# INNOVATING A SUSTAINABLE FUTURE FOR PEOPLE AND PLANET

Integrated Report 2024



NTT

## 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.**
**NTT will continue to innovate through imagination and by challenging ourselves.**

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.

## Foreword

Thank you very much for taking the time to read the NTT Group's Integrated Report.

This report is targeted at our diverse stakeholders, including shareholders and investors in Japan and overseas. It has been compiled, first and foremost, to inform them clearly and concisely about the NTT Group's efforts to enhance corporate value as a company that continues to create new value and pursue global sustainability.

We revisit the roots and history of the NTT Group to answer the questions: Where is NTT heading?
What is the CEO thinking, and what does he want to accomplish?
How are the NTT Group's materiality (material issues) and the Medium-Term Management Strategy connected?
How is corporate governance structured to achieve them?

The goal of this Integrated Report is to give stakeholders a better understanding of how our financial and non-financial capital is tied to the management strategy of the NTT Group, which is engaged in numerous businesses around the globe.

We understand that our stakeholders are busy every day and that the key points of the NTT Group's value creation story must be communicated in a compact manner. Therefore, the data section has been reduced to essential data. Detailed financial and non-financial data is available on our corporate website as part of this Integrated Report. Furthermore, the details of the individual initiatives mentioned in this report can be found on the corporate website.

If any stakeholder reads this report and becomes interested in the NTT Group's efforts to enhance corporate value, we encourage you to also refer to the below.

· **Financial and Non-Financial Data**
  **https://group.ntt/en/sustainability/data/financial_nofinancial/**

· NTT Group Sustainability
  https://group.ntt/en/sustainability/

· IOWN
  https://www.rd.ntt/e/iown/

· AI
  https://www.rd.ntt/e/ai/

· Securities Report
  https://group.ntt/en/ir/library/yuho/

· Corporate Governance Report
  https://group.ntt/en/ir/mgt/governance/

· Shareholders' Meeting Materials
  https://group.ntt/en/ir/shares/shareholders_meeting/

· Presentation Materials
  https://group.ntt/en/ir/library/presentation/

(If you are reading the PDF file of this report, the corporate website can be viewed at the link.)

# Contents

*For detailed financial and non-financial data, please refer to the Financial and Non-Financial Data on our corporate website, accessible via the URL to the left.

**Forward-Looking Statements**

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.

**Abbreviations**

In this report, "NTT DOCOMO" refers to NTT DOCOMO, INC., "NTT Communications" refers to NTT Communications Corporation, "NTT COMWARE" refers to NTT COMWARE 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. The data and figures mentioned in this report are as of the end of March 2024, unless otherwise stated.

# NTT Group's Roots and Purpose

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.

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

## Mission

**Contributing to society through our business operations**

To help realize a sustainable society, NTT aims to resolve social issues through partnerships with people, organizations, and local communities.

## Vision

**Your Value Partner**

To ensure that we achieve our vision of being "Your Value Partner," the partner people choose again and again, we will maintain Shared Values as One NTT and continue working to accomplish our mission of contributing to society through our business operations.

## Values

**Connect Trust Integrity**

NTT aims to become an organization that enables everyone to be themselves and enjoy peace of mind as they work. We will maintain Shared Values as One NTT and ensure respect for each person's individuality as we strive to achieve our vision.

# Transformation of NTT Group's Business Structure

In 1952, Nippon Telegraph and Telephone Public Corporation was started, and in 1985, Nippon Telegraph and Telephone Corporation (NTT) was established.
NTT has made the needs of consumers and wider society the foundation of its business activities.
To address evolving societal challenges, we have developed a wide range of technologies and
have continually transformed our business structure through pursuing innovation and
tackling new challenges.
NTT Group will continue to embrace self-transformation,
providing new experiences and inspiration focused on customer satisfaction,
with the goal of remaining the preferred choice of consumers.

FY1985
sales
5.1
trillion yen
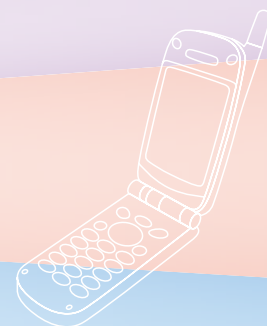
Telephone

*The background design on this page is intended to symbolize the evolution of our business expansion.

## 1985 - 1990s
## Expansion of telephone services

## 2000s
## Shift to broadband

| | |
|---|---|
| **1985** | Nippon Telegraph and Telephone Corporation (NTT) established |
| **1987** | Mobile telephone services launched |
| **1988** | World's first ISDN service launched |
| **1988** | NTT DATA Communications Systems Corporation (currently NTT DATA Group) established |
| **1996** | OCN internet connection services launched |

| | |
|---|---|
| **2000** | ISDN flat-rate services launched |
| **2001** | FTTH (Fiber To The Home) services launched |
| **2004** | Osaifu-Keitai (Mobile Wallet) launched |
| **2004** | "Hikari Denwa" launched |
| **2009** | Android OS smartphones launched Cloud services launched |

**FY2023 sales 13.4 trillion yen**

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

**Global Solutions Business**

**FY2012 overseas sales 0.95 trillion yen**

**FY2023 overseas sales 2.8 trillion yen**

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

**Regional Communications Business (telephone and FTTH, etc.)**

FTTH, etc.

**2010s**
**Expansion of global business**

**2020s**
**New structural transformation**

2010   Acquired Keane (currently NTT DATA, Inc.)
Acquired Dimension Data

2010   LTE (Xi) services launched

2015   "Hikari Collaboration Model" launched

2016   Acquired Dell Services (currently NTT DATA, Inc.)

2018   Mobile payment service "d Payments" launched

2019   NTT Urban Solutions established
NTT Anode Energy established

2020   5G services launched

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

# NTT Group Value Creation Process

## Mission

**Contributing to Society through our Business Operations**

## Vision

**Your Value Partner**

## Values

**Connect**
**Trust**
**Integrity**

**Corporate Governance** `▶P88`

## Input

**Expanding Investments in Growth Areas**
+50% increase
(approx. ¥8.0 tn/5 years)

### Human Resources (Human Capital)
· Number of Employees: 338,000
  (Overseas Employees: 151,000)
· Number of Consolidated Subsidiaries:
  967

### NW/Infrastructure
### (Manufacturing Capital)
· Optical Fiber Cable Length:
  1.646 million km[1]
  (International Submarine Communications
  Cable Length: 276,000 km)
· Data Centers:
  202 buildings at 149 bases, 1,347 MW
  ( APAC: 573 MW, India: 292 MW,
    EMEA: 430 MW, Americas: 344 MW )

For details on the data center business, please see the section below.
📖 P75 Expansion and Upgrade of Data Center Infrastructure

### R&D/Service Development
### (Intellectual Capital)
· Research and Development Bases:
  1 national institute, 3 laboratory groups,
  1 global laboratory
· Number of R&D Employees: 2,300
· Number of Patents: 21,000
  (Number of Overseas Patents: 14,000)
· Number of Research Papers and
  Academic Lectures: 2,700/year

### Financial Base (Financial Capital)
· Total Assets: 29,604.2 billion yen
· Capital Investment: 2,063.1 billion yen
· Operating Revenues: 13,374.6 billion yen
· EBITDA: 3,418.1 billion yen
· Operating Profit: 1,922.9 billion yen

### Customer Base, etc. (Social Capital)
· Number of Fixed Broadband
  Subscriptions: 23.65 million
· Number of Mobile Broadband
  Subscriptions: 89.94 million

## Key Categories `▶P8`

### Climate change `▶P32`
· Reducing Greenhouse Gas Emissions

### Human Capital `▶P40`
· Strengthening Employee
  Engagement
· Ensuring Diversity of Human
  Resources

### New Value Creation `▶P62`
· Improving Customer Engagement

### Resilience `▶P68`
· Responding to Natural Disasters
  and Large-Scale Failures

🔗 **Please see Financial and Non-Financial Data for other inputs.**
https://group.ntt/en/sustainability/data/
financial_nofinancial/

## Medium-Term Management Strategy ▶P72
New Value Creation & Sustainability 2027
Powered by IOWN

### 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)
② Data-Driven Creation of New Value
③ Achievement of a Circular Economy Society
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

## Outcome

### Social Value

**Mitigating Climate Change**

· FY2040: Net-Zero

**Improving Employee Engagement**

· Improving labor productivity and creativity

**New Social Value Creation**

· Enhancing creation of new experiences and impressions for customers
· Creating new social value through the practical application of IOWN and use of AI/robots
· Accelerating Resource Recycling/Regional Development Across Industries

**Resilience of Social Infrastructure**

· Maintaining life-supporting services that sustain both social and economic activities as well as safeguarding daily life

### Economic Value

**Increasing Our Cash-Generation Ability**

· EBITDA: +20% increase[2]
  (FY2027: Approx. ¥4.0 tn)

**Enhancing Shareholder Returns**

· Implementing Steady Increases in Dividends
· Flexible Share Buybacks

(Notes) *1 Total length of fiber optic cables of NTT East, NTT West, NTT DOCOMO, and NTT DATA Group (the figures for NTT East and NTT West are as of the end of FY2022)
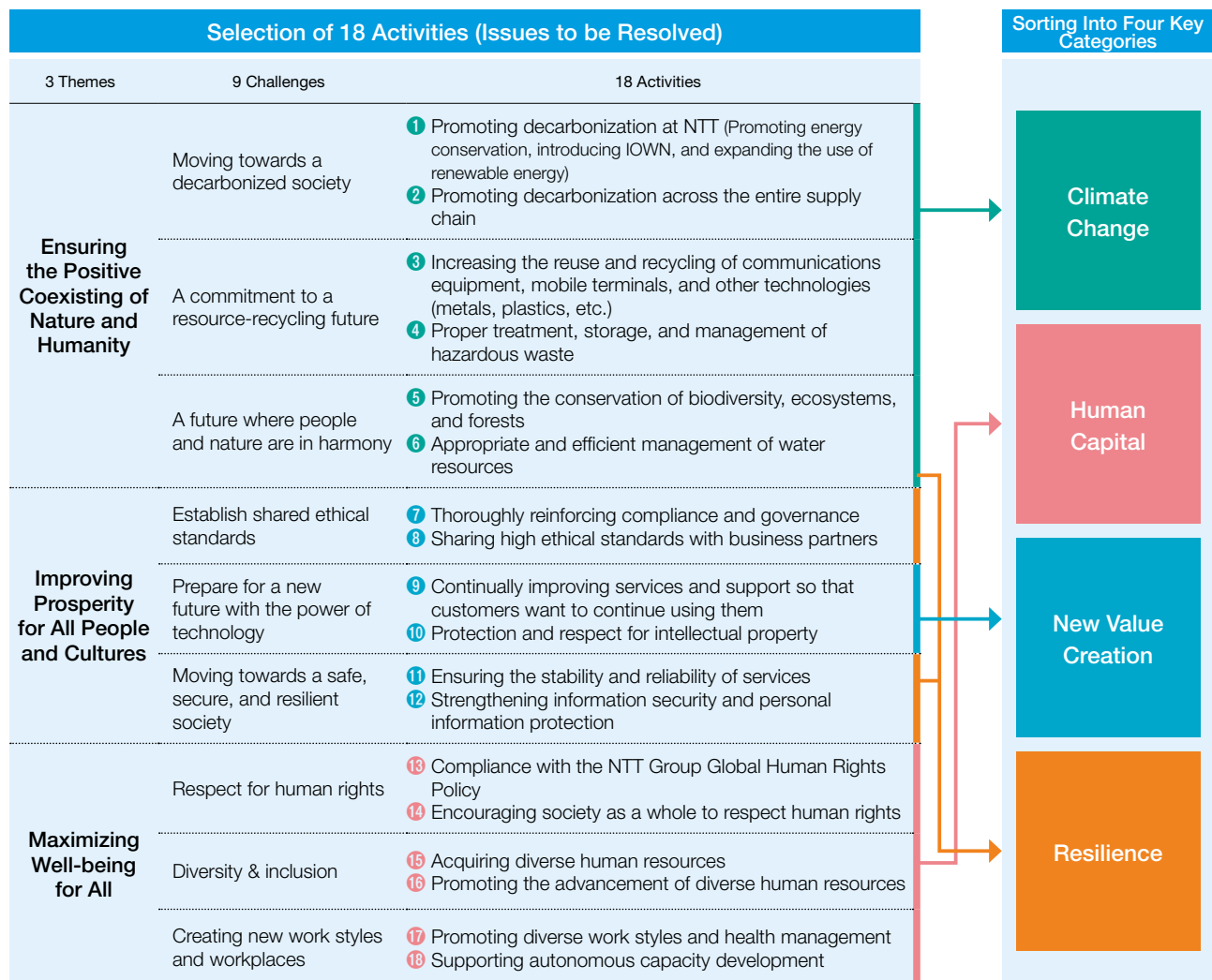*2 Compared to FY2022

# Placing Sustainability Promotion at the Core of the NTT Group's Businesses

## –Revision of the NTT Group Global Sustainability Charter–

The NTT Group recently revised its Global Sustainability Charter, established in November 2011, to increase its effectiveness by linking it to the Medium-Term Management Strategy, as well as to adapt to changes in the external environment.

More specifically, we newly revised the activities based on the three themes and nine challenges included under NTT's vision of a sustainable society in our Charter, deciding on 18 activities arranged and integrated from the existing 30 activities.

| Selection of 18 Activities (Issues to be Resolved) | | | Sorting Into Four Key Categories |
|---|---|---|---|
| **3 Themes** | **9 Challenges** | **18 Activities** | |
| **Ensuring the Positive Coexisting of Nature and Humanity** | Moving towards a decarbonized society | ❶ Promoting decarbonization at NTT (Promoting energy conservation, introducing IOWN, and expanding the use of renewable energy) <br> ❷ Promoting decarbonization across the entire supply chain | **Climate Change** |
| | A commitment to a resource-recycling future | ❸ Increasing the reuse and recycling of communications equipment, mobile terminals, and other technologies (metals, plastics, etc.) <br> ❹ Proper treatment, storage, and management of hazardous waste | |
| | A future where people and nature are in harmony | ❺ Promoting the conservation of biodiversity, ecosystems, and forests <br> ❻ Appropriate and efficient management of water resources | **Human Capital** |
| **Improving Prosperity for All People and Cultures** | Establish shared ethical standards | ❼ Thoroughly reinforcing compliance and governance <br> ❽ Sharing high ethical standards with business partners | |
| | Prepare for a new future with the power of technology | ❾ Continually improving services and support so that customers want to continue using them <br> ❿ Protection and respect for intellectual property | **New Value Creation** |
| | Moving towards a safe, secure, and resilient society | ⓫ Ensuring the stability and reliability of services <br> ⓬ Strengthening information security and personal information protection | |
| **Maximizing Well-being for All** | Respect for human rights | ⓭ Compliance with the NTT Group Global Human Rights Policy <br> ⓮ Encouraging society as a whole to respect human rights | **Resilience** |
| | Diversity & inclusion | ⓯ Acquiring diverse human resources <br> ⓰ Promoting the advancement of diverse human resources | |
| | Creating new work styles and workplaces | ⓱ Promoting diverse work styles and health management <br> ⓲ Supporting autonomous capacity development | |

### Revision to Compensation-linked Indicators in the Sustainability Indicators ▶P98

From the perspective of further strengthening customer experience (CX), compensation-linked indicators (officers and managers) related to new value creation will be changed from B2B2X earnings to customer engagement (whether a customer intends to continue using a product and the degree to which they would recommend the product to others) in FY2024.

| Category | Performance Indicators | | Evaluation Method |
|---|---|---|---|
| **Sustainability indicators** | Greenhouse Gas Emissions | | Achievement of targets |
| | New Female Manager Promotion Rate | | |
| | Employee Engagement Rate | | |
| | **Customer Engagement [Revised]** | **NPI** | |
| | | **NPS** | |

## Indicators, Targets, and Results for the Four Key Categories

| Key Categories | Indicator | Target | Results (FY2023) |
|---|---|---|---|
| Climate Change | Greenhouse Gas Emissions | [Scope 1 & 2]<br>FY2030: 80% reduction (compared to FY2013)<br>FY2040: Carbon neutrality<br><br>[Scope 1, 2 & 3]<br>FY2040: Net-Zero | [Scope 1 & 2]<br>2.32 million tons, 50% reduction (compared to FY2013)<br><br>[Scope 1, 2 & 3]<br>21.03 million tons, 26% reduction (compared to FY2018) |
| Human Capital | Employee Engagement Rate | Improvement compared to FY2022 (57%) | 54% |
| | New Female Manager Promotion Rate | Every year: 30% | 27.9% |
| | Male Childcare Leave Rate | 100% | 128.5% |
| | Direct Dialogue Rate with Key Suppliers | 100% | 100% |
| New Value Creation | Amount of B2B2X Revenues | FY2023: ¥873.1 billion | ¥1,058.1 billion |
| | Customer Engagement | [NPI] Improvement (year-on-year)<br>[NPS] Improvement (year-on-year) | [NPI] —<br>[NPS] — |
| Resilience | Number of Serious Incidents | FY2023: Zero | Four |
| | Number of Telecommunications Service Interruptions due to External Cyberattacks | FY2023: Zero | Zero |

(Notes) 1. The scope of aggregation for the employee engagement rate is based on the percentage of positive responses to four NTT Group KPIs that measure engagement. The scope of aggregation includes the major companies and their designated subsidiaries. The major companies are NTT DOCOMO*, NTT East, NTT West, NTT DATA Group, NTT Urban Solutions, and NTT Anode Energy.
*Figures for NTT DOCOMO include figures for NTT Communications.
2. New female manager promotion rate and male childcare leave rate: five major domestic companies (NTT, NTT DOCOMO*, NTT East, NTT West, and NTT DATA Group*).
*NTT DOCOMO includes figures from NTT Communications. Furthermore, NTT DATA Group includes figures from NTT DATA and NTT DATA, Inc.
3. Male Childcare Leave Rate is calculation of the rate at which childcare leave, or other leave for childcare purposes, is taken, based on Article 71, paragraph (4)(ii) of the Ordinance for Enforcement of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members (Ordinance of the Ministry of Labor No. 25 of 1991), in accordance with the provisions of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members (Act No. 76 of 1991).
4. The scope of aggregation for the direct dialogue rate with key suppliers is calculated by using 40 suppliers, selected based on procurement amount, item importance, substitutability, etc., as the denominator, and the number of suppliers with whom direct dialogue was completed during the fiscal year as the numerator.
5. The scope of B2B2X revenue includes the Integrated ICT Business Segment, the Regional Communications Business Segment, and the Global Solutions Business Segment.
6. Customer Engagement Next Purchase Intention (NPI) indicates whether a customer intends to continue using a product, while Net Promoter Score® (NPS®) *1 indicates the degree to which a customer would recommend the product to others. The scope for customer engagement includes services for small and medium-sized corporations and services for consumers, which are the focus areas of NTT East, NTT West, and NTT DOCOMO*2 (there are plans to expand the scope to include services for large corporations in future).
*1. Net Promoter Score and NPS used in the text are the registered trademarks of Bain & Company, Fred Reichheld, and SatMetrix Systems (present-day NICE Systems, Inc.).
*2. The figures for NTT DOCOMO include NTT Communications.
7. The scope of tallying the number of serious incidents and telecommunications service interruptions due to external cyberattacks includes four specified public institutions: NTT East, NTT West, NTT Communications, and NTT DOCOMO.
8. A "serious incident" is defined as an event meeting specific conditions that interrupt or degrade the quality of telecommunications services. ( P68)

# Message from the CEO

**Akira Shimada**
President and
Chief Executive Officer
Representative Member of the Board

島　田　　明

The NTT Group has made steady progress since the announcement of our Medium-Term
Management Strategy in May 2023.
This year, the second year of the strategy, is an important year for us to steadily build
momentum toward achieving the goals of the Medium-Term Management Strategy for FY2027.
By steadily promoting existing initiatives and proactively tackling new challenges,
we will create new value and contribute to the realization of global sustainability.

# Following Through with My Original Vision: A Medium-Term Management Strategy Connected to NTT's Roots

When I first took office as CEO in June 2022, I declared that we would continue on the path of transformation that the NTT Group had been pursuing, and that we would forge our way forward by adapting to change and, at times, transforming ourselves in anticipation of change. I also decided that we would pursue three initiatives to make the NTT Group a group capable of dynamic change, bringing new experiences and fresh excitement to its customers: (1) Create the customer experience (CX) from the employee experience (EX); (2) Aim to achieve decarbonization through technology; and (3) Keep communications infrastructure and critical systems connected even in the event of a major disaster.

All three of these initiatives serve to perpetuate the NTT Group's mission of "contributing to society through our business operations" into the future. This mission may seem rather abstract and obscure to some people. We have, in fact, received this kind of feedback from our stakeholders. However, the NTT Group comprises 967 companies that are engaged in a wide range of businesses centered on information and communications that transcend national borders, span multiple sectors, and touch on all sorts of social issues. We want to solve these social issues using the power of information and communications technology. This desire is what is succinctly encapsulated in the phrase "contributing to society through our business operations."

To achieve our mission, the NTT Group must be "Your Value Partner," the partner people choose again and again. This is because the information and communications business is based on multiplication:

[Partners] × [Information and communications] = [Contribution to society]

There is a limit to what we can accomplish through information and communications alone. In order for our business to become a driving force in solving social issues, we need the capabilities of our partners. Our partners are not just our customers. For us, every stakeholder is a partner. We aspire to be a group that aligns itself with its partners and achieves value together with them.

To continue being this kind of NTT Group, we defined "Connect," "Trust," and "Integrity" as the three Shared Values constituting the foundation that unites our employees. These key terms were established through extensive global discussions across the NTT Group. NTT's roots lie in telecommunications. "Connect" also encompasses the sense of "connections with people." Connections with people cannot be established without "Trust." And "Integrity" is necessary in order to establish trust. With these three cornerstone values in place, customers can forge lasting relationships with the NTT Group. This "DNA" also plays a pivotal role in contributing to societal sustainability. The NTT Group's 340,000 employees working around the world perform their daily duties with these three values firmly in mind.

These values lead back to NTT's roots, and will remain fundamentally unchanged into the future. However, the shape of the NTT Group will change drastically from being a group that "connects communications," as we have in the past, to a group that "connects data." Utilizing all kinds of data, I intend to accelerate our growth as a group that provides services to improve our customers' businesses and lifestyles, and to build an NTT Group that "connects to the future" together with our partners and employees.

This was basically my original vision when I first became CEO. Based on the above ideas, in May 2023, we started working under our new Medium-Term Management Strategy with "Innovating a sustainable future for people and planet" as our basic approach. Embedded within the Medium-Term Management Strategy is the message that 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. Following

through with my original vision as CEO also means realizing this Medium-Term Management Strategy.



## Creating New Value and Achieving Global Sustainability

The Medium-Term Management Strategy is the core of the NTT Group's value creation process.

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." Bringing together the collective strengths of the NTT Group, we will promote four initiatives: (1) IOWN-Driven Creation of New Value; (2) Data-Driven Creation of New Value; (3) Achievement of a Circular Economy; and (4) Further Strengthening of Business Foundations. This kind of new value all comes from people. The second and third pillars of the Medium-Term Management Strategy are "Upgrading the Customer Experience (CX)" and "Improving the Employee Experience (EX)." These two pillars serve as mechanisms to support the first pillar. CX and EX can be compared to the two loops in NTT's Dynamic Loop logo. CX is the large outer loop, and EX is the small inner loop. The excitement, inspiration, and joy felt by each employee as they take on challenges with a sense of vitality and purpose (EX) will, in turn, lead to customer satisfaction (CX). Moreover, the "thank yous" from customers will further boost our motivation. In this way, I believe that the looping sequence of CX and EX that connects us to the future will create things of value to the world and become the driving force for the creation of a sustainable society.

For such value creation initiatives to move forward, it is essential to provide input to the business, especially investments in growth areas. The NTT Group will expand investments in growth areas by investing roughly eight trillion yen over the next five years, a 50% increase over prior investments. Including existing areas, we plan to invest roughly 12 trillion yen in total.

We will then use these investments to expand our ability to generate cash for the future. EBITDA (earnings before interest, taxes, depreciation, and amortization), an indicator of how much cash flow a company generates in its main business, has flatlined in recent years for the NTT Group. Our Medium-Term Management Strategy calls for a 20% increase in EBITDA to roughly four trillion yen by FY2027 through expanded investments in growth

areas. This newly generated cash will become dividends for stakeholders, as well as be channeled back into the business as input to realize value such as improving the financial value of the company, mitigating climate change, creating new social value in diverse sectors centered on IOWN and AI, strengthening resilience to protect social infrastructure, and promoting human capital management that will support these efforts. These financial and non-financial outcomes are integral to our business, and the NTT Group would not be able to conduct business without any one of them. Another key management issue is contributing to the creation of a sustainable society through our business and ensuring that our shareholders receive the resulting benefits. The new Medium-Term Management Strategy maintains our fundamental policy on shareholder returns, such as continuously increasing dividends and flexibly implementing share buybacks.

The NTT Group's value creation process is a cycle that sustainably enhances corporate value with the Medium-Term Management Strategy at its core, as well as a loop that continuously connects NTT's roots to the future. We created a video illustrating the NTT Group's Medium-Term Management Strategy to convey this concept of ours. I hope you will take a moment to watch it.

## Steady Progress on the Medium-Term Management Strategy

The Medium-Term Management Strategy announced last year is progressing smoothly. We remain firmly committed to achieving our medium-term targets for FY2027.

### Proactively Taking on the Challenge of New Initiatives

We have made steady progress on the initiatives for "IOWN-Driven Creation of New Value," one of the pillars of our Medium-Term Management Strategy. These include the establishment of NTT Innovative Devices Corporation, a manufacturer of photonics-electronics convergence devices, to accelerate the development of such devices, and the realization of All Photonics Network (APN) connections between data centers in Japan and pilot testing for connections between data centers overseas.

In addition, we are promoting new value creation through AI and digital transformation (DX) solutions, beginning with the launch of commercial service for NTT's generative AI "tsuzumi," for which we are strengthening and expanding collaboration with partners, and the establishment of NTT AI-CIX, a new company that aims to provide consulting, development, and services utilizing AI technology.

In the area of personal business, we are strengthening our financial services and marketing solutions through capital and business alliances with Monex, Inc., ORIX Credit Corporation, and INTAGE HOLDINGS Inc.

As for the data center business, we are making steady progress in upgrading and expanding our data centers overseas. While continuing to develop our own highly profitable data centers, we will make upfront investments in land in anticipation of demand for land for AI data centers and hyperscalers, as well as consider M&A as an option for capturing new regions and functions.

Outside of the communications business, in the environment and energy field, we have brought Green Power Investment Corporation into the Group and are expanding our renewable energy sources. We have also launched "NTT G×Inno," a brand of solutions for green transformation (GX), to leverage our renewable energy infrastructure, technology, and expertise in order to strengthen our ability to provide solutions that contribute to our customers' green transformations.

### Steady Progress on Existing Initiatives

Initiatives associated with our existing communications businesses are critical in supporting the new initiatives we are tackling. Although the recent performance of our existing businesses such as the Hikari fiber optics service and mobile communications has been weak, I believe it is important to recover and improve business performance by improving efficiency and cost competitiveness through DX to swiftly revive the regional communications business, and to strengthen the foundation of our mobile communications business by combining it with smart life services. We will continue to maintain and operate our network facilities stably and sustainably, while taking pride in the fact that we are responsible for Japan's communications infrastructure.

### Upgrading the Customer Experience (CX) and Improving the Employee Experience (EX)

We are steadily advancing initiatives to upgrade the customer experience (CX). In July 2023, we began offering Eximo and Irumo, new price plans for mobile communications services. In addition, measures to improve the customer experience of mobile communications quality, which was inconveniencing customers and causing them concern, were completed as planned in December 2023. We will continue striving to improve our mobile communications quality. Furthermore, in April 2024, we launched the "Docomo Poikatsu Plan," a mix of payment and mobile services centered on d POINTs. We also began collaborating with Amazon with regard to d POINTs and Amazon Prime. In order to further advance these initiatives to upgrade CX, we appointed new Chief Customer Experience Officers (CCXOs) at major NTT Group companies and decided to reflect "customer engagement indicators" in the officers' performance-linked compensation.

Improving EX is also essential. In April 2023, we revised our personnel and salary system to focus on specialization. With regard to personnel affairs in FY2023, roughly one-fifth (18.8%) of management-level employees and one-tenth (10%) of regular employees were promoted at a faster rate than in the past. In addition, the number of employees using the Remote Standard system introduced in July 2022 has grown to roughly 50,000 employees, and as of April 2024, we have eliminated roughly 1,500 solo assignments that separate employees from their families. To promote an open and innovative corporate culture, we hold conferences such as the Sustainability Conference, CX Conference, TSUNAGU Conference, and the Learning from Failure Conference. These conferences introduce the efforts of employees who are taking on challenges in various fields, which raises the level of ambitious thinking across the entire Group.

Going forward, we will continue to create new value by bringing about a virtuous cycle of CX and EX.

## Something I Value as CEO

From the beginning of my term as CEO, I have maintained the conviction that I must always focus on the front lines and be there for every single employee. This is also my way of implementing "value creation through a virtuous cycle of CX and EX." To capture their real voices and thoughts, I engage in dialogue with employees who are making daily efforts on the front lines in a wide range of sectors, including solutions, urban development, smart agriculture, cross reality (XR), digital comics, smart energy, green energy, human resources, and finance, organizing these sessions not only within Japan, but also in North America, South America, Asia, and Europe. I believe that reflecting their voices in the Group's management will lead to further enhancement of the NTT Group's corporate value.

With this in mind, I have held these dialogue sessions a total of 14 times in 4 countries in the roughly two years since I took office as CEO.

I have also continued to meet once a week with a few young employees for lunch. I find that there are moments when I am able to clarify my thoughts and come up with ideas as I listen to the younger employees and occasionally share my own thoughts with them. This is yet another initiative I plan to continue.

Communicating my thoughts to all 340,000 people in the 967 companies of the NTT Group is no easy feat. In addition to sending CEO messages addressed to the entire Group each quarter, in May 2024, I delivered a 35-minute CEO message reflecting on the Medium-Term Management Strategy, once again explaining my thinking and our progress to all of our employees. I look forward to continuing to work together with our employees as we head toward the year 2027.



## Thoughts on the Revised NTT Act

I am optimistic about the revisions to the NTT Act in April 2024, which have removed our obligation to publicly disclose our research and development results and relaxed some of the restrictions on appointing non-Japanese directors. I also expect that discussions about further revisions, including the design of a detailed legal system, will be stepped up in the coming fiscal year, and we intend to continue to cooperate in these discussions.

**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 the NTT Group an organization that supports global sustainability through the creation of new value. We sincerely hope for your continued support in the years ahead.**

# Placing Sustainability at the Core of our Management Strategy

## – Self-transformation and embracing challenges –

Representative
Member of the Board
Senior Executive Vice
President and CFO

**Takashi Hiroi**

## Business Strategy and Sustainability

You might be surprised to hear that The NTT Group's history is a story of self-transformation and embracing challenges. To date, we have undertaken various initiatives to contribute to the achievement of a sustainable society by addressing social issues through our business activities. As society and the economy undergo profound changes, I believe that it will be increasingly important to place sustainability at the core of our management strategy and promote it even more vigorously in order to enhance our corporate value. For this reason, our commitment to continuous self-transformation and embracing challenges remains unchanged.

The growth driver in the NTT Group's value creation process is laid out in our Medium-Term Management Strategy, announced in May 2023: "Innovating a Sustainable Future for People and Planet." We are working to achieve business growth and sustainability at the same time. For example, on the financial side, we have changed our principal indicators to EBITDA to strengthen our ability to generate cash for sustainable growth, and on the non-financial side, we have set sustainability-related indicators such as achieving carbon neutrality by 2040.

At the NTT Group, we are continuing to transform our management style to prioritize both financial and non-financial management. Over the past year, on the financial side, we have been working to improve return on invested capital and have been monitoring and disclosing information on the financial situation of our Financial and Data Center businesses. On the non-financial side, we reviewed the activities specified in the NTT Group Global Sustainability Charter and revised them into 18 activities, and then set measurable indicators for each. Going forward, we will continue to transform our management style, focusing on both financial and non-financial aspects.

## Achievement of Previous Medium-Term Financial Targets and a New Start

Our consolidated financial results for fiscal 2023 show that operating revenues increased by 238.4 billion yen over the previous year to 13,374.6 billion yen, operating profit increased by 93.9 billion yen over the previous year to 1,922.9 billion yen, and profit increased by 66.4 billion yen over the previous year to 1,279.5 billion yen, all of which were record highs. Meanwhile, EBITDA increased by 127.9 billion yen over the previous year to 3,418.1 billion yen. The previous Medium-Term Management Strategy (announced in November 2018 and revised in October 2021), for which fiscal 2023 was the last year, set an Earnings per Share (EPS) target of 14.8 yen. Despite this being a very high financial target, we achieved it with actual EPS of 15.1 yen

by streamlining non-core assets, mainly those no longer needed as a result of past efforts to improve efficiency and technological advances (with an impact on operating profit of approximately 140.0 billion yen).

Although the forecast for fiscal 2024 shows a decrease in profit compared with the previous year, we expect operating revenues to increase excluding special factors such as streamlining non-core assets, and we are actively implementing measures to achieve the Medium-Term Financial Target (announced in May 2023) of a 20% increase in EBITDA in fiscal 2027 (compared with fiscal 2022).

## FY2024 Forecast

| | FY2023 Results | FY2024 Forecast | Year-on-Year |
|---|---|---|---|
| Operating revenues | ¥13,374.6 billion | ¥13,460.0 billion | ¥85.4 billion |
| Operating profit | ¥1,922.9 billion | ¥1,810.0 billion | (¥112.9 billion) |
| Profit* | ¥1,279.5 billion | ¥1,100 billion | (¥179.5 billion) |
| EBITDA | ¥3,418.1 billion | ¥3,330.0 billion | (¥88.1 billion) |

*Profit represents profit attributable to NTT, excluding non-controlling interests.

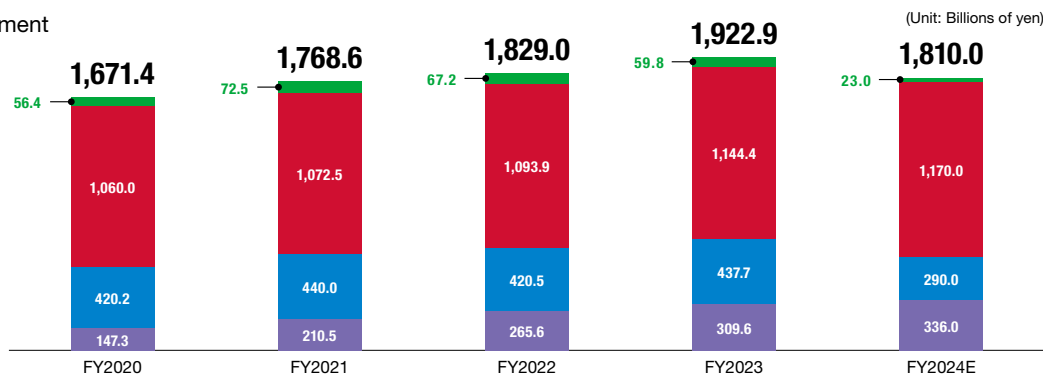## Progress and Capital Allocation in the Medium-Term Management Strategy

### Changes in Our Business Portfolio

As digital transformation (DX) continues to advance, and AI evolves and expands in application, the NTT Group's business portfolio is also changing. Our DX Business and Data Center Business are steadily growing as drivers of growth. These businesses are centered on the Smart Life and Enterprise businesses in the Integrated ICT Business Segment, as well as on the Global Solutions Business Segment, and are positioned as growth areas for accelerated investment in the Medium-Term Management Strategy. Meanwhile, business operations have reached a major turning point in the Regional Communications Business and Mobile Communications Business, which until now have been generating stable profits. We will consider and implement measures (detailed below) in order to restore their cash generation capacity in the future.

### Operating Profit by Segment

*Operating profit for each segment includes intersegment transactions

- Other
- Integrated ICT Business
- Regional Communications Business
- Global Solutions Business

(Unit: Billions of yen)

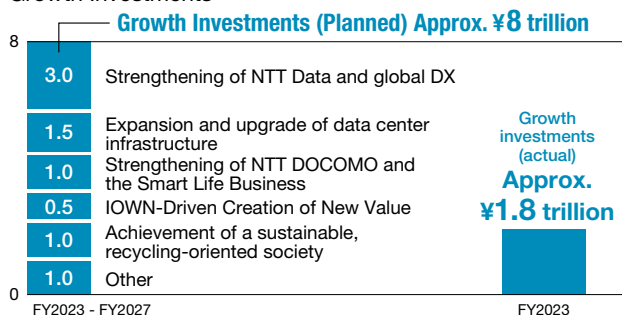| | FY2020 | FY2021 | FY2022 | FY2023 | FY2024E |
|---|---|---|---|---|---|
| Total | 1,671.4 | 1,768.6 | 1,829.0 | 1,922.9 | 1,810.0 |
| Other | 56.4 | 72.5 | 67.2 | 59.8 | 23.0 |
| Integrated ICT Business | 1,060.0 | 1,072.5 | 1,093.9 | 1,144.4 | 1,170.0 |
| Regional Communications Business | 420.2 | 440.0 | 420.5 | 437.7 | 290.0 |
| Global Solutions Business | 147.3 | 210.5 | 265.6 | 309.6 | 336.0 |

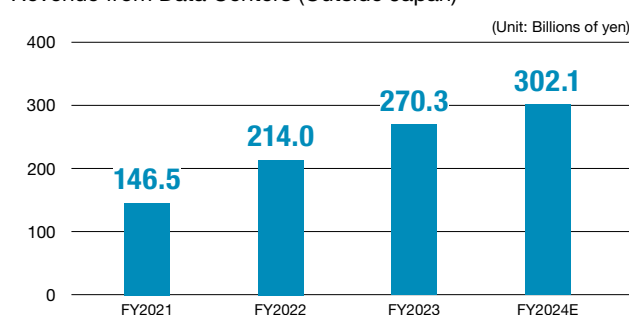### First Year Progress and Challenges of the Medium-Term Management Strategy

The Medium-Term Management Strategy announced in May 2023 envisions expanding investment in growth areas to approximately 8 trillion yen over five years from fiscal 2023. In fiscal 2023, the NTT Group invested a total of approximately 1.8 trillion yen in growth areas (capital investments and contributions) and has begun its next challenge of pivoting and expanding into new business areas. In the Smart Life Business, we invested in fields such as investment and finance, including the acquisition of Monex, Inc. in January 2024 and ORIX Credit Corporation in March 2024 as subsidiaries, with the aim of further expanding the Financial Business. Based on our customer base of approximately

100 million members of the d POINT CLUB, I believe there is potential to create synergies in the future by promoting collaboration among financial services and by combining these services with communications services, leveraging the advantages of smartphones, which are widely used information devices. In addition, in the Data Center Business, we made approximately 400 billion yen in capital investments to meet rising demand driven by the expansion of AI. Orders for data center services continue to exceed available capacity. We expect the data centers we have invested in to contribute to increases in revenue and EBITDA once they begin operating.

### Growth Investments

**Growth Investments (Planned) Approx. ¥8 trillion**

| | |
|---|---|
| 3.0 | Strengthening of NTT Data and global DX |
| 1.5 | Expansion and upgrade of data center infrastructure |
| 1.0 | Strengthening of NTT DOCOMO and the Smart Life Business |
| 0.5 | IOWN-Driven Creation of New Value |
| 1.0 | Achievement of a sustainable, recycling-oriented society |
| 1.0 | Other |

FY2023 - FY2027

Growth investments (actual)
**Approx. ¥1.8 trillion**
FY2023

### Revenue from Data Centers (Outside Japan)

(Unit: Billions of yen)

| FY2021 | FY2022 | FY2023 | FY2024E |
|---|---|---|---|
| 146.5 | 214.0 | 270.3 | 302.1 |

Given the nature of the Financial and Data Center businesses, where assets are leveraged to generate returns, I believe it will be necessary to continue to accelerate growth investments and expand the scale of our assets. In addition, because the return on investment and cash flows for these businesses differ from our existing Network Business, we began separately disclosing

financial information for these businesses at the end of fiscal 2023. Our aim is to enhance the clarity of each part of our business portfolio, enabling investors to appropriately evaluate the corporate value and creditworthiness of the NTT Group as a whole.

### Assets/Liabilities in the Financial and Data Center Businesses
(March 31, 2024)

Financial **2.3** trillion yen (7.8%)
DC **2.5** trillion yen (8.5%)
Assets **29.6** trillion yen

Financial **2.2** trillion yen (11.7%)
DC **2.0** trillion yen (10.5%)
Liabilities **18.7** trillion yen
Of which, interest-bearing debt 9.6 trillion yen (Excluding financial/DC: 7.6 trillion yen)
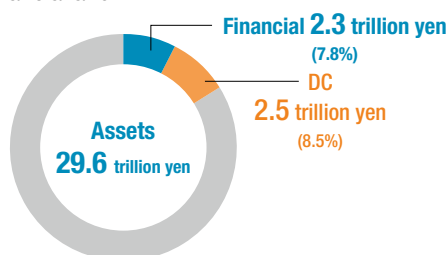
On the other hand, I believe that we need to bolster our existing Network Business. In the Regional Communications Business Segment, we have been working to improve cost efficiency. To achieve even greater cost efficiency, we will discontinue legacy

services such as the telephone directory and directory assistance services (announced in July 2024) and aggressively promote the streamlining of operations through digitalization, with the aim of rapidly recovering business performance.

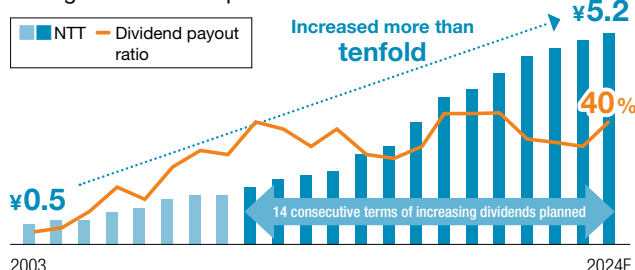### Improving Return on Invested Capital

As we expand our investments in growth areas, we are also replacing our assets where necessary to improve our capital efficiency. In fiscal 2023, we implemented a major streamlining of non-core assets, and we will continue to consider ways to utilize assets within the Group and to convert them to cash through sales to outside parties. With regard to our data centers, in addition to deciding whether to sell each data center based on profitability and other factors, we are also considering a wide range of options, such as using a REIT to liquidate the data centers. By selling data centers to a REIT and speeding up the investment cycle by reinvesting the funds gained from the sale

back into the data centers, we will be able to respond quickly to rising demand while also ensuring financial soundness.

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. 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

Regarding shareholder returns, our fundamental policy is to steadily increase dividends. We also aim to improve capital efficiency by flexibly conducting share buybacks.

Regarding dividends, we have planned for a 0.1 yen per share increase to 5.2 yen in fiscal 2024, marking our 14th consecutive year of dividend growth. This represents a more than tenfold increase in the dividend per share compared to fiscal 2003.

For share buybacks, as of fiscal 2023, we have executed approximately 5.5 trillion yen's worth and have set a cap of 200 billion yen for fiscal 2024.

The Company's total shareholder return, which accounts for dividends and stock price fluctuations, was 383% over the past 10 years, outperforming the TOPXDVNET index, which is calculated post-tax and including dividends.

### Change in Dividends per Share

- NTT
- Dividend payout ratio

Increased more than **tenfold**
**¥5.2**
**40**%
**¥0.5**
14 consecutive terms of increasing dividends planned
2003 — 2024E

### Total Shareholder Return over the past 10 years

- NTT
- TOPIX, including dividend

**383**%
**289**%
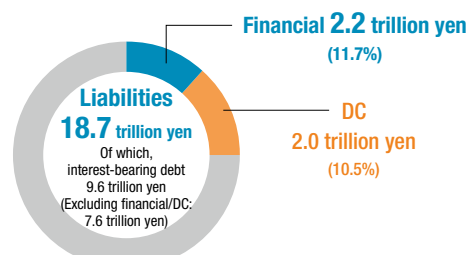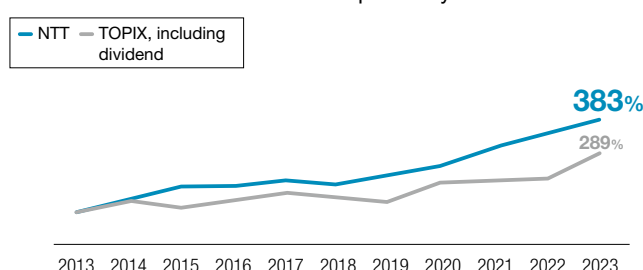2013 2014 2015 2016 2017 2018 2019 2020 2021 2022 2023

### Interest-Bearing Debt

Our interest-bearing debt at the end of fiscal 2023 was 9.6 trillion yen (7.6 trillion yen excluding the Financial and Data Center businesses), an increase of 1.4 trillion yen over the previous fiscal

year. This was due to factors such as our investment in Monex, Inc. and the increase in foreign currency-denominated debt due to exchange rate fluctuations. The interest-bearing debt/EBITDA

ratio was 2.8 times. We meet our increasing investment in growth areas, by relying on the stable cash flows from our business activities and by taking advantage of our financial leverage. In the medium term, we aim to reduce our interest-bearing debt/EBITDA ratio by increasing returns from growth areas.

## Sustainability Initiatives Over the Past Year

The NTT Group Global Sustainability Charter established in November 2011 was recently revised to increase its effectiveness by linking it to the Medium-Term Management Strategy, as well as to adapt to changes in the external environment, such as greater alignment with international standards. Specifically, 30 activities were changed to 18 activities, and measurable indicators were set for each activity. After repeated discussions were held in the Sustainability Committee, which reports directly to the Board of Directors, the Board of Directors decided to revise the activities, set principal indicators, and set KPIs for board member compensation.

As for the method of selecting these activities, the activities were evaluated based on two axes: "Solving social issues" and "Growth as a company," incorporating 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. The Sustainability Charter states that a regular review will be carried out annually and that the Charter will be revised as necessary.

In addition, the NTT Group has divided the selected activities into four categories: (1) Climate change, (2) Human capital, (3) New value creation, and (4) Resilience. We are promoting sustainability initiatives based on these key categories.

The first category is addressing climate change (). We are aiming to achieve net-zero emissions by 2040, including Scopes 1, 2, and 3. To this end, we are promoting energy conservation, expanding our use of renewable energy, and introducing IOWN technologies. On this we are making steady progress—greenhouse gas (GHG) emissions in fiscal 2023 were 2.32 million metric tons, which is a greater reduction than planned. We are also promoting resource recycling by reusing and recycling communications equipment and mobile devices, and by ensuring the proper disposal and management of hazardous waste. Going forward, we will continue to expand our decarbonization efforts through dialogue and engagement with all stakeholders, including suppliers upstream in the supply chain and customers downstream. We will also continue to enhance our surveys and information disclosures regarding the status of our nature reserves and other initiatives related to natural capital.

The second category is human capital (). So far, we have built a framework to make it easier for employees to demonstrate their abilities, such as by introducing the Remote Standard system and a new personnel and salary system focused on specialization. Looking ahead, it will be important to use these systems to further establish throughout the organization measures such as autonomous career formation, organizational reform, the development of comfortable work environments, and improvements in the employee experience (EX). From these perspectives, we are working to visualize our human capital. This includes reorganizing the human capital value creation process, identifying the ideal employee profile for our management strategy, developing policies for the acquisition and training of human resources, and setting indicators and targets to monitor results.

The third category is creating new value (). To contribute to solving social issues, we have been transforming our business structure by shifting from telecommunications to solutions. In the past year, we have seen the results of establishing the new Research and Development Market Strategy Division, a R&D division that includes marketing functions. One example is the launch of NTT AI-CIX (). We are promoting initiatives focused on upgrading the customer experience (CX), such as providing a one-stop service that includes everything from AI consulting to model development and platform services.

The fourth category is resilience (). I believe that strengthening resilience is our mission as a company that provides communications and services. In addition to dealing with large-scale outages caused by natural disasters, such as the Noto Peninsula earthquake that occurred in January 2024, our response to cybersecurity is backed by specialists with advanced technology and expertise. We will strive to further strengthen our business foundations so that we can continue to realize our mission and vision, which can be traced back to NTT's roots, into the future.

## Strengthening Engagement and Dialogue with Stakeholders

Going forward, we will continue to strengthen information disclosure about the NTT Group's businesses and sustainability initiatives and further enhance dialogue with stakeholders, reflecting this in our business strategy. Specifically, we will respect the opinions of our shareholders and investors, as well as those of our partners in the supply chain and business alliances. We also intend to further cultivate a culture that prioritizes openness, collaboration, and a spirit of "trial and error" through town hall meetings with employees and other means. 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.

# A World of Well-being Made Possible by NTT's Technology

## – IOWN is finally becoming a reality –

Representative
Member of the Board
Senior Executive Vice
President and CTO

**Katsuhiko Kawazoe**

## The NTT Group's Ideal World – Well-being –

Since I became CTO, I have repeatedly stated that the ultimate goal of the NTT Group is to maximize 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.

For this to happen, we will continuously invest in intellectual property, such as R&D and service development, and human capital, which are sources of new value creation for the Group. At the same time, we will promote global collaboration and market-oriented thinking to expand the NTT Group's businesses and generate returns commensurate with investment.

## Research and Development at NTT – The Source of Value Creation –

Research and development is the source of the NTT Group's value creation and is inseparable from the company's history and culture.

We began researching optical fiber in 1966. Approximately 50 years later, it led to the announcement of the IOWN concept in 2019. The technology we developed to connect people to people will connect people to information, people to things, and the real world to the virtual world, making it possible to transmit not only sounds but also images, data, skills, experiences, and spaces. We were also able to independently develop "tsuzumi," our own generative AI model, thanks to four decades of research into natural language processing technology.

NTT employs roughly 2,300 researchers and developers (680 of whom hold PhDs) at 14 laboratories specializing in four fields in Japan and at three laboratories in Silicon Valley, United States. In addition, NTT holds about 21,000 patents and conducts about 2,400 research presentations and lectures annually. In particular, NTT is a world leader in research and development in the fields of optical communications, information security, voice recognition, and quantum computing. As a result, in the field of information security, for example, around 15% of the papers presented at top-level international conferences on cryptography involve members of NTT laboratories.

In the future, continuing to promote NTT's research and development and fostering our human resources will be essential to supporting a sustainable society. Our Medium-Term Management Strategy includes a plan to continuously invest roughly 100 billion yen overall in research and development for technologies such as IOWN and 6G.

Characteristics of "tsuzumi"

| | |
|---|---|
| Lightweight | Operable with 1 GPU/1 CPU |
| Customizable | AI with industry/organization-specific knowledge |
| Multimodal | Supports various use cases other than text input |
| Proficient in Japanese | World class performance, especially strong in Japanese |

## IOWN-Driven Creation of New Value -From Concept to Commercialization-

All sorts of values exist in the world, but they are not universal.

The COVID-19 pandemic has changed the way we live in profound ways, and some of these changes are now called the "new normal." In the same way, our lives have begun to change significantly as a result of AI. Society will keep changing in the years to come.

Digitalization thus far has largely focused on increasing efficiency. From now on, however, digitalization will need to create entirely new value. By creating value that meets the needs of the time, place, society, and people through IOWN, NTT will continue to maintain the sustainability of global society.

Since the announcement of the IOWN concept in 2019, the NTT Group has been working to develop new network and computing infrastructure in order to transition from information processing based on electronics to photonics-electronics convergence technology, and we have been conducting demonstration experiments and implementing this technology in various fields, such as entertainment and healthcare. Furthermore, by collaborating with many partners in Japan and around the world, we continue to tackle initiatives to make the concept work not only for us, but to create a major movement for society as a whole.

The IOWN concept is finally becoming a reality. Going forward, we will continue to pursue innovations that overcome existing limitations in order to solve myriad social issues and realize a sustainable society through the creation of new value.

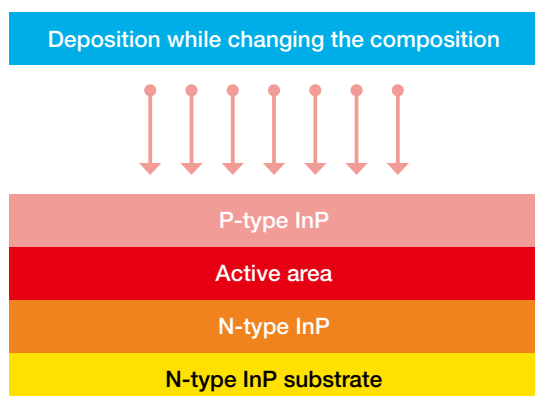### Acceleration of IOWN Commercialization

To promote the implementation of IOWN in society, we are accelerating efforts to commercialize the technology.

IOWN is characterized by its high capacity, low power consumption and low latency, and it is supported by two pillars: networks and computing.
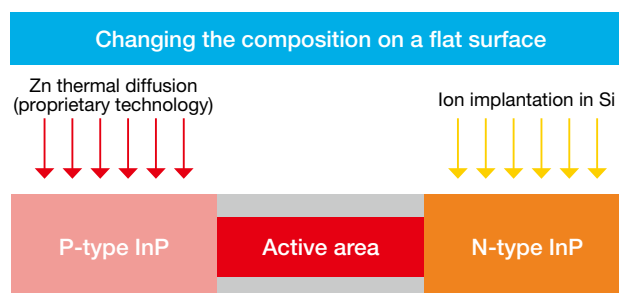
"Networks" refers to the All-Photonics Network (APN), which connects everything with light. By using optical communications technology that minimizes the need for light-to-electricity conversion, APN makes it possible to substantially enhance data transmission speed and significantly reduce communication latency. As the backbone for next-generation data centers, The NTT Group is promoting the introduction of APN in various fields that can benefit from its performance, including global fields.

We are currently in discussions with dozens of companies in various fields, including broadcasting, data centers, real estate, education, finance, and entertainment, aiming to put the technology to commercial use. Among these, we are already seeing cases where customers are using APN in fields such as broadcasting, real estate, and entertainment. In addition, in fiscal 2023, we connected the NTT Group's major data centers using APN equipment. From fiscal 2024, we will expand this initiative to regional data centers and build a distributed data centers. Going forward, we will continue to accelerate our efforts to expand APN, both in Japan and internationally.

"Computing" refers to the development of photonics-electronics convergence devices. Photonics-electronics convergence devices integrate electronic and photonic elements into a single system to increase the speed of data transfer and improve energy efficiency. These devices are an essential part of the IOWN concept—not only do they reduce the latency of APN, but increase capability and lower power consumption.

In June 2023, we established NTT Innovative Devices Corporation to accelerate the product development and market launch of photonics-electronics convergence devices, which are key to the IOWN concept, and to expand the business. NTT has succeeded in developing membrane photonics, a proprietary thin film forming technology that achieves ultra-low power consumption, for photonics-electronics convergence devices that are key in optical communication. We have applied for over 100 patents, half of which have been granted. In April 2024, the NTT Act was revised, removing the obligation for NTT to promote and disseminate research and development. Prior to this revision, the obligation placed on NTT to disclose information made it difficult for us to develop strategies with partners. This revision of the NTT Act has created a more conducive environment for technology-based collaboration with partners. We look forward to engaging in future research and development while flexibly collaborating with partners.

Conventional compound semiconductor device fabrication method

| Deposition while changing the composition |
| --- |
| P-type InP |
| Active area |
| N-type InP |
| N-type InP substrate |

Membrane (thin film) fabrication method devised by NTT

| Changing the composition on a flat surface |
| --- |

Zn thermal diffusion (proprietary technology)      Ion implantation in Si

| P-type InP | Active area | N-type InP |
| --- | --- | --- |

Conventional compound semiconductors are fabricated by depositing layers vertically, which makes it difficult to produce thin films. NTT developed a technology that enables composition changes on a flat surface.

### A Sustainable AI-Assisted Society Powered by IOWN

IOWN supports AI and drives its evolution. It is no exaggeration to say that IOWN is essential for the widespread use of AI.

Large language models (LLMs) and other forms of generative AI are expected to streamline a variety of tasks and lead to the creation of new businesses. At the same time, a massive amount of electricity is needed to process the rapidly increasing amount of data due to the proliferation of AI and other factors. By 2030, the amount of data being transmitted in data centers around the world is projected to grow to about 16 times the 2018 level, requiring 13 times the amount of electricity as in 2018. We will support the development of AI and achieve sustainable innovation through photonics-electronics convergence technology, which is characterized by its low power consumption, high capacity, high quality, and low latency.

Besides reducing power consumption through advances such as photonics-electronics convergence technology, it is also important to minimize the environmental impact through the use of AI models with a low computational load. In March 2024, The NTT Group launched commercial services for "tsuzumi," a compact and lightweight generative AI model developed by NTT that maintains high performance with a significantly reduced number of parameters.

To make AI services more effective, we will create a future where multiple compact AIs work together through IOWN to bring about a new collective intelligence that cannot be achieved by a single, large AI. Building so-called "chained AI," in which AI systems work together across different industries and operations, means that overall optimization will be more important than optimization of individual parts of the system. This will significantly reduce human labor, and will lead to enhanced productivity and strengthened competitiveness in client companies.



### Deploying IOWN in Space

IOWN technology will extend into outer space and expand communication coverage from a percentage of the population to nationwide coverage.

At the NTT Group's, we view the expansion of space communications as one of the pillars of the IOWN concept. In June 2024, we launched NTT C89, a brand in the space business field, to realize the "Space Integrated Computing Network." The aim of this network is to build new ICT infrastructure in space by integrating HAPS, geostationary satellites, and low-orbit

satellites and connecting them to the ground with an optical wireless communication network, thereby enhancing various forms of data processing through distributed computing. We intend to strategically divide the areas that we aim to develop in-house, leveraging our technological strengths, from the areas where we will accelerate the commercialization of services with partners while developing new technologies. Then, we will engage in business and technological development to drive market creation and expansion in each area.

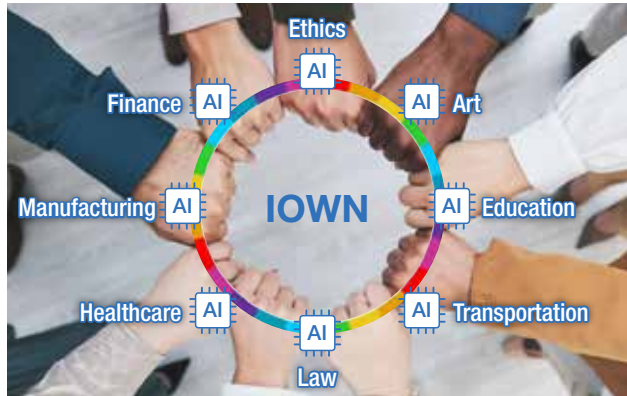### IOWN Global Forum Initiatives to Promote IOWN

IOWN is made possible through global partnerships.

In order to spread IOWN technology throughout the world in both developing and developed countries, we have been working to promote standardization through the IOWN Global Forum since the announcement of the IOWN concept.

The IOWN Global Forum, for which I serve as President and Chairperson, establishes de facto standards for IOWN



technology. Since its establishment by three companies in January 2020, participating groups have continued to grow. As of September 2024, 150 organizations and groups, including those from Asia, the Americas, and Europe, participate in the forum.

For IOWN to become widespread, de jure standards set by international organizations are also important. In December 2023, at the CxO Roundtable organized by ITU-T, the United Nations specialized agency for ICT standardization, NTT made a proposal on behalf of the IOWN Global Forum regarding the importance of ensuring IOWN's international connectivity and formulating de jure standards for global deployment, including in developing countries. The proposal was approved by the CxOs and ITU-T leaders at the roundtable, and it was agreed that official standards would be made for IOWN technical specifications. Attendees also agreed to strengthen collaboration between the IOWN Global Forum and ITU-T. I believe this is a massive step forward for the future deployment of IOWN. Seizo Onoe, formerly a member of NTT, has served as Director of the Telecommunications Standardization Bureau

(TSB) at the International Telecommunications Union (ITU) since January 2023. Going forward, we will continue to strengthen collaboration with international standardization organizations, particularly ITU-T, in order to promote the spread of IOWN.

Additionally, on the topic of semiconductors at the Japan-U.S. Summit Meeting held on April 10, 2024, the two leaders stated that they welcome robust Japan-U.S. private sector cooperation, especially in next-generation semiconductors and advanced packaging, and confirmed that Japanese and U.S. companies are exploring the wide range of possibilities available through optical semiconductors through partnerships like the IOWN Global Forum. The NTT Group's has been making repeated calls for Japan to work together on the IOWN concept ever since it was announced, so it is truly significant that IOWN has been included in a joint document issued by the leaders of Japan and the United States.
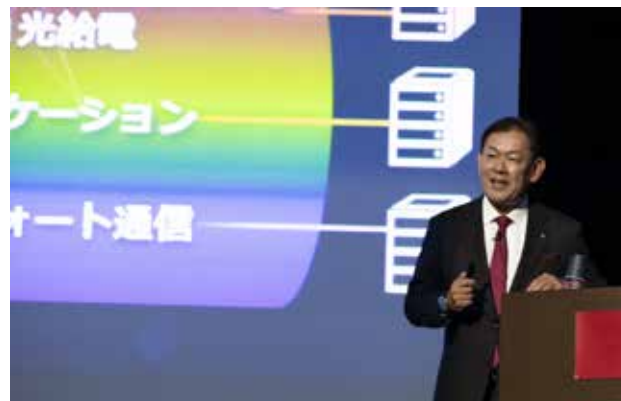


## Market-oriented R&D

Market-oriented R&D is essential as societal issues become more complex and problems such as the environmental and energy crises, the low birth rate and aging society, and labor shortages become more acute. We will work to strengthen services that emphasize the customer experience (CX) in all kinds of situations, including the creation of new value through IOWN, the creation of new value through data-driven approaches, and the realization of a recycling-oriented society, by incorporating a market-oriented perspective into conventional product-oriented research and development.

By taking a market-oriented approach, the ICT infrastructure that was created in the past with a product-oriented approach will shift to social and industrial infrastructure that supports peoples' lives. In June 2023, we established the Research and Development Market Strategy Division, an R&D organization that includes marketing functions, and have been working on this type of market-oriented R&D. Results are already starting to emerge in fields such as food, agriculture, and healthcare.

## Further Strengthening of Business Foundations

Building a resilient network system and strengthening measures to reduce damage from increasingly severe natural disasters are important initiatives that align with NTT's roots and the concept of "Connect." In fiscal 2023, four large-scale failures occurred. The NTT Group will invest 160 billion yen by fiscal 2025 to improve network reliability and work to enhance our ability to respond to severe disasters.

Regarding the data leak incident at NTT West, we sincerely apologize for the great inconvenience and concern this has caused our customers and shareholders. I believe this incident was caused by insufficient management regarding information security. The NTT Group plans to invest around 30 billion yen by fiscal 2027 to implement comprehensive measures related to overall management, not just technical measures for information security. These measures include human resource development and assignments, risk assessment when entering into contracts, and strengthening internal audits.

At NTT, we aim to tackle research and development with determination and enthusiasm, viewing it not only as a source of value creation for our business, but also as something that will help Japan to develop, lead the world, and ultimately lead to maximizing well-being. The NTT Group will move forward as a single united entity to meet the expectations of our shareholders and investors.

# NTT at a glance

## NTT Group

| Business | Services and Main Companies |
|---|---|
| **Integrated ICT Business** | **docomo**   **NTT Communications**   **NTT COMWARE**<br><br>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. |
| **Regional Communications Business** | **NTT EAST**   **NTT WEST**<br><br>The principal services in the Regional Communications Business are domestic intraprefectural communications services and related ancillary services. |
| **Global Solutions Business** | **NTT DaTa**<br><br>The principal services in the Global Solutions Business are system integration services, network system services, cloud services, global data center services, and related services. |
| **Other** (Real Estate, Energy and Others) | **NTT Urban Solutions**   **NTT Anode Energy**<br><br>Other Group companies<br><br>Others include the real estate business, energy business and others. |

## Operating revenues*
(FY2023)
**¥13,374.6** billion

- **40.1%** (¥6,140.0 billion)
- **20.8%** (¥3,183.2 billion)
- **28.5%** (¥4,367.4 billion)
- **10.7%** (¥1,632.9 billion)

## Operating profit*
(FY2023)
**¥1,922.9** billion

- **58.6%** (¥1,144.4 billion)
- **22.4%** (¥437.7 billion)
- **15.9%** (¥309.6 billion)
- **3.1%** (¥59.8 billion)
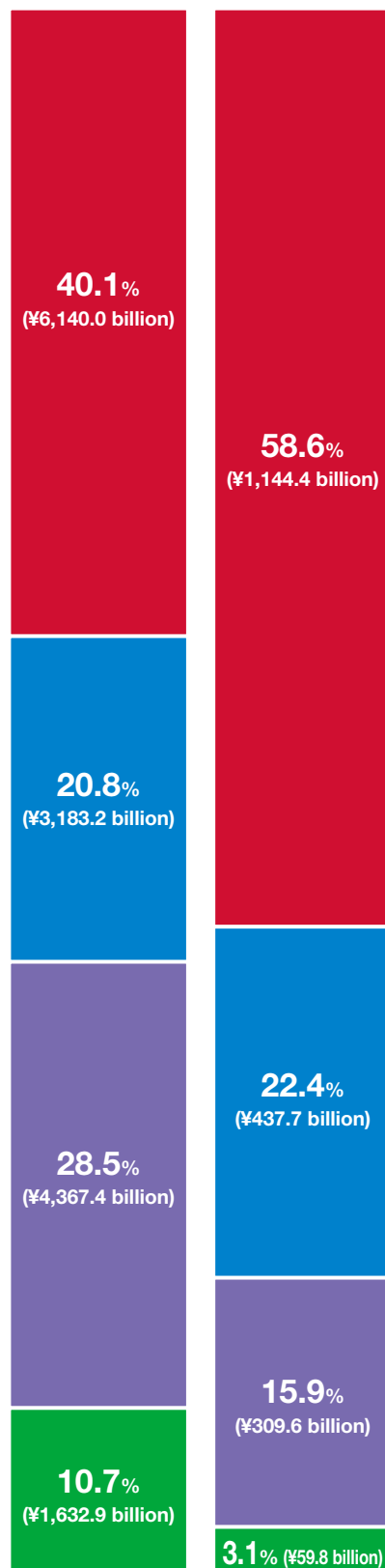
*Percentage of simple sum of each segment (including intersegment transactions)

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

Unit: Billions of yen

| | FY2021 | FY2022 | FY2023 |
|---|---|---|---|
| Operating revenues | 12,156.4 | 13,136.2 | 13,374.6 |
| Operating pro | 1,768.6 | 1,829.0 | 1,922.9 |
| Profit attributable to NTT | 1,181.1 | 1,213.1 | 1,279.5 |
| Total assets | 23,862.2 | 25,308.9 | 29,604.2 |
| NTT shareholders' equity *1 | 8,282.5 | 8,561.4 | 9,844.2 |
| Capital Investment | 1,687.6 | 1,862.4 | 2,063.1 |
| EBITDA*2 | 3,247.1 | 3,290.2 | 3,418.1 |
| EPS (Basic earnings per share attributable to NTT) (yen)*3 | 13.2 | 13.9 | 15.1 |
| ROE (%) | 14.9 | 14.4 | 13.9 |
| ROIC (%) | 7.5 | 7.4 | 6.9 |
| Cash flows from operating activities *4 | 3,010.3 | 2,261.0 | 2,567.0 |
| Cash flows from investing activities | (1,699.2) | (1,736.9) | (1,989.2) |
| Free cash flows (Cash flows from operating activities + Cash flows from investing activities) | 1,311.1 | 524.1 | 577.7 |
| Cash flows from financing activities | (1,438.1) | (590.2) | (234.5) |

*1  NTT shareholders' equity does not include the portion attributable to non-controlling interests.
*2  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.
*3  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.
*4  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 *5 | | | FY2021 | FY2022 | FY2023 |
|---|---|---|---|---|---|
| Climate change | Greenhouse Gas Emissions | Scope 1 & 2 | 2.90 million tons | 2.53 million tons | 2.32 million tons |
| | | Scope 1 & 2 & 3 | 23.72 million tons | 22.02 million tons | 21.03 million tons |
| Human Capital | Employee Engagement Rate | | 57% | 57% | 54% |
| | New Female Manager Promotion Rate | | 29.1% | 29.7% | 27.9% |
| | Male Childcare Leave Rate *6 | | — | 114.1% | 128.5% |
| | Direct Dialogue Rate with Key Suppliers | | — | 100% | 100% |
| Creating new value | Amount of B2B2X Revenues | | ¥544.1 billion | ¥815.4 billion | ¥1,058.1 billion |
| Resilience | Number of Serious Incidents *7 | | 1 | 3 | 4 |
| | Number of Telecommunications Service Interruptions due to External Cyberattacks | | 0 | 0 | 0 |

*5  The scope of the above indicators is as follows.
     Greenhouse Gas Emissions: our company and its consolidated subsidiaries; The employee engagement rate: The percentage of employees who responded positively to four NTT Group KPIs that measure engagement. The scope of aggregation for the employee engagement rate includes the major companies and their designated subsidiaries. The major companies are NTT DOCOMO*, NTT East, NTT West, NTT DATA Group, NTT Urban Solutions, and NTT Anode Energy; New Female Manager Promotion Rate/
     * Figures for NTT DOCOMO include figures for NTT Communications.
     Male Childcare Leave Rate: five major domestic companies (NTT, NTT DOCOMO*, NTT East, NTT West, and the NTT DATA Group*)
     * Figures for NTT DOCOMO include those for NTT Communications.
     * NTT DOCOMO includes figures from NTT Communications. Furthermore, NTT DATA Group includes figures from NTT DATA and NTT DATA, Inc.
     Percentage of direct dialogue with important suppliers: The denominator is 40 suppliers selected based on procurement amount, importance of the item, substitutability, etc., and the numerator is the number of suppliers with whom direct dialogue was completed during the fiscal year. 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)
*6  Male Childcare Leave Rate is calculation of the rate at which childcare leave, or other leave for childcare purposes, is taken, based on Article 71, paragraph (4)(ii) of the Ordinance for Enforcement of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members (Ordinance of the Ministry of Labor No. 25 of 1991), in accordance with the provisions of the Act on Childcare Leave, Caregiver Leave, and Other Measures for the Welfare of Workers Caring for Children or Other Family Members (Act No. 76 of 1991).
*7  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 of a Sustainable Society

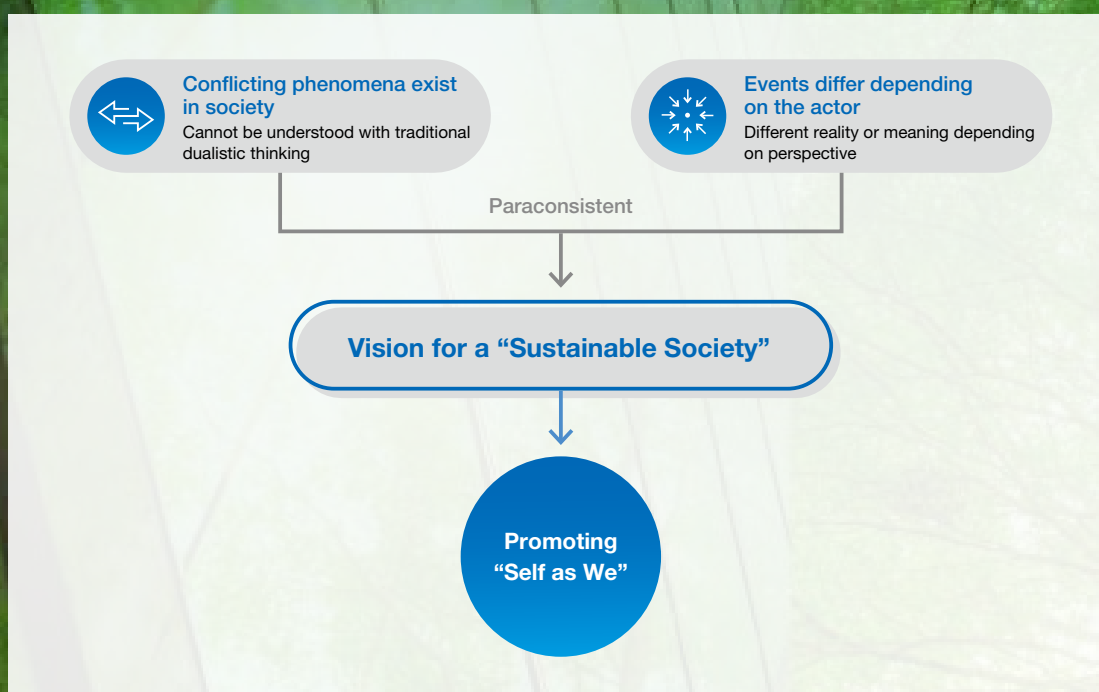## NTT Group Global Sustainability Charter

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.

In April 2024, we revised our NTT Group Global Sustainability Charter to link it to our Management Strategy, increase its effectiveness, and adapt it to changes in the global environment. More specifically, we revised the activities based on the three themes and nine challenges included under NTT's vision of a sustainable society in our Charter, deciding on 18 activities by considering the key revision points below.

**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

**Vision for a "Sustainable Society"**

**Promoting "Self as We"**

| Ensuring the Positive Coexisting of Nature and Humanity | Improving Prosperity for All People and Cultures | Maximizing Well-being for All |
|---|---|---|
| Moving toward a decarbonized society | Establish shared ethical standards | Respect for human rights |
| A commitment to a resource-recycling future | Prepare for a new future with the power of digital technologies | Diversity & Inclusion |
| A future where people and nature are in harmony | Moving toward a safe, secure, and resilient society | Creating new work styles and workplaces |

## Material Issue Selection Process

**Material issues are selected using the following steps based on the GRI materiality standards and processes.**

**STEP 1 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.

**STEP 2 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.

**STEP 3 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

As a result of our Sustainability Committee deliberating on the activities based on the three themes and nine challenges included under NTT's vision of a sustainable society in our NTT Group Global Sustainability Charter, our Board of Directors approved a revision from 30 activities to 18, effective as of April 2024.

**Key Points for Revising the Activities (Material Issues)**

**1. Consistency with our management strategy**

Making updates, including initiatives related to net-zero emissions, customer engagement, and employee engagement called for by Medium-Term Management Strategy

**2. Responding to changes in the external environment**

Clearly stating environmental topics, including promoting the decarbonization of the entire supply chain, respect for human rights, and biodiversity in line with the ISSB (International Sustainability Standards Board) and CSRD (Corporate Sustainability Reporting Directive) frameworks

**3. Improving effectiveness**

Keeping our three themes and nine challenges the same but selecting 18 important activities, setting indicators for all these activities, and utilizing quantitative monitoring to increase their effectiveness

The 18 activities resulting from the revision are organized into four categories (climate change, human capital, new value creation, and resilience), and we will disclose our strategy, main indicators, and targets for each of them.

## 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 ac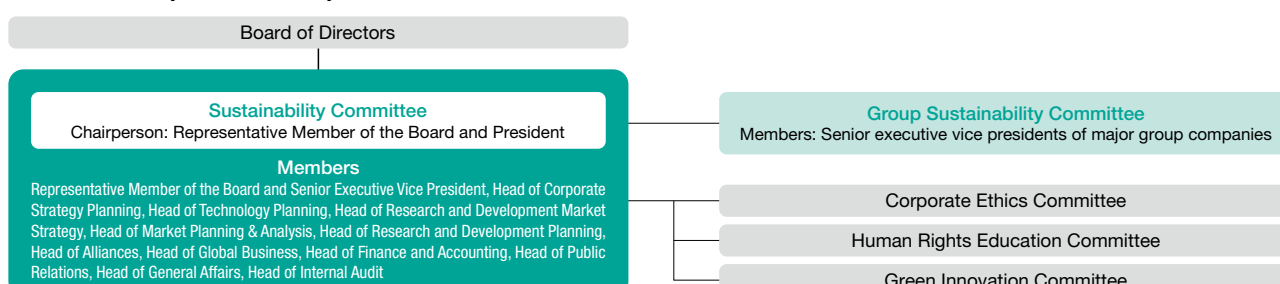companying policies, particularly deciding critical indicators) will be decided by the Board of Directors via the Sustainability Committee. In addition, the Sustainability Committee includes the Corporate Ethics Committee, Human Rights Committee, and Green Innovation Committee to handle the individual 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 FY2023, we held one Sustainability Committee meeting and one Group Sustainability Committee meeting. During these meetings, we discussed matters that included revising our Sustainability Charter, our strategies towards achieving net-zero emissions, and changing the sustainability indicator for performance-linked bonuses (from the amount of B2B2X revenues to customer engagement). In addition, our Board of Directors passed resolutions concerning the Charter revisions and the sustainability indicator change.

■ Sustainability Promotion System

**Board of Directors**

**Sustainability Committee**
Chairperson: Representative Member of the Board and President

**Members**
Representative Member of the Board and Senior Executive Vice President, Head of Corporate Strategy Planning, Head of Technology Planning, Head of Research and Development Market Strategy, Head of Market Planning & Analysis, Head of Research and Development Planning, Head of Alliances, Head of Global Business, Head of Finance and Accounting, Head of Public Relations, Head of General Affairs, Head of Internal Audit

**Group Sustainability Committee**
Members: Senior executive vice presidents of major group companies

**Corporate Ethics Committee**

**Human Rights Education Committee**

**Green Innovation Committee**

# Key Issues in Sustainability

We set 33 measurable indicators to increase the effectiveness of the 18 activities (material issues) set under our revised Sustainability Charter.
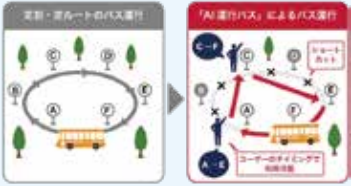
| 3 Themes | 9 Challenges | 18 Activities (Material Issues) |
|---|---|---|
| **Ensuring the Positive Coexisting of Nature and Humanity** | **Moving toward a decarbonized society** | 1) Achieve our decarbonization goals through energy conservation, implementing IOWN and other innovative technologies, developing and expanding renewable energy usage<br>2) Implement decarbonization requirements for partners throughout the supply chain |
| | **A commitment to a resource-recycling future** | 3) Increasing the reuse and recycling of communications equipment, mobile terminals, and other technologies (metals, plastics, etc.)<br>4) Proper treatment, storage, and management of hazardous waste |
| | **A future where people and nature are in harmony** | 5) Promote increased biodiversity, natural ecosystems and conservation<br>6) Appropriate and efficient management of water resources |
| **Improving Prosperity for All People and Cultures** | **Establish shared ethical standards** | 7) Develop and enforce thoroughly the code of ethics including conduct risk, compliance, and governance<br>8) Sharing high ethical standards with business partners |
| | **Prepare for a new future with the power of digital technologies** | 9) Ensure continuous improvement of services and support to meet the evolving needs of customers, communities and corporations<br>10) Protection and respect for intellectual property |
| | **Moving toward a safe, secure, and resilient society** | 11) Ensuring the stability and reliability of services<br>12) Strengthening information security and personal information protection |
| **Maximizing Well-being for All** | **Respect for human rights** | 13) Compliance with the NTT Group Global Human Rights Policy<br>14) Encourage human rights and respect for the individual across our organization, customers, and partners |
| | **Diversity & Inclusion** | 15) Attract and retain diverse human resources<br>16) Support flexible work life balance choices and support an inclusive work environment |
| | **Creating new work styles and workplaces** | 17) Support diverse work styles for health and well-being management<br>18) Supporting autonomous capacity development |

Compensation-linked indicators are written using **bold font** (officers and managers).
Indicators monitored starting in FY2024 are written using purple font. (We plan to set targets starting in FY2025.)

| Indicator | Medium-Term Targets | Achievement Year | Category |
|---|---|---|---|
| **i) 2040: carbon neutrality across the entire NTT Group (Scope 1 & 2)**<br>ii) 2040: net-zero across the entire supply chain (Scope 1, 2 & 3) | **i) 100% reduction**<br>ii) Net-Zero | **i) 2040**<br>ii) 2040 | Climate Change |
| iii) 2030: waste recycling rate<br>iv) Waste disposal (PCB) related legal violations | iii) At least 99%<br>iv) 0 | iii) 2030<br>iv) Every year | |
| v) The number of business facilities placed in wildlife preserves and the proportion they represent of the whole<br>vi) The number of business facilities placed in water risk regions and the proportion they represent of the whole | v) —<br><br><br>vi) — | v) —<br><br><br>vi) — | |
| vii) Number of anti-competitive violations / number of anti-corruption violations<br>viii) Direct dialogue rate with suppliers from whom improvements have been requested | vii) 0<br>viii) 100% | vii) Every year<br>viii) Every year | Resilience |
| **ix) Customer engagement (NPI, NPS)**<br><br>x) Number of patent applications | ix) **NPI: the same or better year on year NPS: the same or better year on year**<br>x) Same level as last year | ix) **—**<br><br><br><br>x) — | New Value Creation |
| xi)-1 Number of serious incidents<br>xi)-2 Number of civil life support system incidents<br>xii)-1 Number of serious incidents due to cyberattacks<br>xii)-2 Number of data leaks | xi)-1 0<br>xi)-2 0<br>xii)-1 0<br>xii)-2 0 | xi)-1 Every year<br>xi)-2 Every year<br>xii)-1 Every year<br>xii)-2 Every year | Resilience |
| Common to xiii) to xviii) **Employee engagement rate** | **Common to xiii) to xviii) 57%** | **Every year** | Human Capital |
| xiii) Number of confirmed human rights violations<br>xiv) Direct dialogue rate with suppliers from whom improvements have been requested | xiii) 0<br>xiv) 100% | xiii) Every year<br>xiv) Every year | |
| xv)-1 Ratio of mid-career hires<br>xv)-2 Employment of foreign nationals, Ph.D.s, and technical college graduates<br>xv)-3 Employment rate of people with disabilities<br>xvi)-1 **New female manager promotion rate**<br>xvi)-2 Proportion of women in managerial positions<br>xvi)-3 Proportion of women executive officers<br>xvi)-4 Acquisition and maintenance of PRIDE indicators (LGBTQ dissemination indicators) | xv)-1 At least 30%<br>xv)-2 —<br><br>xv)-3 —<br>**xvi)-1 30%**<br>xvi)-2 15%<br>xvi)-3 25-30%<br>xvi)-4 Gold status | xv)-1 Every year<br>xv)-2 —<br><br>xv)-3 —<br>**xvi)-1 Every year**<br>xvi)-2 2025<br>xvi)-3 2025<br>xvi)-4 Every year | |
| xvii)-1 Rate of positive responses regarding independent work methods<br>xvii)-2 Male childcare leave rate<br>xvii)-3 Number of occupational injuries<br>xvii)-4 Presenteeism loss rate<br>xviii)-1 Training time<br>xviii)-2 Training investment amount<br>xviii)-3 Exceptional promotion rate<br>xviii)-4 Number of successful public solicitations (compared to previous year)<br>xviii)-5 Number of career support interviews / survey response rate | xvii)-1 -<br><br>xvii)-2 100%<br>xvii)-3 0<br>xvii)-4 6.0% or less<br>xviii)-1 -<br>xviii)-2 -<br>xviii)-3 -<br>xviii)-4 -<br><br>xviii)-5 - | xvii)-1 -<br><br>xvii)-2 Every year<br>xvii)-3 Every year<br>xvii)-4 2024<br>xviii)-1 -<br>xviii)-2 -<br>xviii)-3 -<br>xviii)-4 -<br><br>xviii)-5 - | |

# NTT Group Sustainability Conferences

## 2014 (1st)

**First-time hosting at the training institute**
**70 entries, 1 winner**

▶ **Grand Prize**

Cloud-based system to curb the issue in emergency medicine of *taraimawashi*, or being refused admission by multiple hospitals
(NTT DATA)

➡ Expanded nationwide after a decade

## 2015 (2nd)

**85 entries, 2 winners**

▶ **Grand Prize**

Collaboration with the Vatican Library on a digital archive project for preserving valuable human heritage
(NTT DATA)

➡ Converted to 3D after a decade

## 2016 (3rd)

**Guest participants from around the world**
**60 entries, 2 winners**

▶ **Grand Prize**

"Move&Flick," a new text input app for smartphones
(NTT DOCOMO)

▶ **Excellence Award**

- Everis Foundation Activities -

## 2023 (10th)

**First public awards ceremony open to outside parties (media personnel)**
**118 entries, 12 winners**

▶ **Grand Prize**

Building a supply chain for medical supplies using drones
（NTT DATA Business Solutions）

▶ **Grand Prize**

Achieving a carbon-neutral society through forestry DX
(NTT West)

➡ Global Environment Award, Minister of Internal Affairs and Communications Award

## 2022 (9th)

**Held in a hybrid format with an online and in-person awards ceremony at the Palace Hotel Tokyo**
**98 entries, 6 winners**

▶ **Grand Prize**

Addressing community transportation issues through AI operations (NTT DOCOMO)

➡ Contributing to society via AI and mobile technology

## 2024 (11th) ▶ Grand Prizes (3 MVPs)

**Use of AI**
**149 entries and 14 winners from 22 countries and regions worldwide**
**—the largest number of entries yet**

### Decarbonizing data centers to achieve Net-Zero commitments (NTT Global Data Centers)

NTT Group is committed to decarbonization as one of the world's largest data center providers, with more than 200 data centers worldwide. We are promoting a variety of decarbonization initiatives around the world: our data center in Chicago, United States, is using tools that automatically aggregate carbon dioxide ($CO_2$) and wastewater volumes that were previously input manually; in India, we are using the latest cooling technology; in Germany, we have a system that repurposes exhaust heat from the data center for heating and water heating in the surrounding area; and in Austria, we are testing the use of hydrogenated vegetable oil (HVO) as an alternative to fossil fuels.

### Protecting children's lives with AI
(NTT TechnoCross Corporation)

NTT TechnoCross collaborated with the Edogawa City Child Guidance Center, which has the highest number of consultation cases in Japan, and child welfare specialists to develop an AI system that converts voice calls into text and automatically displays a manual, among other features. The system records the content of calls and shares information about the content of the calls in real time, which has reduced the workload on the staff.

The same system has already been introduced at nine child guidance centers, and 40 more are considering introducing the system. NTT TechnoCross is in discussions with local authorities to see if the system can be combined with other solutions for use by organizations other than child guidance centers.

The Sustainability Conference is a NTT Group sustainability promotion initiative that was launched in 2014 as the "CSR Conference." There were 70 entries at the first conference, but the number of entries and regions has been increasing over time. The 11th conference in 2024 saw 149 entries from 22 countries and regions worldwide—the largest number of entries yet. The winning sustainability initiatives are those that have been successfully implemented as real businesses and demonstrate the potential to be rolled out in other parts of the world. NTT will continue developing sustainability initiatives in order to keep "innovating a sustainable future for people and planet."

## 2017 (4th)

Official participation by overseas participants
37 entries, 7 winners

▸ **Grand Prize**

Development of Communication Engine "COTOHA," an AI capable of natural Japanese conversation
(NTT Communications)
➡ Progressing toward AI development

## 2018 (5th)

Overseas project wins Grand Prize for the first time
45 entries, 7 winners

▸ **Grand Prize**

QHUBEKA: an educational and environmental conservation project through bicycles
(Dimension Data)

## 2019 (6th)

Incorporating work style reforms as a theme
36 entries, 6 winners

▸ **Grand Prize**

Leading the Japanese RPA market through WinActor/WinDirector deployment
(NTT DATA)
➡ Helping to solve labor shortages and contributing to work style reforms

## 2021 (8th)

Held online due to the COVID-19 pandemic
69 entries, 9 winners

▸ **Grand Prize**

Take on challenge of contributing to regional revitalization and cultivating new normal in cultural appreciation through local culture and art
(NTT East)

▸ **Excellence Award**

Health ticket and the first smart bus station (NTT Data Romania)
➡ Creating a new form of regional development

## 2020 (7th)

Olympic and Paralympic exhibition (hands-on wheelchair and boccia experience)
44 entries, 6 winners

▸ **Grand Prize**

Promoting food recycling through the deployment of local food resource recycling solutions
(NTT FIELDTECHNO CORPORATION)
➡ Advancing recycling-oriented business models

## Water conservation with smart monitoring

（NTT Global Data Centers）

Leaking water pipes were a major challenge for CILE, a water utility company that supplies tap water in the province of Liège, eastern Belgium. To solve this problem, CILE collaborated with NTT Belgium to introduce a system that detects leaks between the water purification plant and each household and can be monitored through an IoT network. This system also enabled CILE to estimate the amount of groundwater being pumped after identifying filtered water usage in each household, leaks in water pipes, and the amount of leakage, which helped to limit water leaks.

The model shows potential for expansion throughout Europe, and NTT DATA Belgium will work to promote its introduction in smart cities throughout Europe.

For more information,
see the Sustainability Conference's official website.
https://group.ntt/jp/sus_conf

# NTT Group Sustainability
# Climate Change

## [ Related Medium-Term Management Strategy Initiatives ]

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

❶ 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
❷ 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

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

**2** Upgrading the Customer Experience (CX)

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

**3** Improving the Employee Experience (EX)

❼ Open and Innovative Corporate Culture
❽ Support Career Growth
❾ 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 the NTT Group's part for climate change, resource circulation, biodiversity, etc. 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, the 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 (Scope 1 & 2) by FY2040. We will also expand our initiatives to encompass Scope 3 emissions with the aim of achieving net-zero emissions (Scope 1, 2 & 3) by FY2040. Therefore, 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, utilizing an internal carbon pricing system, utilizing green bonds, further strengthening collaboration with suppliers, and contributing to customers' decarbonization efforts. We are also addressing risks related to resource recycling by promoting the reuse and recycling of communications equipment, mobile terminals, etc. (metals, plastics, etc.) as well as the proper treatment, storage, and management of hazardous waste. Similarly, we are addressing risks related to biodiversity by fleshing out our efforts to conduct research and disclose information on our business situation in terms of nature reserves, etc.

**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. In addition, we are promoting green solutions by combining 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 to create circular economy businesses.

## Climate Change Indicators and Targets

| Indicator | Target | | Results | |
|---|---|---|---|---|
| Greenhouse Gas Emissions | [Scope 1 & 2] | FY2030: 80% reduction (compared to FY2013)<br>FY2040: Carbon neutrality | [Scope 1 & 2] | FY2023: 2.32 million tons, 50% reduction (compared to FY2013) |
| | [Scope 1, 2 & 3] | FY2040: Net-Zero | [Scope 1, 2 & 3] | FY2023: 21.03 million tons, 26% reduction (compared to FY2018) |

(Notes) 1. The scope of the greenhouse gas emission calculations includes our company and its consolidated subsidiaries.
2. Scope 1 & 2 are in line with the Plan for Global Warming Countermeasures, which is outlined by the Japanese government, by using FY2013 as the base year. For Scope 1, 2 & 3 (the overall figures including Scope 3), the base year was set to FY2018, the year calculations began under the same calculation scope currently being used, including our overseas Group companies.

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

· Our Scope 1 & 2 result for FY2023 was 2.32 million tons, which means that we achieved a reduction in excess of the target set in our plan to achieve carbon neutrality by 2040 and made good progress.
· Our Scope 1, 2 & 3 emissions goal for FY2030 is 17 million tons, which we plan to achieve by encouraging and facilitating emissions reduction and visualization by our suppliers, by facilitating the introduction of renewable energy by our customers, and by pursuing other relevant initiatives.

**NTT Green Innovation toward 2040**

**2040 Carbon-Neutral**

### Scope 3 Main Reduction Initiatives

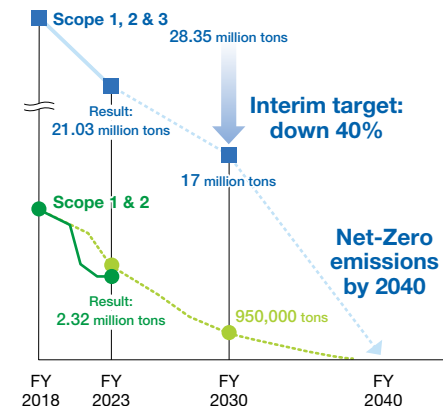**Further Strengthening of Collaborations with Suppliers**

· Encouraging and facilitating emissions visualization and target formulation

**Customers' Contributions to Decarbonization**

· Facilitating the introduction of renewable energy by data center customers, etc.
· Providing cloud services and promoting product energy conservation

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



Scope 1, 2 & 3
28.35 million tons
Result: 21.03 million tons
**Interim target: down 40%**
17 million tons
Scope 1 & 2
Result: 2.32 million tons
950,000 tons
**Net-Zero emissions by 2040**
FY 2018 | FY 2023 | FY 2030 | FY 2040

* Scope 1: company's own direct greenhouse gas emissions
Scope 2: indirect emissions from using electricity, heat, and steam supplied by other companies
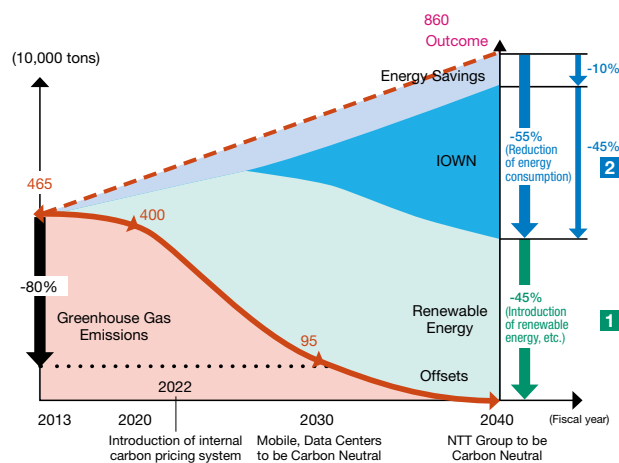Scope 3: emissions from the supply chain related to the activities of businesses

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

### Illustration of NTT Group Greenhouse Gas Emission[*2] Reductions (Domestic + Overseas)

· Increased use of renewable energy: Reduce greenhouse gas emissions by 45%[*3] **1**
· Lower energy consumption with IOWN technologies: Reduce greenhouse gas emissions by 45%[*4] **2**



(10,000 tons)
860 Outcome
Energy Savings
-10%
-55% (Reduction of energy consumption)
-45% **2**
IOWN
465
400
-80%
Greenhouse Gas Emissions
95
Renewable Energy
-45% (Introduction of renewable energy, etc.) **1**
Offsets
2022
2013 | 2020 | 2030 | 2040 (Fiscal year)
Introduction of internal carbon pricing system
Mobile, Data Centers to be Carbon Neutral
NTT Group to be Carbon Neutral

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

· Approximately half of energy consumption will be reduced by introducing IOWN **1**
· Renewable energies will be introduced for the other approximate half[*5] **2**



Approx. **2**x (compared to FY2013)
Outcome
Energy Savings
Reduced electricity consumption **1**
8.3 billion kWh
IOWN
From Fossil Fuels Electricity Derived
Renewable Energy **2**
2013 | 2020 | 2030 | 2040 (Fiscal year)
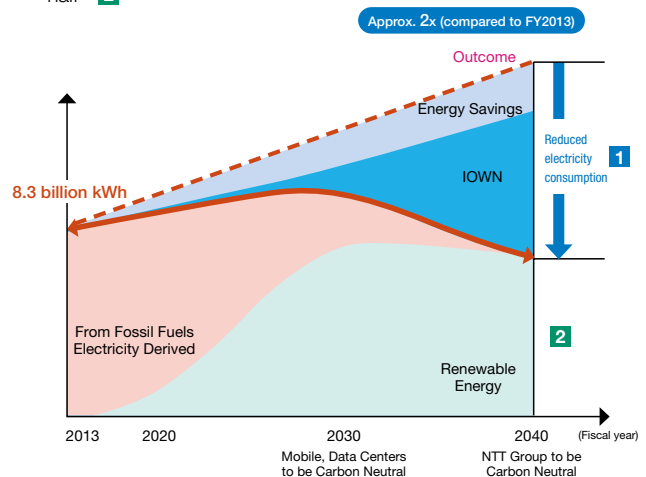Mobile, Data Centers to be Carbon Neutral
NTT Group to be Carbon Neutral

*2 GHG Protocol: for Scope 1 & 2
*3 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).
*4 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%

*5 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).

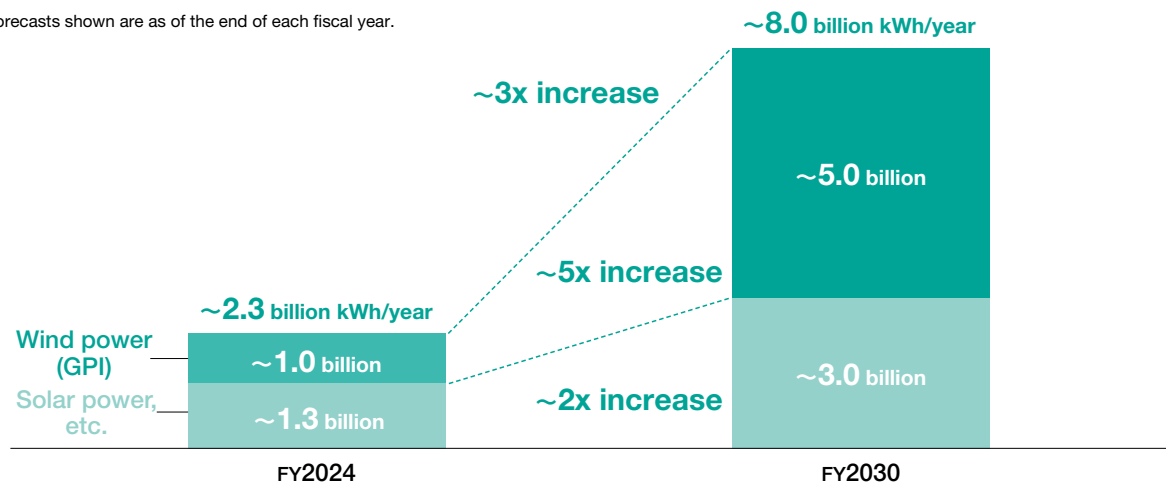## Initiatives Related to Acquiring Sources of Renewable Energy

### ■ Establishment of Green Power Investment Corporation as a Subsidiary and Our Outlook for Acquiring Sources of Renewable Energy

In August 2023, NTT Anode Energy and JERA Co., Inc. completed the acquisition of shares of Green Power Investment Corporation, etc. The two companies are effectively harnessing their renewable-energy-business know-how, insights, and strengths to contribute to the spread of renewable energy throughout Japan. This is also expected to help the NTT Group achieve its target of introducing approximately 8.0 billion kWh/year of renewable energy by FY2030.

**Outlook for Acquiring Sources of Renewable Energy**

\* The forecasts shown are as of the end of each fiscal year.

~8.0 **billion kWh/year**

~3x increase

~5.0 **billion**

~5x increase

~2.3 **billion kWh/year**

Wind power (GPI) ~1.0 **billion**

~3.0 **billion**

Solar power, etc. ~1.3 **billion**

~2x increase

FY2024 — FY2030

**Wind Farm Tsugaru**
(Tsugaru, Aomori Prefecture)

350 million kWh/year

**Green Power Fukaura Wind Farm**
(Fukaura Town, Nishitsugaru District, Aomori Prefecture)

210 million kWh/year

**Green Power Futtsu Solar Power Plant**
(Futtsu, Chiba Prefecture)

50 million kWh/year

**Miyazaki Kamenoko Solar Power Plant**
(Kunitomi Town, Higashi-morokata District, Miyazaki Prefecture)

40 million kWh/year

## Initiatives Using Climate Change as an Opportunity

### ■ Launch of GX Solution Brand NTTG × Inno

As a leading public company, the NTT Group fully utilizes its various managerial resources and capabilities—including its research and development and ICT infrastructure as well as its human resources—to contribute to the resolution of social issues in collaboration with its partners.

Given that the NTT Group consumes approximately 1% of Japan's power, we have major social responsibilities in terms of helping to achieve a decarbonized society. We will take the lead in fulfilling these responsibilities, use them as an opportunity for growth, and collaborate with our customers and partners to take on the challenge of spearheading the transformation of society for the better.

As a global social infrastructure provider, we contribute to the well-being of society, such as by launching NTT G × Inno and establishing cutting-edge, sustainable social systems and infrastructure.

### Advancing the Visualization and Analysis of the Green Power Generation Business: Providing the Smart Data Fusion® Integrated Platform

NTT COMWARE and NTT Anode Energy have started collaborating to provide Smart Data Fusion®, a green energy business integration platform, for Japanese renewable energy operators, etc.

NTT Anode Energy is currently working on introducing the platform and expects to achieve an approximately 70% reduction in hours necessary for monitoring work related to operational management at power plants for which the platform is introduced.

NTT Anode Energy hopes to utilize the platform to further increase business feasibility and optimize investments, thereby promoting the carbon neutrality of the NTT Group.

Meanwhile, NTT COMWARE is collaborating with NTT Anode Energy and other NTT Group companies to expand the value of this green energy business integration platform —such as by increasing the sophistication of its AI model—in order to support the advancement and stable operations of NTT's renewable energy generation business. We will provide the platform to a wider range of Japanese renewable energy operators and other users to accelerate the promotion of both their GX and green power generation.

**Advancement of Power Generation Business Operations Through the Integrated Management, Analysis, Utilization, and Visualization of Power Generation and Financial Data, etc.**
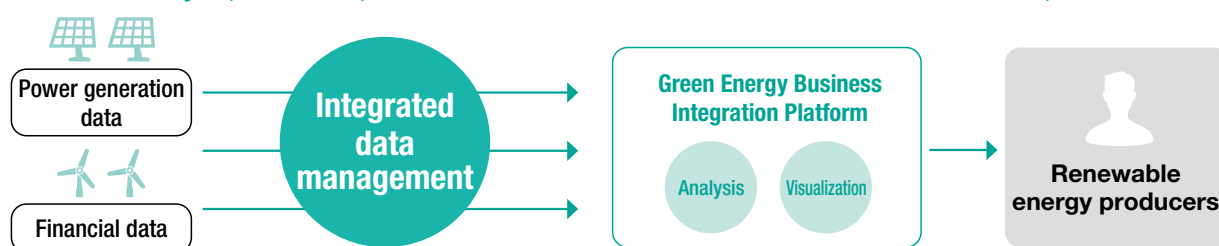


### Collaboration with Tokyo Electric Power Company Holdings, Inc. Aimed at Developing Our Energy Storage Station Business

NTT Anode Energy has established a limited liability company with Tokyo Electric Power Company Holdings, Inc. in Tsumagoi, Agatsuma, Gunma Prefecture to conduct energy storage station business.* Preparations are underway to build an energy storage station and otherwise prepare for this company to start operating in 2025.

Japan hopes to achieve carbon neutrality by 2050, but a number of power system issues are becoming apparent, including the introduction and utilization of renewable energy as well as securing the necessary coordinating capabilities and taking measures to expand electric power systems. To address these issues, NTT Anode Energy and Tokyo Electric Power are combining their know-how to collaborate on energy storage station business—for which a growing need is expected—thereby expanding the storage-battery utilization area, reducing the costs, and thus aiming to further develop the energy storage station business.

*Selected for the following Agency for Natural Resources and Energy program: FY2022 Business Expense Subsidy to Support the Introduction of Distributed Energy Resources Contributing to the Expanded Introduction of Renewable Energy

## TCFD and TNFD

### ■ TCFD/TNFD Integration Approach

The climate and natural environment are closely related, and there is an increasing risk of water shortages and other ecosystem changes stemming from rising temperatures causing dangerous chain reactions. We also predict more serious physical risks in terms of our business operations as well due to the intensification of disasters and increasing natural impact of climate change.

If the global trend to focus on nature conservation grows any stronger, it will be necessary for operating companies to actively respond and to avoid transition risks due to regulations, etc. The NTT Group is employing various countermeasures in response to such issues. We are also disclosing information on the status of our efforts in line with the TCFD/TNFD framework.

### 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.

Our Sustainability Committee deliberates on the validity of the issues identified as described above and the setting of the corresponding priorities. Our Board of Directors then regularly (once per year) reviews the results and makes revisions as necessary. In addition, we have identified the following four key sustainability items: 1) climate change, 2) human capital, 3) new value creation, and 4) resilience.
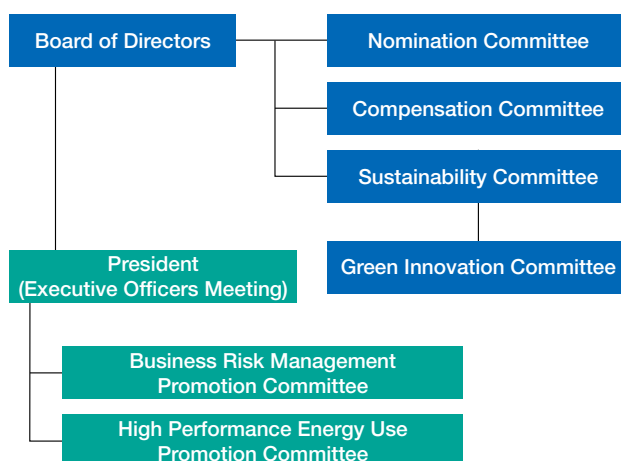


### Risk Management

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, resource recycling, and biodiversity are treated as 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 FY2040. The Group will also expand its initiatives to encompass Scope 3 emissions with the aim of achieving net-zero emissions by FY2040. Therefore, 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, utilizing an internal carbon pricing system, utilizing green bonds, further strengthening collaboration with suppliers, and contributing to customers' decarbonization efforts.

In terms for resource recycling, we are also promoting the reuse and recycling of communications equipment, mobile terminals, etc. (metals, plastics, etc.) as well as the proper treatment, storage, and management of hazardous waste. Similarly, we are promoting biodiversity by fleshing out our efforts to conduct research and disclose information on our business situation in terms of nature reserves, etc.

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. In addition, we are promoting green solutions by combining 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 to create circular economy businesses.

### 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: NZE IPCC AR6 WG1: RCP 2.6 |
| Physical Risk Scenario | Scenario in which physical risks materialize . . . A future in which the average temperature has risen by 4°C | IEA World Energy Outlook: STEPS IPCC AR6 WG1: RCP 8.5 |

### STEP 2 ▶ Risks and Opportunities Identified (Overview)

| Overview | Target | Scenario 1.5°C | Scenario 4.0°C | Type | Timeframe | Response |
|---|---|---|---|---|---|---|
| Increase in costs for decarbonization, renewable energy charges, and renewable energy implementation | Climate | LOSS ▼ | — | Transition risk (policy/regulations) | Long-term | · Initiatives for realizing the IOWN concept<br>· Introducing and expanding the use of renewable energy<br>· Promotion of energy conservation, high-efficiency data centers |
| Social criticism related to fewer efforts toward ESG (drop in market share) | Climate Nature | ▼ | Minor | Transition risk (market/criticism) | Long-term | · Actively disclosing information on initiatives related to climate change, natural capital (biodiversity and water risk), and resource recycling |
| Expanding sales of services that help reduce society's environmental impact | Climate Nature | ▲ ▲ | Profit ▲ | Opportunity (products and services, energy) | Long-term | · Creating new services related to carbon neutrality, biodiversity conservation, and resource recycling<br>· Increase in green electricity retail |
| Achieve the IOWN concept | Climate | ▲ ▲ | ▲ | Opportunity (investment toward R&D) | Long-term | · Acceleration of DX and promotion of remote world<br>· Reduction of greenhouse gases across the supply chain |
| Disasters caused by heavy rain and typhoons Droughts due to abnormal weather | Climate Nature | — | ▼ | Physical risk (acute) | Short-term | · Provide disaster response and disaster prevention training<br>· Conserving water and monitoring the water withdrawal amount |
| Increased air-conditioning costs due to increasing temperatures | Climate | — | ▼ | Physical risk (chronic) | Long-term | · Promoting energy conservation |

Notes 1. Degree of impact with 1.5°C scenario and 4°C scenario in FY2030.
2. There are three timeframes: short-term (less than 3 years), medium-term (3 to less than 6 years), and long-term (6 years or more). There are also three degrees of impact (▲: low, ▲▲: medium, and ▲▲▲: high).
3. To promote energy conservation, in August 2024, we increased our internal carbon price to ¥19,000/t-$CO_2$ based on the expected future carbon tax. We utilize this for decision-making related to procurement (product selection), etc.

*Estimated impact on annual profits:
1) If carbon pricing is introduced (approx. -¥17 billion)
2) Increased cost of renewable energy charges and implementation of renewable energy (approx. -¥19 billion yen)
3) Repairs for damage caused by heavy rainfall and typhoons (FY2021: approx. -¥0.2 billion, FY2022: approx. -¥3 billion, FY2023: approx. -¥2.4 billion)
4) Higher air conditioning costs as temperatures rise (-¥1.1 billion if outdoor temperatures rise 1 degree)

[Assumptions and basis for calculations]
1) Carbon pricing ($140 USD/t-$CO_2$) x FY2030 emission goals
(Aim for 80% reduction by FY2030 with a baseline of 4.65 million tons of Scope 1 + 2 emissions from FY2013)
<Carbon pricing: estimated unit price for FY2030 based on IEA World Energy Outlook 2023, Advanced economies: 140 USD>
2) Renewable energy charges in FY2030: ¥4.1/kWh, FY2023: ¥1.40/kWh
3) Estimated impact from repairs to damage caused by heavy rainfall and typhoons from FY2021 to FY2023
4) Estimated air conditioning costs increase based on domestic electricity consumption in FY2023

## Climate Change Indicators and Targets

| Indicator | Target | | Results | |
|---|---|---|---|---|
| Greenhouse Gas Emissions | [Scope 1 & 2] | FY2030: 80% reduction (compared to FY2013) FY2040: Carbon neutrality | [Scope 1 & 2] | FY2023: 2.32 million tons, 50% reduction (compared to FY2013) |
| | [Scope 1, 2 & 3] | FY2040: Net-Zero | [Scope 1, 2 & 3] | FY2023: 21.03 million tons, 26% reduction (compared to FY2018) |

(Notes) 1. The scope of the greenhouse gas emission calculations includes our company and its consolidated subsidiaries.
2. Scope 1 & 2 are in line with the Plan for Global Warming Countermeasures, which is outlined by the Japanese government, using FY2013 as the base year. For Scope 3, the base is FY2018, the year calculations began under the same calculation scope currently being used, including our overseas Group companies.
3. Greenhouse gas emissions include $SF_6$, PFC, HFC, $N_2O$, $NF_3$, and $CH_4$. In addition, the greenhouse gas emissions from electricity consumption are calculated based on the market.

## Regional Evaluation of Biodiversity Conservation and Water Utilization

We conducted a regional evaluation of each type of business facility (communications equipment, base stations (steel towers), data centers, and renewable energy (solar and wind power generation)) to confirm the degree of impact on biodiversity conservation and water utilization.

### 1) Biodiversity Conservation

Of our business facilities, we conducted KBA and IBAT-based screening and comprehensive research on communications equipment, base stations (steel towers), and data centers (approximately 43,000 sites).

Given that renewable energy equipment (solar and wind power generation) is assumed to have a high level of dependence and impact on the natural environment, we also interviewed construction companies to confirm how they handle impact risk.
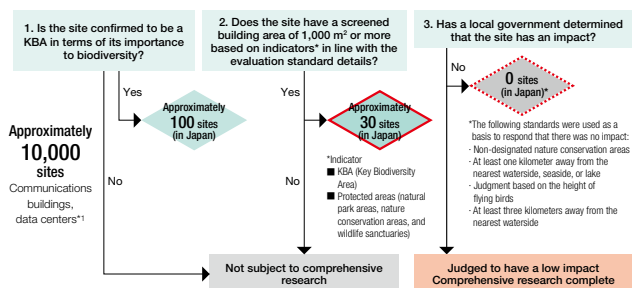
### 2) Water Utilization

We used Aqueduct, our water risk analysis tool, to comprehensively research data centers with *extremely high water stress* and confirm their impact.

Standards, Indicators, and Tools Used for These Initiatives/Evaluation Standards

| Standards | Indicators used for these initiatives | Tools used for these initiatives |
|---|---|---|
| Importance of biodiversity | ■ KBA (Key Biodiversity Area)<br>■ Protected areas (natural park areas, nature conservation areas, and wildlife sanctuaries) | ■ IBAT<br>Biodiversity evaluation map tools |
| Water risk | ■ Water stress (baseline water stress) | ■ Aqueduct<br>Water risk analysis map tools |

## Diagnosis results

### 1) Biodiversity Conservation

In terms of communications equipment and data centers for which we conducted comprehensive research, we inquired with each municipality to try to determine whether there were any causes for concern regarding the effects of each facility on nearby ecosystems. As a result, we determined that there were no such causes for concern regarding the equipment we looked at, and the possible business risks are limited.

In terms of renewable energy (solar and wind power generation) equipment, we conducted an environmental impact assessment as stipulated by the Environmental Impact Assessment Act, etc., specifically investigating and assessing the impact on each ecosystem (flora and fauna). The environmental impact assessment procedure involved following a four-stage process —submission of a document on primary environment impact consideration, scoping document, draft environmental impact statement, and environmental impact statement—and then the results were published on the website for a certain period of time based on the law. We also researched, predicted, and assessed the possibility of birds of prey colliding with wind power generation facilities. In the case of facilities for which such risks have been identified, we obtain the guidance and advice of specialists as we conduct long-term observation and implement development and maintenance management that consider the ecology of local birds, mammals, etc.

Focused Regional Evaluation (Communications Buildings, Data Centers)



Environmental Impact Assessment Targeting Ecosystems Related to Renewable Energy Equipment



Bird research (wind power generation)

Bat research (wind power generation)

Plant research (wind power generation)

### 2) Water Utilization

As a result of our analysis, we learned that one of our sites in Southeast Asia is located in a region that has an extremely high level of water stress.

However, upon confirming the details of this particular data center, we learned that the local water supplier uses reverse osmosis membrane technology as well as treated recycled water and is therefore extremely careful regarding the utilization of water resources in the region.

According to our assessment, business continuity has also been assured even in the event of a drought, and there are only limited cases where a drought could affect operations.

\* We assessed biodiversity risks at base stations separately using IBAT (Important Bird and Biodiversity Area Tool), and finding that approximately 3.3% of the base stations (steel towers) set up in Japan were located in important biodiversity areas, identified them as hot spots.

— Column —

### Forest Conservation and Forest Value Improvement

As some of our initiatives for helping to achieve a sustainable society, we conduct various forest-related activities. We aim to reduce $CO_2$ emissions and conserve biodiversity through tree-planting, tree cultivation, and other forest conservation activities.

We also work on improving forest value, such as by supporting the creation of carbon credits for around 900 hectares of forest. Through these activities, we aim to enrich society.

— **Column** —

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

The NTT Group believes 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 Forest Conservation

By actively promoting technological innovation aimed at conserving forests, we increase carbon dioxide absorption, conserve and protect ecosystems and water resources, and contribute to the achievement of a sustainable society.

For example, we have conducted an operational field demonstration of a self-driving underbrush clearing machine (called "the demonstration" below) developed to reduce the cost of clearing away underbrush through forestry labor-saving and automation.

During the demonstration, we used the above machine to clear away underbrush at an actual forestry site, thereby verifying the machine's operational performance. The machine was operated by setting a self-driving route and using a tablet with a special application for remotely monitoring the vehicle installed on it.

**Demonstration Experiment Overview**
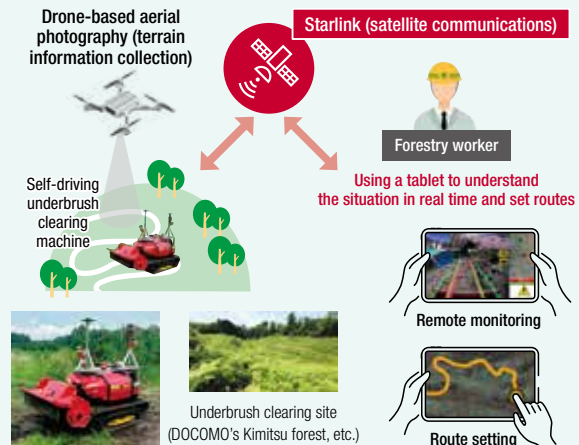


NTT DOCOMO: Operational Demonstration of Underbrush Clearing Operations

### TOPIC 2 Appropriate Management of Water Resources

In Belgium, the NTT Group is aiming to optimize the use of water resources by installing sensors on home water meters to detect where problems occur. In addition, we have incorporated a predictive maintenance system that identifies which pipelines are likely to require replacement or repairs. Water-tower and home water consumption can be analyzed via our network, and the collected data can then be used as a basis for utilizing AI to predict how much water is likely to be consumed in the next few days. This makes it possible to draw only the necessary amount of water, which enables groundwater conservation.
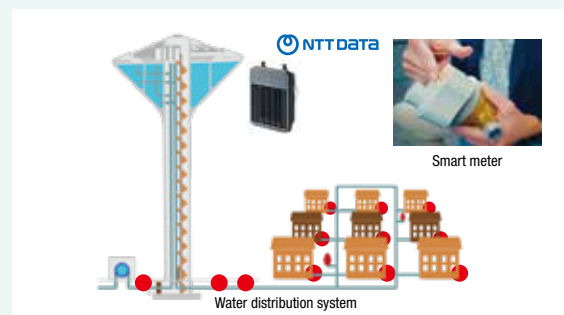


This shows how water is conserved through smart monitoring by NTT DATA Belgium. We have utilized smart sensors to establish water conservation infrastructure that enables both the optimization of water usage and health management

### TOPIC 3 Promotion of Resource Recycling

We have established a battery traceability platform that enables the aggregation of supply-chain carbon footprint information (called "CFP information" below) and the visualization of recycling and reuse, and, in May 2024, we started providing services that enable companies to aggregate and share CFP information when manufacturing batteries.

Going forward, we will establish interoperability with our overseas databases, pursue global operations, and promote the handling of a circular economy for rare minerals.

**Battery Traceability Platform Overview**
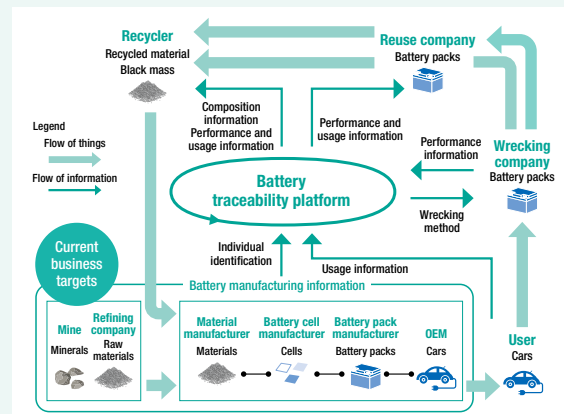
# NTT Group Sustainability
# Human Capital

## [Related Medium-Term Management Strategy Initiatives]

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

❶ 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
❷ 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

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

**2 Upgrading the Customer Experience (CX)**

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

**3 Improving the Employee Experience (EX)**

❼ Open and Innovative Corporate Culture
❽ Support Career Growth
❾ Global Benefits for Employees and their Families

## Human Capital Strategy ❶ <Improving the Employee Experience (EX)>

**Risks**

The telecommunications and related markets are seeing the expansion of cloud services and 5G services, as well as rapid advances in technologies, such as AI, digital twin, and quantum computing. 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 and AI. In addition, we identified actively investing in growth areas as one of the pillars of the Medium-Term Management Strategy announced in May 2023, and are focused on creating new value through IOWN-related services, smart world, green solutions, and other areas. Given the situation, enhancing EX is pivotal for improving productivity, sparking creativity, and retaining top-tier talent. Decreased EX 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. Our analysis of the survey findings and intentions for improvement are submitted for discussion by the Sustainability Committee, the Executive Officers Meeting, and other fora, while feedback is also given to employees. With respect to matters that affect engagement, we conduct cross-analyses with various HR policies, monitors these policies, and promotes improvements in engagement by implementing the PDCA cycle. 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 integration.

**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.

## Human Capital Strategy ❷ <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**

We at the NTT Group not only comply with the 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 the NTT Group to prevent accidents and create a safe working environment in the construction of the telecommunications facilities that support the NTT Group's business, which includes our subcontractors.

**Opportunities**

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. Specific measures include initiatives such as using a smartphone app (d Healthcare) to encourage employees to improve their health, conducting regular Pulse Surveys to monitor employee health conditions and detect any irregularities, and providing health consultations and mental health counseling from an external consultation service.

## Human Capital Strategy ❸ <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**

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. Given the emergence of a wide range of human rights issues, we will expand the scope of our human rights-related due diligence, not only with respect to our suppliers, but within the company as well.

**Opportunities**

We believe that actively engaging in direct dialogue with suppliers from which improvements are sought, and with all NTT Group companies from which improvements are sought, 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 Strengthening Employee Engagement and Ensuring Diversity of Human Resources

| Indicator | Target | Results |
| --- | --- | --- |
| Employee Engagement Rate | To be improved (Compared to FY2022 (57%)) | FY2023: 54% |
| New Female Manager Promotion Rate | Each year: 30% | FY2023: 27.9% |
| Male Childcare Leave Rate | Each year: 100% | FY2023: 128.5% |

Notes 1. The scope of aggregation for the employee engagement rate is based on the percentage of positive responses to four NTT Group KPIs that measure engagement. The scope of aggregation includes the major companies and their designated subsidiaries. The major companies are NTT DOCOMO*, NTT East, NTT West, NTT DATA Group, NTT Urban Solutions, and NTT Anode Energy.
  * Figures for NTT DOCOMO include figures for NTT Communications.
2. The scope for the percentage of women newly promoted to manager and the percentage of men taking childcare leave includes five major domestic companies: NTT, NTT DOCOMO*, NTT East, NTT West, and NTT DATA Group*.
  * NTT DOCOMO includes figures from NTT Communications. Furthermore, NTT DATA Group includes figures from NTT DATA and NTT DATA, Inc.

●(Reference) Other Indicators and Targets Related to Diversity

| Indicator | | Target | Results |
| --- | --- | --- | --- |
| Women | Hiring Ratio | Every year: 30% | FY2023: 33.4% |
| | Manager Ratio | FY2025: 15% | FY2023: 11.8% |
| | Executive Officer Ratio | FY2025: 25-30% | June 2024: 23.7% |
| External Hires | Ratio of Mid-Career Hires | FY2024: - | FY2023: 42.4% |

Notes 1. The scope for the above indicators includes five major domestic companies: NTT, NTT DOCOMO*, NTT East, NTT West, and NTT NTT DATA Group*.
  * NTT DOCOMO includes figures from NTT Communications. Furthermore, NTT DATA Group includes figures from NTT DATA and NTT DATA, Inc.
2. As of March 31, 2024, 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.

## Indicators and Targets Related to Human Rights

| Indicator | Target | Results |
| --- | --- | --- |
| Direct Dialogue Rate with Key Suppliers | FY2024: - | FY2023: 100% |
| Direct Dialogue Rate with Suppliers from whom Improvements Have Been Requested | FY2024: 100% | FY2023: - |

Notes 1. The scope of aggregation for the direct dialogue rate with key suppliers is calculated by using 40 suppliers, selected based on procurement amount, item importance, substitutability, etc., as the denominator, and the number of suppliers with whom direct dialogue was completed during the fiscal year as the numerator.
2. In order to improve the effectiveness of human rights due diligence, the indicator for human rights will change in fiscal 2024 from Percentage of Direct Dialogue with Key Suppliers to Percentage of Direct Dialogue with Suppliers from which Improvements Are Sought.

Our business environment is changing rapidly. To respond flexibly to these changes, it will be critical for diverse human resources to demonstrate their abilities fully. At the same time, it is essential to strengthen our organizational capabilities so that we can leverage individuals with extensive expertise and continue adapting to changes in the future.

Enhancing talent and organizational capabilities will bring about innovations, which in turn will offer new value to our customers and society. We expect this will contribute to increasing the NTT Group's corporate value. Furthermore, we aim to create a virtuous cycle where employees work feeling excited about such outcomes, which lead to greater engagement.

Based on this view, we implemented various transformations in fiscal 2023. At their core is autonomous career formation (career ownership). Through this scheme, employees will be able to grow their skills and strengths and choose organizations and jobs where they can make use of those abilities. Moreover, it is crucial to create a more enabling work environment for such motivated employees. Through these continuous transformations, we will work to attain employees' self-realization and the Group's business growth.

Executive Officer
Head of General Affairs
CHRO
**Shuji Sakamoto**

### Medium-Term Management Strategy and Human Resources Strategy

The NTT Group announced the Medium-Term Management Strategy in May 2023. Its fundamental concept is to "continue taking on challenges" to create new value and support a sustainable society.

To "continue taking on challenges," we consider it important to foster excitement in each employee, and made "Improving the Employee Experience (EX)" one of the major pillars of the strategy's initiatives.

**<Improving the Employee Experience (EX)>**

**(1) Strengthening Support for Autonomous Career Formation**

**(2) Open and Innovative Corporate Culture**

**(3) More Supportive Work Environment**

We are advancing human resources initiatives based on a strategy in sync with this Medium-Term Management Strategy.

### Review of Fiscal 2023: A Year of Framework Building

In fiscal 2023, we focused on creating a scheme that generates high added value while enabling each employee to acquire and demonstrate higher levels of expertise and skills than ever before, along with allowing diverse human resources to autonomously build up careers in various fields.

**(1) Strengthening Support for Autonomous Career Formation** (Initiatives for employee growth)

In April 2023, we changed to a "salary system with promotions based on expertise" and "career development support system." In addition, to complement and support these systems, we introduced career consulting and launched the NTT Job Board (job posting system).

**(2) Open and Innovative Corporate Culture** (Initiatives for organizational transformation)

We are also striving to foster a trial-and-error mindset needed to "continue taking on challenges." We promote a challenge-oriented mindset by organizing conferences on a number of themes and from different perspectives, including the "Conference to Learn from Failures (EX)," and introducing and awarding employees who are taking on challenges in various settings.

**(3) More Supportive Work Environment** (Creating a comfortable work environment)

To enhance work-life integration, we have allowed early morning work (starting at 5 a.m.) and introduced fertility treatment support leave. Such measures have been established and begun to be implemented to flexibly accommodate the increasingly diverse work styles of our employees.

## Fiscal 2024 and Beyond: A Year of Implementing and Promoting the Framework

In fiscal 2024, while continuing to engage in dialogue with employees through various opportunities and occasions, we will further embed the initiatives and measures into our company and bring the employee experience closer to the ideal experience.

We established four goals (outcomes) to measure the ideal employee experience.

**(1) Autonomous Career Formation**

Believing that full-scale use of AI will be necessary in all areas both inside and outside the company, in addition to promoting digital transformation, we will further work to secure and develop AI talent with extensive expertise and skills.

**(2) Organizational Transformation**

By establishing our own "TX indicators*," we intend to more carefully monitor whether momentum is building for behaviors that lead to the formation of an open and innovative corporate culture.

**(3) Creating a Comfortable Work Environment**

We will promote diverse work styles by setting as an indicator "autonomous work styles (positive evaluation)," which affects engagement and other EX-related indicators.

**(4) Improving the Employee Experience (EX)**

Through employee engagement surveys, we will measure the outcomes of our initiatives for improving EX and make changes or additions to the systems and measures as needed.

Including the above outcomes, by internally and externally communicating our initiatives and the underlying concepts in detail, we will endeavor to assess and improve the effectiveness of these efforts, as well as foster employee understanding.

*TX indicators: Transformation indicators. Our own indicators for achieving the "Open and Innovative Corporate Culture" mentioned in our Medium-Term Management Strategy.

## Human Capital-related Initiatives in the Medium-Term Management Strategy
### (Human Resources Strategy and Policy)

To create new value, improve the customer experience (CX), and realize a sustainable society, we attach importance to the employee experience (EX) and aim to establish a virtuous cycle that generates new value.

As part of the human resources strategy to realize our management strategy, we will improve EX to ensure that diverse talent can challenge themselves to create new value and innovations while finding their work rewarding and experiencing personal growth. The effectiveness of these initiatives will be monitored over time by establishing indicators for the three pillars of the human resources strategy. By properly reviewing and continuously implementing these initiatives, we will deliver outcomes that lead to improved CX and increased productivity, which in turn will improve business growth and corporate value.

| Initiatives for employee growth | Initiatives for organizational transformation | Creating a comfortable work environment |
|---|---|---|
| ▼ | ▼ | ▼ |
| **Strengthening Support for Autonomous Career Formation** | **Open and Innovative Corporate Culture** | **More Supportive Work Environment** |
| Support trainings and other initiatives for employees to hone and enhance their expertise, while also encouraging autonomous career formation. | Pursue open discussions and trial-and-error approaches (challenges) that transcend boundaries between companies and organizations, contributing to even greater diversity. | Create a secure work environment for employees and expand and strengthen relevant supports. |

Promoting initiatives that strengthen talent and organizational capabilities

| HR Strategy Pillars | Measure |
|---|---|

**Input**
· Human resources
· NW/infrastructure
· R&D/service development
· Financial base
· Customer base

**Key categories**
· Climate change
· Human capital
· New value creation
· Resilience

**Medium-Term Management Strategy**
· Sustainable society
· Upgrading CX
· Improving EX

( 📖 P. 6: NTT Group Value Creation Process)

**Strengthening Support for Autonomous Career Formation**

**Initiatives for employee growth**
· Job-based system
· Job Board (job posting system)
· Two jobs/in-house side jobs/secondment opportunities
· 18 specialized areas (external certification)
· Training programs for acquiring expertise
· NTT University
· Specialist appointment
· Career consulting

**Open and Innovative Corporate Culture**

**Initiatives for organizational transformation**
· D&I promotion (women/people with disabilities/LGBTQ)
· Securing diverse personnel
· Revitalization of employee communities
· Proactive information dissemination (EX category)
· Direct communication with executives
· Promotion of co-creation and collaboration for the creation of new value

**More Supportive Work Environment**

**Creating a comfortable work environment**
· Promotion of hybrid work
· Diverse work styles (childcare/nursing care/medical treatment)
· Occupational safety

## Indicator

· Promotion rate
· No. of employees who applied and got jobs using Job Board
· No. of employees with two jobs or in-house side jobs
· No. of employees studying overseas or dispatched externally
· No. of employees with external certifications in the 18 specialized areas
· No. of training programs
· Training time/amount invested in training
· Assignments of University graduates
· No. of SG appointments
· Career consulting utilization rate/satisfaction level

· Women-related indicators (hires/new appointments/managers/board members)
· Women's career advancement index (career-oriented)
· PRIDE Index/Kurumin/Eruboshi
· Gender wage disparity
· Hires of mid-careers/foreign nationals/doctors/technical college graduates/people with disabilities
· No. of registered conference participants
· Outreach frequency/page views
· No. of dialogues held
· No. of registered employees of co-creation sites

· No. of remote standard employees
· Male childcare leave rate/nursing care leave rate
· Presenteeism loss rate
· No. of employees on mental health leave
· No. of human rights violations

## Outcome
**Outcome of value creation**

Securing talent with specialized skills
(AI talent and global human resources, etc.)

Expanding initiatives for innovation creation
(TX indicators)

Expansion of diverse work styles
(Percentage of positive responses for autonomous work style)

**Improving Engagement**

Due to innovation creation

**Improved CX in growth areas (AI, IOWN, etc.)**

**Business growth Increased revenue**

**Improved productivity in existing areas**

**Increased profit margin**

## Securing Talent with Specialized Skills (AI talent and global human resources, etc.)

Alongside enhancing individual expertise, we will make efforts to strengthen AI (digital) skills and global skills as skills to be developed across all areas.

### ■ Strengthening AI Talent

Digital technology is essential for IOWN- and data-driven creation and provision of new value. With advanced expertise and skills demanded more than ever, we are reinforcing our efforts to secure and develop talent. In addition to launching the AI Working Group, we offer trainings tailored to different levels for enhancing AI skills in each business area.

Furthermore, to promote appropriate use of AI and control AI counter-risk measures in line with the rapid spread of AI, we created the position of Co-Chief Artificial Intelligence Officer (Co-CAIO) and are enhancing governance (📖 Appointment of CAIO, P. 80).

There are now approximately 2,000 core AI talent with expertise. We will continue to strengthen personnel skills, aiming to more than double this number by fiscal 2027.

### ■ Security Specialists

The NTT Group is training personnel for strengthening our security. As part of this effort, we have introduced a security expert certification system to certify expert-level personnel who are leading figures in the industry, with strong track records that have earned significant trust and recognition both internally and externally, as well as intermediate-level certified personnel who have sufficient practical experience and expertise.

Approximately 4,700 personnel are ranked intermediate and are certified to work in the security field, while about 100 are ranked expert and have industry-leading achievements that are recognized also by external experts.

### ■ Strengthening Global Human Resources

Approximately 151,000 employees of the NTT Group are working overseas. Global business growth is essential for achieving our Medium-Term Management Strategy. We will strengthen our efforts to secure and develop human resources who can work globally for the expansion of the Group's business in the medium to long term.

## Expanding Initiatives for Innovation Creation (TX Indicators*)

The market environment is changing continuously, requiring us to adapt flexibly to these changes. This demands that we "continue taking on challenges."

The NTT Group listed the elements needed to "continue taking on challenges" in its Medium-Term Management Strategy.

We strive to transform into an organization and company that practices "trial and error," "openness," and "collaboration," with "D&I" as their foundation. To visualize how each employee's awareness has changed and to reflect this in our initiatives, we will establish "TX indicators" and strengthen our efforts accordingly.

* TX indicators: Transformation indicators. Our own indicators for achieving the "Open and Innovative Corporate Culture" mentioned in our Medium-Term Management Strategy.

■ Percentage of Employees Who Gave Positive Responses

(%)

| | Trial & Error | Openness | Collaboration | D&I |
|---|---|---|---|---|
| | 61 | 63 | 69 | 63 |
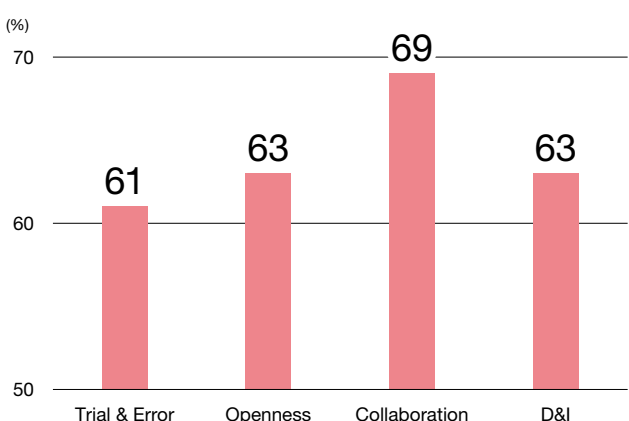
(Reference) Challenge Indicator Questions

| Trial & Error | Openness | Collaboration | D&I |
|---|---|---|---|
| · My supervisor allows me to take risks.<br>· I can change traditional methods.<br>· Our company learns from failures.<br>A total of six items including the above | · I can freely express my opinions.<br>· Open and honest communication takes place.<br>· I can ask questions without hesitation, accept failures, and point out issues.<br>A total of six items including the above | · There is effective collaboration between teams.<br>· We work together to accomplish tasks.<br>· My supervisor sets an example of collaborating properly with other teams.<br>A total of four items including the above | · Having diverse views is valued and encouraged.<br>· I feel I am part of the company.<br>A total of six items including the above |

## Expansion of Diverse Work Styles (Percentage of Positive Responses for Autonomous Work Style)

The fiscal 2023 engagement survey results revealed that employees who are able to work autonomously have a positive impact on engagement and other EX indicators. We will monitor this as an indicator for promoting diverse work styles.
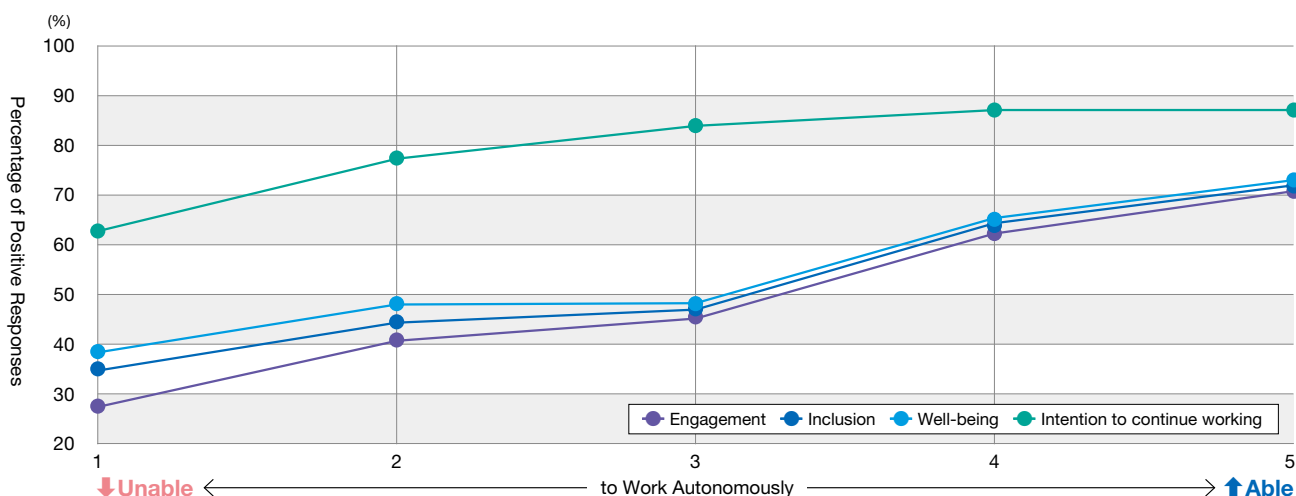


## Improving Engagement

The NTT Group has established four indicators for measuring engagement as NTT Group Key Performance Indicators (KPIs).

By introducing Qualtrics, the NTT Group-wide experience management platform, and taking actions for improvement, 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 set it as a criterion for the performance bonuses of board members and managers.

In fiscal 2023, the percentage of positive responses was 54%, falling short of the improvement target compared to the baseline year (percentage of positive responses in 2022: 57%).

### NTT Group's Four KPIs

1. I am motivated to contribute more than is required to get the job done at the company (willingness to make contributions)
2. I am proud to work at this company (attachment and pride)
3. I would recommend our company as a great place to work to those I know (attachment and pride)
4. I gain a sense of personal accomplishment through my work (satisfaction)

### ■ Strengths of the Maintenance Area (items that are strongly correlated with the four KPIs and are evaluated positively)

Over 70% of employees responded positively about their relationships with supervisors and colleagues, psychological safety, and diversity, indicating that they are able to perform work in an inclusive environment.

In the maintenance area, including psychological safety, we will strengthen efforts to build good relationships between employees and teams, including through one-on-one meetings.
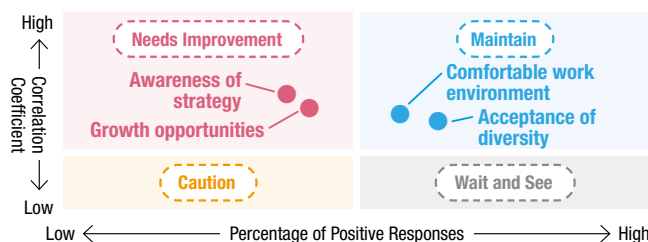


### ■ Initiatives in the Area Needing Improvement (items that are strongly correlated with the four KPIs and are evaluated negatively)

The items on which only about 40% of employees responded positively were "Opportunities for growth (ability to achieve career goals)," "Strategy penetration (having confidence in the future of the company)/change management (receiving support for organizational changes)," and "The management team is addressing employee feedback."

It demonstrates that employees do not clearly understand and have not made sense of the company's strategy (e.g., future direction, vision, associated revisions to personnel systems), and this is reflected in communication challenges between employees and managers and in metrics related to change management.

In light of these findings, we will expand opportunities for dialogue between the management team and employees. We will also hold exchanges of views regarding survey results within each company and organization, thoroughly discussing and consistently deliberating over organizational specific issues.

The NTT Group puts efforts into supporting employee growth (human capital investment), in order to ensure that the right personnel are assigned to positions fulfilling the roles necessary for achieving our Medium-Term Management Strategy.

## Career Development Support System

### (1) System for Managers

To break away from annual and seniority-based systems and create and expand opportunities for employees to challenge themselves, we introduced a job-based personnel salary system for all managers in October 2021. This allows for flexible placement of the most suitable talent in roles and positions necessary for achieving our strategy, which will maximize our organizational performance.

The promotion rate of managers (the percentage of managers who were assigned at a rate exceeding previous promotion speeds during the July 2023 personnel transfers) was 18.8%. We are steadily breaking away from annual and seniority-based systems and transitioning from placing the right person in the right job to finding the right job for the right person. We will continue our efforts to ensure that suitable talent is placed in roles and positions necessary for our business growth.

### (2) System for General Employees

To enable employees to pursue and achieve their career visions more autonomously, we have changed to a system that prioritizes the acquisition of expertise rather than years of service, age, or years of experience. Specifically, we have established 18 specialized areas attuned to external markets, as well as "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.

The promotion rate of general employees (the percentage of employees who were promoted at a rate exceeding previous speeds during the October 2023 promotion of general employees) was 10.0%, indicating an increase in employees undertaking autonomous career formation and challenges.

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

## System & Compensation for Highly Specialized Personnel

### ■ Specialist Grade (SG)

We have established a Specialist Grade as part of our personnel and salary system focusing on specialized expertise. This grade offers higher compensation to employees who possess particularly marketable skills and deliver exceptional performance. This system allows specialized personnel to receive compensation equivalent to that of managers. By broadening employees' career options, we will further enhance employee motivation and performance.

**NTT Group SG Networking Event**

Participants shared their passionate views, e.g., "I'm happy I can now prioritize my life and engage in work that makes the most of my expertise (realize work-life integration)," "I want to become a leading expert in the world, not just in the NTT Group," and "I would like to have many more opportunities to communicate outwardly."

### ■ Professional Employee System

We have introduced a system that offers higher levels of compensation for employees who fully leverage highly specialized skills and experience in specific industries and fields.

<Examples>
· As a foremost authority in the financial payment sector, manage the entire wallet service business and actively pursue partnerships with strategic partners
· As a specialist in networking and IoT, also holds a position as a guest researcher at universities and makes appearances at numerous international conferences

■ Researchers (Fellow, Senior Special Researcher, Special Researcher)

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

As personnel who have made significant achievements and contributed to producing research outcomes in their specialized fields, we have recognized 11 Fellows, 28 Senior Special Researchers, and 67 Special Researchers.

## Expanding Opportunities for Challenges and Supporting Growth

### ■ Training Programs for Acquiring Advanced Expertise and Skills

We have expanded our training programs to allow for more effective acquisition of advanced expertise and skills in the 18 specialized areas.

(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

(3) Training to gain common skills

We now offer roughly 1,000 courses structured around the above three trainings. Employees can select from these training programs based on their own career plans and skill development goals, and proceed with their learning accordingly.

The average training time per employee was 40.7 hours (+2.7 hours over the previous year), and the training cost per employee was 117,000 yen (+14,000 yen over the previous year).



(Thousand yen) / (Hours)

Legend: Training cost, Training time

| Year | 2020 | 2021 | 2022 | 2023 |
| --- | --- | --- | --- | --- |
| Training cost | 91 | 90 | 103 | 117 |
| Training time | 24.0 | 34.0 | 38.0 | 40.7 |
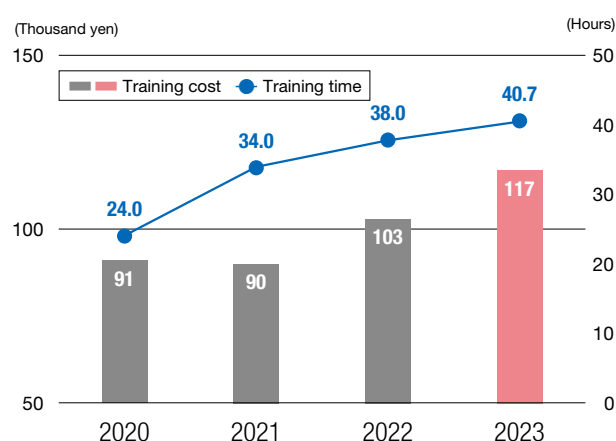
### ■ Penetration of Career Design

We held Career Design Week 2023, an event aimed at deepening understanding of "career development envisioned by each employee" and "career development of management personnel." The event featured a variety of programs, including lectures on career development and learning by outside experts, presentations by current board members of the holding company on careers and support for the NTT Group's management personnel, and interviews with employees excelling in specialized fields.

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**Column**



NIPPON TELEGRAPH AND TELEPHONE CORPORATION
Legal Office, General Affairs Department
**Tatsuya Nakamori**

**Interview with an employee working in his field of expertise**

Legal departments of companies carry out a lot of behind-the-scenes work, and they have had few opportunities to step out in front of the public. Nowadays, however, company legal officers speak at seminars as lecturers, or young legal staff at the NTT Group are taking the lead in publishing books. In line with this trend, I too hope to draw on my legal background to communicate compellingly both inside and outside the company, and contribute to enhancing the overall presence of the NTT Group.

### NTT Group Job Board (job posting system)

We created NTT Group Job Board, a system that supports voluntary employee transfers by allowing for ongoing recruitment and timely applications. In the year since July 1, 2023, approximately 1,000 employees applied for transfers, about six times more than through the old job posting system used until the previous fiscal year, indicating that more employees are challenging themselves at their initiative.

### In-house Side Jobs (two jobs)

To foster skill development and independent career growth, we have introduced a system of side jobs (two jobs). This system allows employees to allocate a portion of their work hours to tasks in other departments while maintaining their resp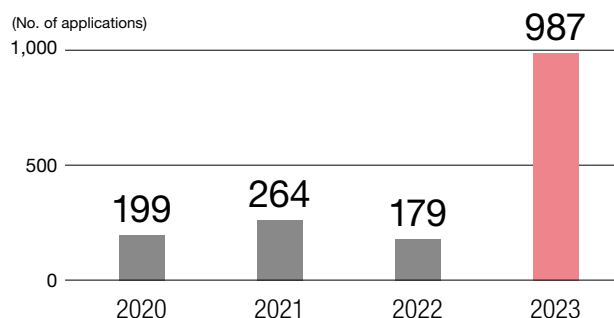onsibilities in their current roles. We will continue to promote an environment that fosters proactivity and self-growth for employees within the NTT Group.

### Career Consulting Service

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. To support employees, we have assigned dedicated career consultants for the Group since July 2023. These consultants, who hold national certifications and are rich in experience, will provide individualized career advice to each employee.

(No. of applications)

| Year | Applications |
|------|-------------|
| 2020 | 199 |
| 2021 | 264 |
| 2022 | 179 |
| 2023 | 987 |

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**Column**

NTT Communications
Business Planning,
Solution & Marketing
Division
**Yui Matsuzawa**

**Transferred to NTT Communications Using Job Board**

Because of the job posting system, I was able to develop my career plan autonomously with a sense of hope.

I saw an opening in my desired field and transferred to HR using Job Board. I have two jobs in HR through which I am broadening my knowledge and experience. I have also been able to devote time to studying and enhancing my skill set, including obtaining national certification in career consulting. Using Job Board and choosing my own career has given me a greater sense of responsibility, fulfillment, and motivation.

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## Systematically Fostering the Next Generation of Management Personnel

### 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 (NEX) aimed at those striving to be promoted to executive officers within five years, in July 2023, we launched the Future Executive Course (FEX) 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 board members,as well as external conferences, seminars, training, and other selective support programs.

Approximately 150 students (30% women) in NEX, as well as 230 students in FEX, are committed to becoming the next generation of leaders.

Of the 88 students who graduated NEX in fiscal 2022 and fiscal 2023, 32 have already been appointed as directors and executive officers.

Management Position

**Details**

**NTT University Next Executive Course**
Aiming to become executive officers within five years
Approx. 150 people

**Stretch Assignment**
Achieve growth with actual duties in a position resolving management issues

**NTT University Future Executive Course**
Aiming to become executive officers in the future
Approx. 230 people

**Mentoring Program**
Support autonomous growth through dialogue with Group management

Increase and reinforce specialization (fostering professional human resources)

**Support Program**
Support growth utilizing internal and external programs

## Open and Innovative Corporate Culture

The NTT Group listed the elements needed to "continue taking on challenges" in its Medium-Term Management Strategy. We strive to transform into an organization and company that practices trial and error, openness, and collaboration, with D&I as their foundation.

### Increasing Opportunities for Dialogue between Management and Front Line Staff

To achieve the Medium-term Management Strategy, management at NTT Group companies are actively creating opportunities for dialogue with employees. Since the beginning of his term, NTT's president, with a commitment to always focus on the front lines and be there for every single employee, regularly visits front lines in growth and new business areas and continues to communicate the NTT Group's initiatives and his personal vision. The dialogues with employees are shared with employees on our owned media platform.* In particular, efforts are made so that a wide range of employees across Group companies can view the dialogues with the holding company's management.

*The NTT Group inner communication site "NTT News Network" regularly shares updates on Group companies' initiatives, messages from executives, and more.

### Promoting a Challenge-oriented Mindset through Conferences

The NTT Group holds conferences from various perspectives, such as sustainability, CX, DX, and EX. Through these conferences, we shine the spotlight on employees who are challenging themselves in various fields, and thereby, promote a challenge-oriented mindset throughout the Group.

#### ■ Sustainability Conference

The NTT Group holds the Sustainability Conference annually to introduce and share projects that contribute to a sustainable society undertaken by NTT Group companies in Japan and abroad, aiming to promote awareness of sustainability management across the entire Group.

The 11th conference held this fiscal year received 149 project entries from a record-high 22 countries and regions. Recipients of the Grand Prize, the Excellence Award, and the Audience Award were selected from among the 56 projects that passed the first screening. ()

## ■ CX Conference  `CX`

As part of our efforts to improve CX, which is one of the pillars of our Medium-Term Management Strategy, the CX Conference was held to share the CX initiatives of NTT Group companies.



## ■ TSUNAGU Conference  `DX`

We held an event highlighting employees from Group companies who are working hard on DX projects. It shared case studies and how they addressed challenges in promoting DX, aiming to give further momentum to DX efforts across the entire Group.



## ■ Conference to Learn from Failures  `EX`

This conference was organized to share failures that could lead to future successes and consider how we should embark on future endeavors based on the lessons. By coming together and reviewing various case studies openly, we will cultivate a culture of trial and error.



## Securing Diverse Personnel (Recruitment Activities)

### ■ Recruitment Activities for Securing Diverse Personnel

The NTT Group carries out a range of recruitment activities. Approximately 60% of our hires are new graduates and 40% mid-career. Both new graduates and experienced hires are graded based on their expertise and skills.

### Ratio of Mid-Career Hires

Target **30%**
Result **40%**

Mid-careers **40%**
New graduates **58%**
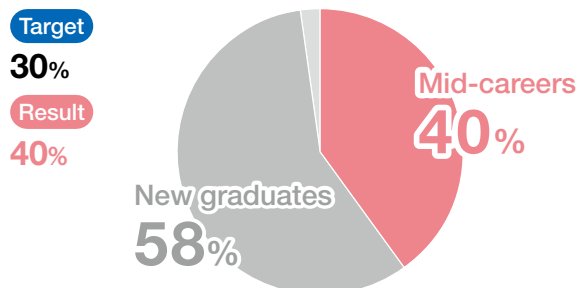
### Ratio of Women Among New Graduate Hires

Target **30%**
Result **38%**

Women **38%**
Men **62%**
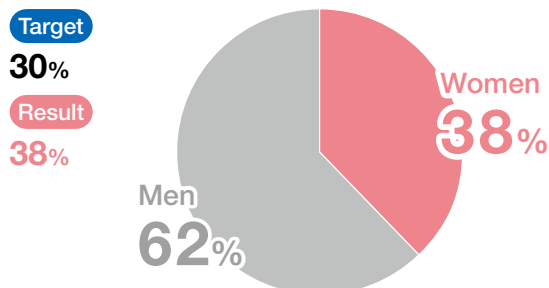
### ■ Initiatives for Alumni

We have an alumni community for employees who have left the NTT Group. To foster new relationships that are not bound by place of employment, we actively hold workshops and other activities to grow the network of peers with whom we can collaborate to bring value to society. Through such activities, we will create new business opportunities not confined by the NTT Group's existing business areas and promote open innovation.

## Promoting Diversity & Inclusion (D&I)

### ■ Message from Top Management

A new message from the CEO on promoting D&I was released in March 2024.

Diversity and Inclusion (D&I) is an important management strategy for the NTT Group, which is "NTT as a Creator of New Value and Accelerator of a Global Sustainable Society". In May 2023, we announced our Medium-Term Management Strategy, which positions D&I as the foundation of the corporate culture necessary for the creation of new value.

In recent years, customer needs have diversified, social issues have become more complex, and the pace of technological evolution has increased. This means each employee must enhance their expertise and challenge themselves to create and innovate while combining knowledge and values from different fields and cultures.

By allowing diverse members to openly share their opinions in the decision-making process, we can overcome the risks that homogeneous organizations run into.

Excerpt from "Promoting Diversity and Inclusion," March 2024 https://group.ntt/en/diversity/message.html

### ■ D&I Statement: Our Commitments

· Based on international standards, we aim to be an organization where all individuals, regardless of their characteristics and values[1], are accepted for who they are, have equal opportunities, take on challenges without fear of failure, and continuously grow through mutual improvement. We will also work to enhance the well-being of each individual, improve engagement, and realize work-in-life.

· With social responsibility in mind, we contribute to create a more diverse, inclusive and sustainable society through connecting precious resources such as people, the environment, and culture to the future.

[1] Regardless of ethnicity, race, nationality, origin, class, religion, belief, language, culture, gender, sexual orientation, gender identity, age, disability, disease/health status, appearance, values, family status, lifestyle, or any other social or personal characteristics

### ■ Ensuring Diverse Management and Managers

In the NTT Group, we have established numerical targets for the ratio of female board members and managers to ensure that a diverse range of opinions is represented in decision-making processes. In the holding company, the ratio of female board members is already 38.5%, achieving the target ahead of schedule. The ratio of female directors, Audit & Supervisory Board Members, and executive officers, respectively, also exceeds 30%. Group companies are also making steady progress toward reaching their targets.

**Ratio of Women at Five Major Domestic Companies[2]**

| | FY2020 | FY2021 | FY2022 | FY2023 | FY2024 | Target |
|---|---|---|---|---|---|---|
| **Board members[3]** | 10.6% (17 women) | 11.4% (20 women) | 17.7% (32 women) | 21.0% (35 women) | 23.7% (40 women) | 25–30% (FY2025) |
| **Managers** — Manager Ratio | 7.3% (1,506 women) | 8.7% (1,830 women) | 10.4% (2,128 women) | 11.8% (2,364 women) | | 15% (FY2025) |
| **Managers** — Ratio of Newly Appointed Managers | — | 29.1% | 29.7% | 27.9% | | 30% (FY2021 onwards) |
| **General staff** | 22.7% (11,166 women) | 23.0% (11,436 women) | 25.2% (11,488 women) | 25.5% (12,257 women) | — | — |

[2] The scope includes five major domestic companies: NTT, NTT DOCOMO*, NTT East, NTT West, and NTT DATA Group*.
* NTT DOCOMO includes figures from NTT Communications. Furthermore, NTT DATA Group includes figures from NTT DATA and NTT DATA, Inc.
[3] Board members consist of directors, Audit & Supervisory Board Members, and executive officers.

**Target**

**Ratio of female board members: 25–30%/FY2025**

**Ratio of female managers: 15%/FY2025**

**New female manager promotion rate: 30%/Every year**

**Result**

➡ **23.7**% (+2.7% YoY)
(Holding company: **38.5%**)

➡ **11.8**% (+1.4% YoY)

➡ **27.9**% (-1.8% YoY)

In addition, for managers, our owned media[4] regularly features stories about career role models who have stepped up in their careers while staying true to themselves. They also attend panel discussions of various training sessions. By sharing their personal experiences directly with participants, they give encouragement to employees who may be struggling with their careers.
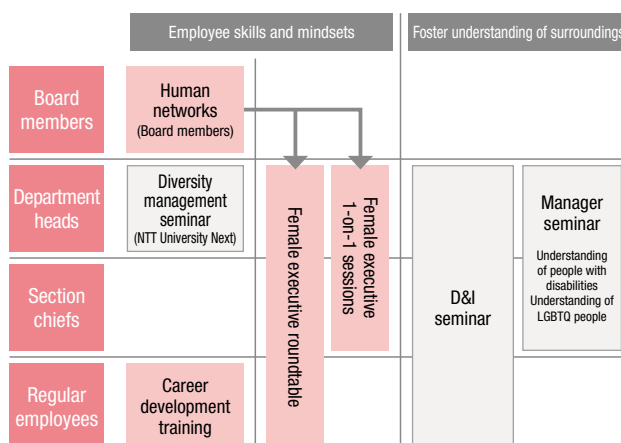

& manager

[4] Managers from NTT Group companies are introduced on "& manager" on the NTT Group inner communication site "NTT News Network." Similarly, general staff are introduced on "& people."

### ■ D&I Seminars

In fiscal 2023, we launched theme-specific D&I seminars that employees can attend based on their interests and preferences. Held monthly, the seminars choose topics that are useful for both workplace management and work processes, including balancing work and life events, such as childcare, nursing care, and medical treatment, help seeking, and management that leverages diversity.

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.

| | Employee skills and mindsets | | | | Foster understanding of surroundings | |
|---|---|---|---|---|---|---|
| Board members | Human networks (Board members) | | | | | |
| Department heads | Diversity management seminar (NTT University Next) | Female executive roundtable | Female executive 1-on-1 sessions | D&I seminar | Manager seminar — Understanding of people with disabilities / Understanding of LGBTQ people | |
| Section chiefs | | | | | | |
| Regular employees | Career development training | | | | | |

### ■ Mentorship Program by 25 Female Executive Officer Volunteers from the NTT Group

Female executive officers from the NTT Group launched a voluntary group in 2022, and there are currently 25 members. They conduct activities that leverage their experience and knowledge, including a mentorship program that has expanded to include not only female employees but also local students. In fiscal 2023, they organized 28 roundtable discussions with female employees across Japan, including laboratories, and 257 people participated. Furthermore, as their first public event, they held a technology workshop for junior high school students in Yokosuka, Kanagawa, aimed at heightening interest in their work. A total of 68 students attended over two days. These activities will continue to be held with plans to expand into other regions.


Career design discussion attended by executive officers


Exchanging views with executive officers on diversity and inclusion (D&I)

### ■ Gender Wage Disparity

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

The 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. 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, recording 27.9% in fiscal 2023.

#### Female employee wage ratio when male employee wages are set to 100 (Fiscal 2023)

| All employees | Regular employment | (Repost) Managers | (Repost) Non-managers | Non-regular employment |
|---|---|---|---|---|
| 77.7% | 77.6% | 91.3% | 82.6% | 83.1% |

(Note) The scope includes five major domestic companies (NTT, NTT DOCOMO*, NTT East, NTT West, and NTT DATA Group*).
 * NTT DOCOMO includes figures from NTT Communications. Furthermore, NTT DATA Group includes figures from NTT DATA and NTT DATA, Inc.

## ■ Promoting the Advancement of Employees with Disabilities

The NTT Group actively hires people with disabilities and is expanding their workplace opportunities. We create jobs that use the unique strengths and characteristics of employees with disabilities. They include web accessibility diagnosis, production of hand-made paper from recycled paper, office massages, and agricultural and cleaning projects in cooperation with local communities.

Approximately 4,000 employees with disabilities work at the NTT Group. Around 3,000 of them are directly employed by NTT Group companies, while another 1,000 work at our special subsidiary companies. The employment rate of people with disabilities in June 2024 was 2.57% (+0.06 points over the previous year).

### The NTT Group's Employment Rate of People with Disabilities (as of June 1, 2024)

(%)

| Year | Rate |
|------|------|
| 2021 | 2.45 |
| 2022 | 2.47 |
| 2023 | 2.51 |
| 2024 | 2.57 |
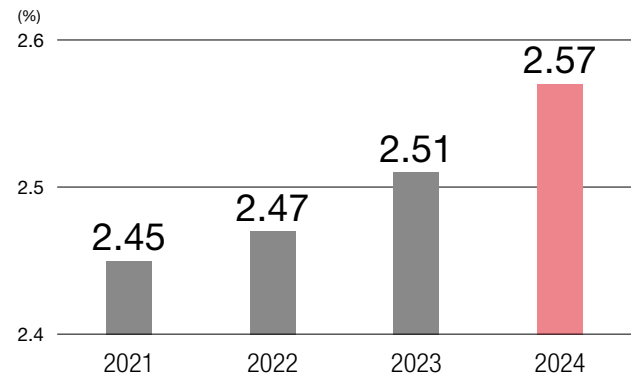
## ■ Employment Promotion Initiatives

### · The NTT Group People with Disabilities Employment Promotion Project

To promote the employment of people with disabilities across the entire NTT Group, we regularly exchange opinions on Group company initiatives and measures for retaining employees with disabilities. As part of this effort, a joint information session participated by NTT Group companies was held for the first time in July 2024 at Tsukuba University of Technology, a university for people with visual and hearing disabilities.


Company information session at Tsukuba University of Technology

## ■ Fostering Understanding of Employees

### · Neurodiversity Promotion Seminar

An online seminar for managers titled "Facing Diversity and Working Collaboratively: Promoting Neurodiversity" was held, aimed at understanding the mindset, know-how, and methods necessary to face diversity and work collaboratively.

### · Training for Expo 2025 Osaka, Kansai, Japan Staff

The NTT Group is a Pavilion Partner of Expo 2025 Osaka, Kansai, Japan. To reinforce awareness of D&I during the Expo, special subsidiary company NTT Claruty Corp. (NTT Claruty) provided a trial Diversity Training through Disability Experiences for the NTT Group Expo Team. Based on recommendations received from all trial participants, the training will expand its scope this fiscal year and is to be offered jointly by NTT Claruty and special subsidiary company NTT West Lucent Corp.


Training for Expo 2025 Osaka, Kansai, Japan staff

## ■ Community and External Exchanges

We organize the NTT Art Contest, events using the remotely operated robot OriHime, and other opportunities, aimed at deepening many people's understanding of the NTT Group's initiatives to promote the active participation of people with disabilities.

### · NTT Art Contest

The NTT Group holds the NTT Art Contest as part of its activities to empower people with disabilities, based on the concept of "Illuminating Individuality with the Power of Art: For a World Where Everyone, with or without Disabilities, Can Shine." With the cooperation of Japan Airlines Co., Ltd., which endorsed this concept, we invited submissions in fiscal 2023 under the theme of "An Expanding World," which expresses how each person's brilliance can shine a new world. A total of 554 works were submitted from Japan and overseas.


Award ceremony for the FY2023 NTT Art Contest
(https://www.u-x3.com/nttart2023_award/)

■ Initiatives for Fostering Understanding of LGBTQ People

The NTT Group aims to become an organization where everyone can stay true to themselves, regardless of sexual orientation, gender identity, or gender expression. We regularly conduct training for managers and hold ally meetings across the Group to foster understanding of LGBTQ people and other sexual minorities. Institutionally, we began the application, in principle, of all systems for spouses to same-gender partners who have the equivalent of spousal relationships with employees. In addition, we have created a handbook that outlines topics such as the use of common names and guidelines on restroom use to foster employee understanding.

■ Fostering Understanding of Employees

· **Member & Ally Exchange Meeting**

The NTT Group has been a sponsor of Pride House Tokyo since 2020. While we have previously held ally meetings across the Group, in order to create an environment where LGBTQ members can participate more comfortably, we organized an exchange meeting that included LGBTQ people and other sexual minority participants, with the cooperation of Pride House Tokyo. Participating employees were very satisfied, and the meeting contributed to fostering understanding.



· **Seminar for Fostering Understanding of LGBTQ People**

With the participation of NTT Group employees who identify themselves as LGBTQ and with the cooperation of Pride House Tokyo, we held a seminar to foster understanding of LGBTQ people across the NTT Group. Members of the L, G, B, T, and Q communities shared their life histories to help attendees recognize that there are all kinds of sexual orientations, gender identities, and gender expressions, and that each person faces different challenges. Panel discussions were also held on both gender identity and sexual orientation, which provided deeper insights. Through these efforts, we are fostering understanding of LGBTQ people and other sexual minorities.

■ External Initiatives

· **Participation in Tokyo Rainbow Pride**

The NTT Group participated in Tokyo Rainbow Pride, one of Japan's largest fan events focused on LGBTQ people and other sexual minorities. At our booth, we introduced the NTT Group's initiatives and interacted through a rainbow-colored public telephone.

Additionally, we encouraged broad participation in the parade, and approximately 200 NTT Group employees took part.



(Left) The NTT Group's parade participants, Tokyo Rainbow Pride 2024
(Right) An original public telephone made by an NTT East employee exhibited at the NTT Group booth, Tokyo Rainbow Pride 2024

· **Partnership with Pride House Tokyo and Japan Rugby League One**

The NTT Group is collaborating across sectors with Japan Rugby League One and NPO Pride House Tokyo, with the aim of achieving an inclusive society where everyone can be themselves through rugby, regardless of gender identity, sexual orientation, or gender expression. As part of this initiative, we distributed jointly produced leaflets during the League One finals.

· **Participation in Diversity Career Forum**

We participated in Diversity Career Forum, one of the largest career forums in Japan focused on D&I. Through panel discussions, we introduced NTT Group's D&I initiatives, and through meetups between employees and participants, we outlined the NTT Group's company profile.



In PRIDE Index 2023, an evaluation index for LGBTQ initiatives in the workplace developed by work with Pride, 23 NTT Group companies were awarded gold ratings, which indicates that the companies fulfilled all five indicators of the certification criteria.

## More Supportive Work Environment

The NTT Group has increased the opportunities for diverse talent to thrive. Notably, recognizing the issue of career disruptions due to life events, such as childcare, nursing care, or a partner's job transfer, we have introduced various support systems for employees. We believe promoting diverse work styles leads to improvements, including productivity and motivation. We will continue to listen to employee feedback and strive to create an environment where all employees can work by staying true to themselves.

### A Choice of Work Styles (Freedom of Work Location, Hours, and Place of Residence)

#### ■ A Choice of Work Styles

The NTT Group is expanding various systems with the aim of giving employees more work style options suited to their lifestyles.

| | |
|---|---|
| Work location | Remote work, expanded satellite office locations, etc. |
| Work hours | Flexible hours, split shifts, etc. |
| Place of residence | Remote standard |

Since the introduction of the remote standard system, we have been enhancing work-life integration, including the decrease in the number of employees given solo transfer assignments by about 1,500, and the increase in the number of employees who work while residing in remote locations. The fiscal 2023 engagement survey found that, among the employees who used the remote standard system, those who experienced changes in their work style (such as elimination of solo transfer assignments or increased opportunities to work from their parents' home) showed engagement levels that were 5 to 10 points higher than those who did not experience such changes. The remote work implementation rate as of the end of fiscal 2023 was 65.6%.

**Column**

Accounts and Finance Department, NTT East
**Reina Takaki**

**About the Remote Standard System**

After getting engaged, I began thinking about living with my partner in Osaka where he was based. I was conflicted between my desire to live together as a family and not give up my career.

Using the remote standard system, I was able to continue working in my current department while living in Osaka. Thanks to this system, I could integrate work and life without having to sacrifice work or life.

#### ■ Introduction of Early Morning Work Starting at 5 a.m. (Since July 2024)

In the employee awareness survey, mainly employees raising children expressed a strong desire for "early morning work (starting at 5 a.m.)" to be able to concentrate and work. Our flexible hour system has enabled employees to split shifts, and furthermore, start work at 5 a.m. regardless of the reason. This allows for greater flexibility in working hours, for example, starting work at 5 a.m. when employees can focus on their work, then pausing at 7 a.m. for childcare, and resuming at 10 a.m., which will contribute to enhancing work-life integration.

### Balancing between Life Events and Work

To help employees balance diverse work styles and childcare, nursing care, and medical treatment, we have been offering D&I seminars for all employees since fiscal 2023. Employees can sign up for seminars on their topics of interest. From this fiscal year, we have increased the number of seminars and topics, adding content related to management skills necessary for balancing life events and work, help seeking, and the mindset required for balancing these responsibilities. Employee, manager, and other trainings tailored to the topics are offered.

#### ■ Establishment of Fertility Treatment Support Leave (Since July 2024)

Employee engagement and other surveys revealed that among those balancing work with medical treatment, those undergoing fertility treatment made up the highest percentage of employees who responded that balancing the two was difficult. The reason cited was scheduling adjustments around treatment, and the most desired support was leave and other such considerations.

In addition to existing systems, we established fertility treatment support leave, believing that it was important to accommodate various work style needs to help diverse talent thrive, including long-term leave for those who wish to focus on fertility treatment, both mentally and physically.

■ **Salary Measure for Employees Returning from Childcare, Nursing Care, or Other Leaves (Since June 2024)**

The NTT Group has offered childcare and nursing care leave systems that are more comprehensive than national systems. Previously, in cases where an employee took leave for the entire evaluation period due to childcare or other leaves and did not perform any work over that duration,* the employee was marked as "not evaluated." To increase motivation upon returning to work and to make childcare and nursing care leaves easier to take, we have introduced a new measure where returning employees receive a certain salary adjustment (specifically, instead of "not evaluated," employees receive an evaluation that is one level higher).

*Employees have been evaluated if they worked even for a day during the evaluation period.

■ **Ratio of Male Employees Taking Time Off Work for Childcare**

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 128.5%, exceeding our fiscal 2023 target of 100%. In addition, 60.5% took short-term leave (-11.1% over the previous year) and 39.5% took long-term childcare leave (+11.1% over the previous year). 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 2023 who took time off work for childcare/number of employees whose partners gave birth in fiscal 2023)

**Ratio of Male Employees Taking Time Off Work for Childcare**
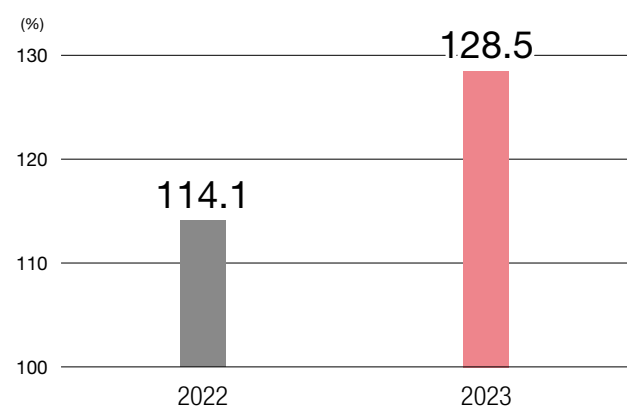
(%)

| Year | Value |
|------|-------|
| 2022 | 114.1 |
| 2023 | 128.5 |

## Health Management

Health management is pursued as a key corporate strategy. We believe that giving due consideration for the health of our employees as well as their families will motivate and invigorate each employee (improve EX) and lead to the growth and development of the Group as a whole. By actively promoting the health of our employees, we will achieve the indicators set in the Health Management Strategy Map, keep down total medical expenses, and improve productivity.

| Approach to health | Maintain and promote the health of employees and their families | Motivate and invigorate each employee (improve EX) | The Group's growth and development |
|---|---|---|---|
| Health initiatives and health-shaping culture | · Health checkup results<br>· Stress check results<br>· Pulse Survey results<br>· Exercise status (d Healthcare) | · Engagement survey<br>· Work style survey (health-related culture survey, etc.) | · Presenteeism survey (survey of productivity loss due to health issues)<br>· Absenteeism survey (losses due to missed work, e.g., absence rate) |

Brush up our approach and methodology based on feedback on each indicator result

**Health Management Strategy Map (2024–2026) *Fiscal 2026 Targets**



**Actions (processes)**

**Activity support**

**Understanding and discovery**

**Disease risk reducing activities**

**Results**

Target setting item — Periodic health checkup receiving rate — **100%**

Target setting item — Specific health checkup receiving rate — **100%**

Target setting item — Specified health guidance receiving rate — **14.5% or less**

Target setting item — Smoking rate — **12.0% or less**

Target setting item — Specified health guidance completion rate — **60.0% or more**

Target setting item — Stress check participation rate — **98.5%**

Target setting item — Overwork interview implementation rate — **100%**

Management indicator — d Healthcare registration rate

Management indicator — Percentage of employees who maintain a healthy body weight

Management indicator — Percentage of employees who have high blood pressure, blood sugar, or cholesterol

Management indicator — Number of employees who work more than 80 or more than 45 hours a month

Management indicator — Percentage of employees who get enough sleep

Management indicator — Percentage of employees who regularly exercise

Original company measures

**Medium-term target** — Medical-care-cost growth rate per employee (year on year) — **2.0% or less**

**Reduction of total medical care costs**

**Medium-term target** — Incidence of employees working while undergoing medical treatment (A or B) (incidence per 1,000 employees) — **17.7 employees or fewer** — Mental: 13.1 employees or fewer — Physical: 4.5 employees or fewer

**Presenteeism loss rate** — **6% or less**

**Productivity improvement**

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■ **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>

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■ **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.

2023 健康経営優良法人 Health and productivity

* 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.

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■ **Comprehensive Employee Benefits**

A cafeteria plan is being introduced across the entire NTT Group. The plan includes health promotion measures such as comprehensive medical check-ups, assistance for acquiring health IT devices, and support for asset accumulation. Employees can use their allocated points to freely select from these menu options. A core menu is also available, offering a range of options that do not require points, such as comprehensive medical check-ups and genetic testing for the early detection of diseases such as lifestyle-related illnesses and cancer, the risks of which increase with age. We also offer a range of options that can be chosen at any time, such as fitness club subsidies and smartphone app-based health improvement programs.

## Human Rights Policy

The NTT Group is committed to respecting global human rights and believes it is an important corporate social responsibility. The 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, the NTT Group internally and externally discloses its human rights policy that complies with global standards. This policy applies to all employees and board members of The 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 the 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.
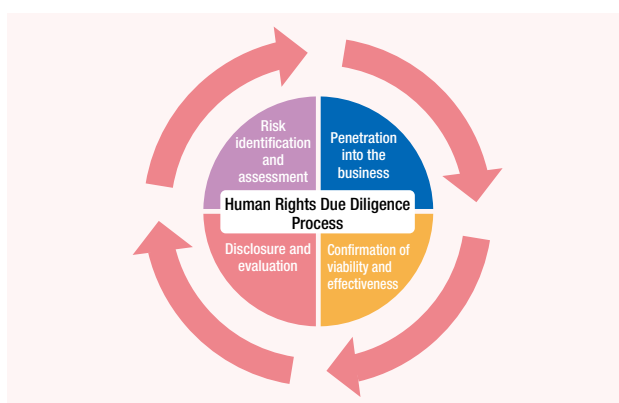


### ■Human Rights Due Diligence Survey

NTT conducted a human rights due diligence survey in fiscal 2023. While Japan is considered to have low human rights risks in international rankings, NTT proactively picked up key human rights issues that may arise domestically and conducted the survey, using a self-assessment questionnaire with a focus on identifying human rights risks in view of international standards and recent trends. In accordance with the NTT Group Global Human Rights Policy, we carried out the survey and analyzed its results following the human rights due diligence process. No major human rights risks were discovered. We will continue to identify, prevent, mitigate, and correct human rights issues globally, while scaling up these efforts within the NTT Group. We will strive to improve human rights awareness and human rights management throughout the NTT Group.

### List of Human Rights Issues

| | |
|---|---|
| 1 | Respect for human rights (compliance with international norms) |
| 2 | Non-complicity in human rights violations, compliance, social security, and fair competition |
| 3 | Prohibition of discrimination and equality before the law |
| 4 | Access to (legal) remedies |
| 5 | Thorough procurement practices (management of business partners) |
| 6 | Harassment and abuse |
| 7 | Women's rights |
| 8 | Child labor (respect for the right to education) |
| 9 | Forced labor |
| 10 | Occupational health and safety |
| 11 | Work hours (right to rest and days off) |
| 12 | Adequate working conditions (including access to water) |
| 13 | Wages (right to an adequate standard of living) |
| 14 | Freedom of association and right to collective bargaining |
| 15 | Freedom of expression |
| 16 | Rights of indigenous people and local communities |
| 17 | Consumer interests (consumers' safety and right to know) |
| 18 | Management of consumer personal information |
| 19 | Thorough management of sales destinations (general human rights violations by sales destinations) |

## Basic Policy on Customer Harassment

The NTT Group established the "NTT Group Basic Policy on Customer Harassment" in July 2024, believing that protecting every employee from customer harassment and creating a safe, comfortable working environment leads to the provision of high-quality services that emphasize customer experience (CX). If any behavior or statements are deemed customer harassment, we will take firm actions to protect our employees, give top priority to caring for affected employees, and take steps to prevent recurrences.

<Basic Policy on Customer Harassment>
https://group.ntt/jp/newsrelease/2024/07/26/240726a.html

# Value Chain Management

## ■ Basic Policy

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"[1].

For our suppliers, we have published the NTT Group Supply Chain Sustainability Promotion Guidelines[2], 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[3] as a supplement to our environmental guidelines and are advancing efforts to reduce greenhouse gas emissions throughout the supply chain.

| Basic Procurement Policy | Basic procurement activity policy for achieving a sustainable society |
|---|---|
| Supply Chain Sustainability Promotion Guidelines | Requests to suppliers regarding social issues established based on the Basic Procurement Policy |
| 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[4], 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 Alliance for CSR (JAC)[5], 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 have been conducting sustainability audits at the factories of NTT Group suppliers based on JAC's audit standards.

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

## ■ ESG Assessments when Selecting Suppliers

As a way of promoting a sustainable supply chain, in supplier selection, the NTT Group adds additional points to the evaluation of suppliers engaged in superior ESG-related initiatives. Specifically, we prioritize procurement from suppliers promoting initiatives to reduce greenhouse gases, based on our Green Procurement Standards. Furthermore, Group companies have progressively introduced internal carbon pricing, a system of promoting a reduction in the environmental impact by calculating the cost of $CO_2$ emissions, and add that cost onto proposed product prices for evaluation.

## ■ Cooperation in the Telecommunications Industry

The three companies of NTT, KDDI Corporation, and SoftBank Corp. have announced that they will jointly engage in the standardization of supplier engagement activities and in various initiatives with the goal of realizing a sustainable supply chain in the telecommunications industry.

The three companies are utilizing a common sustainability self-assessment questionnaire (SAQ) for suppliers since fiscal 2023 and common sustainability assessments by a third-party evaluator (EcoVadis)[4] since fiscal 2024, and are employing these assessments for their supplier engagement activities.

We plan to continue partnering with various industries and companies to work toward the realization of a sustainable supply chain.

*1 https://group.ntt/en/procurement/policy/index.html
*2 https://group.ntt/en/procurement/supplier/pdf/NTT_Group_Guidelines_for_Sustainability_in_Supply_Chain.pdf
*3 https://group.ntt/en/procurement/supplier/pdf/NTT_Group_Green_Procurement_Standards.pdf
*4 https://ecovadis.com/
*5 https://jointallianceforcsr.org/

# NTT Group Sustainability
# New Value Creation

## [Related Medium-Term Management Strategy Initiatives]

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

❶ 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
❷ 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

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

**2 Upgrading the Customer Experience (CX)**

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

**3 Improving the Employee Experience (EX)**

❼ Open and Innovative Corporate Culture
❽ Support Career Growth
❾ Global Benefits for Employees and their Families

## Strategy for Creating New Value <Upgrading the Customer Experience (CX)>

**Risks**

The NTT Group promotes initiatives aimed at creating new value and resolving social issues in collaboration with various partners to enhance the customer experience. If it proves impossible to create business that provides new value to customers as expected, it could adversely affect our market competitiveness, thereby potentially impacting the NTT Group's financial standing and business performance.

**Addressing Risks**

To address such risks, we have established and run a Marketing Strategy Committee chaired by the President. We have also established a CX promotion line at each company to consider CX and take action accordingly, and we promote initiatives aimed at collecting customer feedback, visualizing our introduction process for improving services, etc. We have also established CCXOs at major companies, and, starting in FY2024, we set customer engagement indicators as important non-financial indicators for the focus-area business of major companies, based on which we will accelerate and vigorously promote initiatives aimed at promoting the Group's CX.

**Opportunities**

To effectively respond to opportunities, we hold cross-Group in-house conferences through which we strive to expand our business by sharing examples of success by individual companies between our companies. In addition, we strive to enhance our CX-oriented services by pursuing agile improvements and updates that put the customer experience first for services and solutions in the focus areas of major operating companies. 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.

## Indicators and Targets Related to New Value Creation

| Indicator | Target | Results |
|---|---|---|
| Amount of B2B2X Revenues | FY2024:— | FY2023: ¥1,058.1 billion |
| Customer Engagement | [NPI] Improvement (year-on-year)  [NPS] Improvement (year-on-year) | [NPI] —  [NPS] — |

(Notes) 1. The scope of B2B2X revenues includes the Integrated ICT Business Segment, the Regional Communications Business Segment, and the Global Solutions Business Segment.

2. From the perspective of further strengthening CX, indicators related to new value creation will be changed from B2B2X revenues to customer engagement in FY2024. Customer Engagement Next Purchase Intention (NPI) indicates whether a customer intends to continue using a product, while Net Promoter Score® (NPS®) [1] indicates the degree to which a customer would recommend the product to others. The scope for customer engagement includes services for small and medium-sized corporations and services for consumers, which are the focus areas of NTT East, NTT West, and NTT DOCOMO[2] (there are plans to expand the scope to include services for large corporations in future).

*1 Net Promoter Score and NPS used in the text are the registered trademarks of Bain & Company, Fred Reichheld, and SatMetrix Systems (present-day NICE Systems, Inc.).
*2 The figures for NTT DOCOMO include NTT Communications.

## Strengthening the Use of DX/Data in Society and Industry
### (Integration with Medical and Healthcare Companies to Achieve Precision Medicine)

In July 2024, the NTT Group established NTT Precision Medicine Corporation to combine the Group's assets and resources in the medical and healthcare fields, thereby achieving one-stop data generation and utilization.

The new company collaborates with medical institutions and other organizations to generate and collect medical and healthcare data and then accelerates the distribution of such data to pharmaceutical companies, research institutions, and others to support the research and development of next-generation preventive and treatment methods.

The company is aiming to contribute to the resolution of drug lag and drug loss issues—two major social issues in Japan—while also collaborating with various partners to achieve precision medicine* in an effort to provide optimal preventive and medical care in line with the genetic makeup of individuals through a data-driven approach.

*A medical concept intended to provide optimal preventive and medical care personalized for individuals
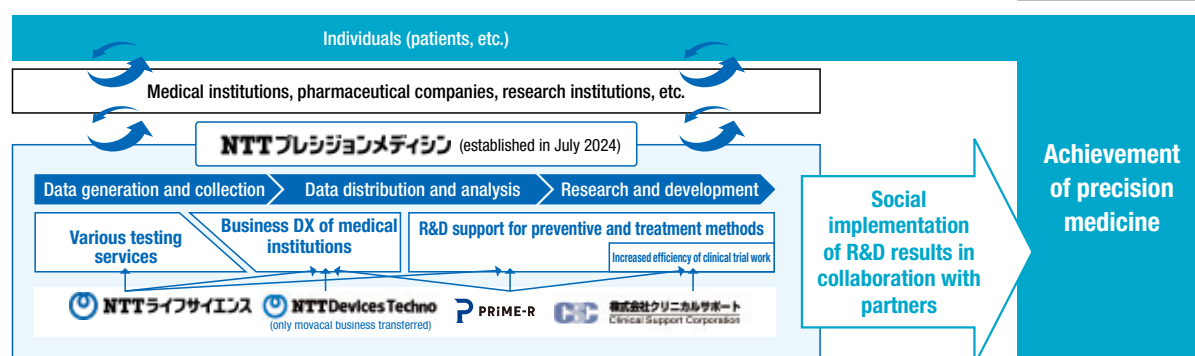


## Strengthening the Use of DX/Data in Society and Industry
### (Providing a Self-Driving System (May Mobility, Inc.))

Japanese society currently faces social issues that include a shortage of drivers as well as difficulties securing transportation methods due to the country's aging and declining population. These issues go beyond transportation and are also leading to issues in various fields, including the effects of distribution problems on the economy, driver health, and the well-being of mobility-impaired people. The NTT Group is taking advantage of its strengths in terms of wireless communication, the IoT and other ICT technologies, and the area networks of regional companies—all of which are essential for self-driving—to promote the commercialization of self-driving support services aimed at resolving the above issues.

In November 2023, NTT invested in May Mobility, Inc. (head office: U.S.) and acquired exclusive rights to distribute the company's self-driving system in Japan. May Mobility, Inc. possesses strengths in terms of self-driving technologies suitable for Japan's traffic conditions, and this technology company's track record includes over 350,000 self-driving results in 13 North American and Japanese cities.

The NTT Group is promoting self-driving demonstration projects in collaboration with local governments and transportation companies on public roads, providing safe and secure self-driving services, and otherwise working to gain society's acceptance of self-driving technologies. In FY2024, we were contracted by Aichi Prefecture to work on preparing regular transportation service using self-driving minivans in central Nagoya. This initiative is Japan's first example of an attempt to provide regular transportation service using self-driving vehicles running in a heavy-traffic urban area in line with main-road vehicle speed

● Initiatives Related to Cars
· We strive to resolve social issues as we collaborate with local governments and various stakeholders.
· We invested in May Mobility, Inc., a U.S.-based self-driving system vendor, and obtained exclusive rights to distribute their system in Japan.



**Collaborating with Various Partners to Provide Self-Driving Services Aimed at Resolving Social Issues**
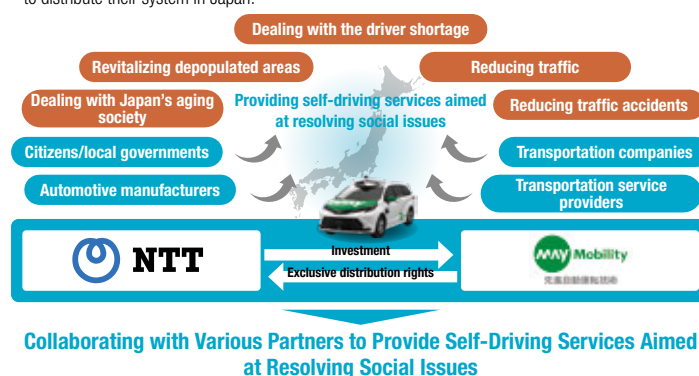
limits, and we plan to launch this service in October 2024.

The NTT Group is also preparing an initiative that involves introducing self-driving showcase vehicles to client and partner companies at the NTT Group's related facilities in the Greater Tokyo Area.

We will combine our self-driving services—which are a result of the digital transformation (DX) of mobility itself—with the community-based problem-solving capabilities we have cultivated up until now as we form partnerships with local governments, transportation companies, automotive manufacturers, and other stakeholders to provide solutions that contribute to the resolution of social issues.

## Transforming the Industry by Promoting Chain AI (NTT AI-CIX)

In August 2024, NTT AI-CIX Inc.[1] (called NTT AI-CIX below) was established to achieve a transition from individual AI—conventional AI that optimizes individual businesses and industries—to chain AI services—AI that achieves mutual linkage between different businesses and industries. NTT AI-CIX utilizes cross-business and cross-industry data to optimize the entire supply chain, thereby aiming to resolve social issues that include labor shortages.

In recent years, as lifestyles have started becoming more diverse in response to the COVID-19 pandemic, the value provided in industrial fields is less and less likely to be limited to individual industries, and the resulting cross-field services are becoming increasingly complex. Due to such social changes, we are seeing a transition to a new stage of industrial transformation in which the world is shifting from AI-based DX for individual companies to AI-based DX that straddles multiple companies or industries.

Up until now, the NTT Group has worked on digital-twin-computing prediction and optimization AI as well as the related chain technology. NTT AI-CIX is now utilizing this cutting-edge technology to optimize everything from individual businesses to the overall supply chain via chain AI, an approach that enables various kinds of AI to mutually link different businesses and industries. In addition, the company provides one-stop solutions that include consulting, product and solution development, and AI platform services.

### Description of the Business and Value It Provides
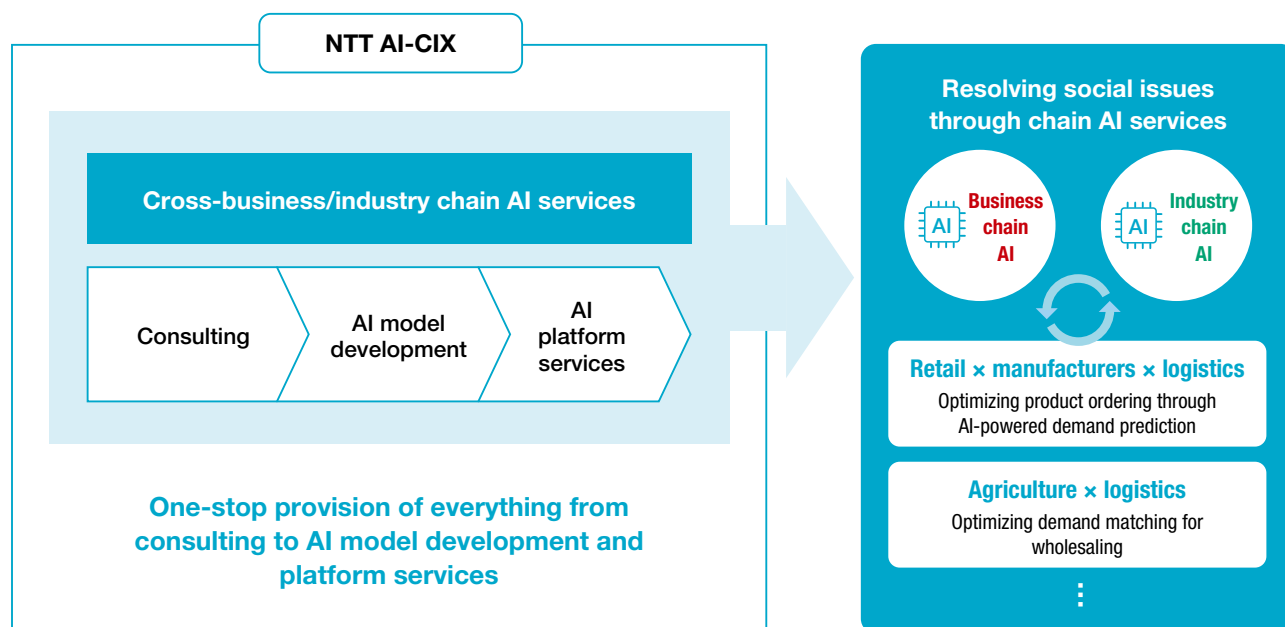


One example of a solution provided by NTT AI-CIX is overall supply chain optimization in the retail and distribution industry.

In January 2024, we concluded a cooperation agreement with Trial Holdings Inc. (called Trial below) to jointly consider supply chain management (called SCM below) with the aim of optimizing it throughout the distribution industry. By combining the retail industry knowledge, stores, and data[2] possessed by Trial with the NTT Group's knowledge and technology in the data science field, we are working on increasing store-running and logistics efficiency, improving customer value, etc. In addition, we are accelerating the fusion of related manufacturer, wholesaler, and retailer data and considering the different supply chains and purchasing trends of each product category to optimize overall SCM for the distribution industry.

## Overview of How We Utilize Business and Industry Data to Optimize the Entire Supply Chain

**Supply chain situation**

**Ordering based on experience and intuition**

People in charge of ordering

Past sales data
Market trends
Weather
Event information, etc.

**Problems**
· Low-accuracy predictions
· Handling sudden changes in demand
· Costs across the supply chain

**Individual company optimization**

**AI model building (demand prediction)**

Data analysts

**Provided value**
· High-accuracy demand predictions

**Industry-internal optimization**

**Industry model building (supply and demand matching)**

Contract manufacturing → Materials

Finished products ← Parts

**Manufacturing industry**, etc.

**Provided value**
· High-accuracy demand predictions
· **Reduced excessive supply problems and supply shortages**

**Cross-industry optimization**

**Order control across the supply chain**

Retailers  Suppliers  Manufacturers

Distributors  Wholesalers

**Provided value**
· High-accuracy demand predictions
· Reduced excessive supply problems and supply shortages
· **Reduced logistics and work costs**

NTT AI-CIX is utilizing its knowledge of the various industrial fields where it has done business (retail, urban development, transportation, power, agriculture, healthcare, etc.) to accelerate social implementation in collaboration with customers and partner companies. In addition, we will continue to utilize chain AI in all kinds of industrial fields in response to industrial and corporate needs as we endeavor to create new value and business.

*1 AI-Cross Industry transformation. NTT has hammered out its approach to transforming society through AI as AI-Cross Industry transformation (AIX), and the new company's name is based on the fact that the company's core competency is the ability to utilize AI to achieve cross-industry optimization with the aim of transforming the industry in line with the AIX concept.
*2 Product sales data, etc.

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## Initiatives in the Space Business Field by NTT Group Companies
## (Establishment of the Space Brand NTT C89 and Collaboration with Business Partners)

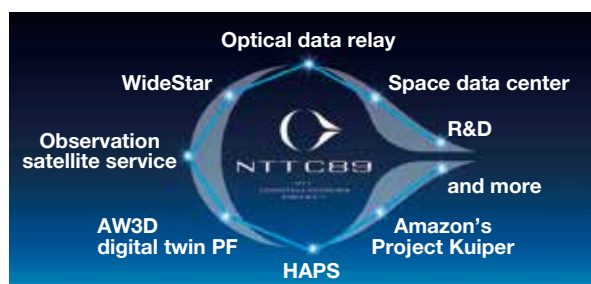In June 2024, we launched the NTT C89 brand in the space business field and accelerated our business development based on specified focus areas to work towards achieving our Space Integrated Computing Network in response to the environment surrounding our space business. By organically connecting related businesses and providing solutions in line with customer needs, NTT Group companies contribute to the expansion of the NTT Group's space business as well as to the development of the space industry as a whole.

More specifically, we are pursuing initiatives that include the following to gradually promote the achievement of our Space Integrated Computing Network. (1) To provide an advanced satellite broadband network that achieves high reliability over a wide area of coverage to Japanese customers and strengthen both the availability and resilience of communications, we—along with NTT DOCOMO, NTT Communications, and SKY Perfect JSAT Corporation—agreed to strategic collaboration with Project Kuiper, a low-earth-orbit satellite broadband network provided by Amazon.com, Inc., in November 2023. (2) In June 2024, NTT DOCOMO and Space Compass Corporation agreed to a capital alliance boasting a scale of up to 100 million dollars with AALTO HAPS Limited to promote the early launch and global deployment of HAPS business services. (3) In July 2024, NTT Data established Marble Visions, Inc.—a new provider of observation satellite services—to develop an observation satellite system capable of high-frequency, high-accuracy image capturing, thereby establishing a system for offering one-stop service to users including everything from providing satellite images to decision-making support.

Under the NTT C89 brand, the NTT Group companies will continue to actively flesh out our lineup of services in the space business field to enable us to propose the best possible mix of solutions to our customers.

**Launch of the Space Brand NTT C89**
**- Organically Connecting and Expanding Businesses -**

Optical data relay

WideStar  Space data center

Observation satellite service  R&D

NTT C89

and more

AW3D digital twin PF  Amazon's Project Kuiper

HAPS

**Space Integrated Computing Network**
**Focus Areas for Achieving Our Concept**

Moon 380,000 km

GEO  Geostationary earth orbit 36,000 km

LEO  Low earth orbit Up to 1,000 km

HAPS  Stratosphere 20 to 50 km

On the ground Under the sea

Activity area

Business development aimed at bringing operations in house

**Area 1: GEO satellites**

**Area 2: LEO observation satellites and data PF**

**Area 4: LEO communication satellites**

**Area 3: HAPS**

Accelerated service implementation in collaboration with partners

This concept was announced in collaboration with SKY Perfect JSAT Corporation in 2021. We are aiming to establish a new space ICT platform that integrates HAPS, geostationary-orbit satellites, and low-earth-orbit satellites, connects them with optical wireless communication networks on the ground, and takes advantage of distributed computing to make various kinds of data processing more sophisticated.
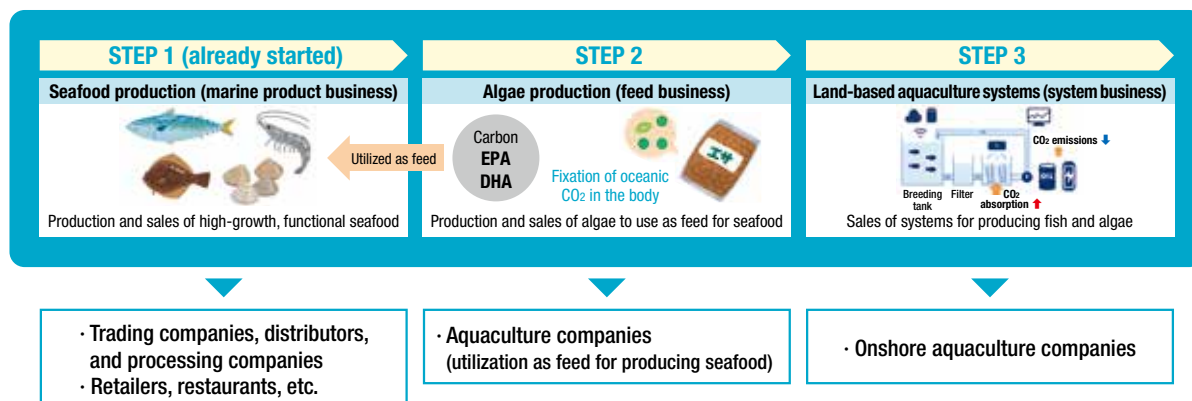
## Promoting Sustainable Onshore Aquaculture Systems (NTT Green & Food, Inc.)

The agriculture, forestry, and fisheries industry—a core regional industry—is currently facing numerous issues, including decreasing workers, accelerated population aging, and a declining food self-sufficiency rate. This trend is especially striking in the fisheries industry, where Japan—once the king of this industry—has suffered an approximately 60% decrease in both workers and marine-product productivity over the last 30 years or so and is losing its leadership position. In addition, due to issues that include rising ocean temperatures stemming from climate change as well as overfishing, fish can no longer be found in nearby waters, which is starting to have a major effect on local marine products and processing, ice manufacturers, etc. Meanwhile, elsewhere in the world, explosive population growth, geopolitical risk, and other factors are triggering fierce

competition for food and other resources, which is causing prices to soar. To respond to this strong demand, there has been a dramatic increase in the output of the fishing industry—mainly from aquaculture—and we are seeing a striking shift from an industry focused on catching fish to one focused on raising them. *Will we really be able to find food ten years from now*? *Will we be able to pass the baton to the children of the next generation without concern for their welfare*? To respond to anxiety around the world concerning food and the environment and contribute to the resolution of social issues faced by Japan, we collaborated with Regional Fish to establish NTT Green & Food, Inc. (called NTT Green & Food), which started doing business on July 1, 2023.



Green & Food's business is focused on helping to address future food shortages and resolve environmental problems through the *production* and sales of algae, production and sales of seafood, and development and provision of sustainable land-based aquaculture systems.

### Business concepts and expansion steps

| STEP 1 (already started) | STEP 2 | STEP 3 |
|---|---|---|
| Seafood production (marine product business) | Algae production (feed business) | Land-based aquaculture systems (system business) |
| Utilized as feed | Carbon EPA DHA — Fixation of oceanic CO₂ in the body | CO₂ emissions ↓ Breeding tank / Filter / CO₂ absorption ↑ |
| Production and sales of high-growth, functional seafood | Production and sales of algae to use as feed for seafood | Sales of systems for producing fish and algae |

| · Trading companies, distributors, and processing companies <br> · Retailers, restaurants, etc. | · Aquaculture companies (utilization as feed for producing seafood) | · Onshore aquaculture companies |
|---|---|---|

NTT Green & Food has combined two key strengths—*algae that absorb more CO₂* and *fish and shellfish that grow fast and feed on algae that fix more CO₂*—to establish an environmentally-friendly, circular land-based aquaculture system and hopes to popularize its use.

This system can be broadly divided into an aquaculture tank for producing seafood and an algae cultivation tank for growing the algae used as feed. In addition, with this system, selectively bred algae capable of absorbing a lot of CO₂ are grown in the

ocean water that is brought in, these algae are used as feed for fish and shell fish to fix more CO₂ into their bodies, bones, and shells, and then the ocean water, which ultimately ends up with a lower concentration of CO₂, is returned to the ocean.

We call this a *sustainable system*. Our goal is to selectively breed fish, shellfish, and algae and then produce marine products using a circular system to achieve a land-based aquaculture system that is environmentally friendly and offers a high level of production efficiency.
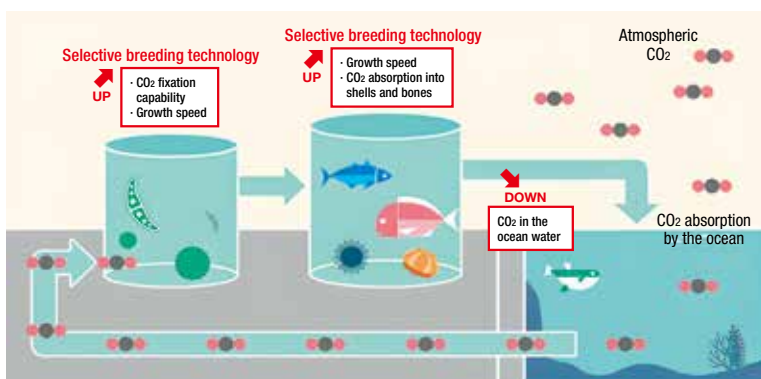
## Initiatives Related to Strengthening Services that Emphasize the Customer Experience (CX)

### ■ Initiatives Aimed at Improving the Customer Experience of Mobile Communications Quality

In areas where using smartphones has become more difficult due to increased data traffic resulting from the spread of smartphones as well as the use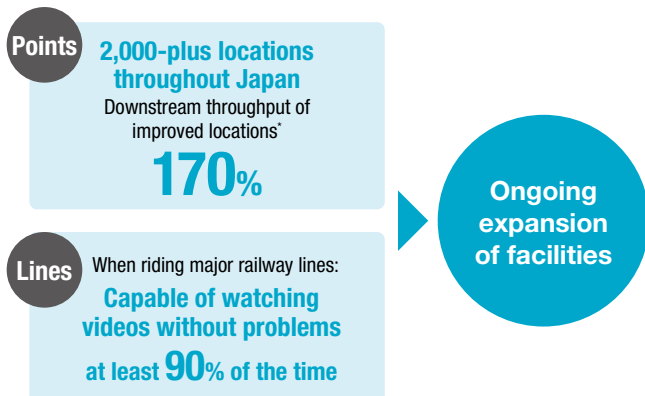 of the web for social media, watching videos, and other activities, we have implemented initiatives aimed at improving communications quality to enable the worry-free use of such services, including expanding and even setting up new facilities.
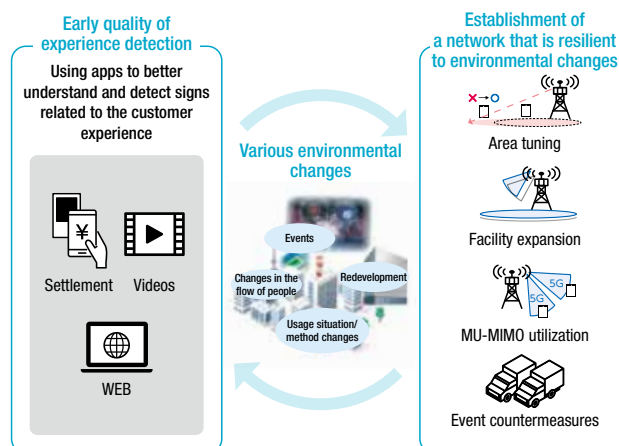
We will continue pursuing initiatives to increase our customer's quality of experience, including expanding relevant facilities in anticipation of increases in demand, obtaining more advanced usage data from apps, and taking steps to ensure early detection and improvements in cases where countermeasures are required.

**Countermeasures Focused on *Points* and *Lines***

**Points**
2,000-plus locations throughout Japan
Downstream throughput of improved locations*
**170%**

**Lines**
When riding major railway lines:
**Capable of watching videos without problems at least 90% of the time**

**Ongoing expansion of facilities**

*The peak time figures are based on a comparison between the end of May 2023 and the end of December 2023.

**Further Increasing Customers' Quality of Experience**

Early quality of experience detection
Using apps to better understand and detect signs related to the customer experience

Settlement | Videos
WEB

Various environmental changes
Events
Changes in the flow of people | Redevelopment
Usage situation/method changes

Establishment of a network that is resilient to environmental changes
Area tuning
Facility expansion
MU-MIMO utilization
Event countermeasures

### ■ Revising to Prices and Services That Are Attractive to Customers

In July 2023, we started offering plans in response to the increasingly diverse needs of our customers, including the *irumo* price plan—an economical option for customers who use little smartphone data—and the *eximo* price plan—which is for customers who want to use data without any restrictions. In April 2024, we also started offering the *Docomo Poikatsu Plan*, a new price plan that enables customers to earn additional d POINTs based on their payment method usage. In addition, in terms

of collaboration with other companies, in April 2024, Docomo and Amazon started collaborating with regard to d POINTs and Amazon Prime, and it became possible to earn d POINTs by shopping on Amazon and use the points there as well.

We will continue improving our d POINT system in line with the lifestyles of individual customers so that they can enjoy using our fee-based services for a long time and feel like they are getting a good deal.

ドコモポイ活プラン

**Shop with d Payments to earn more points!**
ahamo ポイ活
Basic fee **6,500** yen/month (excluding tax)
Go here for details
https://ahamo.com/special/poikatsu/

**Unlimited data plan***
eximo ポイ活
Basic fee **9,650** yen/month (excluding tax)
Go here for details
https://www.docomo.ne.jp/special_contents/poikatsu/eximo_poikatsu/

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

### ■ Appointment of CCXOs (Chief Customer Experience Officers)

To further strengthen our initiatives aimed at improving CX, we appointed new CCXOs at major Group companies. Through our CCXOs, we will offer new experiences and excitement that exceed customer expectations by clarifying the value of our

services and solutions from the perspective of our customers and by improving and updating our services so that customers continue to choose them.

# Resilience

**[Related Medium-Term Management Strategy Initiatives]**

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(from concept to commercialization)
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❷ 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

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

**2 Upgrading the Customer Experience (CX)**

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

**3 Improving the Employee Experience (EX)**

❼ Open and Innovative Corporate Culture
❽ Support Career Growth
❾ Global Benefits for Employees and their Families

## Resilience Strategy ❶ <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. Further, in line with our response to the Noto Peninsula earthquake and similar disasters, we will update our disaster recovery policy in order to adapt to the changing telecommunications usage needs of our customers and technological advances. 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 | FY2024: Zero | FY2023: Four |

(Notes) 1. The scope of tallying the number of serious incidents and telecommunications service interruptions due to external cyberattacks includes four specified public institutions: 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

## 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 has been 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 shindo 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.

Disaster!

**Disaster Countermeasures: 3 Key Themes**
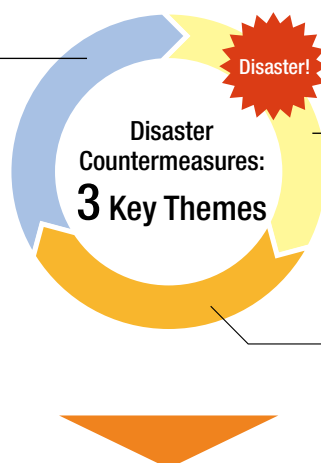
### Securing critical communications

**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

**Prompt restoration of services by utilizing disaster countermeasure equipment and procuring materials, equipment, and manpower for restoration purposes.**

· Enhancement of organization for disaster countermeasure operations
· Development and deployment of crisis management talent and skills
· Communicating information on the status of damage and estimated recovery time, etc.

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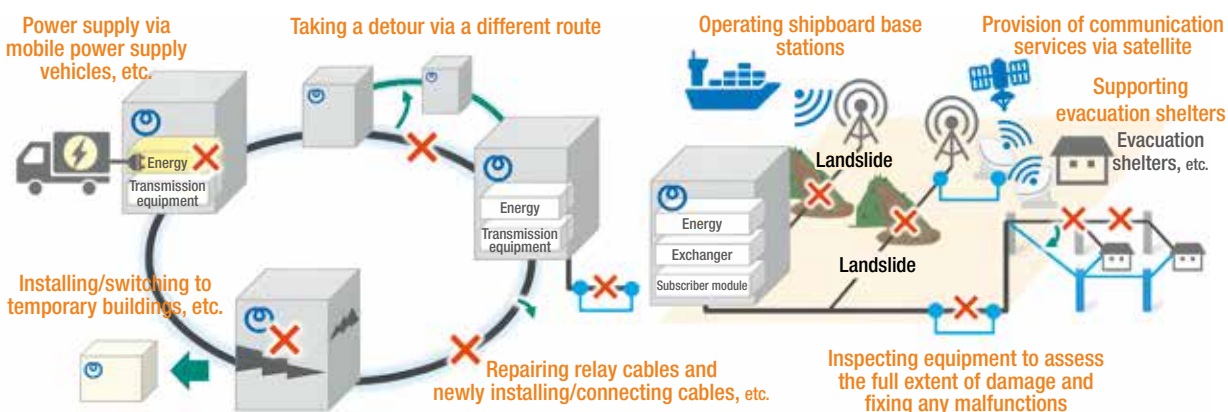## Further Enhancing Our Ability to Respond to Severe Disasters

### 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 |

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## Efforts to Restore Communications Services Following the Noto Peninsula Earthquake in January 2024

The Noto Peninsula earthquake that occurred in January 2024 caused large-scale power outages coupled with the cutting off of roads due to landslides and so forth, leading to many areas that became difficult to access. Consequently, communications equipment providing telephone and Internet services for both landlines and mobiles was significantly damaged. In the face of this, we pushed forward with restoring communications services by maintaining power for communications equipment and utilizing disaster countermeasure equipment, along with supporting evacuation shelters and securing vital communications and communications in afflicted areas in our efforts to help victims.

Given the geographical conditions resulting from the earthquake on the peninsula, we once again confirmed the effectiveness of restoring services by utilizing satellites and shipboard base stations on vessels for relief efforts in difficult-to-access areas. The NTT Group is promoting the further expansion of the scope of application in preparation for future anticipated disasters.



Power supply via mobile power supply vehicles, etc.

Taking a detour via a different route

Operating shipboard base stations

Provision of communication services via satellite

Supporting evacuation shelters

Evacuation shelters, etc.

Energy / Transmission equipment

Energy / Transmission equipment

Energy / Exchanger / Subscriber module

Landslide

Landslide

Installing/switching to temporary buildings, etc.

Repairing relay cables and newly installing/connecting cables, etc.

Inspecting equipment to assess the full extent of damage and fixing any malfunctions

## Resilience Strategy ❷ <Security>

**Risks**

Should we experience any security incidents caused by cyber attacks or inadequate security management, etc., that lead to service outages, degradation in service quality, or the leakage, alteration, or destruction 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.

In addition, amid growing calls for the protection of customer and other personal information across society, there are greater demands for the protection of personal information from a legal standpoint as well. However, it may not be possible to eliminate the risk of leakage or inappropriate handling of personal or other confidential information due to criminal activities that target personal information becoming increasingly devious and sophisticated.

**Addressing Risks**

To mitigate such risks, the NTT Group utilizes the U.S. National Institute of Standards and Technology (NIST) cybersecurity framework in actively engaging in risk-based information security initiatives. These are grounded in the belief that cyber incidents are inevitable and that minimizing damage is crucial. Under the leadership of top management of both the holding company and Group companies, measures are taken including the implementation of a "3 lines of defense" principle, establishing regulations and ensuring their Group-wide implementation, transitioning and updating to Zero Trust IT systems to provide secure remote work environments, collecting and utilizing global threat information in light of geopolitical risk and security developments, adopting the latest technologies for early detection and quick response, verifying security measures from an attacker's perspective, collaborating with national and international government agencies, critical infrastructure providers, and others, and 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 | FY2024: Zero | FY2023: Zero |

(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
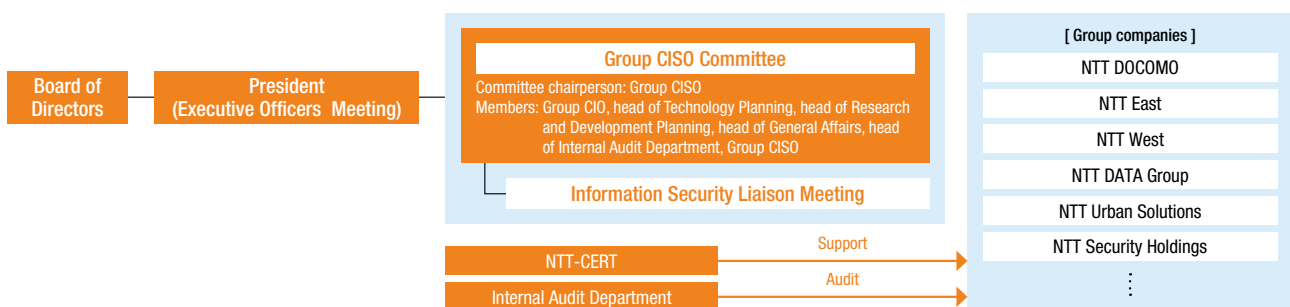


### ■ NTT Group's Security Governance Goals

## Efforts to Prevent Leakage of Critical Information

The NTT Group is actively engaged in measures based on the belief that cybersecurity risks are a serious risk to companies, and that cyber incidents are inevitable and minimizing damage is crucial. We take very seriously the case information leakage incident that occurred at the NTT West Group, and top management of both the holding company and Group companies will further strengthen countermeasures against such leakages.

### Efforts by Top Management of the Holding Company and Group Companies

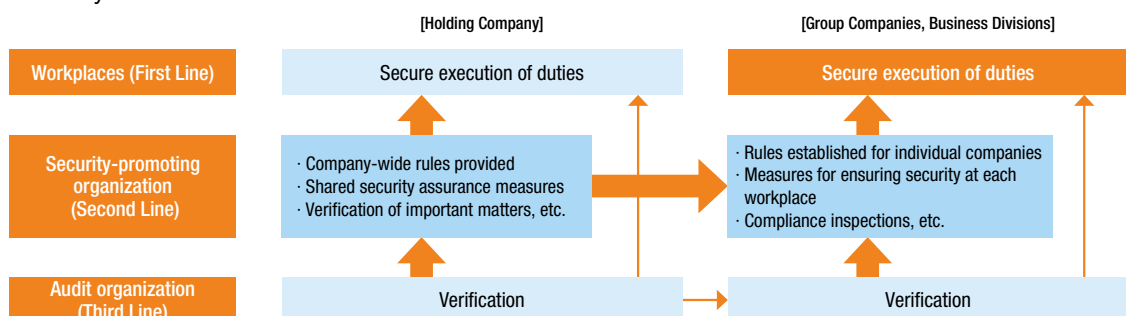Countermeasures against critical information leakages involve first providing training to each NTT Group president so that he or she can acquire knowledge and skills on security as president, implement security countermeasures as a company, and exercise leadership in responding to incidents should they occur.

Next, we are taking technical measures including migrating to Zero Trust IT systems, adhering to and thoroughly enforcing security regulations, and strengthening cooperation within the Group through the Group CISO Committee, among other measures. Moreover, we have introduced a security expert certification system to certify expert-level personnel who are leading figures in the industry both domestically and internationally, with strong track records that have earned significant trust and recognition both internally and externally, as well as intermediate-level certified personnel who have sufficient practical experience and expertise.

In promoting these initiatives, we are making use of risk analysis methodology established by the National Institute of Standards and Technology (NIST) for ensuring the cybersecurity of critical national and economic infrastructure.

### Collection and Utilization of Global Threat Information

NTT has joined the Joint Cyber Defense Collaborative (JCDC), a U.S. joint cyber defense initiative, as its first Asian member. Established by the U.S. Cybersecurity and Infrastructure Security Agency (CISA) in 2021, the JCDC is spearheading the development of public-private joint cyber defense plans and information sharing on cybersecurity with the aim of protecting critical infrastructure such as electricity, gas, water, and communications. Members include AT&T, Microsoft, Google, and U.S. government agencies. NTT is leveraging intelligence compiled by JCDC to effectively strengthen cybersecurity and address incidents.

### Red Team Verification

NTT formed a Red Team in 2019. Conducting pseudo cyberattacks from the perspective of an external attacker, the Red Team exists to strengthen an organization's defenses against real attacks. Their mission is to explore vulnerabilities as if they were an attacker and take defensive measures as necessary. Following a pseudo attack, the team analyzes and reports on system vulnerabilities and issues, along with providing advice and support on making improvements.

## CISO Message

The NTT Group has five unique strengths in terms of security. Our first strength is the Group's scale. As an information and telecommunications infrastructure operator, the NTT Group is the target of many cyberattacks. This enables us to understand the world's most advanced cyberattack techniques.

Second is our superior technology, which is instrumental in the early detection of cyberattacks and subsequent rapid response and recovery. We use an AI engine that automatically detects, visualizes, and notifies us of threats. We also maintain global partnerships for the collection and sharing of threat information, and employ high-level security analysts and other engineers at our Security Operation Center (SOC). Third is our human resources. All NTT Group employees in Japan take mandatory security courses. Approximately 3% of our domestic employees (around 4,500 people) are ranked as intermediate-level security professionals, which are recognized as playing an active role in the security field. Moreover, we have a group of approximately 100 elite specialists recognized by external experts as having some of the best track records in the industry. Fourth is our know-how. The NTT Group was a corporate partner of international sports events held in Tokyo in 2021, and was partly responsible for defense against cyber attacks. We also have experience handling other major international events, such as past G7 and G20 summits.

Our fifth strength is the ability to disseminate information. We are the only Japanese company with a team dedicated to external information dissemination specialized in cybersecurity, and deliberately disclose and share our strategies within feasible limits to promote global collaboration.

We believe that by ensuring information security and protecting personal data, we safeguard "trust." Society is entering a connected age, where everything is interconnected. Based on the five strengths given above, we will protect not only our own company but also our customers, companies upon which the Group depends, and the entire supply chain in its broader sense, making society secure as a whole and thereby contributing to the realization of a safe, secure, and trusting society.

Group CISO
**Shinichi Yokohama**

# Medium-Term Management Strategy

## Innovating a Sustainable Future for People and Planet

A year has passed since we published our Medium-Term Management Strategy, "New Value Creation & Sustainability 2027 Powered by IOWN," in May 2023. We are steadily making progress on its implementation. We will once again explain the concept and progress of our Medium-Term Management Strategy on this page.

### Expansion of Investment for Growth

We will expand investment in growth areas in order to realize the basic concept of the Medium-Term Management Strategy. Specifically, during the five-year period from FY2023, we will invest approximately ¥8 trillion, a 50% increase over prior investments, in the growth areas of IOWN, digital/data centers, electricity and energy, Smart Life, real estate, and AI/robotics.
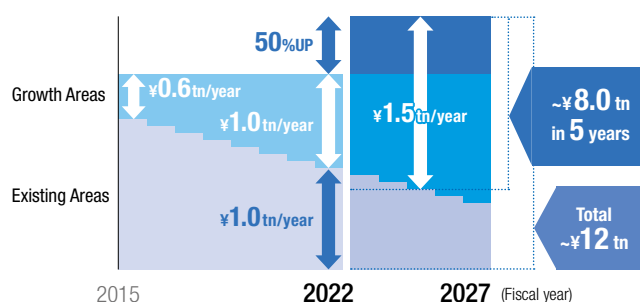


### Medium-Term Financial Targets

Regarding our medium-term financial targets, we will use EBITDA as the primary indicator and target approx. ¥4.0 trillion, a 20% increase compared to fiscal 2022, from the perspective of enhancing initiatives focused on our cash-generating ability toward further sustained growth. In growth sectors, which will be the drivers of this increase, we aim for approx. ¥1.9 trillion, which is a 40% increase in EBITDA compared to fiscal 2022. Furthermore, we have set a target overseas operating profit margin of 10% for fiscal 2025 as an area of focus within these growth sectors. 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.

Furthermore, in addition to New Female Manager Promotion Rate, Greenhouse Gas Emissions, and Employee Engagement Rate, which have been established as sustainability (non-financial) indicators, we have added customer engagement as an indicator from FY2024 from the perspective of further enhancing customer experience (CX). This has also been reflected in the performance-linked compensation of officers alongside the sustainability indicators.

| Target Indicators | | Target Levels (FY2027) | Sustainability Indicators Established in Addition to Those on the Left |
|---|---|---|---|
| Company-Wide Targets | EBITDA | +20% increase (compared to FY2022) | ■ New Female Manager Promotion Rate: at least 30% each year |
| Growth Areas *1 | EBITDA | +40% increase (compared to FY2022) | ■ Greenhouse Gas Emissions targeting carbon neutrality in 2040, as well as Net-Zero |
| | Overseas Operating Income Margin*2 | 10% (FY2025) | ■ Employee Engagement Rate: To be improved |
| Existing Areas *3 | EBITDA | +10% increase (compared to FY2022) | + Customer engagement indicator reflected in performance-linked compensation of officers from FY2024 |
| | ROIC | 9% (FY2022 results: 8.2%) | |

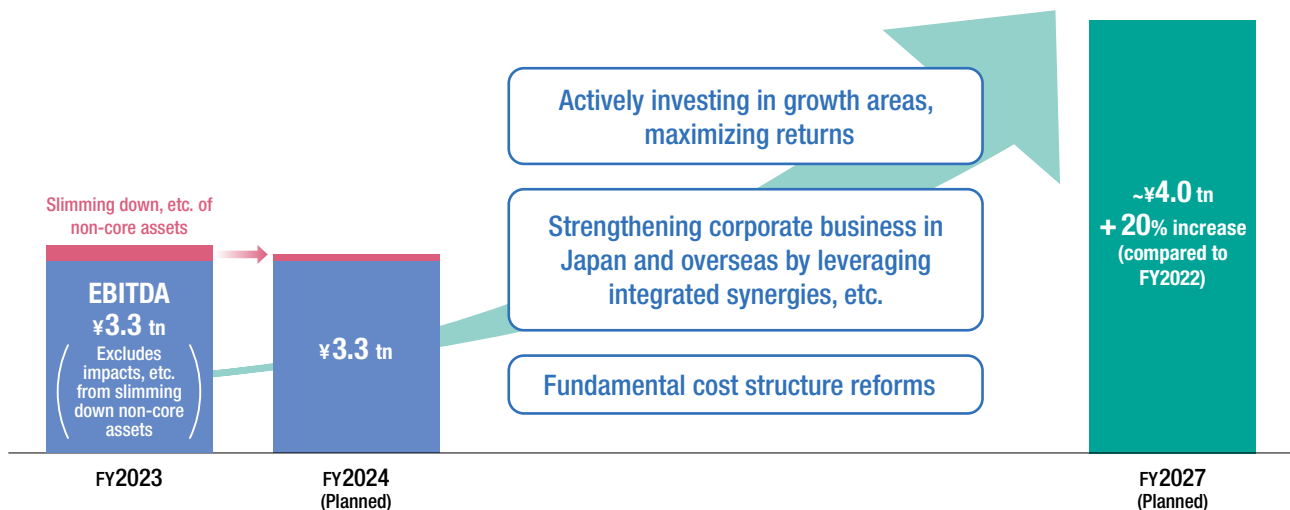*1 IOWN, digital/data centers, power/energy, Smart Life, real estate, AI/robots, etc.
*2 NTT DATA Group consolidated. Excludes temporary expenses, such as M&A-related depreciation costs of intangible fixed assets.
*3 NTT DOCOMO's consumer telecommunications businesses, NTT East and NTT West

## Efforts to Achieve Medium-Term Financial Targets

To achieve the medium-term financial targets by FY2027, we will
- **maximize returns by actively investing in growth areas**
- **strengthen corporate business in Japan and overseas by leveraging the integrated synergies of NTT DOCOMO and NTT DATA Group, etc., and**
- expand our cash-generating ability for growth through measures such as **fundamental cost structure reforms.**

Actively investing in growth areas, maximizing returns

Strengthening corporate business in Japan and overseas by leveraging integrated synergies, etc.

Fundamental cost structure reforms

Slimming down, etc. of non-core assets

**EBITDA ¥3.3 tn**
( Excludes impacts, etc. from slimming down non-core assets )

**FY2023**

**¥3.3 tn**

**FY2024 (Planned)**

**~¥4.0 tn + 20% increase** (compared to FY2022)

**FY2027 (Planned)**

## Fundamental Policy on Shareholder Returns

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.

**Dividend Policy**
Our basic policy is to implement steady increases in dividends

**Share Buybacks**
We will flexibly conduct share buybacks to improve capital efficiency

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### Increase in Number of Shareholders and Diversifying of Age Groups Following Stock Split

Since the announcement of the stock split in May 2023, the number of shareholders has continuously risen, reaching a record high of 2.26 million at the end of June 2024, a figure 2.5 times higher than before the stock split was announced.

The additional shareholders are almost entirely comprised of individual shareholders. Shareholder age groups have also become more diversified, with the number of shareholders in their 40s or younger approximately four times higher than in December 2020, according to estimates based on interviews with a securities firm. Accordingly, we believe that the stock split was well received.

**Change in Number of Shareholders**

1.9 million

May 2023 Stock split announced

**2.26 million**

**2.5 times**

0.92 million

March 1987 | March 2002 | March 2023 | June 2023 | Sept. 2023 | Dec. 2023 | March 2024 | June 2024
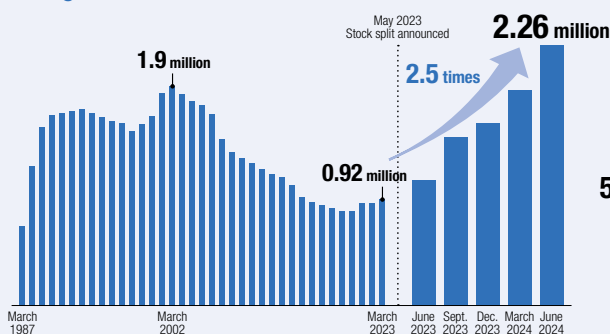
*Comparison of December 31, 2020 and June 30, 2024, based on interviews with a securities firm

**Breakdown of Shareholders by Age Group***

December 2020
1% / 3% / 6% / 12% / 55% / 23%

June 2024
10% / 15% / 18% / 18% / 16% / 24%

29 years or younger | 30 to 39 | 40 to 49 | 50 to 59 | 60 to 69 | 70 years or older
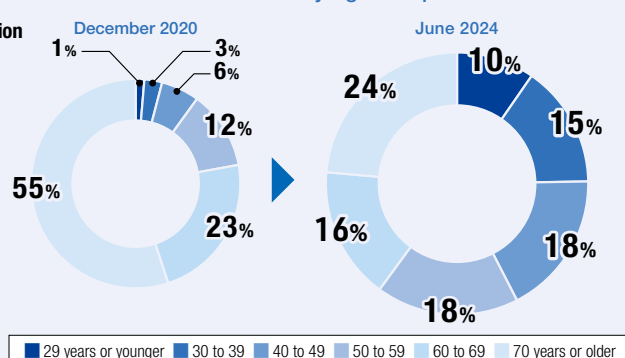
## Pillars for Initiatives

The three pillars for realizing our strategies and the nine initiatives under each pillar are as follows.

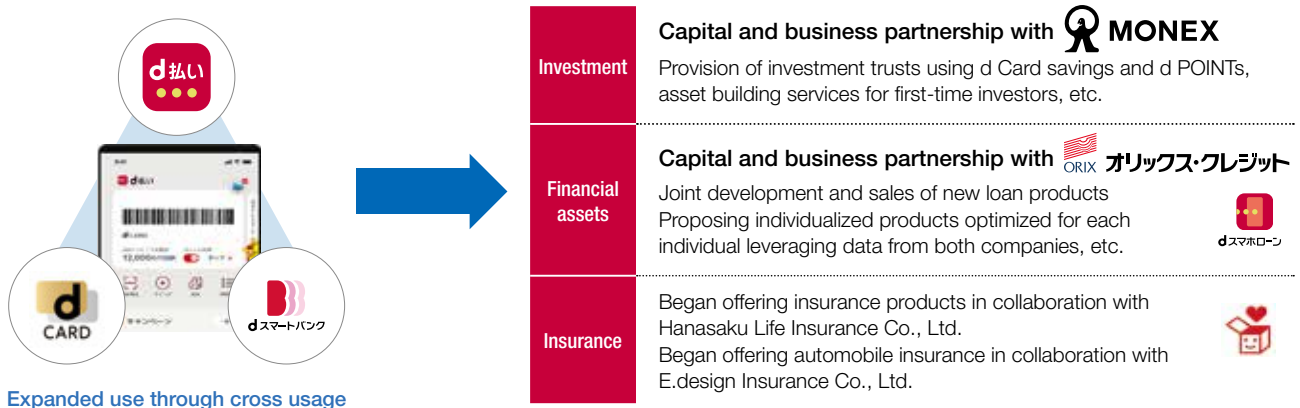| Three Pillars | Nine Initiatives | | Overview | Results (FY2023) |
|---|---|---|---|---|
| 1. NTT as a Creator of New Value and Accelerator of a Global Sustainable Society | (1) IOWN-Driven Creation of New Value (From Concept to Commercialization) | | | · IOWN services launched<br>· Promoted IOWN-driven remote production<br>· Piloted IOWN in urban development<br>· Built IOWN APN-driven distributed data centers<br>· Worked on global rollout of IOWN (Held Upgrade 2024 (April 2024))<br>📖 P77 IOWN |
| | | i. Establishment of manufacturing company for photonic-electronic convergence devices | · Establishing NTT Innovative Devices Corporation for the early commercialization of photonics-electronics convergence devices | |
| | | ii. Acceleration of IOWN research and development/ commercialization | · IOWN R&D as a whole: **approximately ¥100 billion in FY2023**, with continued investment in subsequent years | |
| | (2) Data-Driven Creation of New Value | | | · Enhanced financial services ➡ TOPIC 1<br>· Commercialization of NTT's Large Language Model "tsuzumi"<br>📖 P80 NTT's generative AI<br>· Expanded marketing solutions business (Capital and business partnership with INTAGE HOLDINGS Inc.)<br>· Invested in May Mobility, Inc. and acquired exclusive rights to distribute May Mobility's self-driving system in Japan<br>📖 P63 Strengthening the use of DX/data in society and industry<br>· Expanded capacity of data centers ➡ TOPIC 2 |
| | | i. Strengthening the personal business | · Investment of **¥1.0 tn or more/5 years** in growth areas such as personal business | |
| | | ii. Strengthening the use of DX/data in society and industry | · Investment of **¥3.0 tn or more/5 years** in digital business, etc. | |
| | | iii. Expansion and upgrade of data center infrastructure | · Investment of **¥1.5 tn or more/5 years**, increase in data center capacity from 1,100 MW as of March 2023<br>· Achievement of carbon neutrality by FY2040 | |
| | (3) Achievement of a Circular Economy Society | | | |
| | | i. Develop sustainability solutions for customers | · Promotion of sustainability solutions to be realized by Green Energy × ICT, investment of ~¥1.0 tn/5 years<br>· Expansion of the renewable energy generation business and realization of a stable power supply optimized at the local level | · Acquired Green Power Investment Corporation shares<br>· Promoted cooperation with partner companies<br>· Launched GX solution brand NTTG × Inno<br>· Greenhouse gas emissions (Scope 1 & 2) totaled 2.32 million tons in FY2023, showing steady progress at a faster pace than planned<br>📖 P33 Develop Sustainability Solutions for Customers, Progression Towards Net-Zero<br>· Promoted sustainable onshore aquaculture systems<br>📖 P66 Creating Circular Economy Businesses |
| | | ii. Creating Circular Economy businesses | · Accelerating resource recycling/regional development across industries | |
| | | iii. Progression towards Net-Zero | · Regarding "NTT Green Innovation toward 2040," aiming to include Scope 3 emissions in addition to Scope 1 & 2 initiatives | |
| | (4) Further Strengthening of Business Foundations | | · Investment of around **¥160 billion by FY2025** to realize resilient Network/Systems based on the occurrence of large-scale failures, etc. and strengthening measures for responding to increasingly severe natural disasters, etc. | · Actively used non-terrestrial networks (NTNs) such as WideStar and Starlink<br>📖 P69 Further Strengthening of Business Foundations |
| 2. Upgrading the Customer Experience (CX) | (5) Fusion of Research and Development with a Market-Focused Strategy | | · Establishment of a new Research and Development Market Strategy Division by integrating and strengthening research, marketing, and alliance functions as an R&D organization with marketing capabilities | · Carried out everything from R&D to product provision in collaboration with customers and partners globally |
| | (6) Strengthening of Services that Emphasize Customer Experience (CX) | | · Constant improvement and updating of services in an agile manner in step with our customers' journeys with an aim to provide new experiences and excitement that exceed customer expectations | · Worked to improve customer experience of mobile communications quality<br>· Updated point program to make it easier for customers to use<br>📖 P67 Strengthening of Services that Emphasize CX |
| 3. Improving the Employee Experience (EX) | (7) Open and Innovative Corporate Culture | | · Continually focusing on customers while promoting a culture that values openness, collaboration, and trial and error. At the same time, continually enhancing diversity and inclusion efforts | · Held Learning from Failure Conference<br>📖 P51 Open and Innovative Corporate Culture |
| | (8) Support Career Growth | | · Expanding human capital investments to assist employees in autonomously shaping their careers, thereby supporting business growth<br>· Offering comprehensive career development support that includes life events | · Applied job-based personnel system for all managers (Oct. 2021)<br>· Introduced personnel and salary system focusing on specialization (regular employees)<br>· Decreased number of employees given solo transfer assignments by about 1,500 since introducing remote standard system<br>📖 P48 Support Career Growth |
| | (9) Global Benefits for Employees and their Families | | · Enhancement of program to partially support educational expenses of employees' children up to college graduation in the event of an employee's death | · Steadily expanded systems covering employees in Japan to also include overseas employees |

**TOPIC 1** **Enhancing Financial Services**

As part of our efforts to enhance financial services, in the area of investments, MONEX, Inc. ("Monex") was made a subsidiary in January 2024, and we will strengthen linkages between Monex and NTT DOCOMO services, including d POINT, d Card, and d Account, in an aim to provide easy and simple asset building services for first-time investors.

In the area of financial assets, ORIX Credit Corporation became a subsidiary in March 2024. Utilizing the expertise of ORIX Credit, we will strengthen the unsecured loan service for individuals, d Smart Loan, which was launched in July 2022.

In addition, in the area of insurance, we offer life and automobile insurance, and will further expand our financial business by combining d Payments, d Card, and d Smart Bank.
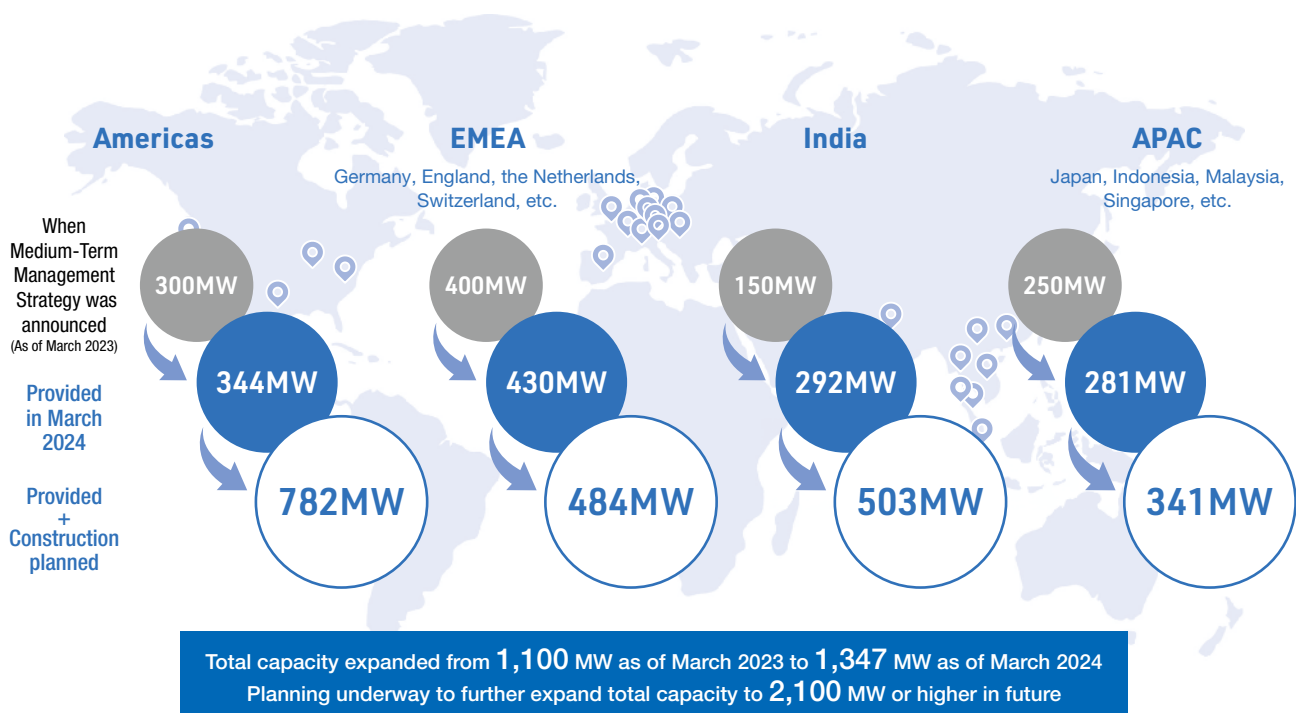
**Enhancing appeal of user contact points**

**Expanded use through cross usage**

| | |
|---|---|
| **Investment** | **Capital and business partnership with MONEX**<br>Provision of investment trusts using d Card savings and d POINTs, asset building services for first-time investors, etc. |
| **Financial assets** | **Capital and business partnership with オリックス・クレジット**<br>Joint development and sales of new loan products<br>Proposing individualized products optimized for each individual leveraging data from both companies, etc. |
| **Insurance** | Began offering insurance products in collaboration with Hanasaku Life Insurance Co., Ltd.<br>Began offering automobile insurance in collaboration with E.design Insurance Co., Ltd. |

**TOPIC 2** **Expansion and Upgrade of Data Center Infrastructure**

In the data center business, we are promoting the further expansion of our data center infrastructure, which is the third largest in the world[1], and upgrading it through the introduction of IOWN technology, expanding its capacity from a total of 1,100 MW as of March 2023 to a total of 1,347 MW as of March 2024. Planning is underway to further expand total capacity to 2,100 MW or higher in future[2].



| | Americas | EMEA<br>Germany, England, the Netherlands, Switzerland, etc. | India | APAC<br>Japan, Indonesia, Malaysia, Singapore, etc. |
|---|---|---|---|---|
| When Medium-Term Management Strategy was announced (As of March 2023) | 300MW | 400MW | 150MW | 250MW |
| Provided in March 2024 | 344MW | 430MW | 292MW | 281MW |
| Provided + Construction planned | 782MW | 484MW | 503MW | 341MW |

**Total capacity expanded from 1,100 MW as of March 2023 to 1,347 MW as of March 2024**
**Planning underway to further expand total capacity to 2,100 MW or higher in future**

*1 Recalculated from the Structure Research 2023 Report while excluding Chinese operators
*2 The figures in MW show the power capacity of data center buildings owned by the NTT Communications Group and the Global Solutions Business Segment of Global Technology Services (including JVs with third parties)

# NTT's R&D

NTT Laboratories, together with the NTT Group and various partners, will continue to engage in world-leading research and development to achieve a sustainable world of well-being.

## Overall R&D Strategy

**R&D Policy** **Do research by drawing from the fountain of knowledge and provide specific benefits to society through commercial development.**

These words, proclaimed in 1950 by Goro Yoshida, the first Director of the Electrical Communication Laboratories under the Ministry of Communications at that time, still live on as the DNA of NTT Laboratories after more than 70 years. They encapsulate the three policies adopted by NTT Laboratories.

| 1. "Do research by drawing from the fountain of knowledge" | Solidify our position as a world leader in research |
|---|---|
| 2. "Through commercial development" | Quickly and steadily commercialize IOWN and generative AI (tsuzumi) |
| 3. "Provide specific benefits to society" | Provide concrete value by implementing research results in society |
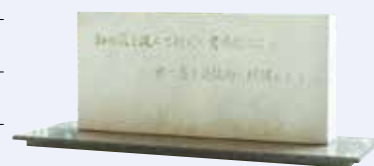
In 2023, the NTT Group announced its Medium-Term Management Strategy, "New Value Creation & Sustainability 2027 Powered by IOWN." To make this a reality, we will revisit the core objectives established at the founding of Electrical Communication Laboratories. While reaffirming the importance of research, commercialization, and value provision, we will carry out world-leading research and development with all of our researchers, based on these action guidelines: "Keep our researchers excited and ambitious," "Help society in a scalable and sustainable way with powerful technology," "Create the future rather than just predicting it," and "Hone our intuition and creativity."
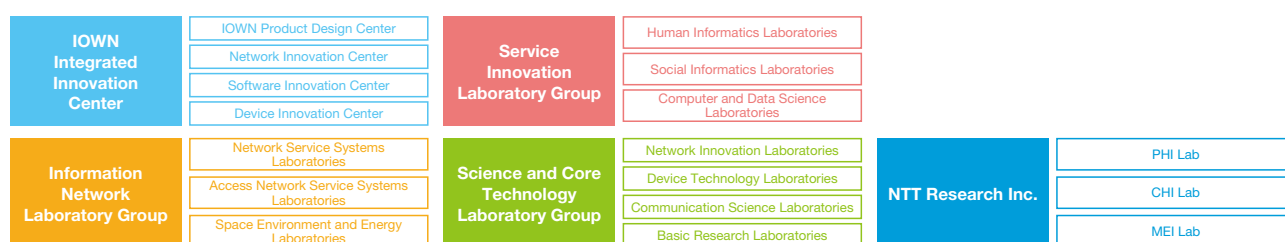
## R&D Achievements

Under the NTT R&D vision of developing cutting-edge technologies that contribute to the advancement of society, science, and industry, NTT has approximately 2,300 researchers engaging in a wide range of diverse research activities, from basic research to R&D that supports the business development initiatives of operating companies. We have many researchers who are active on the world stage, including "Fellows," a special position given to researchers whose outstanding research results have received worldwide recognition, and "Senior Special Researchers" and "Special Researchers," which are positions given to innovative researchers recognized for their excellence by the world. Our laboratories are ranked ninth in the world among ICT-related companies in terms of the number of research papers submitted,[*] a metric for evaluating our level of research. In particular, our research is ranked first or second in the world[*] in fields such as optical communications, information security, neural engineering, voice recognition, and quantum computing.

This world-class research has been applied in various areas in the ICT field, contributing to promoting innovation and resolving social issues. As an example, our research results in optical fiber and optical communications have led to the high uptake of optical fiber services in Japan. NTT will continue contributing to creating new value through its research and development, which includes fiber optic technologies, the standardizing of fax technologies worldwide, and recognition of IEEE Milestone, proof of NTT's strong international reputation for speech coding.

* Based on NTT research using Web of Science and InCities Benchmarking

## R&D Organization

| IOWN Integrated Innovation Center | IOWN Product Design Center |
| | Network Innovation Center |
| | Software Innovation Center |
| | Device Innovation Center |

| Service Innovation Laboratory Group | Human Informatics Laboratories |
| | Social Informatics Laboratories |
| | Computer and Data Science Laboratories |

| Information Network Laboratory Group | Network Service Systems Laboratories |
| | Access Network Service Systems Laboratories |
| | Space Environment and Energy Laboratories |

| Science and Core Technology Laboratory Group | Network Innovation Laboratories |
| | Device Technology Laboratories |
| | Communication Science Laboratories |
| | Basic Research Laboratories |

| NTT Research Inc. | PHI Lab |
| | CHI Lab |
| | MEI Lab |

**Research Centers in Specific Fields**

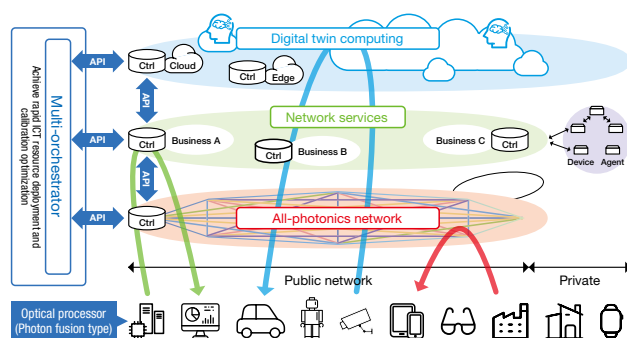| Innovative Photonic Network Center | Nanophotonics Center | Research Center for Theoretical Quantum Information | Smart Data Science Center |
| Bio-Medical Informatics Research Center | Digital Twin Computing Research Center | Institute for Fundamental Mathematics | |

# What's IOWN?

## IOWN 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 resources.

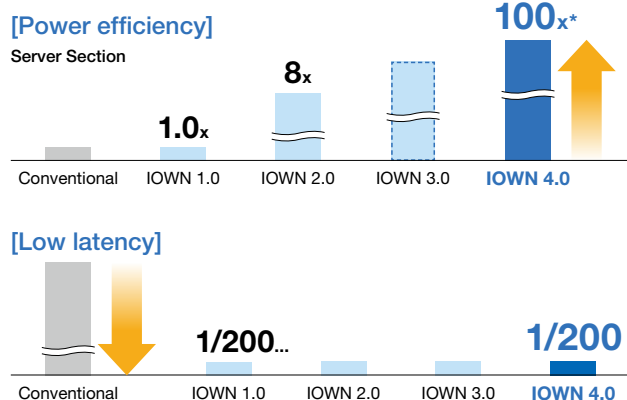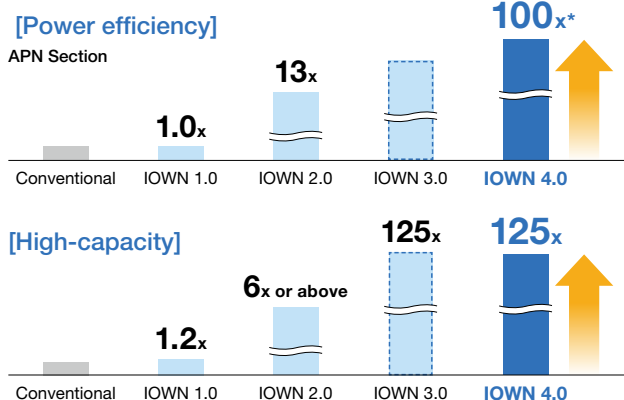**Cognitive Foundation**



## IOWN Performance Targets

In addition to photonics-electronics convergence devices, we are considering improvements in wavelength technology and optical fiber technology. 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. 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.

**[Power efficiency]**
APN Section

| Conventional | IOWN 1.0 | IOWN 2.0 | IOWN 3.0 | IOWN 4.0 |
|---|---|---|---|---|
| | $1.0_x$ | $13_x$ | | $100_x*$ |

**[High-capacity]**

| Conventional | IOWN 1.0 | IOWN 2.0 | IOWN 3.0 | IOWN 4.0 |
|---|---|---|---|---|
| | $1.2_x$ | $6_x$ or above | $125_x$ | $125_x$ |

**[Power efficiency]**
Server Section

| Conventional | IOWN 1.0 | IOWN 2.0 | IOWN 3.0 | IOWN 4.0 |
|---|---|---|---|---|
| | $1.0_x$ | $8_x$ | | $100_x*$ |

**[Low latency]**

| Conventional | IOWN 1.0 | IOWN 2.0 | IOWN 3.0 | IOWN 4.0 |
|---|---|---|---|---|
| | 1/200... | | | 1/200 |

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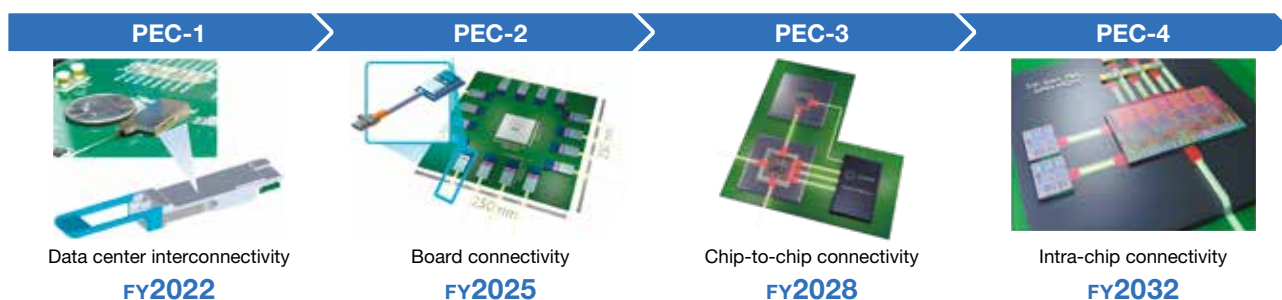
## Roadmap

Photonics-electronics convergence (PEC) 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. In fiscal 2022, we commercialized the first photonics-electronics convergence device, PEC-1, which connects data centers to each other.

In fiscal 2025, we plan to commercialize board connection devices (PEC-2), enabling optical connections between boards and between boards and external interfaces. This will allow for the use of optics not only in networks, but also in computing.

Subsequently, with an eye toward fiscal 2028, we plan to make chip-to-chip connections within boards possible using photonics-electronics convergence technology (PEC-3), and beyond fiscal 2032, we aim for connections within the chips themselves to be optical (PEC-4).



| PEC-1 | PEC-2 | PEC-3 | PEC-4 |
|---|---|---|---|
| Data center interconnectivity | Board connectivity | Chip-to-chip connectivity | Intra-chip connectivity |
| FY2022 | FY2025 | FY2028 | FY2032 |

# Implementing IOWN in Society

## Digital Transformation (DX) in Content Creation

Two pillars support the implementation of IOWN in society: networks and computing. First, we are working to develop a new network called the All-Photonics Network (APN). As well as being the backbone for next-generation data centers, the APN is also being introduced into various fields that benefit from its performance.
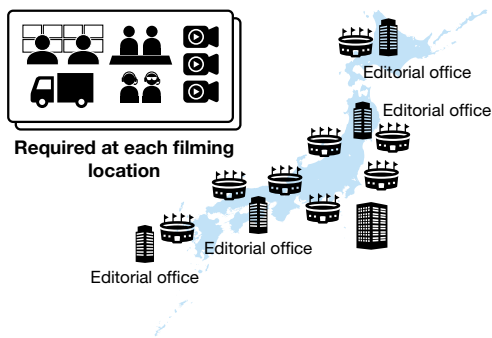
In November 2023, we concluded an agreement with Sony Corporation on collaboration and cooperation to accelerate the formation and development of a wide-area remote production platform using the APN. We aim to improve the customer experience by providing highly convenient services, such as content distribution at local stadiums and live music venues that have not been able to receive it previously.
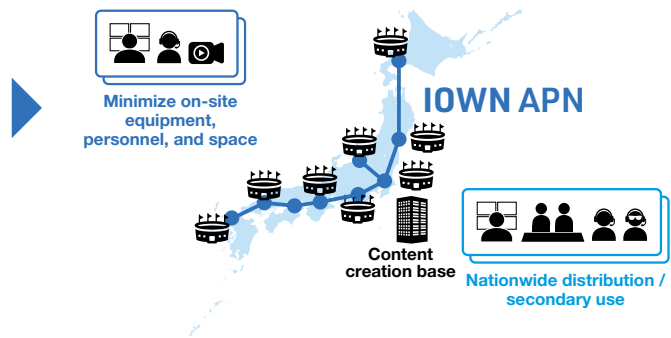


**SONY** × **NTT**

### Existing network
Each location requires production space, personnel, equipment, and a satellite truck, etc.

**Required at each filming location**

Editorial office
Editorial office
Editorial office
Editorial office

### Future vision
**Reduced operating and equipment costs, shorter setup time**

Minimize on-site equipment, personnel, and space

**IOWN APN**

Content creation base

Nationwide distribution / secondary use

## A New Type of Urban Development

· Tokyu Land Corporation ("Tokyu Land") and the NTT Group are promoting urban development using the IOWN service in the greater Shibuya area, targeting facilities in which Tokyu Land is involved, as a model area for collaboration.
· In addition to reducing the environmental impact of the greater Shibuya area by reducing power consumption through the IOWN service, we will also position it as a field for social implementation that provides next-generation value, and work to provide new value in line with the future evolutionary steps of the IOWN service. Through these initiatives, we aim to create an environmentally-friendly Shibuya-style urban lifestyle that merges work, life, and play, enabling people to work the way they want, enjoy diverse entertainment, and live in a convenient city full of excitement and relaxation.
· We are currently providing IOWN services for events that introduce IOWN technology and allow visitors to experience its use in urban planning for the future.
· Shibuya "IOWN WEEK" (December 13–15, 2023): Held IOWN entertainment and next-generation remote meeting events (connecting Shibuya Sakura Stage and Shibuya Solasta)
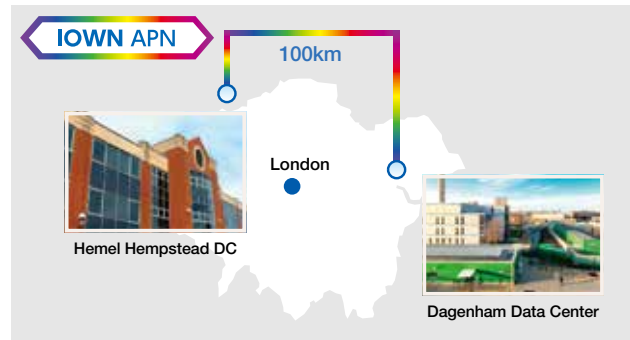
## Achieving Distributed Data Centers

Today, there are many places where restrictions on $CO_2$ emissions, lack of available land, and other reasons make it difficult to build data centers in urban areas, and data centers must be built outside the city. When connecting geographically distant data centers, there is a significant delay in communication between data centers, making it impossible to meet customer demands for low-latency connections.

In April 2024, we conducted demonstration experiments to test the feasibility of APN connections between data centers in Japan and between the U.S. and the U.K., with the goal of achieving distributed data centers. We confirmed that the data centers were connected with a delay of less than one millisecond and delay jitter of less than one microsecond at 400 Gbps, allowing the two data centers, located approximately 100 km apart, to operate as one. We also plan to expand this technology to areas outside of the U.S. and U.K. in the future.



**IOWN** APN

10km

Ashburn DC (VA1)

Ashburn DC (VA3)

Ashburn (United States)



**IOWN** APN

100km

London

Hemel Hempstead DC

Dagenham Data Center

Hemel Hempstead/Dagenham (UK)

## IOWN Global Forum

To make the IOWN concept a reality, we have been promoting it around the world with partners through the IOWN Global Forum, and 150 organizations and groups are taking part (as of September 2024).
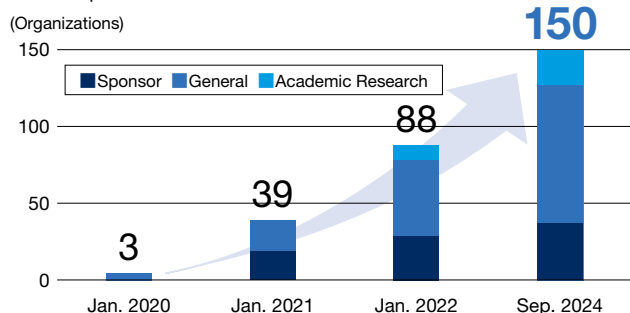
In December 2023, at the UN International Telecommunication Union Telecommunication Standardization Sector (ITU-T), high-level executives from global carriers, vendors, public organizations, and other attendees acknowledged the value and importance of IOWN and agreed to promote the development of official standards for IOWN technology specifications.

In April 2024, a Japan-U.S. summit was held, after which a fact sheet was released that clearly stated that "U.S. and Japanese companies are exploring the wide range of possibilities available through optical semiconductors through partnerships like the

Global Innovative Optical and Wireless Networks (IOWN) Forum." Thus, the concept is gaining momentum as a key industry.

### 150 participating organizations and groups, including those from Asia, the U.S., and Europe

*As of September 2024

(Organizations)



Legend: ■ Sponsor ■ General ■ Academic Research

- Jan. 2020: 3
- Jan. 2021: 39
- Jan. 2022: 88
- Sep. 2024: 150

## Efforts for Global Rollout (Upgrade 2024)

In April 2024, the Upgrade 2024 event was held in San Francisco, focusing on issues related to next-generation internet and AI using optical technology, as well as security and privacy challenges.

We promoted our R&D results and advocated the product development of technologies such as APN (distributed data centers) and tsuzumi, with the aim of implementing IOWN in society on a global scale. The in-person event, which included lectures by our partners, was covered by numerous media outlets in Japan and overseas.

# AI Initiatives

## Commercialization of NTT's Generative AI "tsuzumi"

As stated in the Message from the CTO (P.20) and "Achieving Industrial Transformation through the Promotion of 'Chained AI'" (P.64), the NTT Group has conceptualized a version of chained AI in which multiple small AI models are linked together.

One product developed as part of this concept was NTT's generative AI "tsuzumi," which has high Japanese language processing capabilities and can operate in a secure, closed environment while consuming little power, something not possible with singular giant AI models. We have received more than 650 inquiries about introducing it from various corporate customers and local governments. Two-thirds of the inquiries we receive are from customers who want to use a customized LLM trained on their internal data, with many of these coming from sectors that frequently handle highly confidential data, such as manufacturing, local government, and finance. The primary applications are to improve the customer experience (CX) by using it at customer contact points such as call centers; to improve the employee experience (EX) by streamlining in-house tasks such as automatically creating/summarizing minutes and creating a Q&A list from a business manual; and to automate IT operations and develop software.
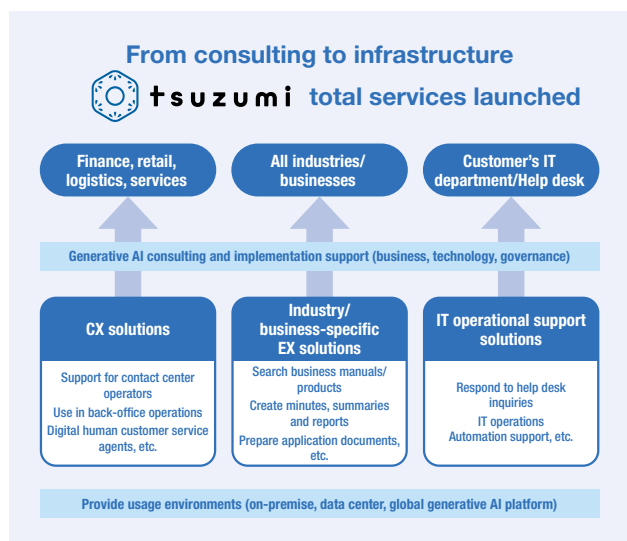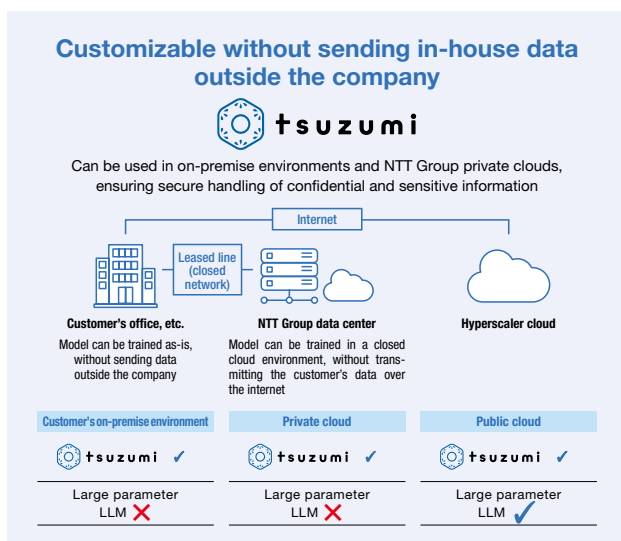
In light of this situation, we announced the launch of "tsuzumi" commercial services that combine three usage environments and three types of solutions in March 2024.

Since "tsuzumi" is lightweight, it can be used on-premise at the customer's office without having to build a large-scale hardware environment, or via a private cloud operated by an NTT Group data center. A customer may also opt to use a public cloud, thereby tailoring the way that "tsuzumi" is used. Using "tsuzumi" in an on-premise environment makes it possible to train the model securely on in-house data without sending the data outside the company.

The three types of solutions are: CX solutions, such as support for operator tasks at contact centers; EX solutions, such as searching through business manuals, creating minutes, and other tasks that require industry-specific knowledge; and IT operations support solutions that support the automation of operations in customers' IT departments and help desks.

In May 2024, we began accepting applications for the "tsuzumi" Partner Program to promote the incorporation of "tsuzumi" in services and the development of industry/business-specific AI models. Together with our partners, we aim to create new services and solutions.



**Customizable without sending in-house data outside the company**

tsuzumi

Can be used in on-premise environments and NTT Group private clouds, ensuring secure handling of confidential and sensitive information

Internet

Leased line (closed network)

**Customer's office, etc.**
Model can be trained as-is, without sending data outside the company

**NTT Group data center**
Model can be trained in a closed cloud environment, without transmitting the customer's data over the internet

**Hyperscaler cloud**

| Customer's on-premise environment | Private cloud | Public cloud |
|---|---|---|
| tsuzumi ✔ | tsuzumi ✔ | tsuzumi ✔ |
| Large parameter LLM ✗ | Large parameter LLM ✗ | Large parameter LLM ✔ |



**From consulting to infrastructure**

tsuzumi **total services launched**

**Finance, retail, logistics, services** | **All industries/ businesses** | **Customer's IT department/Help desk**

Generative AI consulting and implementation support (business, technology, governance)

| CX solutions | Industry/ business-specific EX solutions | IT operational support solutions |
|---|---|---|
| Support for contact center operators | Search business manuals/ products | Respond to help desk inquiries |
| Use in back-office operations | Create minutes, summaries and reports | IT operations |
| Digital human customer service agents, etc. | Prepare application documents, etc. | Automation support, etc. |

Provide usage environments (on-premise, data center, global generative AI platform)

## Appointment of Chief Artificial Intelligence Officers (CAIOs)

We have appointed Chief AI Officers to strengthen the use of AI both inside and outside the company. In addition to actively proposing AI to our customers, these officers will be responsible for fundamentally reviewing all our internal business processes and working to automate those that can be handled by AI. To address the risk of social disruptions caused by AI errors and biases, we will establish an AI governance system and promote AI services that customers can use with peace of mind.

**Two CAIOs newly appointed to promote the "AI-first" approach**

**Co-CAIO who promotes the development of AI services and solutions to provide to customers**

×

**Co-CAIO who implements "AI-first" for all internal business processes while establishing and promoting AI governance**

## AI Governance

### ■ AI Governance Strategy

Technological innovation has led to the rapid permeation of artificial intelligence (AI) into society, and countless AIs are solving issues both large and small every day, without people even realizing it. At the same time, there are also fears that the use of AI could lead to unforeseen forms of discrimination, as well as wrongful guidance or restrictions on actions. In addition, much about AI behavior and its impact is unknown. While expectations for the technology are rising, so are fears, resulting in a need for stronger AI risk management and governance, both domestically and internationally.

Maintaining a balance between promoting the use of AI and controlling AI risks is extremely important. As we step on the "gas pedal" to rapidly accelerate the use of AI, we are working toward a form of governance that uses both the "gas pedal" and "guardrails" to avoid the kind of critical risks that would cause us to drive off a cliff, rather than hitting the "brakes" to stop progress.

### ■ AI Risk Management

It is important for NTT Group companies using AI to manage the risks associated with the inappropriate use of AI, such as violating laws, regulations, or contracts, or being held up to social or ethical critique.

Our method for managing risk is based on the risk-based approach widely adopted in the international community.

| Defining AI Risk | We placed the risks associated with the NTT Group's use of AI into the classifications of "prohibited level," "high risk," and "limited risk" for each use case, and applied these definitions across the entire NTT Group. |
| --- | --- |
| Assessing AI Risk | Based on the above definitions of AI risk, AI project managers and each company's AI risk management officer will conduct a dual risk assessment in order to ensure an accurate evaluation. |
| Treating AI Risk | AI projects assessed as having a "prohibited level" will have their method of AI use significantly revised. For projects assessed at non-prohibited levels, each company's AI risk management officer will monitor the reduction of project risk and take courses of action appropriate to the risk while implementing the project. |
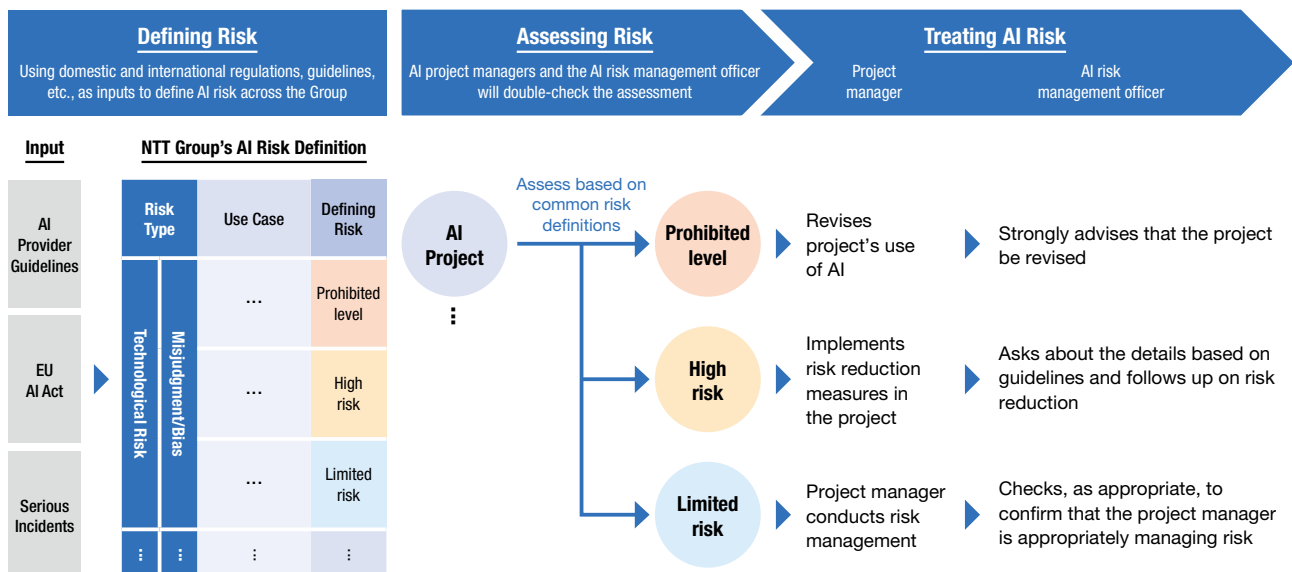


### ■ Strengthening AI Governance

In order to strengthen AI governance, we have referenced the laws, regulations, and guidelines used in international society and those developed by the Japanese government to establish AI governance regulations* that define and manage AI risks in a common way across the NTT Group.

In addition, NTT has appointed Co-CAIOs to ensure that our leadership promotes the appropriate use of AI and exercises control over the NTT Group's treatment of AI risks. NTT has also established an AI Governance Office that assists the Co-CAIOs by maintaining and revising the NTT Group's AI governance regulations, and by monitoring and assessing the state of AI risk management at Group companies.

Each Group company has appointed an AI risk management officer who assesses the risk of AI projects and works to reduce their risks. The Co-CAIOs, AI Governance Office, and AI risk management officer at each Group company will work together to promote appropriate AI risk management and AI governance at the NTT Group.

* The NTT Group AI Charter: A basic policy that the NTT Group and its employees should strive to always keep in mind
  The NTT Group AI Governance Policy: A policy that defines AI risk in a common way, establishing how AI governance mechanisms should be maintained and operated in order to implement the appropriate use of AI
  NTT Group Guidelines on the Use of Generative AI: Guidelines indicating concrete risks that all NTT Group companies should keep in mind and methods to deal with such risks in order to deter the occurrence of risks involving the use of generative AI and promote the active use of generative AI and value creation

# Intellectual Property Strategy

The NTT Group will contribute to the creation of new value and to global sustainability by adequately protecting the results of our investments in intellectual capital as intellectual property while steadily pursuing activities that promote their diverse application.

## Approach to Intellectual Property Activities

The 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.

By adequately protecting the results of such intellectual property investments and working to create new value by steadily pursuing activities that promote their diverse application, the NTT Group aims to not only secure its business advantage but also contribute to the enhanced industrial competitiveness of Japan as well as to global sustainability.

The IOWN concept, which has progressed from the planning phase to the implementation phase, cannot be completed by the NTT Group alone. Legal amendments that came into effect this spring have expanded the scope of our use of intellectual property rights more than ever before, facilitating business co-creation. We will contribute to the creation of new value by utilizing the intellectual property rights we have accumulated over many years in a diverse and timely manner, while supporting collaboration with our partners from a global perspective.

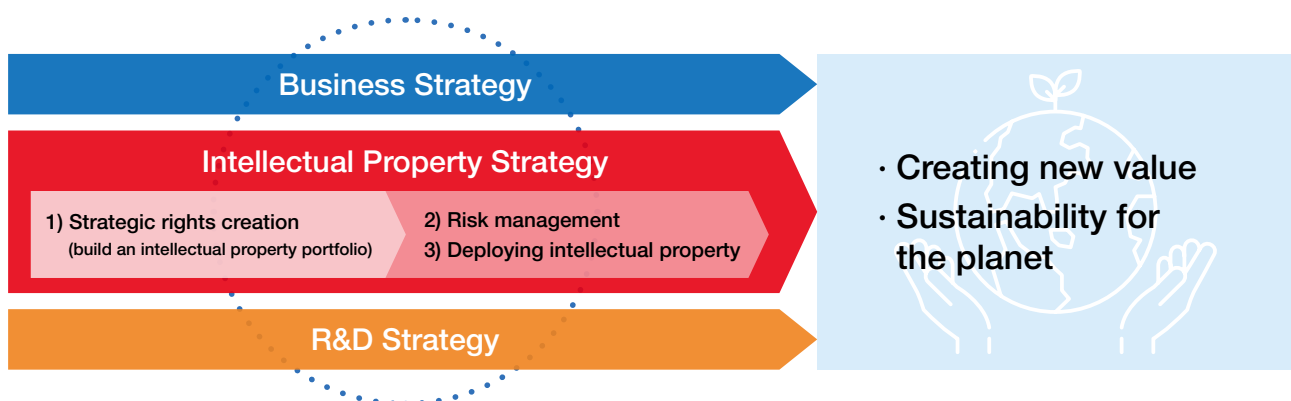## Formulating and Advancing Our Intellectual Property Strategy

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 that can be standardized and used throughout society. When deploying the results of R&D in their operations, each company in the 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) | · Build an intellectual property portfolio through the strategic development of intellectual property rights from fruits of R&D activities, based on technologies and anticipated business models |
| (2) Risk management that protects our intellectual property rights and respects the rights of others | · When Group companies deploy the results of R&D in their operations, we examine the intellectual property rights of others inside and outside Japan up until the stage where R&D results are applied in order to avoid infringing on the rights of third parties<br>· 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 |
| (3) Develop business and partners through broad deployment of intellectual property rights | · Deploy intellectual property in business to help our customers and society, and to secure competitive advantages in business<br>· Proactively engage in activities to standardize intellectual property |

**Business Strategy**

**Intellectual Property Strategy**
1) Strategic rights creation (build an intellectual property portfolio)
2) Risk management
3) Deploying intellectual property

**R&D Strategy**

· Creating new value
· Sustainability for the planet

## Activities to Promote the Diverse Application of Intellectual Property

At NTT, we use intellectual property rights not only to secure the Group's business advantage, but also to contribute to the development of industries. By exhibiting technologies at intellectual property business matchmaking events held by local governments, etc., we support the development of new products and the creation of new businesses by SMEs and startup companies, thereby accelerating the social implementation of these technologies and contributing to the development of industries in Japan.

In fiscal 2023, we exhibited at two intellectual property business matchmaking events to introduce our R&D technologies. We are also moving forward with the commercialization of NTT's patented technology at companies that we matched with at the event in fiscal 2022. We held one-on-one meetings with SMEs that expressed interest in the anti-rust coating technology developed by the R&D department and provided support for the introduction of this technology.

The NTT Group will continue to contribute to the creation of new value through initiatives aimed at building a co-creation ecosystem with our customers, partners, and startups, including participation in intellectual property business matchmaking events.

### Winner at the FY2024 Intellectual Property Achievement Awards (JPO Commissioner's Award) Presented by the Japan Patent Office of the Ministry of Economy, Trade and Industry

NTT Communications, which manages the "docomo business" brand of the DOCOMO group, received the JPO Commissioner's Award (for a company that promotes open innovation) at the FY2024 Intellectual Property Achievement Awards held on April 18, 2024 by the Japan Patent Office and Ministry of Economy, Trade and Industry.

Through programs such as the Business Co-Creation Program, NTT Communications is working with a variety of companies on co-creation activities aimed at creating new businesses and implementing new technologies in society. This award was given in recognition of NTT Com's company-wide measures for open innovation and intellectual property activities that promote co-creation.

### NTT Named an Asia IP Elite Organization in 2023

NTT has been named one of the "Asia IP Elite 2023" selected by *Intellectual Asset Management (IAM)*, an international intellectual property-related information publication. *IAM* awards this title to companies with the best intellectual property strategy among companies selected from all over Asia that are actively involved in IP utilization and disputes resolution. This international award was given in recognition of the NTT Group's advanced R&D efforts and innovative approach to maximizing the value of intellectual property, including the active utilization of patents created by the Group.

## IPR*-DAY (Initiative for Raising Interest in Intellectual Property Across the Group)

NTT has been holding a cross-Group comprehensive event known as IPR-DAY since fiscal 2022, 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 2023, conducted in November 2023, saw the participation of 550 individuals from 63 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, leading to a significant rise in interest and understanding of intellectual property across the NTT Group.

*Intellectual Property Right

### IPR-DAY 2023 Program

· Reading and understanding the business strategies of competitors through IP analysis
· OneNTT's IP activities aimed at realizing the IOWN concept
· A year of IP work at NTT Communications by someone with no prior experience
· Why NTT obtains patents
· Building Bridges Worldwide: Activities of IP Utilization
· AI technology innovations shaking up 500 years of IP history: The future of IP law we need to know in preparation for future business
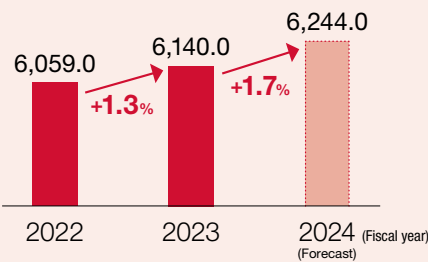
## Business Overview by Segment
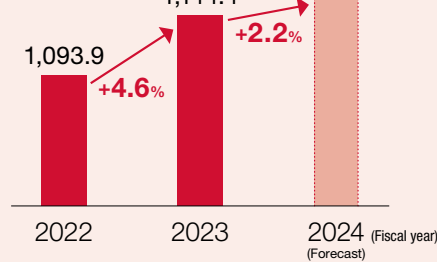
# Integrated ICT Business

In our Integrated ICT Business, we advanced initiatives including discontinuous growth through M&As in the Smart Life Business, strengthening of our customer base by expanding billing plans to support customer needs in the Consumer Communications Business, and further expanding our Enterprise Business.

## Business Performance

**Operating revenues**
(Billions of yen)

| 2022 | 2023 | 2024 (Fiscal year) (Forecast) |
|------|------|-------------------------------|
| 6,059.0 | 6,140.0 | 6,244.0 |

+1.3% +1.7%

**Operating profit**
(Billions of yen)

| 2022 | 2023 | 2024 (Fiscal year) (Forecast) |
|------|------|-------------------------------|
| 1,093.9 | 1,144.4 | 1,170.0 |

+4.6% +2.2%

**2023 Results**

Revenue and profit increased year-on-year due in part to the expansion of the Smart Life Business, including financial and payment services and marketing solutions, as well as the expansion of integrated solutions in the Enterprise Business.

**2024 Forecast**

We plan to increase year-on-year revenue and profit mainly through the continued expansion of integrated solutions in the Smart Life Business and Enterprise Business.

## Key Initiatives

■ Achieving Sustainable Growth by Having the Smart Life and Enterprise Growth Areas Drive the DOCOMO Group

| Consumers (Smart Life and Consumer Communications) | · Propose the optimal service mix for each customer through seamless communication utilizing multiple channels such as stores, online, and media |
|---|---|
| Enterprises | · Develop solutions and services utilizing advanced technologies for large enterprise customers<br>· While supporting the resolution of regional and corporate challenges, provide package solutions focused on mobile services, solutions to address industry-specific challenges, and areas with high needs for SME customers |
| Networks | · Promote initiatives aimed at building a network resilient to environmental changes and disasters, and strengthen customer experience quality<br>· Accelerate the overseas expansion of OREX,[1] starting with OREX SAI, INC., established in April 2024 |

*1 OREX: https://ssw.web.docomo.ne.jp/orex/

## TOPICS

### Establishment of a Joint Venture to Globally Provide "OREX Packages"

On April 1, 2024, NTT DOCOMO and NEC Corporation ("NEC") established the joint venture OREX SAI, INC. to offer OREX Packages[2] for the full-scale global deployment of Open RAN services.

OREX SAI will locally source products and services from members of OREX PARTNERS[3] in each market and perform system verifications to deliver mobile networks tailored to the needs of each overseas telecommunications operator. Leveraging NEC's established business infrastructure and global network in over 50 countries and territories, the joint venture will accelerate the global expansion of Open RAN business. Through OREX SAI, DOCOMO and NEC plan to strengthen cooperation with OREX PARTNERS to promote the commercialization and realization of true Open RAN that enables the interoperability of equipment and systems from diverse vendors.

### Launch of the "DOCOMO Poikatsu Plan"

In April 2024, NTT DOCOMO launched ahamo Poikatsu, the first phase of the new DOCOMO Poikatsu Plan, a price plan that allows users to earn additional d POINTs (limited in time and usage) based on their payment method usage. This was followed by the second phase, eximo Poikatsu, in August 2024.

We aim to expand both our revenue and customer base by enhancing our offerings of optimal service mixes that combine telecommunications services such as ahamo and eximo with financial, payment, video, and other services.

*2 A collective term for OREX's Open RAN services, including OREX RAN, OREX SMO, and OREX Services, tailored to the needs of overseas telecommunications operators
*3 As of February 26, 2024 OREX PARTNERS has 16 members, while OREX RU PARTNERS and OREX DELIVERY PARTNERS each have 7 members
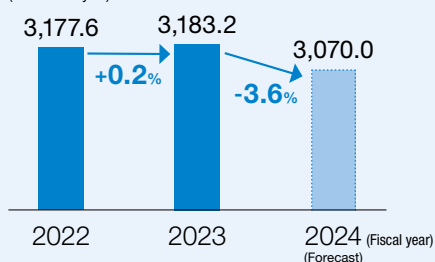
# Regional Communications Business

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.
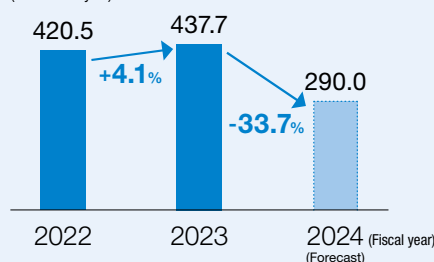
## Business Performance

**Operating revenues**
(Billions of yen)

3,177.6 (2022) → +0.2% → 3,183.2 (2023) → -3.6% → 3,070.0 (2024 Forecast)

2022 | 2023 | 2024 (Fiscal year) (Forecast)

**Operating profit**
(Billions of yen)

420.5 (2022) → +4.1% → 437.7 (2023) → -33.7% → 290.0 (2024 Forecast)

2022 | 2023 | 2024 (Fiscal year) (Forecast)

### 2023 Results

Despite increased costs related to disaster recovery and security, efforts to improve cost efficiency and streamline non-core assets led to a year-on-year increase in revenue and profit.

### 2024 Forecast

We are planning for a year-on-year decrease in revenue and profit due to the rebound effect of the previous fiscal year's streamlining of non-core assets, increased disaster recovery costs, and the continued decline in fixed voice-related revenue. Through business selection and focus, cost reductions, and other means, we will work toward a recovery in year-on-year profit growth in FY2025 and medium-term growth.

## Key Initiatives

■ Restoring "Earning Power" Toward Sustainable Business Growth

| | |
|---|---|
| Legacy Businesses | · Maintain the revenue base by transitioning customers of legacy services such as fixed-line phones and dedicated lines to alternative services |
| Hikari Business | · Uncover demand for Hikari services by capturing customer needs for higher speeds, such as expanding the service area for FLET'S Hikari Cross (10 Gbps) |
| Enterprise Business | · Expand social infrastructure business by supporting the digital transformation (DX) of public sectors and enterprise customers in local regions |
| Growth Businesses | · Scale growth businesses across the Group, including NTT Solmare Corporation and NTT AgriTechnology Corporation |
| Business Foundations | · Improve customer experience (CX) and cost competitiveness by leveraging DX and AI<br>· Update assets such as communication networks and human resources for future generations, and respond to increasing traffic driven by advancements in AI and the cloud |

## TOPICS

### Migration of Fixed-Line Phones (Subscriber Lines and INS-Net) to an IP Network

From January 1, 2024, we have been gradually switching fixed-line phone (subscriber lines and INS-Net) equipment to IP networks by region. We are doing this in light of the diversification of communication methods driven by the development of mobile broadband and the resulting decline in the number of fixed-line phone (subscriber lines and INS-Net) contracts, along with the anticipated maintenance limitations (around 2025) of the public switched telephone network (PSTN) equipment (relay exchange and signal switching equipment) used for telephone services.

### Discontinuation of Telephone Directories (Town Page, etc.) and Directory Assistance (104 Service)

NTT East and NTT West have provided telephone directories (Town Page, etc.) and directory assistance (104 service) as means for looking up phone numbers. However, due to the diversification of phone number search methods, including with the widespread use of smartphones in recent years, the number of ads placed in Town Page has declined, and the users of directory assistance have greatly declined. Given this situation and from the perspective of reducing paper resource consumption and minimizing environmental impact, we will discontinue the provision of telephone directories and directory assistance by the end of March 2026. However, we will continue to provide services like the Braille Phone Directory, which is issued to help people with sight disabilities in their daily lives, and the Fureai Guide, which provides free phone number information to people with disabilities. After NTT East and NTT West discontinue their telephone directories and directory assistance services, phone number searches will be available through i Town Page,[1] provided by NTT TownPage Corporation online.

*1 i Town Page: https://itp.ne.jp/
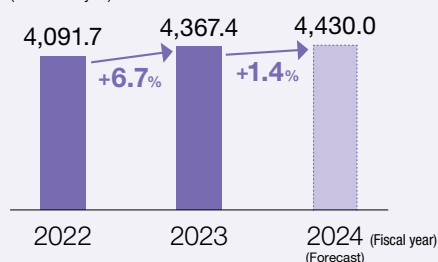
## Business Overview by Segment

# 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.
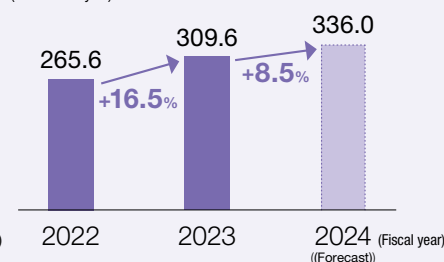
## Business Performance

**Operating revenues**
(Billions of yen)

| 2022 | 2023 | 2024 (Fiscal year) (Forecast) |
|---|---|---|
| 4,091.7 | 4,367.4 | 4,430.0 |

+6.7% (2022→2023)  +1.4% (2023→2024)

**Operating profit**
(Billions of yen)

| 2022 | 2023 | 2024 (Fiscal year) ((Forecast)) |
|---|---|---|
| 265.6 | 309.6 | 336.0 |

+16.5% (2022→2023)  +8.5% (2023→2024)

### 2023 Results

Revenue and profit increased year-on-year due in part to increased revenue in the public, financial, and enterprise areas within Japan, as well as the effects of exchange rate fluctuations.

### 2024 Forecast

We plan to achieve year-on-year increases in both profit and revenue mainly through the increase in revenue via continued efforts to capture demand for digitalization.

## Key Initiatives

■ **[Realizing a Sustainable Future]**
— Creating value for the future and achieving a sustainable society along with our customers by forging connections between various people and technology

| | |
|---|---|
| Work to capitalize on the convergence of IT & connectivity | · Create new services through inter-industry collaboration within Japan and inter-region collaboration outside Japan |
| Strengthening of consulting capabilities with foresight | · Establish and internally develop NTT DATA's unique consulting methods, and enhance foresight-driven consulting capabilities to envision the future for customers and industries |
| Evolve to an asset-based business model | · Leverage generative AI-related assets for business use to yield many achievements on a global level, including co-creation with customers |
| Enhance advanced & development technology | · We achieved the highest market position ranking in the generative AI field in FY2023[1] |
| Be the best place to work | · We secured human capital and were recognized as a Global Top Employer[2] for the first time |

*1 According to "HFS Research Generative AI Services" by HFS Research
*2 17 countries around the world were recognized, with two Japanese companies, including NTT DATA, receiving recognition

## TOPICS

### NTT DATA's Acquisition of Shares of the Malaysian Payment Services Provider GHL Systems Berhad for Expansion of Payment Business

In May 2024, NTT DATA agreed to acquire 58.7% of the issued shares of GHL Systems Berhad, one of Malaysia's leading payment service providers with strengths in various services offered through payment devices, from the company's major shareholders. Following a public tender offer to other existing shareholders through the Bursa Malaysia stock exchange, NTT DATA made GHL Systems Berhad a wholly owned subsidiary in July.

With this acquisition, NTT DATA aims to combine its own payment services and expertise with GHL System Berhad's operations, which include the installation of over 480,000 payment terminals and the provision of various payment services in ASEAN countries such as Malaysia, the Philippines, and Thailand. This combination will help realize a more convenient and secure cashless society for consumers in these countries.

### Launch of NTT's Generative AI "tsuzumi" on Microsoft Azure

NTT DATA will begin offering tsuzumi, a large language model (LLM), through Microsoft Azure AI Models-as-a-Service (MaaS). It will be available for use on the cloud starting in November 2024 in Japan. Users will be able to quickly access tsuzumi as part of the Azure service, allowing for tuning and business application development through Azure AI Studio. As of June 2024, only 10 companies around the world are authorized to provide LLMs on this platform, with NTT DATA being the only company in Asia. Going forward, NTT DATA aims to provide this service not only in Japan but also widely on a global scale.
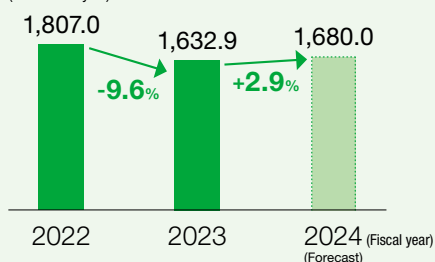
# Others (Real Estate, Energy, and Others)

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.
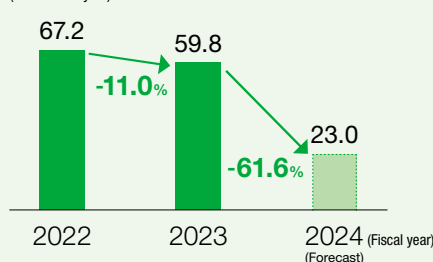
## Business Performance

**Operating revenues**
(Billions of yen)

| 2022 | 2023 | 2024 (Fiscal year) (Forecast) |
|---|---|---|
| 1,807.0 | 1,632.9 | 1,680.0 |

-9.6%   +2.9%

**Operating profit**
(Billions of yen)

| 2022 | 2023 | 2024 (Fiscal year) (Forecast) |
|---|---|---|
| 67.2 | 59.8 | 23.0 |

-11.0%   -61.6%

### 2023 Results

Revenue and profit declined year-on-year due in part to a decrease in electricity revenue in the energy business.

### 2024 Forecast

In the NTT Urban Solutions Group, despite increased revenue due in part to the expansion of residential property sales, a decline in profit from property sales in the previous fiscal year is expected to result in higher revenue but lower profit compared to the previous year.

## Key Initiatives

### ■ NTT Urban Solutions Group
—Promoting urban development by fully leveraging the NTT Group's resources

| Consulting | · Provide consulting, research and analysis, and database operation and building services related to urban development |
|---|---|
| Real estate development | · Promote development that enhances the value of local areas by leveraging the assets of the NTT Group and collaborating with local governments and businesses, while utilizing the latest ICT and environmental technologies |
| Facility solutions | · Achieve the creation of buildings that balance reduced environmental impact with comfort through advanced ICT and design/maintenance expertise |
| Management | · Enhance convenience for office and residential tenants and increase the value of real estate properties and areas by leveraging ICT |

### ■ NTT Anode Energy Group
— Expanding the smart energy business to promote the realization of a decarbonized society and the local production and consumption of energy

| Green power generation | · Steadily advance the development and operation of renewable energy power plants, including solar, wind, geothermal, and biomass, in harmony with local communities |
|---|---|
| Aggregation | · Address challenges arising from the spread and expansion of renewable energy by leveraging storage batteries and EMS that coordinate balance between supply and demand |
| Electricity retail | · Develop an electricity retail business, centered on ENNET Corporation, and provide sustainable renewable energy to meet the demand from companies and local governments |
| Engineering solutions | · Actively develop engineering solutions centered on electricity facilities for telecommunications, renewable energy, storage batteries, and data centers |

## TOPICS

### Opening of the Urbannet Sendai-Chuo Building, the First Property of the "Sendai City Center Redevelopment Project"

In March 2024, we opened the "Urbannet Sendai-Chuo Building," the largest office space on the west side of Sendai Station, offering highly functional office floors and workplaces designed to accommodate diverse work styles. This is our first property that is part of Sendai City's "Sendai City Center Redevelopment Project," which aims to bring new vibrancy to the city center and promote circulation with open spaces and terraces. The lower floors have spaces that encourage exchanges, such as coworking spaces, conference rooms, and innovation spaces, helping to support startups and the creation of diverse communities through collaboration between industry, government, and academia. Additionally, by promoting industrial utilization in collaboration with the "NanoTerasu"[*1] 3GeV high-brilliance synchrotron radiation facility located at Tohoku University's Aobayama New Campus, we aim to contribute to further revitalization of Sendai City and Miyagi Prefecture and help address regional challenges.

*1 A "giant microscope" facility that uses light (synchrotron radiation) more than a billion times brighter than sunlight to observe the microscopic world at nanoscale resolution

### Start of Energy Distribution Platform Construction to Promote Aggregation Business

NTT Anode Energy is advancing an "aggregation" initiative, which involves integrating and controlling storage batteries and consumer-side energy resources, which are expected to expand going forward, to enhance adjustment capacity, and aggregate renewable energy to optimize the supply-demand balance of electricity. Specifically, the initiative aims to aggregate three types of distributed energy resources: renewable energy power plants, grid storage batteries, and consumer-side facilities/equipment like EVs. To support this, NTT Anode Energy is working on building an "energy distribution platform" that will serve as advanced control infrastructure. This platform will consist of data analysis infrastructure using the latest NTT Group technologies, along with aggregation coordinator infrastructure to manage adjustment-related transactions. In the future, the platform is expected to provide solutions that optimally manage and control the supply-demand balance for renewable energy electricity producers and electricity retailers.

# 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 appointments and compensation. NTT has determined that governance functions based on an Audit & Supervisory Board are sufficiently effective to achieve this purpose.

■ Governance Chart



: Outside independent Members of the Board and outside independent Audit & Supervisory Board Members    : Internal directors and Internal Audit & Supervisory Board Members
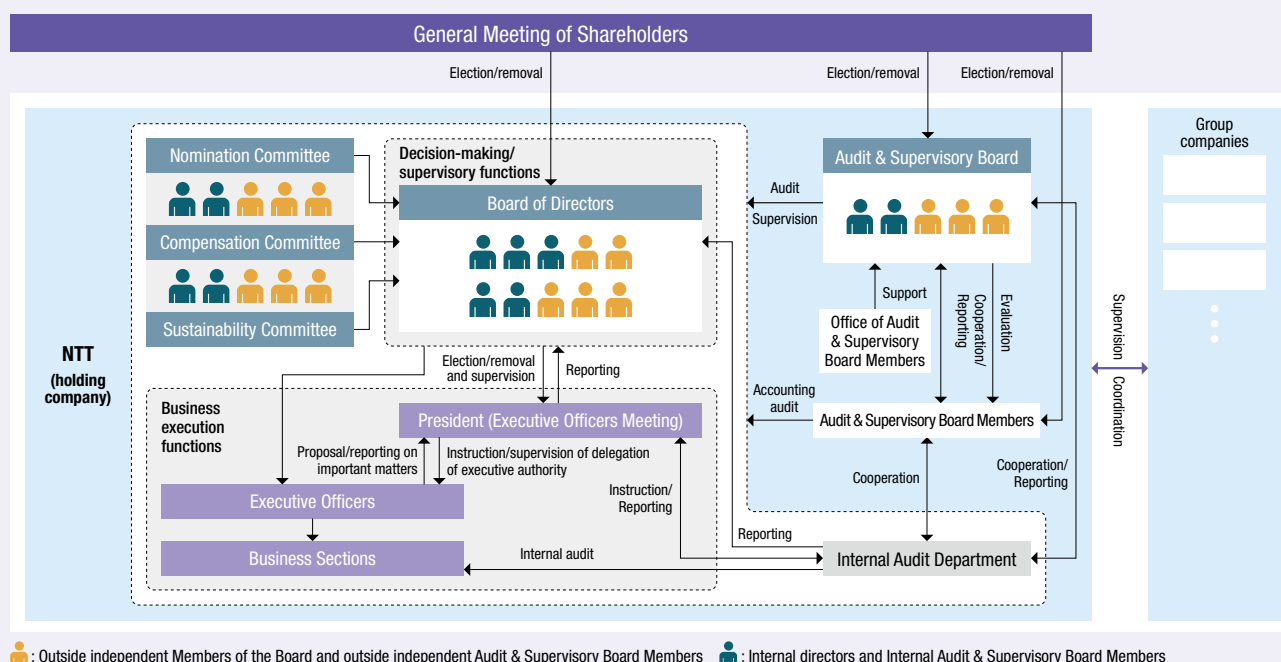
## Members of the Board

*As of the end of June 2024

**Jun Sawada**
Chairman of the Board

**Akira Shimada**
President and Chief Executive Officer

**Katsuhiko Kawazoe**
Senior Executive Vice President

**Takashi Hiroi**
Senior Executive Vice President

**Sachiko Oonishi**
Executive Vice President and Member of the Board

**Ken Sakamura**
Outside Member of the Board

**Yukako Uchinaga**
Outside Member of the Board

**Koichiro Watanabe**
Outside Member of the Board

**Noriko Endo**
Outside Member of the Board

**Natsuko Takei**
Outside Member of the Board

## Members of the Audit & Supervisory Board

*As of the end of June 2024

**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

### ■ Skills Matrix

| | Name | Field | | | | | |
| --- | --- | --- | --- | --- | --- | --- | --- |
| | | Business Administration | Marketing/Global Business | IT/DX/R&D | Law/Risk Management/Public Policy | HR | Finance |
| Member of the Board | Jun Sawada | ● | ● | ● | | ● | ● |
| | Akira Shimada | ● | ● | | ● | ● | ● |
| | Katsuhiko Kawazoe | ● | ● | ● | ● | ● | |
| | Takashi Hiroi | ● | ● | | ● | ● | ● |
| | Sachiko Oonishi | ● | ● | ● | | | |
| | Ken Sakamura | ● | ● | ● | | | |
| | Yukako Uchinaga | ● | ● | ● | | | |
| | Koichiro Watanabe | ● | ● | | | | ● |
| | Noriko Endo | ● | | ● | ● | | |
| | Natsuko Takei | ● | ● | | ● | | |
| Audit & Supervisory Board Member | Keiichiro Yanagi | | ● | | ● | ● | ● |
| | Kanae Takahashi | | | ● | ● | ● | ● |
| | Kensuke Koshiyama | | | | ● | ● | ● |
| | Hideki Kanda | | | | ● | ● | ● |
| | Kaoru Kashima | | | | ● | ● | ● |

*Up to five fields in which each director and Audit & Supervisory Board Member is expected to contribute in particular are listed. Note that the above list is not intended to comprehensively show all the knowledge and experience of each director and Audit & Supervisory Board Member.

## Board of Directors

The Board of Directors consists of ten directors, including five Outside Independent Members of the Board and five internal directors, so 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 Group management strategies and makes decisions on matters stipulated by laws and regulations and on important matters related to company 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.
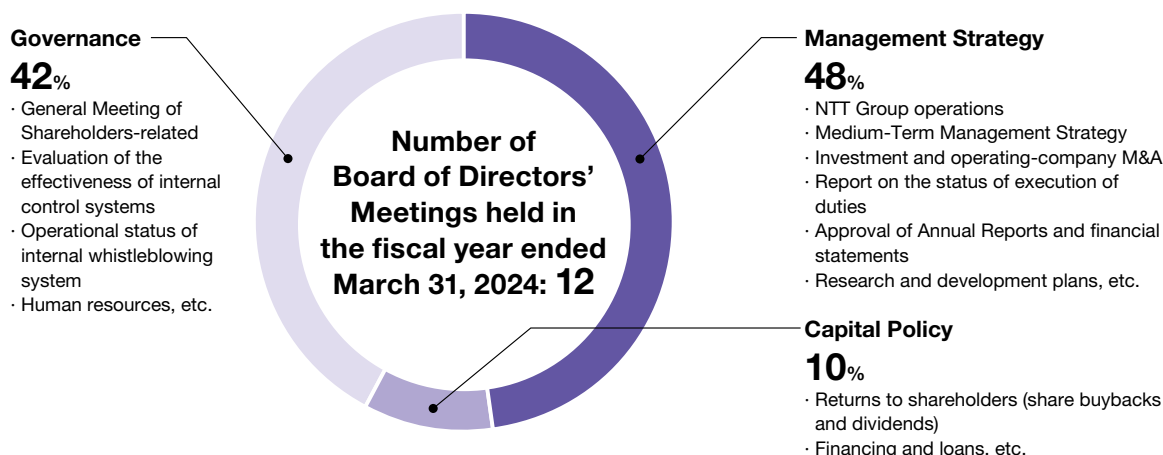
Each outside independent Member of the Board has extensive experience and a high level of integrity and insight. We believe that the outside independent Members of the Board will help strengthen the supervisory function for business execution and expect to incorporate the opinion they provide from their wide-ranging managerial perspectives.

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**
**42%**
· General Meeting of Shareholders-related
· Evaluation of the effectiveness of internal control systems
· Operational status of internal whistleblowing system
· Human resources, etc.

**Number of Board of Directors' Meetings held in the fiscal year ended March 31, 2024: 12**

**Management Strategy**
**48%**
· NTT Group operations
· Medium-Term Management Strategy
· Investment and operating-company M&A
· Report on the status of execution of duties
· Approval of Annual Reports and financial statements
· Research and development plans, etc.

**Capital Policy**
**10%**
· Returns to shareholders (share buybacks and dividends)
· Financing and loans, etc.

## Evaluation of the Effectiveness of the Board of Directors

NTT's Board of Directors monitors the specific business operations of Group companies based on the Group's medium to long-term business strategy.

In addition, the Board of Directors decides on important matters related to the Group's management and monitors the execution of duties by directors and executive officers based on deliberations at Executive Officers Meetings—which are attended by executive officers, etc.—and various meetings of committees—which are chaired by presidents and senior executive vice presidents and attended by relevant executive officers, etc.

Based on the jurisdiction of each director, the Board of Directors reports and deliberates on issues related to the Group's current management and initiatives to resolve them as well as initiatives aimed at business expansion, including investment and alliances.

In FY2023, the Board of Directors held active discussions focused on the NTT Group's future direction and key initiatives starting with *New value creation & Sustainability 2027 powered by IOWN*, which is called for by our Medium-Term Management Strategy.

In addition, NTT implements an evaluation of the effectiveness of the Board of Directors annually for the purpose of strengthening the governance of top management through continuous improvement of the effectiveness of the Board of Directors. In FY2023 as well, we appointed a third-party institution to conduct a Board of Directors-related questionnaire survey targeting all our directors and Audit & Supervisory Board Members in order to evaluate the effectiveness of the Board of Directors. This survey included questions on the roles and responsibilities, composition, operations, and level of satisfaction with our Board of Directors. Based on the results of this survey, which were compiled by a third-party institution, many respondents expressed positive opinions in response to all the questions, and we confirmed that our Board of Directors is effectively carrying out the important roles and responsibilities expected of it.

In addition, through feedback sessions implemented to invigorate strategic discussions and to enhance discussions on important issues such as the business direction the NTT Group should aim for and future key initiatives, all members expressed positive feedback. Therefore, we have evaluated that the effectiveness of the Board of Directors is being ensured.

## Questionnaire Survey on the Evaluation of the Effectiveness of the Board of Directors

| | |
|---|---|
| Goal | To strengthen the governance of our top management by continuously improving the effectiveness of the Board of Directors |
| Survey frequency | Once per year |
| Participants | All directors and Audit & Supervisory Board Members (anonymous survey)<br>· Ten directors (including five Outside Members of the Board)<br>· Five Audit & Supervisory Board Members (including three Outside Audit & Supervisory Board Members) |
| Implementation period | March 2024 |
| Number of questions and response format | · Four-rank evaluation (4: *I think so.*, 3: *I kind of think so.*, 2: *I don't really think so.*, 1: *I don't think so.*): 27 questions<br>· Open-ended questions: one question |
| 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 |
| Result aggregation and utilization method | After questionnaire implementation and aggregation by a third-party organization and analysis by the Board of Directors' organizing office, the results are shared and issues and improvement measures are discussed at Meetings of the Board of Directors. |
| Main results | · Percentage of all question responses that indicated a positive evaluation: 99% (*I think so.*: 69%, *I kind of think so.*: 29%)<br>· There was not a single response of *I don't think so*, and *I don't really think so* only accounted for 1.3% of all responses.<br>· Every respondent indicated that they think the effectiveness of the Board of Directors has been ensured (question 6-2).<br>· Regarding the open-ended question, we received a lot of constructive comments, and no one pointed out any major inadequacies. |

| | | Questions | Positive Evaluation Percentage (Average Value) |
|---|---|---|---|
| 1. Roles and responsibilities of the Board of Directors | 1-1 | The Board of Directors supervises the management from an independent and objective standpoint. | **99%** (3.6pt/4.0pt) |
| | 1-2 | The Board of Directors deliberates on matters of high importance in terms of management. | |
| | 1-3 | The Board of Directors sufficiently deliberates on the Management Strategy. | |
| | 1-4 | The Board of Directors regularly supervises the progress of the Management Strategy. | |
| | 1-5 | The officer compensation system provides incentives suitable for facilitating sustainable growth. | |
| | 1-6 | The Board of Directors suitably confirms progress on setting up and supervises internal control and risk management systems. | |
| 2. Composition of the Board of Directors | 2-1 | The number of directors is suitable. | **98%** (3.8pt/4.0pt) |
| | 2-2 | The number of Outside Members of the Board is suitable. | |
| | 2-3 | The ratio of Outside Members of the Board is suitable. | |
| | 2-4 | The Board of Directors sufficiently considers how governance systems (institutional design, committees, etc.) should be to promote sustainable growth. | |
| | 2-5 | The Chairman of the Board of Directors objectively and fairly fulfills their role as a leader in terms of supervising the management. | |
| | 2-6 | The diversity of directors is ensured, including their knowledge, experience, expertise, gender, and internationality. | |
| 3. Operation of the Board of Directors | 3-1 | The Board of Directors spends sufficient time discussing matters of high importance in terms of management. | **98%** (3.7pt/4.0pt) |
| | 3-2 | The discussion topics proposed to the Board of Directors are suitable. | |
| | 3-3 | The management and other officers sufficiently exchange opinions outside of meetings of the Board of Directors as well. | |
| | 3-4 | Board of Directors materials are compiled so as to be easy to understand and explained. | |
| | 3-5 | Board of Directors materials are distributed far enough in advance to enable preparation ahead of time. | |
| | 3-6 | Meetings of the Board of Directors are held with a suitable frequency. | |
| | 3-7 | Meetings of the Board of Directors take a suitable amount of time. | |
| | 3-8 | Discussions by the Board of Directors are open and free. | |
| 4. Roles and responsibilities of directors and Audit & Supervisory Board Members | 4-1 | I understand my role and sufficiently contribute to improving the quality of deliberations and decision-making by the Board of Directors (and elsewhere). | **100%** (3.7pt/4.0pt) |
| | 4-2 | Directors other than me understand their roles and sufficiently contribute to improving deliberation and decision-making by the Board of Directors. | |
| 5. Questions for Outside Members of the Board and Audit & Supervisory Board Members | 5-1 | Important management information is provided as necessary outside of meetings of the Board of Directors as well. | **100%** (3.6pt/4.0pt) |
| | 5-2 | The Company provides opportunities to obtain the knowledge, etc. necessary to fulfill personal roles and responsibilities. | |
| | 5-3 | Working as an Outside Member of the Board or Audit & Supervisory Board Member for the Company is extremely rewarding and satisfying. | |
| 6. General questions | 6-1 | The Board of Directors considers all stakeholders and formulates, discloses, and suitably supervises policies related to sustainability. | **100%** (3.7pt/4.0pt) |
| | 6-2 | Generally speaking, the effectiveness of the Board of Directors has been ensured. | |

# Messages from Outside Members of the Board

**Ken Sakamura**
Outside Independent
Member of the Board

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

For around 40 years, I have been involved in research, development, and standardization in the TRON Project*, a computer operating system designed to ensure that devices operate reliably with accurate timing. As an open innovation project, which was rare at the time, we made the source code and specifications freely available, thereby contributing to the advancement of the IoT.

I believe that the Medium-Term Management Strategy, announced in May 2023 after extensive discussions, achieves a well-balanced integration of growth areas such as IOWN, AI and robotics, and public-oriented areas that only the NTT group, as a company supporting the telecommunications infrastructure underpinning society, can accomplish. With regard to AI, the rapid progress in generative AI research and its growing impact are evident. I therefore proposed that the NTT Group engage in Group-wide discussions on AI initiatives and work on communicating these efforts externally. One such initiative, which I rate highly, is the establishment of the position of chief artificial intelligence officer (CAIO) and the clarification of the CAIO's responsibilities in promoting AI initiatives.

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. By providing advice and oversight from a neutral position as an Outside independent Member of the Board, I intend to continue contributing to the sustainable growth of the NTT Group, a group committed to creating new value.

* "TRON" is an abbreviation of "the real-time operating system nucleus." TRON is a Japan-developed operating system with a market share in the IoT field of approximately 60%. It has been certified as an "IEEE standard" by the Institute of Electrical and Electronics Engineers (IEEE) in the United States.

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**Yukako Uchinaga**
Outside Independent
Member of the Board

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

During my tenure as IBM Japan's first female director, I established a non-profit organization called the Japan Women's Innovative Network. Technological progress is driving the rapid evolution of business models. To succeed in this environment, companies need to transform their corporate culture and the very nature of their organizations. In 2010, Japan ranked 97th in the Global Gender Gap Index published by the World Economic Forum. Despite progress with the advancement of women in Japanese society, Japan ranked 118th in the June 2024 report, highlighting the significantly faster pace of the advancement of women in other countries compared to Japan. I believe that energizing corporations through the promotion of diversity and inclusion (D&I) can be a key driver of innovation and an effective management strategy, as can the creation of new business models leveraging the talents of individuals with diverse perspectives while fostering greater mutual understanding and respect.

At a meeting of NTT's Board of Directors, I proposed that reorganization to bolster R&D functions should be approached in a way that unifies both domestic and global perspectives. Through my recommendations on governance and global business expansion, I contribute to sound decision-making.

Through initiatives like the Remote Standard system, which offers employees the opportunity to enjoy greater flexibility in their living arrangements, the NTT Group is poised to become a leading force in advancing diversity and inclusion (D&I) in Japan. I aim to contribute, from an independent and objective standpoint, to enhancing corporate value over the longer term through the provision of highly effective oversight and support for appropriate risk-taking.

**Koichiro Watanabe**

Outside Independent Member of the Board

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

As representative director and president of Dai-ichi Life Holdings and Dai-ichi Life Insurance, I was responsible for overseeing the overall management of both companies. I also led reforms aimed at driving the growth of the Dai-ichi Life Group, including the transition of Dai-ichi Life Holdings from a mutual company to a listed company, and its listing on the First Section of the Tokyo Stock Exchange.

At NTT Board of Directors meetings, I have contributed to sound decision-making through proactively making suggestions based on my experience in corporate management. These contributions include advising on the need for swift decision-making in the data center business aligned with the conditions of the operating environment of the sector, a key growth area in the Medium-Term Management Strategy, and providing guidance on establishing appropriate management structures and risk management for financial operations.

At the 39th Ordinary General Meeting of Shareholders, I received questions from shareholders regarding NTT Group's challenges and I responded in my capacity as an Outside Member of the Board. I recognize that a key challenge for the NTT Group in creating new value as outlined in the Medium-Term Management Strategy is whether it can achieve not only domestic growth but also global expansion. I am confident that discussions at Board of Directors meetings have made steady progress towards addressing this issue, and I believe the Group is evolving into one with significant future potential. I will continue to contribute to the NTT group's sustainable growth and the enhancement of corporate value. I will do this by overseeing the executive management team's strategy formulation and business execution from an independent and objective standpoint, and engaging in proper judgment and evaluation to contribute to the achievement of the aims of the Medium-Term Management Strategy.

**Noriko Endo**

Outside Independent Member of the Board

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

Following my experience as the Deputy Editor-in-Chief for an economic journal as well as research conducted with the University of Tokyo, Keio University, and other institutions, I started focusing on research related to energy policy and economic security at Waseda University. I am also involved in national deliberations on public policies related to energy, economic security, commerce and trade, space, finance, defense, and other fields.

In the Medium-Term Management Strategy document that the NTT Group released last year, the company declared its goal of achieving carbon neutrality by 2040 through the "NTT Green Innovation toward 2040" initiative. This involves eliminating Scope 1 & 2 emissions, and aiming for the elimination of Scope 3 emissions. The demand for electricity is increasing due to electrification—the shift from primary energy to electricity, including digital transformation (DX) and electric vehicles (EVs)—the spread of artificial intelligence (AI), and large-scale information processing at data centers. I believe it will become increasingly important in this era of growing electricity consumption for the NTT Group to expand its renewable energy generation business and accelerate its efforts to commercialize IOWN-related technologies, which facilitate reductions in power consumption.

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 have therefore proposed that further consideration be given to continuing to boost R&D funding and securing human resources to ensure that the NTT Group remains an industry leader. Leveraging my expertise as a researcher of industrial and science/technology policy, I intend to provide insights and advice that will contribute to the NTT Group's sustainable growth, while also fulfilling my role in providing proper oversight of business execution.

**Natsuko Takei**

Outside Independent Member of the Board

Assumed the position of Outside Member of the Board of the Company in June 2024

I long served as head of Sony Group's Legal and Compliance Divisions. In that capacity, I provided legal affairs-related support for acquisitions, tie-ups, and the exploration of new business areas, both domestically and internationally. I have also led the building of frameworks aimed at ensuring sound business practices and the fostering of a corporate culture that underpins proper group management. The NTT Group's Medium-Term Management Strategy calls for proactive investment, particularly in growth areas, to enhance cash generation capacity. I believe that appropriate risk-taking in pursuit of growth will therefore become increasingly important. The growth sectors that have been identified, including the Smart Life business, AI, and digital data centers, are all areas where the pace of change is rapid. I recognize that, as a corporate group conducting business globally, there are ongoing challenges that we need to continue to address, including the enhancement of Group governance.

One of the key roles of an Outside Independent Member of the Board is to support healthy risk-taking. By leveraging the expertise I have cultivated in areas such as legal affairs, risk management, governance, and global strategy, I aim to provide adequate support for the NTT Group's efforts to strengthen its initiatives in growth sectors and global markets. I also intend to monitor management from a longer-term perspective through overseeing areas such as decision-making and business execution.

## 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

In FY2023, in line with our Medium-Term Management Strategy, which we announced during the year, we increased our investment in growth areas and enhanced our initiatives aimed at increasing our cash-generating ability to continue making major changes to our management with the aim of transforming the NTT Group into an organization capable of achieving new value creation and sustainability. In this connection, the Audit & Supervisory Board focused on auditing in line with the audit plan, including auditing based on laws, the implementation and progress of our Medium-Term Management Strategy, the status of initiatives aimed at maintaining or improving our corporate governance—including subsidiaries both in Japan and abroad—our compliance status, increasing the resilience of our business foundation starting with communication networks, and handling issues related to sustainability. The Audit & Supervisory Board also flexibly conducted audits as necessary in response to events and changes that occurred during the year and strived to conduct effective auditing that considered dialogues with investors by those responsible for execution.

In FY2023, we held 25 Audit & Supervisory Board meetings. (Takashi Iida attended all nine meetings that were held while he was an Audit & Supervisory Board Member, while the other Audit & Supervisory Board Members attended all 25 meetings.) In addition to these meetings, we also held 31 Audit & Supervisory Board Member Preliminary Deliberation Meetings, which are aimed at collecting and sharing information. For example, at these meetings, Audit & Supervisory Board Members receive explanations from corporate officers on matters to be discussed at the Executive Officers Meeting. In addition, our Audit & Supervisory Board Members, who include Outside Independent Audit & Supervisory Board Members, attended meetings of the Board of Directors and other important meetings. On top of that,

they participated in 42 meetings to exchange their opinions with Representative Members of the Board and Outside Independent Members of the Board as well as interviews with heads of organizations, etc., during which they discussed the handling of management issues while also auditing the execution of duties by directors, etc. The Audit & Supervisory Board also held 14 meetings to exchange opinions with Accounting Auditors in order to facilitate close collaboration aimed at confirming the auditing status and ensuring proper accounting auditing, including discussions of major considerations related to auditing. In addition, the Board held 18 meetings to exchange opinions with the Internal Audit Department in order to facilitate close collaboration with them, including explanations of the audit plan, holding regular discussions based on the reported status of internal control systems and other details, and offering recommendations as necessary.

In FY2023, as efforts related to Group companies, the Audit & Supervisory Board made 82 on-site visits to the leadership of each company and held meetings to exchange opinions with the Representative Members of the Board, the management, and the Audit & Supervisory Board Members of Group companies—including overseas subsidiaries—in order to hear about and discuss the above key auditing items while also gaining an opportunity to understand the status of the execution of duties by directors, etc. and offer recommendations as necessary. In addition, to increase the sophistication of the Group's auditing system, the Audit & Supervisory Board strived to unify the awareness of important risks selected based on a big-picture view of the NTT Group as a whole among the Audit & Supervisory Board Members of major Group companies, conducted audits through these members, and held meetings to exchange opinions based on the auditing results and other details reported

### ■ Activities of the Audit & Supervisory Board

| | |
|---|---|
| Opinion exchange meetings with Representative Members of the Board, etc. and interviews with heads of organizations, etc. | 42 times |
| Audit & Supervisory Board Meetings | 25 times |
| Audit & Supervisory Board Member Preliminary Deliberation Meetings | 31 times |
| Opinion exchange meetings with Accounting Auditors | 14 times |
| Opinion exchange meetings with Internal Audit Department | 18 times |
| Opinion exchange meetings with Representative Members of the Board, etc. from Group management companies | 82 times |

by each company. Furthermore, the Audit & Supervisory Board held liaison conferences for both major companies and the Audit & Supervisory Board Members of Group companies to share risk awareness and provide training based on auditing themes, thereby implementing initiatives that contribute to improved auditing activities by the Audit & Supervisory Board Members of each company.

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.

## Evaluation of the Effectiveness of the Audit & Supervisory Board

In FY2023, we reflected on our auditing activities and applied them to our annual audit plan. In fact, we have been annually evaluating the effectiveness of our Audit & Supervisory Board to improve our audit quality since FY2018. During our FY2023 effectiveness evaluation, we sent questionnaires to all our Audit & Supervisory Board Members, interviewed them, and analyzed the status of our activities based on various materials related to auditing activities. In addition, given that collaboration with the Audit & Supervisory Board Members of our Group companies is extremely important in terms of the activities of our holding company Audit & Supervisory Board Members—a company that has a lot of Group companies under its umbrella—we interviewed two additional major-Group-company Audit & Supervisory Board Members to verify the status of our collaboration. In addition, to ensure anonymity and introduce a truly objective perspective, we utilized a third-party institution to handle our questionnaire and interviews and to analyze the aggregated results. The main evaluation items were as follows: our audit plan, recommendations for the management, business execution auditing, our Group auditing system, fraud handling, three-party auditing (auditing by Audit & Supervisory Board Members, auditing by Accounting Auditors, and internal auditing by the Internal Audit Department) collaboration, and Audit & Supervisory Board operations. During the analysis of the questionnaire, interviews, etc., the Audit & Supervisory Board discussed and verified the situation based on the results of considering not only changes over time but also the auditing status of the key auditing items mentioned above. As a result, our evaluation found that the effectiveness

of the Audit & Supervisory Board has been ensured. Going forward, we will continue to consider factors that include both the business expansion and domestic and foreign reorganization of the NTT Group as we strengthen collaboration between the Internal Audit Department, Group company Audit & Supervisory Board Members, and other relevant parties to work towards upgrading our Group auditing system. In addition, we formulate an audit plan every year based on consideration of changes in the internal and external environment as well as the status of the NTT Group's business operations, but we will also flexibly conduct audits as necessary in response to events and changes that occur during the year to focus more closely on the status of efforts by our directors and executive officers and more actively offer recommendations. In terms of audits that target the management, we will continue striving to increase the effectiveness of the Audit & Supervisory Board, such as by more closely collaborating with Outside Members of the Board, Group company Audit & Supervisory Board Members, etc.

Note that—regarding the incident where a former temporary employee of an NTT Group company illegally stole customer information and leaked it to a third party—it has already been reported that provisional action has been taken to address inadequacies that became clear as a result of research, etc. The Audit & Supervisory Board will continue focusing on regularly confirming the progress of initiatives being pursued across the Group to further strengthen and improve the Group's overall security level.
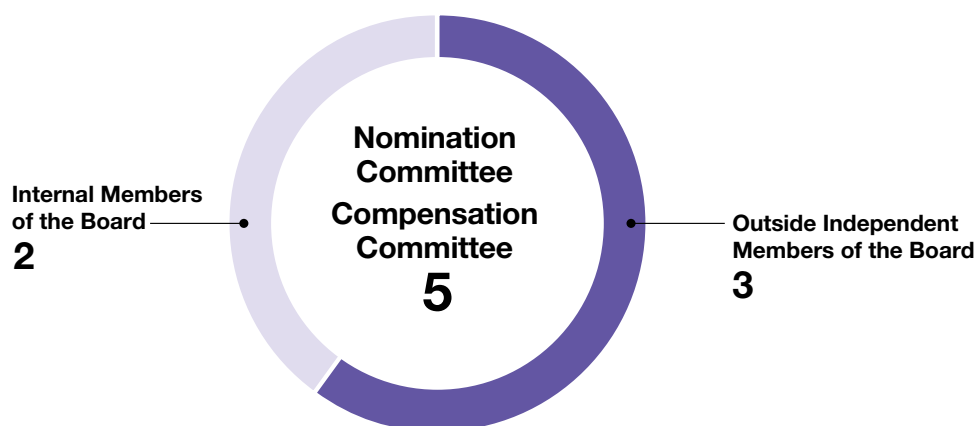
## Nomination Committee and Compensation Committee Composition and Activities

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 2023, 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 committee members in attendance.

During fiscal 2023, the Nomination Committee convened six 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



Internal Members of the Board
**2**

**Nomination Committee Compensation Committee 5**

Outside Independent Members of the Board
**3**

| Nomination Committee | Preliminary Deliberation Items | 1. Policies with respect to the appointment and dismissal of directors and executive officers of the whole Group, and the nomination of candidates<br>2. Matters related to the appointment and dismissal of Directors<br>3. Matters related to the selection and dismissal of representative Members of the Board of major Group companies<br>4. Selection and dismissal of representative Members of the Board and other named roles of Directors<br>5. Selection and dismissal of the Chairperson<br>6. The order of Directors to assume the responsibilities of the President of the Company in the event that anything occurs to the President<br>7. Determination of the allocation of responsibilities for Directors and assignment of employee duties<br>8. Appointment and dismissal of executive officers and assignment of duties<br>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 |
|---|---|---|
| | 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 | 1. Policies for determining compensation of directors and executive officers, and composition and levels of compensation<br>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 |
| | Specifically Delegated Items | 1. Ratios, calculation methods and amounts of compensation for each individual directors and executive officers<br>2. Other matters that are specifically delegated by the Board of Directors regarding the determination of compensation-related decisions of directors and executive officers |

## 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 such authority 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 judgments 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 compensation) and a bonus (compensation related to performance over the short term), NTT stock buybacks through the 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%.
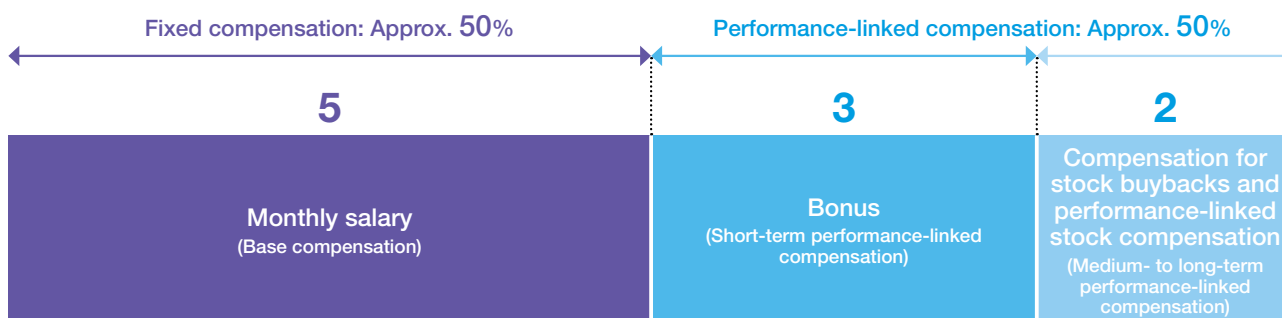
- ● Monthly salary (base compensation): The base salary is a fixed compensation paid monthly on the basis of the scope of each Member of the Board's roles and responsibilities.
- ● Bonus (short-term performance-linked compensation): The bonus is paid in June each year, taking into account NTT's business 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.

  Note that, due to the announcement of our new Medium-Term Management Strategy, we extended the trust period starting in FY2024 and changed our performance indicator (from EPS to EBITDA, a financial-target indicator under our new Medium-Term Management Strategy).

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.

| Fixed compensation: Approx. 50% | Performance-linked compensation: Approx. 50% | |
|---|---|---|
| **5** | **3** | **2** |
| Monthly salary (Base compensation) | Bonus (Short-term performance-linked compensation) | Compensation for stock buybacks and performance-linked stock compensation (Medium- to long-term performance-linked compensation) |

## ■ Bonus Performance Indicators

| Category | Performance Indicators | Evaluation Weight | Evaluation Method | FY2022 Results | FY2023 Results |
|---|---|---|---|---|---|
| Financial indicators | EBITDA | 25% | Year-on-year improvement | ¥3,290.2 billion | ¥3,418.1 billion |
| | EPS (earnings per share) | 10% | | ¥13.9 | ¥15.1 |
| Sustainability indicators | Employee engagement rate | 2.5% | | 57% | 54% |

| Category | Performance Indicators | Evaluation Weight | Evaluation Method | FY2023 Targets | FY2023 Results |
|---|---|---|---|---|---|
| Financial indicators | EBITDA | 25% | Achievement of targets | ¥3,390.0 billion | ¥3,418.1 billion |
| | Operating profit | 10% | | ¥1,950.0 billion | ¥1,922.9 billion |
| | Overseas operating profit margin | 10% | | 8.3% | 8.6% |
| | ROIC for existing areas (return on invested capital) | 5% | | 8.3% | 8.1% |
| Sustainability indicators | Greenhouse gas emissions | 5% | | 2.466 million tons or less | 2.419 million tons |
| | New female manager promotion rate | 5% | | 30% | 28% |
| | Amount of B2B2X revenues | 2.5% | | ¥873.1 billion | ¥1,058.1 billion |

(Notes) 1. NTT conducted a 25-for-1 stock split of its common stock with an effective date of July 1, 2023. We calculated our EPS based on the assumption that the stock split was implemented at the beginning of the previous consolidated fiscal year.
2. The scope of aggregation for the employee engagement rate is based on the percentage of positive responses to four NTT Group KPIs that measure engagement. The scope of aggregation includes the major companies and their designated subsidiaries. The major companies are NTT DOCOMO*[1], NTT East, NTT West, NTT DATA Group, NTT Urban Solutions, and NTT Anode Energy.
3. The scope of aggregation for the overseas operating profit margin is consolidated for the NTT DATA Group. In addition, the calculations exclude temporary expenses, such as M&A-related depreciation costs of intangible assets.
4. Existing areas refer to NTT DOCOMO's consumer telecommunications businesses, NTT East, and NTT West.
5. The target for GHG emissions is GHG protocol Scope 1 & 2.
6. The scope of aggregation for new female manager promotion rate is five major domestic Group companies (NTT, NTT DOCOMO*[2], NTT East, NTT West, and NTT DATA Group*[2]).
7. The scope of B2B2X revenues includes the Integrated ICT Business Segment, the Regional Communications Business Segment, and the Global Solutions Business Segment.
8. The FY2023 result for greenhouse gas emissions is a preliminary figure used in the calculation of officer bonuses. The finalized figure for FY2023 was 2.32 million tons.

*[1] Figures for NTT DOCOMO include those for NTT Communications.
*[2] NTT DOCOMO includes figures from NTT Communications. Furthermore, NTT DATA Group includes figures from NTT DATA and NTT DATA, Inc.

Starting in FY2024, we plan to change the performance indicator for bonuses from the amount of B2B2X revenues to customer engagement (NPI, NPS) in order to strengthen the customer experience (CX).

| Category | Performance Indicators | | Evaluation Weight | Evaluation Method |
|---|---|---|---|---|
| Financial indicators | EBITDA | | 25% | Year-on-year improvement |
| | EPS (earnings per share) | | 10% | |

| Category | Performance Indicators | | Evaluation Weight | Evaluation Method |
|---|---|---|---|---|
| Financial indicators | EBITDA | | 25% | Achievement of targets |
| | Operating profit | | 10% | |
| | Overseas operating profit margin | | 10% | |
| | ROIC for existing areas (return on invested capital) | | 5% | |
| Sustainability indicators | Greenhouse gas emissions | | 5% | |
| | New female manager promotion rate | | 2.5% | |
| | Employee engagement rate | | 2.5% | |
| | Customer engagement | NPI | 2.5% | |
| | | NPS | 2.5% | |

(Notes) 1. The scope of aggregation for the overseas operating profit margin is on a consolidated NTT DATA Group basis. In addition, the calculations exclude temporary expenses, such as M&A-related depreciation costs of intangible assets.
2. Existing areas refer to NTT DOCOMO's consumer telecommunications businesses, NTT East, and NTT West.
3. The target for GHG emissions is GHG protocol Scope 1 & 2.
4. The scope of aggregation for new female manager promotion rate is five major domestic Group companies (NTT, NTT DOCOMO*[1], NTT East, NTT West, and NTT DATA Group*[1]).
5. The scope of aggregation for the employee engagement rate is based on the percentage of positive responses to four NTT Group KPIs that measure engagement. The scope of aggregation includes the major companies and their designated subsidiaries. The major companies are NTT DOCOMO, NTT DOCOMO*[2], NTT East, NTT West, NTT DATA Group, NTT Urban Solutions, and NTT Anode Energy.
6. Customer engagement Next Purchase Intention (NPI) indicates whether a customer intends to continue using a product, while Net Promoter Score® (NPS®) *[3] indicates the degree to which a customer would recommend the product to others. The scope for customer engagement includes services for small and medium-sized corporations and services for consumers, which are the focus areas of NTT East, NTT West, and NTT DOCOMO*[2] (there are plans to expand the scope to include services for large corporations in future).

*[1] NTT DOCOMO includes figures from NTT Communications. Furthermore, NTT DATA Group includes figures from NTT DATA and NTT DATA, Inc.
*[2] The figures for NTT DOCOMO include NTT Communications.
*[3] Net Promoter Score and NPS used in the text are the registered trademarks of Bain & Company, Fred Reichheld, and SatMetrix Systems (present-day NICE Systems, Inc.).

## Group Management Approach and Policies

NTT respects the mutual independence and autonomy of its Group companies while concluding agreements with Group companies that cover their operations and are aimed at maximizing each Group company's profit. Based on these agreements, we formulate management strategies for the NTT Group as a whole and offer suitable advice and mediation to each company, which in turn consider this as they bear responsibility for their own management and independently manage their business. In addition, under our Medium-Term Management Strategy, we are expanding our investment in new growth areas and strengthen-ing initiatives based on cash-generating ability aimed at sustainable growth in line with the goal of transforming our Group into one capable of achieving new value creation and global sustainability. To formulate our Medium-Term Management Strategy, we make proposals to and hold discussions with the Board of Directors, etc., including expanding our investment in the growth areas of IOWN, Smart Life, AI and robots, data centers, green solutions, and circular economy businesses as well as other considerations related to the direction of our business portfolio.

### ■ Meaning of Having Listed Subsidiaries Based on Our Group Management Approach and Policies

The meaning of NTT having listed subsidiaries is described below, but we respect the independence and autonomy of our subsidiaries as we maintain close collaboration with them and strive to achieve the sustainable growth and development of the NTT Group.

· As a result of owning NTT DATA Group, we believe we can provide global solutions to our business users—including everything from applications to IT infrastructure—thereby providing our customers with total new value solutions. In addition, by listing the company, we can raise funds from the market that are necessary for our growth and development, thereby gaining the ability to flexibly develop our business in response to the changing IT market.

· As a result of owning INTAGE HOLDINGS Inc., we believe we can provide marketing solutions that combine the company's data utilization know-how with the behavioral data of NTT Group customers, thereby enhancing our marketing capabilities to enrich the lives of our customers. In addition, because listing the company to maintain the independence and autonomy of its corporate culture and management is important for achieving sustainable development and the company has a strong need for neutrality given that it provides data, marketing, and research services to its customers, we are maintaining its independence as a listed company.

### ■ Policies Related to Ensuring the Effectiveness of Governance Systems of Listed Subsidiaries

In terms of the establishment and operations of listed-subsidiary governance systems, each listed subsidiary independently appoints independent outside officers, etc., and NTT respects the independence of such subsidiaries.

· To appoint officer candidates, NTT DATA Group obtains an explanation of candidates before the company's Board of Directors meeting and then offers suitable advice in response. Next, the company's Board of Directors considers and makes decisions on each candidate from the perspective of improving the company's corporate value. We also believe NTT ensures this company's independence. In addition, the company thoroughly considers its decisions before exercising voting rights at its General Meeting of Shareholders.

· To appoint officer candidates other than officers nominated by NTT, INTAGE HOLDINGS Inc. fully respects the findings of its Nomination and Compensation Committee, which consists mainly of Outside Members of the Board. Next, the company's Board of Directors considers and makes decisions on each candidate from the perspective of improving the company's corporate value. We also believe NTT ensures this company's independence. In addition, the company thoroughly considers its decisions before exercising voting rights at its General Meeting of Shareholders.

*For details on the meaning of owning listed subsidiaries under the umbrella of NTT DATA Group as well as our policies on ensuring the effectiveness of governance systems, see the company's Corporate Governance Report.

## Cross-Shareholding Policy

NTT's net investment goal for stock ownership is as follows: to own stock for the purpose of taking advantage of short-term fluctuations in interest rates, currencies, and stock market prices as well as market gaps, etc. to earn profit, secure dividends, etc. Meanwhile, our main goal for cross-shareholdings is to own stock as necessary to promote collaboration and open innovation with partners in various industries to improve our medium to long-term corporate value.

One of NTT's core business policies is to promote collaboration and open innovation with partners in various industries to improve our medium to long-term corporate value. Based on this policy, we hold Investment Strategy Committee meetings, etc., where we comprehensively consider how to contribute to NTT's medium to long-term performance, our progress related to business collaboration, future issues to consider in terms of business collaboration, the performance trends of owned stock and our future management strategy, and other issues in order to verify the suitability of owning individual stock brands as well as whether to hold or sell such stock. In addition, NTT Group companies annually examine their cross-shareholdings to verify the suitability of owning individual stock brands and decide whether to sell them or handle them in some other way.

# Stakeholder Engagement

The 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 the 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. | ▶ Establishment of a point of contact for customer inquiries<br>▶ Implementation of customer satisfaction surveys<br>▶ Utilization of websites and social media | 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 the 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. | ▶ Shareholder Meetings and financial results announcements<br>▶ Hosting of individual investor seminars<br>▶ Hosting of institutional investor seminars<br>▶ Issuing integrated reports, etc. | 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 at 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. | ▶ Implementation of employee satisfaction surveys<br>▶ Regular one-on-one meetings<br>▶ Dialogue between labor and management<br>▶ Establishment of the Corporate Ethics Help Line<br>▶ Hosting of sustainability conferences | 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. | ▶ Conducting supportive and collaborative activities through social contributions<br>▶ Negotiations with local residents regarding construction and infrastructure projects<br>▶ Support through donations and sponsorships | 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 the NTT Group's services

| NTT Group's Approach | Methods of Engagement (Examples) | Reasons for Engagement |
|---|---|---|
| We strive to collaboratively create and develop services aimed at resolving various social issues. | ▸ Setting up an inquiry form<br>▸ Disclosure of procurement policies and guidelines<br>▸ Implementation of supplier-focused questionnaires<br>▸ Hosting of supplier briefing sessions | Our aim is to procure products that are considerate of the environment and human rights, and to build fair partnerships. By doing so, we will fulfill our corporate social responsibilities and aim for sustained growth together with our business partners. |

## Competitors and Industry Associations

Everyone involved in ICT services similarly to the NTT Group as well as all the industry associations working on developing information communications

| NTT Group's Approach | Methods of Engagement (Examples) | Reasons for Engagement |
|---|---|---|
| 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. | ▸ Participation in industry organizations and initiatives<br>▸ Attendance at conferences, etc. | 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 | Methods of Engagement (Examples) | Reasons for Engagement |
|---|---|---|
| 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. | ▸ Compliance with laws and regulations<br>▸ Policy recommendations<br>▸ Participation in public-private partnership projects | 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 | Methods of Engagement (Examples) | Reasons for Engagement |
|---|---|---|
| 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. | ▸ Participation and collaboration in study groups and activities conducted by various organizations<br>▸ Conducting dialogue<br>▸ Carrying out collaborative projects | 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 FY2022 (March 31, 2023) | End of FY2023 (March 31, 2024) |
|---|---|---|
| **ASSETS** | | |
| Current assets | | |
| Cash and cash equivalents | 793,920 | 982,874 |
| Trade and other receivables | 4,186,375 | 4,816,951 |
| Other financial assets | 98,653 | 972,278 |
| Inventories | 517,409 | 524,166 |
| Other current assets | 919,016 | 985,960 |
| Sub total | 6,515,373 | 8,282,229 |
| Assets held for sale | 139,495 | 41,858 |
| Total current assets | 6,654,868 | 8,324,087 |
| | | |
| Non-current assets | | |
| Property, plant and equipment | 9,717,103 | 10,421,986 |
| Right-of-use asset | 718,531 | 914,911 |
| Goodwill | 1,283,448 | 1,698,851 |
| Intangible assets | 2,122,874 | 2,510,723 |
| Investment property | 1,242,591 | 1,305,219 |
| Investments accounted for using equity method | 446,569 | 410,782 |
| Other financial assets | 1,241,331 | 2,251,793 |
| Deferred tax assets | 940,196 | 714,276 |
| Other non-current assets | 941,340 | 1,051,595 |
| Total non-current assets | 18,653,983 | 21,280,136 |
| Total assets | 25,308,851 | 29,604,223 |
| | | |
| **LIABILITIES AND EQUITY** | | |
| Current liabilities | | |
| Short-term borrowings | 1,840,381 | 2,542,999 |
| Trade and other payables | 2,807,286 | 2,940,928 |
| Lease liabilities | 205,074 | 223,473 |
| Other financial liabilities | 30,200 | 895,063 |
| Accrued payroll | 567,166 | 614,976 |
| Income taxes payable | 243,306 | 354,859 |
| Other current liabilities | 1,143,518 | 1,272,371 |
| Sub total | 6,836,931 | 8,844,669 |
| Liabilities directly associated with assets held for sale | 3,055 | 976 |
| Total current liabilities | 6,839,986 | 8,845,645 |
| | | |
| Non-current liabilities | | |
| Long-term borrowings | 6,390,155 | 7,048,015 |
| Lease liabilities | 714,923 | 899,524 |
| Other financial liabilities | 148,431 | 162,765 |
| Defined benefit liabilities | 1,362,262 | 1,156,394 |
| Deferred tax liabilities | 143,326 | 222,331 |
| Other non-current liabilities | 359,141 | 376,490 |
| Total non-current liabilities | 9,118,238 | 9,865,519 |
| Total liabilities | 15,958,224 | 18,711,164 |
| | | |
| Equity | | |
| Nippon Telegraph and Telephone Corporation ("NTT") shareholders' equity | | |
| Common stock | 937,950 | 937,950 |
| Retained earnings | 8,150,117 | 9,078,084 |
| Treasury stock | (737,290) | (937,291) |
| Other components of equity | 210,576 | 765,417 |
| Total NTT shareholders' equity | 8,561,353 | 9,844,160 |
| Non-controlling interests | 789,274 | 1,048,899 |
| Total equity | 9,350,627 | 10,893,059 |
| Total liabilities and equity | 25,308,851 | 29,604,223 |

# Consolidated Statement of Profit or Loss

Unit: Millions of yen

| | FY2022 (From April 1, 2022 Until March 31, 2023) | FY2023 (From April 1, 2023 Until March 31, 2024) |
|---|---|---|
| Operating revenues | 13,136,194 | 13,374,569 |
| Operating expenses | | |
| Personnel expenses | 2,768,711 | 2,935,465 |
| Expenses for purchase of goods and services and other expenses | 6,563,282 | 6,489,394 |
| Depreciation and amortization | 1,582,625 | 1,628,586 |
| Loss on disposal of property, plant and equipment and intangible assets | 118,620 | 118,980 |
| Impairment losses | | |
| Goodwill | 6,164 | 487 |
| Other | 9,803 | 13,985 |
| Taxes and dues | 258,003 | 264,762 |
| Total operating expenses | 11,307,208 | 11,451,659 |
| Operating profit | 1,828,986 | 1,922,910 |
| Finance income | 54,105 | 163,826 |
| Finance costs | 79,424 | 130,485 |
| Share of profit (loss) of entities accounted for using equity method | 14,012 | 24,206 |
| Profit before taxes | 1,817,679 | 1,980,457 |
| Income taxes | 524,923 | 635,338 |
| Profit | 1,292,756 | 1,345,119 |
| Profit attributable to NTT | 1,213,116 | 1,279,521 |
| Profit attributable to Non-controlling interests | 79,640 | 65,598 |
| | | |
| Earnings per share attributable to NTT | | |
| Basic earnings per share (yen)* | 13.92 | 15.09 |

*NTT conducted a 25-for-1 stock split of its common stock with an effective date of July 1, 2023. We calculated basic profit attributable to NTT per share based on the assumption that the stock split was implemented at the beginning of the fiscal year ended March 31, 2023.

# Consolidated Statement of Comprehensive Income

Unit: Millions of yen

| | FY2022 (From April 1, 2022 Until March 31, 2023) | FY2023 (From April 1, 2023 Until March 31, 2024) |
|---|---|---|
| Profit | 1,292,756 | 1,345,119 |
| 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 | (83,650) | 324,056 |
| Share of other comprehensive income of entities accounted for using the equity method | (1,135) | (5,583) |
| Remeasurements of the defined benefit plans | 112,672 | 134,080 |
| Total of items that will not be reclassified to profit or loss | 27,887 | 452,553 |
| Items that may be reclassified to profit or loss | | |
| Cash flow hedges | (33,249) | 16,242 |
| Hedges cost | (8,645) | 3,773 |
| Foreign currency translation adjustments | 119,360 | 273,426 |
| Share of other comprehensive income of entities accounted for using the equity method | 7,875 | 12,225 |
| Total of items that may be reclassified to profit or loss | 85,341 | 305,666 |
| Total other comprehensive income (net of taxes) | 113,228 | 758,219 |
| Total comprehensive income | 1,405,984 | 2,103,338 |
| Comprehensive income attributable to NTT | 1,270,639 | 1,962,087 |
| Comprehensive income attributable to Non-controlling interests | 135,345 | 141,251 |

# Consolidated Statement of Changes in Equity

## FY2022 (From April 1, 2022, to 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 |

## FY2023 (From April 1, 2023, to March 31, 2024)

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, 2023 | 937,950 | — | 8,150,117 | (737,290) | 210,576 | 8,561,353 | 789,274 | 9,350,627 |
| Comprehensive income | | | | | | | | |
| Profit | — | — | 1,279,521 | — | — | 1,279,521 | 65,598 | 1,345,119 |
| Other comprehensive income | — | — | — | — | 682,566 | 682,566 | 75,653 | 758,219 |
| Total comprehensive income | — | — | 1,279,521 | — | 682,566 | 1,962,087 | 141,251 | 2,103,338 |
| Transactions with owners and other transactions | | | | | | | | |
| Dividends of surplus | — | — | (417,438) | — | — | (417,438) | (20,256) | (437,694) |
| Transfer to retained earnings | — | 60,316 | 67,409 | — | (127,725) | — | — | — |
| Purchase and disposal of treasury stock | — | 8 | — | (200,001) | — | (199,993) | — | (199,993) |
| Changes in ownership interest in subsidiaries without loss of control | — | (13,673) | — | — | — | (13,673) | 138,545 | 124,872 |
| Share-based compensation transactions | — | 1,268 | — | — | — | 1,268 | 214 | 1,482 |
| Put options granted to non-controlling interests | — | (46,893) | — | — | — | (46,893) | 315 | (46,578) |
| Other | — | (1,026) | (1,525) | — | — | (2,551) | (444) | (2,995) |
| Total transactions with owners and other transactions | — | — | (351,554) | (200,001) | (127,725) | (679,280) | 118,374 | (560,906) |
| March 31, 2024 | 937,950 | — | 9,078,084 | (937,291) | 765,417 | 9,844,160 | 1,048,899 | 10,893,059 |

# Consolidated Statement of Cash Flows

Unit: Millions of yen

| | FY2022 (From April 1, 2022 Until March 31, 2023) | FY2023 (From April 1, 2023 Until March 31, 2024) |
|---|---|---|
| **Cash flows from operating activities** | | |
| Profit | 1,292,756 | 1,345,119 |
| Depreciation and amortization | 1,582,625 | 1,628,586 |
| Impairment losses | 15,967 | 14,472 |
| Share of loss (profit) of entities accounted for using the equity method | (14,012) | (24,206) |
| Losses on retirement of property, plant and equipment and intangible assets | 48,518 | 46,362 |
| Gain on sales of property, plant and equipment and intangible assets | (46,259) | (126,674) |
| Income taxes | 524,923 | 635,338 |
| Decrease (increase) in trade and other receivables | (525,313) | (318,431) |
| Decrease (increase) in inventories | (140,858) | (51,819) |
| Decrease (increase) in other current assets | (33,609) | (62,211) |
| Increase (decrease) in trade and other payables / accrued payroll | 252,070 | 27,848 |
| Increase (decrease) in other current liabilities | 6,301 | 73,113 |
| Increase (decrease) in defined benefit liabilities | (63,644) | (68,404) |
| Decrease (increase) in installment receivables (non-current) of mobile terminals and other technologies | 56,174 | (268,085) |
| Increase (decrease) in other non-current liabilities | (21,286) | (9,262) |
| Other, net | 37,219 | 1,478 |
| Sub total | 2,971,572 | 2,843,224 |
| Interest and dividends received | 95,023 | 105,206 |
| Interest paid | (67,224) | (88,666) |
| Income taxes paid | (738,358) | (485,605) |
| Net cash provided by (used in) operating activities | 2,261,013 | 2,374,159 |
| **Cash flows from investing activities** | | |
| Purchase of property, plant and equipment, intangible assets and investment property | (1,851,879) | (2,084,004) |
| Proceeds from sale of property, plant and equipment, intangible assets and investment property | 91,216 | 260,211 |
| Proceeds from government grants | 17,888 | 2,593 |
| Purchase of investments | (76,504) | (90,608) |
| Proceeds from sale or redemption of investments | 109,153 | 148,558 |
| Proceeds from loss of control of subsidiaries | 53,628 | 72,660 |
| Acquisition of subsidiaries, net of cash acquired | (81,645) | (380,513) |
| Proceeds from acquisition of control of subsidiaries | 1,047 | 95,197 |
| Net increase (decrease) loan receivable | 17,337 | 13,940 |
| Other, net | (17,153) | (27,269) |
| Net cash provided by (used in) investing activities | (1,736,912) | (1,989,235) |
| **Cash flows from financing activities** | | |
| Net increase (decrease) in short-term borrowings | 295,564 | 134,528 |
| Proceeds from increases in long-term borrowings | 1,090,877 | 1,085,358 |
| Repayments of long-term borrowings | (693,427) | (626,451) |
| Repayment of lease liabilities | (223,907) | (241,473) |
| Payments for acquisition of interests in subsidiaries from non-controlling interests | (109,932) | (7,129) |
| Dividends paid | (419,525) | (417,438) |
| Dividends paid to non-controlling interests | (20,197) | (20,255) |
| Proceeds from share buybacks | (511,070) | (200,388) |
| Other, net | 1,420 | 58,794 |
| Net cash provided by (used in) financing activities | (590,197) | (234,454) |
| Effect of exchange rate changes on cash and cash equivalents | 25,452 | 38,484 |
| Net increase (decrease) in cash and cash equivalents | (40,644) | 188,954 |
| Cash and cash equivalents as of April 1 | 834,564 | 793,920 |
| Cash and cash equivalents as of March 31 | 793,920 | 982,874 |

(For detailed financial and non-financial data, please refer to Financial and Non-Financial Data on our corporate website at the following URL: https://group.ntt/en/sustainability/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, 2024 increased 1.8% from the fiscal year ended March 31, 2023 to ¥13,374.6 billion. This increase was due to such factors as an increase in sales of telecommunications equipment revenues and system integration 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, 2024 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, 2024 decreased 7.6% from the fiscal year ended March 31, 2023 to ¥805.0 billion. This was due to, among other factors, a continued decline in the number of subscriber line and INS-Net subscriptions, reflecting the spread of mobile and IP phones and an increase in free or low-cost telecommunications services provided by OTT* operators.

*Acronym of over-the-top. Content distribution services 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, 2024 decreased 5.6% from the fiscal year ended March 31, 2023 to ¥987.6 billion. This decrease was primarily due to a decrease in revenues resulting from the enhancement of customer returns through the introduction of irumo and other billing plans.

#### ● IP/Packet 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, 2024, revenues from IP/packet communications services decreased 0.3% from the fiscal year ended March 31, 2023 to ¥3,434.3 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.

Revenues from sales of telecommunications equipment for the fiscal year ended March 31, 2024 increased 12.7% from the fiscal year ended March 31, 2023 to ¥852.0 billion. This was due to, among other factors, an increase in earnings in the Integrated ICT Business Segment, reflecting 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, 2024, revenues from system integration increased 7.2% from the fiscal year ended March 31, 2023 to ¥4,873.7 billion. This increase was mainly due to factors such as capturing demand for digitalization both domestically and abroad in the Global Solutions Business Segment, as well as the effects of exchange rate fluctuations.

#### ● 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, 2024, revenues from other services decreased 2.0% from the fiscal year ended March 31, 2023 to ¥2,421.9 billion. This was due to a decrease in electricity revenues in the energy business, among other factors.

### Operating Expenses

Operating expenses in the fiscal year ended March 31, 2024 increased 1.3% from the fiscal year ended March 31, 2023 to ¥11,451.7 billion. The major causes are as follows.

#### ● Personnel Expenses

Personnel expenses in the fiscal year ended March 31, 2024 increased 6.0% from the fiscal year ended March 31, 2023 to ¥2,935.5 billion. This was mainly due to the increase in personnel expenses as a result of the expansion of business in the Global Solutions Business Segment, among other factors.

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

In the fiscal year ended March 31, 2024, expenses for purchase of goods and services and other expenses decreased 1.1% from the fiscal year ended March 31, 2023 to ¥6,489.4 billion. This was mainly due to a decrease in sales-related costs resulting from the decrease in electricity revenues in the energy business, among other factors.

#### ● Depreciation and Amortization Expenses

Depreciation and amortization expenses in the fiscal year ended March 31, 2024 increased 2.9% from the fiscal year ended March 31, 2023 to ¥1,628.6 billion.

### Operating Profit

As a result of the foregoing, operating profit for the fiscal year ended March 31, 2024 increased 5.1% from the fiscal year ended March 31, 2023 to ¥1,922.9 billion.

### Finance Income and Costs

Finance income and costs for the fiscal year ended March 31, 2024 were ¥33.3 billion compared to ¥(25.3) billion for the fiscal year ended March 31, 2023. This was mainly due to a gain on sale of shares resulting from the sale of a portion of the common stock of Internet Initiative Japan Inc., 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, 2024 increased 72.8% from the fiscal year ended March 31, 2023 to ¥24.2 billion.

## Profit Before Taxes

As a result of the foregoing, profit before taxes for the fiscal year ended March 31, 2024 increased 9.0% from the fiscal year ended March 31, 2023 to ¥1,980.5 billion.

## Income Taxes

In the fiscal year ended March 31, 2024, income taxes increased 21.0% from the fiscal year ended March 31, 2023 to ¥635.3 billion. Effective tax rates for the fiscal year ended March 31, 2023 and for the fiscal year ended March 31, 2024 were 28.88% and 32.08%, respectively.

## Profit Attributable to NTT

As a result of the foregoing, profit for the fiscal year ended March 31, 2024 increased 4.1% from the fiscal year ended March 31, 2023 to ¥1,345.1 billion. Profit attributable to NTT (excluding the profit attributable to non-controlling interests) for the fiscal year ended March 31, 2024, increased 5.5% from the fiscal year ended March 31, 2023 to ¥1,279.5 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, 2024 when excluding the impact of days off amounted to ¥2,567.0 billion.

This was primarily due to profit (loss) as adjusted for noncash items (profit for the period, plus non-cash items such as depreciation and losses on retirement of property, plant and equipment) reaching ¥3,103 billion.

Furthermore, cash flows of ¥2,261.0 billion in the fiscal year ended March 31, 2023 increased to ¥306.0 billion. This was due to, in comparison to the prior fiscal year, profit as adjusted for non-cash items increasing by ¥84.5 billion and cash outflows decreasing by ¥221.5 billion, primarily due to a decrease in corporate taxes.

Note that cash flows provided by operating activities during the fiscal year ended March 31, 2024 amounted to ¥2,374.2 billion.

### ● Investment Cash Flows

Cash flows used in investment activities during the fiscal year ended March 31, 2024 amounted to ¥1,989.2 billion.

This was primarily due to payments for purchase of property, plant and equipment, intangible assets and investment property reaching ¥2,084.0 billion.

Furthermore, cash flows used in investment activities represented an increase of net payments by ¥252.3 billion from ¥1,736.9 billion in the fiscal year ended March 31, 2023. This was due to a ¥227.4 billion increase in proceeds from sales of assets, etc. in comparison to the prior fiscal year despite a ¥232.1 billion increase in purchases for the acquisition of property, plant and equipment, intangible assets and investment property, along with a ¥218.8 billion increase in payments of investments and other activities, among other factors.

### ● Financing Cash Flows

Cash flows used in financing activities during the fiscal year ended March 31, 2024 amounted to ¥234.5 billion.

This was primarily due to expenditures for shareholder returns reaching ¥638.1 billion while net income from borrowings was ¥593.4 billion.

Expenditures for shareholder returns consisted of ¥437.7 billion of dividend payments and expenditures of ¥200.4 billion for acquisitions of treasury stock. Net income from borrowings consisted of ¥134.5 billion of income from an increase in short-term borrowings, ¥1,085.4 billion of income from an increase in long-term borrowings and ¥626.5 billion of expenditures for repayments of long-term borrowings.

Furthermore, cash flows used in finance activities represented a decrease in payments of ¥355.7 billion from ¥590.2 billion in the fiscal year ended March 31, 2023. This was due to, among other factors, a decrease of ¥310.7 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, 2024 increased by ¥4,295.4 billion from the end of the fiscal year ended March 31, 2023 to ¥29,604.2 billion, due to among other factors, increases in other financial assets resulting from initiatives in the financial business and increases in property, plant and equipment.

Liabilities as of the end of the fiscal year ended March 31, 2024 increased by ¥2,752.9 billion from the fiscal year ended March 31, 2023 to ¥18,711.2 billion, due to among other factors, increases in other financial liabilities resulting from initiatives in the financial business, as well as increased borrowings due to tax payments and increased investments. Interest-bearing debt totaled ¥9,591.0 billion, an increase of ¥1,360.5 billion from ¥8,230.5 billion as of the end of the fiscal year ended March 31, 2023.

Shareholders' equity as of the end of the fiscal year ended March 31, 2024 increased by ¥1,282.8 billion from the end of the fiscal year ended March 31, 2023 to ¥9,844.2 billion, due to an increase in profit. The ratio of interest-bearing debt to NTT shareholders' equity was 97.4% (96.1% as of the end of the fiscal year ended March 31, 2023). Furthermore, shareholders' equity plus noncontrolling interests increased by ¥1,542.4 billion from the end of the fiscal year ended March 31, 2023 to ¥10,893.1 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, 2024, NTT Group had a cash and cash equivalents balance of ¥1,175.7 billion when excluding the impact of days off, an increase of ¥381.8 billion compared to the balance of ¥793.9 billion as of the end of the fiscal year ended March 31, 2023. 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.

Note that as of the end of the fiscal year ended March 31, 2024, NTT Group had a cash and cash equivalents balance of ¥982.9 billion.

Moreover, the unused balance of committed financing lines as of the end of the fiscal year ended March 31, 2024 was ¥333.2 billion.

# Stock Information (As of March 31, 2024)

## [Corporate Information]

| | |
|---|---|
| Company name | NIPPON TELEGRAPH AND TELEPHONE CORPORATION |
| Date of establishment | April 1, 1985 |
| Head office | 〒100-8116 |
| | 1-5-1 Otemachi, Chiyoda-ku, Tokyo |
| | Otemachi First Square East Tower |
| Common stock | ¥937.95 billion |
| Total number of shares authorized to be issued by NTT | |
| | 154,823,022,500 |
| Total number of shares issued | 90,550,316,400 |
| Aggregate voting rights | 841,001,810 |
| Number of shareholders (including holders of only fractional shares) | 1,862,170 |

## [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
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TEL：1-800-990-1135 (General)
1-651-453-2128 (From outside the U.S.A.)

| Name | Number of shares held (Thousand shares) | Ratio of the number of shares held to the total number of shares issued (%) |
|---|---|---|
| The Minister of Finance | 29,199,372 | 34.72 |
| The Master Trust Bank of Japan, Ltd. (Trust Account) | 8,992,259 | 10.69 |
| Custody Bank of Japan, Ltd. (Trust Account) | 4,031,389 | 4.79 |
| Toyota Motor Corporation | 2,019,385 | 2.40 |
| JPMorgan Chase Bank 385632 | 1,358,093 | 1.61 |
| Moxley & Co. LLC | 904,508 | 1.08 |
| State Street Bank West Client – Treaty 505234 | 683,958 | 0.81 |
| Barclays Capital Japan Limited | 640,700 | 0.76 |
| NTT Employee Share-Holding Association | 600,732 | 0.71 |
| Nippon Life Insurance Company | 584,126 | 0.69 |

(Notes) 1. Number of Shares Held is rounded down to the nearest thousand.
2. The Company holds 6,445,465,847 shares of treasury stock, however these have been omitted from the Principal Shareholders above.
3. The "ratio of the number of shares held to the total number of shares issued" does not include treasury stock. Furthermore, treasury stock does not include 23,303,000 shares of the Company held by the officer compensation BIP trust.

## [Breakdown of Shares by Shareholder]

The number of shares represents the number of shares per unit (100 individual shares). The figures in parentheses represent the percentage of total shares owned for each category of shareholder.

| | Number of shares | (%) |
|---|---|---|
| Individuals, etc. | 227,010,267 | (25.07) |
| Foreign Corporations, etc. | 170,008,755 | (18.78) |
| National and Local Governments | 292,008,128 | (32.25) |
| Financial Institutions | 162,127,099 | (17.91) |
| Financial Instruments Business Operators | 20,991,585 | (2.32) |
| Other Corporations | 33,310,934 | (3.68) |

(Notes) 1. "Individuals and Others" noted above include 64,454,958 units and 47 shares of treasury stock, respectively. Note that the 6,445,495,847 shares of treasury stock represent the number of shares listed on the shareholder registry. The number of shares actually held as of March 31, 2024 was 6,445,465,847.
2. "Other Corporations" noted above include 14,372 units registered under the name of the Japan Securities Depository Center, Inc.
3. The number of shareholders holding only fractional shares is 82,406.

## [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 2024, 170,008,755 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]
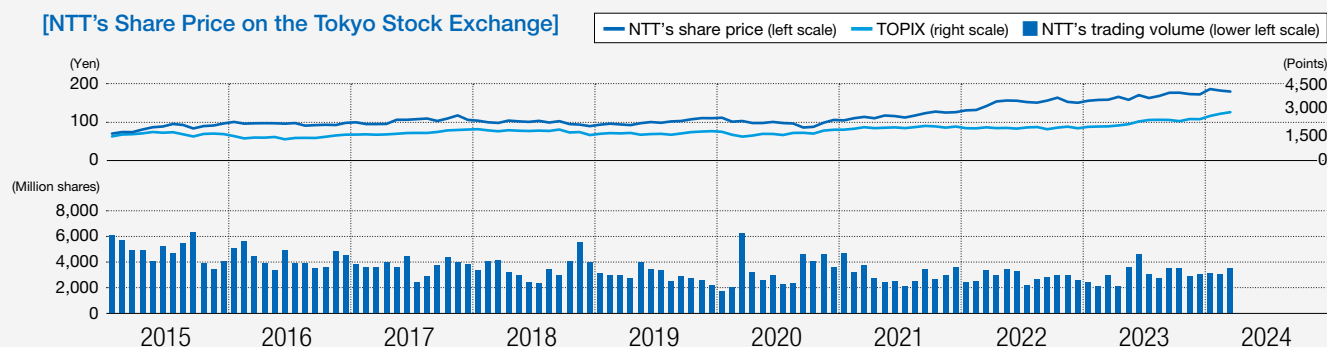


(Notes) 1. NTT's share price and TOPIX index are the simple average closing prices on the last trading day every month.
2. NTT's trading volume refers to the number of NTT shares traded every month.
3. NTT conducted a 2-for-1 stock split of its common stock with an effective date of July 1, 2015, a 2-for-1 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, 2024)

### 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 29th (FY2023) 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.

### Nikkei SDGs Management Awards: Environmental Value Award
We were honored with the Environmental Value Award at the 5th Nikkei SDGs Management Awards, held by Nikkei Inc., which recognize leading companies contributing to the Sustainable Development Goals (SDGs).

### 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 eighth 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.

**NTT**
NIPPON TELEGRAPH AND TELEPHONE
CORPORATION