has more than 130 member organizations and is working to establish de facto standards. De jure standards set by international organizations are also important for standardization. Since January 2023, Mr. Seizo Onoe, originally from NTT, has been serving as the Director of the Telecommunication Standardization Bureau of the International Telecommunication Union (ITU). We believe this will provide a significant breakthrough for future IOWN deployment.

## Technology for Achieving Sustainability and Creating New Value

ChatGPT and other forms of generative AI have been the focus of much attention recently, but while AI is extremely useful, it requires large amounts of data processing and power consumption. In order to meet the ever-increasing needs of society, NTT Laboratories is advancing efforts to form an AI community where there is connection and collaboration of sustainable forms of AI.

By connecting multiple forms of small, low power consumption AI developed by NTT Laboratories in real time via IOWN, highly accurate answers and future predictions can be realized in a sustainable manner. Furthermore, by linking multiple highly specialized forms of AI through IOWN, an AI community can be formed that contributes to AI governance. As an organization that connects people, NTT aims to create new value by connecting AI as well.

To create and provide this kind of new value, it is essential to secure personnel with higher expertise and skills than ever before and to generate added value in various fields. We will continue to expand human capital investments so that we can secure excellent external talent and support employee growth.

In June 2023, we newly established the Research and Development Market Strategy Division, an R&D organization that includes marketing functions.

While growing together globally with our customers and partners, we will consistently provide research and development and products that contribute to solving social issues, and promote our alliances with various partners. Of course, we must also fulfill our mission of supporting social infrastructure. We are working on building resilient network systems in anticipation of large-scale failures and

cyberattacks, and advancing efforts across the entire NTT Group to prevent recurrence of failures.

I also serve in roles including CIO and CDO. As CIO, I had the core systems of approximately 100 NTT Group companies simultaneously updated in April 2023. The different systems for each company were unified as our Group-wide IT, standardizing the processes and data of each company. As a result, the utilization of data and the standardization of business processes intermediated by the core system (common system) have been dramatically improved. This would not have been possible without the cooperation of everyone on the frontlines. Furthermore, as CDO, I am promoting the standardization and streamlining of operations through the use of digital technology. For example, we are not only promoting operational efficiency by effectively utilizing large amounts of information and data that had been lying dormant in each Group company through the introduction of the aforementioned Group-wide IT, but also through guidelines on purpose and conduct via internal DX promotion events as well as further fostering a culture of DX. We will leverage the elevation of employee experience (EX) gained in the process of reform to also elevate customer experience (CX). There is no other example of such success in the world, and we were selected as a finalist for the PM Award 2023, which recognizes outstanding projects in Japan.

Going forward, under the title of "aggressive DX," we will continue to promote further measures to tackle reform themes centering on customers, led by DX promotion leaders (Change Agents) appointed by the CDOs of each company.

## NTT's Ideal World

As CTO, I must always be looking 10 steps ahead. What we ultimately aim for is a world characterized by both physical and mental well-being. "Well-being" does not refer to momentary gladness or pleasure—commonly known as "happiness"—but rather the cumulative total of these things for society as a whole over time. By breaking through the current limitations of technology by utilizing NTT's technology, including IOWN, we will achieve both value creation for a world where human beings can live happily and sustainability of the Earth. In addition, by promoting collaboration not only in Japan but also on a

global scale, NTT itself will play a major role in the world and expand the business of the entire Group.

For NTT to lead the world in technology and continually improve its corporate value while turning its ideal future into reality, investments in intellectual property and human capital are essential. We will continue to generate returns that justify those investments and apply them toward additional future-oriented investments, ensuring that the cycle continues. The NTT Group will move forward as a single united entity to meet the expectations of our shareholders and investors.

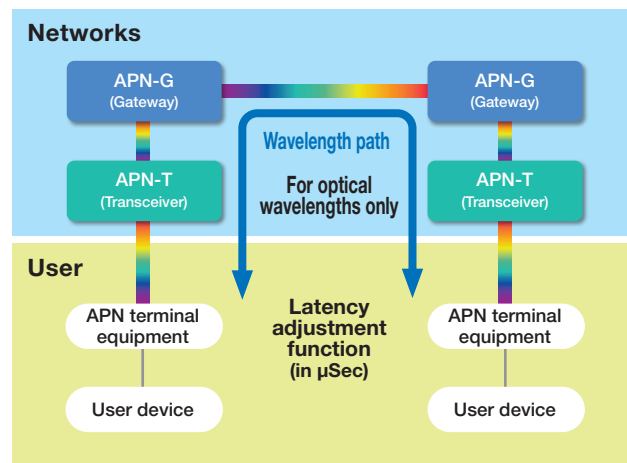
# Innovative Optical and Wireless Network

# IOWN

## Launch of APN IOWN 1.0

In March 2023, NTT East and NTT West initiated the first commercial service under the IOWN framework. This high-speed broadband access service, powered by IOWN, is called the All-Photonics Network (APN). APN provides an optical-wavelength-exclusive service across the entire communications network. By implementing OTU4<sup>\*1</sup>, which uses optical wavelengths exclusively in all sections of the communications network and enables multi-accommodation within the optical transmission network at the interface level, we have achieved a latency that is an astounding 1/200th of conventional latency<sup>\*2</sup>, as well as zero signal fluctuation<sup>\*3</sup>.

With conventional IP/Ethernet services, the way latency occurred was inconsistent, making it difficult to predict and thereby complicating intricate remote tasks. With APN, the absence of signal fluctuations and a consistent latency level have made it possible to predict delays, thereby enabling a wide range of applications. Furthermore, adjustments and visualization of latency make it possible to synchronize timing between remote locations.



<sup>\*1</sup> A standardized optical transmission network protocol recognized by ITU-T. Provided as an interface for high-speed broadband access services

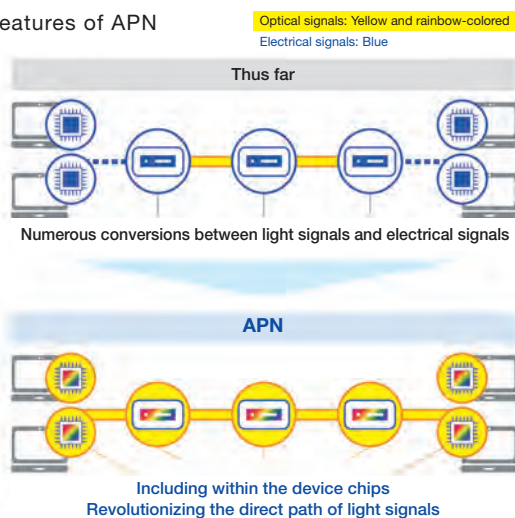
<sup>\*2</sup> Latency within the same prefecture where no video compression is required

<sup>\*3</sup> Suppression of latency and packet loss due to traffic conditions by adopting time-division multiplexing (sending signals at fixed times to distinguish information)

## What is APN?

Current networks consume a significant amount of energy by repeatedly converting between optical and electrical signals. Moreover, latency issues arise due to communication traffic management. APNs seek to overcome these limitations

### ● Features of APN



by converting all signals into optical signals, thereby creating a network with higher capacity, lower latency, and more reduced energy consumption than now.

### ● Expansion of APN services

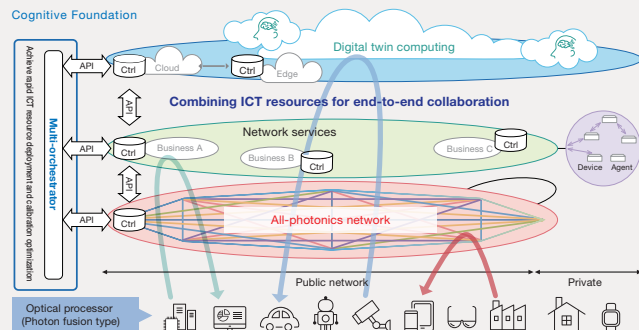
We plan to incrementally expand APN services between major cities with the goal of enhancing the value proposition for our users and expanding our business operations.



<sup>\*</sup> This diagram is for illustrative purposes, and APN deployment to the areas mentioned is undecided at this point.

## What is the IOWN (Innovative Optical and Wireless Network) Concept?

IOWN is a framework involving devices, networks and information processing infrastructure built on optical and other innovative technologies, to deliver high-speed and high-capacity communications, and vast computing resources. IOWN consists of three key areas of technology: the All Photonics Network (APN), which applies optical technology; Digital Twin Computing (DTC), which enables advanced, real-time interaction between objects and people in cyberspace; and the Cognitive Foundation (CF), which deploys various ICT resources efficiently, including the aforementioned.



## APN IOWN 1.0 Applications

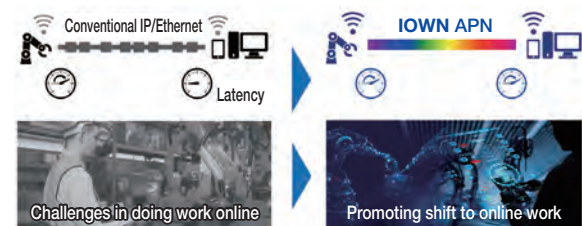
### Telemedicine

- Complex surgeries can now be performed remotely thanks to high-capacity, low-latency, and zero-fluctuation communications



### Smart factories

- Minimization of latency and fluctuations allows for remote operations that are as intricate as human touch



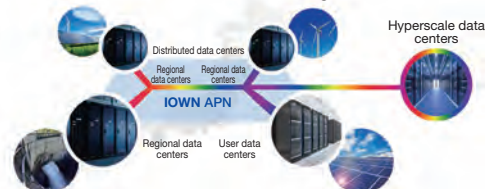
### e-Sports

- Even in e-Sports, where slight latency can affect the outcome, fair competitions between remote venues is enabled



### Data center interconnectivity

- Interconnecting data centers via APN makes it possible for functional distribution and increases availability
- The use of renewable energy is encouraged through the utilization of small- and medium-sized regional data centers



## Collaboration with Partners

We are in discussions with various potential partners, including companies and organizations that are considering using APN IOWN 1.0 on a paid basis (as shown in the figure on the right). We aim to promote business demonstrations and new business creation using APN IOWN 1.0 together with our partners.

Oracle Corporation

Amazon Web Services Japan LLC

NVIDIA Japan LLC

Google Cloud Japan LLC

RIKEN, Institute of Physical and Chemical Research

National Institute of Informatics

Shibuya Ward

Tokyu Land Corporation

Japan Exchange Group, Inc.

Mitsubishi Corporation

Medicaroid Corporation

Yoshimoto Kogyo Co., Ltd.



# Innovative Optical and Wireless Network IOWN

## Future Developments of Photonics-Electronics Convergence Devices

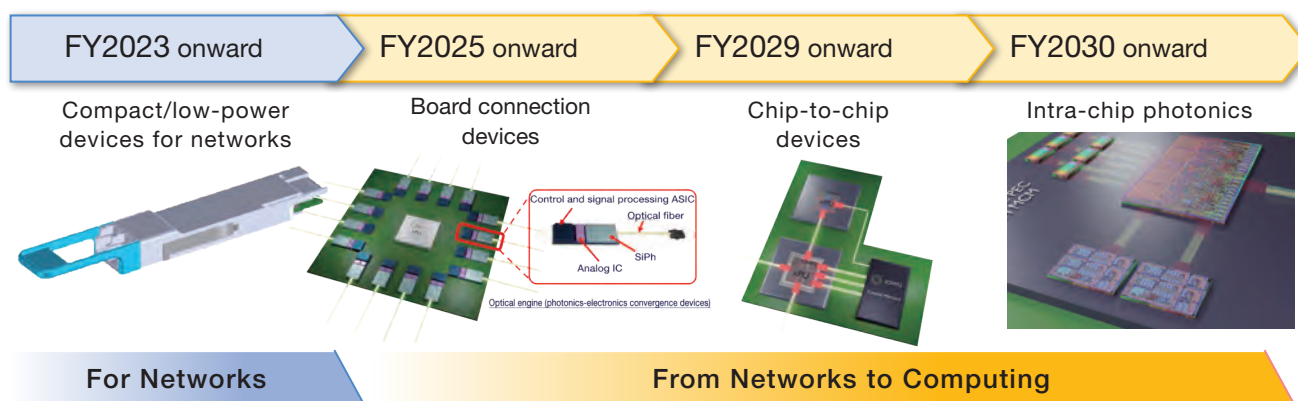
APN IOWN 1.0, which we launched in March 2023, offers ultra-low latency as a significant value. Still, the most distinctive feature of APN is its improved energy efficiency, the key to which is photonics-electronics convergence devices. Photonics-electronics convergence means fusing optical and electrical circuits to achieve various performance improvements, including miniaturization and economization as well as high speed and low power consumption. We aim to apply this not just to networks, but also to the computing realm to significantly reduce power consumption.

For photonics-electronics convergence devices, we plan to start by commercializing low-power devices for network applications in fiscal 2023. This involves integrating multiple

devices that used to be separate into a single package, thereby significantly reducing the size and achieving lower power consumption.

Next, we plan to commercialize photonics-electronics convergence devices for board connections in fiscal 2025, enabling optical connections between boards and between boards and external interfaces. This will allow for the use of light not only in networks, but also in computing.

Subsequently, with an eye toward fiscal 2029, we plan to make chip-to-chip connections within boards possible using photonics-electronics convergence technology, and beyond fiscal 2030, we aim for connections within the chips themselves to be optical.



We aim to refine IOWN by applying the aforementioned photonics-electronics convergence devices to both APN services and servers.

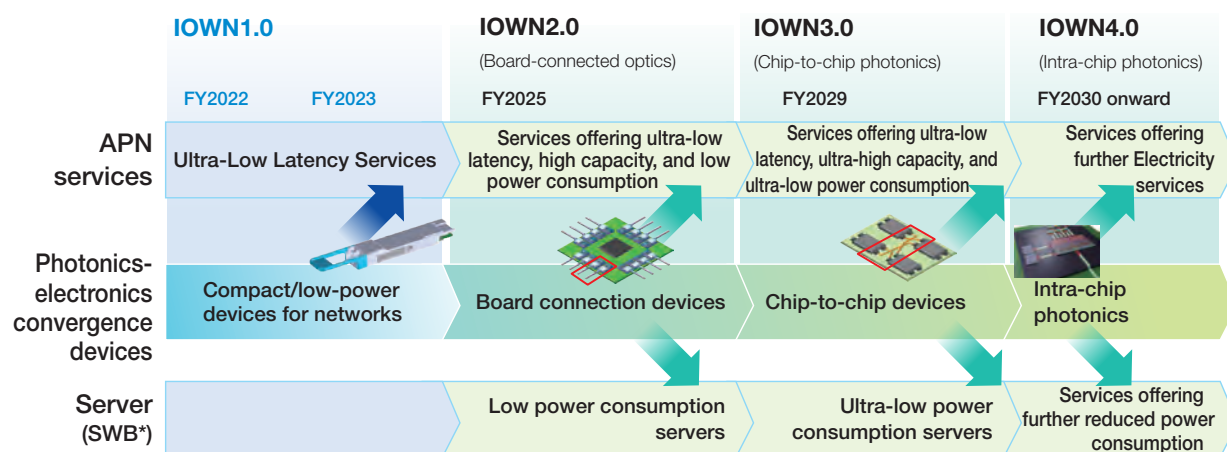
First, in fiscal 2023, we plan to reduce the power consumption of network-oriented small devices and apply them to APN services to improve their power efficiency.

Next, for IOWN 2.0 starting in fiscal 2025, we will expand the application scope by using the devices for board connections in not only APN services, but also the server

sector.

According to the current schedule, our goal is to commercialize low-power servers using these photonics-electronics convergence devices in fiscal 2026.

Further, for IOWN 3.0 starting in fiscal 2029, we aim to develop devices for chip-to-chip connections and, for IOWN 4.0 in fiscal 2030 and beyond, to make the chip interiors themselves optical to drastically reduce power consumption.



\* Super White Box

## IOWN Performance Targets

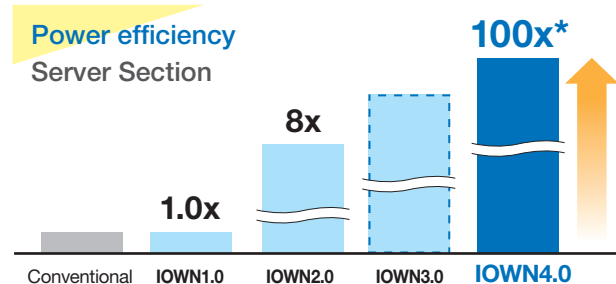
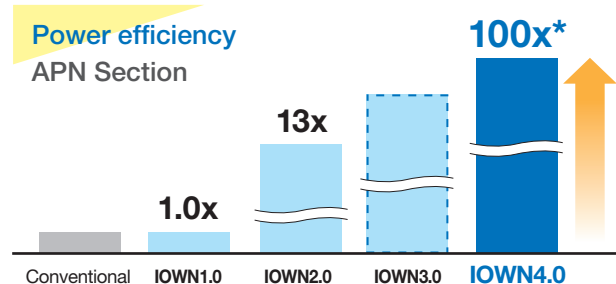
In addition to photonics-electronics convergence devices, we are considering improvements in wavelength technology and optical fiber technology. Starting in fiscal 2025 with IOWN 2.0, we expect a 13-fold improvement in power efficiency in the APN section and an 8-fold improvement in the server section, with a more than 6-fold increase in capacity.

Moreover, in fiscal 2029 with IOWN 3.0, we aim for further performance improvements, reaching up to 125-

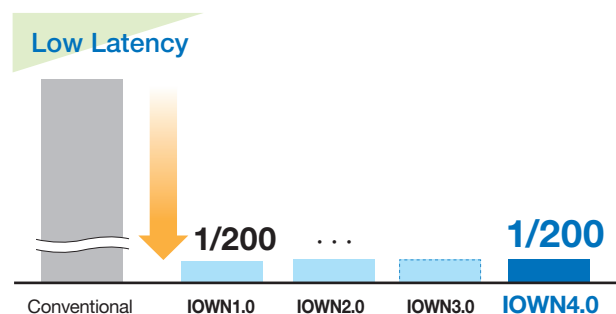
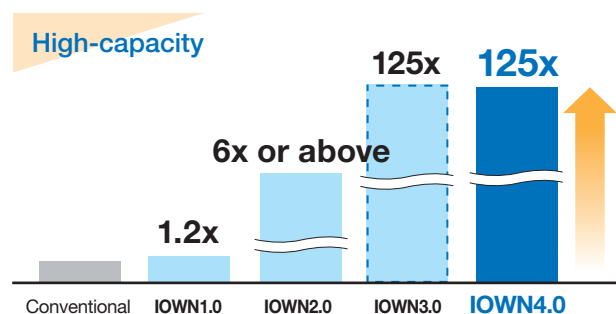
fold in terms of capacity.

The power efficiency depends on the deployment of the device, but its performance will exceed that of IOWN 2.0, and it is expected to improve performance about 20-fold in the server section compared to existing solutions.

Furthermore, we aim to achieve a 100-fold improvement in overall power efficiency, 125-fold in capacity, and 1/200th of the latency with IOWN 4.0 looking toward fiscal 2030 and beyond.



\* Power efficiency values for the entire photonics-applied section, including APNs, servers, etc.



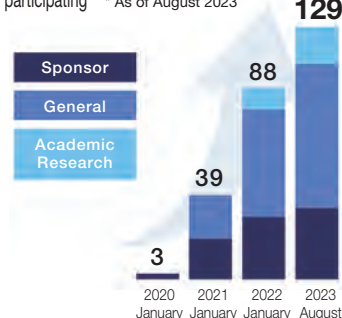
## Column

### IOWN Global Forum Initiative

To make the IOWN concept a reality, we have been promoting it around the world with partners through the IOWN Global Forum (IOWN GF), and 129 organizations and groups are taking part (as of August 2023).

In April 2023, we held the first annual meeting in Osaka in the post-COVID-19 period, with 396 participants attending in person and 174 attending remotely, mainly from Europe and Asia. Discussions about future developments are steadily evolving, and we have received a message from Prime Minister Kishida as well.

● 129 organizations and groups from Asia, America, and Europe participating \* As of August 2023



#### IOWN GF Sponsor Members (34)

Chunghwa Telecom  
Ciena  
Cisco Systems  
Dell Technologies  
Delta Electronics  
Ericsson  
Intel  
Microsoft  
NICT

Nokia  
Oracle Japan  
ORANGE  
PwC Japan  
Red Hat  
Samsung Electronics  
SK hynix  
SK Telecom  
VMware

Accenture Co., Ltd.  
Kioxia Corporation  
KDDI Corporation  
Sumitomo Electric Industries, Ltd.  
Sony Group Corporation  
Deloitte Touche Tohmatsu LLC  
Toyota Motor Corporation  
NEC Corporation

NIPPON TELEGRAPH AND  
TELEPHONE CORPORATION  
Hakuhodo Inc.  
Fujitsu Limited  
Furukawa Electric Co., Ltd.  
Mizuho Bank, Ltd.  
Mitsubishi Electric Corporation  
MUFG Bank, Ltd.  
Rakuten Mobile, Inc.

#### General Members (77)

#### Academic or Research Members (18)

# Providing security and safety for NTT Group's businesses and supporting their growth

## Intellectual Property Strategy

The NTT Intellectual Property Center takes appropriate action to protect the results of intellectual property investment for new value creation and the sustainability of the planet, promoting its use while respecting the intellectual property of others.

### NTT Intellectual Property Center Activity Policy

NTT Group, which engages in R&D, from basic to applied, in a wide range of technological fields, has accumulated intellectual property investments (R&D investments) over the years as a telecommunications operator that are unparalleled around the globe.

The NTT Intellectual Property Center has established an Activity Policy to provide security and safety and support the growth of the NTT Group's businesses as they continue to take on the challenge of creating new value and contributing to the sustainability of the planet. It promotes the formulation of an intellectual property strategy and appropriate protections for the intellectual

property gained from our investments, all while respecting the intellectual property of others.

For example, in the transition from the conceptual phase of IOWN to the implementation phase, we launched NTT Innovative Devices Corporation and are facilitating further investments in R&D. However, this is not an endeavor that can be accomplished by the NTT Group alone. The NTT Intellectual Property Center will continue to contribute to the creation of new value by supporting collaborations with our partners around the globe through various activities aligned with our policy objectives.

### Formulating and Advancing Our Intellectual Property Strategy

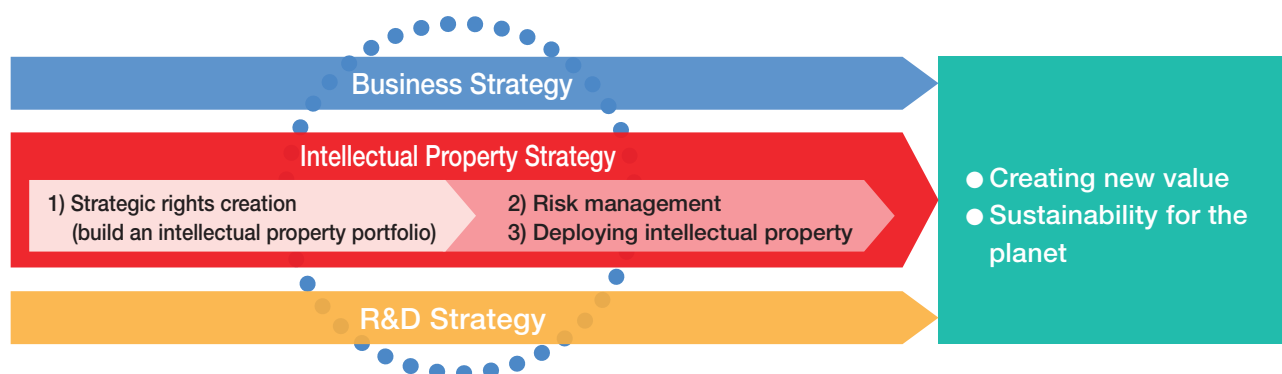
As NTT Group's core organization for managing intellectual property, we aim to secure competitive advantages by proactively and appropriately protecting and managing intellectual property rights (i.e., patents), or internal expertise, gained from the results of R&D, the source of our business activities.

NTT aims to share the benefits of its R&D by broadly licensing out its technologies that help advance industry and technologies can be standardized and used throughout society. When deploying the results of R&D in their

operations, each company in NTT Group respects the intellectual property rights of other companies.

With our intellectual property strategy as the basis of these activities, we take a three-pronged approach to formulating and advancing our business strategies and R&D strategy for the sake of creating new value and contributing to the sustainability of the planet: (1) develop strategic intellectual property rights, (2) manage risks, and (3) deploy the intellectual property we own.

1) Strengthening our competitiveness with strategic rights creation (build an intellectual property portfolio)	<ul style="list-style-type: none"><li>• Build an intellectual property portfolio through the strategic development of intellectual property rights from fruits of R&amp;D activities, based on technologies and anticipated business models</li></ul>
2) Risk management that protects our intellectual property rights and respects the rights of others	<ul style="list-style-type: none"><li>• When Group companies deploy the results of R&amp;D in their operations, we examine the intellectual property rights of others inside and outside Japan up until the stage where R&amp;D results are applied in order to avoid infringing on the rights of third parties</li><li>• Reduce business risk and comply with laws and regulations related to intellectual property rights, by sharing among Group companies information about intellectual property trends and their impact, such as revisions to systems around the world, cases of conflict and court decisions</li></ul>
3) Develop business and partners through broad deployment of intellectual property rights	<ul style="list-style-type: none"><li>• Deploy intellectual property in business to help our customers and society, and to secure competitive advantages in business</li><li>• Proactively engage in activities to standardize intellectual property</li></ul>

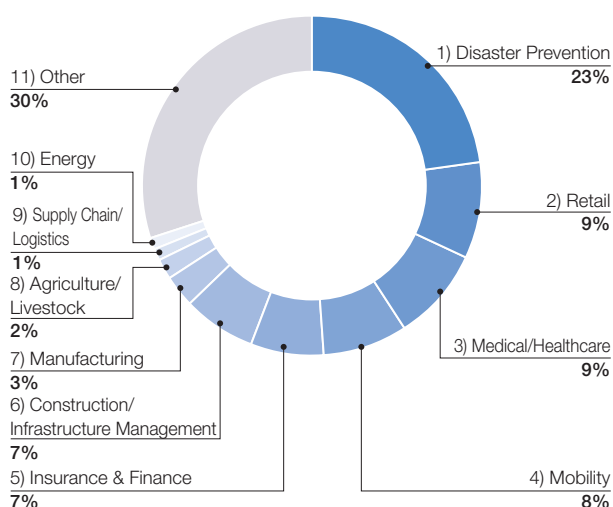


## Intellectual Property Portfolio Related to AI Business

The results of R&D, which plays a major role in the creation of intellectual property for NTT Group, has translated into ownership of approximately 18,000 patents around the world.

In the NTT Group, we have long conducted R&D on AI technology, which is attracting significant public attention. This includes foundational technologies such as learning techniques, as well as applied inventions for a wide range of industries for which patents have also been obtained.

● Percentage of NTT Group's AI Patent Applications by Business Area



Categories	Description
1) Disaster Prevention	Disaster prediction and forecasting, pre-disaster awareness through hazard maps, 3D mapping, XR, remote real-time monitoring
2) Retail	Optimal staffing, store layout, resource allocation, estimations and simulations of purchase and execution trends, optimization of promotional activities in e-commerce and physical stores, demand forecasting based on purchase data
3) Medical/Healthcare	Telemedicine, modeling & simulation of public health, optimal allocation of healthcare resources, data-driven extension of healthy lifespan
4) Mobility	Traffic flow simulation, congestion alleviation, traffic optimization, sensing around vehicles, autonomous driving
5) Insurance & Finance	Credit, fraud detection, demand forecasting, stock price prediction, financing, credit rating
6) Construction/Infrastructure Management	3D surveying, structural replication, detection or diagnosis of degradation, failure, abnormalities in buildings and infrastructure, remote monitoring in buildings and infrastructure, maintenance efficiency
7) Manufacturing	Monitoring of production facilities, maintenance, simulation-driven design, development, quality inspections
8) Agriculture/Livestock	Smart farming, remote operation & automatic control of agricultural machinery and agricultural & livestock facilities, yield & quality prediction
9) Supply Chain/Logistics	Logistics optimization, optimal dispatching and allocation of vehicles, demand and supply prediction, risk analysis
10) Energy	Stable operation of power generation facilities, energy demand and supply forecasting and optimization
11) Other	—

## IPR\*-DAY (initiative for raising interest in intellectual property across the Group)

The NTT Intellectual Property Center has been holding a cross-Group comprehensive event known as IPR-DAY since last fiscal year, with the aim of elevating the level of interest in intellectual property among Group employees and helping them integrate this knowledge into their daily work.

IPR-DAY 2022, conducted last November, saw the participation of 242 individuals from 55 Group companies, covering a diverse range of professions. During the event,

lively discussions took place on timely topics provided not only by the NTT Intellectual Property Center, but also by intellectual property managers from various Group companies. Feedback from participants included comments saying that the content was overall refreshing and useful, leading to a significant rise in interest and understanding of intellectual property across the NTT Group.

\* Intellectual Property Right

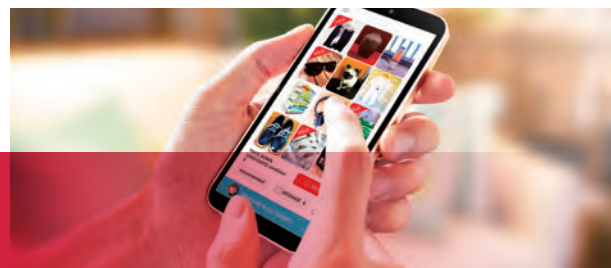


### IPR-DAY 2022 Program

- Current Intellectual Property Trends from the Perspective of Industry Buzzwords
- Creating and Utilizing Patents that Contribute to Business
- Bridging Business and R&D Strategies through IP Landscaping
- Intellectual Property Considerations in a Co-Creation Environment
- Intellectual Property Risk Management Focus Areas
- Protecting and Respecting Copyrighted Material
- The Metaverse and Intellectual Property



# Integrated ICT Business

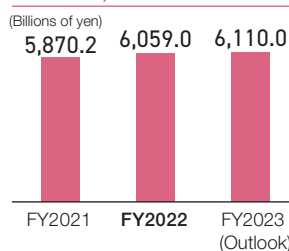


In the Integrated ICT Business, with the start of a new structure as the newly formed DOCOMO Group, we advanced initiatives to create the three major synergies of expansion of the enterprise business, more competitive network, and strengthening the power of service creation and development and promoting DX, while also promoting sales of 5G services.

## Results for the Fiscal Year Ended March 31, 2023

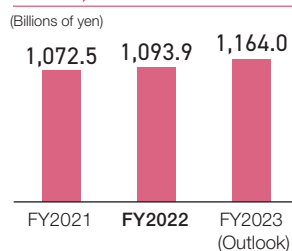
### Operating revenues

**¥6,059 billion**



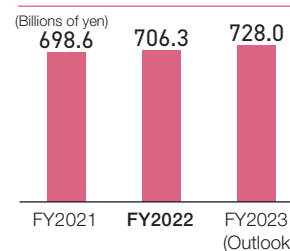
### Operating profit

**¥1,093.9 billion**



### Capital Investment

**¥706.3 billion**



## Key Initiatives

### ■ The Next Stage of Innovation: Transform our business portfolio to become an integrated ICT company and achieve sustainable growth

Enterprise Business	<ul style="list-style-type: none"> <li>Resolving social and industrial challenges through the improvement of our integrated solutions</li> <li>Supporting business efficiency through the fusion of mobile and fixed-line services</li> </ul>
Smart Life Business	<ul style="list-style-type: none"> <li>Achieving both organic and disruptive growth</li> <li>Achieving both immediate business expansion and long-term growth initiatives</li> </ul>
Consumer Communications Business	<ul style="list-style-type: none"> <li>Implementing channel reforms in both real and online environments to create new, hybrid customer experiences</li> <li>Continuing efforts to improve network quality and reliability</li> </ul>

## TOPIC

### NTT Com, Takenaka and Shimizu to collaborate on digital transformation of construction sites

NTT Communications Corporation (NTT Com), Takenaka Corporation, and Shimizu Corporation began their collaboration on the digital transformation of construction sites in July 2023. Through collaboration and joint study, the three companies aim to improve the productivity of the entire construction sites daily by digitalizing and linking information used for process management, material logistics, work instructions, etc., in process charts and daily work reports.

### Launch of "d Smart Bank" Digital Account Service

NTT DOCOMO, in collaboration with MUFG Bank, Ltd., launched the digital account service "d Smart Bank" in December 2022. This digital account service allows customers to accumulate "d Point" when using it for automatic payments, such as for "d Card" usage or mobile phone bills, as well as for receiving wages and other

payments exceeding a certain amount. Through this service, we will continue to expand our range of financial services that can be securely and conveniently used in various scenarios as part of our commitment to individually supporting each customer's approach to managing their finances.

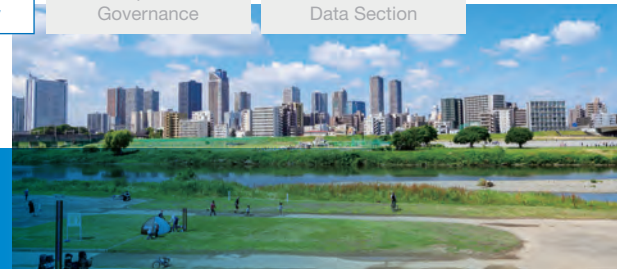
### Introduction of the new services "eximo" and "irumo"

In July 2023, NTT DOCOMO began offering new price plans, "eximo" and "irumo." The "eximo" plan is designed to cater to a wide array of customer needs, from those who use little data to those who wish to use data without any restrictions\* when watching videos on the go, for instance. Conversely, "irumo" is aimed at customers who not only require less data, but are also looking for a more economical rate. Along with the existing "ahamo" plan, we will continue to offer a mix of attractive services that include financial and payment solutions as well as video and other services, with the aim of maximizing the value provided to our customers.

\* Data usage may be restricted during times of network congestion or heavy data traffic.

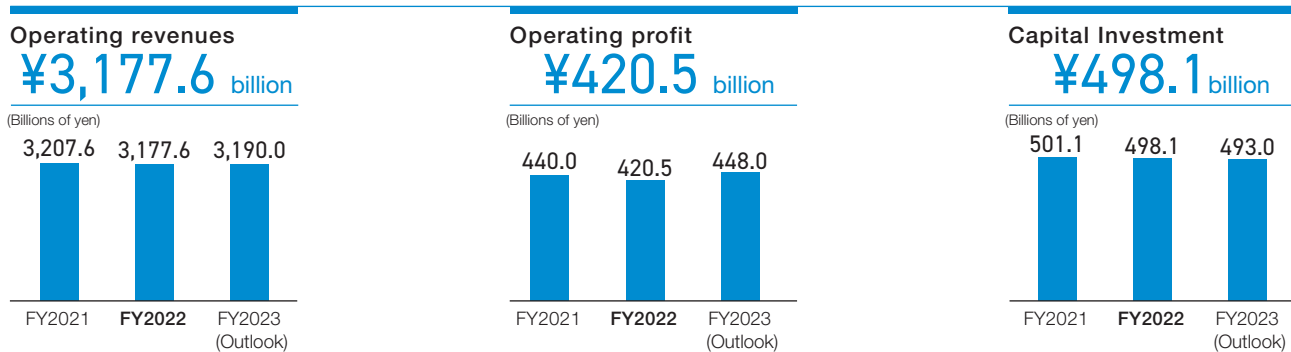
## Operations in Review

## Regional Communications Business



In the Regional Communications Business, in addition to strengthening our solutions business which supports the digital transformation of companies, local governments, and societies to resolve regional social issues, we offered our "Hikari Collaboration Model," which provides wholesale fiber-optic access services, among other things, to various service providers.

## Results for the Fiscal Year Ended March 31, 2023



## Key Initiatives

## ■ NTT East - Intensifying efforts to support a recycling-oriented economy in local communities -

Evolution of access networks to support a digital society	<ul style="list-style-type: none"> <li>Expanding the functions of Regional Edge and adapting to remote needs, among others</li> </ul>
Offering integrated managed services that support on-premise environments for customers	<ul style="list-style-type: none"> <li>Providing centralized solutions for monitoring, maintenance, and operation of intra-building and in-office LAN environments, among others</li> </ul>
Engineering that strengthens the resilience of local communities	<ul style="list-style-type: none"> <li>Consolidating facility construction and operational tasks at NTT-ME, centralizing technical expertise and know-how for building and managing communication infrastructure</li> </ul>
Further enhancing the reliability of the networks supporting Japanese infrastructure	<ul style="list-style-type: none"> <li>Increasing overall reliability through cross-sector collaborations and enhancing maintenance and operations using AI, among others</li> </ul>

## ■ NTT West - Contributing to the Resolution of Social Issues Through Businesses in Growing Sectors -

<ul style="list-style-type: none"> <li>Offering comprehensive solutions to customers, including the promotion of community revitalization through cloud services targeted at municipalities and the advancement of DX in university education</li> </ul>
<ul style="list-style-type: none"> <li>Utilizing QUINTBRIDGE for joint business development pitches and the Future Co-Creation Program to promote business co-creation with our partners</li> </ul>
<ul style="list-style-type: none"> <li>Exploring new use cases enabled by IOWN, such as new entertainment experiences leveraging low-latency networks</li> </ul>
<ul style="list-style-type: none"> <li>Ensuring the reliable and stable provision of telecommunications services, which serve as critical social infrastructure, through upgraded operations and the strengthening of communication facilities</li> </ul>

## TOPIC

## Launch of APN IOWN 1.0

NTT East and NTT West have launched the All-Photonics Network (APN) IOWN 1.0 as the first commercial service aimed at achieving the IOWN concept, in which all sections of a communications network use optical wavelengths exclusively. APN IOWN 1.0 ensures high speed, high capacity and low latency, and zero fluctuation. Additionally, integrating OTN Anywhere, launched concurrently, enables the visualization and

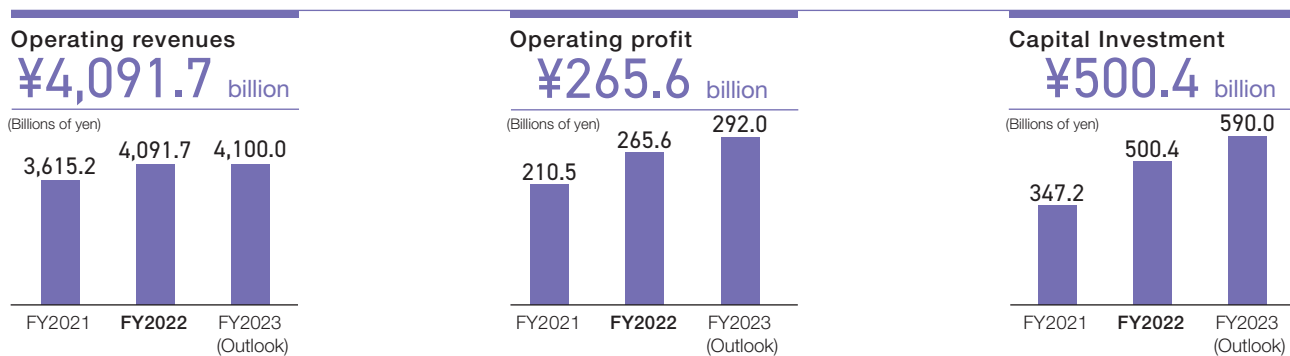
adjustment of latency. We will continue to work with our customers to expand use cases, including remote performances, remote lessons, e-sports, remote equipment operation, and tight integration between data centers. Moreover, we are advancing our R&D efforts to enhance APN-related technologies, with the goal of offering a firsthand IOWN experience at the 2025 World Exposition (Osaka-Kansai Expo).

# Global Solutions Business



In the Global Solutions Business, NTT DATA Group worked to extend and consistently provide a range of IT services, such as offerings of digitalization and system integration, that are responsive to the changes in the market, as well as to strengthen its ability to provide services in growth areas such as the data center business and managed services.

### Results for the Fiscal Year Ended March 31, 2023



### Key Initiatives

#### ■ Strategy in the Medium-term Management Plan of the NTT DATA Group

As a Trusted Global Innovator, NTT DATA Group aims to create value for the future and achieve a sustainable society along with its customers by forging connections between various people and technology.

Overall Strategy	● Capitalize on the convergence IT & Connectivity
	● Strengthen consulting with foresight
	● Evolve to an asset-based business model
	● Enhance advanced & development technology
	● Be the best place to work

### TOPIC

#### Generative AI service launched capable of crafting evidence-based responses by securely integrating various types of data

In June 2023, NTT DATA Japan launched the LITRON Generative Assistant, a service that produces evidence-backed responses by securely linking a variety of data—including internal regulations, business documents, and public data—through generative AI. NTT DATA Japan already introduced the text-interpretation AI tool LITRON, which uses large-scale language models, to the market a while ago, and it has continued to engage in research and development. This new service benefits from those efforts. Additionally, by leveraging NTT DATA Japan's data analysis platform, we alleviate customer security concerns while accelerating the adoption of cutting-edge technologies.

#### Collaboration with Mitsubishi Heavy Industries to build a rack-type liquid immersion cooling system for existing data centers

NTT DATA Japan, in partnership with Mitsubishi Heavy Industries, Ltd., has developed a rack-type liquid immersion cooling system that allows for the direct cooling of servers and other IT equipment in liquid and can be applied to existing data centers. This system submerges IT equipment in a specialized insulating liquid for efficient cooling. Following real-world testing at Mitaka Data Center EAST, we confirmed a 92% reduction in cooling energy consumption based on our internal building standards, as well as a 173% improvement in operational efficiency compared to conventional systems. Building on these findings, NTT DATA Japan aims to apply this cooling system to its own data centers and provide services to contribute to both the NTT Group's decarbonization targets and customer efforts toward decarbonization and energy efficiency while endeavoring to offer eco-friendly system services.

## Operations in Review

# Others (Real Estate, Energy and Others)

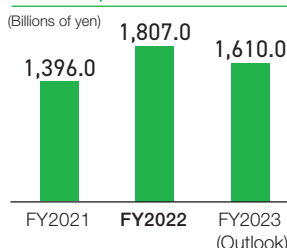


In the Real Estate Business, NTT Urban Solutions has taken the lead in utilizing a wide range of resources—including ICT, real estate, energy, and environmental technology—to spearhead the development of vibrant and unique communities. In the Energy Business, our focus has been on NTT Anode Energy. We have pushed forward with the development of renewable energy power plants, local production and local consumption of energy using energy management systems, and rolled out solutions aimed at decarbonization.

### Results for the Fiscal Year Ended March 31, 2023

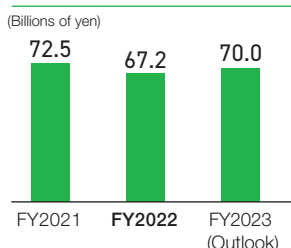
#### Operating revenues

**¥1,807** billion



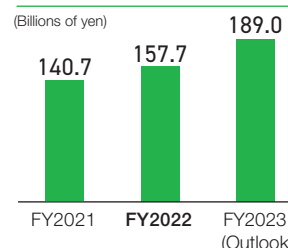
#### Operating profit

**¥67.2** billion



#### Capital Investment

**¥157.7** billion



### Key Initiatives

#### ■ Urban Solutions to Realize a City Full of Energy and Individuality

Under the slogan "Connecting People, Cities, and the Future.", NTT Urban Solutions Group combines the consulting prowess to solve local challenges, a proven track record in real estate development both in Japan and abroad, design and engineering expertise across all facility-related domains, and management capabilities that leverage extensive know-how to enhance asset value. We are committed to contributing to the sustained growth and progress of local communities.

Leveraging the collective strengths of the NTT Group to advance a unique approach to "Urban Solutions"

- Consulting, data collection, research, and analysis of basic information related to urban solutions
- Real estate development and management
- Design, engineering, and facility solutions
- Property management, ICT management, and energy management

#### ■ Smart Energy Business

NTT Anode Energy contributes to the realization of a decarbonized society through its smart energy business.

Green Power Generation Business	● Development of renewable energy to realize the NTT Group's Environment and Energy Vision
Local Grid Business	● Provision of local energy production for local consumption as well as carbon-neutral services to companies using energy management systems
Consumer Energy Business	● Provision of electricity for customers and the NTT Group
Construction/Maintenance Operation Business	● Provision of construction, maintenance, and monitoring services of electricity facilities for customers and the NTT Group

### TOPIC

#### Achieved Level 4 ISO 37106 Certification, the international standard for smart cities, the second such instance in the world

The Higashi-Sakura 1-chome Area in Higashi Ward, Nagoya City, managed by NTT Urban Solutions, has achieved Level 4 certification, currently the highest level of the ISO 37106 international standard for smart city operation models. This is only the second such certification worldwide. Going forward, the NTT Group will continue to expand its support for sustainable urban solutions focused on well-being, run by and for local residents, with the goal of maximizing community and individual well-being.

#### Acquisition of Green Power Investment Corporation and other renewable energy operators

NTT Anode Energy, in collaboration with JERA Co., Inc. (JERA), has completed acquisition of shares of Green Power Investment Corporation (GPI), which is owned by Pattern Energy Group LP, a U.S.-based renewable energy operator. Moving forward, NTT Anode Energy, JERA, and GPI will synergize their respective expertise, insights, and strengths in renewable energy operations, with the goal of contributing to Japan's goal of becoming carbon neutral by 2050 through further initiatives, thereby promoting the adoption of renewable energy within Japan. (See [page 24](#) for details)



# Corporate Governance

— Reinforcement of Governance for Sustained Growth —

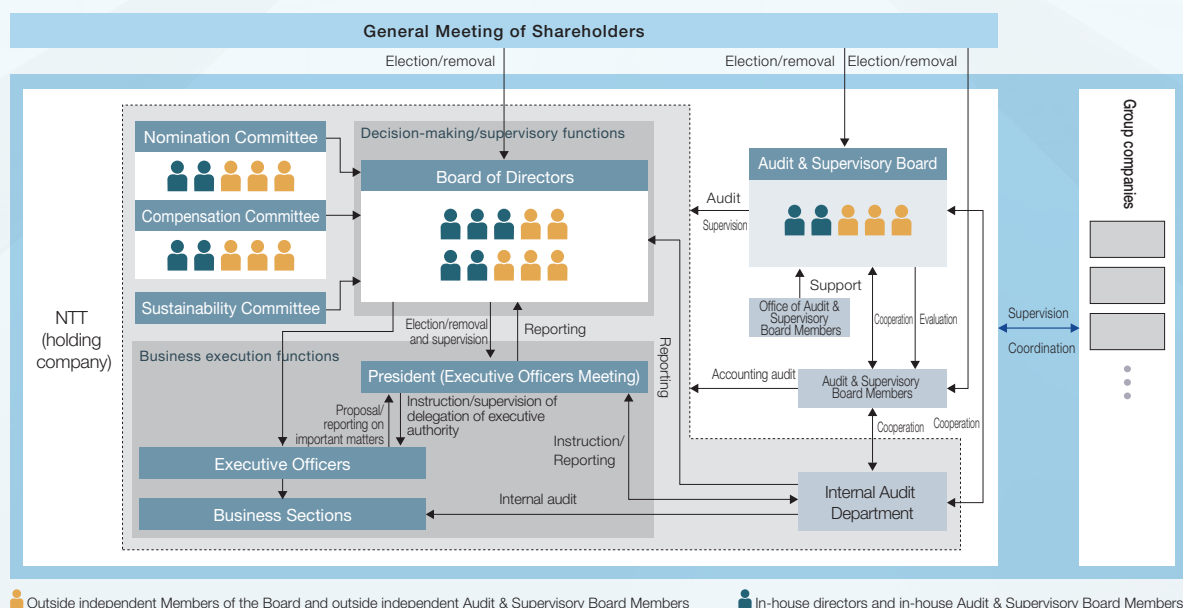
## Basic Views of Corporate Governance

We believe that strengthening the system of corporate governance in accordance with the purposes of each principle of the “Corporate Governance Code” of the Tokyo Stock Exchange is an important management issue for maximizing corporate value while meeting the expectations of various stakeholders, including shareholders and other investors, as well as customers, business partners, and employees. Therefore, we are working to strengthen corporate governance based on our fundamental policies of ensuring sound management, executing appropriate decision-making and business activities, clarifying accountability, and maintaining thorough compliance.

## Overview of Corporate Governance Structure

NTT believes that an auditing system based on Audit & Supervisory Board Members, including outside independent Audit & Supervisory Board Members, is an effective means of supervising management. Accordingly, we have adopted the model of being a company with an Audit & Supervisory Board. In addition, through the election of outside independent Members of the Board, NTT has strengthened the function of appropriately supervising business execution. Furthermore, through its adoption of an executive officer system, NTT intends to clearly separate management-related decision-making and supervisory functions from business execution functions and improve its management flexibility. Additionally, NTT has voluntarily established a “Nomination Committee” and a “Compensation Committee,” each of which consists of five directors, including three outside independent Members of the Board, to further increase the objectivity and transparency of decisions relating to appointment and compensation. NTT has determined that governance functions based on an Audit & Supervisory Board are sufficiently effective to achieve this purpose.

Governance Chart



## Members of our Board

\*As of the end of June 2023

**Jun Sawada**Chairperson and  
Executive Director**Akira Shimada**President and Chief  
Executive Officer**Katsuhiko Kawazoe**Senior Executive Vice  
President**Takashi Hiroi**Senior Executive Vice  
President**Akiko Kudo**

Member of the Board

**Ken Sakamura**Outside Member of the  
Board**Yukako Uchinaga**Outside Member of the  
Board**Ryoji Chubachi**Outside Member of the  
Board**Koichiro Watanabe**Outside Member of the  
Board**Noriko Endo**Outside Member of the  
Board

## Members of the Audit &amp; Supervisory Board

\*As of the end of June 2023

**Keiichiro Yanagi**Full-Time Audit &  
Supervisory Board  
Member**Kanae Takahashi**Full-Time Audit &  
Supervisory Board  
Member**Kensuke Koshiyama**Full-Time & Outside Audit &  
Supervisory Board Member**Hideki Kanda**Outside Audit &  
Supervisory Board  
Member**Kaoru Kashima**Outside Audit &  
Supervisory Board  
Member

## Skill Matrix

	Name	Field					
		Business Administration	Marketing/ Global Business	IT/DX/R&D	Law/Risk Management/ Public Policy	HR	Finance
Director	Jun Sawada	●	●	●		●	●
	Akira Shimada	●	●		●	●	●
	Katsuhiko Kawazoe	●	●	●	●	●	
	Takashi Hiroi	●	●		●	●	●
	Akiko Kudo	●	●	●			
	Ken Sakamura	●	●	●			
	Yukako Uchinaga	●	●	●			
	Ryoji Chubachi	●	●	●			
	Koichiro Watanabe	●	●				●
	Noriko Endo	●		●	●		
Audit & Supervisory Board Member	Keiichiro Yanagi		●		●	●	●
	Kanae Takahashi			●	●	●	●
	Kensuke Koshiyama				●	●	●
	Hideki Kanda				●	●	●
	Kaoru Kashima				●	●	●

(For background information and other details about the Directors and Audit & Supervisory Board Members, please see [page 78](#).)

## Board of Directors

The Board of Directors comprises ten directors, including five outside independent Members of the Board (including two women) and five internal directors (including one woman), and accordingly, the ratio of outside independent Members of the Board is 50%. In addition, the introduction of an executive officer system that clearly separates the management decision-making and oversight functions from the business execution function ensures closer supervision of execution and enhanced management flexibility. In principle, the ordinary meetings of the Board of Directors are held once per month, and extraordinary meetings are held as needed. The Board of Directors discusses the group management strategies and makes decisions on matters stipulated by laws and regulations and on important matters related to company management and group management. Moreover, through such means as periodic reports from Directors and Executive Officers on the status of business execution, the Board of Directors supervises the business execution of the Directors and Executive Officers.

Each outside independent Member of the Board has extensive experience and a high level of integrity and insight.

We believe that the outside independent Members of the Board will help strengthen the supervisory function for business execution and expect to incorporate the opinion they provide from their wide-ranging managerial perspective.

With the objective of further strengthening the independence, objectivity, and accountability in decisions with respect to appointments and compensation of officers and related matters made by the Board of Directors, the Company has voluntarily established a Nomination Committee and Compensation Committee, each consisting of five directors, of which a majority (three) are outside independent Members of the Board, as preliminary review institutions of the Board of Directors, thereby increasing the effectiveness of governance.

Moreover, in recognition of the fact that response to sustainability issues is an important management issue, the Company has voluntarily established a Sustainability Committee that reports directly to the Board of Directors. The committee will work to further promote initiatives after important issues and indicators have been decided by resolution of the Board of Directors.

### ● Details on Board of Directors Resolutions and Reporting Items

#### Governance

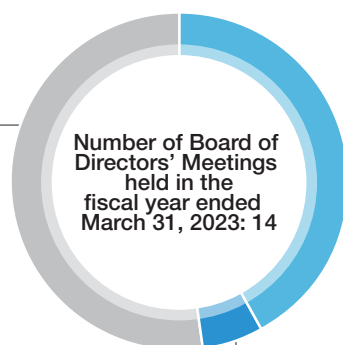
52%

- General Meeting of Shareholders-related
- Evaluation of the effectiveness of internal control systems
- Operational status of internal whistleblowing system
- Human resources
- Policy on even stronger governance, etc.

#### Capital Policy

6%

- Returns to shareholders (share buybacks and dividends)
- Financing and loans, etc.



#### Management Strategy

42%

- NTT Group operations
- Review of NTT Group operational structure
- Global strategy
- M&A matters
- Report on the status of execution of duties
- Approval of Annual Reports and financial statements
- Research and development plans, etc.

## Evaluation of the Effectiveness of the Board of Directors

### Overview of Evaluation

Participants	All 10 Directors and all 6 Audit & Supervisory Board Members
Period	March 2023
Questionnaire Format	Anonymous surveys comprised 27 questions involving 4-level rankings as well as open-ended questions
Major Subjects	Roles and responsibilities of Directors and of the Board of Directors itself, composition of the Board of Directors, operation of the Board of Directors, support systems for outside Members of the Board
Results Aggregation and Analysis Method	After aggregation by third-party organization and analysis by Board of Directors' organizing office, the results are shared and issues and improvement measures are discussed at Board of Directors' meeting

### Evaluation Results

NTT implements an evaluation of the effectiveness of the Board of Directors annually for the purpose of strengthening the governance of the top management through continuous improvement of effectiveness of the Board of Directors. The FY2022 evaluation results confirmed that the Board of Directors was sufficiently fulfilling its important role and responsibilities, with a majority of positive opinions for all of the questions.

In addition, through feedback sessions implemented to invigorate strategic discussions and to enhance discussions on important issues such as important matters related to corporate and Group management, including restructuring to strengthen our global business, and formulation of policies to further strengthen governance, all members expressed positive feedback. Therefore, we have evaluated that the effectiveness of the Board of Directors is being ensured.

## Audit & Supervisory Board

The Audit & Supervisory Board comprises three outside independent Audit & Supervisory Board Members (including one female member), who have experience and knowledge in a range of fields—as a university professor, and Certified Public Accountant—and two internal Audit & Supervisory Board Members (including one female member) for a total of five members. NTT conducts effective audits by combining the independence of outside Audit & Supervisory Board Members with the superior information collection capabilities

of internal Audit & Supervisory Board Members. Among the Audit & Supervisory Board Members, Auditor Keiichiro Yanagi is a certified member of the Securities Analysts Association of Japan, while Auditor Kensuke Koshiyama has experience developed through his work at the Board of Audit of Japan, and Auditor Kaoru Kashima is a Certified Public Accountant, all of whom have considerable knowledge in the areas of finance and accounting.

## Activities of the Audit & Supervisory Board

For the fiscal year ended March 31, 2023, amid continued significant changes in management such as the restructuring of our global business, the Audit & Supervisory Board conducted an efficient and effective audit in collaboration with the Internal Audit Department, Accounting Auditors and Group company corporate auditors on both audit matters required by law and on other matters such as the progress of the Medium-Term Management Strategy and initiatives to maintain and improve corporate governance, the status of compliance, and stable provision of telecommunication services on the basis of the audit plan.

Audit & Supervisory Board Members, including outside independent Audit & Supervisory Board Members, attend meetings of the Board of Directors and other important meetings. In addition, Audit & Supervisory Board Members meet with Representative Members of the Board and outside independent Members of the Board to exchange ideas and opinions, as well as hold meetings to exchange ideas and opinions for certain topics with representative Members of the Board and Audit & Supervisory Board Members of Group companies, including overseas subsidiaries, in order to maintain an understanding of the status of the execution of duties by Directors and Executive Officers, and to provide their opinions as needed.

In the fiscal year ended March 31, 2023, Audit & Supervisory Board Members met to exchange ideas and opinions with Representative Members of the Board, Outside independent Members of the Board and others 40 times about management issues and responses. In fiscal 2022, we held 26 Audit & Supervisory Board meetings (Kanae Takahashi and Takashi Iida both attended all 26 meetings, Hideki Kanda and Kaoru Kashima both attended 25 out of 26 meetings, Keiichiro Yanagi and Kensuke Koshiyama both attended all 17 of their respective meetings, and Takao Maezawa attended all 9 of his respective meetings).

Moreover, separate from meetings of the Audit & Supervisory Board, the Audit & Supervisory Board Members Preliminary Deliberation Meeting was held 36 times. These meetings provide a venue for the sharing of information. For example, at these meetings Audit & Supervisory Board Members receive explanations from corporate officers of matters to be discussed at the Executive Officers Meeting. Furthermore, the Audit & Supervisory Board Members work closely with the Accounting Auditors and the Internal Audit Department. The Audit & Supervisory Board Members exchanged opinions with Accounting Auditors 11 times and with the Internal Audit Department 13 times, and received explanations of audit plans and reports on the status of internal control systems and provided advice as needed.

In initiatives related to Group companies, in order to improve the Group audit structure and on the basis of materiality and risk approach, NTT aligned risk awareness between the Audit & Supervisory Board Members of major Group companies and then conducted audits through

the Audit & Supervisory Board Members of major Group companies. In the fiscal year ended March 31, 2023, the Audit & Supervisory Board Members held meetings to exchange opinions with the Representative Members of the Board and Audit & Supervisory Board Members of Group companies 65 times to inquire about and hold discussions on the status of progress on the Medium-Term Management Strategy, the status of corporate governance and initiatives to maintain and improve it, the status of compliance, and stable provision of telecommunication services, among other topics. In addition, the Audit & Supervisory Board Members of each Group company received reports and held meetings to exchange opinions on audit results for audit matters based on their unified risk awareness. In addition, the Audit & Supervisory Board is implementing initiatives that contribute to enhancing the auditing activities of the Audit & Supervisory Board Members of major Group companies, including holding liaison conferences for major Group companies and between the Audit & Supervisory Board Members of major Group companies to share risk awareness.

Through these activities, the Audit & Supervisory Board Members support the sound, steady growth of NTT and Group companies from an independent perspective that differs from that of executives. In addition, Audit & Supervisory Board Members contribute to the strengthening of corporate governance systems and the fostering of awareness of compliance matters.

Additionally, with regard to coordination with related audit organizations and inspections, we have been handling matters through a combination of web conferencing systems and site visits to enhance the effectiveness of audits.

### ● Opinion Exchange Meetings Held

Opinion exchanges with Representative Members of the Board	40 times
Audit & Supervisory Board	26 times
Audit & Supervisory Board Member Preliminary Deliberation Meeting	36 times
Opinion exchange meetings with Accounting Auditors	11 times
Opinion exchange meetings with Internal Audit Department	13 times
Opinion exchange meetings with Representative Members of the Board and Audit & Supervisory Board Members from Group companies	65 times



# Message from an Outside Member of the Board



Outside Independent  
Member of the Board

**Ken Sakamura**

Assumed the position of  
Outside Member of the  
Board of the Company in  
June 2019

I have been involved in research and development and standardization activities for over 40 years on a computer system responsible for controlling various machines named TRON (The Real-time Operating system Nucleus), and have contributed to the realization of ubiquitous computing and IoT by openly and freely disseminating its achievements worldwide. Based on this experience, I have made suggestions primarily in the field of technology, including research and development, DX promotion, and social implementation of technology, at NTT's Board of Directors meetings.

The new medium-term management strategy, which has been publicized after discussions that also involved Outside Members of the Board, is well-balanced, incorporating growth areas like IOWN, AI, and robotics, as well as the public sectors unique to NTT, which supports the communications infrastructure that is the foundation of society. With regard to AI, I have recommended that the NTT Group comprehensively consider both the risks involved in using generative AI in operations and the risks that may affect the Group's performance and services if the utilization of generative AI does not progress. From the perspective of Japan's national security, I believe it is important to promote and strengthen the domestic development infrastructure for AI, and I think NTT is best suited to be the leading entity in this regard.

On the Nomination Committee and Compensation Committee, I have been supervising strategy formulation and execution by the management team by giving suggestions regarding the appointment of officers, succession planning, and remuneration systems, while also conducting appropriate evaluations. Going forward, by offering advice and oversight from a neutral position as an outside independent Member of the Board, I aim to contribute to NTT Group's sustainable growth as it takes on the challenge of new technologies like IOWN and continues to create value.



Outside Independent  
Member of the Board

**Yukako Uchinaga**

Assumed the position of  
Outside Member of the  
Board of the Company in  
June 2022

Due to advancements in technology, business models are undergoing rapid changes. To thrive in such an environment, it is insufficient to run a company solely with individuals who share the same values. Rather, it is essential to incorporate fresh perspectives and value systems through the promotion of diversity, thereby driving innovation forward. I became the first female Board Member at IBM Japan. While there, I established the NPO Japan Women's Innovative Network and have worked hard to promote diversity management at companies.

Within NTT's Board of Directors, I contribute to informed decision-making by offering insights and recommendations that cover not just a human resources strategy inclusive of diversity, but also global business development with a conscious regard for our relationships and positioning vis-a-vis competitors worldwide, as well as assured responses to risks associated with global governance.

Given that Japan stands at 125th out of 146 countries in the World Economic Forum's (WEF) "Gender Gap Index" for 2023, it appears that many Japanese companies have yet to fully grasp the core essence of promoting diversity. Given the context, I commend the various initiatives that the NTT Group has undertaken, including the promotion of active roles for women, foreign nationals, and external talent, as well as the implementation of a remote work standard system to enhance flexibility in living location. For fiscal 2022, the percentage of women newly promoted to management positions narrowly missed the 30% target. I sincerely hope that this goal will be achieved in fiscal 2023.

As an outside Member of the Board, it is equally crucial for me to support the company in taking calculated risks. Going forward, I aim to leverage my past experience and continue to contribute to the proper business operations of the NTT Group and medium- to long-term corporate value enhancement through vigilant oversight of decision-making and business execution from an independent, objective standpoint.



Outside Independent  
Member of the Board

## Ryoji Chubachi

Assumed the position of  
Outside Member of the  
Board of the Company in  
June 2022

After joining Sony as an engineer and subsequently leading the company as a manager, I took the helm of a national research institute as the Chairman of the National Institute of Advanced Industrial Science and Technology. Drawing on this experience, I have been conducting management oversight at NTT through Board of Directors and exchanges with the representative directors, offering opinions on research and development and competition policies, as well as giving advice on timely and appropriate responses during major telecommunications failures and monitoring executive performance, all with the goal of achieving sustainable growth.

NTT Group is engaged in a wide range of research and development activities, from basic research to practical applications. IOWN, which is also the title of our new medium-term management strategy, is a groundbreaking next-generation network that is not only eco-friendly, but also crucial for strengthening Japan's industrial competitiveness. I greatly appreciate the direction given for continued investment to accelerate the manufacturing and practical application of photonics-electronics convergence devices as part of the IOWN initiative under the slogan from concept to implementation.

I also commend the bold 1:25 stock split announced concurrently with the new medium-term management strategy as a progressive initiative. This reduces the investment per unit and makes it easier for people across various age groups to purchase shares. I look forward to NTT leading changes in the Japanese stock market. I plan to continue to encourage the realization of medium-term management strategies by leveraging my experience in corporate management to make proactive suggestions and monitor management from a medium- to long term perspective.



Outside Independent  
Member of the Board

## Koichiro Watanabe

Assumed the position of  
Outside Member of the  
Board of the Company in  
June 2022

Drawing on my experience in corporate management at Dai-ichi Life Insurance and as the Chairman of the Central Council for Education under the Ministry of Education, Culture, Sports, Science and Technology, I have been making suggestions to management while actively participating in decision-making as needed, particularly with regard to the effects of investments and the risks of new funding projects, confirming the appropriateness of capital policies, and strengthening human capital, all in an effort to strengthen the competitiveness of the NTT Group.

The prolonged COVID-19 crisis and Russia's invasion of Ukraine have highlighted various issues in Japan, such as food and energy self-sufficiency problems and the slow social implementation of DX. To cope with these changes to the social structure, human resources are indispensable, and human resource development is becoming ever more important. Given the circumstances, I think it is very commendable that NTT has clearly stated in its new medium-term management strategy its commitment to enhancing support for autonomous career development and expanding human investment to support business growth.

This past July, as an outside Member of the Board of NTT, I had meetings with institutional investors and discussed the current understanding of IOWN, the aim of the newly launched growth strategy focusing on EBITDA, and initiatives aimed at improving employee engagement scores, among other things. I will continue to contribute to the sustainable growth and improvement of corporate value of the NTT Group through proactive suggestions based on my independence as an outside Member of the Board and experience in corporate management, always keeping in mind the voices of shareholders and investors at Board of Directors meetings and other forums.



Outside Independent  
Member of the Board

## Noriko Endo

Assumed the position of  
Outside Member of the  
Board of the Company in  
June 2022

After contributing to economic journals in the electronics and IT sectors, as well as engaging in research activities at the University of Tokyo, I am now focusing on research projects about energy policy and economic security at Keio University. Energy and environmental policies are not merely important national issues that influence the macroeconomy through fuel resource trading; they also significantly impact industrial and corporate competitiveness, further reverberating back to the macroeconomy.

The NTT Group has publicly announced in its new medium-term management strategy, "NTT Green Innovation Toward 2040," its aim to achieve carbon neutrality by the year 2040. This goal includes efforts for Scope 1 and 2 emissions, with the intention of expanding into Scope 3. To promote the use of renewable energy, the NTT Group is proactively investing in companies specializing in renewable energy development. In the Board of Directors meetings, I thoroughly scrutinize each investment opportunity's scale, the appropriateness of the investment amount, and the associated risks before offering my endorsement, thus fulfilling my role as an outside Member of the Board.

I believe that the technological and R&D capabilities of the NTT Group are not only at an exceptionally high level in Japan, but also globally. I am convinced that, if harnessed effectively, these strengths will offer competitive advantages as we develop our services and business activities. Leveraging my insights as a researcher in industrial policy and science and technology policy, I intend to offer my feedback and advice while also properly overseeing the execution of business operations, thereby contributing to the sustainable growth of the NTT Group.

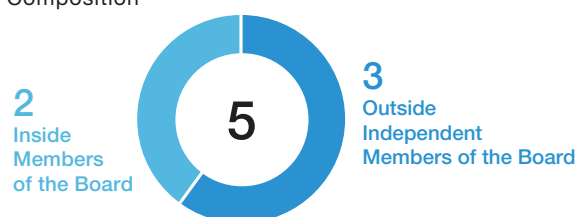
## Nomination Committee and Compensation Committee Composition and Activities

With the objective of further strengthening independence, objectivity, and accountability in decisions made by the Board of Directors with respect to appointments and compensation of the Members of the Board and officers, the Company has voluntarily established a Nomination Committee and a Compensation Committee, each consisting of five Directors, of which a majority (three) are Outside Independent Members of the Board, as preliminary review institutions of the Board of Directors, thereby increasing the effectiveness of governance. As of the end of fiscal 2022, the membership of each committee consisted of Akira Shimada (Representative Member of the Board, President), Takashi Hiroi (Representative Member of the Board, Senior Executive Vice President), Ken Sakamura (Outside Member of the Board), Yukako Uchinaga (Outside Member of the Board) and Koichiro Watanabe (Outside Member of the Board), with Akira Shimada (Representative Member of the Board, President) serving as chairperson to oversee the proceedings of each committee. As of the submission date of this report, there have been no changes in the members or chairpersons of both committees

who oversee meeting operations and agenda setting. In each committee, resolutions are made with the approval of the majority of the attendance of more than half of the committee members.

During fiscal 2022, the Nomination Committee convened five times, and the Compensation Committee once, engaging in robust discussions on matters such as the appointment of officers, succession planning, and the nature of the executive compensation system (all committee members were present at all meetings).

### ● Nomination Committee and Compensation Committee Composition



Nomination Committee	Preliminary Deliberation Items	<ol style="list-style-type: none"> <li>1. Policies with respect to the appointment and dismissal of directors and executive officers of the whole group, and the nomination of candidates</li> <li>2. Matters related to the appointment and dismissal of Directors</li> <li>3. Matters related to the selection and dismissal of representative Members of the Board of major group companies</li> <li>4. Selection and dismissal of representative Members of the Board and other named roles of Directors</li> <li>5. Selection and dismissal of the Chairman</li> <li>6. The order of Directors to assume the responsibilities of the President of the Company in the event that anything occurs to the President</li> <li>7. Determination of the allocation of responsibilities for Directors and assignment of employee duties</li> <li>8. Appointment and dismissal of executive officers and assignment of duties</li> <li>9. In addition to the foregoing matters, other nomination-related matters regarding directors, executive officers and others, for which the committee receives requests for deliberation from the Board of Directors</li> </ol>
	Specifically Delegated Items	Nomination-related matters regarding directors, executive officers and others, for which the committee receives requests for deliberation from the Board of Directors
Compensation Committee	Preliminary Deliberation Items	<ol style="list-style-type: none"> <li>1. Policies for determining compensation of directors and executive officers, and composition and levels of compensation</li> <li>2. In addition to the foregoing matters, other compensation-related matters regarding directors and executive officers, for which the committee receives requests for deliberation from the Board of Directors</li> </ol>
	Specifically Delegated Items	<ol style="list-style-type: none"> <li>1. Ratios, calculation methods and amounts of compensation for each individual directors and executive officers</li> <li>2. Other matters that are specifically delegated by the Board of Directors regarding the determination of compensation-related decisions of directors and executive officers</li> </ol>

## Board Member Compensation

### Board Member Compensation Determination Policy and Process

Regarding the composition and level of compensation for directors of NTT under the Determination Policy, in order to secure objectivity and transparency, NTT established the Compensation Committee, comprising five directors, including three outside independent members of the Board. Moreover, decisions on the ratios and calculation methods for compensation for Members of the Board, and amounts of compensation for individual Members, are delegated from the Board of Directors to the Compensation Committee. The reason for delegating these authorities to the Compensation Committee is that such committee is composed of two Representative Members of the Board and three Outside Members of the Board, and we believe that it is able to make the appropriate judgements from an outside perspective

while also taking a bird's-eye view of the Company's overall performance.

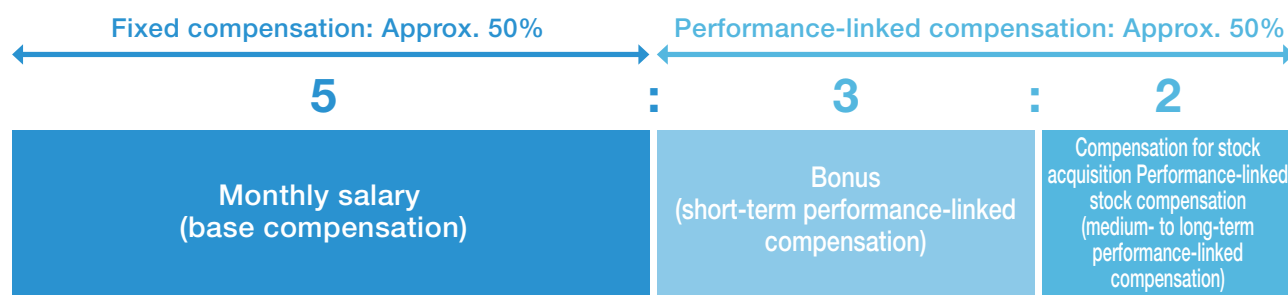
Compensation of individual directors (excluding outside Members of the Board) consists of a monthly salary (base salary) and a bonus (compensation related to performance over the short term), NTT stock purchase through Board Members Shareholding Association and performance-linked stock compensation (compensation related to performance over the medium to long term). The composition ratio of compensation in a case where standard business results are achieved is roughly as follows: Fixed compensation: Short-term performance-linked compensation: Medium- to long-term performance-linked compensation = 50%: 30%: 20%.

- **Monthly salary (base compensation):** The base salary is a fixed compensation paid monthly on the basis of the scope of each Member of the Board's roles and responsibilities.
- **Bonus (short-term performance-linked compensation):** The bonus is paid in June each year, taking into account NTT's business results for the current fiscal year. The amount of this bonus is based on the achievement of indicators based on targets in the Medium-Term Management Strategy.
- **Stock buybacks and performance-linked stock compensation (medium- to long-term performance-linked compensation):** NTT shares shall be purchased through the Board Members Shareholding Association by means of monthly stock acquisition compensation. Purchased shares are to be held by the Members of the Board throughout their terms of office.

For the performance-linked stock compensation, a trust, established by NTT is used. The Members of the Board are granted points corresponding to their role in June each year and a performance-linked coefficient corresponding to the level of achievement of the performance indicator is determined in June of the year following the final fiscal year of the Medium-Term Management Strategy, and the number of shares to be granted to each Member of the Board is calculated by multiplying the performance-linked coefficient by the number of points that has been accumulated. The granted shares are delivered to the Member of the Board upon retirement.

Regarding performance-linked stock compensation, given that the target year for the medium-term management strategy announced in November 2018 is fiscal 2023, Earnings Per Share (EPS) will continue to serve as the performance indicator.

In order to maintain a high level of independence, compensation of outside Members of the Board consists of a monthly fixed compensation only, and is not linked to NTT's business results. Compensation of Audit & Supervisory Board Members is determined by resolution of the Audit & Supervisory Board and consists of a monthly salary only, for the same reasons as those cited above with respect to outside Members of the Board.





## ● Bonus Performance Indicators

Category	Performance Indicators	Evaluation Weight	Evaluation method	FY2021 Results	FY2022 Results
Financial indicators	EPS (earnings per share)	35%	Year-on-year improvement	¥329	¥348
Category	Performance Indicators	Evaluation Weight	Evaluation method	FY2022 Targets	FY2022 Results
Financial indicators	Operating profit	35%	Achievement of targets	¥1.82 trillion	¥1.829 trillion
	Overseas operating profit margin	10%		7.0%	7.2%
	ROIC (return on invested capital)	5%		7.6%	7.4%
	Greenhouse Gas Emissions	5%		3.075 million tons or less	2.534 million tons
Sustainability indicators	Amount of B2B2X Revenues	5%		¥600.0 billion	¥815.4 billion
	New Female Manager Promotion Rate	5%		30%	29.7%

(Notes) 1. The Earnings Per Share (EPS) figures are presented based on amounts before taking into account the impact of the 25-for-1 stock split of common stock, effective as of July 1, 2023.  
2. The scope of aggregation for the overseas operating profit margin is subsidiaries of NTT, Inc. at the time the medium-term management strategy was established (NTT DATA Corporation's overseas operations, NTT Ltd., NTT Communications' overseas operations, etc.). In addition, operating profit is calculated while excluding temporary expenses, such as M&A-related depreciation costs of intangible assets.  
3. The target for GHG emissions is GHG protocol Scope 1 + 2.  
4. The scope of B2B2X earnings includes the Integrated ICT Business Segment, the Regional Communications Business Segment, and the Global Solutions Business Segment.  
5. The scope for the percentage of women newly promoted to management positions includes six major domestic companies: NTT, NTT DOCOMO, NTT Communications, NTT East, NTT West, and NTT DATA Japan.

Additionally, starting from fiscal 2023, for the performance indicators associated with bonuses, we plan to introduce EBITDA as part of the financial indicators. This shift aligns with our new medium-term management strategy, which places greater emphasis on growth and cash generation capabilities than before. As for sustainability indicators, we incorporated Engagement Rate, aimed at fostering an environment where employees, the source of revenue generation, can elevate their expertise and experience both growth and job satisfaction.

Category	Performance Indicators	Evaluation Weight	Evaluation method	FY2022 Results
Financial indicators	EBITDA	25%	Year-on-year improvement	¥3.2902 trillion
	EPS (earnings per share)	10%		¥348
Sustainability indicators	Engagement rate	2.5%		57%
Category	Performance Indicators	Evaluation Weight	Evaluation method	FY2023 Targets
Financial indicators	EBITDA	25%	Achievement of targets	¥3.39 trillion
	Operating profit	10%		¥1.95 trillion
	Overseas operating profit margin	10%		8.3%
	ROIC for existing areas	5%		8.3%
Sustainability indicators	Greenhouse Gas Emissions	5%		2.466 million tons
	New Female Manager Promotion Rate	5%		30%
	Amount of B2B2X Revenues	2.5%		¥870 billion

(Notes)  
1. The Earnings Per Share (EPS) figures are presented based on amounts before taking into account the impact of the 25-for-1 stock split of common stock, effective as of July 1, 2023.  
2. The scope of aggregation for engagement rate is approximately 100 domestic Group companies (in the future, we plan to expand the scope to include overseas Group companies).  
3. The scope of aggregation for overseas operating profit margin is NTT DATA Group consolidated. Calculation excludes temporary expenses, such as M&A-related amortization of intangible fixed assets.  
4. Existing areas refer to NTT DOCOMO's consumer telecommunications businesses, NTT East and NTT West.  
5. GHG emissions are for GHG protocol Scope 1 + 2.  
6. The scope of aggregation for new female manager promotion rate is six major domestic Group companies (NTT, NTT DOCOMO, NTT Communications, NTT East, NTT West, and NTT DATA Japan).  
7. The scope of aggregation for B2B2X revenues is the Integrated ICT Business Segment, the Regional Communications Business Segment, and the Global Solutions Business Segment.



# Career Summaries of Members of the Board and Audit & Supervisory Board Members (As of the end of June 2023)

\*Number of shares held after taking into account the stock split effective July 1, 2023

## Member of the Board

### Jun Sawada

Chairman of the Board

Years Served as Member of the Board ..... 9  
Shares Owned ..... 43,300  
(1,082,500\*)

#### Brief Career Summary

April 1978: Joined Nippon Telegraph and Telephone Public Corporation  
June 2008: Senior Vice President  
Executive Manager of Corporate Strategy Planning Department  
Member of the Board of NTT Communications Corporation  
June 2011: Executive Vice President  
Executive Manager of Corporate Strategy Planning Department  
Member of the Board of NTT Communications Corporation  
June 2012: Senior Executive Vice President  
Executive Manager of Corporate Strategy Planning Department  
Representative Member of the Board of NTT Communications Corporation  
June 2013: Senior Executive Vice President  
Representative Member of the Board of NTT Communications Corporation  
June 2014: Senior Executive Vice President  
Representative Member of the Board of the Company  
June 2016: Director and President, Chief Executive Officer of NTT Security Corporation  
June 2018: President and Chief Executive Officer  
Representative Member of the Board of the Company  
August 2018: President and Chief Executive Officer  
Representative Member of the Board of NTT, Inc.  
June 2020: President and Chief Executive Officer  
Representative Member of the Board of the Company  
June 2022: Chairman and Representative Member of the Board of the Company (present post)

### Akira Shimada

Representative Member of the Board  
President  
Chief Executive Officer (CEO)

Years Served as Member of the Board ..... 11  
Shares Owned ..... 28,908  
(722,700\*)

#### Brief Career Summary

April 1981: Joined Nippon Telegraph and Telephone Public Corporation  
June 2007: Vice President of Corporate Strategy Planning of the Company  
July 2007: General Manager of the Accounts and Finance Department of Nippon Telegraph and Telephone West Corporation  
July 2009: General Manager of the General Affairs and Personnel Department of Nippon Telegraph and Telephone East Corporation  
June 2011: Senior Vice President  
General Manager of the General Affairs and Personnel Department  
Member of the Board of Nippon Telegraph and Telephone East Corporation  
June 2012: Senior Vice President  
Head of the General Affairs  
Member of the Board of the Company  
June 2012: Member of the Board of Nippon Telegraph and Telephone West Corporation  
June 2015: Executive Vice President  
Head of General Affairs  
Member of the Board of the Company  
June 2018: Senior Executive Vice President  
Representative Member of the Board of the Company  
August 2018: Member of the Board of NTT, Inc.  
October 2018: Senior Executive Vice President of NTT, Inc.  
June 2020: Senior Executive Vice President  
Representative Member of the Board of the Company  
June 2022: President and Chief Executive Officer  
Representative Member of the Board of the Company (present post)  
June 2022: President and Chief Executive Officer  
Representative Member of the Board of NTT, Inc.

### Katsuhiko Kawazoe

Representative Member of the Board  
Senior Executive Vice President  
In charge of technical strategy  
Chief Technology Officer (CTO)  
Chief Information Officer (CIO)  
Chief Digital Officer (CDO)

Years Served as Member of the Board (Excluding past tenure as a Director) ..... 1  
Shares Owned ..... 15,000  
(375,000\*)

#### Brief Career Summary

April 1987: Joined the Company  
August 2003: Senior Research Engineer of the Cyberspace Laboratories of the Cyber Communications Laboratory Group of the Company  
October 2007: Senior Research Engineer of the Cyber Solutions Laboratories of the Cyber Communications Laboratory Group of the Company  
July 2008: Vice President of Research and Development Planning of the Company  
July 2014: Head of the Service Innovation Laboratory Group of the Company  
July 2016: Service Evolution Research Laboratory of the Company  
Head of the Service Innovation Laboratory Group of the Company  
June 2018: Senior Vice President, head of Research and Development Planning, and Member of the Board of the Company  
June 2020: Executive Vice President, Head of Research and Development Planning of the Company  
June 2022: Senior Executive Vice President, Representative Member of the Board of the Company (present post)

### Takashi Hiroi

Representative Member of the Board  
Senior Executive Vice President  
In charge of business strategy  
Chief Financial Officer (CFO)  
Chief Compliance Officer (CCO)  
Chief Human Resource Officer (CHRO)

Years Served as Member of the Board (Excluding past tenure as a Director) ..... 1  
Shares Owned ..... 13,300  
(332,500\*)

#### Brief Career Summary

April 1986: Joined the Company  
May 2005: Vice President of Medium-Term Corporate Business Strategy of the Company  
June 2008: Vice President of Strategic Business Development of the Company  
July 2009: Vice President of Corporate Strategy Planning of the Company  
June 2014: Head of Finance and Accounting of the Company  
June 2015: Senior Vice President; Head of Finance and Accounting, Member of the Board of the Company  
June 2020: Executive Vice President; General Manager of Accounts and Finance Department; Member of the Board of Directors of NTT DOCOMO, INC.  
December 2020: Senior Executive Vice President; Representative Member of the Board of Directors of NTT DOCOMO, INC.  
June 2022: Representative Member of the Board, Senior Executive Vice President of the Company (present post)

### Akiko Kudo

Member of the Board  
Senior Vice President

Years Served as Member of the Board ..... 1  
Shares Owned ..... 3,800  
(95,000\*)

#### Brief Career Summary

April 1990: Joined the Company  
June 2014: Head of Public Relations of Corporate Planning of NTT Communications Corporation  
July 2016: Director of Tokai Branch of West Japan Sales Division of NTT Communications Corporation  
June 2019: Senior Vice President, Head of Fifth Sales Division of NTT Communications Corporation  
April 2020: Deputy Senior Vice President of Fourth Business Solutions Department of Business Solution Division of NTT Communications Corporation  
June 2020: Senior Vice President, Head of Public Relations, Deputy Head of Business Strategy of the Company  
June 2022: Senior Vice President, Executive Manager of the New Business Promotion Department, Member of the Board of the Company  
June 2022: Executive Officer, Smart City LLC (present post)  
June 2023: Senior Vice President, Head of Alliance Department, Research and Development Market Strategy Division, Member of the Board of the Company (present post)

### Ken Sakamura

Outside Member of the Board

Years Served as Member of the Board ..... 4  
Shares Owned ..... 2,000  
(50,000\*)

#### Brief Career Summary

April 2000: Professor of the Interfaculty Initiative in Information Studies and the Graduate School of Interdisciplinary Information Studies of the University of Tokyo  
January 2002: Director of YRP Ubiquitous Networking Laboratory (present post)  
April 2009: Director of Institute of Infrastructure Application of Ubiquitous Computing of the Interfaculty Initiative in Information Studies of the University of Tokyo  
October 2014: President of Vitalizing Local Economy Organization by Open Data & Big Data (now the Organization for Vitalization of Local Economy by Digital transformation) (present post)  
April 2017: Professor and Dean of Faculty of Information Networking for Innovation and Design of Toyo University  
Head of Collaboration Hub for University and Business of Toyo University (present post)  
June 2017: Emeritus Professor of the University of Tokyo (present post)  
June 2019: Member of the Board of the Company (present post)  
August 2019: President of Association for IoT Services Coordination (present post)

### Yukako Uchinaga

Outside Member of the Board

Years Served as Member of the Board ..... 1  
Shares Owned ..... 200  
(5,000\*)

#### Brief Career Summary

July 1971: Joined IBM Japan, Ltd.  
April 2004: Director and Senior Executive Officer, IBM Japan, Ltd.  
April 2007: Technical Advisor of IBM Japan, Ltd.  
April 2007: Board Chair, Japan Women's Innovative Network, a non-profit organization  
April 2008: Representative Director, Chairman of the Board, President & CEO of Berlitz Corporation  
June 2008: Director, Sony Corporation (now the Sony Group Corporation)  
October 2009: Director and Executive Vice President, Benesse Holdings, Inc.  
April 2013: Honorary Chairman, Berlitz Corporation  
May 2013: Director, AEON, Co., Ltd.  
June 2013: Director, HOYA CORPORATION  
(Chairperson of the Audit Committee)  
September 2013: President and CEO, Globalization Research Institute, Inc. (present post)  
March 2014: Director, DIC Corporation  
June 2018: Director, Teijin Limited  
Member of the Advisory Board, Teijin Limited  
June 2021: Director, SINTOKOGIO, LTD. (present post)  
June 2022: Member of the Board of the Company (present post)  
July 2022: Chairperson and Representative Director, Japan Women's Innovative Network, a non-profit organization (present post)

### Ryoji Chubachi

Outside Member of the Board

Years Served as Member of the Board ..... 1  
Shares Owned ..... 1,200  
(30,000\*)

#### Brief Career Summary

April 1977: Joined Sony Corporation (now the Sony Group Corporation)  
June 2005: President, Representative Corporate Executive Officer and Member of the Board of Sony Corporation  
April 2009: Vice Chairman, Representative Corporate Executive Officer and Member of the Board, Sony Corporation  
April 2013: President of National Institute of Advanced Industrial Science and Technology (incorporated administrative agency; currently the National Research and Development Agency)  
June 2018: Director, JAPAN POST BANK Co., Ltd.  
April 2020: Grand Emeritus Advisor of National Institute of Advanced Industrial Science and Technology (present post)  
June 2022: Member of the Board of the Company (present post)

### Koichiro Watanabe

Outside Member of the Board

Years Served as Member of the Board ..... 1  
Shares Owned ..... 600  
(15,000\*)

#### Brief Career Summary

April 1976: Joined The Dai-ichi Mutual Life Insurance Company  
April 2010: Representative Director and President of The Dai-ichi Mutual Life Insurance Company, Limited  
October 2016: Representative Director and President of The Dai-ichi Life Holdings, Inc.  
October 2016: Representative Director and President of The Dai-ichi Life Insurance Company, Limited (a new company that took over the domestic life insurance business)  
April 2017: Chairman of the Board and Representative Director of The Dai-ichi Life Holdings, Inc.  
April 2017: Chairman of the Board and Representative Director of The Dai-ichi Life Insurance Company, Limited  
March 2018: Member of the Board, Japan Tobacco Inc.  
June 2020: Director, Chairman of the Board of Dai-ichi Life Holdings, Inc.  
June 2020: Director, Chairman of the Board of The Dai-ichi Life Insurance Company, Limited  
June 2022: Member of the Board of Company (present post)  
April 2023: Director of Dai-ichi Life Holdings, Inc.  
April 2023: Special Advisor of The Dai-ichi Life Insurance Company, Limited (present post)

## Audit & Supervisory Board Member

### Noriko Endo

#### Outside Member of the Board

Years Served as Member of the Board ..... 1  
Shares Owned ..... 1,300  
(32,500\*)

#### Brief Career Summary

June 1994: Joined DIAMOND Inc.  
April 2004: Concurrently served as Director of Kyushu University and Head of Tokyo Office  
March 2006: Deputy Editor-in-Chief of Diamond Weekly of DIAMOND Inc.  
September 2013: Visiting Researcher at Policy Alternatives Research Institute of the University of Tokyo  
April 2015: Project Professor of Graduate School of Media and Governance of Keio University  
June 2016: Director, NTT DOCOMO, INC.  
July 2018: Director of AIN HOLDINGS INC. (present post)  
June 2019: Director of Hankyu Hanshin Holdings, Inc. (present post)  
April 2020: Project Professor of Keio University Global Research Institute (present post)  
March 2021: Director of Techpoint, Inc. (present post)  
June 2021: Director of Japan Elevator Service Holdings Co., Ltd. (present post)  
June 2022: Member of the Board of the Company (present post)

### Keiichihiro Yanagi

#### Audit & Supervisory Board Member

Years Served as Audit & Supervisory Board Member ... 1  
Shares Owned ..... 200  
(5,000\*)

#### Brief Career Summary

April 1984: Joined Nippon Telegraph and Telephone Public Corporation  
April 2009: President and Representative Director of NTT DATA Getronics Corporation (currently NTT DATA Luweave Corporation)  
June 2012: Head of General Affairs Department of NTT DATA Corporation  
July 2013: Senior Vice President, Head of Second Financial Sector of NTT DATA Corporation  
June 2016: Director and Executive Vice President, Head of General Affairs Department, concurrently serving as Head of Human Resources Department of NTT DATA Corporation  
July 2017: Director and Executive Vice President, Head of HR Headquarters, concurrently serving as Head of General Affairs Department of NTT DATA Corporation  
June 2018: Representative Director and Senior Executive Vice President, concurrently serving as Head of HR Headquarters of NTT DATA Corporation  
June 2020: Executive Advisor of NTT DATA Corporation  
June 2020: CEO and President of NTT DATA INSTITUTE OF MANAGEMENT CONSULTING, Inc.  
June 2022: Audit & Supervisory Board Member of the Company (present post)

### Kanae Takahashi

#### Audit & Supervisory Board Member

Years Served as Audit & Supervisory Board Member ... 3  
Shares Owned ..... 7,300  
(182,500\*)

#### Brief Career Summary

April 1987: Joined the Company  
July 2013: Deputy Head of the Internal Control Office of the General Affairs Department of the Company  
June 2014: Head of the Internal Control Office of the General Affairs Department of the Company  
June 2016: Executive Manager of the Kanagawa Division and Manager of the Kanagawa Branch of the Kanagawa Division  
Member of the Board of Nippon Telegraph and Telephone East Corporation  
June 2016: Executive Manager of the Kanagawa Division and Manager of the Kanagawa Branch of the Kanagawa Division  
Member of the Board of NTT EAST-MINAMI KANTO CORPORATION  
June 2019: Executive Vice President  
Executive Manager of the Corporate Strategy Planning Department and the NW Facilities Business Department  
Member of the Board of NTT InfraNet Co., Ltd.  
June 2020: Full Time Audit & Supervisory Board Member of the Company (present post)  
June 2020: Auditor, NTT, Inc. (now NTT DATA, Inc.) (present post)

### Kensuke Koshiyama

#### Audit & Supervisory Board Member

Years Served as Audit & Supervisory Board Member ... 1  
Shares Owned ..... 0

#### Brief Career Summary

April 1984: Joined Board of Audit of Japan  
December 2016: Senior ASG of Secretariat of Board of Audit of Japan  
April 2017: Director-General of 2nd Bureau of Board of Audit of Japan  
April 2018: Deputy Secretary-General of Board of Audit of Japan  
December 2018: Secretary-General of Board of Audit of Japan  
June 2022: Full-Time Audit & Supervisory Board Member of the Company (present post)

### Hideki Kanda

#### Outside Audit & Supervisory Board Member

Years Served as Audit & Supervisory Board Member ... 4  
Shares Owned ..... 0

#### Brief Career Summary

April 1977: Research Assistant of Faculty of Law of the University of Tokyo  
April 1980: Lecturer of Faculty of Law of Gakushuin University  
April 1982: Associate Professor of Faculty of Law of Gakushuin University  
April 1988: Associate Professor of Faculty of Law of the University of Tokyo  
April 1991: Associate Professor of Graduate Schools for Law and Politics of the University of Tokyo  
May 1993: Professor of Graduate Schools for Law and Politics of the University of Tokyo  
April 2016: Professor of Professional School of Law (Law School) of Gakushuin University (present post)  
June 2016: Emeritus Professor of the University of Tokyo (present post)  
June 2017: Director of Sumitomo Mitsui Trust Bank, Limited (present post)  
June 2019: Outside Audit & Supervisory Board Member of the Company (present post)

### Kaoru Kashima

#### Outside Audit & Supervisory Board Member

Years Served as Audit & Supervisory Board Member ... 4  
Shares Owned ..... 0

#### Brief Career Summary

November 1981: Joined Showa Audit Corporation  
(currently Ernst & Young ShinNihon LLC)  
April 1985: Registered as a certified public accountant (registration up-to-date)  
June 1996: Partner of Showa Ota & Co.  
(currently Ernst & Young ShinNihon LLC)  
June 2002: Senior Partner of ShinNihon & Co.  
(currently Ernst & Young ShinNihon LLC)  
July 2006: In charge of personnel of HR Development Headquarters of ShinNihon & Co.  
September 2010: Managing Director of Ernst & Young ShinNihon LLC in charge of Corporate Culture Promotion Office in charge of Public Relations Office  
July 2012: General Manager of Knowledge Headquarters Managing Director of Ernst & Young ShinNihon LLC  
July 2013: Representative Director of Ernst & Young Institute Co., Ltd.  
June 2019: Outside Audit & Supervisory Board Member of the Company (present post)  
June 2019: Director of Sumitomo Mitsui Trust Bank, Limited  
March 2020: Audit & Supervisory Board Member of Kirin Holdings Company, Limited (present post)  
June 2021: Director of Sumitomo Mitsui Trust Holdings, Inc. (present post)

## Executive Officers

#### Akira Shimada

Representative Member of the Board  
President  
Chief Executive Officer (CEO)

#### Katsuhiko Kawazoe

Representative Member of the Board  
Senior Executive Vice President  
In charge of technical strategy  
Chief Technology Officer (CTO)  
Chief Information Officer (CIO)  
Chief Digital Officer (CDO)

#### Takashi Hiroi

Representative Member of the Board  
Senior Executive Vice President  
In charge of business strategy  
Chief Financial Officer (CFO)  
Chief Compliance Officer (CCO)  
Chief Human Resource Officer (CHRO)

#### Tadao Yanase

Senior Executive Vice President  
Head of Business Strategy  
In charge of Economic security  
Chief Business Development Officer (CBDO)

#### Sachiko Oonishi

Executive Vice President  
Head of Research and Development Market Strategy Division

#### Akiko Kudo

Member of the Board  
Senior Vice President  
Head of Alliances, Research and Development Market Strategy Division

#### Kei Ikeda

Senior Vice President  
Head of Technology Planning

#### Kyoko Yamamoto

Senior Vice President  
Head of General Affairs

#### Makiko Sekine

Senior Vice President  
Head of Public Relations

#### Natsuko Fujiki

Senior Vice President  
Head of Internal Audit

#### Shingo Kinoshita

Senior Vice President  
Head of Research and Development Planning, Research and Development Market Strategy Division

#### Toshihiko Nakamura

Senior Vice President  
Head of Finance and Accounting

#### Akitoshi Hattori

Senior Vice President  
Head of Corporate Strategy Planning

#### Minako Tsumenaga

Senior Vice President  
Head of Market Planning & Analysis

#### Ken Katsuyama

Senior Vice President  
Head of Global Business



# Stakeholder Engagement

NTT Group delivers products and services to a diverse set of stakeholders worldwide, and its value chain is expanding on a global scale and becoming increasingly complex each year. Given these developments, there is also a diversification in what our stakeholders expect and require from our business. It is crucial to accurately grasp and incorporate these demands and expectations into our operations through stakeholder engagement.

## Customers (Corporations and Individuals)

All individuals and corporations making use of NTT Group's services

NTT Group's Approach	Methods of Engagement (Examples)	Reasons for Engagement
In our aspiration to be "Your Value Partner," every employee upholds a high level of awareness toward sustainability and is committed to delivering high-quality, convenient, and secure services from a customer's perspective.	<ul style="list-style-type: none"> <li>▶ Establishment of a point of contact for customer inquiries</li> <li>▶ Implementation of customer satisfaction surveys</li> <li>▶ Utilization of websites and social media</li> </ul>	The objective is to understand our customers' needs and positions to deliver higher-quality services and products. This will not only improve customer satisfaction, but also position NTT Group as "Your Value Partner."

## Shareholders and Investors

All individual and institutional investors, including shareholders and creditors of the NTT Group

NTT Group's Approach	Methods of Engagement (Examples)	Reasons for Engagement
We are committed to maintaining a sound financial structure while enhancing corporate value and providing returns to our shareholders. Additionally, we are dedicated to the timely, accurate, and fair disclosure of all information related to the Group.	<ul style="list-style-type: none"> <li>▶ Shareholder Meetings and financial results announcements</li> <li>▶ Hosting individual investor seminars</li> <li>▶ Hosting institutional investor seminars</li> <li>▶ Issuance of annual reports</li> </ul>	The purpose is to provide information essential for investment decisions through communication with our shareholders and investors, receive appropriate evaluations, and also consider your opinions as references in our group management.

## Employees (Employees, Families, Retirees)

Employees working in the NTT Group and their families, as well as retirees who support the NTT Group's sustainability

NTT Group's Approach	Methods of Engagement (Examples)	Reasons for Engagement
We are committed to creating a workplace where a diverse range of employees can work with peace of mind, and we engage in a variety of measures to allow them to maximize their capabilities and find fulfillment in both work and life. Communication with retirees is also highly valued.	<ul style="list-style-type: none"> <li>▶ Implementation of employee satisfaction surveys</li> <li>▶ Regular one-on-one meetings</li> <li>▶ Dialogue between labor and management</li> <li>▶ Establishment of the Corporate Ethics Help Line</li> <li>▶ Hosting of sustainability conferences</li> </ul>	We aim to provide a supportive work environment and support for the livelihood of our employees so that each employee can fully utilize their skills and approach their work with a high awareness of CSR.

## Local Communities

Local communities engaged with the NTT Group through our business activities

NTT Group's Approach	Methods of Engagement (Examples)	Reasons for Engagement
We are committed to moving forward with local communities by contributing to society and engaging in disaster management through our business activities.	<ul style="list-style-type: none"> <li>▶ Conducting supportive and collaborative activities through social contributions</li> <li>▶ Negotiations with local residents regarding construction and infrastructure projects</li> <li>▶ Support through donations and sponsorships</li> </ul>	Our objective is to contribute to prosperous local communities through our business by understanding and tackling the challenges they face.



## Business Partners

All the business partners who provide various forms of cooperation in delivering NTT Group's services

### NTT Group's Approach

We strive to collaboratively create and develop services aimed at resolving various social issues.

### Methods of Engagement (Examples)

- ▶ Setting up an inquiry form
- ▶ Disclosure of procurement policies and guidelines
- ▶ Implementation of supplier-focused questionnaires
- ▶ Hosting of supplier briefing sessions

### Reasons for Engagement

Our aim is to procure products that are considerate of the environment and human rights, and to build fair partnerships. By doing so, we fulfill our corporate social responsibilities and aim for sustained growth together with our business partners.

## Competitors and Industry Associations

All those engaged in ICT services like the NTT Group, and industry associations dedicated to the advancement of information and communication technology

### NTT Group's Approach

We include a global market perspective in deepening our collective discussions about the state and strategies of the information and communication industry. We work to address various societal issues through these discussions.

### Methods of Engagement (Examples)

- ▶ Participation in industry organizations and initiatives
- ▶ Attendance at conferences, etc.

### Reasons for Engagement

Our aim is both to promote overall vitality within the industry and to contribute to society through the development and advancement of information and communications technology.

## National and Government Agencies

Agencies governing policies in fields like information and communications, employment, economy, and environment at the national, administrative, and local government levels

### NTT Group's Approach

In line with the policies of national, administrative, and local governments, we will fulfill our responsibilities as a key player in the information and communications industry.

### Methods of Engagement (Examples)

- ▶ Compliance with laws and regulations
- ▶ Policy recommendations
- ▶ Participation in public-private partnership projects

### Reasons for Engagement

We aim to properly comply with the policies, laws, and regulations set forth by national, administrative, and local governments and conduct appropriate business activities, and contribute to solving the societal issues these governments and citizens face.

## NGOs, NPOs/Experts

NGOs, NPOs, and experts focused on the domains where the NTT Group operates, including sustainability

### NTT Group's Approach

We aim to leverage the specialized knowledge and experience of NGOs, NPOs, and experts in the information and communications industry, contributing to the creation of a sustainable society.

### Methods of Engagement (Examples)

- ▶ Participation and collaboration in study groups and activities conducted by various organizations
- ▶ Conducting dialogue
- ▶ Carrying out collaborative projects

### Reasons for Engagement

The goal is to carry out appropriate and effective business activities by gaining specialized insights from NGOs, NPOs, and experts, as the services provided by the NTT Group extend beyond just information and communications to broader fields.

# Consolidated Statement of Financial Position

Unit: Millions of yen

	End of FY2021 (As of March 31, 2022)	End of FY2022 (As of March 31, 2023)
<b>ASSETS</b>		
Current assets		
Cash and cash equivalents	834,564	793,920
Trade and other receivables	3,604,959	4,186,375
Other financial assets	88,441	98,653
Inventories	408,362	517,409
Other current assets	574,922	919,016
Sub Total	5,511,248	6,515,373
Assets held for sale	205,344	139,495
Total current assets	5,716,592	6,654,868
Non-current assets		
Property, plant and equipment	9,326,888	9,717,103
Right-of-use asset	694,612	718,531
Goodwill	1,213,009	1,283,448
Intangible assets	1,951,824	2,122,874
Investment property	1,236,490	1,242,591
Investments accounted for using equity method	429,806	446,569
Other financial assets	1,426,157	1,241,331
Deferred tax assets	970,432	940,196
Other non-current assets	896,431	941,340
Total non-current assets	18,145,649	18,653,983
Total assets	23,862,241	25,308,851
<b>LIABILITIES AND EQUITY</b>		
Current liabilities		
Short-term borrowings	1,646,806	1,840,381
Trade and other payables	2,500,341	2,807,286
Lease liabilities	189,495	205,074
Other financial liabilities	29,566	30,200
Accrued payroll	544,455	567,166
Income taxes payable	210,964	243,306
Other current liabilities	1,129,851	1,143,518
Sub Total	6,251,478	6,836,931
Liabilities directly associated with assets held for sale	7,161	3,055
Total current liabilities	6,258,639	6,839,986
Non-current liabilities		
Long-term borrowings	5,717,465	6,390,155
Lease liabilities	655,729	714,923
Other financial liabilities	135,686	148,431
Defined benefit liabilities	1,561,049	1,362,262
Deferred tax liabilities	137,474	143,326
Other non-current liabilities	378,067	359,141
Total non-current liabilities	8,585,470	9,118,238
Total liabilities	14,844,109	15,958,224
Equity		
Nippon Telegraph and Telephone Corporation ("NTT") shareholders' equity		
Common stock	937,950	937,950
Retained earnings	7,293,915	8,150,117
Treasury stock	(226,459)	(737,290)
Other components of equity	277,050	210,576
Total NTT shareholders' equity	8,282,456	8,561,353
Non-controlling interests	735,676	789,274
Total equity	9,018,132	9,350,627
Total liabilities and equity	23,862,241	25,308,851

# Consolidated Statement of Profit or Loss

Unit: Millions of yen

	FY2021 (Fiscal year ended March 31, 2022)	FY2022 (Fiscal year ended March 31, 2023)
Operating revenues	12,156,447	<b>13,136,194</b>
Operating expenses		
Personnel expenses	2,566,127	<b>2,768,711</b>
Expenses for purchase of goods and services and other expenses	5,839,441	<b>6,563,282</b>
Depreciation and amortization	1,561,183	<b>1,582,625</b>
Loss on disposal of property, plant and equipment and intangible assets	132,073	<b>118,620</b>
Impairment losses		
Goodwill	228	<b>6,164</b>
Other	37,824	<b>9,803</b>
Taxes and dues	250,978	<b>258,003</b>
Total operating expenses	10,387,854	<b>11,307,208</b>
Operating profit	1,768,593	<b>1,828,986</b>
Finance income	63,471	<b>54,105</b>
Finance costs	56,250	<b>79,424</b>
Share of profit (loss) of entities accounted for using equity method	19,711	<b>14,012</b>
Profit before taxes	1,795,525	<b>1,817,679</b>
Income taxes	539,531	<b>524,923</b>
Profit	1,255,994	<b>1,292,756</b>
Profit attributable to NTT	1,181,083	<b>1,213,116</b>
Profit attributable to Non-controlling interests	74,911	<b>79,640</b>
Earnings per share attributable to NTT		
Basic earnings per share (yen)*	13.17	<b>13.92</b>

\*Amounts reflect the 25-for-one stock split with an effective date of July 1, 2023.

# Consolidated Statement of Comprehensive Income

Unit: Millions of yen

	FY2021 (Fiscal year ended March 31, 2022)	FY2022 (Fiscal year ended March 31, 2023)
Profit	1,255,994	<b>1,292,756</b>
Other comprehensive income (net of taxes)		
Items that will not be reclassified to profit or loss		
Change in the fair value of financial assets measured at fair value through other comprehensive income	(25,482)	<b>(83,650)</b>
Share of other comprehensive income of entities accounted for using the equity method	(2)	<b>(1,135)</b>
Remeasurements of the defined benefit plans	131,032	<b>112,672</b>
Total of items that will not be reclassified to profit or loss	105,548	<b>27,887</b>
Items that may be reclassified to profit or loss		
Cash flow hedges	(50,748)	<b>(33,249)</b>
Hedges cost	14,434	<b>(8,645)</b>
Foreign currency translation adjustments	167,688	<b>119,360</b>
Share of other comprehensive income of entities accounted for using the equity method	(835)	<b>7,875</b>
Total of items that may be reclassified to profit or loss	130,539	<b>85,341</b>
Total other comprehensive income (net of taxes)	236,087	<b>113,228</b>
Total comprehensive income	1,492,081	<b>1,405,984</b>
Comprehensive income attributable to NTT	1,373,364	<b>1,270,639</b>
Comprehensive income attributable to Non-controlling interests	118,717	<b>135,345</b>



# Consolidated Statement of Changes in Equity

FY2021 (Fiscal year ended March 31, 2022)

Unit: Millions  
of yen

	NTT Shareholders' Equity						Non-controlling interests	Total equity
	Common stock	Additional paid-in capital	Retained earnings	Treasury stock	Other components of equity	Total		
March 31, 2021	937,950	–	7,068,008	(704,793)	261,542	7,562,707	640,336	8,203,043
Comprehensive income								
Profit	–	–	1,181,083	–	–	1,181,083	74,911	1,255,994
Other comprehensive income	–	–	–	–	192,281	192,281	43,806	236,087
Total comprehensive income	–	–	1,181,083	–	192,281	1,373,364	118,717	1,492,081
Transactions with owners and other transactions								
Dividends of surplus	–	–	(396,963)	–	–	(396,963)	(17,580)	(414,543)
Transfer to retained earnings	–	4,370	172,403	–	(176,773)	–	–	–
Purchase and disposal of treasury stock	–	8	–	(253,581)	–	(253,573)	–	(253,573)
Cancellation of treasury stock	–	(1,299)	(730,616)	731,915	–	–	–	–
Changes in ownership interest in subsidiaries without loss of control	–	(1,754)	–	–	–	(1,754)	(4,729)	(6,483)
Share-based compensation transactions	–	235	–	–	–	235	48	283
Put options granted to non-controlling interests	–	(943)	–	–	–	(943)	(595)	(1,538)
Other	–	(617)	–	–	–	(617)	(521)	(1,138)
Total transactions with owners and other transactions	–	–	(955,176)	478,334	(176,773)	(653,615)	(23,377)	(676,992)
March 31, 2022	937,950	–	7,293,915	(226,459)	277,050	8,282,456	735,676	9,018,132

FY2022 (Fiscal year ended March 31, 2023)

Unit: Millions  
of yen

	NTT Shareholders' Equity						Non-controlling interests	Total equity
	Common stock	Additional paid-in capital	Retained earnings	Treasury stock	Other components of equity	Total		
March 31, 2022	937,950	–	7,293,915	(226,459)	277,050	8,282,456	735,676	9,018,132
Comprehensive income								
Profit	–	–	1,213,116	–	–	1,213,116	79,640	1,292,756
Other comprehensive income	–	–	–	–	57,523	57,523	55,705	113,228
Total comprehensive income	–	–	1,213,116	–	57,523	1,270,639	135,345	1,405,984
Transactions with owners and other transactions								
Dividends of surplus	–	–	(419,525)	–	–	(419,525)	(20,087)	(439,612)
Transfer to retained earnings	–	54,926	69,071	–	(123,997)	–	–	–
Purchase and disposal of treasury stock	–	6	–	(510,831)	–	(510,825)	–	(510,825)
Changes in ownership interest in subsidiaries without loss of control	–	(50,284)	–	–	–	(50,284)	(59,752)	(110,036)
Share-based compensation transactions	–	(2,751)	–	–	–	(2,751)	1,313	(1,438)
Put options granted to non-controlling interests	–	(4,805)	–	–	–	(4,805)	(4,129)	(8,934)
Other	–	2,908	(6,460)	–	–	(3,552)	908	(2,644)
Total transactions with owners and other transactions	–	–	(356,914)	(510,831)	(123,997)	(991,742)	(81,747)	(1,073,489)
March 31, 2023	937,950	–	8,150,117	(737,290)	210,576	8,561,353	789,274	9,350,627

# Consolidated Statement of Cash Flows

Unit: Millions of yen

	FY2021 (Fiscal year ended March 31, 2022)	FY2022 (Fiscal year ended March 31, 2023)
<b>Cash flows from operating activities</b>		
Profit	1,255,994	1,292,756
Depreciation and amortization	1,561,183	1,582,625
Impairment losses	38,052	15,967
Share of loss (profit) of entities accounted for using the equity method	(19,711)	(14,012)
Losses on retirement of property, plant and equipment and intangible assets	60,936	48,518
Gain on sales of property, plant and equipment and intangible assets	(30,208)	(46,259)
Income taxes	539,531	524,923
Decrease (increase) in trade and other receivables	828	(525,313)
Decrease (increase) in inventories	(86,559)	(140,858)
Decrease (increase) in other current assets	(10,421)	(33,609)
Increase (decrease) in trade and other payables / accrued payroll	137,551	252,070
Increase (decrease) in other current liabilities	37,198	6,301
Increase (decrease) in defined benefit liabilities	(15,936)	(63,644)
Increase (decrease) in other non-current liabilities	5,304	(21,286)
Other, net	(61,066)	93,393
Sub-total	3,412,676	2,971,572
Interest and dividends received	79,703	95,023
Interest paid	(47,858)	(67,224)
Income taxes paid	(434,264)	(738,358)
Net cash provided by (used in) operating activities	3,010,257	2,261,013
<b>Cash flows from investing activities</b>		
Purchase of property, plant and equipment, intangible assets and investment property	(1,758,045)	(1,851,879)
Proceeds from government grants	38,110	17,888
Purchase of investments	(125,838)	(76,504)
Proceeds from sale or redemption of investments	187,198	109,153
Proceeds from loss of control of subsidiaries	15,936	53,628
Acquisition of subsidiaries, net of cash acquired	(121,747)	(81,645)
Net increase (decrease) loan receivable	26,343	17,337
Other, net	38,891	75,110
Net cash provided by (used in) investing activities	(1,699,152)	(1,736,912)
<b>Cash flows from financing activities</b>		
Net increase (decrease) in short-term borrowings	(1,860,107)	295,564
Proceeds from increases in long-term borrowings	1,716,162	1,090,877
Repayments of long-term borrowings	(401,905)	(693,427)
Repayment of lease liabilities	(208,232)	(223,907)
Payments for acquisition of interests in subsidiaries from non-controlling interests	(16,791)	(109,932)
Dividends paid	(396,963)	(419,525)
Dividends paid to non-controlling interests	(17,485)	(20,197)
Purchase and sale of treasury stock	(253,627)	(510,968)
Other, net	818	1,318
Net cash provided by (used in) financing activities	(1,438,130)	(590,197)
Effect of exchange rate changes on cash and cash equivalents	25,862	25,452
Net increase (decrease) in cash and cash equivalents	(101,163)	(40,644)
Cash and cash equivalents as of April 1	935,727	834,564
Cash and cash equivalents as of March 31	834,564	793,920

(For detailed financial and non-financial data, please refer to "Financial and Non-Financial Data" on our corporate website at [https://group.ntt/en/csr/data/financial\\_nofinancial](https://group.ntt/en/csr/data/financial_nofinancial).)

# Management's Analysis of Financial Condition, Results of Operations and Cash Flows

## Results of Operations

### Operating Revenues

NTT Group's operating revenues are divided into six service categories, comprising fixed voice related services, mobile voice related services, IP/packet communications services, sales of telecommunications equipment, system integration and other.

Operating revenues in the fiscal year ended March 31, 2023 increased 8.1% from the fiscal year ended March 31, 2022 to ¥13,136.2 billion. This increase was due to such factors as an increase in system integration revenues and other revenues, partially offset by a decrease in fixed voice-related revenues and mobile voice-related revenues.

Operating revenues for each service category for the fiscal year ended March 31, 2023 are summarized as follows:

#### ■ Fixed Voice Related Services

NTT Group's fixed voice related services include a portion of the services it provides in the regional communications business segment and Integrated ICT Business Segment, such as telephone subscriber lines, INS-Net, conventional leased circuits and high speed digital.

Fixed voice related revenues for the fiscal year ended March 31, 2023 decreased 4.9% from the fiscal year ended March 31, 2022 to ¥871.2 billion. This decrease was due to a continued decline in the number of subscriptions for telephone subscriber lines and INS-Net caused by the increased popularization of mobile phones and IP telephones, and an increase in free or low-priced communications services offered by providers of over-the-top content ("OTT" a content distribution service utilizing other companies' communications infrastructure, allowing a service provider to distribute services without owning its own communications infrastructure).

#### ■ Mobile Voice Related Services

Mobile voice related services include a portion of the services NTT Group provides in the Integrated ICT Business Segment, such as 5G, LTE (Xi) and other services.

Mobile voice related revenues for the fiscal year ended March 31, 2023 decreased 5.1% from the fiscal year ended March 31, 2022 to ¥1,046.4 billion. This decrease was primarily due to a decrease in revenues resulting from the enhancement of customer returns through the introduction of ahamo and other billing plans.

#### ■ IP/Package Communications Services

NTT Group's IP/packet communications services include a portion of the services it provides in the Regional Communications Business Segment, such as FLET'S Hikari, and a portion of the services it provides in the Integrated ICT Business Segment, such as Arcstar Universal One, IP-VPN, OCN, and 5G, LTE (Xi) and other packet communications services.

In the fiscal year ended March 31, 2023, revenues from IP/packet communications services decreased 0.0% from the fiscal year ended March 31, 2022 to ¥3,444.0 billion.

#### ■ Sales of Telecommunications Equipment

This category includes a portion of the services NTT Group provides in the Integrated ICT Business Segment and the Regional Communications Business Segment.

In the fiscal year ended March 31, 2023, revenues from telecommunications equipment sales increased 8.9% from the fiscal year ended March 31, 2022 to ¥756.2 billion. This increase was mainly due to an increase in revenues in the Integrated ICT Business Segment due to an increase in the unit sale prices of devices.

#### ■ System Integration

NTT Group's system integration services include a portion of the services it provides in the Global Solutions Business Segment, the Integrated ICT Business Segment and the Regional Communications Business Segment.

In the fiscal year ended March 31, 2023, revenues from system integration increased 13.4% from the fiscal year ended March 31, 2022 to ¥4,546.5 billion. This increase was mainly due to factors such as capturing increased demand for digitalization both domestically and abroad in the Global Solutions Business Segment.

#### ■ Other Operating Revenues

Other services principally comprise building maintenance, real estate rentals, sales of electricity and the Smart Life businesses in the Integrated ICT Business Segment.

In the fiscal year ended March 31, 2023, revenues from other services increased 24.2% from the fiscal year ended March 31, 2022 to ¥2,472.0 billion. This increase was due to an increase in electricity revenues in the energy business, among other factors.

### Operating Expenses

Operating expenses in the fiscal year ended March 31, 2023 increased 8.9% from the fiscal year ended March 31, 2022 to ¥11,307.2 billion. The reasons for the increase are discussed below.

#### ■ Personnel Expenses

Personnel expenses in the fiscal year ended March 31, 2023 increased 7.9% from the fiscal year ended March 31, 2022 to ¥2,768.7 billion. This increase was mainly due to the increase in personnel expenses as a result of the expansion of businesses in the Global Solutions Business Segment.

#### ■ Expenses for Purchase of Goods and Services and Other Expenses

In the fiscal year ended March 31, 2023, expenses for purchase of goods and services and other expenses increased 12.4% from the fiscal year ended March 31, 2022 to ¥6,563.3 billion. This increase was mainly due to an increase in sales-related costs resulting from the increase in electricity revenues, among other factors.

#### ■ Depreciation and Amortization Expenses

Depreciation and amortization expenses in the fiscal year ended March 31, 2023 increased 1.4% from the fiscal year ended March 31, 2022 to ¥1,582.6 billion.

### Operating Profit

As a result of the foregoing, operating profit for the fiscal year ended March 31, 2023 increased 3.4% from the fiscal year ended March 31, 2022 to ¥1,829.0 billion.

### Finance Income and Costs

Finance income and costs for the fiscal year ended March 31, 2023 were ¥(25.3) billion compared to ¥7.2 billion for the fiscal year ended March 31, 2022. This increase was mainly due to an increase in interest expenses resulting from a rise in interest rates, among other factors.

### Share of Profit of Entities Accounted for Using Equity Method

Share of profit of entities accounted for using the equity method for the fiscal year ended March 31, 2023 decreased 28.9% from the fiscal year ended March 31, 2022 to ¥14.0 billion.

## Profit Before Taxes

As a result of the foregoing, profit before taxes for the fiscal year ended March 31, 2023 increased 1.2% from the fiscal year ended March 31, 2022 to ¥1,817.7 billion.

## Income Taxes

In the fiscal year ended March 31, 2023, income taxes decreased 2.7% from the fiscal year ended March 31, 2022 to ¥524.9 billion. Effective tax rates for the fiscal year ended March 31, 2022 and for the fiscal year ended March 31, 2023 were 30.05% and 28.88%, respectively.

## Profit Attributable to NTT

As a result of the foregoing, profit for the fiscal year ended March 31, 2023 increased 2.9% from the fiscal year ended March 31, 2022 to ¥1,292.8 billion. Profit attributable to NTT (excluding the profit attributable to non-controlling interests) for the fiscal year ended March 31, 2023, increased 2.7% from the fiscal year ended March 31, 2022 to ¥1,213.1 billion.

## Cash Flows and Financial Position

### Cash Flows

At NTT Group, the stable cash flows generated by its business cover the expenditures necessary for recurring investment activities, such as capital investments, and provide the main source of funds for shareholder returns (dividends and share buy-backs) and repayments of borrowings.

#### ■ Operating Cash Flows

Cash flows provided by operating activities during the fiscal year ended March 31, 2023 amounted to ¥2,261.0 billion.

This was primarily due to profit (loss) as adjusted for non-cash items (profit for the period, plus non-cash items such as depreciation and losses on retirement of property, plant and equipment) reaching ¥2,925.9 billion.

Furthermore, cash flows provided by operating activities represented a decrease of ¥749.2 billion from ¥3,010.3 billion in the fiscal year ended March 31, 2022. This decrease was due to, in comparison to the prior fiscal year, profit (loss) as adjusted for non-cash items increasing by ¥29.4 billion while cash outflows increased by ¥778.6 billion, primarily due to increases in working capital and corporate taxes.

#### ■ Investment Cash Flows

Cash flows used in investment activities during the fiscal year ended March 31, 2023 amounted to ¥1,736.9 billion.

This was primarily due to payments for purchase of property, plant and equipment, intangible assets and investment property reaching ¥1,851.9 billion.

Furthermore, cash flows used in investment activities represented an increase of net payments by ¥37.8 billion from ¥1,699.2 billion in the fiscal year ended March 31, 2022. This increase was due to, among other factors, an increase of ¥93.8 billion of payments for purchase of property, plant and equipment, intangible assets and investment property in the fiscal year ended March 31, 2023 compared to the fiscal year ended March 31, 2022.

#### ■ Financing Cash Flows

Cash flows used in financing activities during the fiscal year ended March 31, 2023 amounted to ¥590.2 billion.

This was primarily due to expenditures for shareholder returns reaching ¥950.8 billion while net income from borrowings was

¥693.0 billion. Expenditures for shareholder returns consisted of ¥439.7 billion of dividend payments and expenditures of ¥511.1 billion for acquisitions of treasury stock. Net income from borrowings consisted of ¥295.6 billion of income from an increase in short-term borrowings, ¥1,090.9 billion of income from an increase in long-term borrowings and ¥693.4 billion of expenditures for repayments of long-term borrowings. The increase in long-term borrowings included the incurrence of ¥667.7 billion of green financings during the fiscal year ended March 31, 2023. The proceeds from these financings were allocated to projects that contribute to the resolution of environmental issues (5G-related investments, FTTH-related investments, research and development for achieving the IOWN concept and renewable energy).

Furthermore, cash flows used in finance activities represented a decrease in payments of ¥847.9 billion from ¥1,438.1 billion in the fiscal year ended March 31, 2022. This decrease was due to, among other factors, an increase of ¥1,238.9 billion in proceeds from borrowings, partially offset by an increase of ¥257.4 billion in payments for acquisitions of treasury stock in comparison to the prior fiscal year.

### Financial Position

Assets as of the end of the fiscal year ended March 31, 2023 increased by ¥1,446.6 billion from the end of the fiscal year ended March 31, 2022 to ¥25,308.9 billion, due to among other factors, increases in trade receivables and other current assets.

Liabilities as of the end of the fiscal year ended March 31, 2023 increased by ¥1,114.1 billion from the end of the fiscal year ended March 31, 2022 to ¥15,958.2 billion, due to, among other factors, an increase in borrowings for the acquisition of treasury stock and payment of taxes, and an increase in liabilities due to the continued depreciation of the yen. The balance of interest-bearing debt was ¥8,230.5 billion, an increase of ¥866.3 billion from ¥7,364.3 billion as of the end of the fiscal year ended March 31, 2022.

Shareholders' equity as of the end of the fiscal year ended March 31, 2023 increased by ¥278.9 billion from the end of the fiscal year ended March 31, 2022 to ¥8,561.4 billion, due to an increase in profit. The ratio of interest-bearing debt to shareholders' equity was 96.1% (compared to 88.9% at the end of the fiscal year ended March 31, 2022). In addition, equity, which consists of the sum of shareholders' equity and non-controlling interests, increased by ¥332.5 billion from the end of the fiscal year ended March 31, 2022 to ¥9,350.6 billion.

#### ■ Liquidity and Capital Resources

In addition to its cash and cash equivalents, NTT Group has entered into agreements with its banks to provide for overdraft accounts and committed financing lines to ensure that it maintains the liquidity necessary for its business activities. As of the end of the fiscal year ended March 31, 2023, NTT Group had a cash and cash equivalents balance of ¥793.9 billion, a decrease of ¥40.6 billion compared to the balance of ¥834.6 billion as of the end of the fiscal year ended March 31, 2022. Cash and cash equivalents represent a temporary cash surplus used to repay debts and make capital investments, among other factors, and are used as working capital. Accordingly, the balance of cash equivalents fluctuates each fiscal year depending on particular financing and working capital requirements.

In addition, as of the end of the fiscal year ended March 31, 2023, NTT Group had undrawn committed lines of credit of ¥318.2 billion.



# Stock Information (As of March 31, 2023)

## • Corporate Information

Company name	NIPPON TELEGRAPH AND TELEPHONE CORPORATION
Date of establishment	April 1, 1985
Head office	Otemachi First Square, East Tower, 5-1, Otemachi 1-Chome, Chiyoda-ku, Tokyo 100-8116, Japan
Common stock	¥937,950,000,000
Total number of shares authorized to be issued by NTT	6,192,920,900 shares (Total number of issuable shares after the stock split effective as of July 1, 2023: 154,823,022,500 shares)
Total number of shares issued	3,622,012,656 shares (Total number of issued shares after the stock split effective as of July 1, 2023: 90,550,316,400 shares)
Aggregate voting rights	34,058,629
Number of shareholders (including holders of only fractional shares)	918,858

## • Stock Exchange on Which the Company Is Listed

Tokyo (Stock Code: 9432)

## • Investor Relations

NIPPON TELEGRAPH AND TELEPHONE CORPORATION,  
Finance and Accounting Department, IR Office  
<https://group.ntt/en/ir/contact/index.html>

## • Shareholder Registry Administrator/Special Account Administrator

Sumitomo Mitsui Trust Bank, Limited  
1-4-1 Marunouchi, Chiyoda-ku, Tokyo

### Inquiries

Stock Transfer Agency

2-8-4 Izumi, Suginami-ku, Tokyo 168-0063

Toll free number: 0120-584-400 (For NTT shareholders)

0120-782-031 (Main number)

## • Depositary for NTT American Depositary Receipts (ADRs)

JPMorgan Chase Bank, N.A.  
383 Madison Avenue, Floor 11  
New York, NY10179, U.S.A.

### Inquiries

JPMorgan Service Center

P.O. Box 64504

St. Paul, MN 55164-0504, U.S.A.

TEL : 1-800-990-1135 (General)

1-651-453-2128 (From outside the U.S.A.)

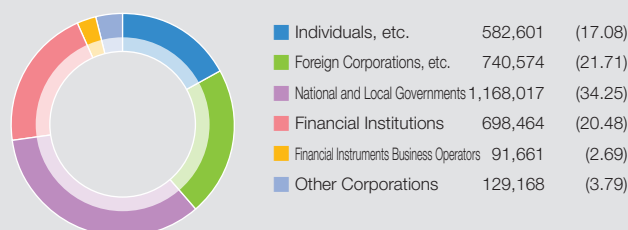
## • Principal Shareholders

Name	Number of shares held (Thousands)	Ratio of the number of shares held to the total number of shares issued (%)
The Minister of Finance	1,167,975	34.25
The Master Trust Bank of Japan, Ltd. (Trust Account)	391,152	11.47
Custody Bank of Japan, Ltd. (Trust Account)	172,314	5.05
Toyota Motor Corporation	80,775	2.37
JPMorgan Chase Bank 385632	55,872	1.64
Moxley & Co. LLC	39,392	1.16
Nippon Life Insurance Company	25,921	0.76
State Street Bank West Client – Treaty 505234	25,454	0.75
NTT Employee Share-Holding Association	24,922	0.73
JPMorgan Chase Bank 380072	21,848	0.64

(Notes) 1. Number of Shares Held is rounded down to the nearest thousand.  
2. NTT's holdings of treasury stock (211,524,308 shares) are not included in the above table.  
3. Equity ownership percentages do not include treasury stock.  
Furthermore, treasury stock does not include 1,033,466 shares of the Company held by the officer compensation BIP trust.

## • Breakdown of Shares by Shareholder

The number of shares is rounded down to the nearest thousand. The figures in parentheses represent the percentage of total shares owned for each category of shareholder.



(Notes) 1. The composition ratio is calculated based on the ratio to the total number of issued shares, excluding treasury shares. Note that shares held by the Board Incentive Plan (BIP) trust for executive compensation are not included.  
2. The "Other Corporations" noted above include 57,000 shares registered under the name of the Japan Securities Depository Center, Inc.

## • Restrictions under the NTT Act

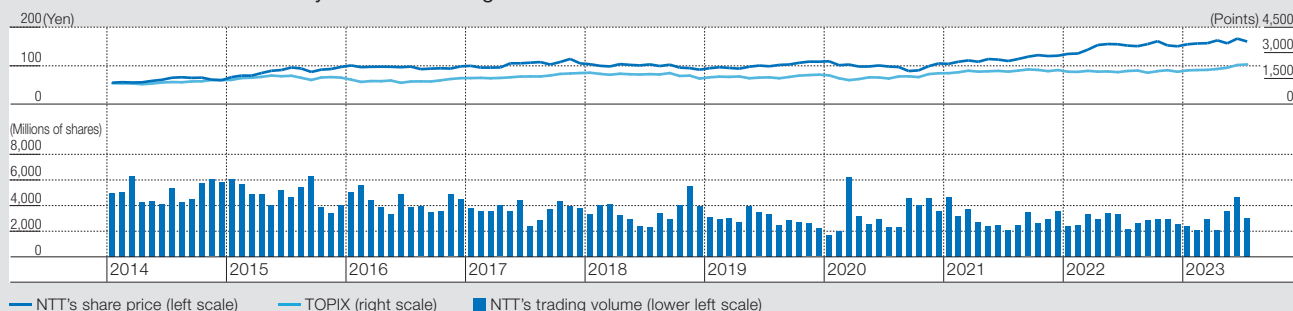
The NTT Act requires the government to own at least one-third of the total number of issued shares.\* Pursuant to the NTT Act, the proportion of voting rights of foreign nationals and foreign corporations is limited to less than one-third of the total voting rights.

If the proportion of voting rights of foreign nationals and foreign corporations should exceed one-third, pursuant to the NTT Act, NTT is prohibited from registering ownership of shareholders in excess of such limit.

As of the end of March 2023, 7,405,421 of the voting rights were owned by foreign nationals and foreign corporations.

\* For the time being, pursuant to Article 13 of the NTT Act, any increase in the number of shares attributable to the issuance of new shares is not included in calculating the total number of issued shares for the purposes of the NTT Act.

## • NTT's Share Price on the Tokyo Stock Exchange



(Notes) 1. NTT's share price and TOPIX index are the simple average closing prices on the last trading day every month.  
2. NTT's trading volume refers to the number of NTT shares traded every month.  
3. NTT conducted a 2-for-1 stock split of its common stock with an effective date of July 1, 2015, a 2-for-1 stock split of its common stock with an effective date of January 1, 2020, and a 25-for-1 stock split of its common stock with an effective date of July 1, 2023. NTT share prices have been adjusted to reflect the impact of these stock splits.

## External Evaluations (As of September 30, 2023)

### Dow Jones Sustainability Index (DJSI)

DJSI is a stock index jointly developed by S&P Dow Jones Indices in the United States and RobecoSAM in Switzerland. It conducts annual evaluations of companies' sustainability from an ESG perspective and selects the best companies overall while taking into account their market capitalization. The Company has been selected as a constituent of the Asia/Pacific Index.

### FTSE4Good Index Series

The Company has been selected as a constituent of the FTSE4Good Index, a global ESG index developed by FTSE Russell in the United Kingdom.

### FTSE Blossom Japan Index

The company has been selected as a constituent of the FTSE Blossom Japan Index, an index created by FTSE Russell that reflects the performance of Japanese companies that excel in ESG response.

### MSCI Japan Empowering Women Index

The Company has been selected as a constituent of the MSCI Japan Empowering Women Index, which selects companies that promote gender diversity among their employees and lead their industries in the participation and job promotions of women as well as promotion of diversity.

### Best IR Award

NTT won the IR Grand Prix given by the Japan Investor Relations Association in its 2022 IR Awards, which aim to select and honor companies that deeply understand the purpose of IR, are actively involved, and have achieved outstanding results, such as earning high support from market participants.

### Awards for Excellence in Corporate Disclosure

In the 28th (FY2022) Awards for Excellence in Corporate Disclosure by The Securities Analysts Association of Japan, we were selected as the no. 1 excellent company in the Telecommunication / Internet category.

### Eruboshi (Rank 3)

Eruboshi is a certification system based on the Act on Promotion of Female Participation and Advancement in the Workplace, and is issued to companies that meet certain criteria and have an excellent status regarding the promotion of women's active engagement in professional life. The company has obtained Eruboshi (Rank 3) certification, which means that it meets all five criteria.

### Platinum Kurumin

Issued by the Ministry of Health, Labour and Welfare based on the Act on Advancement of Measures to Support Raising Next-Generation Children, Platinum Kurumin is issued to companies that have formulated an action plan for business owners, have achieved the goals set forth in the plan, and meet certain criteria. Among Kurumin certified companies, Platinum Kurumin certification is given to excellent companies that are working to support child rearing with higher standards.

### PRIDE Index Gold status

For the seventh year in a row, we have received the PRIDE Index Gold status, which recognizes outstanding companies in the PRIDE Index, an index developed by the private organization "work with Pride" to evaluate LGBTQ-related efforts in the workplace.

Member of

## Dow Jones Sustainability Indices

Powered by the S&P Global CSA



## 2023 CONSTITUENT MSCI日本株女性活躍指数 (WIN)



2022 Award for Excellence  
in Corporate Disclosure  
— Industries —  
SAAJ The Securities Analysts  
Association of Japan





X (formerly known as Twitter)  
[twitter.com/NTTPR](https://twitter.com/NTTPR)



Facebook  
[facebook.com/NTTgroup/](https://facebook.com/NTTgroup/)



Instagram  
[instagram.com/nttgroup\\_official/](https://instagram.com/nttgroup_official/)



YouTube  
[youtube.com/c/NTTOfficialchannel](https://youtube.com/c/NTTOfficialchannel)



LinkedIn  
[linkedin.com/company/ntt](https://linkedin.com/company/ntt)

**NTT**

NIPPON TELEGRAPH AND TELEPHONE  
CORPORATION



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<https://group.ntt/en/>